INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI
A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor MI 48106-1346 USA
313/761-4700  800/521-0600
RICE UNIVERSITY

FOR THE DURATION AND BEYOND: WORLD WAR II AND THE CREATION OF MODERN HOUSTON, TEXAS

by

PAUL ALEJANDRO LEVENGOOD

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE DOCTOR OF PHILOSOPHY

APPROVED, THESIS COMMITTEE

[Signatures]

John B. Boles, Chairman
William P. Hobby Professor of History

Allen J. Matusow
William G. Twyman Professor of History

Stephen J. Klineberg
Professor of Sociology

Houston, Texas
February, 1999
Abstract

For the Duration and Beyond: World War II and the Creation of Modern Houston, Texas

by

Paul Alejandro Levengood

In 1940, Houston was a town of less than 400,000 inhabitants reliant on trade and the petroleum industry. Today, it ranks as the nation’s fourth largest city with a diverse economy. Key to this transformation was the five-year period of World War II. While the city’s leaders had learned valuable lessons in dealing with the federal government during the Great Depression, it was not until the new era of federal spending occasioned by US involvement in a world war that their savvy truly flowered. Through the work of aggressive business leaders including George Brown, James Elkins, James Abercrombie, Houston landed hundreds of millions of dollars in federal wartime investment. With enormous federal investment in technologically complex facilities, Houston oil companies moved from being mere refiners of crude and became sophisticated producers of petrochemicals. Wartime needs, including synthetic rubber and high octane fuel, caused petroleum concerns to diversify and create products that would be enormously profitable after the war. Similarly, the conflict virtually created the natural gas industry. Long considered a waste product, gas gained acceptance during the war and when a Houston company purchased the federally-financed Inch pipelines the city became the new industry’s hub. Other industries that were attracted to the city during the war included steel, munitions, and shipbuilding. Industry needed labor and to meet that demand thousands of new residents streamed into Houston in the war years, straining the city’s housing supply and the local government’s ability to deliver services. Among those who gained
employment in war industries were a large number of women, African Americans and Mexicans, all of whom had been barred from many such high paying jobs in peacetime. The city’s African American community, emboldened by their newfound prosperity, became a hotbed of civil rights agitation; the Smith v. Allwright decision was backed and funded by local blacks in this period. Industrially, economically, and socially, Houston emerged from World War II primed for postwar growth and has, indeed, been the quintessential boomtown ever since.
Acknowledgements

Over the two-and-a-half year course of writing this dissertation, I accumulated a sizable list of people to whom I owe thanks.

To the staffs of the Center for American History at the University of Texas, the Houston Metropolitan Research Center at the Houston Public Library, and the Woodson Research Center at Rice University for aiding my research and making the vast resources of their collections accessible. W.C. Higdon kindly provided me with personal papers that greatly helped my understanding of the founding of Sheffield Steel.

My friends in the History Department at Rice University helped create a warm atmosphere conducive to scholarly work. Department coordinators Nancy Parker and Paula Platt were always patient and helpful to me in ironing out many bureaucratic details. My fellow graduate students, Carlos Blanton, David Dillard, and Charles Israel provided much-needed encouragement and collegiality. The staff of the Journal of Southern History, Pat Burgess, Patti Bixel, Liz Turner, and especially, Evelyn Nolen who provided me with a wonderful place to work and learn and always offered a ready ear about my travails in the microfilm room and elsewhere.

The members of my dissertation committee, Professors Allen J. Matusow and Stephen Klineberg, offered me advice and criticism on my dissertation that immeasurably improved the final product.

My gratitude to my advisor, Professor John B. Boles, knows no
bounds. Besides his suggestion of this topic, I thank him for his kind encouragement and unflagging interest in my work and my life. He is an inspiration as a scholar, teacher, and human being.

My family has been a constant source of support and motivation. My in-laws, Doc and Nickie Miller, welcomed me into their family during the course of this dissertation process, have encouraged me countless times, and provided a refuge where the bulk of my writing could be done. My parents, Chip and Katharine Levengood, inculcated a love of history in me from an early age and have aided my pursuit of degree after degree with unflagging support.

My daughter Isabel was born partway through my work on this project and her arrival was the most blessed distraction that an over-worked graduate student ever had. Her smiles and first steps helped lighten my burden more than she will ever know.

And finally, my deepest thanks have to go to my wife Kristin. She married me and moved to Texas during this project, brave woman that she is! She always knew when to push and when to offer unquestioned love. She also did dozens of things for this dissertation without which I could not have gotten everything together in a timely manner. I cannot describe my love for her. I have often told Kristin that without her this dissertation would not have been completed at all. I don’t think she believes me. Well, she should.
Table of Contents

Abstract ii
Acknowledgments iv
Preface vii

I. The Origins of an Urban Powerhouse: Houston, 1836–1929 1
II. Houston and the Great Depression 45
III. Wartime Shipbuilding: Contracting with Uncle Sam 99
IV. Wartime Innovation, Diversification, and Growth in the Houston Oil Industry 182
V. Philanthropy and Boosterism: The Wartime Beginnings of the Texas Medical Center 259
VI. Wartime Change: Population Pressures and Houston Institutions 299
VII. Forgotten Houstonians: Women, Blacks, and Mexicans 351
VIII. Conclusion: The Legacies of War 420

Bibliography 433
Preface

In 1940, Houston, Texas, was a growing southern port city of 384,514. Its economy revolved around the processing of raw materials, cotton and most significantly, oil. In less than a half century from these modest beginnings, Houston would become the fourth-largest city in the nation. The roots of this remarkable ascent can be traced back to Houston’s very founding, as a real estate speculation in 1836, and to its subsequent development as a center of “free enterprise” in which political and economic leaders cohered in efforts to ensure growth, prosperity, and renown for their city.

However, there was one remarkable period in Houston’s history that above all others contained the wellsprings of the extraordinary growth that the city has experienced in the second half of the twentieth century: the five year period of World War II. It is the contention of this study that it was in the war years that the city began to assume the shape of a mature urban center. Houston attracted enormous federal investment in the period, investment that created entirely new industries like shipbuilding and steel-making while also spurring the evolution of the existing oil industry into a new phase of development that was known as petrochemicals. War plant funding exceeded a half-a-billion dollars, and the facilities that this money created would form the backbone of the city’s industrial sector not only in war but in peacetime as well. To attract these unprecedented federal dollars arose a remarkably astute collection of business and other local leaders. Led by men like George R. Brown, James Elkins, and James
Abercrombie whose names would become synonymous with Houston in the 1950s and 1960s, during the war this group gained invaluable experience in attracting federal funds that would help to continue the city’s explosive growth in the postwar era. They were aided in Washington by the presence of Houstonians like Secretary of Commerce and Reconstruction Finance Corporation chief Jesse H. Jones and prominent congressmen Albert Thomas, who were both well-placed to ensure that the city continued to receive its share of the ever-growing federal pie. In sum, the war ushered in a period of prosperity that has continued almost unbroken to this very day.

The wealth created by Houston leaders during the war would also help to shape the city’s postwar emergence as a center of culture, education, and medical research and treatment. Rice University, the University of Houston, the Museum of Fine Arts, and the Houston Symphony all experienced significant growth in the war years, preparing these institutions for even greater postwar success. The Texas Medical Center, for which the city would become world-renowned, was born in wartime when city leaders saw an opportunity to spend their new-found riches on philanthropic institutions that would advance the cause of public health and the reputation of Houston simultaneously.

Not all Houstonians experienced the flush times of the war equally. The city’s Mexican and black populations remained restricted in occupation and place of residence by the dictates of a segregated society. However, the
economic lot of both groups did improve, and it was largely due to that fact that Houston African Americans were able to mount a successful challenge to the white primary that restricted their involvement in the political process. Houston women, both Anglo and otherwise, also found limits placed on their ability to share in the city’s prosperity; however, through defense work or activities in support of the war effort, many were introduced for the first time to a realm of employment outside the home.

Despite the extraordinary impact of World War II on Houston, it is a topic that has been all but ignored by historians. In this, however, it is not alone. In the subtitle of her well-written popular history of Houston, Marguerite Johnston describes it as “The Unknown City.”¹ This is an appropriate designation because despite its status as the fourth-largest city in the United States, there has arguably been less historical inquiry into Houston’s past than that of any other major metropolitan center. In large part, this paucity of works reflects the city’s own lack of interest in its past. Anyone resident of the city can attest to its mania for things new. Buildings rise up and are demolished at a startling rate, giving the city an ever-changing physical aspect. The late Oveta Culp Hobby (owner of the Houston Post, first head of the U.S. Women’s Army Corps during World War II, and first Secretary of Health, Education, and Welfare) once remarked of her home city: “‘I think I’ll like Houston if they ever get it

finished.”² As a result of the focus on its future rather than its past, there is very little left in Houston that could be described as “old.” The same attitude has spilled over into the examination of the city’s history. As noted above, the historiography of the city is extremely underdeveloped. There is but a single survey of the city’s entire history, but it is dated and lacks significant interpretive thrust.³ There are excellent scholarly works that focus on distinct periods, leaders, and developments in the city’s past, and these works do much to further our understanding. For example, Harold Platt’s City Building in the New South provides insight into the relationship between city services and the needs of the business community in the Progressive era.⁴ Similarly, in Red Scare! Don Carleton contributes much to our understanding of the social, economic, and political trends swirling through the city in the 1950s.⁵ But even with works like Platt’s and McComb’s, the historiography is strewn with huge gaps that must be filled. This study is in part an attempt to fill in one of the gaps of that

---


³This survey is the above-named work by David G. McComb, Houston: The Bayou City. The work was revised and reissued in 1981 as Houston: A History (Austin: University of Texas Press, 1981).


I.

The Origins of an Urban Powerhouse: Houston, 1836–1929

Faced with disastrous news from Goliad and the Alamo and with a state of near mutiny in his ranks, General Sam Houston made a decision that dramatically altered the course of history in Texas. Rather than make for the safety of Louisiana beyond the Sabine River, on the morning of April 16, 1836, he wheeled his troops from the Brazos River and marched to the southeast. Word had come to the Texian leader that his counterpart, the Mexican dictator and general Antonio Lopez de Santa Anna, had reached the small hamlet of Harrisburg on the south bank of a sluggish stream known as Buffalo Bayou. Among his soldiers itching to avenge the blood spilled at Goliad and the Alamo, Houston had begun to earn a reputation for excessive caution and there was grumbling in the ranks that did not bode well. Houston satisfied his troops’ desire for revenge in marching directly towards the enemy, but he made a terrible gamble for the force that awaited his outnumbered it by more than two to one.¹

Fortified by their leader’s exhortations to “Remember the Alamo! Remember Goliad!,” the ragtag army of 700–800 Texans moved east as quickly as it could and in the early morning of April 21 surprised the Mexican army at its camp near the confluence of Buffalo Bayou and the San Jacinto River. In a mere eighteen minutes the Texans, despite

overwhelming odds, triumphed and sowed the seeds of a new nation. The fighting could not have been more one-sided: 630 Mexicans dead, 208 wounded, and 730 captured including Santa Anna. The Texan casualties numbered just 9 dead and 16 wounded. Beyond the stunning military victory, what would come to be known as the Battle of San Jacinto also served to break the back of Mexican leadership. With Santa Anna as a prisoner the Texans were able to dictate peace terms whereby the Mexican province of Tejas became a sovereign nation, the Republic of Texas.²

While not participants in the Battle of San Jacinto, two sutlers to Sam Houston’s army viewed the events of that April day with keen interest. Augustus Chapman Allen and John Kirby Allen saw independence from Mexico as the economic opportunity for which they had been waiting. Born in New York State, the two brothers had migrated to Texas in 1832 in hopes of cashing in on a potential land boom. Settling first in the East Texas towns of San Augustine and then Nacogdoches, the two embarked on

several unsuccessful land speculation enterprises. Having failed to find their fortunes in Mexican-controlled Texas, the Allens abandoned their real estate endeavors when the revolution broke out and served as supply agents to the fledgling Texan military forces.

With the birth of the new republic, the Allens reconsidered their dream of a fortune in real estate. Along with many others they foresaw that Americans would soon stream into the republic in search of land. They also realized that towns would be needed to supply these settlers with goods and services. The Allens and their competitors, understanding that transportation routes would prove crucial to the success of any settlement, sought to acquire land along navigable waterways. Before the war the focus of settlement in southeast Texas had been along the Brazos River. Cotton and sugarcane, brought by the predominantly southern settlers of the area, had thrived in the rich bottomlands of the river. However, the Brazos proved to be an unpredictable stream. Quite shallow, it was subject to long dry spells and sudden floods. Perhaps worse—at least from a real estate speculator’s point of view—was the Brazos’s changing course; a town on its banks might suddenly find itself isolated as the river changed course. Other major rivers in the region, the Trinity, San Jacinto, and Colorado, also proved less than ideal. So the Allens and several competitors seized upon the seemingly insignificant Buffalo Bayou as a much better location for a townsite.

As unlikely a choice as it may have seemed, the bayou held out
several distinct advantages to potential town builders. First, it did not change its course but consistently remained within its high banks. Second, it maintained a fairly uniform depth along its course, allowing for predictable year-round navigation. Third, it was free of the many sandbars that beset the Brazos and other rivers. Fourth, Buffalo Bayou lay in a position central to the region’s rich cotton and sugarcane-growing areas, with easy water or overland access to the other major rivers and areas of settlement. Fifth, unlike the mainly north-south path of the other streams, the bayou ran east-west and cut straight into the heart of the region. And sixth, Buffalo Bayou drained into the best natural harbor in Texas, Galveston Bay. Planters along the Brazos or Colorado could easily bring their crops overland to the bayou for transshipment out through the bay and into the Gulf of Mexico.

Having fixed on Buffalo Bayou as the most promising stream in southeast Texas for their enterprise, the Allens settled in Harrisburg as soon as the war was over. Most observers believed that Harrisburg, founded in 1826 by John Richardson Harris and located at Bray’s Bayou, represented the head of navigation for Buffalo Bayou, the furthest point upstream to which large vessels could travel. The Allens attempted to acquire the title to the Harrisburg town site but found conflicting claims to its ownership. Thus stymied in acquiring the most logical site for their new settlement, the two brothers learned that a planter had shipped cotton from further upstream, at the bayou’s junction with White Oak Bayou, in
1826.\(^3\) Seizing upon this information, the Allens purchased a 6,642 acre tract of land from widow Mrs. T. F. L. Parrott on the south bank of Buffalo Bayou across from the mouth of White Oak Bayou for $9,428.\(^4\) The Allens, strapped for cash, arranged to pay $1,000 down on August 26, 1836, with the balance due in 18 months.\(^5\) Eager to see a return on their investment, the Allens moved quickly to lay out and name their new settlement. On August 30, 1836, less than five months after San Jacinto, they announced that in honor to the battle’s hero, the new town would be called Houston.

The choice of the name Houston was more than an act of patriotic tribute. The Allens aspired to greatness for their new creation. They took advantage of the reputation of the most famous man in Texas by lobbying to have their city named the capital of the new republic. With the help of the president’s influence, and some inspired salesmanship, the three-month-old townsite of Houston was designated seat of government by the legislature over fifteen other competitors on November 30, 1836.\(^6\)

\(^3\)Big Town, Big Money (The Business of Houston) (Houston: Cordovan Press, 1973), 11.


\(^6\)McComb, Houston, 14. Not coincidentally, John Allen was a member of the legislature at the time.
Despite the prominence of its status as capitol city of an independent nation, Houston in late 1836 was little more than a series of surveyor's pegs sunk in the muddy ground. In a few short months, the Allens had already proven master salesmen. Anyone who read the August 30, 1836, newspaper advertisement for the new town would likely assume that Houston was a going concern. The ad in Texas's only newspaper, the Columbia Telegraph and Register—but placed in other papers throughout the United States as well—ascribed an almost limitless potential to the fledgling city.

The Town of Houston, Situated at the head of navigation, on the West bank of Buffalo Bayou, is now for the first time brought to public notice because, until now, the proprietors were not ready to offer it to the public, with the advantages of capital and improvements.

The town of Houston is located on a point on the river which must ever command the trade of the largest and richest portion of Texas. By reference to the map, it will be seen that the trade of San Jacinto, Spring Creek, New Kentucky, and the Brazos, above and below Fort Bend, must necessarily come to this place, and will at this time warrant the employment of at least One Million Dollars of capital, and when the rich lands of this country shall be settled, a trade will flow to it, making it, beyond all doubt, the great interior commercial emporium of Texas.

The town of Houston is distant 15 miles from the Brazos river, 30 miles, a little North of East, from San Felippe [sic], 60 miles from Washington, 40 miles from Lake Creek, 30 miles South West from New Kentucky, and 15 miles by water and 8 or 10 by land above Harrisburg. Tide water runs to this place and the lowest depth of water is about six feet. Vessels from New Orleans or New York can sale without obstacle to this place, and steamboats of the largest class can run down to Galveston Island in 8 or 10 hours, in all seasons of the year. It is but a few hours sail down the bay, where one may take an
excursion of pleasure and enjoy the luxuries of fish, foul [sic], oysters and sea bathing. Galveston harbor being the only one in which vessels drawing a large draft of water can navigate, must necessarily render the Island the great naval and commercial depot of the country.

The town of Houston must be the place where arms, ammunitions and provisions for the government will be stored, because, situated in the very heart of the country, it combines security and the means of easy distribution, and a national armory will no doubt very soon be established at this point.

There is no place in Texas more healthy, having an abundance of excellent spring water, and enjoying the sea breeze in all its freshness. No place in Texas possesses so many advantages for building, having Pine, Ash, Cedar, and Oak in inexhaustible quantities; also the tall and beautiful Magnolia grows in abundance. In the vicinity are fine quarries of stone.

Nature appears to have designated this place for the future seat of government. It is handsome and beautifully elevated, salubrious and well watered, and now in the very heart or centre of population, and will be so for a length of time to come. It combines two important advantages: a communication with the coast and foreign countries, and with the different portions of the Republic. As the country shall improve, rail roads will become in use, and will be extended from this point to the Brazos, and up the same, also from this up to the head waters of San Jacinto, embracing that rich country, and in a few years the whole trade of the upper Brazos will make its way into Galveston Bay through this channel.

Preparations are now making to erect a water Saw Mill, and a large Public House for accommodation, will soon be opened. Steamboats now run in this river, and will in a short time commence running regularly to the Island.

The proprietors offer the lots for sale on moderate terms to those who desire to improve them, and invite the public to examine for themselves.

A.C. ALLEN, for
Despite this glowing description, Houston was far from an impressive settlement in its early days. Francis R. Lubbock journeyed from Galveston to Houston on the steamboat Laura in early 1837. The trip to Harrisburg was uneventful, but from that point it took the ship three days to travel the eight to ten miles upstream to the Allen brother’s new town. Contrary to the ad’s statement, there were many obstructions in Buffalo Bayou that had to be windlassed out of the way. On the third day, frustrated at the slow progress, Lubbock and several others took a small rowboat in search of Houston, but:

so little evidence could we see of a landing that we passed by the site and run [sic] into White Oak Bayou, realizing that we must have passed the city when we struck in the brush. We then backed down the bayou, and by close observation discovered a road or street laid off from the water’s edge. Upon landing we found stakes and footprints, indicating that we were in the town tract.8

Clearly, the new capitol of Texas had yet to live up to its billing. Lubbock found no permanent buildings in place but did discover a tent under which a makeshift saloon was doing a brisk business.9 In all fairness, the site of the new town had proven difficult to clear, even using the forced labor of

7Columbia Telegraph and Texas Register, Aug. 30, 1836.


9Ibid., 46
Mexican prisoners from San Jacinto and black slaves.\textsuperscript{10} The city layout was a rough grid pattern running south and west away from Buffalo Bayou and encompassing 128 acres divided into 64 blocks. Reflecting the expectation that wagons would soon throng its thoroughfares, Houston’s streets were designed to be commodious: primary arteries were one hundred feet wide, secondary streets, eighty feet. In contrast to the town’s broad streets, its lots were quite small, doubtless indicating the proprietors’ desire to maximize their profits by selling as many as possible.\textsuperscript{11}

From the inauspicious beginnings described by Francis Lubbock in January 1837, another arrival noted that significant growth had occurred by April 1837. When new Texas president Sam Houston arrived to take his place as head of state, he estimated that there were approximately one hundred houses and one thousand people in Houston.\textsuperscript{12} The accuracy of

\textsuperscript{10}O. Fisher Allen, The City of Houston from Wilderness to Wonder (Temple, Tex.: By the Author, 1932), 1–2. O. Fisher Allen was the Allen brothers’ nephew.

\textsuperscript{11}Big Town, Big Money, 11–12. This is perhaps the origin of the interesting feature of property lot size that can be seen in present-day Houston. Despite the city’s immense geographical area, lots tend to rather narrow and shallow. This feature has become an issue in areas of the city where property-owners have replaced existing small homes with very large ones occupying a large portion of the entire lot. This is also an issue that is promoted by the city’s lack of a comprehensive zoning ordinance—Houston remains the only major city without such a law. Joe R. Feagin, Free Enterprise City: Houston in Political-Economic Perspective (New Brunswick and London: Rutgers University Press, 1988), 6 and 160–61.

this high figure is questionable. However, it seems clear that its role as capital of the republic spurred growth in Houston at a rate far greater than that of most new frontier settlements. The presence of the government attracted businessmen and speculators and as a result the town hummed with economic activity. This would not be the last time that the city’s fortunes would benefit from a close association with governmental authority or by attracting newcomers with a can-do spirit.\(^{13}\)

The boom that Houston enjoyed as the capital of Texas would be short-lived. Members of the legislature bitterly complained that they had been deceived about the town. They lamented the weather and the periodic flooding, calling the city, among other things, “a wretched mud hole.”\(^{14}\) And—despite the Allens’ promises—most legislators found the climate far from “salubrious.” Yellow fever and malaria were endemic, and, with the nature of frontier medicine, usually deadly. The complaints coupled with other factors prompted the legislature to move the capital to Austin in

\(^{13}\)The role played by government in the growth of Houston will form a significant theme in this work. The location here of a Confederate military district headquarters, the creation of the Houston Ship Channel, World War II defense expenditures, and the establishment of the Johnson Manned Space Center are but a few examples of the benefits gained from the largesse of governmental authorities. For a discussion of the irony of Houston’s vigorous championing of a “free enterprise” ideology and the numerous instances of state intervention in the city’s’ history, see Feagin, *Free Enterprise City*, 46–48.

October 1839.\textsuperscript{15} 

Despite the loss of its status as the seat of government in Texas, Houston managed to keep growing, albeit at a slower pace.\textsuperscript{16} By 1840 the economic patterns of the city had been established. Houston was a commercial center; trade, not industry, was its lifeblood. It served as a processing and marketing center for the surrounding agricultural region.\textsuperscript{17} Manufacturing was largely limited to serving the needs of the area’s farmers, making cotton gins, farm implements, and the like.

While the Houston area produced a variety of agricultural products, from sugar\textsuperscript{18} and corn, to beef cattle and hogs, it was cotton that dominated. Houston and Texas were on the cotton frontier in the 1840s, especially after Texas gained admission to the Union in 1846. Migrants

\textsuperscript{15}Hurley, *Decisive Years*, 24. The capital removal was also prompted by several legislators’ interest in land speculation in central Texas who stood to profit by the location of the nation’s administrative center at the small settlement on the banks of the Colorado River that later was named Austin. McComb, *Houston*, 19–20.

\textsuperscript{16}Showing the aerly cosmopolitan nature of Houston’s population and the city’s openness to newcomers see Ralph A. Wooster, “Foreigners in the Principal Towns of Ante-Bellum Texas,” *Southwestern Historical Quarterly*, LXVI (October 1962), 213 and 215.

\textsuperscript{17}The Houston hinterland encompassed an approximate hundred mile radius around the city. This included all or parts of the Waller, Austin, Colorado, Wharton, Fayette, Lavaca, Washington, Bastrop, Lee, Burleson, Brazos, Grimes, Madison, Montgomery, Walker, San Jacinto, Trinity, Polk, Liberty, Tyler, Milam, Hardin, Chambers, Jefferson, and Orange Counties. With Galveston it shared the counties of Fort Bend, Brazoria, and Matagorda. McComb, *Houston*, 19.

\textsuperscript{18}For a detailed description of the sugar industry in the Houston area, see William A Jackson, “A Short History of the Sugar Industry in Texas,” *Texas Gulf Coast Historical Association Publications*, V (April 1961) and for sugar’s importance to Houston see Feagin, *Free Enterprise*, 49.
streamed in from the exhausted soils of other southern states in search of the legendary cotton yields of Texas. The soil in the immediate vicinity of Houston was not conducive to cotton cultivation, but nearby were soils perfect for its growth. The rich bottomlands of the Brazos were an especial magnet, and the Allen brothers’ predictions proved accurate as Houston drew in much of the cotton produced in this rich area. The number of bales handled in the city reflected the crop’s growing importance throughout the antebellum era. In 1840 the Houston Telegraph and Texas Register reported receipts of around one thousand bales, by 1845 that figure had increased to over 14,000. By 1854 the yield had reached 38,923 bales, by 1860, 115,854 bales.\(^\text{19}\) Its heart beating to an agricultural rhythm, the city seemed to come alive with the arrival of each year’s crop. Houston, like most small southern cotton towns, bustled from September through March or April as scores of ox-drawn wagons unloaded their cargoes, planters purchased staples, and steamboats were loaded to overflowing. By the late spring and summer, however, the pace of life in the city slowed to a virtual crawl.\(^\text{20}\)

With cotton’s dominance in Houston’s economic life, the city’s businessmen learned to play many roles. They served as factors who

\(^\text{19}\) Houston Telegraph and Texas Register, June 25, 1845 and W.A. Leonard, comp., Houston City Directory for 1866 (Dallas: R.L. Polk & Co., 1866), 90–100.

bought cotton from planters and sold it to northern or European merchants. In addition, they acted as bankers, and as dry goods, hardware, and farm supply merchants serving clients in both the city and countryside. 21 With the record high cotton prices of the 1850s, men like William Marsh Rice, Thomas W. House, Benjamin A. Shepherd, and others prospered greatly. 22 With their new economic prominence, these men came to play an equally important role in the political life of the city, a situation characteristic of Houston’s ever since. Some, like House, took a direct role as mayor and alderman; while others, like Rice and Shepherd, preferred to exert influence behind the scenes. The power of the “commercial civic-elite” 23 can be seen most clearly in the way they influenced city spending, limiting it almost exclusively to disbursements


22 Men like Rice, House, and Shepherd formed the first generation of Houston leaders who would grow rich in the city and make its welfare and success their lives’ work. Rice would provide the initial endowment to create the university that bears his name and has grown to be one of the most prominent in the nation. House along with Rice and others would begin the push that would eventually make Houston a deepwater seaport. House was also the father of Colonel Edward Mandell House, the first of many Houstonians to go to Washington and serve in important governmental capacities. The younger House served as advisor to President Woodrow Wilson and prominent diplomat. Benjamin Shepherd operated the city’s most successful early bank, First National and through his heirs would provide the funds for the nationally respect Shepherd School of Music at Rice University. McComb, Houston, 46 and 49 Marguerite Johnston, Houston, The Unknown City, 1836–1946 (College Station: Texas A&M University Press, 1991), 295.

that would encourage commerce. Examples included the construction or maintenance of public wharfage, the erection of the public market, and the paving of streets in the business district. Routine expenditures for public health or sanitation were largely non-existent. Exceptions were made primarily when health conditions threatened the commercial reputation of the city, such as in the yellow fever epidemics of 1847 and 1859.

Similarly, only when sanitary conditions in the commercial district became so disgusting as to be a hindrance to business would the city take action. To combat the negative effects of such occurrences on the city’s economic life, sewers were installed in the downtown business district between 1867 and 1874. In many residential areas, however, Houstonians lived surrounded by refuse with its attendant problems. Significant portions of

24 The “business government” of Houston is a legacy of the nineteenth century that has been passed down to today. A wonderful example of the access of businessmen to the mechanism of city government from the early-twentieth century can be found in Clinton R. Woodruff’s *City Government By Commission*. He relates a story told by the mayor of a newcomer to Houston in 1908 whose property had recently been taken into the city limits and as a result his tax valuation had increased.

Being a stranger, he called upon one of Houston’s leading attorneys and asked how to proceed for relief. The attorney suggested that they step over to the mayor’s office and have the matter corrected. The owner of the land thought it would be wiser for the lawyer to get some of his friends to sign a petition to the council, so that it would have some weight with the authorities. The attorney replied that this mode of procedure was entirely unnecessary, as Houston now had a business government. I sent for the tax collector, and in an hour the stranger had his matter adjusted and his tax receipt in his pocket.

the city remained without sanitary sewer service as late as the 1980s.25

While actively promoting the commercial success of Houston through public policy, the private investments of the commercial-civic leadership of Houston likewise reflected an abiding interest in developing the city as a center of trade. In an intersection of self-interest and genuine civic spirit, men like Rice and House created and invested in companies that dredged Buffalo Bayou, established a cotton compress, built plank roads into the agricultural hinterland, and constructed railroads that linked Houston more efficiently with the rest of the state. It was in this last effort that the city’s merchant elite were most successful, and between 1857 and 1861 Houston became the undisputed railroad center of Texas. As early as 1839 there had been an unsuccessful effort to build a railroad line from the countryside to the town.26 But after the first tracks were finally laid in

---

25For a detailed description of the history of public services in Houston, see Harold L. Platt, *City-Building in the New South: The Growth of Public Services in Houston, Texas, 1830–1910* (Philadelphia: Temple University Press, 1982), 10–11, 40, and 209. For a survey of Houston’s early efforts at sanitation, see Elisabeth O’Kane, “‘To Lift the City Out of the Mud’: Health, Sanitation and Sewerage in Houston, 1840–1920, *Houston Review, XVII* (1995), 2–28. O’Kane agrees with Platt that the city later in the nineteenth century expanded the sewer system largely as a result of the desire to make the city an “attractive home for both individuals and businesses.” (5). The city was similarly slow in delivering an adequate water system to its residents. A rudimentary network was built in 1878 but as late as 1901 it delivered pressure inadequate to extinguish a fire at city hall in the heart of the business district. Even the artesian wells drilled to bypass the much-polluted Buffalo Bayou failed to deliver a truly pure water supply, largely because of the inadequate sewer system which forced residents to use privies that could contaminate ground water. McComb, *Houston, 127–30* and Robert D. Bullard, *Invisible Houston: The Black Experience in Boom and Bust* (College Station: Texas A&M University Press, 1987), ch. 2.

1851, construction proceeded rapidly in and around Houston. That year, the Buffalo Bayou, Brazos, and Colorado Railway began at Harrisburg, eventually reaching the rich cotton lands of the Brazos and Colorado Rivers to the northwest. To capitalize on this lucrative route, the city of Houston sponsored a tap road that connected with the BBB&C near town in 1856.\textsuperscript{27} Other lines soon opened. The Houston and Texas Central Railroad, built by Houston merchant Paul Bremond, reached northwest to Hempstead, Navasota, and Millican by 1861.\textsuperscript{28} The Galveston, Houston, and Henderson Railroad connected Houston to Galveston in 1860.\textsuperscript{29} And finally, the Texas and New Orleans Railroad, begun in 1857, reached Beaumont some ninety miles to the east by 1861.\textsuperscript{30} Thus, by the outbreak of the Civil War, Houston was connected to all but one of the state’s seven

\textsuperscript{27}Muir, “Railroads Come to Houston,” 47–49. The Houston Tap, as the road was called, was the response of the leadership of the city to what it perceived as the potential competition of Harrisburg and its BBB&C. Although greatly overshadowed by the neighboring Bayou City, at the time Harrisburg was still a viable entity and thus a possible rival to Houston. The construction of the Tap ensured that all goods shipped by the BBB & C could be diverted to Houston and its superior processing and shipping facilities. Thus stymied, Harrisburg slipped into obscurity, eventually being annexed by Houston in 1926. The Houston Tap was sold in 1858 to a consortium of Brazoria County planters who renamed it the Houston Tap and Brazoria Railway and extended it south to Columbia (now East Columbia). Thereafter the road carried the considerable produce of Brazoria and Matagorda Counties, including significant amounts of both cotton and sugar to Houston for processing and shipment.

\textsuperscript{28}Ibid., 49–50.

\textsuperscript{29}Ibid., 50–51.

\textsuperscript{30}Ibid., 51.
railroad lines.\textsuperscript{31}

It would be a mistake to view the Texas railroads as an integrated network. The two earlier roads used a four foot eight and one half inch gauge, and the three later ones used the five and a half foot size track that had become the national standard.\textsuperscript{32} In all the aforementioned railways, Houston commercial leaders constituted the majority of the primary investors. And in their wholehearted support of and participation in bringing the railroads to their doorstep, the leaders of Houston would sow the seeds of much future success. Their counterparts in the fast growing city of Galveston would not be so farsighted. Reliant on their superior natural advantages of natural deepwater harbor and access to the sea, that city’s merchants would not participate significantly in railroad ventures. In Kenneth Wheeler’s words: “Thus, Galveston threw away its one great asset—its geographical advantage as a transportation center. . . . [And] Houston’s more astute, farsighted, and cooperative leadership repeatedly benefitted from Galveston’s errors and disadvantages.”\textsuperscript{33}

The railroads so vital to Houston’s economic growth were largely

\textsuperscript{31}\textit{Ibid.}, 51–52. The above accounts for five of the seven Texas railroads built by 1861. A sixth, the Washington County Railroad, ran from Brenham to Hempstead where it fed into the Houston and Texas Central. The seventh was the San Antonio and Mexican Gulf Railway which, despite its name, ran some forty miles between Port Lavaca on the coast and Victoria. Wheeler, \textit{To Wear}, viii.

\textsuperscript{32}Muir, “Railroads Come to Houston,” 52.

\textsuperscript{33}Wheeler, \textit{To Wear}, 163.
constructed with slave labor. Along with its involvement in the cotton culture, Houston’s commitment to slavery was evidence of its identity as a southern city. Slaves were among the city’s first inhabitants and by 1850 they numbered 527, representing about 20 percent of the entire population. By 1860 those figures had grown to 1,069, and 22 percent respectively. Reflecting the diversity of urban life, these bondsmen and women served in a wide variety of capacities. While most slaves in Houston were domestic servants or laborers, others worked as craftsmen, artisans, and in other specialized occupations. Although technically illegal, census data indicates that the practice of “hiring-out” was fairly common in

34 Tamara Miner Haygood, “Use and Distribution of Slave Labor in Harris County, Texas, 1836–60,” in Howard Beeth and Cary D. Wintz, eds., *Black Dixie: Afro-Texan History and Culture in Houston* (College Station: Texas A&M University Press, 1992), 44–45; and McComb, *Houston, 27*. This slave labor was by-and-large hired by the railroad from slaveowners for construction purposes.

35 Manuscript Census Returns, Seventh Census of the United States, 1850, Harris County, Texas, Schedule 2, Slave Population.

36 Manuscript Census Returns, Eighth Census of the United States, 1860, Harris County, Texas, Schedule 2, Slave Population. The free black population of Houston in 1860 was so small as to be a non-factor in terms of population percentage. Perhaps as a result of both state and local laws barring them, there were a mere 8 free blacks. Manuscript Census Returns, Eighth Census of the United States, 1860, Harris County, Texas, Schedule 1.

Houston as it was in most urban areas of the South. Along with sometimes working away from the sight of their masters, Houston slaves found other ways to forge an existence of their own. There was at least one black church in town, some blacks evidently sold at the Public Market produce that they had grown, and surprisingly, there appears to have even been a black school. And far from being a faltering institution, by the coming of the Civil War slavery was more entrenched in the fabric of Houston’s life than ever before. As Tamara Miner Haygood has shown, the number of slaves and their proportion in the city’s population grew between 1850 and 1860 even as it shrank in older southern cities.

With its embrace of slavery, it should come as no surprise that the city chose overwhelmingly to join the Confederacy. Out of 1,228 voters who cast ballots in Harris County in the secession referendum of February

38H.P.N. Gammel, comp., The Laws of Texas, 1822–1897, 10 vols. (10 vols.; Austin: Gammel Book Company, 1898), II, 1501-1502; 1860 U.S. Census, Harris County, Tex., Slave Pop.; and Wade, Slavery in the Cities, 38–54. Hiring-out was most often arranged by a slaveowner who arranged terms with a renter for a fee. In some cases, however, especially talented slaves made their own rental arrangements, sometimes only paying their masters a portion of the rental fees.


40For the argument that urban slavery was waning by 1860 see Wade, Slavery, 20–23.
1861, 1,084 or 88 percent elected to leave the Union.\textsuperscript{41} This commitment to the Confederacy continued during the war as the city liberally contributed men and produced matériel for the cause including cartridges and leather goods. Despite participating in the Civil War, Houston suffered little from its effects. Geographically removed from the theaters of combat, the city experienced next to none of the privation and hunger so common in other urban centers of the Confederacy.

In fact, there is significant evidence that Houston experienced an economic and population boom period during the war. It served as the headquarters of the Military Department of Texas and New Mexico and as a result became a center of supply and organization. Also, many Galveston businessmen—fearing capture by the United States Navy—relocated to Houston for the war’s duration, bringing with them considerable capital and business expertise. Additionally, refugees from beyond Texas streamed into the city bringing slaves and specie, which they exchanged for real estate and consumer goods.\textsuperscript{42}

As the state’s road and railway nexus, Houston also benefitted greatly from the illegal trade in cotton across the border to European merchants\textsuperscript{41}Wheeler, \textit{To Wear}, 153. While there are no exact voting figures available for the city of Houston itself, there is no reason to believe that it differed in any significant way from the county as a whole. In fact, Houston was tied far more closely into what Wheeler calls the “cotton-slave complex” than were the rural parts of the county that produced little cotton and held few slaves and thus may have voted even more strongly to secede than the 88 percent figure indicates.

waiting in Mexico. In return, this traffic meant that European and northern manufactured goods were common items on the shelves of Houston stores. To take advantage of this lucrative trade, some local merchants like William Marsh Rice temporarily relocated to Matamoros and other Mexican ports where they profited from the bumper Texas cotton crops of 1861–1864. Rice, for one, emerged from the war far wealthier than he had been at its commencement.43

Buoyed by the wartime success of businessmen like Rice, Houston entered the postbellum era confident of its prospects for growth and prosperity. That conviction was tempered only somewhat by the political events of Reconstruction. Many white Houstonians were frightened by the specter of an entirely free black population when it was announced on July 19, 1865, that all slaves in Texas were henceforward free. Like many southern cities, the immediate aftermath of emancipation brought scores of freedmen into Houston seeking the independence that urban life seemed to promise and hoped-for protection by Freedmen’s Bureau agents. These migrants settled mainly on the northwestern and southwestern outskirts of town and quickly overwhelmed the available supply of housing and employment. When the city and white society proved unwilling to provide

for their welfare, blacks formed their own institutions to maintain the health and well-being of their community, both spiritual and corporeal. Churches such as Antioch Baptist (1866) and mutual benevolent societies sprang up to meet the varied needs of freedpersons. Churches also often served as centers of political activity for organizers in the black community.

Although forbidden by state law to vote, the city’s blacks began to play an active role in politics after the passage of the Fourteenth Amendment in 1866. When the Republicans swept to statewide power in 1869, among those elected was Richard Allen, a former Houston slave turned Freedman’s Bureau agent. His election pointed to the growth that Houston’s black population had experienced since emancipation. By 1870, it stood at 3,691, up 39.3 percent from 1860, and constituted

---

44 For a thorough treatment of the postwar migration of freed slaves to southern cities and the communities they formed in them, see Howard N. Rabinowitz, Race Relations in the Urban South, 1865–1890 (Urbana, Chicago, and London: University of Illinois Press, 1980).

approximately 40 percent of the entire city’s inhabitants.46

Despite the large numbers of blacks in the city and the role they played in politics, Houston saw little of the turmoil that engulfed other southern urban areas. The Union troops and Freedman’s Bureau officials who arrived in the city in June and November of 1866 respectively, faced little overt hostility. Rather, the leaders of Houston sought to maintain the sense of order so vital to promoting commercial activity.47 They did little or nothing in 1869 when the Republican state government appointed Houston merchant Thomas H. Scanlan as mayor and several blacks as councilmen. Local tradition has held Scanlan up as an example of the worst excesses of Reconstruction’s fiscal and electoral malfeasance, accusing him of dramatically increasing the city’s indebtedness and stealing the election of 1872. However, as several historians have shown, the debt incurred was mostly for projects of the sort favored by the traditional commercial civic elite, of which Scanlan was, in fact, a member: street paving in the business district, the construction of a new market house, and


47The same motivation led the commercial-civic elite to promote peaceful integration in the 1960s. McComb, Houston, 230–33 and Bullard, Invisible Houston, 126–33. For an excellent treatment of the civil rights movement in Houston from the perspective of a leading participant, see: Thomas R. Cole, No Color is My Kind: The Life of Eldrewey Stearns and the Integration of Houston (Austin: University of Texas Press, 1997).
the buying of shares in the Buffalo Bayou Ship Channel Company. Similarly, in the matter of the 1872 election, there is little evidence to support the charges of wrongdoing.

So, ironically, Radical rule in Houston represented little departure from that of the prewar commercial-civic elite. As in the antebellum period, city leaders invested in railroad construction and other transportation projects likely to brighten the city’s economic future. This continuity was an important reason that Houston avoided the violent upheaval that disrupted economic and social life in other parts of the South.

In the aftermath of so-called Redemption in 1874 when Democrats returned to city hall, Houston continued to exist largely as it had in the antebellum era, as a commercial city and center of an agricultural hinterland. While it trailed Galveston in size and wealth, its continued position as the railroad center of the state ensured a steady rate of

---

48McComb, *Houston*, 55–57 and Sibley, *Port of Houston*, 92. Sibley argues that the so-called “Radicals” in Houston government was anything but. She describes Scanlan, Joseph Robert Morris, and others as “Men more interested in business than politics, and most of them classed themselves as Conservatives politically, meaning they preferred to forget the Civil War altogether.” (93–94).

49McComb finds the charges that blacks had been brought into the city to return Scanlan to office doubtful. He notes that in 1810 there were 793 eligible black male voters in the city and that the 1,419 who registered prior to the 1872 election could have been a legitimate representation of the influx of new black residents to the city. Further casting doubt on the claims of fraud is the fact that the entire slate of Radicals was elected in 1872, including aldermen for majority white districts. McComb theorizes that Scanlan may have been more conservative and hence more popular with whites than subsequent commentators have argued. McComb, *Houston*, 55–57.

50Platt, *City-Building*, 38–41.
growth.\textsuperscript{51}

Leading the way in this growth were two primary industries: cotton and lumber. Unlike many other southern cities, Houston benefitted from the opening up of vast new areas to the cultivation of cotton. In the 1880s and 1890s cotton planters moved further west and soon the blackland prairie area of north central Texas became the most productive in the world. The ever-expanding network of railroads leading to Houston brought a great deal of this production to the city. To meet the expanded needs of the cotton trade, local interests opened compresses, cottonseed oil mills, and, in 1874, founded the Houston Cotton Exchange.\textsuperscript{52} The wharves along Buffalo Bayou bustled as shallow barges and steamboats were piled high with fuzzy white bales for shipment to Galveston where they met ocean-going vessels for transport around the world.

Many of the same factors that made Houston a major cotton center led it to become one of the hubs of the nation’s lumber production. Although the city had long processed and marketed locally harvested timber, it was the railroad expansion of the 1870s, ‘80s, and ‘90s that brought the vast stands of long leaf southern yellow pine in East Texas within reach of Houston. The main agent of this transformation was the Houston, East and West Texas Railway built by Houston merchant and financier Paul Bremond. Begun in 1876, this road was the first to

\textsuperscript{51}Beeth and Wintz, “Introduction to Part II,” 27.

\textsuperscript{52}McComb, \textit{Houston}, 77 and Sibley, \textit{Port of Houston}, 97.
penetrate to the heart of the East Texas Piney Woods, reaching Cleveland by 1878, Nacogdoches by 1883, and the Louisiana border by 1886. All along the path of the HE & WT—referred to without affection as “Hell Either Way Taken”—sprang up sawmills producing millions of board feet of lumber per day that all went south to Houston for sale. By 1881 the road brought twenty car loads of lumber per day to the city. Additionally, the road proved an excellent artery of trade moving from Houston as well. Merchants could send finished goods and foodstuffs to the previously isolated counties of East Texas, capitalizing on a heretofore underdeveloped wholesale and retail market.\textsuperscript{53} Although the Southern Pacific system absorbed it in 1899, by that time the HE&WT had established Houston as the national leader in the sale and transport of southern yellow pine. About the same time, an entrepreneur from Tyler County was busy acquiring the mills and timberland that would make him the lumber baron of his times.

John Henry Kirby was already on his way to becoming a major lumber producer when he came to Houston in 1890. He built his own railroad line in 1893 and then sold it in 1900 to a national system, the Atchison, Topeka, & Santa Fe, thus giving his lumber access to the lucrative markets of the Midwest and the West Coast. With profits from

the sale, Kirby and a group of northern investors established the Kirby Lumber Company and the Houston Oil Company in 1901, basing both in Houston. Together the companies owned over a million acres of East Texas timberland and ran sixteen mills. After parting ways with the other investors and abandoning his interests in the Houston Oil Company, Kirby went on to become the undisputed leader of the Texas lumber industry. Kirby Lumber Company mills produced a combined 301,108,000 board feet in 1907, a year when no other company in the state turned out more than 100,000,000 feet. In Houston, Kirby ran his businesses from an eponymously named office building, one of the city’s first skyscrapers, and assumed a position of unequaled civic leadership.54

Kirby and others in the lumber industry—including the young Jesse H. Jones, general manager of the M.T. Jones Lumber Company—did more than just enrich the city financially.55 Along with the local leaders of the railroad industry who had gained valuable experience from the integration of their roads into national systems, these men and companies served to


55 Bascom N. Timmons, Jesse H. Jones: The Man and the Statesman (New York: Henry Holt and Company, 1956), 46–50. Kirby and Jones personify an aspect of Houston’s history that has been a significant factor contributing to the city’s growth: an openness to newcomers. Throughout the city’s past, from William Marsh Rice to Jesse Jones to George R. Brown, it has welcomed newcomers with open arms, thriving on their energy and business acumen.
stimulate other industries. One historian has argued that: "as with the regional offices of the railroads, these large lumbering companies helped create financial, administrative, and communications resources that were helpful in bringing to Houston the regional offices of other companies in other industries." In fact, the city's experience as a railroad center led to the appointment of the first Houstonian as head of a major national corporation, Robert S. Lovett a lawyer with Baker & Botts and railroad specialist who became chairman of the Southern Pacific and Union Pacific Railroads in the 1910s. This encouragement of other sectors of the economy would be the lumber and the railroads' great contributions to the city. The value of these gifts would become apparent just after the turn of the century when events occurred ninety miles away would change Houston's life forever.

Before the coming of Europeans to Texas, natural oil seeps had been prized by native inhabitants for their curative properties. Despite some sizable discoveries made near Corsicana in 1895, however, the American

56 A turning point in Houston's history occurred in 1886 when Colis P. Huntington's Southern Pacific Railroad chose the city as its regional headquarters and location of a large complex of machine shops. This was the first time a national corporation had so favored the city. For the first time Houston businessmen would see firsthand the organization and scope of a national business. The lessons learned would prove of great importance, especially in the twentieth century when the city increasingly came to be involved with huge companies and grew to be a favored site for national and regional corporate headquarters.

petroleum industry remained centered in western Pennsylvania. That all changed on the morning of January 10, 1901. On a salt dome hill called Spindletop outside of Beaumont, Captain Anthony Lucas brought in the biggest oil gusher in world history at that time.\textsuperscript{58} Texas and Houston would never be the same.

Although initially centered in the Beaumont/Port Arthur area some ninety miles to the east, Houston saw almost immediate benefits from the boom conditions that followed the Spindletop discovery. Galveston lay devastated from the hurricane that had almost destroyed it in September 1900, leaving over 6,000 dead and the island city’s infrastructure—including the bridge to the mainland—in ruins. With Galveston—the state’s leading port and financial center—unable to act, local businessmen quickly took advantage of their own expertise in transportation, organization, communications, and finance and became major suppliers of expertise and materials to the booming Spindletop area.\textsuperscript{59} Its role as railroad center meant that the city quickly became the center for transportation of oil to national markets. Houston banks, much larger and more sophisticated than their counterparts in Beaumont, became the regional financial centers of the new oil business. Local manufacturers likewise wasted no time in catering to the unique needs of oilfield work.


\textsuperscript{59}Pratt, \textit{Growth}, 54.
The Hughes Tool Company, Cameron Iron Works, Reed Roller Bit, and other firms began producing drill bits, blowout preventers, high pressure valves, and a multitude of other specialized oilfield equipment.

Despite its distance from the oilfields, within three or four years Houston was clearly on course to become the oil center of the southwest. This was the opinion of no less an authority than Joseph Stephen Cullinan, one of the principal founders of the Texas Company (later Texaco). Cullinan wrote in 1905: "the time will come—perhaps at no distant day—when we will want our General Office in Houston instead of Beaumont, as . . . Houston seems to me to be the coming center of the oil business for the Southwest." The day was indeed not distant; in 1908 Cullinan insisted that the main office of the company relocate to the Bayou City.\textsuperscript{60} Houston's efforts to become the oil capital of the area gained added impetus from the discovery of fields much closer to the city. The development of large fields at Humble (1904), Goose Creek (1908), Blue Ridge (1919), and other nearby locations, along with the construction of pipelines, meant that by the 1910s Houston had become the center of production and refining as well as of tools, service, and support.

Transportation and the other needs of the oil industry gave new life to an issue that was as old as Houston itself. Since its founding, civic leaders had longed to make their city a viable deepwater port. They had

nineteenth-century Texas because of its fortuitous accessibility to the sea lanes. Various efforts at dredging Buffalo Bayou and removing underwater obstacles had allowed large vessels to dock at Houston, but the dream of deepwater commerce proved elusive and city leaders had to look on in frustration as the Galveston Wharf Company, called the "Octopus of the Gulf" for its power and reach, charged outrageous rates for goods to be transferred to ocean-going ships.61

The most promising effort to open a ship channel to the sea began in earnest in 1896 when representative Joseph C. Hutcheson introduced a bill in Washington to create a twenty-five foot waterway from Houston across Galveston Bay to Bolivar Roads and into the Gulf. Hutcheson's replacement, Thomas H. Ball, landed a key appointment as member of the House Rivers and Harbors Committee and therein continued to champion the issue.62 Despite these efforts, progress proved slow. It was not until the cataclysmic 1900 hurricane slammed into Galveston and nearly washed the city from the map that other members of congress saw the benefits of Houston as a deepwater port. Federal funds were made available, and the dredging of the Houston Ship Channel began in 1903.63 After the initial

61 For various early efforts, see Sibley, Port of Houston, 49–54, 65–70, 92–101, and 106–113. And for the rivalry with Galves:on and the Galveston Wharf Company, see Sibley, Port of Houston, 76–80 and 83–90.

62 Ibid., 114–23

appropriation ran out, several Houston leaders lobbied the state legislature in 1909 for the right to allow them to form navigation districts to sell bonds to finance further work on the channel. Representative Ball and others then approached congress with an offer whereby the newly formed Harris County Houston Ship Channel Navigation District would match any federal funding for the Houston Ship Channel. A deal was reached in which the federal government and the navigation district would each contribute $1,250,000 to enlarging the ship channel for ocean-going traffic. Local response was lukewarm, however, and bankers led by Jesse Jones had to form a pool to buy enough bonds to match the federal money. Work began on the twenty-five foot channel in April 1912, was completed in September 1914, and the waterway was opened with much fanfare by President Wilson on November 10, 1914. After seventy-eight years, the Port of Houston was a reality.

At first, the port failed to live up to the grandiose hopes of its boosters. The world was at war and the global shipping industry at a low ebb. Although the arrival of the first ocean-going vessel in August 1915 was the cause of much celebration, few others followed in its wake. Ironically, while its waters stayed disappointingly free of traffic, the banks

---


of the channel bustled with construction activity. Lured by the promise of
easy access to cheap water transportation, industrial plants sprang up along
both sides of the Ship Channel. By 1918 over twenty different businesses
had appeared along the waterway, but none approached the importance of
the petroleum industry. Buoyed by an increased wartime demand for oil
and by the postwar automobile revolution, between 1918 and 1926 nine oil
refineries opened on the Ship Channel with a capacity of more than
100,000 barrels per day.\textsuperscript{67} Led by the ever-increasing demand for oil,
port traffic grew greatly in the 1920s and Houston passed Galveston as the
leading port of Texas. By 1930 it had become the eighth leading in the
nation, in terms of tonnage.\textsuperscript{68}

After the first few forgettable years, the impact of the port exceeded
all expectations, leading the city into a period of exceptional growth.
Primarily because of the oil industry, Houston’s industrial base expanded
and diversified, its population grew from 138,276 in 1920 to 292,352 in
1930, making it the largest city in Texas and the twenty-sixth largest in the
United States.\textsuperscript{69} Accompanying this growth was a physical expansion.

With the automobile providing unprecedented mobility, the city grew

\textsuperscript{67}Pratt, \textit{Growth}, 74; and \textit{Ibid.}, 151-153. For the development of the Ship
Channel and city during World War I, see Bruce Andre Beauboeuf, “War and Change:
Houston’s Economic Ascendancy During World War I,” \textit{Houston Review}, XIV (1992),
89–112.

\textsuperscript{68}Sibley, \textit{Port of Houston}, 164 and McComb, \textit{Houston}, 68.

\textsuperscript{69}McComb, \textit{Houston}, 84–85.
horizontally, spreading in every direction over the flat coastal plain. To serve the city’s growing working and middle classes, a profusion of subdivisions like Garden Villas, Pecan Park, and Manchester sprang up in the early decades of the century and pushed the limits of urbanization outward. Whether enriched by oil, or cotton, or one of the professions, many of Houston’s wealthy took up residence in the new River Oaks community laid out by Hugh Potter and the Hogg brothers, Will and Mike, west of downtown in 1923. There on carefully landscaped streets, Houston high society sought to downplay the brash newness of its wealth by building homes in neo-Colonial and neo-Tudor styles.

The 1920s were a period of vertical expansion as well. Long characterized by restrained human-scale buildings, the downtown skyline seemed suddenly to leap upwards. Jesse Jones’s bold 37-story Gulf building (1929), along with the Niels Esperson building (1927), Petroleum building (1927), and others were towering skyscrapers whose bold lines proclaimed the confidence and swagger of a city flush with success. Sparked by this self-assurance, the city capped off the decade by lobbying for and winning the right to serve as the site for the 1928 Democratic

---

National Convention, the first in the South since Louisville in 1872.\textsuperscript{71}

Fueled in large part by the city’s prosperity and confidence, Houston also experienced a flowering in culture and the arts in the 1910s and 20s. Rice Institute, which had been chartered in 1891 and opened in 1912 with a bequest from William Marsh Rice, grew into the most respected private university in the southwest. The Institute’s huge endowment was the largest pool of money in the city, and the Institute’s trustees made loans to the city’s builders—men like Jesse Jones—to finance their entrepreneurial activities. In that very concrete manner Rice Institute played an indispensable role in the early-twentieth-century growth of the city of Houston. Funded by many of the city’s commercial-civic elite and promoted by the faculty community at nearby Rice, the Museum of Fine Arts opened its doors in 1924, the first of its kind in Texas.\textsuperscript{72} The Houston Symphony too evolved from an informal group to an established

\textsuperscript{71}For an interesting account of and series of documents pertaining to the 1928 Democratic National Convention see Doris Glasser and Nancy Hadley, “The Democratic National Convention of 1928,” \textit{Houston Review}, XIII (1991), 148–160. Glasser and Hadley recount how Jesse H. Jones made Houston’s bid by personally guaranteeing the $200,000 offer. Jones also promised a new 25,000 seat convention hall would be built in less than six months. Made entirely of wood, the hall covered 80,000 square feet and made history as the site of New York Governor Franklin Delano Roosevelt’s first significant national exposure when he made the nominating speech of fellow New Yorker Al Smith. This nomination was not made without dissent. Many southerners opposed Smith both for his anti-Prohibition politics and his Roman Catholic religion. Opposing Smith on the first and only ballot, all of the Texas and some of the Alabama delegates voted unanimously for their host, Jesse Jones. In all, Houston played host to near 50,000 convention-goers, benefitted from the millions of dollars spent by those attending, and gained immeasurable national recognition and stature for its efforts.

and polished ensemble with a regular concert schedule. All of these were signs that Houston had at last reached a level of urban maturity that looked beyond its region to seek national stature and recognition.

Hidden in the shadows of the new construction and the glare of newfound affluence, there existed a flip side to Houston’s remarkable economic success story. Living in conditions that ranged from simply bad to unimaginably squalid, the city’s African-American and Mexican population labored in the industries to make Houston wealthy but saw little in return for their efforts.

After emancipation, black Houstonians had found the fruits of freedom tainted with bitterness by the city’s strict rules of segregation. As in most southern urban areas, the housing available to African Americans was limited to the poorest and most decrepit in the least desirable parts of town. Unlike the large ghettos of the cities of the North, black Houston existed in a number of medium-sized segregated pockets spread around the city. The oldest lay in Fourth Ward, southwest of downtown, that had evolved since the Civil War from a mixed to a mostly black neighborhood.\textsuperscript{73} There lay many of the city’s oldest black businesses, churches, and schools. By the 1920s however, the focus of black life had shifted to the Third Ward, southeast of downtown. In this area emerged some of the key institutions of the black community. The Houston Negro

Hospital (now Riverside General) was founded in 1926 and was the first of its kind in the South. The next year the Houston Colored Junior College (now Texas Southern University) began and added greatly to black education in the city. Simultaneous with the growth of the Third Ward was the rise of the Fifth Ward north of Buffalo Bayou. Lured by the presence of significant industry such as the Southern Pacific shops and yards, African Americans settled there in the early twentieth century—especially after a cataclysmic fire in 1912 destroyed twenty-five blocks and chased many whites away. In a city marked by some of the worst slums in the South, the Fifth Ward may have been the worst.

Regardless of where they lived, black Houstonians saw little of the services received by their white counterparts. Their schools secured a fraction of the funds of white schools. And even in a city as historically low-service as Houston, the lack of sewers, running water, and paved

---

74 Mitchell F. Rice and Woodrow Jones Jr., Public Policy and the Black Hospital: From Slavery to Segregation to Integration (Westport, Conn. and London: Greenwood Press, 1994), 65 and Alwyn Barr, Black Texans: A History of Negroes in Texas, 1528–1971 (Austin: Jenkins Publishing Co., 1973), 142. The Houston Negro Hospital began largely thanks to a grant from Texaco founder Joseph Stephen Cullinan. He gave it a bequest of $524,000 in his will as a memorial to his dead son. King, Joseph Stephen Cullinan, 214. Despite the Cullinan gift, the hospital relied heavily on the charitable support of black Houstonians for its funding. Likewise, the Houston Colored Junior College (in 1934 it became the four year Houston College for Negroes) was created and run by the Houston Independent School District, but its level of funding was so low that local contributions were constantly in need.

streets in many of their neighborhoods was both notable and shameful.76

As in the past, the municipal services were provided where it was thought they could encourage commerce. Unfortunately for blacks, the city did not see meeting their basic needs as necessary to maintaining a healthy business climate.

As part of the vicious cycle of segregation, governmental neglect, and poverty, the occupations open to black Houstonians were almost wholly limited to the most menial. Removed from slavery by more than half a century in 1920, 53.6 percent of black males still worked as laborers and 16.6 percent as domestic servants. To illustrate the inequality represented by these statistics, consider that for white men the numbers were 10.4 and 3.7 percent respectively.77

Shut out as they were as they were from most of the opportunities available to whites, black Houstonians were forced to create a parallel world of institutions and businesses to serve their own needs. As indicated above, blacks opened a hospital and supported a college. They likewise formed and contributed to churches and mutual aid societies, they edited and published newspapers, and they encouraged new businesses through


their own Negro Chamber of Commerce. Along the main arteries of life in the black neighborhoods, West Dallas Street in the Fourth Ward, Dowling Street in the Third, and Lyons Avenue in the Fifth, black businessmen catered to every need of their customers. From insurance companies, funeral homes, dental and medical offices to restaurants and jook joints, exclusion from white society sparked a tremendous versatility in African American ingenuity and enterprise.

Clearly, segregation and political disempowerment constrained the lives of black Houstonians at every turn by. However, in the early-twentieth century Houston experienced a notable lack of the sort of interracial violence and race riots that so marked that period of the South’s urban history. It was a fact commented upon by contemporary observers, black and white.78 Interestingly, the only major incident of racial strife in the city involved no black Houstonians at all.79 What came to be called the Houston Mutiny or Riot of 1917 involved a clash between black soldiers and whites. An all-black battalion of black troops, many of whom were northerners, was stationed in the city at Camp Logan against the objections of local whites. United States soldiers found themselves humiliated and harassed by private citizens and, especially, policemen. The absence of


79This observation is a sticky one. Some have written that the reason for the low incidence of such problems in Houston as compared to Atlanta or Birmingham was the relative acquiescent or accommodationist stance of most Houston blacks. See Ibid., 60–62 and 64.
major rioting heretofore obviously did not mean that racism was absent in the city. The tension simmering just below the surface came to a head on August 23, 1917, when two black soldiers were beaten by city police officers. Believing the rumors that one their comrades had died and that a white mob attack on Camp Logan was imminent, anywhere from 75 to 150 soldiers took weapons and marched into town. Targeting, but not limiting, their rage at police officers, they killed somewhere between 15 and 25 whites.\textsuperscript{80} In the aftermath of the violence 118 soldiers were court-martialed and 110 convicted; of these, 28 were condemned to death and 13 were executed.\textsuperscript{81} Some historians have linked the white fear stemming from the bloody events of August 1917 with the subsequent popularity in Houston of the Ku Klux Klan, which found a high level of support in the city in the early 1920s. However, in typical fashion, when the extremism of the Klan proved an impediment to business in the city, the commercial-

\textsuperscript{80} The number of deaths in the riot seems to be a matter of some disagreement. Robert Haynes lists 25 policemen, 4 black soldiers, 2 white soldiers, 1 Hispanic civilian, and 8 white civilians killed and eleven persons wounded. Robert V. Haynes, \textit{A Night of Violence: The Houston Riot of 1917} (Baton Rouge: Louisiana State University Press, 1976), 167–69. James SoRelle, however, claims that the totals were 15 whites dead. SoRelle, “Darker Side,” 59.

\textsuperscript{81} In his article on the riot, C. Calvin Smith takes issue with Haynes’s finding (also the official War Department finding) that the riot was primarily the result of a conspiracy among black soldiers at Camp Logan. Smith argues that the response of white Houstonians, especially police officers, was the prime factor in precipitating the violence of August 24. He additionally finds fault with the War Department and the white officers of the 24th Battalion, whom he argues ignored the volatility of stationing black troops in the South. C. Calvin Smith, “The Houston Riot of 1917, Revisited,” \textit{Houston Review}, XIII (1991), 98-101.
civic elite quietly clamped down and ended Klan influence by 1925.\textsuperscript{82}

Equally segregated and every bit as adaptive was Houston’s Mexican and Mexican American population.\textsuperscript{83} While long a presence in the city, the numbers of Mexicans had never been high until the events of the Mexican Revolution beginning in 1910 prompted many northern and central Mexicans to flee their country for the United States. By 1920, the number of people of Mexican descent living in Houston had grown to number six thousand, or about 4 percent of the city’s population. This figure continued to grow, reaching fourteen thousand, or 5 percent, in 1930.\textsuperscript{84} The oldest established area of Mexican settlement, or \textit{colonia}, was in the Second Ward, just east of downtown. It was here that many of the community’s institutions began, especially the mother church of Our Lady of Guadalupe (1911) and the Rusk Elementary School.

In \textit{El Segundo Barrio} Mexicans created an enclave that was largely isolated from the rest of the city, a self-contained unit with its own shops, schools, fraternal organizations, and publications such as \textit{La Gaceta}.


\textsuperscript{83}For the sake of brevity the term Mexican will be used hereafter when referring to both Mexican and Mexican Americans in Houston.

Mexicana, which began publication begun in 1928. With the new wave of migrants to the city in the 1910s and 20s, the residential patterns of Mexicans showed movement away from Second Ward. New clusters emerged in mainly industrial areas of the city. Some newcomers settled near the many railroad facilities in the Fifth Ward, while others opted for the emerging shipping and industrial east side of the city. There in places like Denver Harbor, Harrisburg, and especially Magnolia, Mexicans lived near the wharves, cotton compresses, mills, and cement plants that employed them. With few exceptions these new immigrants were confined to jobs at hard manual labor and lived in grinding poverty. A contemporary observer noted that large families lived in overcrowded flimsy, two or three room houses, or, in the case of some railroad workers, in boxcars in the rail yards.85

Besides laborers and members of the working class, there emerged in the 1910s and 1920s a small but important Mexican middle class in Houston. This group had two origins: the first were those who had become small businessmen and entrepreneurs after settling in the city. The second group consisted of Mexicans who had been business owners and professionals in their native land and had migrated with capital during the

---

revolution. As in the black community, this small middle class played a role out of proportion to its size. Its members provided services that the segregated city would otherwise never have: serving as advocates for their fellow Mexicans in the press and at city hall and providing an example to the less fortunate members of the community of the possibilities of life in Houston and the United States.

At the dawn of the 1930s, Houston had reached a level of maturity unequalled in its previous history. While still very much a southern city in its commitment to segregation and white supremacy, its economic and industrial growth had it poised for a leap to a place among the ranks status of the nation’s major urban centers. Spurred by the creation of its port, the city had become a national leader in oil and cotton and as a result its population had skyrocketed. Its growth was spearheaded by an aggressive, ambitious, and surprisingly outward-looking and cosmopolitan group of business and political leaders. Nothing better exemplifies the actions of this group than their seizure of the control of the emerging petroleum industry, overcoming barriers of geography and experience. However, the members of Houston’s commercial-civic elite who had led this charge would find their “salad days” short-lived. In the 1930s the economic hard times of the Great Depression and the growing power of the New Deal federal government would challenge both the control of local leaders and the recent prosperity. How Houston met these trials would prove crucial to

86 Cited in Rosales, “Mexicans in Houston,” 233-34.
determining whether it would continue its rise to national prominence or return to its existence as one of just many regional centers, an undistinguished mid-sized southern city.
II.

Houston and the Great Depression

The Great Depression served as an important and instructive prelude for Houston's experiences in World War II. The city's leaders discovered sources of prosperity that helped it avoid the harshest effects of the economic catastrophe that engulfed the country. They also began to discover that federal aid did not necessarily include federal interference in local affairs. This realization would pay huge dividends in the war years and become a major element in Houston's meteoric growth in the second half of the twentieth century.

Houston, like most of the United States, sailed through the 1920s prosperous and optimistic. The city experienced its most dynamic period of growth to date. Its population ballooned by over 100 percent in the twenties, climbing from 138,276 in 1920 to 292,352 in 1930. This increase sparked dramatic new residential, commercial, and industrial construction and pushed building permits up from $22,594,564 to over $40,000,000 in the decade. The skyline soared with a number of new skyscrapers—like the Neils E. McPerson Building (1927) and the Gulf Building (1929)—that defined the city for decades. Despite losing out to Dallas in an effort to land the Federal Reserve District Bank in 1913–14, the vitality of Houston banks in the period was evidenced by their increased clearings, which leapt from $1,560,707,890 in 1924 to well over
$2,000,000,000 in 1929.¹

This boom produced growing pains that began to transform the city. The appearance of so many newcomers had a significant impact on the city’s life. They overwhelmed the housing supply and overburdened already limited services. New subdivisions, built to accommodate the influx, were often forced to wait years before city water, sewer, and paved roads would reach them. The migrants of the 1920s also changed the social composition of the city. Most recent arrivals were poverty-stricken farmers or agricultural workers from rural parts of Texas and the South who came in search of high wages in Houston’s flourishing industries. Others drawn to Houston’s growing businesses and industries came from further afield. Lured by the promise of the city’s growth, this group of professionals, managers, and skilled workers arrived from the North, Midwest, or from other southern cities. With their different backgrounds, cultural affinities, and accents these new Houstonians added much variety and texture to the city’s life.

Many of those who came to Houston in the 1920s did so for one reason, oil. Over the course of the decade, the city firmly established itself as the center of the nation’s booming petroleum industry. Like Detroit, Akron, and other cities, Houston and its industries benefitted tremendously

from the nation's new love affair with the automobile. To meet the incredible demand created by the mass sale of motor cars, the oil industry embarked on a massive expansion. Lured by the many high-wage jobs created as a result of this growth, thousands of farmers and laborers flocked to Houston to work in the proliferating refineries along the ship channel or on the docks. Those with more specialized skills—machinists, engineers, chemists, and others—found the oil companies to be generous employers as well. National oil companies established offices in Houston for exploration, production, and transportation and often staffed them with managers who had previously worked in New York, Pittsburgh, or Philadelphia. Partly as a result of these newcomers, Houston continued to emerge from its days as just another southern cotton town. With national industries and an increasingly diverse cosmopolitan populace, it was gaining the characteristics of a national city.

Largely because of its role as an oil shipping hub, the port of Houston surged ahead of many older rivals to become by the third busiest in the nation in terms of total tonnage. While petroleum naturally led all waterborne traffic in Houston, it was far from alone. The port also became a significant center of grain processing and export. Much closer to the grain-producing heartland of the upper Midwest than the ports of either the east or west coasts, Houston used its extensive rail connections to bring large amounts of corn, wheat, and other grains to the city. Its huge dockside grain elevators handled a record number 4,947,515 bushels in
fiscal year 1929–1930.² Shipment of cotton continued to play an important role, as it had since the city’s founding. The world’s largest cotton company, Anderson, Clayton, and Company (ACCO), moved its headquarters to Houston from Oklahoma City in 1916 because, as co-founder Will Clayton put it, Houston is at ‘‘the little end of the funnel that drained all of Texas and the Oklahoma territory.’’³ Led by the success of ACCO and other firms, Houston ranked number one in the nation in cotton exports by the end of the 1920s, shipping some 2,069,792 bales.⁴

Propelled by the twin dynamos of port and industry, at the end of the twenties Houston’s future economic prospects seemed limitless. Boosters boldly predicted that they would soon overtake New Orleans to become the largest city in the South and after that perhaps challenge the national urban leaders. But even with the city’s robust economic health, it did not prove immune when the nation slid into severe economic crisis after the crash of the stock market in October 1929. Since much of the investment capital in Houston was tied up in various oil and real estate ventures, the crash did not have the immediate devastating impact on local investors and companies.


that it did elsewhere. However, as the Great Depression deepened and the
indirect effects of the crash intensified and spread, Houston's insulation
from hardship proved impossible to sustain, and the city slid into hard
times.

Most of those who have chronicled the city's past have paid little
attention to the Great Depression or have minimized its effects on the city.
In *Houston: A History*, David McComb states that "the traditional view that
the depression struck Houston a soft blow in comparison to other cities in
the nation seems correct . . . ," but he admits that the absence of reliable
unemployment figures makes such a judgment difficult to make.5

Similarly, Marvin Hurley states that "the depression struck Houston a
glancing blow . . . ."6 This is a superficial view based on a number of
factors that, at first glance, might lead to the conclusion that the city
somehow escaped the worst ravages of the depression. It is true that the oil
industry stayed relatively healthy. Likewise, the city experienced no
massive hemorrhaging of jobs and population as did many of the more
established industrial cities of the North and Midwest; in fact, it gained
population in the decade, albeit at a slower rate than in the 1920s.
Similarly, although construction slowed from the frenetic pace set in the
1910s and 1920s, it did not cease altogether as it did in some parts of the

5David G. McComb, *Houston: A History* (Austin: University of Texas Press,
1981), 115.

6Hurley, *Decisive Years*, 54.
country.\(^7\) And perhaps most important to this perception, Houston avoided many of the most visible symbols of economic and social upheaval of much of the country. Not a single bank failed, there were no massive bloody strikes, and no great bread lines snaked through the heart of the business district.

Appearances, though, can be misleading. Houston actually did face many of these problems. However, either through timely intervention or the shaping of public perception or both, their existence remained largely hidden from public view while the city’s successes received extensive attention. City leaders in politics and business closed ranks and used their influence to shape the perception of events. The methods they used would serve them well through the depression and beyond.

Probably nothing figures more prominently in the accounts of Houston as “the city that the depression missed” than its avoidance of bank failure. Few aspects of the depression scarred the American psyche as did that of the faltering bank which, unable to satisfy its depositors’ desire to liquidate their accounts, collapses after a panicked run. Guardians of more than mere money, banks hold the trust and security of their customers as well. The psychological impact of a bank’s failure, the fall of a presumably invulnerable institution, is difficult to underestimate.

The haunting scenes from around the nation of long lines of people

\(^7\)In 1929 the total value of building permits issued equalled over $35,000,000; in 1932 that amount had fallen to $2,900,000. Jon C. Teaford, *The Twentieth-Century American City: Problem, Promise, And Reality* (Baltimore and London: Johns Hopkins University Press, 1986), 75.
desperate to withdraw their life savings from failing banks frightened Houston's financial community and stiffened its resolve to prevent such events from happening in their city. Local financial institutions had long worked to present a unified and reassuring front of stability and responsibility. During the severe depression of the 1890s, local bankers formed the Houston Clearing House. This organization acted to pool resources in the event of unusually heavy banking activity and thus prevent a crisis in public confidence.\textsuperscript{8} With the onset of the depression in 1929, the members of the clearing house almost immediately began to shore up weaker institutions and were careful to do so without attracting undue attention. Led by Union National, local banks quietly and gradually lowered interest rates on deposits to reduce their liabilities and maintain solvency. Truly forward-looking, this move presaged by several years national regulations that would mandate such a move. Such action indicated a willingness on the part of Houston's financial leaders to act in concert for a goal other than individual profit.\textsuperscript{9} It also showed a sensitivity to the volatility of the situation and the possible ramifications, both financial and psychological, if one bank should be allowed to fail.

Even the swift and effective action of the clearing house to bolster its member institutions in time of crisis proved insufficient, and their commitment to the stability of Houston's banking community would be

\textsuperscript{8}Buenger and Pratt, \textit{But Also Good Business}, 42.

\textsuperscript{9}\textit{Ibid.}, 140.
sorely tested. Despite bankers' efforts, the worsening economic situation led many depositors to withdraw their funds and many businesses to default on loan payments. Two of the city's seven national banks experienced an especially startling depletion of deposits by late October 1931. Although neither had yet failed to meet its obligations, to knowledgeable eyes both the Public National Bank and Trust Company and the Houston National Exchange Bank appeared on the verge of collapse. Their perilous condition came to the attention of financier Jesse H. Jones, and he resolved to take action to prevent either or both banks from collapsing. No one had a greater stake in the economic health of the city than did Jones, who had developed and owned a large amount of prime downtown real estate and had many other interests including ownership of the Houston Chronicle. However, it was in Jones's capacity as the head of one of the city's leading banks, the National Bank of Commerce (NBC), that he called for a meeting that October.

On the 25th, Jones summoned a group of the city's most influential business leaders for an emergency session. Besides representatives of Houston's major banks, those present included: Will Clayton of ACCO, William S. Farish and Harry C. Wiess of Humble Oil and Refining Company, and delegates from utility companies and railroads.\(^{10}\) Because it was a Sunday, the gathering could take place in Jones's downtown office without attracting undue attention. After Jones reportedly closed his door,
announcing that no one would leave until the problem had been solved. In marathon sessions that lasted all day and continued on Monday, Jones and the other leaders worked out a plan to prevent the collapse of Public National and Houston National. In order to retire $1,205,000 in outstanding debt of its principal owner, Texas Governor Ross Sterling, Houston National agreed to sell its Houston Oil Terminal Company to Humble Oil for $405,000. Additionally, the eleven assembled banks contributed the remaining $800,000 for the bank to be reorganized under the leadership of Joseph F. Meyer. Participants also contributed a guaranty fund of $1,175,000 to enable NBC to absorb Public National without risk of loss. To insure against a run on Public National, several banks deposited

---

a total of $1,400,000 at NBC. Clearly leaders in Houston's business were Buenger and Pratt, *But Also Good Business*, 97 and William A. Kirkland, *Old Bank—New Bank: The First National Bank, Houston, 1866–1956* (Houston: Pacesetter Press, 1975), 72–73. The breakdown of funds contributed to eliminate the debt of Houston national was as follows:

City Bank and Trust Co. $8,000  
Federal Trust Co. 7,000  
First National Bank 200,000  
Guardian Trust Company 50,000  
Houston Land and Trust Co. 50,000  
Joseph F. Meyer Jr. 20,000  
National Bank of Commerce 100,000  
San Jacinto Trust Co. 10,000  
Second National Bank 100,000  
South Texas Commercial National Bank 100,000  
State National Bank 30,000  
Union National Bank 100,000  
Union National Bank (trustee) 25,000  

TOTAL $800,000

The breakdown of contributions to the Public National guaranty fund were as follows:

Anderson, Clayton and Co. $25,000  
Anonymous 50,000  
First National Bank 150,000  
Guardian Trust Co. 50,000  
Houston Land and Trust Co. 50,000  
Houston Lighting and Power 125,000  
National Bank of Commerce 125,000  
San Jacinto Trust, City Bank and Trust, and Federal Trust Co. 25,000  
Second National Bank 125,000  
South Texas Commercial National Bank 125,000  
State National Bank 25,000  
Union National Bank 125,000  
United Gas Public Service 175,000  

TOTAL $1,175,000

Those contributing to the NBC insurance fund were as follows:

First National Bank $350,000  
Guardian Trust C. 100,000  
Second National Bank 275,000  
South Texas Commercial National Bank 300,000  
State National Bank 100,000  
Union National Bank 275,000  

TOTAL $1,400,000

Source: Buenger and Pratt, *But Also Good Business*, 102-3.
community saw the potential damage that would result from the collapse of a major financial institution. Besides the bankers whose interest in the matter was obvious, the funds provided by utilities and oil and cotton companies represented tangible evidence of their commitment to a favorable business climate and the maintenance of public confidence. There was, of course, financial self-interest involved as well; however, the participation of some companies, including First National Bank, strained their resources significantly. But as has often been the case in Houston’s history, self-interest and civic spirit went hand-in-hand.

News of the outcome of the weekend meetings appeared in the Tuesday newspapers in deliberately innocuous language. To avoid possible public fears, there was no mention of how close two banks had come to collapse. Instead, accounts were limited to descriptions of Houston National’s new management and Public National’s acquisition by NBC.

Averting bank failure defused a potentially explosive situation with no effect on the public faith in the city’s banking community. This was obviously important from an economic standpoint. Had either of the two banks failed, a chain reaction of events might have ruined individual depositors and institutions alike. An equally important result of the bank rescue was the maintenance of public confidence. While Houstonians were not aware of how close the two banks had been to failure—in both cases a matter of one or two days—continuing stability was, especially in light of the national banking crisis, very reassuring. The city’s banks seemed to
remain healthy, even as thousands failed across the nation in 1932 and 1933.¹³

The success of the Houston bank rescue did not go unnoticed in Washington. Along with other factors, the efforts of Jesse Jones to stave off a local banking crisis landed him a directorship of President Herbert Hoover’s newly created Reconstruction Finance Corporation (RFC) in 1932. Empowered to prop up the nation’s business and industry through loans from the federal government, the RFC wielded massive power with billions of dollars at its disposal. Jones served as a director of the organization from 1932–1933 when he was named its chairman. This post put him in a position of great importance in Washington and allowed him to be useful to his home state and city. While his work as head of the RFC took Jones away from Houston, he stayed quite interested in the welfare of the city. Houstonians took great comfort in the knowledge that their city’s most eminent citizen was trusted in the national corridors of power. If the newspapers provide any indication of public sentiment, “Uncle Jesse’s” presence in Washington served as a reassuring hedge against the fear and uncertainty of the depression—of course, Jones owned the Chronicle, and

¹³Buenger and Pratt, But Also Good Business, 107 and Bascom N. Timmons, Jesse H. Jones: The Man and the Statesman (New York: Henry Holt and Company, 1956), 160. Many states in this period experienced such a high level of bank closure that they declared banking moratoriums. New York State, for example, closed all of its banks on March 4, 1933 to halt the rash of failures of financial institutions. Texas too declared a five-day moratorium on March 2, 1933 but by all accounts it was unnecessary in Houston. Kirkland, Old Bank, 76–77 and Montgomery, “Depression,” 157.
thus that paper's views must be examined with a grain of salt.\textsuperscript{14}

Also important to Houston's reputation as "the city the depression missed" was the success of its primary industry: oil. While plants and mills in cities across the nation slowed production or closed their doors entirely, most Houston area oil refineries, oil tool factories, and oil transportation facilities continued to operate at pre-crash levels. This was in large part due to the continued American and world dependence on automobiles. The economic downturn drastically curtailed the actual sales of cars and other vehicles, throwing steel-producing cities like Gary and Pittsburgh and auto-making Detroit into economic tailspins. But even though Americans bought fewer new cars, they continued to drive the ones they already owned, thus maintaining a steady demand for gasoline and other petroleum products. The nation also continued to move away from coal and towards the use of petroleum derivatives for heating and industrial fuel.\textsuperscript{15} Indeed, the oil industry continued to prove so profitable that the Reconstruction Finance Corporation, charged with loaning federal dollars to prop up American business, refused to fund it.\textsuperscript{16}

With demand for oil still high, the search for producing fields

\textsuperscript{14}Buenger and Pratt, \textit{But Also Good Business}, 107.

\textsuperscript{15}For the growing importance of petroleum as a source of energy, see Harold L. Platt, "Energy and Urban Growth: A Comparison of Houston and Chicago," \textit{Southwestern Historical Quarterly}, XCI (July 1987), 1–18.

\textsuperscript{16}Jones and Angly, \textit{Fifty Billion}, 234.
proceeded apace. Among the many in search of the next Spindletop was a veteran prospector and wildcatter, Columbus Marion “Dad” Joiner. Even after numerous unsuccessful efforts in East Texas, he clung to his dream of making a great strike. Joiner’s doggedness finally paid off on October 3, 1930, when he struck oil at 3,600 feet with his Joiner Test # 3 near Overton in southern Rusk County, 150 miles northeast of Houston.\(^\text{17}\)

What would come to be called the East Texas field would prove to be the biggest yet discovered, a virtual sea of oil that spread for two hundred square miles under five counties, over six billion barrels’ worth. Virtually overnight, small towns like Kilgore, Tyler, and Longview swarmed with new arrivals in search of the fortunes to be made in the vast oil field. By 1933 there were almost ten thousand producing wells in the field, and within four years East Texas accounted for approximately 15 percent of the entire United States oil output.\(^\text{18}\)

While this new area of oil production lay too far from Houston for it to experience the boomtown conditions of the smaller towns of Kilgore and Tyler, Houston did benefit greatly from various aspects of the field’s development. While Dallas took the lead in financing and partly serviced


the East Texas field, Houston provided the rest of the service as well as most of the shipping, storing, and refining functions. This was a role for which the city was well prepared. It was the unquestioned center of the oil industry in Texas, having seized the mantle from Beaumont/Port Arthur in the 1920s. With eight refineries, scores of oil tool makers, and—with its unrivalled network of pipelines, railroads, and shipping—the Gulf Coast’s best oil transportation facilities, it was naturally to Houston that much of the East Texas production would flow. The first oil shipped from the new field came in thirteen 10,000 gallon railroad tank cars destined for the Sinclair refinery on the ship channel, where it would to be processed and then shipped to markets elsewhere.¹⁹ Soon a lion’s share of the East Texas production found its way to the various refineries of Houston, Baytown, and Texas City. In part as a result of its role in the East Texas boom, Houston became the home of a host of new oil-related firms. Recognizing its role as center of the American oil industry, Shell moved its main U.S. offices to Houston in 1933.²⁰ So attractive was the oil field equipment and service industry that even in 1934, in the depths of the depression, the French firm Schlumberger Well Surveying Corporation established its first

¹⁹Donahue, Finest, 5.

²⁰Fran Dressman, Gus Wortham: Portrait of a Leader (College Station: Texas A & M University Press, 1994), 50
U.S. affiliate in the city.\textsuperscript{21} The federal government also recognized the vital role that the city played in the development of East Texas and funded a $1.5 million ship channel improvement in 1930 to allow better transportation from the field.\textsuperscript{22}

As if the vast discoveries in East Texas were not enough to propel oil production into a period of great growth, other new fields came on line during the Great Depression to further accelerate the process. Much closer to Houston, in May 1931, prominent Houston independent oilman Hugh Roy Cullen drilled the first well in the large Thompsons field in Fort Bend County.\textsuperscript{23} On June 5, 1932, one of the city’s most aggressive wildcatters, George W. Strake, brought in the massive Conroe field in nearby Montgomery County. Being so near at hand, these new discoveries along with others were entirely serviced by companies in the Bayou City. Significant too was the completion in 1938 of the first offshore well in the Gulf of Mexico, which opened up a whole new realm of exploration and production for Houston firms.\textsuperscript{24} Furthermore, natural gas, long burned

\textsuperscript{21}John S. Ambler, “The French,” in Fred R. von Mehden, ed., \textit{The Ethnic Groups of Houston} (Houston: Rice University, 1984), 196. Besides the importance of being a business concern of considerable prestige and economic importance, Schlumberger also indirectly did much to culturally enrich the city. It was to head the Houston office that John and his wife Dominique de Menil came, eventually endowing the city with some of its greatest cultural treasures, including the Menil Collection.

\textsuperscript{22}Biles, \textit{South and the New Deal}, 20.

\textsuperscript{23}Larson and Porter, \textit{History of Humble}, 399-400.

\textsuperscript{24}Donahue, \textit{Finest}, 77.
off as a nuisance by-product of oil extraction, also came to be seen as a new area of growth for the industry in the 1930s with advances in the technology of "cycling" that returned the gas to the ground to boost crude production.\textsuperscript{25}

The success of the depression-era oil industry manifested itself in numerous ways in Houston. While the rest of the nation saw little but massive unemployment, some oil-related payroll categories actually increased over the late 1920s.\textsuperscript{26} Similarly, oil fueled a spurt of commercial and residential construction in the 1930s. New downtown structures included the Oil and Gas building, the Main (Humble) building, and other commercial real estate projects.\textsuperscript{27} Many of the most lavish houses ever built in Houston were built at this time. High society architect John F. Staub experienced one of the busiest periods of his career during

\textsuperscript{25} Uses for natural gas before 1935 included as an industrial boiler fuel, as a source of the carbon black needed for rubber production, and others. In that year the Texas Railroad Commission, concerned over the waste of the estimated more than one billion cubic feet burned every day in the state, ordered that flaring of natural gas must cease. This pushed oil producers to find more efficient ways to harness and store the gas as well as new uses for it. David F. Prindle, "The Texas Railroad Commission and the Elimination of the Flaring of Natural Gas, 1930–1949," \textit{Southwestern Historical Quarterly}, LXXXIV (January 1981), 294–301.


\textsuperscript{27} Hurley, \textit{Decisive Years}, 54–55.
the depression years, working on fifty-seven major commissions.28 Included among these were opulent homes and other buildings for such prominent Houstonians as Harry Wiess, Harry Hanszen, George A. Hill Jr., Stephen P. Farish, Ray Dudley, and Claud Hamill.29 But perhaps no single structure designed by Staub better reflected the incongruity of the depression and oil money in Houston than that of an enormous mansion in the heart of the affluent River Oaks neighborhood for wildcatter and political maverick Hugh Roy Cullen. Designed in a neo-Regency style, the house took an army of workmen months to build in 1932–33, the very depths of the depression. Cullen gave Staub free rein, requiring only that the house be conducive to entertaining on a grand scale. From the gleaming marble of the foyer to the mature specimens selected for the gardens, the architect spared no expense to demonstrate the wealth of his client, who was probably the richest man in Texas at the time.30 No one would argue that such an opulent home or such ambitious new office buildings represented much more than the lavish spending of the wealthiest members of the community. However, the very evidence of prosperity that such construction represented served as a source of valuable civic pride.

Newspapers proudly pointed to Cullen’s “white palace” as proof that


29Ibid., 152, 145, 161, 185, 202, 237.

30Ibid., 173.
Houston was still a strong and vibrant city, where the credo of economic opportunity seemed to hold true even in the midst of the nation’s worst depression.\textsuperscript{31}

But at the same time that the leaders of the Houston oil community erected monuments to their success, there were signs that all was not rosy for their industry. As with most boom periods, oil producers would pay later for the wildly successful years of the early 1930s. The East Texas field became plagued by massive overproduction as hundreds of independent operators drilled with abandon and created a huge glut that knocked oil prices down to historic low levels. Hardest hit by this deflation in oil prices were the more disciplined major companies, including Houston’s Humble Oil and Refining Company. Humble was the most active firm in the field, holding approximately 16 percent of all the producing acreage. By the end of the thirties, Humble had pumped over 600,000,000 barrels out of the ground in East Texas, enough to prompt one commentator to remark that: “‘East Texas made Humble.’” But, for all the company’s success, it suffered greatly from the drastic overproduction that came to be endemic in the field.\textsuperscript{32}

In March 1931 Humble in concert with other large companies

\textsuperscript{31}The prosperity and continued optimism of Houston’s elite can be seen in their support of a flowering local cultural and artistic scene. For a description of some aspects of this important period, see Don Looser, “A Musical Revolution: The Growth of Cultural Institutions in Houston, 1929–1936,” \textit{Houston Review}, VI (1984), 135–154.

\textsuperscript{32}Larson and Porter, \textit{History of Humble}, 446.
successfully pushed the Texas Railroad Commission to set strict production limitations in East Texas. Many small operators, ignoring these proration laws, pumped their wells at full capacity. The resultant illegal overages, called “hot oil,” dropped the price of East Texas crude from 65¢ to as low as 2¢ per barrel. The battle to enforce the proration orders resulted in what some have called “the largest problem field in the whole history of the American oil industry.” The chaos of overproduction reached such a dangerous level that former Humble president and then governor Ross Sterling on August 17, 1931, ordered all wells in the field shut down and sent the National Guard into the area to enforce the mandate. After military rule was lifted, strict quotas were placed on East Texas production. This stabilizing measure seemed to work, and prices increased to 98¢ by April 1932. However, many operators again reverted to their old practices and by March 1933 overproduction had pushed prices down to 25¢. Humble and other major oil companies responded with a renewed effort to ensure enforcement of the laws. In this, they were helped by the changing climate of the New Deal in which government’s role in regulating the economy underwent fundamental change. One of

\[^{33}\text{Ibid.}, 452–53 \& 455.\]

\[^{34}\text{Ibid.}, 459 \& 461.\]

\[^{35}\text{Ibid.}, 473–75.\]

\[^{36}\text{Ibid.}, 478.\]
the very first pieces of New Deal legislation was the National Industrial Recovery Act of May 1933 that, among other things, gave the federal government wide latitude to intervene in the oil industry. By 1935 the combination of state and national authority had largely solved the problem of hot oil, and the great East Texas oil field finally produced in an orderly manner.\textsuperscript{37}

The Houston oil community welcomed government intervention to end the production chaos in the oil patch. The dramatic fluctuations in oil prices had created many problems and led the industry on a roller coaster ride of dramatic highs and lows. Such volatility wreaked havoc on many companies. Despite its long-term success in East Texas, Humble, for example, saw its net income tumble from the record high level of $32,535,000 in 1929 to $2,765,000 in 1930.\textsuperscript{38} As a result, the company cut its work force by over a quarter.\textsuperscript{39} Some firms in the oil tool business experienced similar low periods of profitability. Cameron Iron Works, for one, went from making a profit of $114,000 in fiscal 1930 to losses of


\textsuperscript{38}Larson and Porter, \textit{History of Humble}, 692. After that enormous fall, Humble earnings bounced back in 1931 to $14,897,000 in 1932, and setting a new record in 1936 ($34,184,000) and 1936 ($46,924,000).

\textsuperscript{39}Most of these workers were re-hired when the economic situation improved in the late thirties. Montgomery, “Depression in Houston,” 158.
$29,000 in fiscal 1932.\textsuperscript{40} The Houston area bore the brunt of these losses and layoffs by Humble, Cameron, and others. The fortunes of the city were so closely tied to oil that any extended period of low prices was bound to have a dramatic impact.

Ironically, the very same New Deal legislation that oil companies welcomed also brought them government interference of another kind that they disliked. Although some provisions of the NIRA had helped bring order to the oil fields, its Section 7a also gave industrial workers the right to bargain collectively. The oil companies along with other industries in Houston and the South bitterly resented what they saw as Washington’s meddling in the operation of their businesses. Local employers, long accustomed to a relatively acquiescent labor force, resisted this movement; and the results were often tense and occasionally violent. Oil companies proved mostly able to resist the tide of organization of the early New Deal and Section 7a. However, the creation of the National Labor Relations Board (NLRB) under the provisions of the Wagner Act in 1935 and the formation in 1936 of the Oil Workers’ International Union by the CIO resulted in the first widespread incursion by organized labor into the industry.\textsuperscript{41} A common response to unionization efforts in the strongly


open shop oil industry was the formation of company-sanctioned puppet
unions or employee welfare associations. When such relatively mild
measures proved insufficient, employers fired and otherwise harassed
union organizers. Despite continual opposition by management, by the end
of the depression workers in many of Houston’s large oil-related businesses
had undergone some degree of organization.

Not surprisingly, the epicenter of labor/management conflict in
Houston came along the highly industrialized ship channel. Outbreaks of
labor unrest became common in the thirties, especially among the
longshoremen and other workers engaged in the loading and unloading of
ships. As port director J. Russell Wait put it in his 1936 annual report,
“[i]t becomes almost an annual duty to record some destructive strike on
the Houston waterfront.” Often the volatility of these strikes gained
additional explosiveness because of race. Steamship companies and other
dockside employers often utilized the members of the Lone Star Colored
Longshoremen’s Benevolent Association to serve as so-called scab
replacements for striking longshoremen. In July 1934 a strike of Local

42 For a detailed account of one company’s ongoing efforts to combat unionization,
(and also integration) see Michael Botson, “Jim Crow Wearing Steel-Toed Shoes and
Safety Glasses: Dual Unionism at the Hughes Tool Company, 1918–1942,” Houston

43 Joe R. Feagin, Free Enterprise City: Houston in Political–Economic Perspective

44 Harris County Houston Ship Channel Navigation District, 1936 Annual Report,
872 of the International Longshoremen’s Association (ILA) resulted in the deaths of three black strikebreakers and the indictment of three union members for murder. The bitterest and longest of the dock worker strikes came in the fall of 1935 as part of a large ILA strike of Gulf ports. Shipping companies used local blacks as well as imported strikebreakers from depression-ravaged East Texas to replace the striking longshoremen. Violence abounded, much of it at the hands of the companies’ security forces headed by ex-Texas Ranger Frank Hamer. By the end of the almost ten-week strike, fourteen men had died in ports across Texas and Louisiana.

Much of the labor strife along the Houston waterfront came as a result of economic hard times in the shipping industry. At the beginning of the depression the port, like much of the city, seemed to be isolated from the nationwide economic crisis. In fact, in the first half of 1930, 30 percent more tonnage passed through the port than in the previous year.

---

45 James M. SoRelle, “The Darker Side of Heaven: The Black Community of Houston, Texas, 1917–1945,” (Ph.D. dissertation, Kent State University, 1980), 163–64. None of the three ILA assailants, one of whom was actually black, were ever brought to trial for the murders.

46 One of the most legendary lawmen in Texas history, Hamer gained fame for his role in the violent “Border Wars” of the 1910s, in the Mexia prohibition raid of 1922, and most famously, the ambush that killed Bonnie Parker and Clyde Barrow in 1934. Through most of his career, Hamer was known to shoot first and ask questions second. The Houston businesses that employed him in 1935 counted on his violent reputation to cow their striking workers into submission. James L. Haley, Texas: From Spindletop Through World War II (New York: St. Martin’s Press, 1993), 93, 141–43, & 194–200.

47 Sibley, Port of Houston, 176–77.
Even though growth slowed in the second half, overall the Port of Houston registered an increase of more than 10 percent over 1929’s previous all-time high. The record year of 1930 was followed, however, by a two-year decline that mirrored the economic slump of the nation. Total tonnage dropped by 3 percent in 1931 and 12 percent in 1932. While gradual growth began again in 1933, the port did not return to 1930 levels until 1939. Thanks to the huge shipments from East Texas, oil remained the dominant commodity in the life of the port; other cargoes, however, fell off significantly. Hardest hit was its traffic in grain. In the 1920s, Houston had made great strides toward becoming a major grain port, expanding its handling capacity by threefold. However, after the record year of 1932 when ships carried almost three million bushels of grain from Houston, shipments fell to next to nothing in 1933 as midwestern farmers cut sharply back on production. From that date until 1938 not a single bushel of grain was exported from the Port of Houston.\textsuperscript{48} To counteract the drop in shipments of grain and other goods, various improvements were made to the port in the 1930s including installing lights for night navigation. Houston also lobbied Washington successfully in 1932 to have the ship channel widened to four hundred feet and deepened to thirty-two feet. This project was further expanded in 1935 to deepen the entire channel by an additional two feet.\textsuperscript{49}

\textsuperscript{48}Ibid., 174–75.

\textsuperscript{49}Ibid., 184.
As the port righted itself and slowly returned to economic health in the late thirties, the oil industry maintained its momentum, and construction continued to blossom throughout the city, Houston did seem like the success story of the Great Depression. These are certainly the indicators that observers point to as evidence of its immunity from hard times. But in some significant ways the success of Houston was a facade that hid a great deal of suffering. The booster spirit that has always driven Houston seems to have permeated its historiography. Thus, the relative prosperity of oil companies earns prominent mention while the thousands of workers laid off by Humble and others warrant little attention at all. But to gloss over the plight of the Bayou City’s unemployed and poor is to arrive at misleading conclusions about the true nature of its experiences in the depression. In her book on the workers of Chicago during the Great Depression, Making a New Deal, Lizabeth Cohen argues that “[h]istorians’ tendency to reduce the crisis of the thirties to a series of impersonal events—the stock market crash, unemployment, mortgage foreclosures, bank failures—obscures the reality of these disasters as people experienced them.”

It is interesting that while historians have similarly ignored how the depression adversely affected Houston, they have focused instead on the city’s relative success in avoiding many of those “impersonal events” about which Cohen writes. In the end though, the result is the same: scant attention is paid to how ordinary people suffered through the thirties. In

Lizabeth Cohen, Making a New Deal: Industrial Workers in Chicago, 1919–1939 (Cambridge, New York, and others: Cambridge University Press, 1990), 214
the interest of accuracy, a more detailed look at this misery is warranted.

For ordinary Americans, the Great Depression hit closest to home by creating massive unemployment. Central to the American character is the notion of hard work and self-reliance—losing one’s job gnaws at the very core of this self-identity. Especially hard hit by the plague of unemployment that accompanied the early depression were traditional industrial cities of the Northeast and Midwest like Buffalo, Cleveland, and Gary. In those places, unemployment rates often topped 50 percent. While Houston never saw such high levels of joblessness, in the early thirties it did see a massive increase in layoffs and dismissals. Precise unemployment figures are notoriously hard to determine, but several sources points to a high of 23 percent in the city in 1932–33 before falling again in 1935–39.51 While this unemployment rate is significantly lower than those of the cities mentioned above, this number must be considered in light of Houston’s tradition of near full employment. In the 1920s it had grown accustomed to unemployment rates of less than 1 percent. So obviously an increase to more than 20 percent would seem enormous.52 Most historians have failed to consider this fact when assessing the impact of the depression on Houston. To simply note that Houston’s rate of unemployment was much lower than that of similar cities ignores the full meaning of that

51Biles, The South and the New Deal, 21 and Montgomery, “Depression in Houston,” 156.

52Montgomery, “Depression in Houston,” 156.
number.

It should come as no surprise that unemployment ran significantly higher among Houston’s blacks and Mexicans than among Anglos. Again, precise numbers are elusive, but William J. Brophy argues that the black unemployment rate stood at over 35 percent by the start of 1931.\textsuperscript{53} The percentage among Mexicans was undoubtedly similar. Adding to the unemployment crisis was the appearance of numerous migrants fleeing the grinding poverty of the countryside. The number of arrivals grew especially large after the acreage reduction programs of the Agricultural Adjustment Act of 1933 forced the dislocation of thousands of sharecroppers and tenant farmers.\textsuperscript{54} Migrants, black and white, flocked to Houston in a mostly futile search for work or, failing that, to secure the superior relief benefits of the urban dweller. They crammed into congested housing when they could find it or squatted wherever they were able. There was never an accurate count made of these dwellers on the fringe of Houston society. For that reason they probably were not included in the estimates of the city’s jobless. Had they been included, the figure would have certainly been larger than 23 percent.


on Houston was made by the liberal mayor of San Antonio, Maury Maverick. In 1932 he set out on what he called “a real hobo trip” to learn first-hand the experiences of those who had lost their jobs. Riding the rails and dressed in tattered filthy clothes, his first stop in December 1932 was Houston. Maverick visited the Salvation Army station, the “Sally,” on the courthouse square and joined the more than three hundred destitute there in search of lunch. Maverick found the food revolting but the company morale-lifting.55 From the soup kitchen Maverick made his way to “the jungle” of transient and unemployed shanty towns along Buffalo Bayou and the railroad tracks to the north of downtown. In these "Hoovervilles" he discovered men, women, and children living in sheds and holes carved into the banks of the bayou with nothing but a piece of tin for protection from the elements. Maverick learned many of the residents of these squatter communities were World War I military veterans who expressed their frustration at not receiving their bonuses.56 He also noted that, unknown to most southerners, blacks and whites lived side-by-side in this sub-community of those most devastated by the depression. Among them “all race barriers were completely broken down. . . . There was no race feeling, very little suspicion, and a considerable amount of good will.” Groups of unfortunates of both races banded together and contributed what


56Ibid., 155.
little they could to a “General Fund” for their mutual benefit.\(^{57}\) In the evening, Maverick ate dinner at the Star of Hope mission where he found himself berated by a sermonizing minister who told the assembled diners that their own sins were the cause of their current plight. Malnourished and destitute, the audience had to listen to the sermon in order to eat the meager food offered.\(^{58}\) Maverick spent the night in a dugout on the banks of Buffalo Bayou sleeping fitfully, frightened by the prospects of the water rising to engulf him and by the screeching of trains in the nearby railyards. For warmth, he and the other eight occupants of the man-made cave relied on a fire in a large garbage can with holes punched into its sides.\(^{59}\) From his short sojourn among the most unfortunate residents of the Bayou City, Maverick realized some of the desperation and hopelessness that they must feel. He could at least take consolation from having a home and job to return to; other residents of Houston’s hobo jungle had no such assurance.\(^{60}\)

While Maury Maverick recounted the most dramatic effects of the depression in Houston, he did shed light on some of the very real suffering that occurred in the city. When Maverick visited in 1932, he did so at the

\(^{57}\text{Ibid.}, 156.\)

\(^{58}\text{Ibid.}, 157–59.\)

\(^{59}\text{Ibid.}, 161.\)

\(^{60}\text{Ibid.}, 163.\)
nadir of Houston’s economic troubles, and it was clear to him that the city was not coping well. In 1931 and 1932 many thousands of Houstonians lost their jobs either temporarily or permanently and none had unemployment benefits. For a substantial number, that unemployment left them unable to pay for basic necessities such as housing and food. Relief was desperately needed. The sudden distress of so many caught the city flat-footed. It had no programs or facilities in place to deliver the massive amounts of relief required; furthermore, it had little desire to create them.

As shown in chapter one, Houston has traditionally been a low tax and low service municipality. Never were the weaknesses of this philosophy of government made more apparent, and some would say tragic, than in the early days of the Great Depression. Houston’s response to the depression largely mirrored that of the Hoover administration. In those years before the inauguration of Franklin Delano Roosevelt, the policies of the federal government largely reflected the convictions of President Herbert Hoover, refusing to participate in unemployment and poor relief. Central to his philosophy was the belief that government should never intervene in the functioning of the social and economic order. Charity was a matter to be handled in the private sector. The role of the state was only to ensure equality of opportunity for all.61 Houston embraced this vision of governance wholeheartedly, consistently proving niggardly in its expenditures for matters such as unemployment and poor

61 Herbert Hoover, American Individualism (Garden City, N.Y.: Doubleday, 1922), 8 & 54–55.
relief even while operating with a budget surplus that in 1935 reached nearly $400,000.\textsuperscript{62} When the stock market crash occurred in 1929, the city had no municipal relief bureau and initially had to rely on the Community Chest as the only supplier of citywide aid. Even after the city grudgingly assumed a greater role, it did so on a limited basis, only operating a commissary and an unemployment commission—the latter of which was funded almost entirely by private contributions to the Community Chest and the Red Cross.\textsuperscript{63} However limited, this aid was welcomed by needy Houstonians. In the winter of 1932 the city commissary alone served around 2,300 people per week.\textsuperscript{64} Of the total relief expenditures in Houston between January 1 and March 31, 1931, the city’s contributions barely topped $12,000 or 20 percent, the rest came from private sources.\textsuperscript{65} Even after the extent of the depression had become clear, notions of the limited role of local government continued to hold sway. So ingrained were these ideas that in 1931 former mayor Oscar Holcombe campaigned against incumbent Walter Monteith by promising an expanded program of poor relief. Holcombe lost. Sensing a mandate from those who voted, Monteith continued his policy of providing almost no  


\textsuperscript{63}Montgomery, “Depression,” 164–65.  

\textsuperscript{64}Ibid., 166.  

\textsuperscript{65}Biles, “Urban South,” 79–80.
assistance to the needy. 66

The lack of aid was not simply accepted by all Houstonians, and many condemned the city's laissez-faire attitude towards its citizens and the depression. But for the most part, these sentiments did not spill over into open dissent. Exceptions occurred, like the demonstration on March 6, 1930, when a crowd of over six hundred unemployed workers marched on city hall protesting the lack of relief and, perhaps showing the radicalizing effects of hard times, urging the recognition of the Soviet Union. 67

Although protest marches were rare in the Bayou City, the specter of them haunted its leaders who saw such events as portents of social upheaval. To many of the city's commercial-civic elite, the idea of large-scale poor relief, even from the private sector, was anathema. Entrenched in a frontier mindset steeped in rugged individualism, they feared that once given aid, the poor would refuse to work ever again. 68 Despite their hesitation to engage in poor relief, however, by 1931 all but the most conservative Houstonians recognized the unprecedented nature of the current crisis. Contributions to the Community Chest and other private charities increased and new facilities opened to meet the needs of the city's poverty-stricken. Even this stepped-up effort proved insufficient. Some

66Biles, The South and the New Deal, 23.


68Patenaude, "Texas," 95.
Houston leaders, like William Jacobs, pastor of the First Presbyterian Church, recognized the extent of the suffering and suggested that the city’s problems might be eradicated if twenty to thirty of its millionaires each donated $5,000 to the poor. For making such a so-called socialist proposition, Jacobs was publicly denounced. Fellow clergyman Dr. E. B. West of Second Baptist Church was quoted as saying: “‘I do not believe a more dangerous doctrine has ever been preached in a pulpit in Houston.’”

Risking such enmity, other private citizens stepped forward with well-intentioned and innovative poor relief measures. Will Horwitz designated each Friday as Tin Can Matinee at the movie theaters he owned; any customer who brought a can of food was admitted free of charge. On average every week he collected two thousand cans which he distributed to the city’s hungry. Horwitz was also involved in the nationwide “Back to the Farm” movement. He and others arranged for some families to be set up on farmland outside of town. Despite the inventiveness these local efforts, by 1932 it was evident that they only scratched the surface of need. Clearly a more dramatic course of action was necessary, and equally obvious that action would have to come from outside Houston.

Nowhere were the shortcomings of local relief efforts more

---

69 Houston Post, October 5, 1931, p. 3.

70 Biles, The South and the New Deal, 29.

conspicuous than among the city’s African American and Mexican populations. For these groups, economic hardship was magnified by the old shibboleths of racism and segregation. Making no pretense to fulfill the separate but equal promise that supposedly undergirded their society, Houston’s leaders consistently limited the access of blacks and Mexicans to all forms of aid.\textsuperscript{72} The city government was often the worst culprit in this regard. In 1930 the City Council banned stall-holders in the City Market from employing Negroes.\textsuperscript{73} Later, in 1932, though he admitted that members of the two minorities represented “the majority of the relief problem in Houston,” Mayor Monteith declared that the city would no longer accept relief applications from non-whites.\textsuperscript{74} Among private citizens too, the maintenance of segregation took precedence over compassion, regardless of the hardships created. In 1931, when times were at their hardest, the Community Chest suddenly notified all black charities that they would no longer receive Chest funding.\textsuperscript{75} Whites who transgressed the city’s Jim Crow code of conduct risked public

\textsuperscript{72}For a useful account of the black experience with unemployment and relief, see Randy J. Sparks, “‘Heavenly Houston’ or ‘Hellish Houston’? Black Unemployment and Relief Efforts, 1929–1936,” \textit{Southern Studies}, XXV (Winter 1986), 353–66.

\textsuperscript{73}SoRelle, “Darker Side,” 133–34.

\textsuperscript{74}Teaford, \textit{Twentieth-Century}, 79 and Whisenhunt, \textit{Depression in Texas}, 137 & 153.

condemnation. The aforementioned pastor William Jacobs operated a soup kitchen out of his rectory that was open to all: black, white, and brown. For seeing only need and not race, he was roundly excoriated by local leaders and in the press.76

Tragically, of course, it was these very blacks and Mexicans Jacobs was serving who were most desperately in need of aid. As the poorest and most politically powerless members of Houston society, they bore the brunt of the economic hardships of the Great Depression. Their per capita income was already far lower than that of whites, and even their poorly paid jobs proved difficult to hold. Standing on the bottom rungs of the employment ladder, they were subject to the old practice of last hired and first fired.77 As the crisis deepened, Mexicans and blacks had no recourse as they were dismissed from the lowest-paying jobs in favor of unemployed whites. As a result, the slight black occupational mobility that had emerged in the 1920s disappeared in the 1930s.78 Similarly, the rate of black home ownership decreased, mortality rose, and crime skyrocketed. By every conceivable measure, minority Houstonians took giant steps backward in

76Biles, The South and the New Deal, 29.


the Great Depression.

At first African Americans harmed by the depression turned to their traditional sources of succor and solace, their churches and mutual aid societies. However, the scale of the need in the black community quickly overwhelmed the ability of these institutions to cope. As early as the late summer of 1930 the number of unemployed blacks was reaching crisis levels. So observed Lorenzo J. Greene, a visiting associate of Carter G. Woodson doing research for the latter’s Association for the Study of Negro Life and History. In Houston, Greene was told by one local that at least two thousand blacks in the city were out of work; another estimated the figure to be much higher, that at least a third of the entire black working population was unemployed. Greene learned that African Americans had been pushed out of all but the most back-breaking and distasteful jobs. Whites and even Mexicans had displaced them as garbage collectors, street workers, and as laborers in manual construction. Only on the docks doing the hottest and most grueling ship loading could blacks still be found in force by September 1930.79 Tragically, those who had lost their jobs found that once they had exhausted the black community’s resources, there was precious little other aid awaiting them.

Like the blacks who faced the early depression with little assistance

---

1930—also felt the hard times with especial force. According to a Houston Settlement Association worker, "'[n]o group of people in Houston are greater sufferers from the present economic situation than members of the Mexican colony.'" While some replaced black workers by accepting lower wages, poverty and unemployment ran rampant in the Mexican community. Without a well-established system of mutual aid and other social institutions, many found themselves terribly exposed by the failure of public and private Anglo charities to provide for them. Mexicans faced an additional danger of the depression that blacks did not, the threat of deportation. While numbers are difficult to establish, there is evidence that as in Los Angeles and other cities with large Chicano populations, Houston saw a number of Mexicans seized by federal and state law enforcement authorities and sent south of the border. Partly in response to this threat, some Mexicans in the Bayou City organized repatriation groups to arrange for the voluntary return of some of their compatriots to Mexico. One source estimates that several thousand Mexican Americans from Houston chose this course of action in hopes of escaping both


economic hard times and Anglo hostility.\textsuperscript{83}

While times were no doubt most difficult in the black and Mexican communities, by 1932 it was clear that much of Houston was fearful of the future. Although the city had voted strongly for Herbert Hoover in 1928 and many of its leaders seemed to embrace his ideas about relief and the role of government, four years later it returned to its Democratic roots and overwhelmingly supported Franklin Delano Roosevelt. While the city had been spared some of the worst effects of the depression seen elsewhere—the massive unemployment, bank failures, and the like—it had seen enough to decide that a change was in order.\textsuperscript{84} Some of FDR’s strongest support came from black residents who could and did vote in significant numbers in the 1932 general election. The hard times they had experienced were apparently enough to prompt a massive shift away from the Republicans, the party of Lincoln, whom they had overwhelmingly supported since Reconstruction. Roosevelt’s plan for dramatic Federal intervention in the economy to defeat the depression proved very successful among many African Americans who had come to believe that Hoover and the G.O.P. had abandoned them in their moment of greatest need. Overall, it was clear that the new president and his "new deal" for the American people received a mandate from the voters of the Bayou City.

\textsuperscript{83}Marilyn D. Rinehart and Thomas H. Kreneck, "In the Shadow of Uncertainty": Texas Mexicans and Repatriation in Houston During the Great Depression," \textit{Houston Review}, X (1988), 33.

\textsuperscript{84}Montgomery, "Depression," 169.
With such authority, FDR set the tone for his first term in the famous first “hundred days” of his administration. In a flurry of legislation, the president and Congress launched an unprecedented program of federal relief to industry and the downtrodden. This period saw the beginning of what came to be known as the “alphabet soup agencies” such as the NRA, FERA, and others created to actively use federal money to relieve the suffering wrought by the depression. At first, through agencies like FERA, the Roosevelt administration simply organized direct relief payments meant to alleviate the most acute suffering. Roosevelt also looked to private industry and sought its cooperation in creating new jobs for the unemployed with measures such as the National Industrial Relations Act (NIRA) and its creation the National Recovery Administration (NRA). However, when employers proved less than willing participants in the scheme, Roosevelt changed the focus of the federal effort from simple relief to the creation of jobs. This second phase of the New Deal produced the famous make-work agencies, the Works Progress Administration (WPA), Civilian Conservation Corps (CCC), National Youth Administration (NYA), and others. The range of jobs created by these organizations was vast, from the cultural pursuits of theater, music, and literature to teaching in the nation’s schools to manual labor on public works programs. No avenue was left unexplored as the federal government became a major employer of civilians for the first time in American history.
One of the first of the alphabet soup agencies, the Federal Emergency Relief Administration, or FERA, was created in May 1933 under the leadership of former settlement house worker Harry Hopkins. It was designed to provide a quick infusion of relief funds to some of the most desperate sufferers of the depression. FDR had a special interest in the economic health of the South, declaring at one point that it was “the nation’s number one economic problem.” As a result, FERA spent lavishly in the region. Nowhere was this largesse greater than in Texas, where the administration allocated almost one and a half billion dollars between 1933 and 1935. No other southern state saw nearly that amount. In comparison, Kentucky received thirty-five million dollars and Virginia just twenty-six million. A significant portion of Texas’s share went to poor relief in Houston. There, FERA-funded workers performed a number of small public works tasks, including cleaning bayous and creeks and repairing roads.\(^\text{85}\) FERA also specifically targeted and employed African Americans in such undertakings as the survey of black school drop-outs in 1934 to determine how to improve educational opportunities for them and the city.\(^\text{86}\)

Another of the creations of the first hundred days, the Public Works Administration (PWA), created jobs for the unemployed on large-scale public works projects. This agency was responsible for building roads,

\(^{85}\)Biles, *The South and the New Deal*, 63.

\(^{86}\)SoRelle, “Darker Side,” 142.
dams, bridges, and public buildings around the nation. It did not, however, act as a direct employer. Rather, it acted mostly in conjunction with local business to provide loans and grants for projects that employed tens of thousands of Americans between 1933 and 1939. Since it focused on utilizing the private sector and allowed many decisions to be made on the state level, many Houston leaders preferred the PWA to programs of direct relief like the later Works Progress Administration (WPA). The nature of PWA projects also made them attractive to state and local leaders who saw construction programs as a boon to future development. Through active lobbying in Washington, Texans secured an enormous share of the PWA’s expenditures, approximately 17 percent of the four billion dollars spent nationwide. Of this, Houston gained a major portion, nearly $30,000,000 for scores of different projects. The greatest number of PWA schemes involved the city’s schools. Twenty-five new elementary schools and 16 new high schools were constructed, and 37 school buildings were renovated or repaired at a combined PWA funding level of $3,821,000.

Some of the city’s most distinctive educational structures were the result of the agency’s efforts, including Mirabeau B. Lamar and

---


88 Ibid., 104.

89 Ibid., 106.
Stephen F. Austin high schools, both completed in 1937. The list of other major public buildings erected either fully or partly with PWA funds in Houston is impressive indeed. It includes: the Sam Houston Coliseum and Music Hall (completed 1937), the city/county Jefferson Davis Hospital (1937), the DePelchin Faith Home (1938), City Hall (1939), the San Jacinto Monument (1939), and the Houston Garden Center in Hermann Park (1941). Additionally, the PWA financed wharf, road, and bridge projects, waterworks improvements, university buildings, and a nearly $3 million deepening of the ship channel to thirty-two feet.

Steven Strom persuasively argues that the PWA buildings provided a vital boost in confidence for depression-weary Houstonians who viewed with pride the new construction that beautified and improved life in their city. However, beyond the psychic income derived from these achievements, they provided the city with generous improvements in its infrastructure of roads, schools, hospitals, and port facilities either free or at a substantial discount. Not by accident, this construction enhanced Houston’s development as an attractive industrial and business site.

Through the Chamber of Commerce and other organizations, local leaders

---

90Ibid., 114–15.


92Untitled, undated document, Misc: PWA folder, Box 2, Albert Thomas Papers (Woodson Research Center, Fondren Library, Rice University, Houston) and Strom, “Legacy,” 106.
actively sought out projects that would aid economic development and improve the city's business climate. Men like chamber president and American General Insurance head Gus Wortham, lawyer and jurist James Elkins, construction company chief George R. Brown, and others used their considerable connections with the increasingly powerful Texas delegation to Washington.93 These national leaders proved dutiful in channeling PWA and other federal funding to Houston and Texas. Chairman of the Reconstruction Finance Corporation Jesse H. Jones and Representative Albert Thomas of Houston, along with fellow Texans Vice President John Nance Garner and Speaker of the House Sam Rayburn, saw the public works monies of the New Deal as opportunities to help their city and state catch up to its more developed northern counterparts. In allocating federal funds, Texas leaders frequently favored their friends and supporters in the local business community. Jones engineered the selection of his favorite Houston architect, Alfred C. Finn, as a supervisor to the Federal Housing Authority (FHA) as well as designer of numerous PWA projects. Similarly, the city's largest construction firm, Brown and Root, won the contracts for such major enterprises as the Marshall Ford Dam on the Colorado River.94

Whereas the PWA funded public works, concerned more expressly with education was the National Youth Administration (NYA), formed in

---

93 Dressman, Gus Wortham, 48–49.

94 Ibid., 68.
1935. Serving as Texas state director of this agency was former Houston schoolteacher Lyndon Baines Johnson. Johnson made a special effort to include black Texans in the programs of the NYA. Among its many endeavors, the agency created what it called Freshman College Centers to offer those who could not afford to attend school full-time opportunities for education and job skills training. In recognition of the needs of the city’s blacks, one of the fifteen centers in Texas was operated at the Houston College for Negroes. Johnson also lent his personal support to the opening of a Junior Guidance and Placement Center in Houston, another agency designed specifically to assist blacks.

Perhaps the most well-known of the federal make-work agencies was also the most diverse. The WPA began in 1935 and came to be an umbrella organization for such cultural programs as the Federal Theater Project, Federal Music Project, Federal Writers Project, and Federal Artists Project. The latter three made little impact on the city—the Writers Project confining its efforts to a local guidebook and a series of interviews with former slaves while the other two produced nothing of note. The Theater Project did, however, play a significant role in the cultural life of the city for the one year of its operation. Begun in April 1936, the Houston center presented numerous productions including one,


96 Ibid., 165.
the "Pioneer Texas Pageant," that ran during the state centennial celebration. Its troupe of sixty and its budget of $20,000 were both the biggest in Texas, exceeding those of Dallas and Fort Worth.97

Besides its cultural endeavors, the WPA also sponsored a large number of small projects of limited duration designed to create employment for large numbers of workers. Such projects included landscaping the new University of Houston campus in 1936, installing a heating system at the same institution in 1939, and a multitude of other road, sewer, and school construction work.98 Perhaps because it targeted the most destitute, the WPA also proved to be the largest relief organization employer of blacks and Mexicans in the city. Among other efforts, the agency funded a work crew of fifty African Americans to clean out ditches in their neighborhoods across the city. It also employed the first six recreation directors ever at the segregated municipal Emancipation Park in the Third Ward.99 While the level of black participation in Houston never approached that of some northern cities like Chicago, where African Americans made up a third of all people employed by the WPA, its

---


98 McComb, Houston, 175 and Undated WPA Press Release, Misc: WPA—Houston Office folder, Box 4, Albert Thomas Papers (Woodson Research Center, Fondren Library, Rice University, Houston).

99 SoRelle, "Darker Side," 141.
role was nevertheless significant.¹⁰⁰ It provided a much needed ray of light in otherwise gloomy times for black Houstonians. Mexicans fared somewhat worse in working for the WPA. While employed on numerous projects in the first two years of the agency’s existence, legislation in 1937 limited the participation of those not born in the U.S. and threw 2,700 Mexicans off the local rolls.¹⁰¹

Between 1936 and 1939, the WPA approved 123 projects in Harris County with federal funding of over $9.5 million. Most projects involved some type of construction, either roadwork or “other.”¹⁰² Even though the WPA projects were far from the most prestigious of the New Deal, Houston and its leaders had no wish to see other cities receive this aid at their expense. In several letters to the WPA administrator F. C. Harrington, Representative Albert Thomas argued that Houston was being drastically undersubsidized by the agency. In February 1939 he wrote that the city needed increased funding because:

farm labor from surrounding territories has drifted into Houston. These laborers are absolutely unable to procure employment. A large number of them are unskilled and they

¹⁰⁰Cohen, Making a New Deal, 279.

¹⁰¹De León, Ethnicity, 49.

¹⁰² “Number & Federal Funds Authorized For State W.P.A. Projects Approved by the President Under the Emergency Relief Appropriation Acts of 1936, 1937, 1938 and 1939 From January 1, 1937 through May 2, 1940 For Harris County, Texas,” included in letter from Frank A. March to Albert Thomas, May 9, 1940, Box 4, Legislative: Thomas Bills, 1945–46 folder, Albert Thomas Papers (Woodson Research Center, Rice University, Houston).
do not fit into the industrial picture there. Houston is a manufacturing center and the past experience of a great many of these people does not qualify them for employment in the existing trades.103

Thomas bolstered his case with statistics comparing Harris County with a larger urban center, Orleans Parish (New Orleans), Louisiana, and a smaller one, Ramsey County (St. Paul), Minnesota. Thomas angrily wrote: "the figures for Harris County are hardly defensible. Please look into this matter and raise our quota."104

The United States Housing Authority (USHA) was another New Deal agency that proved attractive to Thomas and other Houston leaders. Created by the Wagner-Steagall Housing Act of September 1, 1937, it was intended to clear slum areas and build low-income public housing in their stead. Local leaders seized on the idea of federally financed slum clearance because of the obviously disgraceful housing situation in Houston. By the late thirties, recent population growth had made housing issues reach a crisis level. The local branch of the USHA, the Houston Housing Authority (HHA), conducted a survey that found 32,166 families living in substandard dwellings. Only 15 percent (11,575) of these families were white. The vast majority, 17,630, were African American, a figure that represented

103 Albert Thomas to F. C. Harrington, Feb. 27, 1939, Box 4, Misc. WPA—Houston Office folder, Albert Thomas Papers (Woodson Research Center, Fondren Library, Rice University, Houston).

104 Albert Thomas to F. C. Harrington, March 13, 1939, Box 4, Misc. WPA (Washington) 1939–40 folder, Albert Thomas Papers (Woodson Research Center, Fondren Library, Rice University, Houston).
over 75 percent of the black population. In what the HHA called the “Lyons-Nance’ [5th Ward] and the ‘‘San Felipe’ [4th Ward] sections,” out of 4,650 habitations, 3,250 were given failing grades for structural and/or sanitation reasons. Three-quarters of all Mexican families, or 2,961, also lived in similar circumstances. The black and Mexican slum areas were notable for their lack of indoor plumbing, relying instead on outdoor privies and water obtained from communal sources in alleyways and yards. The rates of disease, especially tuberculosis and typhus, ran much higher in these sections than in the city as a whole.105

To the white establishment the vast stretches of unsanitary shabby housing stock were embarrassing and unsightly. They therefore seized upon the opportunity to have the federal government clear some of the city’s worst areas. After gaining approval from the USHA, the locally controlled HHA in 1938 began to use its right of condemnation to demolish hundreds of substandard homes throughout the city. Some black homeowners protested that they were unfairly compensated for the value of their properties. They presented petitions to the mayor, to USHA director Nathan Straus, and to President Roosevelt, all to no avail.106 Additionally problematic, many of those displaced were left homeless. The first black housing project, Cuney Homes in the Third Ward, did not open until 1940,

105HHA application for USHA funds, p. 3, Box 15, Misc. Houston Housing Authority 1938-39 folder, Albert Thomas Papers, (Woodson Research Center, Fondren Library, Rice University, Houston).

106Biles, South and the New Deal, 114–15.
so many were left waiting years for dwellings. The HHA acted on its role as a slum clearance agency. It failed, however, on the second half of its mandate, to replace substandard dwellings on a one-for-one basis. Instead, in a move that seemed an attempt to push blacks out of sight, some areas, especially near downtown, were levelled and not rebuilt. Also galling to the black community, the authority’s largest project, the 1,000-unit all-white San Felipe Courts, was built on land that had long been a center of the black community.¹⁰⁷ Mexicans were the true forgotten constituency of the HHA. They were restricted from living in either black or white projects but had to wait until after World War II for a development of their own. In sum, the actions of the HHA segregated the minority population of Houston more than ever before and removed areas the white leadership found an eyesore and impediment to the business climate of the city.

While many in Houston resisted the intrusion of federal government into their city at first, in short order they came to rely heavily upon New Deal programs. Between July 1933 and December 1935 over 78 percent of the nearly $5.75 million spent on poor relief in Houston came from federal sources, 21 percent came from the state, with a mere 0.2 percent from local sources.¹⁰⁸ Whatever hesitations local leaders had about accepting

¹⁰⁷SoRelle, “Darker Side,” 245–46. The San Felipe Courts was later renamed the Allen Parkway Village.

¹⁰⁸Roger Biles, “The New Deal in Dallas,” *Southwestern Historical Quarterly*, XCV (July 1991), 13. This figure does not include PWA funds.
outside aid gave way in the torrent of relief dollars.

For the unemployed or otherwise needy, the programs of the Roosevelt administration seemed a lifeline. The response of the city's decision makers, the commercial-civic elite, was more complex. At first hesitant, they soon welcomed the infusion of federal funds that improved the port, built and paved roads, and constructed badly needed public buildings. Key to local leaders' embrace of New Deal programs was the hands-off approach taken by Washington. Houston and other southern cities provided strong majorities for F.D.R. in each of his elections, and, as a result, he had no wish to antagonize them. Federal authorities largely left the administration and distribution of relief funding and employment in local hands. Even though New Deal programs were supposed to promise equal wages for black and white workers, for labor's rights to organize, and a lack of discrimination in public housing, in reality these dictates were widely ignored on a local level. For example, in monthly relief stipends to FERA and WPA workers, black Houstonians made $12.67 while whites made $16.86.109 Houston employers also continued to actively discourage the organization of their employees. Furthermore, residential segregation was maintained in the new construction of public housing. These concessions were largely in deference to the wishes of the city's leaders who bristled at the federal government's attempts to attach strings to aid.

109 Biles, South and the New Deal, 115. In other southern cities the differential between black and white workers was even more pronounced. In Atlanta, for example the average black FERA or WPA worker earned $19.29—interestingly, this was more than a white worker in Houston would make—while a white counterpart earned $32.66!
The incongruity was not lost on anyone at the time. When FERA representative Elmer Scott despaired in 1936 of the attitudes in Houston, wondering at "how parasitic a local community may become," the Houston Press reluctantly admitted that he was right. "We recognized state boundaries when we were called on to give, but forgot them when Uncle Sam is doing the giving."\textsuperscript{110} Lionel Patenaude argues that the ideological opposition with which Texas businessmen viewed the New Deal did not prevent them from "avail[ing] themselves of [its] benefits." But, he points out, even this grudging acceptance had its limits. As prospects brightened after 1934, the support of these men for the New Deal vanished, leaving only anger at high taxes, resentment about union activity, and a general "fear of the growing power of the federal bureaucracy."\textsuperscript{111}

As the thirties ended, Houston had reason to be optimistic about its future prospects. The city's leaders could proudly point to the relative strength with which their economy had weathered the storm of the depression. The local oil industry had come through the crisis to end the decade with record profits. The port had ridden out hard times as well. New commodities—most notably scrap metal destined for Japan—helped push tonnage back to high levels. Additionally, new industry began to sprout in Houston by the late thirties. The Champion Paper and Fibre Company opened an enormous paper mill on the ship channel near

\textsuperscript{110} Houston Press, March 23, 1936, p. 7.

\textsuperscript{111} Patenaude, Texas, 96–97.
Pasadena in 1937, producing products that included the paper used to print Life magazine.

Although the Great Depression cost many working-class Houstonians their jobs and reduced them to lives of poverty, they too had reason to feel sanguine about the future. Many had received aid and participated in the creation of better public facilities in their city. And after the worst of the depression passed in the mid to late thirties, employers in the city began rehiring and the jobless rate improved greatly. This is not to minimize the suffering that many experienced but to acknowledge that Houston proved better able to rebound from hard times than most cities.

The Great Depression bequeathed two major legacies to Houston. First, it reaffirmed to all that the growth of their city would continue. Houston had come through the worst economic times in U.S. history with a larger population, healthier industries, and improved infrastructure. Knowledge of this engendered a feeling of optimism in a city that had never lacked in confidence to begin with. The second legacy of the depression proved to be even more important. During the New Deal especially, Houston and its leaders forged a new and valuable relationship with the federal government. Despite its conservative tradition that viewed government with suspicion, the city became a major beneficiary of Washington's largesse. Local leaders discovered that they could seek and receive federal dollars and use them without significant interference. They learned to ensure that their interests in developing infrastructure and
improving the business climate would take precedence over the Roosevelt administration's attempts to engage in racial or social engineering. Coupled with the growing power of the Texans in Washington, the savvy of Houston's commercial-civic leadership primed the city to continue to be a principal recipient of federal spending. This would prove crucial to the city's ability to reap the economic benefits of the years to come. The preparations prior to and World War II itself would greatly increase the flow of dollars from Washington, and Houston was prepared to get its share, and more.
III.

Wartime Shipbuilding: Contracting with Uncle Sam

Of all the wartime developments that transformed the economic and industrial life of Houston, none was more dramatic than the city’s temporary emergence as a center of shipbuilding. In less than four years, heavy public and private investment created a major industry that became the largest employer in wartime Houston. But as spectacular as the growth of ship construction was, it was not to last. When the end of the war caused the federal government to sharply curtail its ship orders, Houston yards either drastically scaled back operations or disappeared altogether.

Despite the transitory nature of Houston’s experience as a major shipbuilding center, it is an important topic to consider in assessing World War II’s impact on the city. No wartime industry attracted more migrants. All told, more than 100,000 people were employed in the shipyards of Houston between 1941 and 1945, many of whom moved to the city expressly to do that work. These newcomers, skilled and unskilled, management and labor, helped change the nature of the city’s population and its character forever. Additionally, for many Houstonians, both recent arrivals and longtime residents, welding the hulls of ships or cutting complex metal forms was the first taste of industrial employment. The skills honed in the city’s shipyards would prove valuable in the postwar period when Houston fairly groaned under the weight of plants in need of experienced industrial workers. Apart from those men and women whose
brawn and ability created vessels that helped win the war, shipbuilding served as a valuable laboratory for the city’s economic and political leaders. In it they caught a glimpse of the tremendous opportunities that lay in partnership with the federal government. But something more than money also came out of their experiences with shipbuilding. There was also a tantalizing glimpse of the industrial future about which many Houstonians had been dreaming for years. In these massive creations of metal and sweat seemed to be a statement that their city had arrived among the ranks of the nation’s urban powerhouses.

Such desires for urban greatness were hardly new in Houston. The completion of the Houston Ship Channel in 1914 prompted much celebration and not a little hopeful speculation about the new waterway’s potential impact on the city’s economic and industrial development. But while the channel quickly proved an ideal home for manufacturing and processing facilities from oil refineries to flour mills, there seemed little interest in exploring Houston’s potential as a shipbuilding center. Although several local firms specializing in tug construction and repair did appear to service the increasingly heavy port traffic, they remained limited in scale and impact.

The first glimpse of the possibility of large-scale ship construction came during the emergency building program prompted by the United States’s entry into World War I in 1917. At that time, the nation found itself woefully short of vessels, both naval and cargo. To address this
shortfall, the Federal Government embarked on an ambitious maritime production program. While most of the contracts for this effort went to firms in established shipbuilding centers like New York, Baltimore, and Norfolk/Newport News, some were awarded to new enterprises with little or no experience in the field. Much of the new ship program was under the auspices of the Emergency Fleet Corporation (EFC), a federal agency that relied on regional administrators to advise Washington on likely local firms and sites. Many of the positions as administrators were given to prominent Democrats as rewards for political support of the Wilson administration. Among those selected for this service was one of Houston’s most prominent citizen, East Texas lumber baron John Henry Kirby.\footnote{Robert S. Maxwell and Robert D. Baker, \emph{Sawdust Empire: The Texas Lumber Industry, 1830–1940} (College Station: Texas A & M University Press, 1983), 187–89. For more on the city’s growth in the years of World War I, see: Bruce Andre Beauboef, “War and Change: Houston’s Economic Ascendancy During World War I,” \emph{Houston Review}, XIV (1992), 89–112.}

With Kirby’s endorsement, four local firms earned EFC contracts of one type or another for the production of ships.\footnote{\textit{Houston}, XI (April 1940), p. 101.} The two biggest concerns were the locally owned Universal Shipbuilding Company, which boasted an 8 way yard, and the Midland Bridge Company of Missouri, which operated a 6 way facility.\footnote{David G. McComb, \emph{Houston: A History} (Austin: University of Texas Press, 1981), 76–77. A “way” refers to the actual launching area of a shipyard. Each way was a long slip leading to the water where a ship could be built and eventually launched. Thus an 8 way yard could build at least 8 ships simultaneously.} Both companies received contracts for
the so-called Ferris-type emergency wooden cargo vessels for government use in coastal waters and together employed approximately 4,000 workers. The S. S. Nacogdoches, the first of the twelve of these inelegant but functional ships to be built by the two yards at Houston, was begun on September 15, 1917, and launched nearly seven months later on April 6, 1918, at the Universal yards at Poole’s Rest near Galena Park on the ship channel. The proceedings of that spring afternoon seemed to augur badly for the future of the Houston shipbuilding industry. After a suitable amount of pomp and ceremony the sponsor of the vessel, Nina Cullinan—daughter of Texaco founder Joseph Stephen Cullinan—smashed the customary bottle of champagne against the hull of the ship to send it down the ways and into the waters of the ship channel. Miss Cullinan and the several thousand other spectators gathered on the banks cheered until, with a slight jolt, the Nacogdoches came to a halt, stuck in thick mud beneath fifteen feet of water. To try and minimize the embarrassment of this botched launching, Universal officials quickly dispatched two towboats to extricate their ship and their company from this predicament. The

---

4 The Ferris-type emergency cargo vessels were built to a standard plan meant to allow for speed of construction. The ships were made mostly of wood, with iron or steel used only to reinforce key joints and other locations. The use of wood in the construction of Ferris ships provided the main reason for placement of contracts with Houston firms. Through its role as a lumber center—largely the result of John Henry Kirby’s vast timber holdings—the city was well-positioned to take advantage of a sudden government demand for wooden ships for the war effort. The massive quantities of East Texas pine required for the Ferris program benefitted not only Houston, but also Beaumont and Orange. The ships themselves were 267 feet long, had a beam of 45 feet, and a depth of 24 feet. They could transport nearly 2,000 pounds of cargo, journeying along the coast to transfer their cargoes to ocean-going vessel for the transatlantic voyage. Houston Post, June 27, 1943, p. 1,6.
tender vessels tried in vain to remove the *Nacogdoches* from its muddy resting place.5 Instead, the 3,500 pound wooden emergency ship sat there for five days, halfway on and halfway off the ways, a mute reminder of the logistical problems inherent in beginning an industry from scratch.6

Even after the *Nacogdoches* was eventually removed, the cause of shipbuilding in Houston seemed at times a laughable spectacle. Although Universal and Midland were able to build a combined twelve Ferris-types ships for the EFC, the positive nature of that achievement was lessened by the fact that the Houston yards did not have the capacity to deliver finished ships to the government. The wooden craft had to be towed almost one hundred miles to Beaumont to have engines and other vital components installed at the more established shipworks of that city.7

The cessation of World War I and its lucrative government contracts did not spell the absolute end of the shipbuilding industry in Houston. While “war babies” like Universal and Midland—as well as John Henry Kirby’s own abortive Houston Shipbuilding and Dry Dock Co.—faded from the scene, a number of smaller concerns sprang up to service the increasingly heavy maritime traffic at Port Houston.8 The Platzer Boat

---

5 *Houston Post*, April 6, 1918, p. 1.


8 Maxwell and Baker, *Sawdust Empire*, 187-88
Works located on Brays Bayou in the Harrisburg section of the city was founded in 1926 and specialized in the manufacture and repair of the tugs so vital to the life of any port.⁹ Across Brays Bayou, Bludworth Shipyards also began life in the port’s halcyon days of the 1920s to meet the need for the construction and repair of towboats.¹⁰ Similarly small in scope and limited to the more pedestrian workaday segment of the shipbuilding industry were other companies: the Vance Machine and Tool Company, Harrisburg Machine Company, Schmidt Barge Yard, Red Head Boat Shop, and Port Houston Iron Works.¹¹ As the buzzing commercial activity of the Ship Channel enriched the city, another shipbuilding business arose to provide an outlet for some of that newfound wealth. The Seabrook Yacht Company began life in 1939 and built pleasure craft at its plant on a man-made basin on Jennings Island between Clear Creek and Cut Off Bayou between Clear Lake and Galveston Bay near Kemah 30 miles southeast of Houston. The yard supplied the city’s wealthy with ships to troll the waters of Galveston Bay.¹²

After several decades of prosperous existence, the Houston shipbuilding industry found itself in good position to capitalize on the


¹²*Houston Chronicle*, Oct. 26, 1941, p. 3E.
nation’s need for ships of all kinds. As part of the national defense buildup of early 1940, President Roosevelt requested that congress appropriate funds sufficient for the construction of a true “two ocean navy” that could potentially engage in combat with both Germany in the Atlantic and Japan in the Pacific. Of the $4 billion Roosevelt request, only $2.2 billion were earmarked by the still largely isolationist congress. A sizable portion of this appropriation went into new naval construction.¹³

Local Houston area firms managed to claim a small portion of that 1940 appropriation in the form of contracts for various types of ships.¹⁴

The Seabrook Yacht Company with experience in building smaller wooden vessels earned one of the earliest shipbuilding contracts of its kind on the Gulf Coast. In early 1941 it began work on a $400,000 contract for eight “crash” boats to rescue downed naval aviators, largely for use at the naval air training stations like that at Mare Island, California, and the giant new


¹⁴The national wartime shipbuilding program benefitted Houston and the Gulf Coast tremendously. In addition to the contracts awarded to Houston firms, existing or new yards in Tampa and Panama City Florida; Mobile and Chickasaw, Alabama; Pascagoula, Mississippi; New Orleans, Louisiana; Orange, Beaumont, Galveston, Rockport, Corpus Christi, and Brownsville Texas all earned shipbuilding contracts during the war. This shift away from a concentration of the shipbuilding industry on the Atlantic and Pacific coasts to the Gulf Coast was a conscious decision to stimulate the southern economy. It resulted in some extraordinary success stories. For one such account, of New Orleans shipbuilding figure Andrew Jackson Higgins who built more landing craft than any other manufacturer in the United States, see: Jerry E. Strahan, *Andrew Jackson Higgins and the Boats that Won World War II* (Baton Rouge and London: Louisiana State University Press, 1994).
facility at Corpus Christi.\textsuperscript{15} Made entirely of wood, the 36-foot-long vessels were powered by 600 horsepower motors and manned by a crew of eight and were designed to be able to navigate in even the shallowest water with a draft of only three feet.\textsuperscript{16}

Seabrook handled its first government contract with such efficiency that, with the help of Representative Albert Thomas, it quickly received an new order for the much larger and more technically sophisticated submarine chasers. Meant to be light and maneuverable, the subchasers produced at Seabrook were also built entirely of wood. They measured 110 feet long, 18 feet wide, held a crew of twenty-three, and sported a 2,500 horsepower engine. Armed with depth charges, torpedoes, and light arms, subchasers were designed to force a submarine to the surface and keep it engaged until heavier armed but slower vessels such as frigates or destroyers could arrive and destroy the enemy craft. To oversee the expansion of its construction program, the company hired an experienced

\textsuperscript{15}Office of Government Reports, National Defense Program Army, Navy and U.S. Maritime Commission Awards and Contracts, National Defense Series, No. 1, July 17, 1940, p. 110, Box 1: Miscellaneous Defense Projects, 1941–42 folder, Albert Thomas Papers (Woodson Research Center, Fondren Library, Rice University, Houston, Texas (hereinafter cited as Thomas Papers); \textit{Houston, XII} (February 1941), 4; and \textit{Houston Chronicle}, July 20, 1941, p. 9C and Oct. 26, 1941, p. 3E. The Corpus Christi Naval Air Station, located approximately 175 miles southwest of Houston was begun in June 1940 and by March 1941, the massive 2,050 acre base welcomed its first class of trainees. By the end of World War II, the base turned out over 35,000 naval airmen and with its various subsidiary training facilities had become the largest naval air center in the world. James L. Haley, \textit{Texas: From Spindletop Through World War II} (New York: St. Martin's Press, 1993), 255–56.

\textsuperscript{16}\textit{Houston Chronicle}, July 20, 1941, p. 9C and Oct. 26, 1941, p. 3E. “Draft” refers to the depth to which a loaded vessel projects below the water line.
boat builder from Connecticut, Frank H. Anderson, as general manager. It also expanded its workforce of rom less than 100 originally to 125 by July 1941 and again to 165 men by August 1942.\textsuperscript{17}

Seabrook Yacht Company launched its first subchaser on January 24, 1942, before a crowd of more than four hundred spectators.\textsuperscript{18} PC-501 held significance as the first combat ship launched in Houston’s history. It also demonstrated the lucrative nature of building ships for the government. PC-501 (later rechristened PS-501 by the navy) cost an estimated $135,000 to build and ushered in a period of intense activity in the old and new yards scattered throughout the Houston area.\textsuperscript{19} As 1942 passed, Seabrook continued to turn out wooden subchasers for the navy, producing four that year.\textsuperscript{20} However, subsequent developments at nearby Brown Shipbuilding would eventually eclipse Seabrook’s status as Houston’s prime Navy yard and it would slip from view during the final three years of the war.

Other area shipyards also found success in the flurry of shipbuilding activity that began in 1940 and intensified after the entry of the United

\textsuperscript{17}\textit{Ibid.}, July 20, 1941, p. 9C and August 9, 1942, p. 14A.

\textsuperscript{18}\textit{Ibid.}, January 25, 1942, p. 15A; \textit{Houston,} XIII (February 1942), 5.

\textsuperscript{19}\textit{Houston,} XII (February 1941), 4.

\textsuperscript{20}\textit{Houston Chronicle,} January 25, 1942, p. 15A; November 25, 1941, p. 6A; January 31, 1942, p. 1A; August 9, 1942, p. 14A; \textit{Houston Post,} January 22, 1942, p. 1,1; August 9, 1942, p. 2,7; and \textit{Houston Press,} January 24, 1942, p. 1B.
States into the war. The Schmidt Barge Yard on Green’s Bayou benefitted from the nation’s desperate problem transporting petroleum from the southwest to the northeast. It employed 650 men and women by June 1943, and had reason to believe that it would need more still.\textsuperscript{21} Beginning before the war, it produced several dozen 10,000 barrel oil barges for use on the Mississippi and Ohio River systems for Debarco Inc., Coyle Lines, and the federal government. In 1943, using steel plate produced at Houston’s Sheffield Steel, Schmidt had the distinction of launching the first ever all-Texas-made steel vessels.\textsuperscript{22}

Some Houston shipbuilding concerns found that the new demands of

\textsuperscript{21}Houston, XIV (June 1943), 12.

\textsuperscript{22}Houston Post, February 14, 1943, p. 1,15; March 13, 1943, p. 1,6; August 8, 1943, p. 1,4; Houston Chronicle, March 13, 1943, p. 5B; and Houston, XIV (July 1943), 34. Other existing yards that received early government and private war-related contracts included Bludworth Shipyards which employed 20–30 repairing tugs and towboats for private firms, the Navy, and the Coast Guard; the Harrisburg Machine Company employing around 100 to build tugs for private business; the Vance Shipbuilding Company which employed around 100 and made oil tugs for private enterprise and steel oil barges for government use on the Intracoastal Waterway. Houston Chronicle, December 15, 1942, p. 13A; July 11, 1945, p. 1A; Houston, XIV (July 1943), 34; and XIV (April 1943), 8. Sheffield Steel was a division of the Ohio-based American Rolling Mill Co. and began construction at a ship channel site in early 1941. Its facilities were expanded in 1942 by funds from Jesse Jones’s Defense Plants Corporation. When the plant was completed it was the only full process steel mill west of the Mississippi and it would continue production in the postwar period, making Houston second only to Birmingham as the leading southern steel producer. W. C. Higdon “From Embryo to Maturity,” (unpublished reminiscences of Sheffield Steel employee, in author’s possession) and Kenneth Warren, The American Steel Industry, 1850–1970: A Geographical Interpretation (Pittsburgh: University of Pittsburgh Press, 1973), 247–48. The Houston area also saw growth of other non-ferrous metals. Dow operated a giant magnesium plant in Freeport, harvesting the mineral from seawater. In addition, the world’s largest tin smelter was erected in Texas City by the RFC’s Metals Reserve Company when European smelting centers were lost to the Allies. Jesse H. Jones with Edward Angly, Fifty Billion Dollars: My Thirteen Years with the RFC (1932–1945) (New York: The MacMillan Company, 1951), 435–39 & 441.
the war period overwhelmed their existing facilities. Many yards, like the Red Head Boat Works, underwent modifications to meet these new requirements. The company had its plant and offices at a landlocked site at Telephone Road and Long Drive. In 1942, its management realized that without a waterfront location, the firm could never win the major government contracts for the construction or repair of large vessels. Intending to relocate, Red Head purchased a little over 17 heavily wooded acres with 1,200 feet of frontage on Green’s Bayou west of town. The company also changed its name to the Texas Shipbuilding Company. Perhaps not wanting to seem overeager to cash in on the government contract bonanza, one of the company’s directors, E.C. Barkley, commented that while the new plant was intended to be a permanent facility, it stood “‘ready at a moment’s notice to assume any obligation the government may desire to entrust to [it] in the mammoth job of winning this war.”’ Despite Barkley’s assertions, it seems fairly clear that the Texas Shipbuilding Company surely intended to benefit from government contracts. By the spring of 1943 the new Green’s Bayou plant was fully equipped and some two hundred employees were engaged in a Maritime Commission contract to build six (later increased to eight) 65-foot wooden tugs for approximately $42,000 a piece.\(^{23}\) Clearly the directors’ thinly disguised intentions had begun to pay dividends.

\(^{23}\) *Houston, XIII* (October 1942), 8; *XIV* (June 1943), 12; *Houston Post*, January 25, 1943, p. 1,1; and *Houston Chronicle*, October 13, 1942, p. 16A.
production was also arguably the most successful. Port Houston Iron Works (PHIW) came into existence in 1935 to service ships that called at the Port of Houston. Its facilities on the Turning Basin included the city’s first one-thousand-ton dry dock, and the company thrived as traffic on the ship channel grew in the last years of the Great Depression. In 1940 the company expanded its operations to include a limited amount of ship construction, turning out tugs along with several vessels known as tenders before the outbreak of war. In 1941 Port Houston won contracts from the War Shipping Administration to repair and convert all U.S. and allied merchant vessels then anchoring at Houston. While the repair work occupied most of the company’s limited space, Port Houston’s energetic general manager J. E. Gough came upon a unique solution that allowed his firm to engage in construction as well. Next to the company’s yard on the Turning Basin, several Houston Port Commission warehouses lay unused and vacant due to the wartime lull in shipping. Gough rented one of the large warehouses and inside erected the machinery necessary to build small iron tug boats. In this unusual indoor shipyard, hulls were completed inside and then moved outside through a corrugated metal wall that had been modified to be removable and the hulls rolled outside. Once outside, a railroad wrecker crane lowered the hulls down the sixteen feet to the water. Engines, fittings, and other finishing touches were completed in the warehouse cum ship factory and then assembled on the boat as it lay

---

24 Houston, XV (August 1944), 20.
moored below. So successful was Gough’s innovative approach to boat construction that Port Houston Iron Works received contracts from the Army in 1942 to build steel tugs and in 1943 to build steel diesel tenders. Later in that same year, the Navy commissioned the yard to repair several Navy ships.

Needless to say, these new contracts led PHIW to greatly expand its labor force. Adhering to the strict Jim Crow standards of Houston waterfront industry, the yard had always been an almost lily-white company, with blacks only allowed to occupy a few custodial and manual labor positions. However, the tremendous wartime growth of war contracts forced the company to modify its strict race-oriented policies. In June 1943, pressed by the Army and Navy contracts, PHIW actively sought “colored laborers” to learn some of the less skilled aspects of shipbuilding. Port Houston Iron Works would not be the only Houston firm to learn that along with the economic opportunities of World War II came elements of social change as well. PHIW, however, did adjust to the new realities of wartime life better than many. Its production earned it favorable recognition for the wide range of war work in which it engaged.

---


26 Houston, XV (August 1944), 20.

27 In a newspaper help wanted advertisement, Port Houston Iron Works offered blacks an hourly wage of 63¢, this was at least 15 to 20 cents per hour lower than the lowest wage paid to white workers. Houston Post, June 13, 1943, p. 2.5.
As testament to this, Port Houston Iron Works received the Army-Navy “E” pennant signifying excellence in production on July 20, 1944, the highest award given to private firms engaged in war work: only 3 percent of firms were ever so honored.28

While minor existing shipyards and repair facilities provide an interesting glimpse into the adaptability of small businessmen in time of war, much more dramatic and important were the experiences of three much larger yards all founded specifically to meet the needs of a nation in the throes of world war. While many of the establishments described above had several hundred employees and boasted war contracts in the hundreds of thousands of dollars, Houston Shipbuilding Corporation, Brown Shipbuilding, and San Jacinto Shipbuilders each employed many thousands of workers and received contracts worth tens, even hundreds of millions of dollars. Two of the three “war babies” were locally financed and run, the third was a subsidiary of a national corporation. All three were built from the ground up and most of their employees had little or no experience working in a shipyard or even an industrial setting.29 Their story is perhaps the most dramatic example of the changes wrought in Houston by World War II.

28 Houston Chronicle, March 28, 1943, Sunday Art Gravure Magazine, 8; Houston Post, July 21, 1944, p. 10; and Houston, XV (August 1944), 20.

29 Houston, XIV (June 1943), 2 & 4. In March 1943, of the 22,000 workers employed at the Houston Shipbuilding Corporation, only 8 percent of them had prior work experience in shipyards. Houston Post, March 20, 1943, p. 2.
The industrial enterprise that would come to be the largest single employer in World War II Houston was born out of the alliance between two unlikely partners. Todd Shipbuilding Corporation was an old established East Coast company. Its yards in New York and New England had been very active during World War I and were one of the three largest builders of merchant tonnage in the interwar years.\textsuperscript{30} Seeking to expand its presence outside of the northeast, in January 1941 Todd forged an alliance with California construction tycoon and industrialist Henry Kaiser. This partnership sought to capitalize on the growing likelihood of the U.S. becoming involved in a European war and finding itself desperately short of cargo vessels.\textsuperscript{31} The alliance anticipated by two months the passage of the Lend-Lease Act that would require much of the U.S. merchant fleet to transport supplies to Great Britain and the Soviet Union.\textsuperscript{32} Todd and Kaiser agreed to open three new shipyards to build the EC-2 type emergency freighters based on a design with which the former had been


\textsuperscript{32}The Lend-Lease Act, which authorized the extended loan of destroyers to Great Britain in return for the longterm lease of bases in the Atlantic and Caribbean, was signed into law on March 11, 1941. In many ways, the act confirmed that the United States favored the Allied cause in what was becoming a global conflict and would eventually become actively involved. Gerhard L. Weinberg, \textit{A World at Arms: A Global History of World War II} (New York: Cambridge University Press, 1994), 241–44.
successful at creating in large numbers of ships for the British government in a short period of time.\textsuperscript{33} Two of the three new yards were located on the west coast and run by Kaiser: the California Shipbuilding Corporation ("Calship") at Los Angeles and the Oregon Shipbuilding Corporation at Portland. The third was placed on the Gulf Coast and run by Todd, in a city that had been a deepwater seaport for less than three decades. Houston Shipbuilding Corporation (HSC) was born.\textsuperscript{34}

Todd moved quickly after the January 6, 1941 announcement to solidify its plans for the Houston yard. A little more than a week later the company announced in the local press that a location on the ship channel had been selected and that work would begin to prepare it for construction. About eight and a half miles downstream from the Turning Basin, the site was unusual. It encompassed fifty-five acre Irish Bend Island—formed when a sharp curve in Buffalo Bayou was straightened during the creation of an early version of the Ship Channel in 1904 in order to minimize the

\textsuperscript{33}Kaiser had built 60 ships based on a similar design for the British Ministry of War Transport in 1940–41. A. A. Hoehling, \textit{The Fighting Liberty Ships: A Memoir} (Kent, Ohio and London: Kent State University Press, 1990), 29–30 and Mitchell, \textit{Every Kind of Shipwork}, 129 & 131. The British called the EC-2 "Plain Jane" for its ungainly appearance. Americans would come to know the freighter by an even less flattering moniker, "ugly ducklings"—the result of FDR’s remark upon seeing the designs: "I think this ship will do us very well. She’ll carry a good load. She isn’t much to look at, though is she? A real ugly duckling." Only after some concerted public relations attention did a more charitable nickname emerge, the "Liberty Ship." John Gorley Bunker, \textit{Liberty Ships: The Ugly Ducklings of World War II} (Annapolis, Maryland: Naval Institute Press, 1972), 6 (quote) and 9.

\textsuperscript{34}Mitchell, \textit{Every Kind of Shipwork}, 129 & 131 and Lane, \textit{Ships for Victory}, 53–55.
dangerous curve—along with nearly 200 acres on the mainland. Until Todd selected the island it was known primarily as one of the best duck hunting spots in the area, its marshy wooded terrain providing ideal refuge for migrating water fowl. The property was technically owned by the Harris County Houston Ship Channel Navigation District, which had purchased it between 1920 and 1926 from private owners. The Houston Shipbuilding Corporation agreed to lease the island and property on the south bank of the ship channel for one dollar per year.

While Irish Bend Island's topography made it a haven for wildlife, it was a far less favorable environment for the sort of major industrial plant that Todd had in mind. After approval of the lease had been received from the state legislature, workers set to the massive task of filling in the old streambed of Buffalo Bayou to connect the island to the south bank and recreate Irish Bend as a peninsula. For fill they used the earth excavated from the launching basin and ways along with thousands of tons of soil moved to level the site for construction. In all over 500,000 cubic yards of filling was done, along with 1,100,000 cubic yards of dredging, and 350,000 cubic yards of other excavation were necessary to prepare the site.

---


36*Houston Chronicle*, January 14, 1941, pp. 1A & 3A; *Houston*, XII (February 1941), 3; and XII (November 1941), 4–5 & 39.

37*Houston*, XII (February 1941), 3–4.
for construction.38 Even with the large amounts of earth that was moved, the ground was not deemed stable enough to support the loads that would come from the various buildings, crane runways, and shipways of the yard. Therefore, over 17,000 timber piles were driven into the ground to act as additional foundational support. In addition, along the water side of the site a bulkhead was constructed of wooden piles and over 4.5 million pounds of steel sheeting material to prevent erosion.39

With the site work done in late spring of 1941, construction began on the massive shipyard facilities required to produce at least the minimum of twenty-four cargo vessels that had already been contracted for. The original plans for what came to be known as the Irish Bend yard called for six ways; but as the United States was drawn closer to war in March 1941, this number was increased to nine by the Maritime Commission, which was funding the project.40 The layout of the yard at the Houston Shipbuilding Corporation made the most of modern advances in maritime construction. Unlike older forms of shipbuilding in which vessels were constructed from the ground up on the ways, vessels at HSC and other emergency installations used a novel factory approach. In this so-called “through” method, the guiding principle was assembly rather than construction, with

---

38Ibid., XII (November 1941), 4.
39Ibid., XII (November 1941), 4.
40Houston Chronicle, March 28, 1941, p. 1D.
a premium put on speed and the efficient use of semi-skilled labor. Steel
plate and other materials arrived at the yard on railroad cars that could be
unloaded into what was essentially a long indoor fabricating shop. There it
was assembled into the various component sections of an EC-2 or “Liberty
Ship.” After completion, these prefabricated sections were then wheeled
on rails from the indoor factory building outside to one of the nine ways.
Once in position, the various pieces of the ship were welded together to
create a finished product and launched into the ship channel.\textsuperscript{41}

Much of the clearing of the site along with the filling and grading
was done by Houston construction company Brown & Root, which began
work in early March 1941 after signing a $1,100,000 contract. Under the
terms of the same agreement, Brown and Root also did much of the initial
construction of the shipways, crane runways, bulkheads, railroads, roads,
and other parts of the yard.\textsuperscript{42} From March on, at least 2,000 workers
labored during a particularly wet spring to bring the yard to a point where
limited ship construction might occur. Construction of the yard had only
just begun in March when President Roosevelt called for an expansion of
the emergency ship program. In response the Todd/Kaiser partnership
agreed to add three additional ways to the Houston yard.\textsuperscript{43} This expansion

\textsuperscript{41} \textit{Houston Port Book}, May 1942, p. 45 and \textit{Houston, XIV} (June 1943), 10–11 &
46–47.

\textsuperscript{42} \textit{Houston Chronicle}, March 5, 1941, p. 1.

\textsuperscript{43} \textit{Ibid.}, March 28, 1941, p. 4D.
of the plant had practical implications that caused delays in construction. The increased number of workers overwhelmed the existing road network in this relatively isolated and undeveloped part of the Houston area. The sole entrance to the plant site was via a narrow, two mile spur off the Houston-La Porte Highway.\textsuperscript{44} This two lane shell-paved road grew choked with traffic at the beginning and end of every shift. The management of HSC realized that traffic problems would only grow worse when the yard reached full production and employment reached perhaps 10,000 or more workers. Therefore, in August company leaders met with Harris County Judge Roy Hofheinz to ask for expansion of the existing road to the shipyard or the construction of altogether new ones. Hofheinz agreed to spend $65,000 of emergency county funds to build a new concrete access road from La Porte Highway all the way to a new 4,000-car parking lot that the company had recently completed on the west side of the plant. The new 1.6 mile spur road was expected to be used by 6,000 cars per day.\textsuperscript{45}

\textsuperscript{44}Houston \textit{Press}, March 27, 1941, pp. 1 & 4.

\textsuperscript{45}Houston \textit{Chronicle}, August 6, 1941, pp. 1 & 13; December 5, 1941, p. 6B; and \textit{Houston}, XIII (January 1942), 48. Never one to leave an opportunity unexplored, after committing Harris County to pay for the shipyard access road, Hofheinz turned around and petitioned the federal government to foot the bill. He argued that as HSC was technically a government-owned project, Washington should pay for the road construction. After months of inaction on the project, the Federal Road Bureau finally gave its approval to the project in February 1942. Houston \textit{Chronicle}, February 27, 1942, p. 7B. For an interesting account of the life and career of County Judge, and later Houston Mayor, Roy Hofheinz, see: Edgar W. Ray, \textit{The Grand Huckster: Houston's Judge Roy Hofheinz, Genius of the Astrodome} (Memphis: Memphis State University Press, 1980).
obstacle arose that threatened the shipyard’s ambitious timetable of a “substantial number” of vessels being launched in the calendar year 1941. Even though the yard itself was not yet completed, work had begun on two vessels whose construction proceeded as the yard rose up around them. Beginning on August 6th, disputes between labor unions represented on the site and prime local contractor Brown & Root deteriorated into work stoppage and picketing. The construction firm had a longstanding reputation hostility to organized labor and its unwillingness to run a “closed shop” site caused significant problems. When members of Local 716 of the Electrical Workers’ Union (A.F.L.) learned that non-union men were being used on outside electrical work in late July, they lodged a formal complaint. After over a week of inaction by the company, the union set up pickets on August 6th.46 Many of the mostly A.F.L.-affiliated workers at the site honored the picket line, and only an estimated 700 of 2,200 workers reported for work August 6–15, bringing work on both the yard and the two ships under construction to a virtual standstill.47 As the work stoppage affected the progress of vessels deemed vital to the national preparedness effort, the strike that began as one local’s response to a contractor’s labor policy quickly came to involve the federal

---

46 Houston Chronicle, August 7, 1941, pp. 1 & 6.

government.\textsuperscript{48} Both Assistant Secretary of Labor Daniel W. Tracy and Admiral Emory S. Land, chairman of the United States Maritime Commission, personally intervened and requested that local 716 cease its strike and submit to a hearing at the Maritime Commission’s offices in Washington on August 20th.\textsuperscript{49} The meeting resulted in a lengthy letter written by Admiral Land to explain the Maritime Commission’s policies on labor disputes and work stoppages. In brief, the epistle stated that while collective bargaining was a right guaranteed to all workers, labor unions with grievances could not resort to work stoppages but were required to follow very specific procedures involving hearings before federal arbitrators. Furthermore, Land wrote, both management and labor must maintain “a reasonable attitude” towards each other and in regards to their work for the national defense effort.\textsuperscript{50} While August’s labor dispute was settled with an agreement between Electricians’ Local 716 and Brown & Root, it did not mark the end of labor problems at the Houston Shipbuilding Corporation construction site. On October 1941, Carpenters Local 213 (A.F.L.) walked off the job to protest Brown & Root’s refusal to deal with it as sole bargaining agent for all carpenters. While the carpenters engendered sympathy strikes from the Teamsters and

\textsuperscript{48} \textit{Ibid.}, August 12, 1941, p. 7A.

\textsuperscript{49} \textit{Ibid.}, August 15, 1941, p. 1.

\textsuperscript{50} \textit{Ibid.}, August 22, 1941, p. 2A.
Piledrivers' unions, this walkout did not result in a complete shutdown of
the entire yard. Unlike the strike in August, members of the Houston
Metal Trades Council—an umbrella labor organization encompassing
blacksmiths, welders, and other metal crafts workers—refused to honor the
picket lines. They argued that since the carpenters' strike was against
Brown & Root regarding the construction of the plant, their work for the
Houston Shipbuilding Corporation on ship construction was separate and
thus should remain unaffected.\textsuperscript{51} Like the earlier strike, the dispute
between Brown & Root and the striking unions also had to go to
Washington to be resolved. By October 16th construction had returned to
a normal level, with only about sixty truck drivers still refusing to return
to work.\textsuperscript{52}

As mentioned earlier, the Houston Shipbuilding Corporation was
designed to produce a specific type of ship, the EC-2 or "Liberty Ship."
The story of the Liberty Ship is one of the more interesting production
tales of World War II. The vessel was created largely in response to the
strain put on the American merchant fleet by the demands of Lend Lease
shipments to Britain and the Soviet Union. Among the prime movers
behind the creation of the Liberty Ship was the aforementioned California
industrialist and entrepreneur, Henry Kaiser. Kaiser built sixty similar
vessels in 1940–41 for the British government to carry goods to that
\textsuperscript{51}\textit{Ibid.}, October 12, 1941, pp. 1A & 14A and October 14, 1941, pp. 1A & 4A.

\textsuperscript{52}\textit{Ibid.}, October 16, 1941, pp. 1A & 16A.
besieged country at the time of the Battle of Britain. Kaiser was not a shipbuilder, but he had a knack for solving tricky problems of production.\textsuperscript{53} To deliver the agreed number of ships in the shortest period of time, he and his designers created a basic, easily reproducible design. Modifying the old British “tramp steamer” that had been a mainstay of the world’s merchant fleets since the 1870s, the so-called “Ocean Class” was designed to be rapidly mass-produced. Unlike conventional maritime construction, it utilized very few rivets, relying instead on the improved welding techniques developed in the twenties and thirties to join steel plates together. Besides speed, reliance on welding also allowed shipbuilding techniques to be taught to even the least experienced worker in a matter of days and weeks rather than months and years. Drawing on the mainly inexperienced work force available in the late depression, Kaiser’s California shipyards represented the first true incorporation of mass production into shipbuilding.\textsuperscript{54}

So successful was Kaiser’s record of production that his designs for the “Ocean Class” cargo transport ship were embraced by the U.S. Maritime Commission, the government agency charged with building the

\textsuperscript{53}Henry Kaiser was famous for his work on massive public works projects. His construction firm built the Hoover Dam on the Nevada/Arizona border, the San Francisco Bay Bridge, and the Grand Coulee Dam in the Pacific Northwest. Lane, \textit{Ships for Victory}, 54–55.

U.S. merchant fleet. The commission was able to persuade President Roosevelt of the merits of a design that he, a marine enthusiast and former Assistant Secretary of the Navy, described as "A real ugly duckling." 55 Despite his feelings about what the Maritime Commission had designated the EC-2 (emergency cargo, large capacity), FDR was impressed by the combination of features that made the vessel ideal for the nation's accelerated preparedness program. It was fast, could carry large amounts of cargo, and, as Kaiser had amply demonstrated, could be built in a fraction of the time of conventional ships. 56

Another attractive feature of what came to be called the "Liberty Ship" lay in its propulsion system. With the scarcity of more sophisticated diesel and turbine engines brought on by the acceleration of war production after 1940, designers relied on an old-fashioned three-cycle 2,500 horsepower engine that turned a single drive shaft and propeller, a design from a nineteenth-century model. Despite not being the world's most efficient engine, the advantages of this sort of power plant were several. First, having been refined over the years, the operation of such


56 In terms of technical specifications, the standardized design of the EC-2 was as follows: Length—441 feet; Beam (maximum width)—56 feet; Draft (amount of the ship underwater)—27 feet (loaded); Top Speed—11 knots; Gross tonnage (unloaded)—7,500; Cargo capacity—9,000 tons. The cargo capacity translates to about 440 light tanks, 300 freight cars, or over 2,800 jeeps. Ibid., 30–31. For a useful treatment of the successor to the Liberty Ship, the Victory Ship, see: L. A. Sawyer and W. H. Mitchell, Victory Ships and Tankers (Cambridge, Md: Cornell Maritime Press, 1974).
three-cycle steam engines was almost trouble free. Second, due to its simplicity, almost anyone with mechanical aptitude could operate and repair such an engine. And third, interchangeable replacement parts for such engines were easily manufactured and distributed.\footnote{Ibid., 30–31 and Mitchell, Every Kind of Shipwork, 131.}

Liberty Ships lived up to their billing in terms of ease of construction. Eventually 2,770 were constructed at yards around the nation at a total cost of only $1.5 billion. The assembly-line methods of construction utilizing welding exclusively allowed production to reach almost absurd rates. As the Liberty Ship yards hit their production peak in 1943–44, they lowered the average construction time to around a month per vessel. In one celebrated publicity stunt, Kaiser’s lead yard at Richmond, California, turned out the \textit{Robert E. Peary} in an incredible 4 days, 15 hours. Despite their mass-produced nature, Liberty Ships also proved remarkably durable. While they proved lightly armed for the dangerous North Atlantic convoy duty in which many were used, only a little over 200 were sunk during the war. Despite the celebrated cases of several ships cracking due to bad welds, most served well throughout the war and many continued to do yeoman service for years in the merchant fleets of the world 430 were still in service as late as 1970.\footnote{Hoehling, Fighting Liberty Ships, 152, 32, 31, 39, 152, & 148.}

Once construction of the yard was fully completed in late fall of 1941, the Houston Shipbuilding Corporation could turn its attention fully to
the production of Liberty Ships at as rapid a rate as possible. At first, however, this pace often seemed halting. While the management of the yard was led by Arthur W. Stout, an experienced boat builder with years as the chief draftsman at Todd’s New Orleans Todd-Johnson yard, most workers at HSC had no experience in shipbuilding and little if any experience in industrial settings at all. Understandably this resulted in a period of adjustment during which production seemed to move at near glacial speeds. In fact, of the sixteen yards producing Liberty Ships by 1943, HSC was one of four targeted that year by the Truman Committee for criticism of its record of production. Its first keels were laid in July 16, 1941, and the first launch, that of the S.S. *Sam Houston*, did not occur until March 29, 1942, eight months later. This fairly slow rate of production continued for much of 1942 but began to pick up later in the year, and by year’s end thirty-four ships had been delivered to the

59 The Special Committee Investigating the National Defense Program was chaired by Missouri Senator Harry Truman and popularly came to be known as the Truman Committee. In July 1942 it sharply criticized HSC, Delta Shipbuilding Co. of New Orleans, Alabama Shipbuilding & Drydock Co. of Mobile, and the South Portland Shipbuilding Corporation of South Portland, Maine for unsatisfactory performance. In its January 1943 report, however, the committee recognized the progress made by the Houston yard in the previous half year but still adjudged its record “relatively unimpressive” when compared to other more efficient yards. At that point its average man hours per ship stood at 964,850, which placed it second highest among the original group of yards given contracts in the spring of 1941. United States Senate, 78 Cong., 1 Sess., *Investigation of the National Defense Program, Additional Report of the Special Committee Investigating the National Defense Program Pursuant to S. Res. 71 (77th Congress) A Resolution Authorizing and Directing an Investigation of the National Defense Program—Interim Report on Barges* (Washington: United States Government Printing Office, 1943), 14 & 33. (Hereinafter cited as *Investigation of the National Defense Program*).

60 *Houston Post*, March 30, 1942, pp. 1,1 & 1,8.
Maritime Commission.61

The improvement in HSC’s production rate may not have impressed the Truman Committee, but the Maritime Commission proved more sympathetic to the difficulty of establishing a shipyard in an area with no significant shipbuilding tradition. It cited HSC in August 1942 as the yard making the greatest improvement that month in speed and number of vessels launched.62 As further testament to the Maritime Commission’s faith in the Houston yard, on November 16, 1942, the commission presented the yard with its “M” pennant, the highest production award it could bestow. The recognition acknowledged the strides made in cutting construction time on every one of the previous thirteen vessels. The Sam Houston had taken 254 days, but by November the A. P. Hill was delivered in just 79 days, setting a record for all Gulf Coast yards.63 As an added show of confidence, the Maritime Commission also increased the yard’s contract for production for 1943 by thirty-one ships.64

One of the primary reasons for Houston Shipbuilding Corporation’s increased efficiency was the improved performance of its workforce. With high rates of turnover and ever-increasing demands by the Maritime

61Investigation of the National Defense Program, 33.

62Houston Post, September 4, 1942, pp. 1 & 4 and Houston Chronicle, September 5, 1942, p. 2A.

63Houston Post, November 17, 1942, pp. 1,1 & 1,7.

64Ibid., January 6, 1943, p. 1,
high rates of turnover and ever-increasing demands by the Maritime Commission for more ships delivered more quickly, HSC faced the dual problems of attracting enough workers and ensuring that they were efficiently trained and integrated into the yard's labor force. The lure of high wages was enough to entice many; rural people especially—with the harrowing experience of the Great Depression fresh in their minds—proved ready to leave the farm behind and try life in the city. Even among urbanites the high wages of work at Irish Bend proved attractive, and they too sought jobs there in large numbers. In March 1943 the average weekly wage at HSC was $54, almost twice the mean industrial wage in the city.65 With an adequate labor supply assured, HSC faced the task of training thousands of new employees each year in specialized skills such as welding, burning, chipping, and a host of others. As a first step, the company opened in 1941 its on-site training center, referred to locally as "Irish Bend University."66 Here trainees earned a wage while they participated in programs that varied according to the difficulty of the skill being mastered. But even with its own training programs, and especially in the peak of the yard's production in 1943–44, HSC was forced to seek out alternative ways to prepare programs for its expanding and often fluctuating workforce. Almost from the beginning of its existence, the company cooperated with the Houston Independent School District’s

---

65 Houston Chronicle, March 30, 1943, p. 3A.

66 Houston Post, August 1, 1943, p. 1.
vocational education program. Skilled shipbuilders spent part of their time conducting classes at the Vocational School on Fulton Street to prepare students to move directly into positions at the shipyard. While the company provided many of the instructors for this school, funding came largely from government sources. In 1941, for example, the need for trained workers became so apparent that nearly half of Texas’s $582,873 grant from the federal government for the purposes of funding vocational education for national defense was earmarked for shipbuilding training in Houston.  

HSC also employed many workers who had learned skills at the National Youth Association (NYA) training center in South Houston. At that location, both men and women received instruction in welding while being paid 63¢ per hour by the shipyard for their eight-hour day. The NYA center also provided dormitory space to men who had migrated to Houston in search of a job. Between the South Houston school, the Fulton Street School, and Irish Bend University, HSC claimed to have trained over 4,100 welders alone between June 1942 and June 1943.  

Indicative of how important shipbuilding had become to the Houston area economy, several private training schools also sprang up promising.

---

67 Houston Chronicle, August 20, 1941, p. 3A.

68 Houston Post, July 24, 1944, p. 5. It was reported in 1943 that men boarding at the old NYA site included men from San Antonio, Palestine, Cuero, San Marcos, and other locations. The Maritime Commission took over the South Houston NYA site for the express purpose of training workers for HSC there. Houston Chronicle, June 25, 1943, p. 6A.

69 Houston Chronicle, June 25, 1943, p. 6A.
students the best possible wages upon graduation. One such school, the Houston School of Shipbuilding, founded in April 1942, advertised in the Post that in the four months of its existence it had already trained "several hundred" students who had found high-paying work.\(^70\) Another, the Bell School of Welding, claimed to have trained hundreds, many of whom had passed the shipyard welding tests after only twenty hours of class time.\(^71\)

Well-trained workers were HSC's best assurance of maximum production. As they gained familiarity with shipwork and life in a factory setting, their efficiency naturally improved. Even so, the company had some difficulty in retaining those workers after they had grown accustomed to their work. Labor turnover was a constant problem.\(^72\) The reasons for this are not entirely clear. The pay at shipyards was certainly much higher than could be expected in almost any other industry in town. Apparently, labor in the regimented atmosphere of assembly-line style production proved difficult for some workers to manage. Part of the problem lay in the great diversity of HSC's workforce. The high wages paid by HSC and other shipyards attracted a wide variety of workers from diverse locations and with varied backgrounds. A large portion came from

\(^70\) Houston Post, July 27, 1942, p. 1.

\(^71\) Houston Chronicle, July 12, 1943, p. 9A.

the city itself, but a significant segment of the yard’s working population appear to have come from rural areas of Texas, Oklahoma, and Louisiana, and some of these urban newcomers grew disenchanted with the pace of work and frightened by the frequent accidents to which they were witness. These newcomers to city life found comfort in each other and in the maintenance of their traditions of religion and strong kinship ties. HSC published an employee bi-weekly newspaper, the Ways, that printed light shipyard news of births and local color stories as well as news from the various hometowns and areas of workers. The Houston newspapers also sought to cater to this large new audience of rural people who had moved to the city to work in the booming war industries. The Chronicle, Post, and Press all printed news items from rural counties and towns in East Texas and western Louisiana. The Post made an especial effort to appeal to workers in the war plants, notably HSC. A Post writer, Morris Frank, noted for his folksy down-home style, frequently did informal profiles of workers at the yard and other war plants in the Houston area. Frank was from Lufkin in East Texas, and he described workers as if they were all his former neighbors. Every worker seemed to have been “an old buddy of mine” or “my chum” to Frank with whom he talked about “the

73 War Manpower Commission, “Manpower Problems, Programs and Results of Programs in Houston Labor Market Area,” April 10, 1944, 11–12, Box 15, Miscellaneous Houston Chamber of Commerce, 1943–46 Folder, Thomas Papers. The rate of injuries at HSC was extremely high reaching 800 per day in mid-1943. To meet the medical needs of its workers, the company funded a hospital manned by eight doctors and twelve nurses employed. Dallas Morning News, June 13, 1943, clipping in Vertical File, Brown, Herman (Center for American History, University of Texas, Austin, Texas).
old cornbread and pepper sauce days.” He described the remarkable transformation of “country boys” into industrial workers as they learned both the skills of shipbuilding and living in a city.74 Along with Morris Frank’s columns the Post published “Men, Women, & Ships” weekly feature that profiled various workers at HSC and their backgrounds and home lives.

Among the more exotic workers at HSC were several professional wrestlers including world champion Louis Thesz and Al Lovelock, who teamed with another wrestler at Brown Shipbuilding named Gene Blakeley to create the formidable shipyard team.75 But perhaps no one better illustrated the diverse nature of HSC’s workforce than Alexander Kotchetovsky. Born in Moscow, he was trained at the Imperial Ballet School and became a dancer with the famed Diaghileff Ballet Troupe. He danced professionally from 1914 to 1926 when he retired to run a dance school in New York City. In 1930 Kotchetovsky moved to Houston to open another dance school. With the beginning of the war emergency, the dance instruction business declined and he found work in February 1943 in the HSC pipefitting department as a production checker (quality control). With a great deal of understatement, the former Russian dancing master

74 Houston Post, November 6, 1942, p. 1.

75 The popular shipyard tag team of Lovelock and Blakeley frequently grappled with the team of Miguel Torres and Gorilla Macias—together called “the sinister menace from Mexico”—at the City Auditorium downtown on Friday and Saturday nights. Houston Chronicle, December 14, 1942, p. 4B and Houston Post, November 12, 1942, p. 2, 1.
declared of his work at the shipyard, "[i]t's so different from what I've been doing all my life. I feel so relaxed. I like it."\textsuperscript{76}

Not every worker was as sanguine about life at HSC as Kotchetovsky. A Dallas Morning-News writer toured the HSC yard and his description gives a hint of what work there must have been like:

I dropped down into the searing, oppressive depth of a giant hull in the Houston Shipbuilding yards to see a ship being born. No words could describe the thunderous bedlam existing in the incredibly brief gestation period. It seemed a thousand giant woodpeckers with rivetlike bills were beating a bolero against steel. Only lip readers can converse in the thunderclap of those rivets. Men and women dangled on superstructure, clothing drenched with sweat, looking like Martians cousins in welding masks. I've seen women in every conceivable type of wartime industry—in aircraft factories, munitions and tool plants—but never have I trembled with such pride. Frail slacked girls, masked against the eerie glow of torches and dancing sparks, tucking in the seams of a 10,500 ton ship amid furnace heat. The eternal noise of those woodpecker rivet machines would match any artillery barrage. Tough, physical work. It was little wonder that most of them slept as they slumped into automobiles that streamed off the grounds as shifts changed.\textsuperscript{77}

Clearly, in such a situation the maintenance of worker morale proved especially challenging. Frantic work schedules dictated by the national emergency and governed by the demands of efficient production were enough to wear down even the most motivated workers. Like other war plants across the nation, the Houston Shipbuilding Corporation spent much

\textsuperscript{76} Houston Chronicle, January 9, 1944, Sunday Art Gravure Magazine, 2.

\textsuperscript{77} Dallas Morning-News, June 13, 1943, no page, clipping in Vertical File, Brown, Herman (Center for American History, University of Texas, Austin, Texas).
of the period between 1941 and 1944 operating around the clock, six or seven days a week. The work day was divided into three shifts, the day, swing, and night or “graveyard.” The long hours without respite certainly contributed to the problem of absenteeism as even the most dedicated worker occasionally took a day off to prevent the onset of utter exhaustion. Working the graveyard shift could be especially stressful. Night workers often found that their only free time after work occurred while most of the rest of the city was asleep. This situation could, and did, lead to tension within families as fathers and husbands—and mothers and wives—found it difficult to actively participate in their families’ lives. Even those single members of the graveyard shift found their existences disrupted by their work schedule. Many stores did not open early enough to allow night workers to do their shopping. Most movie theaters and restaurants were also closed, seriously limiting the number of social opportunities for those who worked from 11:30 P.M. to 7:30 A.M.. 78 Recognizing these problems, several members of the graveyard shift approached the yard’s grievance committee to complain about having worked for six months without a single day off. They requested that the yard management sponsor a dance to be held when the night workers could attend. Recognizing the legitimacy of this request, management agreed to help put on a trial dance that began at 10:00 A.M. and ended at 4:00 P.M. on September 21, 1942. This so-called “Hoot Owl Ball” proved wildly

\[78\text{Houston Chronicle, December 10, 1942, pp. 1 & 14A and Houston Post, January 19, 1943, p. 11.}\]
successful. Held at the End o’ Main nightclub at Main Street and Bellaire Boulevard, the dance attracted a good number of the 2,700 plus members of the graveyard shift. Despite the bright daylight outside, the “hoot owls” danced and enjoyed themselves immensely. So successful was the Hoot Owl Ball that shipyard management agreed to help sponsor similar events in the future. Besides providing an opportunity for social interaction and diversion, some workers felt that the Hoot Owl Ball “show[ed] the public that shipyard workers, especially those on the graveyard shift, lived like all other people.”

Among those HSC employees at the Hoot Owl Ball was a sizable number of women. When first put into operation, the Irish Bend yard was staffed almost entirely by white men. A handful of women worked in clerical positions in the various offices of the plant. Likewise, a few blacks found work as custodians and unskilled laborers. In fact, by unwritten policy blacks were prevented from acquiring the skills necessary to attain the higher-paying and more demanding jobs at the yard early in the war.

As the conflict dragged on however, HSC like many war plants found itself

---

79 Houston Post, October 4, 1942, Sunday Magazine, 5.

having to hire many more women, African Americans, and even the
disabled to fill every job at the yard. In a city as conservative as
Houston, this was a radical departure from the norm. When women and
blacks first appeared on welding crews at HSC, there was no general public
outcry but subtle signs in the local press did reveal the slight unease with
which some viewed this change in the workforce. Instead of any outright
criticism of these new workers, their presence in the shipyard was
described in a vaguely condescending manner. For instance, in the August
13, 1944, Art Gravure magazine of the Houston Chronicle, a photo spread
depicts women and the different color hats they wore in different jobs in
working at HSC. The women are depicted with captions that described
how they protected their hair from the rigors of being covered by a helmet
all day long. While certainly not a devastating attack on women in the
workplace, such an article did mildly demean the essential work that they
performed. By the end of the war more than 10 percent of HSC employees
were women, and they did virtually every job at the yard. Had it not been
for them, the company would no doubt not have been able to turn out the

---

81 In an article that appeared in the February 14, 1943, issue of the Post, various
handicapped war workers earned mentions. The Texas Department of Education ran a
vocational rehabilitation center in the Esperson Building downtown. Here amputees, the
blind, and others with handicaps learned skills like welding and machine operation that
made them employable in war industries. HSC employed a number of such workers,
including Clarence Powell who was profiled in the Post article. He lost most of his right
arm in a truck accident in 1931 and had not been able to find steady work in eleven years
before finding a position as an electric welder at HSC. Houston Post, February 14, 1943,
p. 1,11.

82 Houston Chronicle, August 13, 1944, Sunday Art Gravure Magazine, 10.
228 Liberty Ships and tankers that it did.

Besides turnover, the other major hindrance to peak production was the high level of absenteeism that HSC struggled with during the entire war. Rates reached as high as 20 percent at times, but generally between 8 and 12 percent of the workforce was absent on any given day, usually higher on Monday and lower on Friday, which was pay day.\textsuperscript{83} In March 1943 the company issued statistics showing that 900,000 man days had been lost due to absent workers. By its calculations, HSC claimed that without these absences eight more Liberty Ships could have been completed to date (54 instead of 46).\textsuperscript{84} The company was not alone in experiencing such high rates of absenteeism; other Gulf Coast yards had similar difficulties with attendance. While a high absentee rate may reflect the grueling and dangerous nature of shipwork, it also probably pointed to the largely rural origins of the labor force of those yards. Often not accustomed to working by the dictates of the time clock, some of these newcomers to cities may simply have elected not to show up for work on occasion. The high level of wages may have also played a role in the likelihood of workers to be absent. For many, their shipyard earnings were more cash than they had ever had. This brought with it a sense of security and at times complacency. Interestingly, HSC also noticed a correlation between the tenor of war news and the rate of absence among its workers. When

\textsuperscript{83}\textit{Ibid.}, March 5, 1943, p. 16A.

\textsuperscript{84}\textit{Houston Post}, March 5, 1943, p. 1,6.
reports were good, fewer people showed up for work. When news from the front seemed less positive, a far higher percentage of workers would appear. This would seem to indicate workers’ feelings of responsibility for supporting the war effort grew more intense when the nation seemed desperate.85

The popular reaction to the company’s disclosure of its problems with absenteeism was overwhelming and negative. Newspapers railed against the shipyard “loafers” who by earning high wages had become “fat and sassy.” Prominent Texans from Lieutenant Governor John Lee Smith to U.S. Senator W. Lee “Pappy” O’Daniel publicly criticized the laziness of workers at HSC. So damning was this response that the shipyard’s grievance committee felt compelled to issue a statement refuting some of the charges. The statement argued that, in fact, the average absentee rate for the yard was 8.5 percent, less than the statewide rate of 8.8 percent. Additionally, the workers pointed out that the age limit among them had risen considerably, with the drafting of young men into the armed services thus leaving the workforce dominated by older men and women, many of whom were unused to hard manual labor. Finally, the workers’ statement pointed out that with the influx of war workers to Houston, the scarcity of housing had caused many employees of HSC to find lodgings as far away as sixty miles in “Humble, Hempstead, Liberty, Cleveland and other towns,”

85Ibid., March 20, 1943, p. 2; March 5, 1943, p. 1,6; and March 7, 1943, p. 1,6.
causing many to occasionally miss work.\textsuperscript{86}

Even for those HSC workers who lived in Houston, getting to work could prove problematic.\textsuperscript{87} Recall that the shipyard was built twelve miles from downtown and the only direct route for automobiles lay along the narrow La Porte Highway. Never designed to accommodate the crush of traffic caused by the growth of war industries along the ship channel, at the change of shifts at HSC and other plants the road resembled a massive traffic jam. In addition, while shipyard workers received extra gasoline rationing coupons because of their work in national defense, many found automobiles an overly expensive luxury during the war years. In response to these varied transportation problems, HSC management and the Maritime Commission acquired forty-two interurban train cars from New York and brought them to Houston to shuttle workers to and from the yard. The twelve car “Shipyard Special” began operations on February 1, 1943, making one round trip per shift (day, swing, and graveyard).\textsuperscript{88} HSC workers paid $2.25 per week to travel from the Congress Street

\begin{footnotes}
\item [86] Houston Chronicle, March 30, 1943, p. 3A.
\item [87] The commuting problems experienced by HSC workers were considered severe enough to merit their own section in the February 1943 War Manpower Commission report on labor conditions in Houston. See: War Manpower Commission, Region X, “Labor Market Survey Report on the Houston, Texas, Area,” February 1, 1943, p. 6, Box 1, Miscellaneous Defense Housing, 1942–44 folder, Thomas Papers.
\end{footnotes}
Station downtown and made stops at Wayside Station (between 66th and 67th Streets), Harrisburg, and Pasadena before reaching Irish Bend. The trip lay along the tracks of several different rail lines (Southern Pacific, Missouri Pacific, International & Great Northern, Galveston, Houston & Henderson, and the Port Terminal Belt Railway), all of which willingly allowed the shipyard train use of their tracks. The Shipyard Special proved an attractive alternative to travel by car, and between its opening in February 1943 and June 1944 it carried 1,034,100 passengers, an average of almost 3,500 per day. At its peak month of ridership in May 1944, the train carried almost 83,000 riders. By the end of May 1945 the train was deemed unnecessary and canceled. In all, it carried 1.8 million passengers in twenty-eight months of operation, for a monthly average of nearly 65,000. Without the Shipyard Special it is doubtful that some in Houston’s widely flung metropolitan area would have been able to hold

---


90 Houston Post, June 11, 1944, p. 1,13.

91 Houston Chronicle, June 25, Sunday Art Gravure Magazine, 5.

92 Ibid., May 31, 1945, p. 6A.
jobs at the Houston Shipbuilding Corporation.93

Along with its efforts to ease commuting woes, as the workforce of the Houston Shipbuilding Corporation grew, the company went to great lengths to ensure that employee morale remained high. Management sponsored a number of athletic endeavors. When the Houston Post organized a semi-pro baseball league in 1942, HSC was one of the charter members. Along with competing against outside groups, the shipyard also organized intramural activities. One of the most popular was the company boxing arena, set up on-site at the yard. Workers would do battle in refereed matches that, often held during lunch breaks, attracted big crowds.94

Especially early in the war, workers were also encouraged to attend the launching of the yard’s vessels. A large crowd wildly cheering as a ship slid down the way into the waters of the channel was not only good public relations, but gave workers a sense of accomplishment and contribution to a worthwhile goal. The company also routinely selected yard workers or their families to act as ceremonial sponsors of certain

93The only competition to the Shipyard Special came from two bus lines. The Employees Transportation Service began operations in May 1942 serving various war industries in the ship channel area. Despite the line’s goals, it suffered from inconsistent schedules and other organizational problems and did not survive long enough to seriously rival the Shipyard Special in popularity. The second bus line began as little more than a glorified car pool, a few HSC employees banding together to conquer the traffic problem. By June 1942, the S. Y. Employees Bus Club had 400 members each paying $1.75 per week for riding privileges. By that date the club owned 4 buses, mostly old school buses and the like, which they ran for each shift. Houston Post, May 12, 1942, p. 1,4 and Houston Chronicle, June 10, 1942, p. 14A..

94Houston Post, June 11, 1944, p. 1,13.
vessels, and the sight of one of their own smashing a bottle of champagne against the hull of a ship they had a hand in creating was a potent reminder of the importance of the individual worker. To heighten the festive atmosphere, HSC management sought out employees with musical skill and organized them into a band providing them with rehearsal space and instruments. Another example of the effort at fostering employee morale in what one writer has called "distinct 'Houston style'" could be seen in the much-publicized worker purchase of one of the ships that they produced.  

Encouraged by company management and the local war bond sales committee, workers in 1943 bought war stamps and bonds to raise the amount of money necessary to "pay" for the cost of a Liberty Ship. On June 8, 1943, the launch of the Sidney Sherman capped off a four-week campaign in which $1,600,000 in bonds was raised from the yard's 25,000 workers. Adding to the spirit of the achievement, the entire launching ceremony was planned and conducted by the workers themselves. The idea of purchasing the product of one's own labor, albeit symbolically, must have proved inspirational. The Sidney Sherman was completed in a mere 39 days, eclipsing the old mark by two days.

While the Sidney Sherman was notable for the speed of its construction, overall HSC did a creditable job of speeding up production after its first year and finished its contracts for Liberty Ships in late 1944.

---

95 Mitchell, Every Kind of Shipwork, 149.

96 Houston Post, June 9, 1943, p. 5.
as the sixth most efficient yard producing the vessels. After the Liberty Ship program was phased out, the Irish Bend yard received a contract for ten T-1 tankers. The company was still working on this commission when the war ended in August 1945, but it was given an extension by the government to finish all ten. After a brief hiatus, Todd maintained a strong presence in Houston following the war, building oil barges and tankers in the 1950s and in the 1960s shifting much of its focus to the fabrication of offshore oil platforms and equipment.97

While the vast Houston Shipbuilding Corporation was busy producing merchant vessels at its sprawling yard at Irish Bend, an equally remarkable production story was occurring almost directly across the ship channel. Unlike HSC, the Brown Shipbuilding Company was begun by men with absolutely no experience in naval construction and by war's end had produced 327 warships of various sizes for the navy. In its local ownership and operation, Brown represented the best in Houston entrepreneurship.

Like many leaders of the Houston commercial-civic elite, George R.

---

97Mitchell, Every Kind of Shipwork, 151, 196–7, & 208.
and Herman Brown were not natives of the city.\textsuperscript{98} The two were born in Belton, Bell County, to a family that could trace its roots back to their great-grandfather who became the first chief justice of the supreme court of the Republic of Texas in 1836. After attending the University of Texas for a short time, Herman, who was the elder of the two, went to work for a contractor paving streets in Temple. When his financially strapped employer could not pay him, instead he accepted the man’s teams of mules, wagons, and scrapers as compensation.\textsuperscript{99} With this old and decrepit equipment Herman Brown went into business as a contractor.\textsuperscript{100} In 1919 he formed Brown & Root, a partnership with his brother-in-law Dan Root. After Root’s death in 1929, Brown bought out his interest and brought in his brother George as his new partner. Neither brother was a trained engineer—George had been educated as a geologist—but through a hands-on approach and excellent organizational skills the two made Brown &

\textsuperscript{98}Among the Houston leaders of the period a remarkable number had migrated to the city as young men. Most of the members of what came to be called the “8F Crowd”—so-named for the Lamar Hotel suite in which they met over drinks and cards to plan the political and economic future of Houston—that in effect ruled the city in the 1940s, 50s, and 60s were former migrants. These non-natives included: real estate magnate, banker, and powerful Washington figure Jesse H. Jones; Vinson & Elkins law firm founder Judge James A. Elkins Sr.; oil tool manufacturer and independent oil operator James S. Abercrombie; and former Texas governor and Houston \textit{Post} publisher William Pettus Hobby. Joe R. Feagin, \textit{Free Enterprise City: Houston in Political-Economic Perspective} (New Brunswick and London: Rutgers University Press, 1988), 123–27.


\textsuperscript{100}Lewis Nordyke, \textit{The Truth About Texas} (New York: Thomas Y. Crowell Company, 1957), 74–75 and Houston \textit{Chronicle}, December 20, 1942, p. 16A.
Root into one of the major construction firms of the nation.\textsuperscript{101} This seat-of-their-pants experience would serve the Browns well later in their career when they branched into shipbuilding. In a 1942 article in the \textit{Post}, the brothers remarked that in their experience, specific skills were not as important as putting the right men together to accomplish a given feat: 

"[w]ith the right men a contractor can build ships, dams, roads, or anything else.\textsuperscript{102}"

In the 1920s the growing business of Brown & Root led the Brown brothers to set up a branch office in the booming city of Houston to handle the volume of construction work the firm was doing in the area. In 1926 George moved to Houston to run the new office while Herman stayed in the company's old Austin headquarters. It did not take George long to become an important presence on the local scene. He joined with other leaders in the business community like oil tool maker James S. Abercrombie, lawyer James Elkins, and, of course, Jesse Jones as part of the unofficial ruling establishment of Houston. Through such activities both George and Herman Brown forged excellent ties with politicians on the local, state, and national levels. In the 1930s in large part through connections they had forged over the years with leaders in Washington, the fortunes of Brown & Root greatly improved. One of the major beneficiaries of New Deal projects in Texas, the firm received several lucrative contracts including


\textsuperscript{102}Houston \textit{Post}, December 31, 1942, p. 3, 2 and Conaway, \textit{The Texans}, 93–95.
the $27 million Marshall Ford (Mansfield) Dam on the Colorado River above Austin in 1937.\textsuperscript{103} The close relationship between Brown & Root and those in the nation’s capital continued in the years immediately following. In 1940 a Brown ally, Lyndon Johnson, helped deliver the company a third of the $100 million construction contract for the Navy’s massive new air station at Corpus Christi.\textsuperscript{104} Johnson would also be instrumental in securing major contracts from the navy for the Browns when they began their own shipbuilding enterprise in 1941.

George R. Brown was an investor in and director of the old Platzer Shipbuilding Corporation on Brays Bayou. When Platzer experienced financial difficulties in 1941, Brown invested additional capital and became principal owner of the reorganized company. With Brown’s reputation for

\textsuperscript{103}Fran Dressman, \textit{Gus Wortham: Portrait of a Leader} (College Station: Texas A&M University Press, 1994), 68.

\textsuperscript{104}Conaway, \textit{The Texans}, 95–97. Brown & Root was also joint contractor of a number of other World War II military bases, including: the $30 million Navy Ammunition Dump at McAlester, Oklahoma (for which they shared an Army-Navy “E” Award with Bellows Construction Company of Houston), Big Spring Army Air Field, and San Angelo Army Air Field. They were sole contractors for the $31 million Army Red River Ordnance Depot in Texarkana. Houston \textit{Chronicle}, April 28, 1943, p. 5A and Ray A. Stephens and William M. Holmes, \textit{Historical Atlas of Texas} (Norman & London: University of Oklahoma Press, 1989), 46–48. World War II gave the Brown brothers a taste for military base construction, for in the postwar years it became one of the staples of their business. Immediately following the war they received a massive $130 million contract for the reconstruction and expansion of military facilities on the island of Guam. Nordyke, \textit{Truth About Texas}, 75. In the early 1950s the firm benefitted from the increase of U.S. Cold War military spending, earning over $100 million in different contracts in the Pacific, Alaska, and Canada. The company also built or helped build nine NATO bases in France and major Navy bases in Spain. Subsequently, with the rise to the presidency of longtime Brown ally Lyndon Johnson, Brown & Root received large portions of the construction work in Vietnam, including Danang and Cam Ranh Bay, Tan Sun Nhut Airport, the Long Binh military headquarters, and a new U.S. Embassy. Conaway, \textit{The Texans}, 100, 111
achieving results, Platzer was awarded a $2.5 million contract for four 165 foot steel subchasers from the Navy.105 Always a small yard, Platzer's location could not meet the space demands of this ambitious new phase of the company's existence. The company agreed to lease a thirty-acre site on the north bank of the ship channel at the mouth of Greens Bayou, across from the new Houston Shipbuilding Corporation. To maximize the limited waterfront footage of the property, the company decided to forego the building of ways perpendicular to the bank, like those being built across the channel at Irish Bend. Instead, vessels would be launched sideways into the bayou.106

At this point the Brown brothers saw a potentially lucrative opportunity. Responding to President Roosevelt's call for the expansion of the US Navy into a two-ocean fleet, they formed a new company for the sole purpose of building ships for the war emergency. George transferred the existing contracts from Platzer Shipbuilding to this new enterprise, naming it Brown Shipbuilding Company in August 1941.107 The new shipyard would be at the site formerly earmarked for Platzer's expansion,

105Houston, XII (April 1941), 80. Subchasers, as their name implies, were designed to pursue submarines and either destroy them or track them until larger vessels could arrive on the scene and finish them off. Their construction was considered imperative because of the Allies devastating experience with the German U-boat warfare in the First World War when millions of tons of shipping met with a watery grave.

106Houston Chronicle, August 7, 1941, p. 4A.

107Within a month of the organization of Brown Shipbuilding it earned a contract for four additional subchasers in addition to the four that the company had inherited from Platzer. Houston Post, December 31, 1942, p. 31.
on Green’s Bayou. Unlike many plants built to meet the needs of a nation preparing for world war, Brown Shipbuilding was constructed with no government money. In a departure from the norm among defense contractors, the Brown brothers built the entire yard with no contribution from the federal government. With their expert knowledge of construction and engineering, they were able to hold their costs down to an absolute minimum, spending only $7,000,000 when comparable facilities were being built for $10–15,000,000. As George Brown later recalled, there was some risk involved in this ambitious undertaking. “‘Nobody in the company had ever seen a ship built, but we decided we could even though we didn’t know a bow from a stern.’”\textsuperscript{108} This optimistic attitude bore fruit. The company began clearing its site on August 1, 1941, and less than seven months later, on February 27, 1942, launched PC-565, its first ship, one of the four 165 foot subchasers called for in the original Platzer contract.\textsuperscript{109} The rapidity with which Brown Shipbuilding went from a patch of forest to a functioning shipyard launching several vessels per month was the subject of much pride locally, and a number of commentaries appeared in the press. \textit{Post} columnist Morris Frank visited the yard in November 1942 and wrote, “I know Rome wasn’t built in a day—but the Brown shipbuilding company didn’t have the contract, I bet. .

\textsuperscript{108}Houston \textit{Chronicle}, February 3, 1980, no page, clipping in Vertical File Brown, George Rufus (Barker Center for American History, University of Texas, Austin, Texas).

... within six or seven months from the time they put the first grubbing hoe in the weeds they had already launched some boats at Brown's . . . ."110

In addition to that initial subchaser contract, shortly after Brown Shipbuilding was formed the company received a series of additional orders for the same type of craft.111 As the Navy saw adequate progress on these smaller ships, it felt confident enough to award Brown a much larger role in the national shipbuilding program. One of the most pressing needs in the period before the US entered the war and in the first several years after Pearl Harbor was for escort craft. This demand was created by the heavy traffic across the Atlantic occasioned by Lend-Lease shipments of military and other goods to both Britain and the Soviet Union. The safest defense for the lightly armed slow-moving merchants ships was to travel in convoys accompanied by naval escorts for protection against the German U-boat "wolfpacks" that hunted in the waters of the North Atlantic.112 While their combination of speed and armament made destroyers the best choice for escort duty, they were in great demand and therefore scarce,


111Houston Chronicle, October 2, 1941, p. 1.

especially after Pearl Harbor when the US found itself involved in a two ocean war. The shortage of destroyers led to the creation of a new class of naval ship that combined some of the best features of the destroyer but were easier to produce and faster. Borrowing ideas from the British/Canadian corvette class of warship, US designers created plans for the “destroyer escort” or “DE,” a heavily armed 300-foot vessel that could supplement the destroyers on convoy duty.\textsuperscript{113} Thanks in part to the lobbying work of Representative Albert Thomas in Washington, in January 1942 Brown Shipbuilding was among the first yards in the country to receive orders for this new class of vessel. On January 13 the Navy announced that it had contracted with Brown to build 18 DEs at a total cost of nearly $80,000,000. To meet the demands of this new contract, Brown announced that it would build six additional launching slips and increase its workforce by 5–6,000.\textsuperscript{114}

Interestingly, the Browns elected to work on a lump sum contract rather than on the more common cost-plus basis—the cost plus a government-fixed percentage. Working in this manner put a premium on efficiency in production because the greater the number of man hours spent on each ship, the lower the company’s margin of profit. To maximize speed of production the Brown yard was designed as a virtual shipbuilding

\textsuperscript{113}\textit{Houston Port Book}, November 1943, pp. 21–22.

\textsuperscript{114}\textit{Houston Post}, January 1, 1942, p. 1 and \textit{Houston Chronicle}, January 14, 1942, p. 1A.
assembly line, incorporating a through process of manufacturing. Steel entered the yard from cars on the Belt Terminal Railway and made its way through a series of pre-fabricating buildings where various sections of a vessel were assembled. Then, the different components were joined together on a shipway from which it was then launched, sideways, into the torpid waiting waters of Greens Bayou.115

As the Brown shipyard succeeded in delivering the destroyer escorts on schedule it was rewarded with additional contracts for the greatly needed ships. In August 1942 the yard received a contract for fifty-six more DEs, bringing total orders from the yard to seventy-four such vessels. At over $3.5 million per ship, this new order was worth approximately $200 million to the Brown yard and catapulted it to the forefront of yards building for the Navy on the Gulf Coast.116 Production of destroyer escorts continued at Brown until April of 1944.117

The focus of production at Brown Shipbuilding largely mirrored the progress of US involvement in the war. In the early stages of the war when the nation’s fortunes were at a low ebb, the bulk of work at the yard was on defensive craft, like subchasers and destroyer escorts. However, as the war aims of the nation gradually switched to a more offensive track,


116 Houston Post, August 9, 1942, p. 1.

117 Houston Chronicle, February 16, 1944, p. 15B.
Brown was called upon to respond with appropriate vessels to meet those new goals. Thus, in May 1942 as the nation prepared for the landings in Guadalcanal in the late summer, the company received an order for a small batch of twenty-four LCIs (Landing Craft Infantry) at a cost of $350,000 per craft. This clearly represented a new focus in the war goals of the Navy and the United States. No longer content to stay on the defensive, military leaders saw a need for weapons that would allow them to take the fight to the enemy.118

Brown Shipbuilding proved so successful at building landing craft that it was picked in early 1944 to be the lead yard in producing a new class of vessel nicknamed the “revenge fleet” for the damage they would hopefully inflict on Germany and Japan. Hardly prepossessing, the Post described these new ships as “look[ing] a lot like a cigar box with a snout . . .” Designated LSM (landing ship, medium), these craft were designed to transport tanks, trucks, or other equipment from larger transport ships to landings on heavily defended beaches in the Pacific and Europe. They were sizable vessels, 206 feet long, not the landing craft of popular imagination used to ferry small groups of men from transport ships to shore. LSMs were capable of trans-oceanic crossings on their own with a cargo of heavy equipment that could be deposited at a landing site in support of infantry already ashore. The role of a lead yard was to create working blueprints plans and molds or templates from which production

could be copied at shipyards across the nation. This required skill and a sophisticated understanding of the principles of shipbuilding. In addition to its role as technical leader of the LSM program, Brown was also expected to lead as a producer of the craft. The Navy expected at least four launchings per week from the yard, sixteen per month.\textsuperscript{119}

The LSM program at Brown was certainly a highlight in its existence. It not only earned the distinction of being the lead yard for the new ships, but also became the first shipyard to deliver a new class of vessel to the Navy in only seven months. Even the ambitious production schedule was met, and surpassed. While the Navy order had called for fourteen of the vessels before the end of May 1944, Brown delivered fifteen—becoming the only yard producing LSMs to do so. This in spite of bad weather all month, conditions the Post described in an editorial as characterized by "[r]ainstorms and heat waves [that] made the shipyard now a sea and again a hotbox."\textsuperscript{120}

As US fortunes improved in 1944 and the Allies geared up for what would be the great assault on Fortress Europe and the final push against the home islands of Japan, Brown Shipbuilding became exclusively devoted to producing landing craft of various types. In May 1944 the yard was put on a 24-hour-day, seven-days-a-week operating basis for the first time in its

\textsuperscript{119}Ibid., February 16, 1944, p. 3 and Houston Chronicle, February 16, 1944, p. 15B.

\textsuperscript{120}Houston Post, June 4, 1944, p. 3,12.
Reflecting this nonstop focus on the production of LSMs, they dominated Brown’s production statistics at the end of 1944. By December 7, 1944, the yard had, since its founding built 61 DEs, 12 subchasers, 36 landing craft-infantry (LCI), and 106 landing ships-medium (LSM) for a grand total of total 215. This impressive record put the yard second in naval production in the state behind only the Consolidated Steel Company of Orange, producers of 218 total ship. Brown’s statistics would improve so that by the end of the next year it would be the most productive naval yard in Texas.\(^\text{122}\)

Beginning in early 1945, Brown ceased production of the LSMs and in their stead began producing a modified version of the LCI that it had produced in 1942 and 1943. This new type of craft was designated LCI (G) (Landing Craft Infantry (Gunboat)). They were essentially 200 foot long infantry carriers equipped with rocket launchers that could “soften up” a beach as footsoldiers waded ashore, serving as both transport and fire support vessel in one. They proved very useful in the Pacific theater where fortifications were often dug deep into the volcanic rock of Japanese-held islands.\(^\text{123}\)

\(^{121}\)Ibid., May 14, 1944, p. 1.

\(^{122}\)Houston Chronicle, December 7, 1944, p. 3B.

\(^{123}\)Houston Post, February 4, 1945, p. 1 and April 21, 1945, p. 1.
Despite its frenzied pace of producing ships like the LCI (G), Brown Shipbuilding did take time out on occasion to commemorate momentous events. One such instance was the ceremony to mark the launch of the yard’s 300th warship on March 30, 1945. A crowd of over 6,000 workers, along with 4,000 or more other spectators, gathered to hear speeches, music, and see LSM 493 slide sideways into Greens Bayou with enormous splash. After the half-hour ceremony the yard whistle screeched and work began again.124

Realizing that the end of the war would bring the plaudits and the huge Navy contracts for ship construction to an end, the Brown brothers and the management of the shipyard sought to expand Brown Shipbuilding’s operations into areas that would be more compatible with peacetime circumstances. In mid-1945 the company took a significant step in that direction when it signed contracts to reconvert existing ships for new uses. The Browns astutely recognized that it was this sort of work and not new construction that would dominate Navy contracts in the postwar period. With an eye to the future, the Brown brothers through their congressional intermediary Albert Thomas petitioned the Navy to make the yard an official repair facility. Their case was strengthened significantly by the fact that there was no significant naval repair facility in Texas at the time. In July 1943 the Navy announced that it would establish a dry dock at the Brown yard big enough to accommodate cruisers for repair and

124Ibid., March 31, 1943, p. 1 and Houston Chronicle, April 1, 1945, p. 13A.
reconditioning. Rather than go through the time and expense of constructing a brand new dry dock, the Navy opted to tow an existing 15,000 ton floating dry dock from Newfoundland to serve the purpose. This dry dock was 84 feet wide and over 350 feet long, so large that a slip had to be cut into the bank near the mouth of Greens Bayou just to accommodate it; and a 1,000-foot radius turning basin had to be dredged. The total cost of the project was estimated to be $4–5 million. After the war, Brown repaired not only naval vessels but private craft as well, opening a whole new realm to the business interests of George and Herman Brown.

While Brown Shipbuilding compiled an impressive record of wartime achievement, it also experienced its share of problems in the process, mostly labor-related. In the best tradition of southern and Texas businessmen, Herman and George Brown were vehemently anti-labor. Brown & Root had been maintained as an open shop company from its inception, and the two brothers had fought a number of battles with labor organizers throughout the years. Even in the labor-friendly climate of Franklin Roosevelt’s New Deal, the Browns staunchly maintained their

\[^{125}\text{Houston Chronicle, July 8, 1943, p. 1.}\]

\[^{126}\text{Ibid., September 7, 1943, p. 3A; September 4, 1944, p. 1; and Houston Post, July 31, 1945, p. 2,1.}\]

\[^{127}\text{For more on Brown Shipbuilding Company’s postwar existence see Houston, XVII (March 1946), 33; XVII (April 1946), 3 & 15; XVII (May 1946), 3 & 11; and XVII (August 1946), back cover.}\]
policy of intolerance towards organized labor. Neither did the coming of national emergency and war alter their views. As shown in the discussion of Brown & Root’s difficulties in constructing the Houston Shipbuilding Corporation yard at Irish Bend, labor issues continued to dog the construction firm in the 1940s. It was, therefore, hardly surprising when in June 1945, Brown & Root’s construction of a new Kelly-Springfield tire plant on La Porte Road near Houston was halted by pickets. On June 6 the Houston Building Trades Council (AFL) organized a strike to protest the construction firm’s hiring of non-union workers for the project.128 In the span of a two day period, the strike spread to other Brown concerns, including the shipyard. By most accounts, the picketing had only a minor impact on the production of the Brown yard. Most workers took the advice of Ed Dawley, district representative of Local 5, Independent Welders, Cutters and Burners of America, who announced that “‘[t]here is no strike at Brown Shipbuilding company. The picketing is in violation of labor’s no strike pledge and the Smith-Connally act.”129 Management was quick to claim that work proceeded unhindered at the yard, comparing the

---

128 Houston Post, June 6, 1945, p. 1. The Kelly-Springfield tire plant—which was actually canceled shortly before the end of the war—was part of a large rubber-making complex on La Porte Road near Pasadena about seven miles from downtown Houston. The complex was built around the Sinclair oil refinery that had occupied that site for many years. The federal government built a butadiene (raw material for synthetic rubber) at the refinery that was run by Sinclair. To turn this petroleum derivative into rubber, the government also built a plant that was run by Goodyear Rubber Corporation. In 1945 the government took the next logical step and began work on a plant that would turn the rubber into truck tires and be run by Kelly-Springfield. It was the construction of this last plant that picketing Houston Building Trades members shut down on June 6, 1945.

129 Ibid., June 8, 1945, pp. 1 & 4.
number of workers’ time cards to days with no picket lines in front of the plant to prove that most workers were at work. 130

Despite this assurance of business at usual at Brown, the company must have felt threatened by the attempts to impede work at the shipyard. On June 8th, the second day of picketing, management placed an advertisement in the three local daily papers. It featured the bold headline: “Nothing Is As Important As Uninterrupted Work While Our Sons Are Dying!” Pictured just below this was a grisly photograph of a dead American soldier, face down, clutching his Thompson submachine gun. Below this graphic image the ad described Brown’s four current “jobs” (constructing rocket ships, converting freighters into troop transports, repairing warship for use in the Pacific, and modernizing destroyer escorts for the Pacific war). At the bottom of the advertisement came the company’s unequivocal message to its employees that the work stoppage involving the Brown yard was tantamount to treason:

> every second counts on our job—we can’t wait for the authorized government agency, the war Labor Board, to settle questions involving employe [sic] contracts but the war can’t wait—stay on the job at Brown and save lives of fighting men—every employe is needed on the job at Brown every day. 131

The Brown brothers had every reason to believe that by placing such an ad in a highly visible forum they would earn a great deal of popular support

130Ibid., June 8, 1945, pp. 1 & 4.

131Ibid., June 8, 1945, p. 9.
for their side of the dispute. Who, after all, wanted to be responsible for causing the death of someone’s husband, father, or son? In addition, Houston was a notoriously anti-union city. Many felt that freedom from the albatross of organized labor had allowed the city to grow and industrialize as it had in the twentieth century. The Browns were counting on such views as moral support against the unions.

In response, the striking Houston Metal Trades Council issued a statement outlining their grievances. Primarily, the unions argued that even though they had been authorized by a National Labor Relations Board (NLRB)-approved election among the yard’s workers in September 1944, Brown management had on at least four occasions flatly refused to bargain with or even meet representatives of organized labor. Answering the charges levelled by the company’s visceral advertisement, the council announced:

Most of the members of the Metal Trades council and the shipyard workers themselves, have sons, brothers and other relatives serving in the armed services, and some of them are on Okinawa at this very moment, and we shudder to think that we would let these men down. Our conscience is clear; we think it is Mr. [Herman] Brown who has (let them down).¹³²

Clearly the unions had a compelling case and were willing to fight the Browns propaganda with some of their own.

The strike took an ugly turn when the Metal Trades Council attempted to use its power among the suppliers of the acetylene gas and

¹³²Ibid., June 9, 1945, pp. 1 & 2.
compressed oxygen so vital to the all-welded ship production of the Brown yard. When the council sought to force the truck drivers of the Magnolia Airco Products Company to honor the shipyard picket line, the Navy intervened, sending its own trucks replete with armed guards to ferry the vital material to Brown. Charging the Navy with acting as a "strike-breaking agency," the Metal Trades Council officially protested to the Navy Department and to the War Labor Board (WLB). 133

The war of words intensified on June 10, 1945, when the normally publicity-shy George R. Brown issued a statement outlining his company's position and attacking that of the striking unions. He charged the Houston Metal Trades Council with "wanton, reckless disregard for the war effort." He argued that at its heart the dispute was an un-American attempt to deprive Brown Shipbuilding and its employees of the right to choose whether or not to organize. The striking unions were trying to "force on the Brown Shipbuilding company a closed shop and which would force everybody at the war plant to join a union in order to have the right to work and construct vital war supplies for our country." Brown went on to stress that he had no problem with unions as such, only when they insisted on the right to represent everyone in his company. Brown continued with an argument that was sure to resonate powerfully with the public. Those serving overseas, he declared somewhat disingenuously, had "left the country with the right to work anywhere they pleased without

---

133 Ibid., June 10, 1945, pp. 1 & 6.
being required to join any organization in order to have the right to work to earn a living. We can't speak for the rest of the country, but we can say . . . that when the boys get back this time they are still going to have that right at any job which we are conducting.” 134

Just what impact George R. Brown's words had on the outcome of the strike is open to debate, but unquestionably his reasoning was shared by many, including the staff of the Eighth regional office of the War Labor Board in Dallas. On June 11 the WLB ordered the pickets removed from the Brown Shipbuilding gates, arguing, as had George Brown, that the unions had violated their no-strike pledge. Underscoring the continued weak position of labor unions in Houston and the South as a whole, the ruling made no mention of the truly legitimate grievances that lay behind labor's actions. 135 Despite national legislation guaranteeing workers a right to unionize in theory, regional and local circumstances dictated a far different reality.

The Brown example demonstrates that while on the surface the war may have seemed an excellent opportunity for the cause of organized labor

134 Ibid., June 10, 1945, pp. 1 & 2.

135 Ibid., June 12, 1945, pp. 1 & 5. As an interesting aside, the striking unions voted to ignore the WLB ruling and picket lines remained until June 13th when promises of good faith bargaining by Brown management prompted an end to the walkout. There may also be reason to believe that the unions were beginning to feel the pressure of their unpopular work stoppage. On the evening of the 12th, a group of Navy sailors on shore leave while their LSTs were being repaired at Brown clashed with striking workers, denouncing them as unpatriotic. The sailors reportedly seized strikers' placards and chased pickets away from the gate of the plant. Ibid., June 13, 1945, p. 1 and June 14, 1945, pp. 1 & 7.
to be advanced in a places like Houston, and the broader South, in some ways just the opposite could happen. Historically hostile to unions, southern businessmen like the Browns had long excoriated the labor movement as undemocratic, un-American, and antithetical to the spirit of free enterprise.\textsuperscript{136} With the coming of the war and the conversion of most industry to national defense, the battle between management and labor could now easily be cast in simplistic patriotic terms. Employers could simply point out that any work slowdown or stoppage hurt the war effort and thus cast labor in the unenviable position of having to prove their commitment to the nation and its sons fighting to preserve the freedom of all.

This is not to say that times were bad for the industrial laborers of Houston. The war years were mostly free from the tensions that had been common in the lean years of the Great Depression. When war broke out, most local and national unions willingly signed "no strike" pledges, often

\textsuperscript{136}An example of the sort of attitude evinced by the political and business leaders of Texas and the South was given in a speech by Texas governor W. Lee "Pappy" O'Daniel in 1941. Addressing the state legislature, O'Daniel said: "So far as I am concerned, I believe every employee in this state has the right to join any organization he chooses to join, and I think the same right should be accorded every employer in the state, but I am unalterably opposed to resorting to force and violence in labor disputes. War supplies cannot be produced in factories which are closed down by strikes or lockouts. Dead war industries mean dead soldiers . . . in some cases they [strikes] have been promoted by the racketeering element." W. Lee O'Daniel address to Texas state legislature, March 13, 1941, Box 2E189, Folder 18: Subject Classified Files on Labor: Political Affairs: Labor and Politics Miscellaneous folder, Labor Movement in Texas Collection (Center for American History, University of Texas, Austin, Texas). The commercial-civic leaders of Houston wholeheartedly agreed with Governor O'Daniel's sentiments. The Brown brothers certainly subscribed to an open shop philosophy. Recall the labor problems, discussed earlier in this chapter, experienced by Brown & Root during the construction of the Houston Shipbuilding Corporation's Irish Bend yard in 1941.
with great fanfare and publicity in the local press. Of course, setting aside differences with management was helped immeasurably by the great floods of money that poured into area plants as the federal government spent lavishly to put the nation on a war footing. In this new climate there was a certain amount of progress made locally by industrial labor unions. All employers receiving government contracts had to agree to allow their workers to bargain collectively. Industries like petroleum that had long been virtually free of unions were now forced to bargain with organized labor in order to receive their share of the federal largesse.\textsuperscript{137} With the huge government contracts also came conditions regarding wages and hours. While northern and midwestern workers experienced a moderate increase in their income, those in Houston and the South often saw their

\textsuperscript{137}The war was a time of mixed results for organized labor. While the tremendous strides made by unions in the latter stages of the Great Depression slowed somewhat, the war years also saw them make some important gains. Partly through patriotism and partly as the result of public pressure, the AFL and CIO made no-strike pledges early in the war. This informal agreement was broken on several occasions in Houston and elsewhere and as a result in May–June 1943 the Smith-Connally Act (named for its sponsors Representative Howard Smith of Virginia and Senator Tom Connally of Texas), giving the government the right to seize plants shut down by strike, was approved over the veto of the president. In addition, organized labor also agreed to the so-called “Little Steel formula” in 1942 that limited pay increases for the duration of the conflict. In return however, the unions were aided by the establishment in 1942 of the War Labor Board (WLB) the strongest enforcement tool yet granted by the federal government. The WLB, unlike the National Labor Relations Board (NLRB), guaranteed the maintenance of membership, meaning that workers hired had a fifteen day period to join the union for that establishment or face dismissal. Events such as the 1944 government seizure of Montgomery Ward for the company's management denying labor's right to bargain collectively demonstrated the federal governments' continuing support of the labor movement. Richard R. Lingeman, \textit{Don't You Know There's a War On?: The American Home Front, 1941–1945} (New York: G. P. Putnam's Sons, 1970), 159–61; Richard Polenberg, \textit{War and Society: The United States, 1941–1945} (Philadelphia, New York, and Toronto: J. B. Lippincott Company, 1972), 154–75; F. Ray Marshall, “Some Reflections on Labor History,” \textit{Southwestern Historical Quarterly}, LXXV (October 1971), 154–56; and see also: Nelson Lichtenstein, \textit{Labor's War at Home: The CIO in World War II} (Cambridge, London, New York, and others: Cambridge University Press, 1982).
take home pay double or triple with the strictly enforced War Labor Board (WLB) compensation scales. Working as they were on a cost-plus basis that ensured a profit, most employers were glad to pay the new high wages. However, those companies like Brown Shipbuilding that elected to work for lump sum payments had more incentive to try and undercut the government-directed pay levels. Even at Brown, though, labor and management peacefully coexisted through much of the war in Houston. Workers were being well-paid and genuinely took pride in their contribution to the war effort. Commitment ran especially high in the first two years of the war when the outcome was very much in doubt. As war news remained grave, production continued to rise, worker absenteeism stayed low, and strikes were virtually non-existent. To be sure there were tensions between management and labor that in ordinary circumstances might have led to work stoppages, but in the spirit of the times workers remained on the job. As mentioned previously, as the reports of the US successes on the battlefield became more common the feeling of urgency of production seemed to slacken. At this point, especially after D-Day in mid 1944 and the end of the European war in 1945, strikes and other labor disturbances again arose. In addition to the strike against the various Brown interests, there were labor disputes at Hughes Tool, Sinclair Oil,

---

138For a discussion of the relative gain in wages made by southern workers during the war, see: David R. Goldfield, Promised Land: The South since 1945 (Arlington Heights, Ill.: Harlan-Davidson, 1987), 6.
Shell Oil, and various other local industrial plants.\footnote{The most remarkable disputes between labor and management occurred at Hughes Tool. The company’s management had consistently blocked organization efforts at their various Houston area plants and for the first three years of the war, workers did not protest the situation overmuch. However, by the spring of 1944 sentiment appeared to change in favor of confronting management. Workers appealed to the WLB to order an election to decide the bargaining agent for Hughes Tool. The board complied and despite several victories of the United Steel Workers (CIO), the company refused to recognize the validity of the vote. After months of harsh words and attempts at mediation, the army seized the Hughes plants on September 6, 1944 and operated them for the duration of the war. For a sampling of the extensive press coverage of the events surrounding Hughes Tool, see: Houston \textit{Post}, March 17, 1944, p. 1,5; June 20, 1944, p. 2,1; June 24, 1944, p. 1; June 25, 1944, pp. 1 & 19; June 26, 1944, pp. 1 & 8; June 27, 1944, pp. 1 & 11; June 28, 1944, pp. 1 & 2; June 29, 1944, pp. 1 & 2; July 1, 1944, p. 1; July 12, 1944, p. 1,6; July 21, 1944, pp. 1 & 5; August 10, 1944, p. 1; September 6, 1944, p. 1; September 7, 1944, pp. 1 & 5; March 9, 1945, p. 10; Houston \textit{Chronicle}, June 24, 1944, p. 1; June 28, 1944, pp. 1 & 4; August 13, 1944, pp. 1 & 2; and September 6, 1944, pp. 1 & 6. For strikes at Shell Oil, see: Houston \textit{Post}, April 28, 1945, p. 3; and April 30, 1945, pp. 1 & 2. For labor strife and the government takeover (on July 19, 1945) of Sinclair Rubber, see: Houston \textit{Post}, July 14, 1945, p. 1; July 17, 1945, p. 1; July 18, 1945, p. 1; July 19, 1945, pp. 1 & 2; July 20, 1945, pp. 1 & 7; and Houston \textit{Chronicle}, July 19, 1945, 1 & 13.} Despite the outcome of the war with Japan remaining very much in doubt, a seeming pall of complacency appeared to fall over certain industrial workers and they reverted to postwar modes of confrontational or adversarial behavior with their employers. Apparently, after four years of war there was a pent up cache of frustration and grievances against management. The most visible manifestation of this came in the wave of bitter strikes that swept the petroleum industry along the entire Gulf Coast immediately after V-J Day. The war had proved a brief hiatus from labor strife, but the role of labor unions would become a major issue in postwar Houston.

It did not take the Brown yard long to prove itself worthy of the investment made in it by its owners. The rapid progress clearly impressed the Navy and convinced them that Brown Shipbuilding would be a results-
oriented yard. Before the company had launched a single ship, it received a contract for more. As it delivered more vessels on time, it was rewarded with contract after contract for more ships. In fifteen months the yard had received $259,800,000 in Navy contracts for an assortment of subchasers, destroyer escorts, and infantry landing craft.¹⁴⁰

In addition to the reward of ever-growing contracts, the Navy also honored Brown Shipbuilding with awards to commemorate the company's successes. The highest wartime award for production for either the Army or the Navy was the Army-Navy “E” award of excellence. Brown first received the pennant acknowledging its place among the premier shipyards in the nation on December 21, 1942, in a ceremony attended by Secretary of the Navy Frank Knox, Jesse Jones, Speaker of the House Sam Rayburn, Governor Coke Stevenson, and other dignitaries and witnessed by over 30,000 spectators. To mark the occasion, Brown launched two destroyer escorts and five landing craft in rapid succession in the greatest single-day launch in its history.¹⁴¹

The production success of Brown certainly bespoke the skill of the designers of the yard, the management, and the Brown brothers themselves. However, much of the credit for producing 359 ships of six different types must be reserved for the shipyard’s thousands of

¹⁴⁰Houston Post, December 31, 1942, p. 3,3.

Brown employed nearly 25,000 at its peak in late 1942–1943, and a vast majority of these—probably 95 percent—had absolutely no shipbuilding experience. Most came from the Houston area, lured by the relatively high wages of the shipyard, but a large number of Brown workers came from further afield, from the rural counties of East Texas and the parishes of southwestern Louisiana. Rural or urban, most workers had little experience in any sort of industrial setting. Previous mention has been made of the various training programs for the large number of welders, cutters, burners, and other occupations needed at the shipyard. Like its counterpart the Houston Shipbuilding Corporation across the ship channel, Brown had an in-house training school referred to as the “campus” or “Greens Bayou University,” a one-story frame building. Here, as one account put it, the company took thousands of “former bullfighters, bronc busters, fan dancers, musicians, salesmen, vaudeville performers, six-day bicycle riders and the like . . .” and molded them into a shipbuilding labor force. In 1942 alone 6,245 workers learned some sort of skill at the company’s crash courses.\footnote{\textit{Houston Post}, July 20, 1945, p. 2,1.} The educational process was streamlined by teaching each employee one skill only. Brown shipbuilding was truly a mass production operation, with thousands of workers each performing specific tasks to complete each vessel that the yard \footnote{\textit{Dallas Morning-News}, June 13, 1943, no page, clipping in Vertical File Brown, Herman (Center For American History, University of Texas, Austin, Texas).}
produced.\textsuperscript{144} In the words of personnel director Francis Dunn: “For instance, when we taught a man how to install an anchor chain, we wanted him to be the best installer of an anchor chain in the business, but we didn’t care whether he knew what the stern of a ship looked like or not.”\textsuperscript{145}

Whereas both the Houston Shipbuilding Corporation and Brown Shipyards started slowly and became unqualified successes, producing hundreds of ships for the war effort, the third large-scale Houston entrant into the wartime shipbuilding sweepstakes was an absolute disaster. The San Jacinto Shipbuilders Incorporated was poorly managed, produced little, and was singled out for scathing national criticism.

It may have been that the concept of concrete ships was doomed from the beginning. Certainly the idea sounds bizarre; one Houston writer even quipped that San Jacinto Shipbuilders Inc. was “making paved boats.”\textsuperscript{146} The concrete ship can trace its history to before World War I, but it was during the war when the United States was caught desperately short of ships and, importantly, steel that the idea gained new life. To make up for the lack of metal, a design called the \textit{Atlantus} was improvised that utilized predominantly concrete using only low carbon content steel reinforcing bars. After the war, concrete ships continued to be produced

\textsuperscript{144} Houston Port Book, May 1943, p. 30.

\textsuperscript{145} Houston Post, February 26, 1943, p. 1,6.

\textsuperscript{146} Ibid., February 4, 1943, p. 1,9.
on a limited basis, especially on the West Coast where steel was not readily available.147

In late 1941 the United States Government was beginning to realize that it had a potentially major transportation problem. The nation’s petroleum supply lay for the most part in the southwest, in Texas and Oklahoma, while the center of demand lay in the heavily populated and industrialized northeast. To avert serious shortages of oil and other petroleum products, the Maritime Commission on October 15, 1941, awarded contracts for several types of oil tankers and barges including fifteen concrete barges. Five vessels were to be built at each of three new shipyards constructed expressly for the purpose. One was to be on the West Coast (at San Diego), one on the East Coast (at Savannah, Georgia), and the last on the Gulf Coast (at Houston).148

The winning Houston bid was put forward by San Jacinto Shipbuilders Inc., a company organized expressly for the purpose of obtaining this lucrative government contract.149 Its president was local oilman H. C. Cockburn, and neither he nor anyone else in the company had

147 Houston, XIV (June 1943), 13 and Lane, Ships for Victory, 629.

148 Lane, Ships for Victory, 63–64 and Investigation of the National Defense Program, 51.

149 San Jacinto was one of three finalists selected for the proposed shipyard on the Gulf Coast. The company apparently was selected by the Maritime Commission because of a combination of its low bid price and its local ownership (the other two bidders were from New York and Los Angeles). Investigation of the National Defense Program, 52.
significant shipbuilding experience.\textsuperscript{150} San Jacinto was given the contract to build five tow barges, each to be 350 feet long and 54 feet wide with a capacity of 75,000 barrels of oil and all due to be delivered between June and September 1942.\textsuperscript{151} The value of the contract was $2,843,665, or $568,733 per barge. The cost of constructing the new four-way yard on the banks of San Jacinto Bay near La Porte was provided by a loan of $600,000 from the Defense Plants Corporation (DPC)—a subsidiary of the Jesse Jones-led Reconstruction Finance Corporation—repayable at a rate of $123,000 per barge.\textsuperscript{152} Construction of the yard began January 1942 and proceeded for nearly six months.\textsuperscript{153}

From the very beginning of its existence, San Jacinto Shipbuilders was characterized by poor management and dissension among its ownership. The Truman Committee report on the matter summed up the situation well: "[t]his project has been the scene of so many personality clashes that it is referred to locally as the Second battle of San Jacinto."\textsuperscript{154}

One San Jacinto director resigned in protest when the Maritime

\textsuperscript{150}Houston \textit{Chronicle}, November 11, 1941, p. 3A.

\textsuperscript{151}\textit{Ibid.}, May 19, 1942, p. 10A.

\textsuperscript{152}\textit{Investigation of the National Defense Program}, 52.

\textsuperscript{153}Houston \textit{Post}, September 7, 1942, p. 1.

\textsuperscript{154}\textit{Investigation of the National Defense Program}, 52.
law, a professor of engineering at Northwestern University. Cockburn proved especially ill-suited to direct a shipyard. His disputes with several of his fellow investors led them to sell their shares in the company. Cockburn’s relations with yard manager and company investor T. P. Roberts were especially disruptive, on two instances almost bringing the men to blows in the company offices. So acrimonious was the relationship between the two that the Maritime Commission strongly urged both to sell their interests or risk losing the concrete barge contracts entirely.  

The various personality clashes translated into production problems and contributed to the Maritime Commission’s skeptical attitude towards the yard and its management. By September 1942, when the yard was, in fact, sold, San Jacinto Shipbuilders had not launched a single one of the five ships called for in its contract. This despite a workforce of almost 3,500 working around the clock. In addition, there were also reported irregularities in the awarding of subcontracts to friends of Cockburn and “funny business” in the price paid to the oilman for the property that became the shipyard. Questions regarding this amount led the Truman Committee to conclude that the yard could have been built “at a much more

\textsuperscript{155}Ibid., 53.
\textsuperscript{156}Ibid., 52–53.

\textsuperscript{157}Lane, Ships for Victory, 632 and Investigation of the National Defense Program, 56-58. Some of those awarded sub-contracts for construction of the San Jacinto yard included Cockburn’s brother George for the drilling of a water well. Despite receiving some $44,000 for his work on the project, George Cockburn failed to complete a satisfactory well and another had to be dug by another contractor.
reasonable cost” than the $600,000 actually spent. It also lambasted the company’s lack of production as the result of “inadequate planning and poor coordination of work on an undesirable site.” The congressional report further criticized the San Jacinto Shipyard decision not to launch sideways—as at nearby Brown Shipyards—but to instead build a pier with four ways extending out into the water for launching its vessels.\footnote{Investigation of the National Defense Program, 58.} In addition, the management kept such shoddy records of purchases and other expenditures that the Defense Plants Corporation and the Maritime Commission were forced to assign several more auditors than should have been necessary for a project of the size. On several occasions budgetary mismanagement also led to near crisis regarding the company’s payroll. Cockburn and other partners were forced to dip into their own personal funds to pay the yard’s workers.\footnote{Ibid., 60 & 54.} To be entirely fair, the blame for the San Jacinto fiasco must be placed on the Maritime Commission as well as the ownership and management of the yard. When San Jacinto was sold, the new Maritime Commission auditor assigned to the project was horrified to learn that his predecessor had approved reimbursement requests “‘with no supporting papers, no authority, no completed pay rolls, etc. There is no point in going into details, they are too numerous.’” He characterized the company as plagued by “‘gross inefficiency’” and guilty of “‘almost criminal negligence.’” In all, the Truman Committee concluded that the
management of the yard, especially H. C. Cockburn, actually had little interest in the construction of concrete barges, instead preferring to develop this piece of property at government expense for postwar development.\textsuperscript{160}

When it became clear that the current San Jacinto ownership was totally unsuited to continue to control a shipyard, the Maritime Commission pushed the group to sell. To make San Jacinto a more attractive acquisition to potential investors, the Maritime Commission pushed back the expected delivery dates of the five ships currently under contract, invested over $1,000,000 in new yard facilities, and added an additional fifteen barges to the company's contract worth $693,000 per vessel, for a total of $10,395,000.\textsuperscript{161} This strategy paid off, and San Jacinto Shipbuilders was sold on September 4, 1942. The buyer, McCloskey & Co., a Philadelphia-based shipbuilding concern at the time building concrete vessels in Tampa, Florida, looked like a good choice to breathe new life into a failing shipyard.\textsuperscript{162}

Unfortunately, even with the devolution of control of San Jacinto Shipbuilders to a firm with experience in the field, the shipyard's fortunes did not improve. Amazingly, McCloskey apparently did not realize that

\textsuperscript{160}Ibid., 61–62.

\textsuperscript{161}Ibid., 53 and Houston Post, September 7, 1942, 1.

\textsuperscript{162}Houston Chronicle, September 7, 1942, p. 1; Houston Post, September 7, 1942, p. 1; and Houston, XIII (September 1942), 40.
several features of the site of their new yard itself militated against successful ship construction. To begin with, it was isolated. With no existing railroad line to the site, McCloskey—or in reality, the Maritime Commission—found itself forced to build a spur to the main line of the Southern Pacific Railroad one and a half miles away. Before the completion of the rail connection, all supplies and materials had to be off-loaded from train cars and brought by truck the short distance to the yard. This inefficient and expensive arrangement often resulted in delays in production if trucks were not immediately available.163

The remote location of the San Jacinto yard also impacted its ability to attract and keep workers, many of whom lived in the northern and western sections of the city. A labor market survey report of the Houston area prepared by the War Manpower Commission in February 1943 underscored the extent of this problem. It reported that:

> [t]he average monthly labor turnover (separation) rate for the November-December period was 16.43 per 100 workers, the highest rate in the local shipbuilding industry. . . . lagging behind the rise and fall of the rate of new hirings. The sharp increase . . . is ascribed in some degree to new hiring, unsettled conditions accompanying the change of managership, but mostly to excessive commuting distances. There are no housing vacancies in the vicinity [24 miles from Houston], bus service is inadequate, and the long drive to work has been wearing out tires [which were a tightly rationed item] of

private cars since the start of the project.\textsuperscript{164}

Whether it was the long commute or the experience of working at the yard, absenteeism at San Jacinto hovered at extremely high levels. The Houston Chronicle in March 1943 reported with some wounded local pride that the shipyard had the worst record for absenteeism of any operation its size in the nation.\textsuperscript{165}

Besides the logistical problems presented by the San Jacinto site, its very suitability as a location for shipbuilding was questionable. Where the yard fronted the San Jacinto Bay, the water was extremely shallow, no more than eighteen to twenty inches deep. To further complicate matters, that shallow water lay on top of about fifteen feet of silt, enough to snarl even the smallest boats. Even the relatively shallow draft of the barges being built at the yard required more than a foot and a half of clearance. As a result, a twenty-foot-deep channel a third of a mile long had to be dredged so that, once launched, ships could reach the ship channel.\textsuperscript{166}

With all these drawbacks, it is reasonable to ask why this site was chosen. The answer is simple but inexcusable: founder H.C. Cockburn had owned a piece of land on San Jacinto Bay and the Maritime Commission


\textsuperscript{165}Houston Chronicle, March 3, 1943, p. 9A.

\textsuperscript{166}Houston Post, April 22, 1943, p. 1.
failed to properly investigate the site before awarding the concrete barge contract to San Jacinto and agreeing to build a shipyard at this site. Compounding this poor judgment, the commission agreed to allow the land to revert to Cockburn after the war for a fraction of its value.\footnote{Ibid., September 7, 1942, p. 1.}

Despite its shipbuilding experience, McCloskey & Co. was not able to reverse San Jacinto’s fortunes. To be sure the new ownership inherited a miserable company, but some of its subsequent problems can not be blamed on prior management. For instance, the company’s president, M. H. McCloskey Jr., appointed his 25-year-old son M.H. McCloskey III as project manager. The younger McCloskey was inexperienced and proved a less than ideal choice, especially to manage a company as historically unstable as San Jacinto. More seasoned boat builders resented his presence, and in a short period of time, management/labor relations had deteriorated to an alarmingly low level. On November 12, 1942, after extensive tests had been done, the first hull panels for the barges were poured. So poor was the result that the first hull was described by some as a “‘sieve.’” Riddled with holes, the hull had to be patched in numerous places, decreasing the structural stability of the whole vessel. This repair process was not completed until March of the following year, a costly and unwelcome delay.\footnote{Investigation of the National Defense Program, 62–63.} McCloskey & Co. was also criticized by the **Truman Committee** report for its relatively high-paid workforce, citing a
General Accounting Office study that singled out the San Jacinto yard as having one of the highest number of high-salaried employees of any large shipyard in the area. These problems, coupled with poor location and, it must be admitted, a fundamentally ill-conceived design—meant that by early fall 1943 none of San Jacinto's called for twenty barges had been completed.

While the prospects for eventual production improved somewhat under McCloskey management, San Jacinto still lagged far behind Maritime Commission expectations. By the date of the Truman Committee’s report’s publication—February 1943—none of the first five barges was yet complete nor was expected to be for at least six months, considerably behind even the revised schedule set for the yard when it changed ownership. Originally, each barge was to have cost $568,733 for a total contract of $2,921,220. By the beginning of 1943 it was clear, however, that this amount was far too low. McCloskey predicted that completion of the initial five vessels would require an additional $4,308,577, bringing the total cost to $7,229,797 or an average of $1,445,959 per barge. With a contract for fifteen more barges, these estimates were a matter of great concern to the Maritime Commission. If

---

169 Ibid., 63.
170 Ibid., 62.
171 Ibid., 63.
costs remained at the same level, the total outlay for San Jacinto’s 20 ship order would be $28,919,188, more than double the original agreed price. In addition, it must be remembered that these barges were not self-propelled but depended on tugboats to tow them. Such tugs cost $1,100,000 each, and the Maritime Commission estimated it would need ten of them to utilize the barge fleet effectively—an additional $11,000,000. When combined with the $2,640,176 spent on San Jacinto Shipbuilders’ facilities, the government estimated that it would have to spend an astronomical $42,559,364 to put the yard’s 20 barges into operation.172

The lack of progress of the San Jacinto yard did not go unnoticed at the Maritime Commission offices in Washington. A construction program intended to be inexpensive and fast had consumed far more money, materials, labor, and time than could be warranted by its disappointing results. The Maritime Commission sent a series of progressively strident memos to the management of the yard but to little avail. Finally, the Maritime Commission referred the problem of the San Jacinto yard to the Truman Committee as part of its investigation of the entire barge building program. The Truman Committee described the concrete ship program overall as “appallingy expensive and extremely slow” and pointed to evidence at San Jacinto of “rapacity, greed, fraud, and negligence . . . .”173

In addition, the committee referred its findings on the San Jacinto

172Ibid., 64.

173Ibid., 65.
Shipbuilders to the Department of Justice "for study and possible indictment." As a result of these damning words, on August 5, 1943, the Maritime Commission canceled all of the yard's remaining contracts for sixteen vessels, but allowed the company to complete work on the four barges already under construction. The first barge was launched August 26, 1943, and others followed it over the next two months. As each was launched, the workers required to construct it were laid off. By October 20, 1943, when the fourth and final barge was launched, only 1,200 employees remained out of a peak level of near 3,000. And after the final barge slid down the ways, the workforce was reduced even further to around 850 who prepared the yard for moth-balling and closure by the end of 1943.

Locally, the reaction to the findings of the Truman Committee and the subsequent closing of San Jacinto Shipbuilders was embarrassment and dismay. The failure of San Jacinto, singled out as it was by the national

---

174 Ibid., 3.

175 Houston Post, August 25, 1943, p. 2.


177 Ibid., December 4, 1943, p. 10. After the closure of San Jacinto Shipbuilders, the 83 acre site remained the property of the Maritime Commission. As per its agreement with H. C. Cockburn the commission returned 43 acres to the Houston oilman, leaving only the 40 acres of buildings and other improvements. This remainder was then sold to E. I. du Pont de Nemours & Co. as part of the creation of a vast chemical plant—the bulk of the land for this development, around 800 acres, was sold to the chemical giant by Cockburn for $500,000. Houston Chronicle, March 10, 1944, p. 1 and Houston Post, March 10, 1944, p. 1.
government for criticism, was the city’s most notable black eye in the entire war effort. A Houston Post editorial called the affair a “lamentable showing” in which “the taxpayers must kiss their hard-earned money goodbye without ever knowing what went with it, or how or why.” However, the editors were quick to remind their readers that the San Jacinto fiasco was “[t]he only blemish on Houston’s splendid record as a shipbuilding center . . .”\textsuperscript{178}

Ironically, none of the eighty-four concrete barges, including the four delivered by the San Jacinto Shipbuilding Corporation, built under the Maritime Commission’s wartime concrete ship program ever saw use \textsuperscript{179} hauling the oil for which they were intended. By the time the barges were ready for service, the oil transportation problem had been solved by the construction of pipelines from Texas to the Northeast. Instead, concrete barges were pressed into service by the Navy as floating storage tanks in the southwest Pacific and for other uses.\textsuperscript{179}

Even with the spectacular failure of San Jacinto Shipbuilders, the experience of Houston as a wartime shipbuilding center must rate as one of the more extraordinary in the city’s history. True, the Bayou City did not remain a great center of shipbuilding in the postwar era, and limited its involvement in the industry to the mundane construction of oil barges and other vessels. However, the fact that shipbuilding did not maintain a

\textsuperscript{178}Houston Post, August 7, 1943, p. 4.

\textsuperscript{179}Lane, Ships for Victory, 633–34.
position of importance in the local economy belies the importance of its legacy. It was to work on the ways at the HSC, Brown, and San Jacinto that tens of thousands of men and women migrated to Houston. Largely because of these wartime migrants the city’s population expanded dramatically, passing New Orleans to make it the South’s largest according to the census of 1950. It was in Houston shipyards that many had their first experience as welders, burners, pipefitters, and in other industrial tasks. These men and women would become the foundation upon which was built the area’s remarkable postwar transformation into a dynamic and booming industrial region. Because of them, Houston was able to seamlessly make the transition to peacetime conversion by offering manufacturers the promise of a skilled workforce ready and waiting for employment.

Like industrial workers who acquired useful skills in the shipyards of the city, Houston’s commercial-civic elite learned valuable lessons there as well. Businessmen like the Brown brothers and others gained confidence and experience in managing massive industrial enterprises. They coordinated vast supplies of material, managed thousands of employees, and dealt in staggering sums of money. Perhaps more important, however, for Houston businessmen shipbuilding provided an example of the enormous potential for profitability that lay in cooperation with the federal government. World War II ushered in a dramatic relationship between Washington and the country’s private industries. Largely due to the city’s experience with shipbuilding Houston leaders
were among the most successful in the nation at taking advantage of postwar developments. Embarking on its greatest period of growth and prosperity, the city that prided itself on its devotion to the unfettered practice of free enterprise learned that federal funds could prove useful in priming its economic engines.  

---

180 It is no great conceptual leap to see a continuum from Houston leaders' ability to convince the federal government of their city's suitability for wartime shipyards to the creation in the early 1960s of the Johnson Space Center. The 1940s provided an important learning stage for the city's commercial civic elite and it was no coincidence that key players like George R. Brown and Albert Thomas were involved in both episodes.
IV.

Wartime Innovation, Diversification, and Growth in the Houston Oil Industry

Despite British War Cabinet Minister Viscount Curzon’s famous quote that in World War I the Allies “floated to victory on a wave of oil,” that designation is more appropriately applied to World War II.¹ Like no war before it, the conflict was dominated by the internal combustion engine and fueled by petroleum. Fought in all corners of the globe, the war demanded that its participants be able to move huge masses of men and equipment with maximum efficiency over vast distances. In this, the most mechanized conflict in history, oil became absolutely essential, relied upon by all combatants. Houston as the oil capital of the world would serve as a key center of the Allied production and refining effort. The wartime federal investment in area facilities would create a new and exciting era for local oil companies, diversifying their range of products to include an array of petrochemicals that would serve as a major catalyst for the city’s postwar economic boom.

Consider just two of the primary weapons of the war: the tank and the airplane. While tanks had appeared during the First World War, their use did not become widespread until the Second. In their attack on Poland

in 1939, the Germans showed the offensive capabilities of armored forces. The concept of the blitzkrieg, or lightning war, was centered around the ability of tanks to move quickly and penetrate deep into the interior of enemy territory. Poland, Denmark, Norway, and the Low Countries all fell rapidly in the face of this new form of combat. In the German invasion of France in May 1940, the final nail was hammered into the coffin of old-fashioned defensive warfare. German mechanized forces rendered the supposedly impregnable Maginot Line useless by simply sweeping around it through terrain the French defenders believed impassable. While panzers (tanks) carried out the blitzkrieg on land, in the skies the German Luftwaffe added an aerial dimension. Planes too had played a role in World War I, but, in terms of tactical effectiveness, a limited one. In the next conflict, however, air power would prove to be one of the major factors in determining victory. The deep thrusts by German armor were supported by coordinated attacks by a variety of aircraft. The Germans utilized aircraft to attack enemy military targets and other sites to weaken their enemies’ war-making capabilities. But in a savage turn that was to have momentous and tragic consequences for mankind, the Luftwaffe also engaged in terror bombing of noncombatants.

As bombs rained down on the citizens of Warsaw, Rotterdam, Brussels, and other cities, their citizens learned only too well that war had entered a new and deadly realm.3

Tanks and airplanes were but the tip of the iceberg that was World War II's reliance on machines. On land, there were also trucks, half-tracks, jeeps, motorcycles, and scores of other vehicles on which armies of all nations depended. In addition, the diesel engines had become the prime method of locomotion on the railroads of the world's industrialized nations. On the seas too, diesel engines powered most of the world's ships, both merchant and naval. All these varied engines relied on petroleum for power, and without plentiful petroleum supplies armies and navies would simply grind to a halt.4

Oil so dominated the way war was waged that it frequently affected military strategy and tactics. Hitler's maniacal rhetoric was replete with references to *lebensraum* or "living space" for the German people through the inevitable victory over the Slavs to the east. Hidden behind the bluff and bluster of the Nazi leader was an even more compelling military reason to march eastward. Germany had little or no petroleum resources of its own and needed to secure access to a supply in order to sustain its war effort. Thus the alliance with—some would say seizure of—Romania

---


and its rich oil region centered around Ploiesti became an important early German war aim.\(^5\) Similarly, the invasion of the Soviet Union in June 1941 had as one of its main objectives the seizure of the oil-rich Caucasus region in the south of the country.\(^6\) On the other side of the globe, Germany’s ally Japan was also an advanced industrialized nation with no domestic source of petroleum. As a result, one of Imperial Japan’s primary war aims was the seizure of the Dutch East Indies, one of the few known sites of oil production in East Asia.\(^7\) Clearly, it is little exaggeration to declare that the very lifeblood of the world’s industrial nations, most of which were involved in the Second World War, was oil. And from the beginning of the conflict it was clear that the victors would be those who could most effectively produce or somehow seize the oil that they needed.

With the importance of oil in the conduct of the war, it was easy to deduce that Houston, would play a major role in the United States’ participation. Producing 472,800 barrels per day by 1941, the city was the


\(^7\)Goralski and Freeburg, *Oil & War*, ch. 6.
unquestioned center of refining in the nation, if not the world.\textsuperscript{8} It had become the heart of a vast pipeline system that connected it to virtually every major producing region in the US. Led by major firms like Humble, Shell, and Sinclair, Houston was home to the greatest concentration of oil companies and related firms in the world. Along with the high levels of production, this aggregation of petroleum businesses meant that the city could also boast of its role as a center of petroleum research and development. It was in the Bayou City that many of the possibilities of oil were explored and exploited. With such experience, the know-how of Houston scientists and engineers would be called upon to aid the nation’s war effort. Traditional products would be improved and advanced. For example, Houston oil makers played a large part in perfecting the high octane gasoline so necessary to power the new advanced combat aircraft. The war also prodded researchers to develop a number of entirely new products. Out of need, the wide-scale production of petroleum-based toluene, a vital component of TNT, was initiated. So too was the manufacture synthetic rubber and a new range of polyvinyl chloride and polystyrene resins used for everything from bomber gun turrets to raincoats. By the end of the war it was clear that these new war-inspired developments in the oil industry would prove a huge boon to Houston. A whole new realm of products had opened up that would prove to be a driving force in the city’s growth: petrochemicals. In the postwar period
\textsuperscript{8}Joseph A. Pratt, \textit{The Growth of a Refining Region} (Greenwich, Conn.: JAI Press, 1980), 67.
this would be the Houston economy’s most dynamic growth sector.9

The basis of Houston’s dominance in the oil industry and its ability to seize these wartime opportunities lay first and foremost in its location. In 1941 Texas contained the lion’s share of petroleum resources in the United States, well over 60 percent of the entire nation’s proven oil reserves of 19,025,000,000 barrels.10 Of that amount, some 5,100,000,000 barrels lay in the Gulf Coast region centered on Houston and stretching from New Orleans in the east to Brownsville in the southwest. Apart from its underground reserves, the area loomed large in production. In 1939 within a 150-mile radius of Houston lay 185 viable oil fields. In 1940, Gulf Coast wells produced nearly 18 percent of the nation’s crude (unrefined) oil, including 23 percent of the new oil discovered in the US that year.11

Along with being the most prolific producing region in an oil-rich state, the Gulf Coast region also dominated refining in Texas. By 1940, the thirty refineries of the Texas Gulf Coast—along with the Louisiana Gulf

---


10Houston Post, December 10, 1941, p. 1,8.

11Houston, XII (April 1941), 92.
Coast—refined 50 percent more oil than any other part of the nation.\textsuperscript{12} And in that Gulf region, the Houston area stood out as the leader. Geography was partly responsible for this, but what nature did not give to Houston, its ambitious leaders created. The city’s oil companies had aggressively made it the transportation hub of the industry. Through thousands of miles of pipeline, on seventeen railroad lines, in tanker trucks, and on tanker ships and barges on the manmade ship channel, 61 percent of the nation’s oil flowed through Houston in 1939.\textsuperscript{13} To be sure, much passed through as crude, but much stayed to be refined. In 1941, of the 1,167,400 barrels refined every day on the Texas and Louisiana Gulf Coast, Houston area plants refined 472,800, or 40.5 percent—approximately 10 percent of the daily total for the entire United States.\textsuperscript{14}

The Houston refining scene was dominated by large companies. Humble Oil and Refining Company built its facility at Baytown twenty-five miles east of Houston in 1921. By the early 1930s the vast refinery

\footnotesize{\textsuperscript{12}The Texas and Louisiana Gulf Coast region accounted for 27.9 percent of all U.S. refining capacity in 1941. Next greatest was the West Coast at 18.3 percent, then the Midwest at 15.9 percent, and finally the East Coast at 15.4 percent. Pratt, \textit{Growth of a Refining Region}, 66 and \textit{Houston}, XI (April 1940), 111.}

\footnotesize{\textsuperscript{13}\textit{Houston}, XI (October 1940), 5.}

\footnotesize{\textsuperscript{14}Ibid., XI (April 1940), 111 and Pratt, \textit{Growth of a Refining Region}, 67. The remainder of Gulf Coast 1941 in barrels refined per day in 1941 was as follows: Beaumont Port Arthur—450,600 (38.6%); Corpus Christi—106,500 (9.1%); and Louisiana Gulf Coast—137,500 (11.8%). A barrel is defined as containing 42 gallons.}
the Gulf Coast. By the outbreak of the war its capacity had been expanded to almost 140,000 barrels per day, making it the largest refinery in the United States—in the world, only a refinery in Iran was bigger.¹⁵ Next largest in the Houston area was Shell Oil Company’s works at Deer Park, established on the south side of the ship channel in 1929. Other large refineries included the Sinclair Refining Company facility on the La Porte Highway just outside the city limits, a small Texaco unit at Galena Park, the Crown Central Petroleum Corporation refinery in Pasadena, the Eastern States Petroleum Company plant in Houston, and the Pan-American Refining Company and Republic Oil Refining Company refineries in Texas City, considered part of the Houston area.¹⁶

At the outbreak of the war, oil and oil-related businesses almost totally dominated Houston’s economic life. One report claimed that in 1940 over half of the city’s jobs were tied either directly or indirectly to oil.¹⁷ Much of the employment lay in ancillary fields, primarily oil-related manufacturing. The same report estimated that 60 percent of the oil tool business in the world was done in Houston. Major companies like Hughes Tool, Reed Roller Bit, Cameron Iron Works, and many others dominated the city’s manufacturing sector. In 1939, a Census Bureau

¹⁵Pratt, Growth of a Refining Region, 73 & 86 n 13.

¹⁶Ibid., 75 and Houston, XI (April 1940), 113.

¹⁷Houston, XI (April 1940), 52.
report showed that the twenty-seven firms described as oil tool and/or oil
field machinery producers made up the largest segment of the local
industrial scene, employing 4,686 wage earners and producing $32,832,546
in product value.18 From refining to oil tools, Houston’s role in the
petroleum industry prepared it to meet the many challenges of wartime
operation. This experience would be called upon before the United States
even entered the conflict to meet one of the most pressing needs, the
creation of high explosives from petroleum.

Trinitrotoluene, or CH₃C₆H₂(NO₂)₃, is the chemical name for the
explosive substance commonly known as TNT. For many years the main
component of TNT, a hydrocarbon known as toluene—or sometimes
toluol—was primarily created as a by-product of the manufacture of coke.
It occurred when coal was crushed and heated to a high temperature,
resulting in a gas that was then condensed and distilled to produce a clear
colorless liquid. When treated with nitric and sulfuric acids, this liquid
becomes TNT, a crystalline solid.19 By the 1940s, however, the US coal
supply was increasingly jeopardized by the threat of strike by John L.
Lewis and his United Mine Workers, and the federal government sought an
alternative source of toluene. German scientists had developed a method of

18 Houston Chronicle, July 14, 1941, p. 4A. In order the rest of the top five
Houston manufacturers were: food producers—1,599 employees and $29,320,036 in
product value; steel & iron—1,290 and $14,080,240 respectively; bread and other
bakers—780 and $6,059,746; and textile bag manufacturers—497 and $5,436,960.

19 Houston, XI (September 1940), 29.
creating the substance from petroleum in the early 1920s, and Standard Oil of New Jersey had acquired the US patent rights for this process in 1927.²⁰ Chemists had long noticed that toluene naturally occurred in some types of crude oil; however, as it often appeared in as small a proportion as 1/100th of 1 percent, extracting it proved to be an inefficient process involving expensive distilling and other separation techniques.²¹ Researchers at Louisiana Standard laboratories in Baton Rouge in 1933 discovered that by hydrogenating petroleum in a process called hydroforming they could produce synthetic toluene in large quantities. Further research by other Standard chemists and those of Houston-based Humble further improved the process, and by 1938 researchers at Baytown had achieved a 99.7 percent pure nitration-grade synthetic toluene. This Humble-developed process involved a technique known as double extraction using common petroleum derivatives called naphthas.²² Toluene produced in this manner could be “nitrated,” combined with nitrates, to create TNT.²³

In August 1940, with war clouds on the horizon, Standard Oil of 


²¹Houston, XI (August 1940), 43.


²³Thomson and Mayo, The Ordnance Department:, 135 n. 30.
New Jersey, the American owners of the petroleum-derived toluene patent rights and Humble’s parent company, approached the Ordnance Department of the US Army about creating a government-financed plant solely dedicated to producing synthetic toluene. It seemed only natural that such an operation be located at Humble’s Baytown refinery. Scientists experienced with the process already worked there, Baytown was the largest refinery in the US and it had the capacity to incorporate a large new addition to its already extensive facilities. On October 12, 1940, Humble signed an agreement with the federal government to build and operate a synthetic toluene plant on fifty acres adjoining its own refinery on the site of an old rice field.\footnote{Larson and Porter, *History of Humble*, 564. Humble agreed to sell the 50 acre plant site for $10,000, a level far below its worth. It also agreed to expand some of its own facilities to meet the demands of the new toluene plant next door. This expansion was financed by the company which was repaid by the government over a five year period. After that time, Humble was granted the right in five years to buy the new facilities at cost, minus a portion for depreciation. Houston *Chronicle*, October 24, 1940, p. 1; October 25, 1941, p. 4A; and *Houston*, XI (November 1940), no clear page.} In the agreement, Washington agreed to finance the plant and Humble agreed to operate it on a cost-plus-fixed-fee arrangement of $300,000 per annum. Humble also agreed to provide prime-cut naphthas for the toluene plant from its main refinery next door for 12¢ per gallon. However, in 1942, after production was well underway, the company voluntarily agreed to reduce its yearly fee to $175,000 and the price of its naphthas to 8¢ per gallon to avoid any criticism for making unseemly profits from the war.\footnote{Larson and Porter, *History of Humble*, 596–97.}
The construction of what came to be known as the Baytown Ordnance Works (BOW) actually began a couple of weeks before the contracts with the government had been signed—Humble was that sure of the urgent need for such a facility. Costing $12,517,453, work on the plant lasted from February until early September 1941 and production began later that month on an initial yearly contract valued at $7,600,000.26 Upon completion, Baytown Ordnance Works was the first synthetic toluene plant in the world and would serve as a model for a number of others during the war.27 Designed to produce 2,000 barrels or 84,000 gallons per day, by war’s end the plant would raise its level of production to more than double that total.28

Precise descriptions of the Baytown Ordnance Works were rare due to wartime restrictions on printing classified material. One reporter from the Philadelphia Inquirer who did tour the plant as part of a group of newsmen remarked on the tight security measures taken to guard against sabotage. The scribe remarked that it was “almost as difficult to get into

26“Defense Industrial Facilities—Value of Industrial Financed with Public and Private Funds—Texas, September, 1941” (Office of Production Management List, December 9, 1941), Box 3, Miscellaneous War Production Board Folder, Albert Thomas Papers (Woodson Research Center, Fondren Library, Rice University) (hereinafter cited as Thomas Papers); Houston, XI (December 1940), 4; Houston Chronicle, October 24, 1940, p. 1; and October 24, 1941, p. 6A.

27Larson and Porter, History of Humble, 596.

28Ibid., 596; Houston, XI (November 1940), no clear page; and Houston Chronicle, September 6, 1945, p. 16B.
the plant as some of us, perhaps, will find in getting through the Pearly Gates.” Visitors checked in at the guarded front gate where they had to divest themselves of anything, such as matches or lighters, that might produce a spark. Guests were then escorted to another security office where they were required to fill out a raft of forms requiring detailed background information on themselves. Once inside the plant, this reporter, for one, found the fifty acre complex a bewildering “maze of dials . . . [and] buildings where huge pipes form intricate loops, and patterns of machinery stagger the imagination.” Perhaps indicative of Humble’s rosy view of its postwar future, the guide of the newsmen’s tour made sure to point out toluene’s many

peace-time useages [sic] . . . [such as] a variety of synthetic chemicals and solvents, plastics and lacquers. It can be used in making 100 octane fuel, for making atabrin which has largely taken the place of quinine as a treatment for malaria, and for making synthetic derivatives of the sulfanilamide drugs.29

The construction and operation of the Baytown Ordnance Works proved a boon to the economy of nearby Baytown, Goose Creek, and Pelly, the so-called Tri-Cities of eastern Harris County. Construction required over 1,000, workers and their presence in the area in 1941 boosted local retail sales to their highest levels in a decade, almost doubling the national average. Other implications of the presence of the BOW were less positive

29Reprinted in Houston Post, June 20, 1943, p. 1,18.
for the small communities, but no less consequential. Housing became a major problem in all three of the Tri-Cities, small towns with a limited number of available dwellings. This small supply was exhausted almost immediately and dramatic measures became necessary. The United States Housing Authority built a $280,000 housing project in Pelly; but with space for only sixty families, it only scratched the surface of need. Many of those working on the construction of the BOW had to make do with makeshift quarters in the trailer parks that sprang up along Market Street Road.\textsuperscript{30} Other workers at BOW and other war plants in the area were forced to look much further afield for accommodations and then commute to the job. The resulting increase in traffic in Baytown and neighboring communities so overwhelmed the existing road system that extensive construction had to be done to alleviate the problem.\textsuperscript{31}

Despite the occasional chaos that took place outside the gates of the BOW, within the plant hummed with efficiency. By almost any definition, it proved a marvel of production, arguably one of the most important industrial establishments in the entire United States war effort. Early in its existence, as the only synthetic toluene plant in the US, it had to shoulder the load of creating more than two-thirds of the nation's entire supply of


\textsuperscript{31} Houston Post, December 20, 1941, p. 3,4.
the high explosive material. In 1942 alone, the BOW churned out some 50,000,000 gallons, well over its early target level. This spectacular rate of production continued, and by the end of the conflict it was calculated that at least 50 percent of the toluene manufactured during the war came from the Baytown plant, a whopping 5,500,000 barrels plus. As Humble advertisements and executives proudly claimed, one of every two bombs dropped by Allied forces on the Axis powers was made possible by the products of the BOW. On December 14, 1944, Humble president Harry C. Wiess said: “This plant has supplied more toluene than was produced from all sources during World War I. At least one out of every two bombs used by the United Nations since Pearl Harbor has contained toluene from Baytown.” Company ads further boasted that “Humble has been producing more toluene than was formerly available from all other manufacturing sources in the United States combined.”

---

32 Austin American, June 21, 1957, no page, clipping in VF Humble Oil & Refining Co. (Center for American History, University of Texas, Austin, Texas).

33 Larson and Porter, History of Humble, 589 & 597.

34 Dallas News, December 15, 1944, no page, clipping in VF Humble Oil & Refining Co. (Center for American History, University of Texas, Austin, Texas).

35 Houston, XVI (January 1945), 48. Wiess delivered these words in a speech before a crowd of some 4,000 on the occasion of the celebration at Baytown of Humble’s production of its one billionth gallon of 100-octane aviation gasoline.

36 Houston Post, March 19, 1943, p. 21 and Houston Chronicle, March 18, 1943, p. 5A.
government proved equally enthusiastic about Humble’s efforts at BOW. On August 20, 1942, the plant was presented with the nation’s highest production honor, the Army-Navy “E” award. Adding to the tribute was the fact that this was the first time any oil company ever received an “E.” In addition to a large blue and red banner embossed with a white “E” given to the company to fly over the plant, each employee received a silver lapel pin to commemorate the honor. In the years to come, the Army and Navy would renew that award four times, on each occasion adding a gold star to the pennant flying over the plant.\(^\text{37}\) At the initial award ceremony, Colonel H. R. White, executive assistant to the chief of ordnance of the War Department, proclaimed that:

\[\text{[t]he importance of the Baytown Ordnance works in the war effort cannot be overestimated. . . . Your toluol has been delivered in bombs on the Axis factories in Europe, and in shells thrown at the Axis in Libya. Your toluol without a doubt is being used by our army and navy against the Japs on the Solomon Islands, and elsewhere in the South Pacific at this moment.}\(^\text{38}\]

When victory over Japan became clearly imminent, the federal government canceled its remaining contracts with Humble and closed Baytown Ordnance Works on August 20, 1945. The company reopened it, however, a short time later under a 90-day lease arrangement and then purchased it outright in early 1946 for $7,000,000, or $5,000,000 less than

\(\text{37}\)Houston Post, August 21, 1942, pp. 1 & 3,1 and Houston Chronicle, August 21, 1942, p. 1.

\(\text{38}\)Houston Chronicle, August 22, 1942, p. 4A.
it had cost to construct. In peacetime, the market for TNT dried up. However, the plant’s equipment proved easily adaptable to other uses and was converted to produce aromatic solvents such as those sold under the brand names Solvesso Toluene and Solvesso Xylene used in insect sprays, paints, and as a constituent of gasoline. According to historians of Humble Oil, the purchase of the BOW government-built facilities was “an important factor in Humble’s early and firm entry into the postwar market for solvents, aviation gasoline, and high-octane motor gasoline.” More important, the same equipment and facilities would also turn out raw materials to create a range of new synthetic fabrics that found a multitude of industrial and consumer uses.

Humble’s Baytown Ordnance Works is an excellent example of how government and industry worked for their mutual benefit and also contributed to postwar prosperity. While no one should question its commitment to the national cause, it should also be clear that Humble made the most of opportunities created by the war. It made substantial sums of money producing toluene in a government plant that it later bought at a price made lower by its own use of the facilities. This would only be one of many examples of the manner in which Houston firms gained long-term benefits from wartime investment made by the government during the war.

---

39Larson and Porter, *History of Humble*, 623. Humble’s $7,000,000 purchase of the Baytown Ordnance Works was “based on the cost of the usable equipment purchased, less 10 percent annually for depreciation and obsolescence.”

40*The Lamp*, 37 and Houston *Chronicle*, September 6, 1945, p. 16B.
Other local firms also became involved in the Ordnance Department's synthetic toluene program, benefiting from the agreement of Standard, Humble's parent company, to share its exclusive rights to I.G. Farbenindustrie's hydrogenation techniques as part of the war effort. Pan-American Refining Company's Texas City refinery added a $500,000 toluene unit in early 1942. More significantly, in late summer and early fall of 1940 Shell constructed a $500,000 toluene plant of its own at its Deer Park refinery. Shell expected annual capacity to reach 2,000,000 gallons, enough to create 20,000,000 pounds of TNT. When the United States entered into more significant war preparations in 1941, Shell found itself the beneficiary of the increased government demand for explosives. To help meet the need, a second $500,000, 2,000,000 gallon-per-year toluene unit was added at Deer Park. On a far more modest scale than the massive Baytown Ordnance Works, Shell was actually able to put its toluene facility on-line earlier, producing its initial run of finished synthetic product in December 1940, the first ever produced at a petroleum refinery.

---

41*Houston Post,* January 17, 1942, p. 2.

42*Houston,* August 1940, p. 18 and June 1941, p. 16.


44*Ibid.*, January 1941, p. 44. Shell's claim to be the first producer of toluene was true. The earlier creation of the material at Humble and Standard facilities occurred only in laboratories, never in actual production.
Along with toluene, the oil industry was called upon to create another synthetic product vital to the prosecution of the war. Before the hostilities, the vast majority of the US and world supply of rubber came from the plantations of East Asia—Malaya, the Netherlands East Indies, and Indochina—all of which were seized by the Japanese by early 1942. Of those rubber sources not in Japanese hands, it was estimated that production could reach no more than about 115,000 tons a year, a fraction of the 1,200,000 tons that the United States and allies would need annually. Rubber was important not just for the millions of tires that military forces would be using throughout the war but for a vast number of other applications as well. From the soles of foot soldiers’ boots on the battlefield to the oxygen mask of the pilot flying thousands of miles above,

---

45In 1937, the ten leading suppliers of rubber to the US were, in order (modern names in parentheses):
1. Malaya (Malaysia)
2. Netherlands East Indies (Indonesia)
3. Ceylon (Sri Lanka)
4. French Indo-China (Vietnam, Cambodia, and Laos)
5. Siam (Thailand)
6. Sarawak (on the island of Borneo, now part of modern Malaysia)
7. all South America
8. North Borneo (on the island of Borneo, now part of modern Malaysia)
9. India
10. Africa.
By early 1942 the vast majority of these sources had become inaccessible to the rubber producers of the United States. Of the ten 1,2,4,5,6, and 8 were directly controlled by the Japanese. 3 and 9 remained in British hands, but with the threat to shipping, transportation from both places proved extremely difficult. Similarly, trade with South America and Africa was made perilous by the threat of submarine and other naval warfare in the Caribbean and Atlantic. Julia Elston Battle Narrative, “The Effects of the War on Trade Between Latin America and the United States,” (Center of American History, University of Texas, Austin, Texas).

fighting forces depended on rubber to effectively wage war. Clearly, new sources would have to be found and with great speed. Luckily for the US, several national leaders had given the matter some prior thought.

It fell to the Reconstruction Finance Corporation and its Houstonian chairman Jesse Jones to ensure that the United States find itself a supply of rubber adequate to meet its needs. In 1940 Jones was named head of a new organization, the Rubber Reserve Company (RRC), charged with stockpiling natural rubber and finding alternative sources should the same become unavailable. Jones set about purchasing as much natural rubber as possible on the world market. However, even with a concerted effort, it became obvious that the result could not come close to meeting the needs that would arise in the event of a war or other such national emergency. Consultations with the “Big Four” rubber makers—B. F. Goodrich, Goodyear, Firestone, and United States Rubber (Uniroyal)—convinced Jones that two courses of action were necessary: one, to establish the large-scale production of synthetic rubber in the United States and two, to fully develop the possible sources of wild rubber in Latin America.

Wild rubber, as its name implies, comes from a plant that grows naturally in the jungles of central and South America in scattered pockets. The RRC reached agreements with seventeen Latin American nations to harvest and sell the wild product to the United States. While this purchase program netted 153,545 long tons (2,240 pounds each) of rubber, this
represented only a fraction of what was needed.\textsuperscript{47} One other attempt at harnessing the natural resources of the western hemisphere was the attempt to use the guayule plant indigenous to the southwestern US and northern Mexico. This desert shrub has a sap that, when refined, turns into a usable latex. However, the amounts derived from this natural source proved impossible to obtain in the massive quantities needed.

Another stopgap measure intended to secure for the nation an adequate supply of rubber until synthetic plants could open was the collection of scrap for recycling and reuse. On June 12, 1942, President Franklin D. Roosevelt formally launched a national scrap rubber collection drive. Enlisting the aid of the oil industry, filling stations became collecting points for this campaign and in one month collected 454,000 tons of scrap rubber, or about three times what had been netted from the wild rubber program.\textsuperscript{48} In December 1942 the Office of Price Administration put rubber, especially automobile tires, on its growing list of consumer items subject to restrictions. In fact, so stringent were the regulations regarding civilian rubber usage that they prompted the creation of an entire set of gasoline rationing rules. It is a common misconception that gasoline was rationed because it was in short supply. That was not the case.

\textsuperscript{47}The seventeen nations were: Brazil, Bolivia, Peru, Venezuela, Colombia, Ecuador, Nicaragua, Honduras, British Honduras (modern Belize), Costa Rica, Guatemala, Panama, Mexico, El Salvador, British Guiana, Dutch Guiana, and Trinidad. \textit{Ibid.}, 418–21.

\textsuperscript{48}\textit{Ibid.}, 431–32.
Petroleum production and refinery capacity would have been able to accommodate a higher level of civilian gasoline consumption than was allowed. It was the shortage of rubber that made gasoline rationing necessary. Civilians were warned to avoid making unnecessary trips and to make their tires last for the duration. Newspapers and magazines of the day repeatedly warned against excessive wear on tires, and the efforts to preserve one’s precious whitewalls became one of the most common laments heard on the home front. By the end of the war this rationing of rubber made it nearly impossible for average Americans to buy new tires, prompting fierce criticism and anger among a nation of car-lovers.49

Knowing that the combination of stockpiling natural and wild rubber had proven inadequate, Jones and industry leaders had devised a plan to create a network of synthetic rubber plants, funded by the government and run by private companies. The proposed synthetic program was possible because of extensive research in which the four major rubber companies, along with the oil industry’s Standard of New Jersey and chemical giants Du Pont, Monsanto, and Dow were already engaged. While results seemed promising, they remained unproven in mass production. No commercial quantity of synthetic rubber had yet been produced in the United States in 1941. Additionally, the various company development programs represented a wide variety of approaches to creating durable, inexpensive

synthetic rubber. Some utilized petroleum as their base ingredient, others focused on alcohol distilled from grain. Also hindering a national effort at creating a uniform production program was the intense competition among the various private companies. Jealously guarded secrets were not easily pried from, say, B. F. Goodrich and delivered gratis into the hands of its arch rival Firestone. This attitude of prickly independence would continue until the bombing of Pearl Harbor turned such intransigence from cagy business practice into potentially treasonous behavior.50

President Roosevelt approved a $25,000,000 pilot program to build four plants each with 10,000 ton capacity, and construction began in March 1941. After the United States found itself at war in December, the pilot program was expanded by ten times to achieve a capacity of 400,000 tons of synthetic rubber per year. Even that ambitious figure did not remain in effect very long. When Singapore fell to the Japanese in February 1942, it became clear that the vast majority of rubber to be used by the United States during the war would have to be of the manufactured variety. As a result, the annual capacity of the then still uncompleted imaginary synthetic rubber plants was raised to 805,000 tons a year.51

Chief among the obstacles to be overcome in building a brand new synthetic rubber industry was the question of just what that rubber should

50Jones and Angly, Fifty Billion Dollars, 402–6.

51Ibid., 408.
be made of. There were several different possible “recipes,” as chemists termed them, and, as noted previously, different companies had developed a number of types of rubber. There was neoprene, a synthetic developed by Du Pont and manufactured in very small quantities at a plant in Louisville, Kentucky. Neoprene was a useful material, with applications from tank liners to soles for footwear. However, it proved nondurable in many of the more rigorous sorts of uses rubber was required to undergo. The RRC purchased Du Pont’s neoprene plant and expanded it to produce rubber for the limited applications to which it was suited. Another synthetic rubber product was called butyl and had been developed by Standard of New Jersey. Butyl results when isobutylene—a hydrocarbon liquid or gas found in petroleum and natural gas with the chemical formula (CH₃)₂C=CH₂—is combined with the refinery gas isoprene and a catalyst at extremely low temperature. The resulting butyl rubber is very soft and pliable, perfect for use in tire inner tubes and flexible hoses for machinery.⁵² Despite butyl’s advantages, like neoprene it is too soft to be used in heavy wear applications such as tires. There was, however, another sort of synthetic rubber that proved to be ideal for just such uses.

In the mid to late 1930s, German chemical giant I. G. Farberindustrie developed a rubber called Buna-S, 75 percent of which was a substance known as butadiene, the rest styrene. Butadiene can be manufactured in two ways, either through the processing of grain alcohol

⁵²The Lamp, 34.
or from petroleum. This latter method involves cracking crude oil to create a mixture of simple molecules including a gas that when subjected to high pressure results in liquid butadiene. To create the copolymer Buna-S, butadiene is blended with styrene, a hydrocarbon liquid created from ethylene and benzene—both found in oil and natural gas—then heated under pressure.\textsuperscript{53} The benefits of Buna-S were clear to many of those involved in the quest to produce durable synthetic rubber. BF Goodrich contacted Farben in 1937 about purchasing the American rights to its Buna-S patents but was unsuccessful. It was not until after the outbreak of war in Europe that the German company proved willing to consider such a proposition. In 1939, it sold the American rights to all of its synthetic rubber patents to Jersey Standard.\textsuperscript{54} Despite the looming war crisis, \\

\textsuperscript{53} Mansel G. Blackford & K. Austin Kerr, \textit{BF Goodrich: Tradition and Transformation}, 1870–1995 (Columbus: Ohio State University Press, 1996), 153–57; Houston \textit{Post}, November 1, 1942, p. 1,16; and Houston, XI (August 1940), 20–21. The volatile nature of both styrene and butadiene meant that the production of Buna-S was extremely exacting and required close supervision. From storage tanks in a Buna-S plant, the two liquids were fed into a glass-lined reactor tank. There a chemical catalyst as well as, believe it or not, soapsuds were added to facilitate polymerization (bonding) of the butadiene and styrene. After around 16 hours the mixture resembled a thick liquid latex which was transferred from the reactor to the latex tank where an antioxidant was introduced to make the rubber light and heat resistant. Next the mixture was placed in a coagulator unit where sulfuric acid was introduced to turn the mixture into a thicker more solid form. The resultant substance was divested of any remaining liquid by means of a circular vacuum filter and then dried at 215° fahrenheit on a conveyor belt before being formed into 75 pound blocks for shipment. Houston \textit{Chronicle}, May 28, 1943, p. 10A.

\textsuperscript{54} While it may seem incongruous that a German company would sell its patent rights to a company of a potential rival nation it must be remembered that in 1939 Hitler still hoped to keep the U.S. out of involvement with the European war. The agreement was reached after the invasion of Poland when Germany was already at war with France and Great Britain and realized that cordial relations with American business leaders might impact policy decisions. Ronald H. Bailey, \textit{The Home Front: USA} (New York: Time-Life Books, Inc., 1977), 181.
Standard seemed unwilling to share the fruits of this investment. Seeking to control the emerging synthetic rubber industry, the company sued Goodrich and other rubber makers in 1940 for infringement of its Farben patents. While in peacetime such tactics could be excused as good business, after Pearl Harbor when Standard appeared no more inclined to share its technology with other rubber makers, the company was pilloried by politicians and the press. Faced with universal criticism, in mid-December 1941 Jersey agreed to allow other companies to manufacture Buna-S.55

With the way clear for any qualified party to make Buna-S, the RRC was able to embark on a blitz of plant building. Nearly $700,000,000 went into the purchase, conversion, or construction of fifty-one government-owned plants involved in some way in the synthetic rubber program. To most efficiently utilize the nation’s resources, facilities were located near the raw materials that they needed. Thus, the three plants making Buna-S out of butadiene derived from alcohol were placed in Pennsylvania, West Virginia, and Kentucky, close to centers of grain production. Similarly, the bulk of those plants for the conversion of petroleum into butadiene and thence to rubber were located in Texas and Louisiana. The petroleum method would prove to be the more efficient and productive of the two.56

Facilities were broken down into two categories. The first included plants that manufactured the components of synthetic rubber. Some produced

55Blackford and Kerr, _BF Goodrich_, 155 & 160.

56Jones and Angly, _Fifty Billion Dollars_, 415 & 610–11.
butadiene, others styrene, while others supplied necessary catalysts and other chemicals. The second category of plants took the constituent elements and from them created finished rubber.\textsuperscript{57} The earliest plants came on line in May 1942, and the bulk of them were producing by the fall of 1943. By the end of the war over three billion pounds of Buna-S had been produced under the aegis of the RRC, half of which went to war orders and the other half went to industrial and civilian applications.\textsuperscript{58}

Houston’s role in the synthetic rubber program was enormous. Of the fifty-one plants financed by the RFC through its offspring Rubber Reserve Corporation, eight, 16 percent of all plants built, were constructed in the Houston-Texas City area, more than any other part of the nation. With a combined cost of \$116,400,000 (17 percent of the total for the nation) these plants represented the largest single sector of federal wartime

\textsuperscript{57}\textit{Ibid.}, 415 & 610–11. In the design of the synthetic rubber program, around 65 percent of butadiene was to be made from petroleum and 35 percent to come from alcohol. By the end of the war, oil had won out over rubber purely on cost effectiveness. One pound of petroleum-derived synthetic rubber cost \$12–13\textsuperscript{2} to produce while the same amount of alcohol-derived rubber cost 24\textsuperscript{2}. In December 1945 the decision was made to simply shut down the alcohol plants in West Virginia, Pennsylvania, and Kentucky. Houston \textit{Chronicle}, December 5, 1945, p. 5A.

\textsuperscript{58}Jones and Angly, \textit{Fifty Billion Dollars}, 415-16.
investment in the Houston area.\footnote{For the record, the breakdown of the 51 RRC plants was as follows:

Houston-Texas City-Velasco area—8
Los Angeles, California area—7
Baton Rouge, Louisiana—5
Louisville, Kentucky—5
Port Neches, Texas—3
Institute, West Virginia—3
Corpus Christi/Ingleside, Texas—2
Lake Charles, Louisiana—2
Borger, Texas—2
Akron, Ohio—2
Kabuta, Pennsylvania—2
Naugatuck, Connecticut—2
Deepwater, New Jersey—1
Newark, New Jersey—1
Toledo, Ohio—1
El Dorado, Arkansas—1
Ashtabula, Ohio—1
Memphis, Tennessee—1
Rochester, New York—1
Baltimore, Maryland—1

By region:
Gulf Coast—20
South Central—2
West Coast—7
Middle Atlantic—6
Midwest—4
Upper South—8
Deep South—2
New England—2

It can be seen that a high preponderance (20) of these facilities were located on the Gulf Coast, recognizing its dominance of the oil industry. Later, in the postwar period, it was not coincidence that this coastal corridor stretching from Corpus Christi to Baton Rouge, with its nerve center at Houston would become the center of the American petrochemical industry.}

The story of synthetic rubber in Houston really begins before the Rubber Reserve Company’s plant construction program of 1942–44. On January 5, 1941, Shell Oil announced plans to build a multi-million dollar plant adjoining its Deer Park refinery “to manufacture synthetic rubber

\footnote{Jones and Angly, \textit{Fifty Billion Dollars}, 610–11.}

from petroleum gases [i.e. butadiene]." Unlike the massive facilities built later, this plant was constructed entirely with company money. At the time of the announcement, the plant was designed to produce 5,000 tons of butadiene per year, making it the largest of the two facilities in the nation producing this substance at the time. Active construction lasted until December 1941, when the plant began operation. Despite the importance of Shell's butadiene works as a sign of the willingness of Houston area refiners to branch out into this exciting new area of the oil and gas business, the facility did not have the same impact as later plants that not only manufactured butadiene but also copolymerized it with styrene to create finished rubber. All of Shell's butadiene was shipped out after it was completed, destined to be turned into rubber elsewhere.

With Shell's Deer Park refinery proving the viability of butadiene plants in the area, in late 1941 Houston was earmarked as a main center of future expansion of the synthetic rubber industry. Jesse Jones was quite public in revealing that his hometown would be the chief beneficiary of the

60 Houston Chronicle, January 5, 1941, p. 1B.

61 Ibid., February 20, 1941, p. 1A. The other butadiene plant was a small one at Standard of New Jersey's Baton Rouge, Louisiana, refinery that had an annual capacity of approximately 1,800 tons.

62 Ibid., December 21, 1941, p. 10C.

63 Ibid., October 26, 1941, p. 13P.

64 Houston Post, December 23, 1941, p. 2,7.
government's efforts to build a synthetic rubber industry virtually from scratch. While plans were still in the developmental stage in early 1942, Jones virtually assured a reporter from his hometown that Humble Baytown and Sinclair's Houston refinery were virtually guaranteed of being included in the synthetic rubber effort. In addition he disclosed that the Monsanto Chemical Company of St. Louis would operate a facility in Galveston County as part of the same program. However biased Jones seemed to be in this frank admission that Houston would benefit greatly, his reasoning can hardly be questioned. First, Houston lay at the center of the greatest known oil producing territory in the world at the time. Second, in the Bayou City there existed a tremendous infrastructure for the shipment of oil and oil products to the rest of the nation. Houston's transportation links, both land and waterborne, were unparalleled. Third, the city had the largest concentration of experienced petroleum engineers, chemists, oil equipment manufacturers, and experienced managers of any location in the world. With all these factors and Jones's promises, it was mildly disappointing to some in Houston when the RRC announced its first synthetic rubber plant, a $40,000,000 facility that was awarded to Port Neches, near Beaumont. The massive plant there was to be jointly operated by five oil companies: Gulf, The Texas Company, Pure Oil, Atlantic Refining, and Magnolia. After the announcement of the Port Neches works, an editorial in the Post reminded Jones politely but insistently that

65Ibid., January 13, 1942, p. 1,12.
Houston not be left out.66

The editors of the Post need not have worried about their city being excluded from the synthetic rubber sweepstakes. On June 3, 1942, Humble revealed that it had signed an agreement with the Rubber Reserve Company to operate not one but two government-owned rubber plants at Baytown. The $43,000,000 project included one plant dedicated to the production of butadiene and the other to the manufacture of butyl rubber.67 The butadiene plant was rated to produce 50,000 tons per year while the butyl plant was designed to turn out 30,000 tons of synthetic rubber annually.68 A short time later, a third plant was announced, this one for the manufacture of Buna–S. This plant was designed and built for the government by Goodyear Tire and Rubber at the same time that the company was constructing a similar facility at the Sinclair refinery seven

66Ibid., April 14, 1942, p. 1.6. Subsequently, to meet the enormous production of the Port Neches butadiene plant, a synthetic rubber plant would also be built there. This facility was jointly operated by B. F. Goodrich and Firestone. Ibid., June 26, 1943, p. 1.

67Houston Chronicle, June 3, 1942, p. 1. Recall that butyl rubber had been developed by Jersey Standard chemists in 1937. As Standard owned a majority interest in Humble, it should not be surprising that the first synthetic rubber plant built at Baytown would be designed to produce the mother company's homegrown strain.

68Houston Post, June 28, 1943, pp. 2, 19, & 2,28. For a number of reasons, the butyl plant experienced numerous delays and did not begin in full production until September 1944. After completion, the plant turned out 24,000 long tons of butyl rubber, half the total amount manufactured in the US during the war. Houston Post, September 23, 1944, p. 1. Some idea of the scale and complexity of the Goodyear Baytown plant can be gleaned from the article in Houston Magazine that listed its daily material requirements for operation as follows: 38,000 gallons of butadiene and 7,000 gallons of styrene, a quarter of a box car of soap, 33 tons of salt, a railroad tank car of sulfuric acid per week, 2,400,000 cubic feet of natural gas, 67,000 kilowatt hours of electricity, and 2,304,000 gallons of water. Houston, XIV (July 1943), 34.
miles from downtown Houston. Unlike the Sinclair rubber plant, however, General Tire and Rubber and not Goodyear would operate the plant at Baytown. Construction, which lasted from October 1942 until June 1943, proved so rapid that the Baytown Buna–S plant was finished for several months before the butadiene plant that was to supply it. In the interim it was forced to get its feedstocks from elsewhere. Gala celebrations marked the end of construction on June 28, 1943, with speeches by Texas Governor Coke Stevenson, Secretary of Commerce Jesse Jones, and others who all spoke glowingly of the future of the rubber and other petrochemical industries in Houston. General chairman H. Stuart Hotchkiss remarked:

Synthetic rubber is here to stay. Don’t let anyone tell you that when the war is over all these fine plants will be discarded we are progressing so rapidly in our rubber chemistry that our processes may be obsolete before the peace comes, But the buildings, the instruments, the equipment will not be obsolete and it is certain that synthetic rubber can compete economically with natural rubber from the Far East. . . . The program of which we at Baytown are a part is a tire program. It is essential to the maintenance of our civilian economy that all civilian automobiles be kept operating for necessary purposes. . . . I look forward to a tremendous expansion of rubber uses.

Besides the invaluable contributions being made to the war effort, Houston—the speakers claimed—was sowing the seeds for its own future prosperity by becoming the “‘hub’” of world rubber production.

---

69 Houston Chronicle, June 28, 1943, pp. 1 & 14A and Houston, XIV (July 1943), 4–5, 21, & 23–24.
70 Houston, XIV (July 1943), 5 & 21.
Humble was not the only one of the Houston area’s big refiners to enter into the production of synthetic rubber on a grand scale.\textsuperscript{71} While the Sinclair (Sinco) refinery two or three miles beyond the city limits near Pasadena was far smaller than Humble’s mammoth Baytown installation, it became the site of the city’s largest rubber production facility.\textsuperscript{72} The vast Sinclair Rubber complex covered over 400 acres and consisted of thirty-six separate buildings including warehouses, laboratories, processing stations, and other facilities. Underground ran a complex network of over 200 miles of pipes that moved the necessary volatile materials from one part of the plant to another.\textsuperscript{73} The first unit to be completed at Sinco was a $12,800,000 Buna-S rubber plant, which began construction in July 1942 and was opened October 26, 1943.\textsuperscript{74} This facility was built with government funds and operated by the Goodyear Tire and Rubber Company of Akron, Ohio. Composed of twin 30,000-ton-a-year units, the plant was designed without walls in order to allow construction to be

\textsuperscript{71}The smallest of the eight plants built by the RRC in the Houston area was the $3,600,000 Eastern States Petroleum Co. butadiene works near Harrisburg on the east side of the city. The plant was put into operation in May 1943 and converted from butadiene production in August 1944 to manufacture a component of aviation gasoline. Houston Chronicle, August 9, 1944, p. 1 and Jones and Angly, Fifty Billion Dollars, 611.

\textsuperscript{72}Sinclair’s Houston refinery’s capacity was about 77–78,000 barrels per day while Humble’s Baytown complex could process 190,000.

\textsuperscript{73}Houston Chronicle, May 28, 1943, p. 10A.

\textsuperscript{74}Houston Post, November 14, 1943, p. 1,2; November 18, 1943, p. 1,4; and Houston Chronicle, November 17, 1943, p. 16A.
completed in the shortest time possible and to take advantage of Houston’s
climate. The availability of ingredients for Goodyear’s Buna-S also added
to the plant’s efficiency of operation. At first, butadiene was piped in from
the nearby Crown Central refinery and from Pan-American in Texas City.
But after April 1944, a new 50,000-ton-per-year Sinclair facility next door
provided all the butadiene needed. Styrene too was locally available, from
Monsanto in Texas City and Dow in Velasco, both short pipeline trips
away.

After rubber was produced at the Sinclair/Goodyear facility, it was
compressed into 75-pound blocks and shipped to Akron for transformation
into tires or dozens of other finished products.75 The Sinclair/Goodyear
plant proved extremely productive; in just over one year after its opening
it had produced more than 100,000,000 pounds of synthetic rubber. This
was the equivalent of the annual production of a 340,000 acre natural
rubber plantation and was enough to make 33,600,000 tires.76 To provide
some context for the production of synthetic rubber in Houston, the
Goodyear and General plants produced 90,000 tons per annum between
them, enough rubber to manufacture 16,500,000 automobile tires.77 That

75Houston Post, June 28, 1943, p. 2,2; May 29, 1943, pp. 1 & 4; April 28, 1944,
p. 2,11; Houston Chronicle, April 30, 1944, p. 11D; and Jones and Angly, Fifty Billion
Dollars, 610–11.

76Houston Post, February 1, 1945, p. 2,3 and Houston Chronicle, February 1,
1945, p. 6B.

77Houston Post, June 28, 1943, p. 2,18.
is also the equivalent of 60,000 men working on a 300,000 acre rubber tree plantation.\textsuperscript{78} Impressively, the average output of each worker at the Goodyear and General plants was reckoned to be the equivalent 100 plantation workers in Sumatra.\textsuperscript{79}

Late in the war, the Rubber Reserve Company sought to create an totally continuous process at the Sinclair/Goodyear rubber complex. In January 1945 Congressman Albert Thomas announced the RRC’s plans to construct a Kelly-Springfield heavy truck tire plant next to the Goodyear facility utilizing the rubber already produced there. Designed to turn out 1,000 tire tubes per day, the plant was designed to be converted to passenger car tires in peacetime and permanently employ 1,100 persons.\textsuperscript{80} This last step in the rubber manufacturing process was considered long overdue in the area, as evidenced by editorials written at the time of its construction.\textsuperscript{81} However, the Kelly-Springfield truck tire plant was to become a victim of the United States success in the war. In July 1945, after the end of the fighting in Europe, the plant, 75 percent completed, was

\textsuperscript{78} Houston, XIV (July 1943), 34.

\textsuperscript{79} Houston Post, June 13, 1943, p. 1,2.

\textsuperscript{80} Ibid., January 13, 1945, p. 1 and January 31, 1945, p. 2,1.

\textsuperscript{81} Ibid., January 14, 1945, p. 12.
canceled.\textsuperscript{82}

Due to the cutting-edge technology utilized in both the new Sinclair/Goodyear and Humble/General plants, few employees were required to operate them on a twenty-four hour basis. A small staff was enough to monitor the largely automated process of each plant that created more than 240 tons of synthetic rubber per day. Unlike the traditional refining with which Houston was familiar, this new type of high technology petrochemical manufacturing created few unskilled or semi-skilled jobs. It did, however, create a demand for highly trained scientists and managers with specialized skills. In a Houston \emph{Chronicle} article that previewed the opening of the General Plant at Baytown, the future staff of the facility was described; it included managers from Massachusetts and Ohio along with “a group of chemists from principal colleges and universities of the South [that] is being trained in the synthetic rubber plants at Akron, and will arrive at the Baytown plant in the near future.”\textsuperscript{83}

It was significant that instead of simply importing all management and skilled personnel from the North, General recognized that it would seem less like an interloper if it staffed its plant with Texans and other southerners.\textsuperscript{84} Goodyear too transferred employees to work in its La

\textsuperscript{82}\textit{Ibid.}, July 17, 1945, p. 1; July 20, 1945, p. 1; and Houston \emph{Chronicle}, July 20, 1945, p. 1.

\textsuperscript{83}Houston \emph{Chronicle}, May 16, 1943, p. 7B.

\textsuperscript{84}Houston \emph{Post}, June 11, 1943, p. 1,3.
Porte Road rubber factory at the Sinclair refinery. A Post article briefly introduced some of the forty technicians, managers, and others sent to Houston by the Akron-based company. Goodyear executives, engineers, and chemists sent to oversee the rubber plant brought to the city a wide variety of backgrounds. Their presence was noted in a city beginning to open itself up more to outside influences and understanding the benefits such newcomers can bring. Two such men were profiled in a Post article of May 1943 describing their worldwide experience working in Asia and South America. 85

Such migration of highly trained people to Houston was significant and continues to this day. The city had always been a magnet for migrants eager to take advantage of its freewheeling capitalism and had always welcomed newcomers of talent and ambition. Now, it began to attract those who sought opportunities for work in high technology fields where science and the marketplace converged. Along with the new Texas Medical Center and the expansion of higher education at Rice Institute and the University of Houston, the city’s entry into petrochemicals during the war was a key takeoff point. From that time onwards, Houston would become the destination of some of the most well educated, best trained people the United States and the world could provide. The contributions made by this group of newcomers can scarcely be enumerated. The Houston of today owes much to a postwar influx of people who stimulated the city’s cultural

and educational institutions as well as its commercial ones, in the process creating a less provincial, more cosmopolitan city.

While the Houston area attracted skilled migrants to work in its butadiene and rubber facilities, national companies like Dow and Monsanto also transferred skilled workers to staff their factories that produced the styrene vital to the nation's synthetic rubber program. In November 1942, Representative Albert Thomas announced that a styrene plant would be built and operated by Dow fifty miles south of Houston adjoining its huge chemical installation at Velasco, Brazoria County.\(^{86}\) Before the war, Dow alone had held patents on a process of creating commercial quantities of styrene. With the entry of the United States into the conflict, the company participated in the synthetic rubber program by sharing its techniques with others. The Velasco styrene plant, built at a cost of $17,759,000, relied on ethylene delivered by pipeline from nearby sources, presumably from oil refineries at Texas City or Houston. Its supply of benzene was shipped in by barge or carried by railroad tank car. At the plant, ethylene and benzene were mixed and turned into styrene. With an annual capacity of 50,000,000 tons, Dow's works was designed to be the largest of its kind in the nation. By the end of the war, the Velasco facility would exceed its original capacity to produce upwards of 68,000,000 tons per year. Dow purchased the styrene plant, and along with its neighbor the Monsanto styrene plant at Texas City, Dow would loom large in the development of

\(^{86}\)Ibid., November 13, 1942, p. 1,4.
the Gulf Coast as a petrochemical center. Styrene came to be used heavily in synthetic resins, and its clarity proved especially useful in the manufacture of plastics.87

Dow was not alone in its optimistic view of the future of synthetic rubber and chemicals in postwar Houston. On April 27, 1944, Federal Rubber Director Colonel Bradley Dewey toured the facilities of Sinclair Rubber/Goodyear and Humble/General. Sitting afterwards for interviews with the local press, he praised synthetic rubber production in Houston. "Houston is the high spot in the rubber picture today and it will continue to play a still more important role," he intoned. When asked about the future of rubber in the area, Dewey estimated that only about 50 percent of the nation's current synthetic rubber manufacturing capacity would be needed in peacetime. He was sanguine, however, about the chances of

---

87“Synthetic Rubber Plants and Facilities, First Supplementary Report of the War Assets Administration to the Congress, June 10, 1946,” 23–28, Box 4, Legislative; Thomas Bills folder, Thomas Papers; Jones and Angly, Fifty Billion Dollars, 610–11; Frederick Deming and Weldon A. Stein, "Disposal of Southern War Plants," no. 2 in the National Planning Association Committee of the South Reports, 73; and Don Whitehead, The Dow Story: The History of the Dow Chemical Company (New York: McGraw-Hill, 1968), 186–187. In addition to the styrene plant, in 1942 Dow also began to build a $2.5 million plant at Velasco for the government to produce thiokol, another type of synthetic rubber. Houston Chronicle, November 1, 1942, p. 1. The project never really got off the ground before Washington decided that it did not want to rely on so many different strains of rubber. Dow’s contract to build the plant was canceled in 1943. Whitehead, Dow Story, 187. The Monsanto plant referred to was built by the government in 1942–43 at a cost of $18,291,000. It produced at a maximum rate of 60,000 tons per year in 1945 and was sold to Monsanto in 1946. “Synthetic Rubber Plants and Facilities,” 24; Dan J. Forrestal, Faith, Hope and $5,000: The Story of Monsanto: The Trials and Triumphs of the First 75 Years (New York: Simon & Schuster, 1977), 99–100 & 103; and Houston, XIV (July 1943), 28–29. The Monsanto styrene plant was a very large installation. It lay on 30 acres and consisted of numerous structures including a 20 story distillation tower. Houston Chronicle, July 11, 1943, Sunday Art Gravure Magazine, 6.
Houston facilities being among those that would continue in operation, saying: "Low-cost plants, such as those here, which have all basic supplies nearby, will survive the postwar competition with natural rubber." Dewey stressed that the synthetic rubber could be produced at a far lower cost than could natural rubber and, since it was produced domestically, was a more reliable source for the nation's rubber needs. These factors combined to paint a rosy picture for the future of Houston. Dewey mused that "[i]f I were a young man, looking for a position in an industry where I would be assured of security, I would select the synthetic rubber industry." Dewey's words proved prophetic as early as the next year.

When the port of Houston reopened to merchant shipping, synthetic rubber was one of the very first cargoes to be exported. In August 1945, for example, the port was doing a very brisk business in synthetic rubber to both Latin America and Europe.

While both toluene and synthetic rubber represented totally new areas of production for oil companies, the manufacture of high octane aviation gasoline involved techniques that had been used in the industry for years. What was new, however, was the tremendous quantities of this fuel required to support the thousands of planes used in a global war. Reference has already been made to the revolution in the use of air power.

---

88 First and third quotes, Houston Post, April 28, 1944, p. 2; 11 second quote, Houston Chronicle, May 28, 1944, Sunday Art Gravure Magazine 2.

89 Houston Post, August 25, 1945, p. 6.
during World War II. No longer restricted to reconnaissance, small-scale nuisance bombing, or the spectacular but tactically insignificant dogfights of the First World War, aircraft in the Second World War saw greatly expanded usage in every sort of combat.

What made the advances in air warfare possible were innovations in design, armament, and, especially, engine performance. As motors grew more powerful and advanced they demanded more from their fuel. Oil companies and their scientists were forced to create and manufacture a new generation of high performance aircraft gasoline to meet these needs. As J. Howard Marshall, a staff member of the Petroleum Administration for War, put it in his memoirs: “[o]ur refineries had the technology but not much current capacity—only a few thousand barrels a day—in the face of a future requirement that would approach a million barrels a day.”90 To develop a program that would produce quantities of that magnitude, the PAW joined forces with the Defense Plants Corporation and the Defense Supplies Corporation, both agencies under the RFC umbrella of Jesse

---

90J. Howard Marshall II, Done in Oil: An Autobiography (College Station: Texas A & M University Press, 1994), 134. The Petroleum Administration for War (PAW) was a government agency headed by Secretary of the Interior Harold Ickes and staffed by “dollar-a-year men” recruited from the oil industry. The PAW set oil policy for the wartime period and orchestrated the production effort. It coordinated exploration, production, and transportation among oil companies and with the government. It also ensured that research and technological information was shared among the sometimes jealously private drillers, refiners, and others who made up the industry. Many Houstonians served in the PAW, bringing their experience to bear on the problems of wartime production.
Jones. In 1941 this government team set about creating a series of 100-octane plants that would be able to reach that seemingly astronomical million-barrel-per-day mark. In one of the most impressive production feats of the war years, they achieved their goal in a shorter time than even the most optimistic members of the oil fraternity could have predicted.

However, according to Jesse Jones, the 100-octane aviation gasoline program did not begin life easily. After President Roosevelt called for a huge expansion of the nation’s air forces, a former professor of chemical engineering at the Massachusetts Institute of Technology approached Jones and the DSC in the summer of 1940 in an attempt to convince it to promote the creation of a high octane gas production effort. At the time, neither the Army nor Navy showed much interest in participating in such a program, shortsightedly ignoring the fact that war would put a premium on the supply of such fuels. Despite the military’s lack of enthusiasm for the idea, Jones and the DSC recognized the need and proceeded, allowing oil producers to either borrow money at 2 percent interest and pay it back in fuel deliveries or, and this was the more popular option, operate a

---

91Previous reference has been made to the Defense Plants Corporation (DPC), an organization created to finance the construction of industrial plants vital to the war effort. The Defense Supplies Corporation (DSC) had a less clearly defined, yet no less important role. As its chairman Jesse Jones described it, the DSC “was a catch-all, go-anywhere, do-anything organization.” Begun in August 1940 expressly to secure an adequate supply of 100-octane gasoline for the US military, DSC’s role greatly expanded over the next five years. In its lifetime, the DSC spent nearly $10,000,000,000 in the US and abroad for materials deemed essential to the American war effort. It stockpiled materials, as Jones put it, “from abaca to xydlines,” raw and finished. Jones and Angly, Fifty Billion Dollars, 350 (quotes) and 354.

92Ibid., 354.
government-owned plant and have the chance to purchase it after five years or at the end of the war, whichever came first.\textsuperscript{93}

These high-octane plants would have been impossible had it not been for several decades of research and development by oil companies in Houston and elsewhere. The development of new high-compression engines in the 1920s and 1930s had spurred the industry to produce gasolines with low “knocking” properties, ones that burned or exploded more slowly than other types. To encourage refiners to produce such high quality fuels, the US Army Air Corps in 1930 introduced a scale that rated gasoline based on its octane content. Gasoline with a low percentage of iso-octane molecules and high levels of heptane rated lower on this scale than did one with an inverse balance of the two. The highest rating possible was 100 octane, a mixture in which no heptane was present.\textsuperscript{94}

Refiners struggled with various methods to produce fuels of the highest octane levels. Humble, for one, experimented throughout the 1930s with various formulas. To utilize the polymerization of isobutylene gases that resulted from a process known as thermal cracking—heating to a high temperature until the molecules actually split apart or “cracked” into their constituent parts—it built a $2,700,000 thermal polymerization plant at Baytown in 1937. However, even this large capital expenditure did not stop the company from experimenting with other processes to create high

\textsuperscript{93}\textit{Ibid.}, 354–56.

\textsuperscript{94}Larson and Porter, \textit{History of Humble}, 557.
octane gasoline, especially for use as aviation fuel. The most promising
development came in 1938 when it opened an alkylation plant at Baytown.
This facility utilized isobutane and butylene, hydrocarbon gases that had
been isolated from gasoline by thermal cracking. Once isolated, isobutane
and butylene were passed through a sulfuric acid bath that acted as a
catalyst to bond the two together into alkylate, a mixture of hydrocarbons
that could be used in creating a gasoline with very high octane ratings.
This process developed by Humble for creating aviation gasoline became
the backbone of wartime 100-octane production. Baytown’s facilities were
expanded in 1939 and again in 1941, ensuring its place as the world’s
largest manufacturer of aviation gasoline or “avgas,” going into the war.95

Not content to rest on their laurels though, Humble scientists, along
with counterparts at Jersey Standard, Standard Oil of Indiana (Stanolind),
and German chemical giant I. G. Farbenindustrie, had been working jointly
since 1937 on a more efficient method of cracking molecules apart by the
use of a solid or liquid catalyst at low temperature. “Cat cracking,” as the
process came to be known, proved very effective, producing significantly
more high-octane gasoline than thermal cracking methods. As a result,
Humble and other firms began construction of “cat crackers” at refineries
across the nation in 1940 and afterwards. At Baytown the first such
 cracking unit took nearly two years to complete, opening in November

95Ibid., 558-60 and The Lamp, 31.
1942 after the United States had already entered the war. The slow progress of the new cat cracker lay in its vast size and great complexity. The Humble company publication, *The Humble Way*, described the mammoth new installation occupying a sizable section of the Baytown complex as follows:

Build a roller-coaster as high as a 20-story office building. . . . Use more steel than is in the cruiser Houston, and spread it over a city block. Then construct a vertical chute to the bottom, bend it, and bring it back to the top. Now send a series of ten-ton trucks down this vertical track with velocity enough to complete the round trip in one minute. Keep these trucks in operation 24 hours a day. Incredible, isn’t it? Yes, for a roller-coaster, but not for a catalytic cracking unit. The No. 1 Fluid Catalytic Cracking Unit at Humble’s Baytown refinery is 260 feet high, contains 8,500 tons of steel, and circulates catalyst and oil at the rate of ten tons per minute. Originally designed for a capacity of 13,800 barrels per day, the unit has been operating on a stepped-up schedule of 24,000 to 26,000 barrels per day. . . . In a single day, it produces enough components for the aviation gasoline used in a thousand B-25 medium bombers.

Despite the lag in completing its new facility, Baytown’s other high-octane gasoline production units allowed Humble to take the lead in producing it for the first year of the war. During that period the company was responsible for 20 percent of the nation’s entire supply of the vital material.

As the war progressed the company’s share of avgas production

---


declined somewhat but its actual output increased. Mostly financed with funds from the federal government, Humble added an additional alkylation unit, a second cat cracker, a $4,250,000 government-funded hydrogenation plant, and other production facilities between 1941 and 1945. In all, this investment in Baytown’s facilities allowed the refinery to produce more 100-octane gasoline during the war than any other plant in the world. In a colorful ceremony on December 14, 1944, production of the billionth gallon of 100-octane was commemorated with much fanfare at Baytown. It was the first refinery in the war to reach such levels of output. In all, Baytown turned out some 1,257,648,000 gallons, or 29,944,000 barrels, of 100-octane avgas during the war, nearly 10 percent of the US production. Impressive as well, that number represented over 7 percent of all 100-octane produced during the war by all the Allied nations excluding the Soviet Union.\(^98\)

Humble’s Baytown refinery may have been the site of the most impressive production in the local 100-octane effort, but it was far from being the only facility to produce the much-needed fuel. In late 1941, before the attack on Pearl Harbor, Petroleum Administrator Harold Ickes announced that priority had been granted for the construction of twelve new 100-octane aviation gas plants to be spread across Texas. Recognizing its role as oil capital of the world, three of these plants were awarded to

\(^98\)Larson and Porter, *History of Humble*, 594–96 & 599; *Houston*, XV (December 1944), 25; and XVI (January 1945), 24. As a demonstration of how prolific the Baytown 100-octane program was, during the billionth gallon ceremony the plant produced another 60,000 gallons of the fuel. *Houston Post*, December 15, 1944, p. 1.
Houston-area concerns. One was the aforementioned alkylation unit granted to Humble’s Baytown refinery. Another, similar, facility went to the Shell works at Deer Park and the third to the Sinclair refinery just outside the city limits. By June 1945, in less than two years since opening, the Sinclair plant would produce 51,912,000 gallons, or 1.236 million barrels, of 100-octane gasoline.\textsuperscript{99} Sinclair’s official history claimed that the 100-octane unit at Houston produced enough avgas to fuel 2,000 bombers per day.\textsuperscript{100} Shell facilities had produced the first commercial quantity of 100-octane aviation gasoline in 1934, so the company had a long history in this area. They saw high octane fuel as far more than a wartime product. In 1945 in a company organ, \textit{Shell . . . Soldier and Civilian}, it was claimed that all the research being done during the war on 100-octane gasoline would allow the company to produce better quality automobile fuel after the fighting was over, giving it an advantage in postwar competition.\textsuperscript{101} Also in the area, Crown Central Petroleum

\textsuperscript{99}Houston \textit{Chronicle}, December 1, 1941, p. 10; December 21, 1941, p. 11C; and June 6, 1945, p. 14B. Eight of the other nine Texas plants announced in this twelve plant $50–100,000,000 program were also on the Gulf Coast, they were: Gulf (Port Arthur), Terminal (Corpus Christi), Texas Company (Port Arthur), Pure Oil (Nederland) Pontiac (Corpus Christi), Republic (Texas City, Southport (Texas City), and Magnolia (Beaumont). Only Phillips Petroleum’s plant at Borger in the Panhandle lay more than 200 miles away from Houston. The plants ranged in size from 1,000–10,000 barrels per day. Houston \textit{Chronicle}, December 21, 1941, p. 11C.

\textsuperscript{100}A \textit{Great Name in Oil: Sinclair Through Fifty Years} (New York: F. W. Dodge Company/McGraw Hill, Inc., 1966.), 52.

\textsuperscript{101}\textit{Shell . . . Soldier and Civilian} (No city: Shell Union Corporation and Associate Companies, 1945), 18–19.
operated a government-owned aviation gasoline plant in Pasadena that quietly turned out almost a million and a half barrels during the conflict.\textsuperscript{102} And in the first half of 1944 there was a flurry of avgas plant openings in the nearby industrial and refining center of Texas City. First, Pan-American Refining Corporation opened a $3,024,000 100-octane plant described in the \textit{Chronicle} simply as “huge.”\textsuperscript{103} Then, Southport Petroleum—a newcomer recently relocated to Texas City from Dallas—opened its $12,104,000 plant. Finally, in June the Republic Oil Refining Company opened a nearly $12,000,000 100-octane plant that had been under construction since 1942.\textsuperscript{104} In addition to new plants, existing facilities were converted late in the war to the production of 100-octane. The small Eastern States refinery in the Manchester section on the city’s east side had been the site of a butadiene plant. This facility was dismantled in late summer 1944 and reconverted at a cost of nearly $11,000,000 to produce a component of aviation gasoline.\textsuperscript{105}

One of the most remarkable stories in the production of high octane


\textsuperscript{103}Houston \textit{Chronicle}, March 6, 1944, p. 5A (quote); June 13, 1944, p. 1B; and Deming and Stein, \textit{Disposal of Southern War Plants}, 73.

\textsuperscript{104}Houston \textit{Post}, June 11, 1944, p. 1,17; Houston \textit{Chronicle}, June 13, 1944, p. 1B; and Deming and Stein, “Disposal of Southern War Plants,” 73.

\textsuperscript{105}Houston \textit{Chronicle}, August 9, 1944, p. 1; October 23, 1945, p. 5A; and Deming and Stein, “Disposal of Southern War Plants,” 71.
aviation gasoline involved a man who, with no refining experience, built and operated one of the most successful plants in Texas. James S. Abercrombie was a highly successful maker of oil tools whose Cameron Iron Works was one of the leading producers of blowout prevention valves and other equipment used in oil fields around the world. During the war his plant on Katy Road turned out a wide range of products for the Army and the Navy including more than 14,000 naval depth charge projectors and thousands of airplane-launched rockets. Abercrombie was also a successful wildcatter who had brought in the huge Old Ocean field in Brazoria County in 1936. The crude found in this huge field proved to be especially rich in the hydrocarbons isobutane and butylene that were vital for producing 100-octane avgas. Due to the potential production possible from the Old Ocean field, and no doubt prompted by Cameron Iron Works’s strong record of war production, President Roosevelt made a personal appeal early in 1942 to Abercrombie to build and operate a 100-octane aviation gas plant at Old Ocean. Under-secretary of the Navy James Forrestal voiced the administration’s confidence in Abercrombie:

Mr. Abercrombie, you may not have any experience in operating a refinery, but Jesse Jones and Sam Rayburn and the man from Uvalde (Vice President John Nance Garner) tell us

---

Twenty-Five Years (Houston: Cameron Iron Works, Inc., 1946), 13 and 31. In all, Cameron produced thousands of different pieces of ordnance for the armed forces during the war while still manufacturing its traditional oilfield products. These war supplies included: 14,286 Depth Charge Projectors; 313,050 Depth Charge Arbors; 15,667 Breech Covers for Depth Charge Projectors; 2,585 3" 50-caliber gun barrels; 438 yokes for 4" guns; 2,642 signal flare projectors; 2,298 hydraulic 20-millimeter gun mounts; and several thousand "Tiny Tim" airborne rockets. The firm earned its first "E" Award in July 25, 1941 and it was renewed six times.
there's very little about petroleum products you don't know or can find out or have done. We can't have Bill Knudsen turning out planes and not have plenty of avgas to fuel them.107

With Washington's assurance that he had free rein to hire the people he felt necessary to build and run the new refinery, Abercrombie assented to participate in the project.

Construction on the Abercrombie avgas plant at Sweeny, Brazoria County, some fifty miles south of Houston, began in 1942 and was completed in less than a year. In early 1943 it began making its much-needed contribution to the war effort.108 The plant, built with DPC funds, cost a whopping $28,577,000 to construct but did a respectable job, producing some 1,596,000 barrels by the end of the war.109

If allied air power was, as some have argued, the deciding factor in the outcome of the war, then truly the production of high-octane aviation gasoline rates as one of the most important efforts undertaken by United States war plants. The Petroleum Administration for War's official history describes avgas as "the superfuel that meant more speed, more power, quicker take-off, longer range, greater maneuverability—all the things that


108 Ibid., 93–94

109 Deming and Stein, "Disposal of Southern war Plants," 73 and Frey and Ide, History of the PAW, 457. In all, the nine Houston area plants engaged in making 100-octane avgas produced 16,807,000 barrels. This number was more than all the refineries of the Northeast and New England combined. Frey and Ide, History of the PAW, 457.
meant the victory margin in combat.”

Running the Sweeny plant prompted Abercrombie to reexamine questions he had long had regarding the value of the natural gas produced at Old Ocean. He had been selling it for two cents per thousand cubic feet to nearby Dow Chemical plants. After constructing the refinery at Sweeny, Abercrombie sponsored a pilot plant to capture natural gas and test its BTU (British Thermal Unit) output against that of crude oil. The research facility proved that the BTUs in one barrel of crude were equivalent to 2,500 cubic feet of natural gas. The results of these tests also proved to Abercrombie that the price he received from Dow was ludicrously low. Instead of 2¢, his new evidence showed that he should be receiving 60¢. This meant that for the first time, the oil industry had a good idea of how to charge customers for the gas that before had been considered a waste product.

James Abercrombie’s experience with natural gas at Old Ocean is instructive because it shows that natural gas has not always been a highly valued commodity. In fact, the emergence of interest in natural gas as a fuel and heat source is primarily a post-World War Two phenomenon. However, many of the factors that contributed to the increase in gas consumption fell into place during the war. The impact that a new gas industry would have on Houston in the postwar period cannot be

110 Frey and Ide, History of the PAW, 193.

111 Nicholson, Mr. Jim, 94–96.
overestimated. A substance formerly ignored by most in the city’s oil community would bring great wealth to some and challenge petroleum’s grip on the life of the Bayou City.

Before the war, natural gas had mostly been viewed as a necessary nuisance by oil producers. Composed of pure hydrocarbons, primarily methane, natural gas is mostly found in deposits that are called “unassociated,” that is, apart from petroleum. Before the 1940s, unassociated natural gas was usually discovered inadvertently by drillers in search of oil. Some uses were found for gas in the 1920s and 1930s, notably as an industrial boiler fuel and, when burned off, as a source of the carbon black used in the rubber industry. The most common utilization of unassociated gas, though, was a process known as “stripping.” When it comes to the surface and comes into contact with air, approximately 10 percent of natural gas condenses into a liquid as it expands. This result is virtually identical to gasoline and can be harvested for use as a motor fuel. The remaining non-condensing 90 percent of the gas was either “vented,” left to escape into the atmosphere, or intentionally “flared,” run up tall pipes and burned off.

112 Most natural gas is about 95 percent methane, 2 percent propane, 1 percent ethane, and equal parts butane, pentane, and hexane plus. These elements are classified as hydrocarbons, that is they contain simply hydrogen and carbon. Houston Port Book, May 1944, p. 27.

While some did use the unassociated gas that they found, most disdained such activity and simply capped the well that had produced the disappointing result. Less easily solved for oil producers was the problem of “associated” gas that often accompanied the discovery of a deposit of petroleum. This usually occurs in what is called a “gas cap” that lies on top of an underground pool of oil or in the form of dissolved gas in the oil itself. In either case, natural gas was an unavoidable by-product of drilling and had to be dealt with. To dissipate this unwanted companion to petroleum, drillers and producers developed a system for flaring it at the top of the casing pipes that brought it to the surface, the “casinghead.” Estimates vary, but it is probably safe to say that by the beginning of the war 1.5 billion cubic feet of casinghead gas was flared every day in Texas. 114

While a modern reader might recoil in horror at the environmental damage involved in such a practice, some Texans in the 1930s joked of the benefits in the immense amount of gas burned off into the atmosphere. It was said that in certain parts of the state it was possible for automobiles to travel at night without headlights, so bright were the oil well flares. Literacy in the oil patch was apparently furthered by the flares as well, for by the glow of burning natural gas it was said to be possible to read a newspaper at midnight. Such dubious advantages notwithstanding, by the mid-1930s the Texas Railroad Commission had come to see the flaring of

114 Ibid., 297.
so much natural gas as a colossal waste of resources. In 1935, the commissioners voted to outlaw flaring, requiring oil well operators to instead use a newly developed process called “cycling” in which casinghead gas was pumped back underground where it served to repressurize the oil deposit. This made retrieving oil from the ground easier and prolonged the life of fields that might otherwise be depleted. While cycling natural gas was to the advantage of oil-producers, it involved expensive equipment and so, by 1942, only twenty-nine and thirty cycling plants had been established in Texas.115

During the course of the war, cycling appeared to be one of the oil industry’s best hopes for producing at maximum efficiency. With wartime operations, oil producers did not have to be so cautious about the price of cycling equipment because the government was willing to foot the bill with few questions asked. Not surprisingly, the practice of cycling expanded greatly under these conditions and led to the development of new and better technologies that made the process more efficient and more cost-effective.116 The most outstanding example of the use of cycling to boost production came in the Katy field near Houston where Humble operated a plant for a group of oil companies. The field had a vast potential production, estimated at the equivalent of a billion barrels of oil that could be condensed into a liquid from the gas. The plant opened in 1943 and by

115Ibid., 293–300.

116Ibid., 305.
January 1943 was turning out 13,000 barrels of gasoline per day.\textsuperscript{117}

Apart from its usefulness in the production of crude oil, developments during the war made clear that natural gas had a great deal of other utility as well. Makers of petrochemicals, given such a boost by the events of wartime, found the light hydrocarbons in natural gas to be indispensable for their various postwar products. One source describes the usefulness of methane, the main component of natural gas, as being:

\begin{quote}
 to the chemical industry what the common brick has been to the building industry. . . . As a bricklayer may have to break or alter his bricks to suit some design, so the chemist must break or alter methane to fit into some formula. There is hardly an organic chemical known that cannot be made from methane by combining it with other chemicals.\textsuperscript{118}
\end{quote}

The manufacture of plastics, especially, came to rely heavily on the use of natural gas as its basic component.

Advantages were also discovered in natural gas's effectiveness as an industrial fuel as well. In the 1940s coal was more expensive than ever.

\textsuperscript{117} Larson and Porter, \textit{History of Humble}, 574–75.

before, and as a result the tremendous wartime explosion of industry in Houston, and many other cities, had largely been fueled by natural gas and facilitated by the refinement of the gas turbine.\footnote{Jack Donahue, The Finest in the Land: The Story of the Petroleum Club of Houston (Houston, London, Paris, and Tokyo, 1984), 6 and Houston Port Book, May 1944, p. 28. Overall, in the war period the Southwest production of natural gas rose by 64 percent. Frey and Ide, History of the PAW, 230. For an example of the local wartime expansion of gas pipelines, in this case those of Houston Natural Gas Corporation, see: Houston Chronicle, October 26, 1941, p. 6P.} As a Houston magazine article put it in November 1946: “[s]team electric power stations, oil refineries, synthetic rubber plants, cement plants, lime plants, brick and tile plants, steel mills, and many other heavy industries in the area use natural gas.” The reason, the article argued, was simple. For a ton of coal, a consumer in Houston could pay up to $7.30 versus 32¢ for a comparable amount of natural gas. The comparison with industrial fuel oil was less dramatic but still very much in favor of gas. This disparity did not go unnoticed in other parts of the nation more reliant on coal and industrial fuel oil. The article quoted a Boston Herald editorial on the subject, noting that the Houston area’s rapid industrialization has been aided greatly by natural gas. The Herald continued, commenting that northern industry might save itself a great deal of money by relocating to Houston. Such sentiments were, of course, wholeheartedly endorsed by the booster-minded Houston magazine, which reported that in an industry for which fuel constituted 15 percent of its costs, its “product can be made at least
10% cheaper in Houston."\textsuperscript{120}

Houston was admirably situated to take advantage of the growing boom in natural gas during and after the war. Centrally located with respect to many of the major gas fields in Texas, the city also had the most extensive pipeline system in the nation. The pipeline was the key to the gas business because, it was the only effective means of transporting the volatile, difficult-to-handle substance. The experience of Houston’s pipeline experts would give city firms a competitive advantage in seizing hold of this relatively new business.\textsuperscript{121}

As mentioned above, during the 1920s, some of the uses of natural gas, especially as an industrial fuel, had become clear. As a result, pipeline companies sought to capitalize on potential markets by building long-distance pipelines from the southwest to many parts of the nation. When the Great Depression ended this construction, only the urban Northeast had not seen any significant penetration by gas lines. There, companies involved in the sale of manufactured gas, a distillate of coal and oil, blocked incursions by gas companies. The war brought a great expansion

\textsuperscript{120}_\textit{Houston,} XVII (November 1946), 13. It is perhaps superfluous to note that Houston Magazine was the official publication of the Houston Chamber of Commerce and as such could be trusted to go out of its way to present the city and its business climate in the most favorable light possible. However, that said, it did report what others around the country were saying and writing about Houston. It is also important to remember that the magazine had an intended readership that stretched far beyond the Bayou City. The Chamber also sent copies to companies that it was courting to relocate or establish a branch in Houston. Stories such as this one on the benefits of natural gas as an industrial fuel were intended to be a sales pitch to those industries suffering under the high price of coal in the 1940s.

\textsuperscript{121}_\textit{Houston Port Book,} May 1944, p. 27.
in the use of natural gas as an industrial fuel. Especially in the Appalachian region of the Midwest and the upper South where sizable numbers of new factories were built for the war effort, gas came to be the fuel of choice.\textsuperscript{122} The federal government stimulated this interest in gas by endorsing its use in war plants as an efficient, inexpensive, and clean energy source. In 1940, a company was formed to build a pipeline from Texas to deliver gas to the industries of the Appalachian region.\textsuperscript{123} Named for the state of its founding, the Tennessee Gas and Transmission Company (modern day Tenneco) struggled at first. With questionable financial resources, the company was not able to obtain the government approval for the steel and other materials it needed to build its pipeline. This situation remain unchanged until Tennessee Gas was taken over by the Chicago Corporation in 1943. With the resources of an established company now behind it, Tennessee Gas and its dynamic president H. Gardiner Symonds was given approval by the WPB and a $44 million loan from Jesse Jones’s RFC for construction. It is perhaps not coincidental that shortly before the RFC financing was granted, the Chicago Corporation

\textsuperscript{122}Frey and Ide, \textit{History of the PAW}, 227.

\textsuperscript{123}The Appalachian region is defined here as all or part of Ohio, New York, Pennsylvania, West Virginia, Maryland, Virginia, and Kentucky. In the region there were 660 war factories that used 3 million cubic feet of gas per month. All had been using Appalachian natural gas, the supply of which was rapidly being depleted. Christopher J. Castaneda and Joseph A. Pratt, \textit{From Texas to the East: A Strategic History of Texas Eastern Corporation} (College Station: Texas A&M University Press, 1993), 29.
decided to reorganize Tenneco and move its headquarters to Houston.124

While impossible to prove, Jesse Jones may very well have been looking out for the interests of his hometown as he had done so often before.

With funding and materials in hand, Tennessee Gas began construction on its pipeline in December 1943 with a number of contractors involved in different phases of the project, including Houston’s Brown & Root, who built a difficult 120-mile section that included twenty river crossings. Work in the winter proved difficult, but on October 31, 1944, gas began to flow through the 1,265 mile long 24 inch-in-diameter line from Corpus Christi (with a major connecting line from Houston) to Cornwall, West Virginia. There it fed into existing lines that supplied gas to such midwestern cities as Minneapolis, Chicago, Detroit, and Cleveland.125 Tennessee Gas proved successful, delivering almost 74 billion cubic feet of gas through its pipeline in 1945, the first full year of its operation.126

Besides the Tennessee Gas pipeline, two more massive pipeline projects undertaken during the war would play a major role in the

---


125Castaneda and Pratt, From Texas to the East, 28; Castaneda, “The Texas—Northeast Connection,” 83; Houston Post, November 15, 1944, p. 1,4; and Houston Chronicle, November 7, 1943, p. 1.

126Castaneda, “Texas—Northeast Connection,” 84.
evolution of the postwar natural gas business both as it related to Houston and the nation. Ironically, the “Big Inch” and “Little Big Inch,” as they were popularly called, were built not for gas but as petroleum pipelines between oil-rich Texas and the oil-hungry Northeast.  

127 The story of their construction and their fate at the end of the war—besides being interesting—has especial importance for the subsequent history of Houston.

The story of these two lines began shortly after war broke out in Europe. With an eye towards possible US involvement, Petroleum Administrator and Secretary of the Interior Harold Ickes surveyed the American oil transportation system and saw reason for concern. In 1940, 98.5 percent of oil transported to the heavily urban and industrialized Northeast did so via oceangoing tankers.  

128 Fearful of the vulnerability of these vessels to German U-boat attack, in July 1940 Ickes proposed the construction of a pipeline from Texas to the New York City area. His warnings went unheeded until the country found itself embroiled in the war. In February 1942 the first American oil tanker was sunk in the

---

127 At the outbreak of the war, the East Coast used some 40 percent of all petroleum used in the United States and produced almost none. Frey and Ide, A History of the PAW, 83.

128 “Petroleum Movements to District I, Peacetime—1940,” Box 44, Folder 1, George A. Hill Jr. Collection, (Houston Metropolitan Research Center). The remaining 1.5 percent of oil came to the Northeast by way of pipelines. In comparison, by 1944 when the Inch lines were complete, the breakdown of oil transportation to the Northeast was as follows: Railroads—45.6 percent, pipelines—41.5 percent, barges (used on rivers and the Intracoastal Waterway)—11.2 percent, and tankers 1.7 percent. “Petroleum Movements to District I, 1944—On Completion of All Projects,” Box 44, Folder 1, George A. Hill Jr. Collection, (Houston Public Library, Houston Metropolitan Research Center, Houston).
Atlantic, and before the month was out it was followed to the bottom by eleven others. Within a few months, submarine sinkings on the Atlantic coast averaged three ships a day, and oil shipments to the Northeast dropped by nearly by 95 percent. In addition to shortages of gasoline and fuel oils, the Northeast and New England found themselves desperately short of heating oil in the midst of one of the harshest winters in recent memory. In Houston, the impact was being felt no less acutely. Texaco encountered so many transportation problems that it felt forced to shut down operations at its Galena Park refinery on the Houston Ship Channel.

Other oil producers felt the pinch too, and to control the growing glut of

129 Castaneda and Pratt, From Texas to the East, 20 and Castaneda, “Texas—Northeast Connection,” 84. As the U-boat menace drastically curtailed the seaborne shipment of oil from the Gulf Coast, alternatives had to be rushed into service. The pipeline project called for by Petroleum Administrator Ickes was the most obvious solution to the transportation problem, temporary measures were needed until the line could be built. Two main alternative methods of moving crude and refined petroleum from the southwest to the northeast and midwest were on railroad cars and on barges. Tank cars and flatbed cars were loaded with barrels of oil in Houston and other refining centers and moved to their destination. This mode of transport proved effective but costly. Less expensive was the movement of oil on barges that utilized the protected water routes of the nation’s river systems, primarily the Mississippi, Ohio, and Tennessee, and the protected Gulf and Atlantic Intracoastal Waterways. While rivers were a time-tested means of moving cargo, the newer Intracoastal Waterway proved more difficult to utilize. In general, the waterway’s course hugged the coastline taking advantage of the natural barrier islands to serve as barriers to the storms that made open water navigation so hazardous. On much of the southwest Gulf coast of Florida, however, there was a lengthy stretch where the waterway lay unscreened by islands. To safeguard oil shipments from the U-boats that prowled the Gulf, a pipeline was constructed from Carrabell, Florida—the last protected point on the Gulf Intracoastal—across the state to Jacksonville where oil could then be moved via the protected Atlantic Intracoastal to depots on the east coast. Overall, while cost effective, barges proved too slow to be used extensively for supplying the nation’s wartime needs. The completion of the Big Inch and its later sister line the Little Big Inch, made the movement of oil a much quicker and economic proposition than the combination of railroad and barge transport had been. Houston Post, October 18, 1942, Sunday Magazine, 9 and February 17, 1943, p. 1,4.

130 Marshall, Done in Oil, 123.
unmarketable oil, the state of Texas limited to twelve per month the number of days oil wells could operate.\textsuperscript{131} So ironically, just as the need for oil was at its most acute both domestically and for the war effort, producers found their hands tied by the transportation problem; clearly something had to be done. At this point, both the government and the oil industry agreed on the perspicacity of Ickes’s earlier suggestion and cleared the way for construction to begin on the Big Inch, or 24 Inch Crude Line as it was officially called, on August 3, 1942.\textsuperscript{132}

When built, the Big Inch was the longest oil pipeline ever constructed in the world. The 24-inch all-welded line stretched 1,476 miles from the East Texas oil field center of Longview by way of Norris City, Illinois to Phoenixville, Pennsylvania. From there, 20-inch lines ran to nearby Philadelphia and to New York City. Construction actually proceeded from both Texas and, after December 1942, Pennsylvania simultaneously. The project pushed ahead at a feverish pace given urgency by the distant guns of war. The Big Inch represented a major engineering achievement as it crossed dozens of streams, creeks, and rivers, often involving extraordinary feats of on-the-spot engineering improvisation. In addition, the line passed through rugged terrain in the Allegheny mountains.

\textsuperscript{131}Houston \textit{Post}, April 8, 1942, p. 1,6.

\textsuperscript{132}The announcement of the construction of the 24 inch line was greeted with a great deal of approval by those involved in the oil industry in Houston and Texas. For examples of the reaction, describing the line as a “lifesaver for Texas oil,” see: Houston \textit{Chronicle}, June 17, 1942, p. 11A and Houston \textit{Post}, June 12, 1942, p. 1,16.
of Pennsylvania where ditches for the pipe had to be hollowed out of solid rock. That rapid construction was achieved was all the more extraordinary considering that the non-profit corporation assembled to build and run the line, War Emergency Pipe Lines Inc., was not one entity but a consortium of eleven eastern oil companies, each with its own interests. That all were able to pull in the same direction was a testament to the spirit of wartime cooperation that existed in American industry.\(^{133}\) Funding for the $78,500,000 project came from the Defense Plants Corporation, but the personnel and expertise necessary to create the line was solely provided by private companies.

Workers finished laying pipe for the line in just 350 days, on July 12, 1943. Final welding and other work on the Big Inch finished just as the first 7,000 barrel batch of oil that had been entered into the system in Texas arrived in Philadelphia on August 14, 1943.\(^{134}\) Once completed, the Big Inch proved a marvel of efficiency, bringing vital crude oil to the refineries of the East Coast safely and in less than the time needed for an ocean voyage. Even more significant, the line proved a far cheaper means


\(^{134}\) Frey and Ide, *History of the PAW*, 100 & 107.
of transportation than either tankers or train cars, by some estimates cutting the cost of moving oil by half.\footnote{\textit{Houston Chronicle}, November 12, 1944, pp. 1A & 13A.} By the end of the war, twenty-six months later, the line had carried \(261,862,000\) barrels at an average volume of \(317,000\) per day.\footnote{\textit{Frey and Ide, History of the PAW}, 100 & 106.} To put its impact into perspective, the Big Inch did the work of \(75\) tankers and \(30,000\) train cars.\footnote{\textit{Ibid.}, 104.}

While on the surface the construction and operation of a pipeline from Longview to the East Coast would seem to have little to do with Houston, nothing could be further from the truth. The city was already the heart of Texas’s oil pipeline system and, as such, contributed a significant portion of the crude oil that flowed through the Big Inch. Existing Shell and Pan American lines to Houston from East Texas were reversed so that crude could be pumped into them to join the stream of petroleum to the Northeast. In addition, the pipeline divisions or subsidiaries of firms with bases of operation in the Houston area fed into the Big Inch much of the crude produced in southwest and west Texas. As the largest producer of crude in the nation, Humble played an especially important role in this
regard. Significant as the Big Inch was to Houston, however, its younger sibling, the Little Big Inch, would prove even more so.

Despite their participation in sending crude through the Big Inch line, to the oilmen in Houston and around Texas the nature of the line itself represented something of an insult. By making it a crude only pipeline, the refineries of Texas were left out. They considered themselves to be far more than mere producers of oil; with good reason they felt they were the most advanced refiners anywhere. The local press in Houston seized ahold of this issue as an example of the bias in the nation’s capital in favor of the interests of the Northeast and keeping the South as an economic colony. An editorial in the Post argued persuasively that the government policy regarding the line was also a detriment to the war effort. It claimed that for want of adequate transportation facilities some Gulf Coast refiners, like Texaco in Galena Park, would have to shut down operations. Such an argument had validity. Much of the nation’s refining capacity, including some of the most technically advanced, lay in the Houston-Gulf Coast area, and this capacity and expertise was being wasted. And while the Big Inch solved some of the problems of supplying the East Coast refineries with crude oil, there still existed the question of how the various petroleum

\[\text{138} \]\textit{Oil Weekly}, June 15, 1942, p. 12 and Frey and Ide, \textit{History of the PAW}, 107. To meet the exigencies of wartime Baytown increased its rated refining capacity of crude oil from 137,000 barrels per day before the war to 190,000 by V-J Day in 1945. During the course of the war, Humble produced 525,000,000 barrels of crude oil, the most of any in the nation. Larson and Porter, \textit{History of Humble}, 599 and 573.

products being manufactured in Texas could make their way to the Northeast and on to the Allied and US military forces in North Africa and Europe.\textsuperscript{140} The Texas delegation to Washington, including the resourceful Albert Thomas of Houston, brought a tremendous amount of pressure to build a products line from Texas to the Northeast.

To both placate the disgruntled Texas oilmen and solve this critical problem of the war effort, the PAW and the armed forces recommended in January 1943 that a 20-inch oil products line be constructed from southeast Texas to the East Coast. Despite some opposition from midwestern refiners who feared the effect of such a products line on their ability to compete after the war, approval was granted by the War Production Board within the month and construction began on April 23, 1943. The route chosen was the matter of some debate, but in the end Houston lost out to Beaumont in a bid to be the Texas terminus of the line that came to be called the Little Big Inch. However, the creation of a new sixty-two mile 16-inch feeder line from Baytown to Beaumont, along with other smaller lines from Houston to the main line, ensured that a large percentage of the products carried north in the Little Big Inch would be have their origins in Bayou City refineries. The course of the pipeline stretched from Beaumont via Seymour, Indiana, to its eastern end at Linden, New Jersey, on New York harbor. The total distance was 1,714 miles, slightly longer

\textsuperscript{140}Frey and Ide, \textit{History of the PAW}, 434.
than its predecessor the Big Inch.\textsuperscript{141}

Construction on the Little Big Inch ran into numerous difficulties that delayed its opening several months later than anticipated. The first products, in this case domestic heating oil, did not arrive at Linden until March 2, 1944. However, the line quickly proved worth its $60,000,000 construction cost, moving vital high octane gasoline and other military necessities in great volume in time for the allied invasion of Fortress Europe in June 1944. The line averaged a daily delivery of 227,000 barrels of various petroleum products over its wartime career, moving 105,960,000 barrels in less than two years.\textsuperscript{142}

Besides the Big and Little Big Inch lines, the federal government teamed with the oil industry to build or improve some thirty-three pipelines. Between 1941 and 1945 11,000 new miles of lines were laid while 6,000 existing miles were either reconditioned, relaid, or reversed.\textsuperscript{143} Included in this massive wartime expansion were numerous projects involving the Houston area and its companies. The Humble Pipe Line Co.—the nation’s largest peacetime pipeline operator—built a series of short lines to connect Baytown with Baton Rouge, which together served

\textsuperscript{141}\textit{Ibid.}, 453 and Houston \textit{Post}, February 23, 1943, pp. 1 & 3.

\textsuperscript{142}\textit{Frey and Ide, History of the PAW}, 437. In order of volume transported through the Little Big Inch the products sent were: 100-octane aviation gasoline, 72-octane export gasoline, No. 2 heating oil, 80-octane all-purpose gasoline, 70-octane housebrand gasoline, 7-0-2 Navy diesel fuel, 72-octane all-purpose gasoline, kerosene, and 68-octane unleaded gasoline.

\textsuperscript{143}\textit{Ibid.}, 101.
as the main source of supply for the existing Plantation Line that connected Louisiana with Bremen, Georgia, and Greensboro, North Carolina, and provided for much of the petroleum needs of the southeastern states.\footnote{During the war the Plantation pipeline was extended from Greensboro to Richmond, Virginia. \textit{Ibid.}, 419–20 and Houston Post, August 23, 1942, pp. 1,1 & 1,13.} Humble was also responsible for the conversion and new construction on a $6,000,000 project that tied Houston with oil fields to the southwest around Pierce Junction and Refugio.\footnote{Frey and Ide, \textit{History of the PAW}, 418.} Interestingly, the costs of these various projects were divided between the public and private sectors, with the oil companies assuming the majority share of financial obligation, $179,452,000 to $154,206,000. The government recognized that pipelines would continue to be very valuable after the war and resisted footing the entire bill for their construction.

Taken in sum, this pipeline building constituted nothing less than a revolution in the delivery of oil in the US. Before the war some 50,000 barrels per day of petroleum and petroleum products had been delivered through pipelines. By 1944, that number had skyrocketed to 754,000 barrels per day. Pipelines continue today as one of the greatest conduits of petroleum, especially in the Houston area.

When the war ended, the federal government found itself the owner of over $16,000,000,000 in industrial and other war investments, including the $138,000,000 combined price tag of the Big and Little Big Inch
lines. The government had no interest in continuing as owner of these two major lines and declared them surplus. It placed responsibility for selling them and other unneeded government property in the hands of the Surplus Property Administration (SPA).

At this point an interesting situation arose. Many oil producers, including Houston area firms, fearing the competition that the lines would present to their tanker fleets or own pipeline systems, argued against the sale of the Big and Little Big Inch. Others, especially small oil companies without the same investment in transportation facilities, argued stridently for the sale of the Inch lines as oil-carriers, stressing that they would increase competition within the industry. Still other opinions circulated. A consultant to the RFC suggested that the lines would be best used if converted to transport natural gas. Some in the oil industry seemed to agree with this opinion. J. Howard Marshall of the PAW and Ashland Oil argued before a congressional committee that the lines ought to be converted to gas as a conservation measure. Marshall admits in his autobiography *Done in Oil* that he had some ulterior motives for his stance. He realized that his small midwestern company would be put at a competitive disadvantage by the sale of these pipelines to one or more of his larger competitors. In spite of his self-serving testimony in favor of

---

146 Castaneda and Pratt, *From Texas to the East*, 33.

gas conservation, Marshall’s opinions did make sense and the conversion of
the Inch lines came to be seen as a legitimate option.148

After reviewing the various arguments, the SPA declared that the
lines would be best utilized in the continued transportation of petroleum,
with their use for natural gas being a viable but less ideal solution. Bidding
for the Inch lines began on June 7, 1946, and lasted until a public reading
of all bids on July 30. On that date, they were unsealed and it became clear
that due to a lack of bidding guidelines, selecting the true high offer would
be impossible. The War Assets Administration (WAA)—the agency
charged with administering the actual sale of government
property—decided to request further information from the sixteen bidders
by a new deadline of September 16, 1946. Even with this revised timetable
the decision of the disposition of the Inch lines appeared hopelessly bogged
down in Washington red tape. Frustrated by the WAA’s inability to
resolve the situation, the House of Representative called for hearings to be
held on November 19. Apparently put on the defensive by congress’s
attitude, Robert Littlejohn, the chairman of the WAA, appeared at the
hearings to announce that his organization had rejected all existing bids for
the Big Inch and Little Big Inch, that bidding along strict guidelines would
recommence, and—in a break from earlier policy—there would be no
preference given to the bidders’ intentions for the lines. The new deadline

148 Marshall, Done in Oil, 185.
Two events that occurred after the congressional hearings made the likelihood of the Inch lines being converted to natural gas carriers greater than ever before. First, the WAA agreed to temporarily lease the lines to Houston-based Tennessee Gas to deliver its product to the Appalachian region in time for winter of 1946. The lease began on December 3, 1946, and terminated on April 30, 1947. Tennessee Gas’s operation of the Inch lines proved that they could be used effectively to transport natural gas.

Second, when John L. Lewis led his United Mine Workers on strike in mid-November, the continued supply of manufactured gas to much of Appalachia and the Northeast suddenly seemed vulnerable. The Truman administration’s hard-line stance towards labor unions meant that Lewis’s actions went a long way towards convincing the president and others of the advisability of converting the Inch lines to gas transportation.

When new bidding opened up for the Inch lines in late December, it became clear that natural gas concerns were now the front-runners. In addition to the current line operators Tennessee Gas, prominent gas bidders included two others with strong ties to Houston. First was the Transcontinental Gas Pipe Line Company (later known as Transco) which,

\[149\text{Previously, prior to the first round of bidding, the SPA administrator Stuart Symington, later senator and presidential candidate had announced that first preference for the lines be given to bidders who unintended to maintain the pipelines as petroleum conduits. Second preference would be given to combined oil and natural gas usage of the lines; third to gas only; and fourth choice would be the use of the lines for any other purpose. War Assets Administration, Government-Owned Pipe Lines: Report of the War Assets Administration to the Congress (Washington, 1946), 4.}\]
though founded in Austin, would relocate to Houston in 1948. The other bidder linked with Houston was the newly formed Texas Eastern Transmission Corporation. The company was the brainchild of longtime natural gas operator E. Holley Poe who had enlisted prominent Dallas geophysicist Everette DeGolyer and United Gas Corporation’s Reginald Hargrove to bring vital experience to the venture. Poe, though, realized that familiarity with natural gas alone would not be enough to create a successful company. To bring strengths in business and politics to the table, Poe enlisted Charles I. Francis, a noted Washington lobbyist and attorney specializing in the oil and gas business for the powerful Houston law firm of Vinson, Elkins, Weems, and Francis. Francis, in turn, brought two fellow members of the Houston commercial-civic elite into the new venture, the Brown brothers, George and Herman.

The Browns’ decision to participate in Texas Eastern was significant because they brought a number of assets to the fledgling operation. As contractors they had a wealth of experience in the construction and engineering of pipelines, including their wartime work on portions of the Tennessee Gas Appalachian line. Also, the Browns, as evidenced by their wartime record of building ships for the navy, were men who knew how to get things done and how to deal with the authorities. They had extensive and helpful contacts at all levels of government, especially in Washington where, among others, their allies included congressman Lyndon Baines
Johnson. Clearly, the Browns' participation in Texas Eastern was a boon to the company. And they obviously saw potential benefit to themselves as well. They recognized that the government-built pipelines represented an excellent opportunity to enter a new industry with a ready-made infrastructure. As astute Houston businessmen, George and Herman Brown also clearly recognized Texas Eastern as an entree into the greater oil and gas business that so dominated the life of the city. They had long participated on the fringe of the industry as contractors, but they had never realized the massive profits of those with a real stake in it. The Browns had obviously been planning an expansion in this direction for some time. Early in 1946 they had created new petroleum and chemical divisions on part of their shipyard site at Greens Bayou on the ship channel.151

Fortified by the presence of the Brown brothers, Texas Eastern was able to put together a strong offer for the Inch lines. When the final round of bids were opened on February 10, 1947, the highest at $143,127,000 belonged to Texas Eastern, out-pacing runner-up Transcontinental by over

150 As part of their agreement to become part of the new company, the Browns insisted on acquiring a controlling interest in Texas Eastern. George and Herman each bought 14.25 percent of the initial stock offering and loaned money to nine other investors in return for controlling their proxy rights. In addition, George was named chairman of the corporation with E. Holley Poe as president. Castaneda, "Texas—Northeast Connection," 87–89 and 92.

151 Castaneda and Pratt, From Texas to the East, 43.
$12,000,000.\textsuperscript{152} Texas Eastern moved quickly into operation and by late 1947 was in negotiation with northeastern utilities like the Philadelphia Electric Company to replace their supply of manufactured gas with natural gas. By the 1950s, the enormous markets of New York and New England had also been opened to natural gas from Texas Eastern, along with their Houston-based competitors, Tennessee Gas and Transcontinental.

Like the oil business, the emergent natural gas business would come to be largely centered in the Bayou City. Although part of Texas Eastern’s headquarters would remain in Shreveport, Louisiana, until 1954, many of its operations were based in the Brown brothers’ stronghold of Houston. This coupled with the location there of Texas Eastern’s two competitors meant that by the beginning of the 1950s, the city had become the unquestioned center of the nation’s interstate natural gas pipeline industry. This was to prove extremely important to Houston’s subsequent development, and it reaped the benefits as natural gas became the nation’s “fastest growing domestic energy source” in the postwar era.\textsuperscript{153} With the city’s proximity to major producing fields and with its wealth of businessmen, engineers, and others experienced in oil matters, the emergence of the natural gas industry seemed a logical occurrence. However, as the construction of the partially federally funded ship channel

\textsuperscript{152}Castaneda, “Texas—Northeast Connection,” 92.

\textsuperscript{153}Castaneda and Pratt, From Texas to the East, 3.
helped give rise to the oil industry in Houston, the city’s position as leader in the gas industry would not have occurred so easily without the Inch lines, whose original construction had been largely underwritten by the federal government. Had it not been for the war, there is no way to predict whether the national gas industry would have come to be so concentrated in one city.

In World War II, the oil-related business of Houston were called upon to accomplish extraordinary feats of production. In addition to a wide range of traditional materials, they were asked to churn out huge quantities of three complex new products (toluene, synthetic rubber, and 100-octane gasoline) for the first time. While Houston-area companies took up the production gauntlet thrown down by the government, they did not do so without compensation. Massive federally-financed investment in local refineries and other petroleum-related facilities expanded production capabilities to a degree that otherwise would have been impossible in such a short period of time. In all, by V-J Day investment in petroleum and chemicals in the Houston area, both public and private, totaled

---

154 For a detailed discussion of the role of the federal government on the gas industry, especially as regards regulatory policies, see Castaneda and Pratt, From Texas to the East, parts I and II. Ironically as the government had given the natural gas business a head start in the immediate postwar period, the strict federal regulations would increasingly come to be seen by those in the business as an impediment to growth. Companies like Texas Eastern sought to find other outlets to diversify their companies. One of the most noteworthy Texas Eastern attempts at diversification came in the late 1960s and 1970s with the ambitious multi-function Houston Center real estate development project that was terminated prematurely by the financial downturn of the early 1980s.
$600,000,000 and was climbing. The war’s end meant that the
government had no further use for the facilities it had built or helped build
and offered them for sale. The most logical buyers for such complex
operations were the private corporations that had operated them for the
duration of the war. Companies like Humble, Shell, and Sinclair thus
acquired, often at a massive discount, some of the most technically-
advanced petroleum facilities in the world. From this base—and with
refining techniques honed in wartime—the oil operators of Houston were
able to diversify their operations away from simple refining and into the
enormously lucrative world of petrochemicals. In the 1950s and
beyond this would become the most important sector of the local economy.
Similarly, federal wartime investment laid the groundwork for a new
natural gas industry that would largely be based in Houston. Like oil
companies, natural gas concerns Texas Eastern, Tennessee Gas, and

industry, wartime petroleum refining did not employ a tremendous number of workers and
thus did not spur massive migration to the city. The only exception to this was in the
production of synthetic rubber which required that a number of skilled personnel relocate to
the city. While oil-related employment numbers are sketchy at best, in April 1944 Houston
magazine reported that 9,361 workers were engaged in petroleum refining and 2,066 in
synthetic rubber. Unfortunately, the number of those employed by oil tool makers are not
listed separately in the survey. Houston, XV (April 1944), 7.

156 Also vital to the rise of the petrochemical industry was the existence near the
city of major natural chemical resources. Wharton and Brazoria counties were home to
some of the largest sulphur deposits in the world. In addition, on the coast of Brazoria,
Dow had created magnesium plants utilizing the salt water of the Gulf. Also available in
the hinterlands of Houston were other materials used in many chemical industry
applications. Oyster shell, salt, and brine were all present in large quantities. At the end of
the war, the Houston area saw an influx of new chemical plants to take advantage of the
location. Du Pont and Diamond Alkali are just two such installations.
Transcontinental owed much of their existence to government-funded pipeline facilities. Like the city’s shipbuilders, Houston’s oil and gas men found the national government a most useful partner. Knowing how to seize the opportunities provided by such a partnerships would play a significant role in the city’s postwar development and serve as the engine that would drive the city’s economy in the 1950s, 60s, and 70s making it one of the most dynamic in the nation.
VOLUME II

FOR THE DURATION AND BEYOND: WORLD WAR II AND THE CREATION OF MODERN HOUSTON, TEXAS

by

PAUL ALEJANDRO LEVENGGOOD
V.

Philanthropy and Boosterism: The Wartime Beginnings of the Texas Medical Center

Today the Texas Medical Center (TMC) is one of the premier hospital and research complexes in the United States, if not the world. Its presence in Houston has brought the city immeasurable respect and recognition. Four and a half million patients from around the nation and the world, many who might otherwise never have visited the Bayou City, visit every year for treatment at one of the center’s eight hospitals and dozens of other institutions, some of which rank with the best in the world.¹ Besides treatment of the sick, the Texas Medical Center is a center of learning and research. Its thirteen institutions of medical education train thousands doctors, dentists, pharmacists, nurses, and other health care professionals.² Those students benefit from the TMC’s remarkable ability to attract funds that enable scientists to investigate various aspects of human health. In the five year period between 1994 and 1998, the TMC was the beneficiary of more than $2 billion in research grants. The medical center is also a major employer in the Houston economy. Over 51,000 people are

¹Information on the number of patients treated annually by the institutions of the Texas Medical Center is drawn from the official TMC internet website, the address of which is: http://www.tmc.edu/tmc-facts.html.

employed by the various institutions of the TMC, more than by any other single entity in the city.\textsuperscript{3} But for all those who are treated, or study, or work in the medical center, few know much about its origins or are aware of its roots in the World War II era.

Health and health care have been a concern for as long as Houston has existed. Its location is a major reason why this has been true. The city lies some fifty-five feet above sea level in a swampy area of the Texas coastal plain criss-crossed by brackish streams and bayous.\textsuperscript{4} The low-lying site, coupled with high year-round median temperatures, makes the area a haven for disease-carrying mosquitoes and other parasites. Yellow fever, malaria, cholera, typhus, and dengue fever have all either been epidemic or endemic problems into the mid-twentieth century.

Concern over the healthfulness of the location of Houston existed even before the townsite was laid out. One of the Allen brothers' nephews recalled that the work of clearing the jungle-like undergrowth from the townsite in 1836 was deemed too unhealthy for whites to do. Instead the laborious work and mosquito bites were left to slaves and Mexican prisoners-of-war captured at the recent Battle of San Jacinto.\textsuperscript{5} At

\textsuperscript{3}Information on the research budgets of and the number of people employed (as of late 1998) by the institutions of the Texas Medical Center is drawn from the official TMC internet website, the address of which is: http://www.tmc.edu/tmc-facts.html..


\textsuperscript{5}O. Fisher Allen, The City Houston from Wilderness to Wonder (Temple, Tex.: By the Author, 1932), 1–2.
that time popular belief held that both groups had superior immunities to
the various diseases encountered in the marshy terrain.

The town once established did not leave concerns of disease behind. Although the charter of Houston included no provisions for public health, it soon became apparent that municipal authorities would have to play a part in disease prevention.\textsuperscript{6} Besides the obvious concerns for their own health, city leaders understood that a reputation for unhealthfulness would be a hindrance to attracting residents and business to their new town. Even with the passage of laws regarding food inspection and sanitation, outbreaks of disease were commonplace. Especially problematic were the almost yearly attacks of the dread “yellow jack”—yellow fever. Along with cholera, malaria, and other maladies, Houston quickly gained the reputation that its leaders had feared. In 1841 the Boston Nation reported that the city had more graves, six thousand, than residents, four thousand. While Houstonians howled in protest, in truth they could scarcely argue. Their city was a dangerously unhealthy place to live.\textsuperscript{7}

To combat the distressingly frequent and lethal eruptions of disease in Houston, the city aldermen appointed a health inspector and funded a public hospital shortly after its founding until 1840 when a private


\textsuperscript{7}Ibid., 51.
physician took over its operation. This first hospital was a step in the right direction, but on this urban frontier in this period, public health remained appallingly bad. In the period from 1839 to 1900 Houston was visited by at least seventeen epidemics of yellow fever alone, including an outbreak in 1848 in which almost two-thirds of the city’s population was infected and 10 percent died. Cholera too made itself an unwelcome but regular guest, especially between 1854 and 1867. Despite the continued dangers of disease, Houston’s hospital facilities remained extremely limited in the postbellum period. In the 1870s the city’s Reconstruction government began to support a hospital with tax dollars, but the effort proved short-lived. To meet the needs of the growing city, several private hospitals and clinics opened their doors in the late nineteenth and early twentieth centuries. Most notable among these was the St. Joseph Infirmary, founded in 1887 and operated by the Sisters of Charity of the Roman Catholic Church, and the Baptist Sanitarium—later renamed Memorial Hospital—founded in 1907.

As the twentieth century progressed and Houston’s growth reached

---

8Ibid., 51–52.


11Walter H. Moursund, Sr., A History of Baylor University College of Medicine, 1900–1953 (Houston: Baylor College of Medicine, 1956), 129–30.
meteoric rates, its hospitals had difficulty keeping up. Not coincidentally, the 1920s, the decade of the city's most rapid expansion to date, saw a flurry of activity to establish adequate health care facilities. Between 1924 and 1926, the Mexican Clinic as well as Hermann, Jefferson Davis, Methodist, and Houston Negro Hospitals all opened their doors or constructed new facilities. As would later be the case during World War Two, the city's flush times left Houstonians in a giving mood. Philanthropy tends to thrive when people feel confident of their economic prospects. While the need for hospitals and increased awareness of health matters had long been obvious, it was not until the boom times experienced by Houston in the twenties that resources and public attention were directed toward solving the problems.

The most dramatic example of the private philanthropy in the twenties was that of Hermann Hospital. Born to Swiss immigrants in Houston in 1843, George H. Hermann became one of the wealthiest men in the city by the turn-of-the-century.\(^\text{12}\) After service in a Texas cavalry unit during the Civil War, he returned to Houston and began investing in real estate. Although quite successful already, his fortune grew immensely in the early 1900s when oil was discovered on land that he owned near Humble and at Pierce Junction north of the city. By the early 1910 he was receiving up to $50,000 a week in oil royalties from these tracts of land.

\(^\text{12}\)"Hermann Hospital: History and Heritage," 1. Unpublished material included in packet given to donors to the George H. Hermann Society, Box M-13, Masterson Family Collection (Archive Department, Museum of Fine Arts, Houston, Houston, Texas).
With these great revenues Hermann sought to improve the health of the city that had provided his fortune. 13 Before he could put his plans into action, however, George Hermann died on October 21, 1914. But even in death he did not abandon his wishes. What Hermann could not accomplish in life, he did in death. His will deeded land to the city on the southern edge of town to become Hermann Park, but the lion’s share of the estate, some $2,500,000, was placed in trust to create and fund a hospital for the “poor indigent and infirm residents of the City of Houston in preference to any other.” 14

The three-hundred-bed Spanish colonial style design included features that set it apart and were advanced for its time, including patient rooms that all featured exterior windows and its own generating plant. Construction on Hermann Hospital began on April 1923 and lasted until July 13, 1925, when it opened its doors to the public. The construction had gone far over its $600,000 budget; rumor held that the total cost

---

13 At first, Hermann offered Harris County property downtown on Texas Avenue if they would build a hospital there. When this proposal was rejected, he resolved to create his own charity hospital. *Ibid.*, 7–8.

14 George Hermann stipulated in his will that the hospital was to be built downtown, on the site of present-day Sam Houston Coliseum. Executors of the will, however, maintained that at the end of his life he had changed his mind to favor land near the park and across from Rice Institute, just south of the city limits. Some in the local medical community objected to a hospital so far from the heart of the city, but in the end the downtown site was sold to the city and the South Main location was selected. Interestingly, in order to comply with the stipulations of the Hermann will, the hospital was required to be in the city of Houston. In 1918, when the question of the proposed location arose, the property on South Main was not within the city limits. In a classic case of how government operates in Houston, the Hermann trustees asked the City Council to annex the area, which they did immediately. *Ibid.*, 12.
approached $1,000,000. The opening of Hermann Hospital greatly 
expanded the city's number of hospital beds open to patients in need of 
charity.15

Around the time Hermann opened, a mini-boom in hospital 
construction was underway. In a cramped building near downtown at 
Rosalie and San Jacinto Streets, Methodist Hospital treated its first patient 
in 1924.16 The origins of the institution were somewhat older, dating to 
the terrible global Spanish influenza epidemic of 1918–19 when local 
Methodists—recognizing the need for more health care facilities in the 
city—began organizing a hospital.17 In addition to treating patients, 
Methodist from its inception was also a training facility with its own school 
of nursing.18

In 1924 the city established a tax-funded public hospital for the first 
time since Reconstruction.19 Named the Jefferson Davis Hospital, it had 

15Ibid., 13 and Marguerite Johnston, Houston, The Unknown City, 1836–1946 
(College Station: Texas A & M University Press, 1991), 249–250.

16Marilyn McAdams Sibley, The Methodist Hospital of Houston: Serving the 
World (Austin: Texas State Historical Association, 1989), 25.

17Ibid., 5 & 9.

18Ibid., 36 and Johnston, Houston, The Unknown City, 221.

19The origins of Jefferson Davis Hospital lie in the immediate World War I era. In 
1919, the city of Houston turned four former army barracks at Camp Logan to serve as a 
charity medical facility. Previously, indigent patients had received care at St. Joseph’s 
Infirmary. The building on Elder Street at Girard opened in December 1924 after 
construction was funded by a $500,000 bond issue. Moursund, History of Baylor, 
one hundred and fifty beds and was located on the north side of Buffalo Bayou at Elder and Girard Streets. Almost upon completion the building was obviously too small. Seizing hold of the opportunities presented by the funds of the New Deal, the city and Harris County received a joint Public Works Administration grant to construct a new Jefferson Davis. Built on Buffalo Drive—now Allen Parkway—just west of downtown, the new City-County Hospital, as it was known, rose eleven stories and contained nearly five hundred beds.\textsuperscript{20} After opening in 1937, it operated until 1989 when it was replaced by Lyndon Baines Johnson Hospital in the northeast part of the city.\textsuperscript{21}

Barred as they were from white Houston hospitals, no segment of the city’s population was in more dire need of new facilities than African Americans. As recounted in earlier chapters, black Houstonians lived in often squalid conditions in neighborhoods that regularly saw rates of tuberculosis, typhus, and even cholera far in excess of white areas. And despite frightening health problems, segregation limited blacks’ access to care to only three hospitals. There were 35 beds sometimes used for blacks at Hermann and 26 at Memorial. In addition, there were 130 charity-only beds available for African Americans and Mexicans in the city-county


Jefferson Davis Hospital. In response to these limitations, black physicians in 1918 organized their own 10-bed Union Hospital. While this institution proved to be poorly run, it did not remain the city’s only black hospital for long. In 1926 Texaco founder Joseph S. Cullinan donated $80,000 to construct a new black hospital in memory of his dead son. The city donated land in the Third Ward and the Community Chest promised $6,000 per year for operating costs. The Houston Negro Hospital, as it was named, was the source of much controversy early in its existence. Many in the black community resented that its white advisory committee seemed to have ultimate authority over policy. Additionally, in one of the tragedies of the Jim Crow system, so ingrained was the notion of white superiority that many African Americans did not trust the competence of doctors of their own race, preferring to patronize white physicians. However, after overcoming these problems by the late thirties, the hospital became one of the city’s busiest health care facilities, admitting 302 patients in 1940 and increasing to 1,004 in 1941. Further proof of the viability

22 Application of Houston Negro Hospital to War Production Board, June 14, 1943, Houston Negro Hospital 1942–1959 Folder, Box 15, Albert Thomas Papers (Woodson Research Center, Fondren Library, Rice University, Houston) (hereinafter cited as Thomas Papers).


24 Ibid., 331–33.

25 Houston Chronicle, April 2, 1942, p. 6B.
of the Houston Negro Hospital and its wartime competence was its accreditation in 1944 by the American Hospital Association. It survives to the present day as Riverside General Hospital.

In health care as in many other aspects of life, Houston’s Mexican residents occupied a strange racial middle ground. Depending on the situation, whites classified Latin Americans as either white or colored. In allocating bed space at Jefferson Davis Hospital, for example, Mexicans were grouped with blacks in a segregated ward of 130 beds. In addition, fear and language barriers often kept many of Houston’s Mexicans from seeking proper medical care. A small number of Spanish-speaking doctors existed in the 1910s and early 1920s, but cost kept many potential patients away. Tragically, the result was that Mexicans developed the highest infant mortality rate in the city. Recognizing the severe needs for medical care, several prominent Hispanics and Anglos joined with the Catholic church to open in 1924 the free Mexican Clinic on Franklin Street in 2nd Ward, El Segundo Barrio. In the late twenties the clinic moved to a new location on Canal Street and gained financial support from the Community Chest. Hospitalization for Mexicans continued to be a problem, and the doctors of the clinic were often forced to perform operations on site instead of

26SoRelle, "Darker," 335.

27Application of Houston Negro Hospital to War Production Board, June 14, 1943, Houston Negro Hospital 1942–1959 Folder, Box 15, Thomas Papers.
transferring patients to one of the city’s hospitals.28 By 1940 the vital role played by the Mexican Clinic was clear; it served about one thousand patients per month and distributed much needed milk, medicine, and eyeglasses.29

Despite the flurry of hospital creation in the twenties that created the Mexican Clinic and other facilities, Houston entered the World War II era woefully short of health-care facilities. In 1940 the city had sixteen hospitals and large clinics, which together contained 1,718 beds. Over one quarter of these, 470, were in one institution, Jefferson Davis Hospital, run jointly by the City of Houston and Harris County. Other large hospitals included St. Joseph’s Infirmary with 275 beds, Memorial Hospital with 195, the Houston Tuberculosis Hospital with 172, Hermann Hospital with 140, and Methodist Hospital and Southern Pacific Hospitals—reserved for the care of company employees—each with 120 beds.30 With a population in 1940 of 384,514, the city’s ratio of one bed per 224 residents put it well behind nationally recommended levels.31 Interestingly, although Jefferson

Davis was almost twice its size, St. Joseph’s admitted nearly a thousand


29Ibid., 51.

30*Houston, XI* (August 1940), 27–28 and Houston *Chronicle*, April 2, 1942, p. 6B.

more patients in 1941—15,523 to 14,545. This seeming irregularity is partly due to St. Joseph’s unofficial role as the foremost maternity center of Houston. In 1941 alone, its 3,946 births exceeded Jefferson Davis’s total by 1,621.\textsuperscript{32}

Inevitably, as the wartime industries boomed and drew thousands into Houston, the pressure on Houston’s inadequate hospital space continued to mount. In 1945, for example, Methodist superintendent Josie Roberts complained that, “‘[t]he hospital is so crowded now that we are forced to turn away an average of between fifteen and twenty patients daily.’”\textsuperscript{33} The result was a potential blot on the city’s image as a progressive, business-friendly location. Expansion of existing facilities was impossible due to War Production Board (WPB) regulations that severely limited civilian construction not directly tied to the war effort. Several local hospitals applied for permission to make improvements to their physical plants, but to no avail. At least one of these, the Houston Negro Hospital, argued that approving its request was vital to national defense. John R. Young, chairman of the board of the hospital, wrote to E.W. Jones, Head Hospital Consultant of the WPB, that his facility was Houston’s “only place we are going to have available for proper care and restoration of our convalescing negro soldiers on their return from the army.” Despite Young’s entreaties,

\textsuperscript{32} Houston Chronicle, April 2, 1942, p. 6B.

\textsuperscript{33} Quoted in Houston, XVI (March 1945), 9.
the priority request was denied. 34 No significant physical hospital expansion took place in Houston between Pearl Harbor and V-J Day.

The wartime state of Houston’s hospital facilities came to the attention of two Houstonians in particular who were in a position to do something about the matter, Colonel William B. Bates and John Freeman. Both were Houston lawyers and trustees of the Monroe Dunaway Anderson Foundation, which at the time was the largest private foundation in Texas. The two had been considering using the sizable financial resources at their disposal to promote better health in the city and were in search of a worthwhile project. 35

Monroe Dunaway Anderson was born in Jackson, Tennessee, in 1873. He moved to Houston in 1907 to head the local office of Anderson, Clayton and Company (ACCO), the cotton marketing firm he had founded in 1904 with his brother Frank and the Clayton brothers William and

34 John R. Young to E. W. Jones, June 14, 1943, Houston Negro Hospital 1942–1959 Folder, Box 15, Thomas Papers. The Houston Negro Hospital’s application was for modifications to its operating rooms and laboratory to permit the training of nurses at its new nursing school.

35 Both Bates and Freeman were partners in one of Houston’s most prestigious law firms, Fulbright, Crocker, Freeman, and Bates—later renamed Fulbright, Crocker, and Jaworski, professional home of Nuremberg and Watergate prosecutor Leon Jaworski. Bates and Freeman were introduced to M. D. Anderson because Anderson, Clayton and Company was their firm’s biggest client. N. Don Macon, South From Flower Mountain: A Conversation With William B. Bates (Houston: The Texas Medical Center, 1975), 50–53.
Benjamin. 36 After moving its main offices from Oklahoma City to Houston in 1916, ACCO grew to become the largest cotton brokerage firm in the world with branches in cities across the United States and in Europe. 37 After the death of Frank Anderson in 1924 and the withdrawal of Ben Clayton from the firm in 1930, M. D. Anderson was left with a one-third interest in ACCO. In poor health and having neither wife nor children, he resolved to commit the bulk of his estate to a charitable foundation. On July 9, 1936, enlisting Bates and Freeman as fellow trustees, he created the M.D. Anderson Foundation with an initial endowment of $10,000 to be used for “the improvement of working conditions among workers . . . the establishment, support and maintenance of hospitals . . . [and] the promotion of health, science, education and advancement . . . .” 38 Over the next three years Anderson increased the capitalization to $300,000 while funding various small endeavors around the city. 39 On Anderson’s death in August 1939, the ambition of the


37 Houston Post, March 6, 1942, p. 2,1 and Macon, South From Flower Mountain, 54.

38 Houston Chronicle, March 4, 1942, p. 16A.

39 These small outlays included those to the Junior League’s children’s eyeglass campaign, DePelchin Faith Home, Blue Bird Circle, Memorial Hospital, and the Crippled Children’s Clinic. Bates, “Monroe D. Anderson,” 7; Houston, XIV (August 1943), 4; and Houston Chronicle, March 4, 1942, p. 16A.
foundation's efforts were enlarged by the massive bequest of its founder. Mostly in the form of ACCO securities, the value of the bequest to the foundation amounted to nearly $20,000,000.40

After the demise of M. D. Anderson, Bates and Freeman suddenly found themselves in charge of a massive endowment with no concrete plans for how to disburse it. The foundation continued to support small local projects including the funding of a new public library branch in the East End at 69th Street and Canal in February 1942.41 At just this time that the M.D. Anderson Foundation was casting its eye around for a major project, events in Austin would help provide an opportunity for it to make its mark in a significant manner. The State of Texas was creating plans for a center for cancer research and treatment. In 1929 the state legislature had authorized the creation of a cancer, insane, and pellagra hospital in Dallas. However, no funds were made available and the project stagnated.42 Therefore in 1940, after the worst of the Great Depression had passed from Texas, the state medical association renewed calls for a cancer

40The death of M. D. Anderson created a vacancy on the foundation board. As a replacement, Bates and Freeman named Horace M. Wilkins a local banker. Bates, Monroe,” 5; Houston Chronicle, March 4, 1942, p. 16A; and Houston, XIV (August 1943), 4.

41Houston Chronicle, March 4, 1942, p. 16A.

42The First Twenty Years of The University of Texas M. D. Anderson Hospital and Tumor Institute (Houston: The University of Texas M. D. Anderson Hospital and Tumor Institute, 1964), 8
hospital, especially for the care of indigent patients. Given new impetus by the Texas Medical Association, the idea of a state cancer hospital gained momentum at the state capitol. On February 5, 1941, House Bill 268 to create a center for treatment and research was introduced in the 48th Legislature. The House of Representatives approved the bill on May 29, 1941, with an appropriation of $1,750,000 and placing the responsibility for implementing it solely with the University of Texas. The senate also passed the bill but reduced its funding to $500,000 and allowed UT to seek additional funding. The measure was signed into law by Governor W. Lee "Pappy" O'Daniel on June 30, 1941.

Unlike the 1929 resolution, House Bill 268 made no designation as to where the cancer center was to be located, leaving the decision entirely in the hands of the Board of Regents of the University of Texas. The university quickly concluded that the half million dollar appropriation would not be sufficient and thus any potential site would have to also offer funds that would substantially augment the cancer center's endowment. This narrowed the choices to the major Texas cities that could support such an undertaking. Interest came from various locations; Dallas seemed

---


44 *General and Special Laws of the State of Texas, 47th Legislature, Regular Session*, 1941.

45 *Houston Post*, March 1, 1942, p. 1,2.
interested, as did Waco.\textsuperscript{46} However, the entry of the United States into World War II in December 1941 brought civilian construction to an end and seemingly pushed the development of the proposed cancer center to the back burner.

Encouraged by prominent Houston doctor E. M. Bertner, the trustees of the M. D. Anderson Foundation had been toying with the idea of committing a substantial portion of the foundation’s resources to creating a major medical center in Houston. It was just at this opportune moment that the trustees of the M.D. Anderson Foundation,—Bates, Freeman, and new appointee banker H.M. Wilkins—decided to make an offer to the University of Texas that would bring the state cancer hospital to Houston. They were moved to action by a 1941 newspaper article that announced the legislature’s actions. Although the foundation leaders recognized that the war would postpone actual construction indefinitely, they also realized that an immediate firm cash offer would go a long way to persuading the UT regents to select the Bayou City as site of the cancer hospital.

Anderson foundation trustees held informal talks with key members of the UT Board in early 1942 to gauge their receptiveness to the foundation’s overtures. Bates, Freeman, and Wilkins arranged to meet with UT President Homer Rainey, University of Texas Medical Branch at Galveston (UTMB) Dean Dr. John Spies, UT regent Dan Harrison of Houston, and university development board chair and Humble Oil vice-

\textsuperscript{46}First Twenty Years, 17.
president Hines Baker on the back porch of Bates’s home on Brentwood Drive in River Oaks.\textsuperscript{47} There they hashed out an agreement that would place the cancer center in Houston and name it after Monroe Dunaway Anderson. The offer was formally presented to the UT regents on March 10, 1942.\textsuperscript{48} The foundation proposed to match the initial state appropriation of a half million dollars, provide temporary quarters, and construct a permanent home for the cancer center in Houston after the war. After some consideration, the UT board accepted this offer on August 8, 1942. Having succeeded in attracting such a major health care establishment to Houston, the trustees of the Anderson Foundation felt confident in pushing ahead with more ambitious plans: to use the cancer hospital as an anchor facility in the creation of a world-class multi-institutional medical center. John H. Freeman later remembered: “[w]hen we took the cancer hospital in hand, we then made up our minds that we would try to put a center in here. We didn’t envision anything like it is


\textsuperscript{48}An informal offer had been tendered in early 1942 which UT accepted in principle on February 26, 1942. The formal acceptance had to await a regularly scheduled board of regents meeting. Houston Post, March 1, 1942, pp. 1,1 & 1,2.
now, of course, but we wanted to put in a sizable center.”

Despite the obvious concern for public welfare shown by the establishment of a cancer hospital and medical center, there was something else at work. The men who constituted the board of trustees of the M. D. Anderson Foundation were more than philanthropists, they were also among the leaders of the city’s commercial-civic elite. Each held memberships in the Chamber of Commerce and various social organizations that put them at the very nexus of decision-making in Houston. The promotion of Houston as a future site of medicine and research would of course raise the stature of the city enormously and help it shed its national image as nothing but an oil town. In addition, Houston leaders would no longer have to look on as either Dallas or Galveston claimed the title of the medical capital of Texas. Thus the M. D. Anderson Foundation was holding true to its mission to promote public health and simultaneously help boost Houston’s economy and image.

Local response to the beginning of a medical center in Houston was overwhelmingly positive. The newspapers lionized the Anderson foundation and waxed ecstatic about the city’s prospects to establish itself

---

49 Bates, “Monroe D. Anderson,” 8 and N. Don Macon, Mr. John Freeman and Friends: A Story of the Texas Medical Center and How It Began (Houston: The Texas Medical Center, 1973), 27 (quote). Certainly by the time that the M.D. Anderson Hospital for Cancer Research was formally dedicated on February 17, 1944, the idea had become firm that it was to be only the first of many components of a great medical center. Speaking at the formal ceremony, Colonel Bates remarked that “the institution we dedicate here today was the first unit secured for the Texas Medical Center....” Proceedings at the Dedication of the M. D. Anderson Hospital for Cancer Research, Houston, Texas, February 27, 1944 (Houston: The M. D. Anderson Foundation and the University of Texas, 1944), 13.
among the premier centers of health care in the nation. The Post editorial of March 6, 1942, typifies the reaction of the press to word that Houston would be home to a major medical center:

Perhaps some day one of its [M.D. Anderson Cancer Hospital] doctors will discover the key to the sinister riddle [of cancer], and thereby light a gleaming torch of hope for millions of pain-racked victims throughout the world. . . . [the cancer hospital will] be a marvelous nucleus for a great medical center, which in time might be developed to rank with the Duke, Johns Hopkins and Mayo institutions. The Greater Houston of tomorrow, with its million or more population, will justify and support such a medical center as no other Texas city would, and it would be a great thing for Texas.  

Clearly, the establishment of the Texas Medical Center represented more than a new base for the fight against disease and sickness. For many in Houston, the center seemed a key step in the advancement of the city from a regional center to a place among the great urban metropolises of the nation. Again and again, newspapers referred to the medical center as soon to become among “the greatest in the country” or “the greatest in the world,” indicating the important nature of the project in regards to civic pride.  

With wartime priorities for construction materials limited to projects vital to the defense of the nation, the euphoria of Houston over the creation of the M.D. Anderson Hospital and Tumor Institute was tempered

---

50 Houston Post, March 6, 1942, p. 1,10.

51 Examples can be found in the Houston Post, March 19, 1942, p. 1,6 and Houston Chronicle, August 5, 1942. p. 6A.
by the realization that it might be years before the erection of its permanent home could take place.⁵² As temporary quarters, the Anderson Foundation initially investigated the possibility of using two floors of the old Jefferson Davis Hospital on Elder Street.⁵³ That building already housed the county’s psychopathic ward, state old-age-pension office, city health department laboratory, city’s venereal disease clinic, and other offices, and thus only the fourth floor would be available for UT’s use.⁵⁴ Close inspection also revealed, however, that the building was probably too dilapidated to be of use.⁵⁵ These factors both lead the university to reject the Jefferson Davis and search elsewhere. Alternate quarters were soon found. Prominent Houston attorney James A. Baker had died in 1941, leaving “The Oaks,” his gracious six-acre estate at 2310 Baldwin Street, near downtown and the Rice Institute. The commodious house and grounds fit the needs of UT, so the Anderson Foundation purchased it for $68,000 on May 16, 1942.⁵⁶

Once a site had been acquired, the M. D. Anderson Foundation

⁵²Houston Post, August 2, 1942, p. 1.

⁵³Houston Post, March 1, 1942, p. 1; March 18, 1942, p. 2,1; and Houston Chronicle, February 28, 1942, p. 1A.

⁵⁴Houston Chronicle, March 20, 1942, pp. 1A & 13A.

⁵⁵Macon, South from Flower Mountain, 61.

⁵⁶Macon, Monroe Dunaway Anderson, 20.
agreed to modify the Baker residence into a building suitable for medical
and research use.\textsuperscript{57} The house and carriage house/stables were converted
into treatment, office, and laboratory space, and a small building was
erected to serve as an out-patient clinic.\textsuperscript{58} The renovation—which
included installing central heat and air conditioning—equipment, and
furnishings together represented an investment by the foundation of almost
$125,000. Later, after the war, the foundation also acquired several
surplus barracks from nearby army base Camp Wallace to increase the
space available to the cancer center.\textsuperscript{59} Staff for the new facility consisted
of five members of the faculty of UTMB in Galveston loaned temporarily
to M. D. Anderson.\textsuperscript{60} The formal dedication took place on February 17,
1944, and the first patient was admitted on March 1, 1944.\textsuperscript{61}

Despite the money and effort put into this new facility, at least one

\textsuperscript{57}The Anderson Foundation had to move rapidly to convert "The Oaks" to usable
clinical and office space and to acquire the equipment necessary to operate the cancer
hospital. The War Priorities Board had grown increasingly stringent in granting priorities
for construction materials and the sort of technical equipment in question. Houston Post,
March 18, 1942, p. 2,1.

\textsuperscript{58}First Twenty Years, 26–29.

\textsuperscript{59}Ibid., 29 & 51.

\textsuperscript{60}The University of Texas Medical Branch at Galveston: A Seventy-five Year
History by the Faculty and Staff (Austin & London: University of Texas Press, 1967), 174
and Ibid., 24–28.

\textsuperscript{61}Houston Post, February 10, 1944, p. 1,7; February 18, 1944, p. 1; Houston,
XV (March 1944), 4; and First Twenty Years, 33.
visitor was far from impressed. Dr. Alan Gregg, a consultant who worked for the Rockefeller Foundation, was brought to Houston to consult on the project in 1945. When he toured the M. D. Anderson site at “The Oaks” he found “‘Plenty of expensive equipment, very few patients and even less going on in way of investigative work.’”\textsuperscript{62} Despite Gregg’s wartime findings, the hospital would get busier and the temporary facilities would all he put to good use. It would be a decade before the M. D. Anderson Hospital and Tumor Institute would move to its permanent location in the new TMC. By then, the hospital was on its way to treating over 250 patients on average every day on both an in-and out-patient basis.\textsuperscript{63}

With the first major tenant for a medical center in place, the Anderson Foundation needed to procure a site to build what they hoped would grow into a major medical center. John Freeman remarked: “‘There is room for a great deal more development in the medical center, and there is ample property for such development. The trustees are hoping and expecting that a good many other units will come into the project shortly. . . . this medical center is going to be one of the greatest in the country.’”\textsuperscript{64} To fulfill this vision, Anderson trustees needed to find a

\textsuperscript{62}Alan Gregg, Diary, July 10, 1945, quoted in Lesley Williams Brunet, “Alan Gregg and the Early Years of the Texas Medical Center,” \textit{Houston Review}, XII (1990), 110.


\textsuperscript{64}\textit{Houston}, XIV (May 1943), 5.
large plot of land to be the future home of the medical center. While various locations were considered, the most promising was a parcel just south of the city, adjacent to Hermann Hospital. As Bates noted in the Post, "This is the logical place to start a medical center. Hermann hospital, which soon will have a new wing, is adjacent to the site and Rice Institute is only a short distance away." Bates was not the first to see the site as a potential location for a medical center. Years before prominent Houstonian and developer of River Oaks, Will Hogg, had been interested in creating a medical center in Houston. In the 1920s he had purchased 134 acres just south of the city limits at the corner of Fannin Street and Bellaire Boulevard to be the site of such a complex.\footnote{65} As a regent and one of the most active boosters of the University of Texas, Hogg had hoped that its medical branch would relocate from Galveston to Houston and become the lead institution in his proposed Houston medical center project. After he proved unable to persuade his fellow University of Texas board members to move the medical school, he sold the parcel to the city at cost with the idea that it would become an extension of Hermann Park.\footnote{66}

Since the site near Hermann Park was property of the city of Houston and had been earmarked as possible park land, according to state law its sale to the Anderson Foundation was subject to approval by popular vote.

\footnote{65}Johnston, \textit{Houston, The Unknown City}, 361.

\footnote{66}\textit{Houston}, XV (August 1944), 8; Macon, \textit{South from Flower Mountain}, 62; Macon, \textit{Monroe Dunaway Anderson}, 88–90; \textit{First Twenty Years}, 55–56; and Houston \textit{Post}, March 18, 1942, p. 2,1.
referendum. The city welcomed the project as a boon to development and civic progress, agreeing on March 17, 1943, to part with the 134,359 acres for $420,660.\textsuperscript{67} The only dissenting voice seemed to come from Ralph Ellifrit, head of the city’s Planning Department. He argued that the city should not sacrifice prime wooded parkland near the heart of the city. “‘We were brushed aside by the mayor [C.A. Pickett], and we were practically told it was none of our business,’” Ellifrit later recalled, and he believed that the reason for the city’s willingness to sacrifice what would have been a substantially enlarged Hermann Park was financial: “‘of course this meant millions of dollars for Houston.’”\textsuperscript{68} The objections of the Planning Department notwithstanding, the city held a special vote on December 14, 1943, to gain approval of the sale of the land to the M. D. Anderson Foundation. Perhaps distracted by the third Christmas of a war that seemed unlikely to end soon, the voting public seemed uninterested in the matter. A record low number of voters turned out, approving the

\textsuperscript{67}Macon, \textit{Monroe Dunaway Anderson}, 124 & 140. Beyond the prestige of establishing a new medical center, a selling point to the city was that the Anderson foundation was offering a price that would enable it to pay off what it still owed on the land, $104,000. Additionally, the city had planned a new $1 million tuberculosis hospital, but in the depression years had only been able to raise $650,000 in bond sales. The Anderson purchase would be enough to pay off the debt, provide enough left over to increase the T.B. hospital fund to $1 million, and the foundation would provided a site in the medical center. \textit{Houston Post}, March 18, 1942, 2,1; \textit{Houston Chronicle}, March 18, 1942, pp. 1 & 6A.

\textsuperscript{68}“Planning the City: An Interview with Ralph Ellifrit,” \textit{Houston Review}, III (Winter 1981), 212.
measure 910 to 41.\textsuperscript{69} Those who so overwhelmingly voted for the medical center may have been persuaded by, or at least saw their views echoed by, ads like that which appeared on December 13 in the \textit{Post}. In it, there were two pictures juxtaposed: a scientist working at a microscope and a view of the downtown Houston skyline of skyscrapers and railroad cars. The text appealed to the reader’s sense of humanity by stressing the Texas Medical Center’s potential to cure disease while also fueling civic pride by noting that the TMC “would serve Houston and the Southwest as the Johns Hopkins Hospital in Baltimore serves the Eastern section of the United States. . . . Support the establishment of this great advancement for Houston and this section of our country by casting a ballot in favor of the . . . development of a great Medical Center.”\textsuperscript{70}

When Will Hogg had first envisioned creating a medical center in Houston, a medical school was central to his concept. Hogg’s idea impressed Dr. E.W. Bertner and he in turn later convinced the Anderson trustees that a world-class medical complex must include educational institutions. Realizing that creating a medical school from scratch might take years, they first looked at UTMB in Galveston as a potential target for relocation to Houston. In 1942 the school was undergoing internal tension due to turmoil over the presidency of Dr. John Spies. But as with Will


\textsuperscript{70}The advertisement which ran in all three daily papers was sponsored by “Public Spirited Citizens of Houston.” \textit{Houston Post}, Dec. 13, 1943, p. 13.
Hogg’s efforts to move UTMB, Houston was stymied in its attempts. Fortunately for the fathers of the Texas Medical Center though, the state’s one other medical school was also in a state of uncertainty over its future and would prove a much more willing prospect for relocation.

Baylor College of Medicine (BCM) had first opened its doors in Dallas in 1903 and in the intervening years trained many of the state’s doctors. Interestingly, in 1938–39, BCM had been at the center of a plan to create a major medical center in that city. While this effort ultimately proved unsuccessful, there is little doubt that Houstonians in general and Anderson Foundation trustees in particular knew of this venture. In light of this, it is difficult not to see the initial efforts to create the Texas Medical Center shortly thereafter as an aspect of the intense intracity competition between Dallas and Houston. As a part of the effort to create the medical center in Dallas, a struggle emerged between Baylor University (in Waco) and the Southwestern Medical Foundation (SMF) over the control of BCM. In the university’s eyes, the SMF seemed to seek control over its medical school. Events came to a head in early 1943 when the Southwestern Medical Foundation attempted to exclude BCM from the

---

71 Macon, “Mr. John H. Freeman,” 27.

72 Interestingly, the most prominent Houstonian Jesse Jones was a trustee of the organization promoting the Dallas medical center. He would later become a major supporter of the Texas Medical Center. Moursund, History of Baylor, 92–93.

73 The SMF was an organization of prominent Dallasites committed to the creation of a medical center in Dallas.
use of the city-county Parkland Hospital for clinical teaching and to force
the school to abandon its denominational affiliation.\footnote{Moursund, \textit{Ibid.}, 102–12 and Houston \textit{Post}, May 9, 1943, p. 1.} Upset at this
interference, and dissatisfied with the financial commitment of Dallas to
BCM, two Baylor trustees who were residents of Houston, Earl C.
Hankamer and Ray Dudley, along with university president Pat Neff,
approached the M. D. Anderson Foundation about arranging to relocate
BCM to the Bayou City.\footnote{Moursund, \textit{History of Baylor}, 114 and Brunet, "Alan Gregg," 99.} The Anderson Foundation wasted little time in
proffering an offer that would give BCM a twenty-acre site, $1,000,000
for construction, and an additional $1,000,000 over ten years for
research.\footnote{Houston \textit{Post}, July 31, 1943, p. 2,3.} Baylor’s board was similarly rapid in its response; two days
after receiving the offer it approved the relocation of the medical and
dental schools to Houston on May 8, 1943.\footnote{\textit{Ibid.}, May 9, 1943, p. 1; Moursund, \textit{A History of Baylor}, 114–15; and Bates,
"Monroe D. Anderson," 10–11.}

Perhaps seeking to deflect criticisms that they had poached BCM
from Dallas unfairly, Freeman later stressed the foundation’s good
intentions:

We told the Baylor officials that if they were going to leave
Dallas—and we weren’t encouraging them to do that, we
certainly wouldn’t take such an institution away from a sister
city—but if they were going to leave Dallas anyhow, we would
like to have them come to Houston.\textsuperscript{78}

Despite their protestations to the contrary, the Houston’s victory at Dallas’s expense must have pleased Freeman and other local leaders. As loyal Houstonians, it rankled them that their neighbor to the north had beaten them out in the contest for the Federal Reserve District Branch in 1914 and the right to host the Texas centenary celebrations in 1936. Strong support from the Houston business community provides further evidence of how powerful a factor this intrastate was. To help attract Baylor College of Medicine, the Houston Chamber of Commerce voted on May 11, 1943, to solicit an additional $500,000 for the school by subscription from its membership.\textsuperscript{79}

As in the case of the state cancer hospital, the Anderson Foundation had to help BCM find temporary quarters in war-crowded Houston. After inspecting several possible sites on May 13, 1943, a party of Baylor and Anderson representatives selected a former Sears Roebuck store and warehouse on Buffalo Drive—now Allen Parkway—at Lincoln just west of downtown as the new home of Baylor College of Medicine. The speed of this selection was prompted by the fact that the next term was to open on schedule in July. Renovation and construction was supervised locally by

\textsuperscript{78}Quoted in Macon, \textit{Mr. John H. Freeman}, 44.

\textsuperscript{79}Houston \textit{Post}, May 9, 1943, p. 1; \textit{Houston}, XIV (May 1943), 5; XV (August 1944), 11; Moursund, \textit{History of Baylor}, 118; and Johnston, \textit{Houston, The Unknown City}, 361. In addition, several Houstonians supported BCM by endowing professorships at the school. For one such example, the Fulbright Professorship of Pathology, see: \textit{Houston}, XV (January 1944), 20.
the Houston trustees Dudley and Hankamer and proceeded at a furious rate.\textsuperscript{80} Hankamer recalled: ""Laboratories had to be installed in places where they formerly had sold men's clothing or run the notions department.""\textsuperscript{81} With the removal of seventy trucks full of equipment, books, furniture, and even a "nerve system dissection" from Dallas to Houston, along with five faculty members, the school opened on time on July 12, 1943, with 131 students.\textsuperscript{82}

Originally the Baylor dental school was included in the plan to move to Houston, but in the end it remained in Dallas. Anderson Foundation trustees maintained an interest in including a similar institution in their plans for a medical center. Their choices were severely limited, but luckily the state's only other dental school, Houston's Texas Dental College (TDC), was undergoing extensive changes in the wartime years.\textsuperscript{83} Having financial difficulties in the early forties, the school reached an agreement


\textsuperscript{81}Quoted in Macon, \textit{Mr. John H. Freeman}, 47.


\textsuperscript{83}Texas Dental College opened in 1905 and had been run by the voluntary efforts of local dentists who served as clinical faculty members. \textit{Houston}, XV (August 1944), 17 and Johnston, \textit{Houston, The Unknown City}, 361.
with UT to become the UT Dental Branch in May 1943 and began conducting classes as such in September 1943.\textsuperscript{84} This new affiliation made the school an attractive prospect for inclusion in the TMC. The old Texas Dental College building near downtown on Fannin at Blodgett was too small, and the need for a new facility was obvious. Recognizing the Dental Branch’s needs, the Anderson Foundation offered UT a site in the medical center and $500,000 towards the construction of a permanent facility after the war.\textsuperscript{85} This offer was accepted and another piece of the Texas Medical Center puzzle was in place.\textsuperscript{86}

The efforts of the Anderson Foundation trustees and other Houston leaders were well on their way to making the city a national center of medicine and health education. Thus far, the creation of the Texas Medical Center had been a largely local affair, with a majority of funding provided by private sources. Perhaps it was inevitable, though, that as the center blossomed from a concept to a reality its guiding lights would look to the federal government as a potential partner in their efforts. There was something in the air in Houston in the war years. Shipyards, synthetic rubber factories, a steel mill, all sprang up between 1941 and 1945.

\textsuperscript{84}TDC first approached UT in 1941 and the two parties reached agreement in August 1942 pending approval by the state legislature. Houston Post, August 29, 1942, p. 1 and Houston, XV (August 1944), 17.

\textsuperscript{85}Macon, South from Flower Mountain, 65–66.

\textsuperscript{86}Macon, Mr. John H. Freeman, 28.
Houston came to see the positive impact that federal pump-priming could have on the economy and the city’s role in national life. Taking their cue from the spirit of the day, the founders of the Texas Medical Center along with other civic and governmental leaders took steps to ensure that the fledgling institution received its share of the flood of wartime dollars spilling out of Washington.

In late 1942, congress voted to build an enormous $6,000,000 naval hospital and rehabilitation center in Texas for the treatment of sailors and marines returning from combat. At the time, however, the decision on a location was not made, leaving the door open for a free-for-all lobbying effort. Such a large undertaking promised to provide a significant windfall of jobs and dollars to whichever locality was able to land it. For that city, the benefits of winning the naval hospital would not only prove economically significant but psychologically powerful as well. Like a war plant or major military base, federal spending on a health care installation proved a tremendous boost to civic pride, especially in Texas and the South. In many ways, these expenditures by the national government represented a recognition and validation of a part of the country long neglected in Washington and the national consciousness. It was during World War II with the economic boost provided by federal dollars that Texas and the South began to assume the powerful place that they do in
American life today.\textsuperscript{87}

Not surprisingly, the cities that emerged as favorites to land the prize of the multi-million dollar naval hospital were the homes of some of the most powerful members of the Texas delegation to Washington: Corsicana, home of Representative Luther Johnston, and Marlin, home of Senator Tom Connally. Hearing of this, the Chamber of Commerce and other Houston leaders wasted no time in recruiting their congressmen in Washington to actively push for the hospital to be located Houston.\textsuperscript{88} In an inspired piece of political gamesmanship, Representative Albert Thomas, who was now on the powerful House Appropriations Committee, boldly declared upon announcement of the appropriation that the project had already been awarded to Houston. This somewhat devious maneuver had the effect of placing the naval hospital in the Bayou City as a fait accompli, forcing the Navy to appear to be taking back something it had already given should they opt for another site. The gambit worked, and the Department of the Navy announced on May 17, 1944, that a 1,000 bed hospital would begin construction in sixty days.\textsuperscript{89} Albert Thomas’s legislative derring-do notwithstanding, Houston had much to commend it


\textsuperscript{88}\textit{Houston Post}, May 18, 1944, p. 1.

\textsuperscript{89}\textit{Ibid.}, May 18, 1944, p. 1; February 11, 1945, p. 1; and Houston \textit{Chronicle}, February 11, 1945, p. 1.
over its competitors as a site for a major hospital. The creation of the Texas Medical Center offered the opportunity for doctors at the naval hospital to have a wealth of other health care professionals and institutions for consultation and technical support. Additionally, lobbying efforts were greatly facilitated by the commitment Houston had already made to the creation of a world-class medical center. Federal officials were much impressed by the chance to be a part of what was rapidly becoming one of the greatest concentrations of medical institutions in the region, if not the nation. As an additional sweetener, the Chamber of Commerce organized a Navy Hospital fund that raised money from 353 prominent Houston businesses and individuals. This $221,600 was used to purchase a tract of land nearly adjacent to the Texas Medical Center complex. Acquired from the George Hermann estate, the site comprised 118 acres and was bounded by Cambridge, Bellaire [now Holcombe], Marlborough, Almeda, and Old Spanish Trail.\textsuperscript{90}

Title to the land for the naval hospital—which later became a general veterans hospital—was conveyed to the Navy on August 14, 1944, and construction began soon thereafter. Building had progressed so much by the following March that at the ceremonial cornerstone-laying, Representative Albert Thomas spoke in front of a backdrop of three nearly

\textsuperscript{90}Houston Post, May 18, 1944, p. 1; Houston, XV (August 1944), 8; and XVII (September 1946), 20.
completed structures.\textsuperscript{91} The plans called for an sprawling complex of thirty-seven buildings with a total of 700,000 square feet of floor space.\textsuperscript{92} Permanent facilities included a main building with three wings and a capacity of 500 beds along with numerous other facilities for treatment, administration, and service of the hospital. In addition, fourteen temporary buildings were constructed with a capacity of an additional 500 beds. As a reminder that the hospital was to be a naval post as well as a health care facility, its plans included dwellings for 240 WAVES, 240 hospital corpsmen, 150 nurses, 80 technicians, 80 cooks, and 20 officers.\textsuperscript{93} The cost, estimated before construction at $6,000,000, balloons to almost twice that amount, $11,000,000.\textsuperscript{94}

Unlike the rest of the institutions of the new Texas Medical Center which existed on paper or in other locations, the construction of the naval hospital began immediately and benefited the local economy right away. Even though the contract for the construction of much of the naval hospital was awarded to a Dallas-based firm, the bulk of jobs created went to

\textsuperscript{91}Houston, XVI (March 1945), 10.

\textsuperscript{92}Ibid., XVII (August 1946), 19. The scale of the naval hospital is suggested by the following diverse statistics: it required 17,000 feet of sanitary sewer lines, had a laundry that could process a half-million pounds of wet wash per month, used 3,000 light bulbs per month, and its kitchens prepared 30,000 pounds of beef per month.

\textsuperscript{93}Ibid., XV (August 1944), 8 and XVI (March 1945), 10.

\textsuperscript{94}Ibid., XVII (September 1946), 20. The increase in expense as well as the delay in construction was partly due to work stoppages called by several different union locals during 1945–46.
Houstonians. The employment created was a much-needed shot in the arm to the city’s construction workers who had found their work limited by the wartime policies banning most civilian construction. After completion, the hospital continued to be a boon to the local economy, employing scores of military personnel and hundreds of civilians on an annual payroll of nearly $800,000.95

Opening on September 4, 1946, nearly a year after the end of the war, the Houston Naval Hospital never saw the vast numbers of battlefield casualties for which it had been intended. Instead it became a center for research into various tropical diseases found in many parts of the world frequented by U.S. fleets. It also became the Navy’s center for plastic surgery, repairing the disfiguring effects of war and accident.96 Three years later, in 1949, the hospital was transferred to the Veteran’s Administration, under whose aegis it continues to operate today.97

While the charitable efforts of the M. D. Anderson Foundation founded and provided the initial impetus for the Texas Medical Center, the late war years also saw an increasing commitment of other members of the city’s commercial-civic elite to seeing the project reach fruition. No single

95Ibid., XVII (August 1946), 19.

96Ibid., XVII (September 1946), 20.

97On December 6, 1945 the VA announced its plans to build a psychiatric hospital near the naval hospital in Houston. The end of the war scaled these plans back, and in 1948 the VA canceled the project. The next year the naval hospital was transferred to the VA. Houston Chronicle, December 6, 1945, p. 1 and Brunet, “Alan Gregg,” 104 & 104n.
individual did more to turn the medical center from concept to reality than Hugh Roy Cullen. An independent oil operator and political maverick, Cullen was by the beginning of the war probably the wealthiest man in Texas. Cullen had become the virtual creator of the new University of Houston (UH) in the 1930s. He donated the funds to construct several of the buildings on its new campus and became the chairman of the school’s advisory board. By the end of the decade he had donated nearly $20,000,000 to UH and some had taken to calling it “Cullen University.”

Cullen’s philanthropic activities were not limited to education but encompassed a wide variety of endeavors in Houston. Explaining his charitable contributions, Cullen once remarked: “My wife and I are selfish. We want to see our money spent during our lifetime.” That money was considerable. Since arriving in Houston in 1911, the various oil ventures he made through his company Quintana Petroleum had made him a millionaire many times over. Even by Cullen’s standards, the first week of March 1945 was a period of extraordinary generosity; he contributed a million dollars each to four separate Houston hospitals. On the 2nd, he gave checks to Memorial and Hermann, on the 3rd to Methodist, and on the 7th to the Episcopal Church for its hospital, St.

---


Luke's, which was barely more than a concept.\textsuperscript{100} The donations were in the form of oil royalty payments and actually turned out to be worth more than their initial values. All four of the hospitals channeled the Cullen funds into postwar construction projects. Memorial and Hermann applied their donations to expanding their present facilities, but Methodist and Episcopal used theirs as seed money to begin new facilities in the medical center.\textsuperscript{101} At a stroke, Hugh Roy Cullen provided for the expansion of the TMC by contributing funds to build two new hospitals and the expansion of an existing one. Two years later, Cullen again ensured that the medical center would continue its growth unimpeded by contributing the final $800,000 needed to finish the $2,500,000 Baylor College of Medicine. In recognition, the main structure was named the Roy and Lillie Cullen Building.\textsuperscript{102}

Since the years of World War II when the M. D. Anderson Foundation and Hugh Roy Cullen provided such extravagant seed money for the Texas Medical Center it has grown at a dizzying pace. From the pioneering work in open heart surgery done by Drs. Denton Cooley and Michael DeBakey to the advances against various types of cancer made at

\textsuperscript{100}Later that year, Cullen also donated $1 million to St. Joseph Infirmary. \textit{Houston,} XVI (March 1945), 9; \textit{Houston Post,} March 3, 1945, p. 1, March 4, 1945, p. 1; and March 8, 1945, p. 1.


\textsuperscript{102}\textit{Houston Post,} March 4, 1947, p. 5.
M. D. Anderson Cancer Center, the TMC has unquestionably benefitted the causes of health and science. It has also become one of Houston's signature institutions, identified with the city no less than the Johnson Space Center or the Astrodome. Contributing to the advancement of medical care and research as well as to the reputation of the city was clearly the founders' intention. For these members of Houston's commercial-civic elite, the humanitarian and civic impulses were one and the same. The creation of the Texas Medical Center demonstrates the cohesion and remarkable booster spirit that has marked Houston's leaders and been one of the most potent forces spurring its growth from small city to major metropolis in the years since World War II. It has not been uncommon for bitter enemies in the boardrooms of Houston's business community to serve together for the good of the institutions of the TMC. Men like Cullen and Jesse Jones, whose personal enmity was the stuff of local legend, could find common cause in supporting the endeavors of the medical center.\textsuperscript{103} This unified interest in furthering their community set Houston leaders apart from those of their urban rivals like New Orleans and that ability to work together, forged in the fires of World War II would allow Houston to surge past the Louisiana city in population and prosperity. The war demonstrated to many that the establishment of new industrial enterprises such as shipyards or rubber plants benefitted the local economy regardless.

\textsuperscript{103}Ironically, sections of the same hospital, Hermann, would come to bear the names of both Cullen and Jones. For an account of the scale of wartime philanthropy, see Houston Chronicle, July 19, 1943, p. 7A.
of whether one was a direct participant in them. The 1940s showed that investment in charitable institutions could be similarly advantageous to Houston’s economic development and its national reputation.
VI.

Wartime Change: Population Pressures and Houston Institutions

The bus driver, dodging the swarms of pedestrians on Travis, Thursday afternoon gave the best description of hustling, bustling Houston. Evidently from a small town, the driver complained: 'Every day is Saturday in Houston now.'

Writing the above in 1945, Houston Post columnist Lloyd Gregory sought to encapsulate the electric feeling in the air of Houston in the years of World War II. To many, it seemed that everything was changing, often faster than could be comprehended. At the base of the transformation was an explosion in the number of people who called the city home. As population swelled, how did the city’s, educational, cultural, and governmental institutions respond to the new realities of life in Houston? For the most part challenges were met and answers found, and it was in the process of doing so that the city showed itself ready to move into the ranks of major urban centers in the nation.

In 1940 the United States census reported that the population of the city of Houston was 384,514. This placed the city behind Indianapolis as

---

¹ Houston Post, April 13, 1945, p. 9.

² The population of the Houston metropolitan area (at that time defined as Harris County) was 510,397. Ibid., January 16, 1942, p. 1,4 and U. S. Bureau of the Census, Population Statistics for Census Tracts: 1940, Box 13, Houston, City of folder, Albert Thomas Papers (Woodson Research Center, Fondren Library, Rice University, Houston, Texas).
the twenty-first largest city in the nation.³ By that 1940 count, World War II’s impact on the city was only just beginning to be felt. The first half of the forties would bring significant growth to Houston’s population, but exactly how much is difficult to determine. The census of 1950 indicated that the city had grown by 211,649, or 55 percent, to reach 596,163 inhabitants.⁴ But how much of this growth can be attributed to the war years? The four primary means used during the war to estimate the city’s population at any one time were: number of ration books issued, number of utility connections made, city directory surveys, and post office estimates based on mail delivery. All four have flaws as accurate yardsticks of population growth, but taken together they do serve to roughly indicate the number of people living in Houston at a given time. While the population had no doubt been increasing prior to December 1941, sources began to report after America’s entry into the war that numbers showed a definite upward progression. In separate announcements in December 1941, the gas, water, and electricity companies serving the city reported that


Houston’s population had reached 408,000. From that point growth appears to have taken off at an even more rapid clip. By the fall of 1942, the new edition of the city directory reported that Houston’s population had grown to 484,878, over 100,000 inhabitants more than had been counted in the 1940 census. The next year growth continued its upward spiral. In March 1943 there were 502,405 ration books issued in the city. Five months later, the number of ration books had increased dramatically to 607,033, making Houston, as the Chronicle gleefully noted, the biggest city in the South, surpassing New Orleans by some 5,000 residents.

5 Houston Post, December 20, 1941, p. 2.2. The three utilities’ numbers differed by only 210 people.

6 Ibid., October 7, 1942, p. 1.

7 Ibid., March 14, 1943, p. 1.15. Ration books were issued by the Office of Price Administration and were filled with coupons which allowed civilians to acquire certain items the supply of which was considered limited (i.e. meat, sugar, coffee and others). For examples of actual ration books, see: Box 19, folder 2, World War II Ration Books, (HMRC). In July of the same year Sakowitz Bros. clothing store placed an advertisement in the Chronicle, putting Houston’s growth in the previous two and a half years into perspective. The additions to the city’s population, the ad argued, was the equivalent of “dropping another sizable city right ‘k-plunk’ into Houston!” Comparing the impact of adding a city the size of Waco or Austin into Houston, Sakowitz Bros. promised the same level of service that their customers had come to expect before the war in the present turbulent climate. Houston Chronicle, July 25, 1943, p. 14A.

8 At the time ration books issued in New Orleans numbered 602,748 and in Birmingham 557,894. Ibid., August 15, 1943, p. 1. What is unclear form this report is whether the number 607,033 represented just the city’s population or whether it also included the rest of Harris County. The fervently booster newspaper may have conveniently sought to obfuscate that point, and thus make Houston’s population gain seem more dramatic than it actually was. That said, by all accounts the city did realize a long-cherished dream of its leaders by surpassing New Orleans in population and certainly importance while assuming its place as the South’s largest city, a distinction that it still maintains today. At a about the same time, the Post editorial also breathlessly predicted that the holy grail of booster ambition, the million mark, was in sight, perhaps by 1960. Houston Post, March 13, 1943, p. 4.
boosterish posturing aside, the accuracy of this number must be questioned because the basis of comparison is unclear. Does 607,033 represent the population of the city of Houston or, as seems more likely, of the metropolitan area, Harris County? That it was probably the latter is borne out by statistics released early in 1944 by the post office. According to an estimate of addresses to which mail was being delivered, Houston’s population was 535,000 and the population of the county was 610,000.9

But even this less gaudy figure for the city proper is impressive. The number 535,000 represented growth of nearly 40 percent, an increase for Houston of more than 150,000 inhabitants, over 1940 levels. By comparison, the entire decade of the 1930s had added only 92,000 people to the city.10 Clearly, the war years were one of the most significant periods of population growth in Houston’s history, providing a foundation upon which much of the city’s subsequent explosive growth would be built. In the words of George Fuermann, local newspaper reporter and historian: “In spite of the lingering legend, Houston is in fact a city of working people. They came en masse during World War II, more than forty thousand to the shipyards alone, and most remained.”11

---

9Houston, XV (March 1944), 38. On crossing the half-million mark the Post editorialized that it hoped the new citizens of Houston would remain long enough for the census bureau to include them in their 1950 count and give the city credit for their presence. Houston Post, February 21, 1944, p. 2,1.

10Census statistics cited in Bullard, Invisible Houston, 23.

While the numbers are revealing, they indicate little about the people who actually relocated to Houston in the war years. Unfortunately, findings of the 1950 census that might reveal something of the characteristics of the city’s population are of little use. By that date, lost is a sense of which residents moved to the city during the war and which had come before and after. The only clues that we have as to who the wartime migrants were come in the form of scattered references in newspapers and others sources. In mid to late 1941, the WPA conducted an extensive survey of workers newly arrived in Houston. The results showed that by the middle of that year 15,900 had moved to the city from outside of Harris County. Of these migrants, 74 percent came from other parts of Texas, 6 percent came from Oklahoma, 5 percent from Louisiana, and, surprisingly, 3 percent from Illinois. Additionally, the report noted that for many of the newcomers this was their first exposure to city life. More than one-third came from communities of less than 2,500 inhabitants. Another third of the migrants arrived from small towns of 2,500–25,000. Of the remainder, 14 percent relocated from cities of 25,000 to 100,000 residents and another 19 percent from cities with populations of more than 100,000. The WPA also differentiated between migrant workers and their non-working family members. As a group, workers were overwhelmingly white, only 7 percent of those enumerated were listed as “negroes,” and less than 1 percent as “Latin-Americans.” Most were male; only 19 percent of workers were female. The new arrivals were overwhelmingly young.
The average age of those who were married was 31.6. Single migrants were even younger, averaging just 24.7 years of age.\textsuperscript{12} Unfortunately, no survey similar to this early effort by the WPA was conducted in Houston later in the war, and so we must rely on brief mentions of the characteristics of those settling in Houston. One such appeared in the September 4, 1942, \textit{Post} reporting that as many as 10–12,000 people were arriving in Houston each month, 70 percent of whom found work almost immediately. Industry’s seemingly insatiable need for labor was the primary attraction for those choosing to relocate to the Bayou City. Most also reported that they chose their destination based on the advice of family and friends, many of whom had already found work in area shipyards and other defense plants.\textsuperscript{13}

In early 1943, noted author John Dos Passos visited Houston as part of the fact-finding mission that provided the subject of his book, \textit{State of the Nation}, that chronicled the homefront United States. He described the arrival of some such migrants in a scene he found at the United States Employment Office in downtown Houston.

There’s a tingle of electricity about the air of the United States Employment Office in this great wide scattered gulfcoast city of Houston . . . [in the office] there’s a feeling of decisions and departures. This is the place where the future course of many a man’s life is decided. . . . It is early in the morning but

\textsuperscript{12}WPA Report, results reported in Houston \textit{Chronicle}, December 26, 1941, pp. 1 & 8A.

\textsuperscript{13}Houston \textit{Post}, September 4, 1942, 1 & 4
already a mixed crowd of old men, young men women, boys is waiting in lines at the various windows set up on the counter. Rows of people sit on benches in the back of the room. A number of elderly men have turned up, and surprisingly many middle-aged [sic] women. There are young kids still in high-school who have taken courses in metal-working, women whose husbands and sons have gone to the war who feel they must do something to help, grayhaired men who have wrenched themselves loose from the habits of a lifetime and gone to school again in the machinestops. There are a few hardbitten lanky lanternded characters from the oil fields. By themselves at one end in dusty overalls stands a group of very black negroes out of the backcountry. . . . [So desperate were war plants for workers that] They were even taking them with hernias now if they wore trusses.14

The growth of Houston's population was not solely due to an influx of migrants, mostly from rural areas and smaller towns; there also appears to have been significant increase in the city's birthrate during the war years.15 The year 1942 saw 10,368 births, nearly a thousand more than the


15These two developments are of course related. As the city's adult population increased, the birth rate would have been expected to rise accordingly. However, the war years saw a significantly higher number of babies born in Houston and the rest of the United States than in the previous two decades. The reasons for this fall into two basic categories. The first were those born as a direct result of the country's move to full employment. With prosperity, marriages became more common and births more frequent. The second factor contributing to a higher birth rate was the phenomenon known as "good-bye babies." These were children conceived before servicemen left for training or transport overseas and. As Richard Lingeman described such offspring: "Since the wife's allotment [from the government] would be increased with the child's arrival, finances were no longer a major worry. In addition, there were compelling emotional reasons: The father, faced with the possibility of being killed in battle, was depositing a small guarantator to posterity, an assurance that someone would carry on his name, while the wife was given something to hold onto, a living, breathing symbol of their marriage." Richard R. Lingeman, Don't You Know There's a War On? The American Home Front, 1941–1945 (New York: G.P. Putnam's Sons, 1970), 92 (quote) and William M. Tuttle, Jr., "Daddy's Gone to War": The Second World War in the Lives of America's Children (New York and Oxford: Oxford University Press, 1993), 20 & 24–27.
previous year. In 1943, at the height of wartime production in the city's factories, many Houston hospitals, faced with overcrowded maternity wards, adopted a policy limiting the amount of time a new mother could remain after giving birth. In August of that year alone, 1,518 children were born, setting what was then an all-time record.

The combination of factors that grew Houston's population—high-paying jobs and a positive local economy—appeared likely to remain in place in the postwar era, even to outside observers. In a census bureau report issued just before V-J Day, the prospects of the nation's cities for maintaining their wartime population gains or losses was analyzed. Houston fell into the A-1 category, along with fifteen other cities described as having "superior prospects of retaining wartime growth."

Foreshadowing the decades to come, the A-1 cities stretched out across the lower half of the United States from Washington D.C. south to Florida and

---

16 Houston Post, December 10, 1942, p. 1,17 and Marilyn McAdams Sibley, The Methodist Hospital of Houston: Serving the World (Austin: Texas State Historical Association, 1989), 57. In the same span the number of deaths increased by only 41.

17 Houston Post, July 14, 1943, p. 1.

18 Ibid., September 5, 1943, p. 1,11.
west through Texas into Arizona and southern California. The arc described by this string of communities would in the subsequent decades come to be called the “sunbelt,” and its rise to national prominence would be the grist for the mill of an entire school of study by historians, sociologists, political scientists, and urban geographers. This survey suggests the tremendous impact that World War II had, not just on Houston, but on shifting the focus of U.S. urbanization.

One of the factors that contributed to the emergence of the sunbelt

The cities in the A-1 category were Washington D.C.; Columbia and Charleston, South Carolina; Atlanta and Columbus, Georgia; Jacksonville, Tampa/St. Petersburg, and Miami, Florida; Mobile, Alabama; Houston, Galveston, Corpus Christi, San Antonio, and Dallas, Texas; Phoenix, Arizona; and San Diego, California. The cities classified as A-2, with excellent prospects of retaining wartime growth” were also located overwhelmingly in the South and West. They were: Portland, Maine; Wilmington, Delaware; Baltimore, Maryland; Charleston, West Virginia; Richmond and Norfolk/Portsmouth/Newport News, Virginia; Durham, North Carolina; Nashville and Memphis, Tennessee; Evansville and Indianapolis, Indiana; Madison, Wisconsin; Macon, Savannah, and Augusta, Georgia; Montgomery, Alabama; Jackson, Mississippi; Little Rock, Arkansas; New Orleans, Louisiana; Oklahoma City, Oklahoma; Fort Worth and Beaumont/Port Arthur, Texas; Denver, Colorado; Salt Lake City, Utah; Los Angeles, Sacramento, Stockton, San Jose, and San Francisco/Oakland, California; and Seattle, Tacoma, and Spokane, Washington. Among the A-3 cities listed as having “good prospects of retaining wartime growth” much less of a southern predominance is apparent with only Birmingham, Alabama being included. The other cities in this category were: Bridgeport and New Britain/Hartford, Connecticut; Canton, Columbus, Springfield, Hamilton/Middletown, and Cincinnati, Ohio; St. Louis, Missouri; and Pueblo, Colorado. Another undesignated group of cities considered to have “lost population or increased relatively little during the war” and believed to have excellent prospects of returning to their patterns of prewar growth included such future sunbelt cities as: Knoxville and Chattanooga, Tennessee; Austin, Texas; Shreveport, Louisiana; and Charlotte, Winston-Salem, and Asheville, North Carolina. Houston Post, August 5, 1945, pp. 1 & 4.

phenomenon was the location of not only government-financed industry in southern and western states, but also military bases. In Houston, as in many communities in Texas and the South, the presence of thousands of men in uniform added to the overwhelming sense that the city was bursting at the seams. Houston sat surrounded by one of the largest concentrations of military bases of anywhere in the nation. While some mention has been made of the role of the Bayou City as a transportation and recreation center for soldiers and sailors, further discussion is relevant here. Within fifty miles of Houston there were three large military training centers and seven smaller facilities. Ellington Field, located just southeast of the city, dated from World War I but underwent a $5,000,000 expansion in


The smaller facilities included three small coastal forts (Forts San Jacinto, Crockett, and Travis), the Naval Training and Distribution Center, and the Galveston Army Air Field, all in Galveston. David G. McComb, Galveston: A History (Austin: University of Texas Press, 1986), 152 and Melanie Wiggins, Torpedoes in the Gulf: Galveston and the U-Boats, 1942–1943 (College Station: Texas A&M University Press, 1995), 225. Of note also was a military installation built on the Houston Ship Channel in within sight of the monument commemorating the 1836 Texan victory over Mexican forces. The San Jacinto Ordnance Depot covered more than 4,000 acres near Channelview and served as a storage facility for ammunition of various types. Houston Port Book, May 1941, p. 23. However, in one of the strange turns of wartime fortune, the depot was greatly underutilized. After construction was completed, the ordnance department determined that the narrow twisting ship channel was a less than ideal route for ships loaded with high explosives to travel. Thus, a great deal of San Jacinto’s capacity was never utilized and it remained a little known part of the story of Houston during World War II. For the underutilization of the San Jacinto Ordnance Depot, see: Milton H. Mulitz to Albert Thomas, February 16, 1942; J. Russell Wait to Emory S. Land, March 25, 1942; and J. Russell Wait to M. F. Barnes, March 24, 1942 and March 20, 1942 all in Box 11, Miscellaneous Folder, Albert Thomas Papers (Woodson Research Center, Fondren Library, Rice University, Houston, Texas) and Port of Houston, Texas 1942 Annual Report, J. Russell Wait, Director of the Port, 3.
1941 to bring it up to date. Ellington became a center for the instruction of bombardiers and navigators and at its peak had facilities to accommodate more than 5,000 trainees at a time.\textsuperscript{23} Camp Wallace, located thirty-five miles away near Hitchcock in Galveston County, opened in February 1941 and became home to anywhere from 10,000 to 15,000 soldiers at any one time during the war. Wallace spent most of the conflict as the largest army anti-aircraft gunnery training school in the nation but in 1944 was transferred to the navy and became its largest replacement center (boot camp) east of San Diego and south of the Great Lakes.\textsuperscript{24} Slightly further from Houston at Palacios on Tres Palacios Bay in Matagorda County was Camp Hulen. Like Wallace, the site for Hulen was selected to take advantage of the nearby gulf as a safe location to train its nearly 15,000 national guardsmen that it trained in coastal defense artillery at any one time.\textsuperscript{25}

Apart from those in the immediate Houston area, a large number of

\textsuperscript{23}Houston Chronicle, April 22, 1941, p. 3A; October 26, 1941, p. 4G; Houston Post, December 20, 1941, pp. 2, 6, 2, 10, 3, 8, & 4, 14; May 17, 1942, Sunday Magazine, 5; January 10, 1942, Sunday Magazine, 7; and August 4, 1942, p. 3A.

\textsuperscript{24}Houston, XV (June 1944), 55; Houston Chronicle, October 13, 1941, p. 12C; October 26, 1941, p. 2G; January 3, 1941, p. 16A; March 7, 1941, p. 1; April 25, 1944, p. 1; August 18, 1945, 1; Houston Post, December 21, 1941, pp. 2, 13 & 4, 5; January 31, 1943, p. 1; October 26, 1941, p. 1; and April 16, 1944, p. 1.

\textsuperscript{25}Constructed between the summer of 1940 the fall of the same year for $7,100,000 Camp Hulen was built on the site of a long-time Texas National Guard summer training camp. At its peak the base had over 600 buildings and more than 3,000 tents, each of the latter capable of housing six enlisted men. Houston Chronicle, October 27, 1940, p. 12A; April 22, 1941, p. 3A; October 26, 1941, p. 8G; and Houston Post, December 20, 1941, p. 2, 11.
the more than one hundred military installations in the state of Texas were within a 200 mile radius of the city. Large installations such as Camp Hood near Killeen, Camp Swift near Bastrop, and Fort Sam Houston and others at San Antonio were some of the largest army bases in the nation, and all lay within an easy day’s train trip of Houston. Also nearby was the mammoth air training center at Corpus Christi, home to tens of thousands of naval aviators over the course of the war. The net result of being at the center of such an extensive web of military installations was a large number of soldiers and sailors either passing through or spending their cherished leave time in Houston. Especially on weekends following payday, the city braced itself for the arrival of thousands of visiting soldiers and sailors from bases as far away as San Antonio and Brownwood. To meet the needs of the many men in uniform, organizations both public and private emerged to provide recreational and other services. The city of Houston held dances and encouraged servicemen to use municipal recreation facilities while in town.


27On one such weekend in mid-1941, more than 7,000 soldiers streamed in to Houston, some having to find accommodation in the open in Memorial Park. Houston *Chronicle*, May 2, 1941, p. 7D.

United Service Organizations (USO) opened branches for white soldiers downtown on Fannin at McKinney Street and for blacks at 2114 Dowling in the Third Ward. The Houston Stage Canteen operated in the basement of the Auditorium Hotel, providing 2,000 visiting servicemen per weekend with a variety of entertainments and a place to relax. In addition, local churches welcomed soldiers and sailors with socials and programs that brought them into parishioners' homes for meals and for such holidays as Christmas and Easter that many spent away from home.

Not all servicemen in the Houston area were separated from their families. Many officers at Ellington Field, for example, often lived off the base with their wives and children. As the facility expanded, finding places for these military families to live nearby became increasingly difficult. This problem was just one part of a larger issue in Houston. As the city's population exploded in the war years, the strain on its supply of housing reached crisis levels. In this, of course, Houston was not alone. From Washington D.C. to Mobile to San Diego, wartime boomtowns struggled to house the thousands who streamed in to work in their offices, shipyards,

29The USO took over the old YMCA building at Fannin and McKinney where it was able to provide servicemen with lodging as well as social and recreational functions. Houston Post, March 28, 1943, Sunday Magazine, 4. Other branches included the Catholic branch, one at Baytown, and the Negro USO. Houston Chronicle, May 1, 1942, p. 1; December 18, 1941, p. 2B; Houston Post, December 24, 1942, p. 14; and March 3, 1943, p. 3.

30Opening on December 31, 1942, the Houston Stage Canteen offered a wide variety of diversions for the visiting serviceman including regular dances with the 50 young hostesses, stage entertainment, and free refreshments. Houston Post, February 14, 1943, Sunday Magazine, 8.
factories, and military bases. The restrictions on civilian construction meant that innovative ways had to be found of utilizing existing residential or other types of property for use as temporary domiciles. In Houston, as hard hit as almost any city by the wartime housing crunch, many of those who came in search of work in shipyards and oil refineries found housing to be scarce.

Key to understanding Houston’s wartime housing conundrum is to realize that a vast majority of new manufacturing jobs were created along the ship channel, well east and south of downtown. Drawn there by access to the waterway and a plentiful supply of land, this rapid industrialization took place away from the bulk of the city’s population, in semi-rural areas with little existing housing stock. What little housing was available in small channel communities like Baytown, Pasadena, and Galena Park was quickly exhausted, and the bulk of new workers in the area had to look elsewhere, often far away, for a place to live. The experiences of one family are illustrative of the housing crunch in this area. In April 1942 the Chronicle profiled I. J. Woods, a worker at Humble Oil and Refining’s Baytown refinery. Arriving with his family from Beaumont, Woods found lodgings hard to come by in the Tri-Cities area around Baytown in eastern Harris County—the Tri-Cities were Baytown, Pelly, and Goose Creek. The only residence Woods, his wife, and three children could find was in “a small wash shed and part of a tent...” near Goose Creek during the winter and
early spring of 1942.\textsuperscript{31}

The concentration of much of the Houston’s industrial growth on the east side led to an interesting dilemma. When local political and business leaders called upon the federal government to either build or permit the construction of new housing, they were surprised to be told that Houston had no housing shortage. Federal authorities determined a community’s housing needs through surveys to establish the number of vacant residences.\textsuperscript{32} Repeatedly, such studies of Houston showed the existence of vacancies in the city. Armed with the knowledge that housing was available, authorities in Washington refused to authorize new housing for most of the first year of the war. In typical bureaucratic fashion, this stance failed to take local realities into consideration. While a few homes did stand empty in Houston, most were nowhere near the ship channel industrial district on the east side of town. For a worker at, say, Houston Shipbuilding Corporation, some twelve miles from downtown, an available residence on the far west side of town was not very attractive.\textsuperscript{33} In the pre-freeway days of the 1940s, a fifteen-mile commute across the city’s

\textsuperscript{31}Houston Chronicle, April 12, 1942, p. 7A.

\textsuperscript{32}For examples of such surveys, many conducted by the city’s remaining WPA workers, see: Houston Post, March 22, 1942, p. 1,12; October 29, 1942, p. 1,3; and November 3, 1942, p. 11.

\textsuperscript{33}As anyone who has spent time in Houston can attest, the city is extremely spread out. So it was even in the 1940s before the ribbons of freeways that later criss-crossed the area, and, supposedly, eased traffic congestion.
traffic-choked roads was a far from welcome prospect. When coupled with wartime rationing of gasoline and tires, and an inadequate public transportation system, the daily task of simply getting to and from work became an exhausting, time-consuming ordeal for many. In reports detailing the alarmingly high rates of turnover for ship channel area war plants, the number one factor given for voluntary separations was lack of adequate housing nearby and employee frustrations with living at an inconvenient distance from their place of work. While some businesses conceived of clever solutions to their workers' problems—recall the HSC "Shipyard Special" train—none adequately solved the costly problem of labor turnover.

One Houston leader who repeatedly tried to make the federal authorities see the realities of the housing situation in the city was U.S. Representative Albert Thomas. In his correspondence are records of numerous instances in which he served as intermediary between area businesses and the Federal Housing Authority (FHA), Office of Production Management (OPM), and other agencies.  

One of Thomas's biggest concerns was for the fate of the public

---

34 Recall that in a previous chapter mention was made of the difficulty in travel to the Todd Houston Shipbuilding Corporation's Irish Bend yard along a single, narrow access road.

35 For the voluminous correspondence showing Thomas's efforts to convince the government of the need to build housing near ship channel war plants, see: Box 1, Miscellaneous: Defense Housing, 1941-43 and Box 2, Miscellaneous: National Housing Agency, 1942-43, Albert Thomas Papers (Woodson Research Center, Fondren Library, Rice University, Houston, Texas).
housing projects already planned and underway by the outbreak of the war. Thomas and the FHA came to blows over one project in particular, the second unit of San Felipe Courts (SFC).36 Designed for whites, the SFC was the largest undertaking of the Houston Housing Authority (HHA). Consisting of two sections, the development lay just west of downtown in the predominantly black Fourth Ward.37 Thomas believed that with the scarcity of housing in the booming industrial areas of eastern Harris County, it made little sense to continue construction on a project so many miles away.38 This put Thomas in the unusual position for a legislator of actually fighting against the completion of a federal project in his district. However, despite the congressman’s objections—and partly because of the outcry of war worker residents of the project itself who in a poll overwhelmingly showed a preference for living in the city instead of near their places of employment—the building of San Felipe Courts went on as

36The first unit at San Felipe Courts was opened to residents in June 1942. Houston Post, June 28, 1942, pp. 2,4 & 2,5 and Houston Chronicle, June 14, 1942, pp. 5B, 6B, & 8B.

37For more on the controversy over the location of San Felipe Courts (now Allen Parkway Village), see chapter II.

38Houston Chronicle, February 14, 1943, pp. 1 & 6A.
planned and by the end of the war was nearly 100 percent occupied.\footnote{For that poll of San Felipe Courts residents, see: \textit{Ibid.}, March 26, 1943, p. 5B. The story of San Felipe Courts is an interesting one. It was designed in 1940 to contain 1,000 units and foundations were laid for the entire complex in 1940–41. However, after the outbreak of war the plans for the development were scaled back to 564 homes, largely at the behest of Albert Thomas. Thomas's actions proved widely unpopular, especially after the local press printed photographs of piles of building supplies lying idle in the San Felipe complex bearing witness to the uncompleted project. With mounting public pressure, and with promises in hand of funds for more housing in the industrial district, Thomas grudgingly withdrew his opposition to the work on San Felipe Courts in early 1943. Despite the resumption of work on SFC in the spring of 1943, construction bogged down in July and August by a strike called by Building Laborers and Hod Carriers Union (AFL) local 18 against Knutson Brothers Construction Company of Houston. The union walked out on July 10 and set up a picket line claiming that the company had failed to recognize it as the sole bargaining agent for common laborers on the site and was employing non-union workers. Other craft unions on the project honored the picket line and work came to a complete standstill. Despite company ads that questioned the patriotism and honor of the strikers, the work stoppage dragged on through July and August. Construction did not resume until August 31 when the FHA ordered Knutson Brothers to employ only union labor on the SFC project. \textit{Houston Post}, July 11, 1943, p. 1; July 13, 1943, p. 19; July 16, 1943, p. 21; August 18, 1943, p. 5; September 1, 1943, p. 6; \textit{Houston Chronicle}, February 7, 1942, \textit{Sunday Art Gravure Magazine}, 4; February 14, 1943, pp. 1 & 6; July 11, 1943, p. 1D; August 27, 1943, p. 10A; and August 31, 1943, p. 1.} Thomas did eventually succeed in getting the ship channel district alone designated as the sole defense housing area in Houston, making it eligible for federal assistance.\footnote{The OPM order designating the Houston Ship Channel a defense housing area occurred in September 1941. Simply put, the order forbade any residential construction outside of a narrow strip that lay mainly along the south side of the ship channel, east of the Turning Basin. In addition it required that any of the homes built in the designated area be sold or leased to war workers who met a specific set of criteria including employment at one of several dozen defense contractors, immigration to the area, or "those who have had to move from their present quarters and who cannot find other suitable housing" \textit{Houston Post}, August 1, 1943, p. 1,6 and \textit{Houston Chronicle}, January 11, 1942, pp. 1 & 13A and \textit{Houston Post}, January 11, 1942, p. 1,12.} Thomas showed a preference for the creation of privately rather than publicly owned homes, and partly as a result all of those built on the city's east side were of this type. Private developers wishing to build affordable dwellings for war workers in the
industrial district could receive partial grants, FHA loans, and perhaps most importantly of all, priority for the jealously guarded building materials unavailable without permission from the OPM.\textsuperscript{41} Status as a defense housing area led to the construction of a large number of housing developments and residential subdivisions. Previous note has been made of Clinton Park, at the time of its creation the largest all-black private development in the nation. Other east side subdivisions either built or greatly enlarged in the war years included Meadowbrook and Pecan Park in the southeast section of the city, Denver Addition and Collins Park on the north bank of the ship channel, Woodland Addition in Galena Park, and Kingsdale Addition and Pasadena Gardens near Pasadena.\textsuperscript{42} One of the most active builders in the industrial areas of east Houston and its suburbs was Frank W. Sharp, an established local real estate developer and, perhaps not coincidentally, Albert Thomas's brother-in-law. Employing "mass production methods" of construction, Sharp's wartime exploits included the erection more than 400 homes in the Industrial Addition on Market Street

\textsuperscript{41}One of the most successful federal efforts at creating housing for the Houston defense worker was the so-called FHA Title VI loan program. In it, the government basically served as a mortgage company, loaning money to developers to build houses for working families for repayment over a fixed term. Houston Post, February 1, 1942, p. 1,12.

\textsuperscript{42}Ibid., March 15, 1942, p. 1,14; June 6, 1943, p. 2,7; July 11, 1943, p. 3,11; August 8, 1943, p. 3,2; September 5, 1943, p. 2,1; May 21, 1943, p. 1,19; Houston Chronicle, October 26, 1941, p. 14D; June 27, 1943, p. 8D; December 12, 1943, p. 8D; and April 23, 1944, Sunday Magazine, 4.
Road, two miles east of the city limits. The experience he gained in these projects helped prepare him for his postwar enterprises. In 1954, Sharp began construction of "Sharpstown," the largest planned community in the United States at the time. Lying along the then proposed Southwest Freeway (U.S. 59), original plans called for 25,000 homes to be built on 6,500 acres at a total cost of $400,000,000. Frank Sharp and his fellow contractors were responsible for the vast majority of new residences built in the war years. In June 1943, for example, of the 3,230 housing units then under construction in the Houston area, 436—those at the San Felipe Courts project of the HHA—were "public new construction," while 1,634 were "private construction."  

Even with the considerable residential building that took place, it seemed that Houston could never succeed in meeting the demand created by the more than 100,000 new residents of the city. The daily newspapers carried frequent articles and editorials decrying the shortage of housing that was holding Houston back from maximizing its wartime growth. Every survey of the city was the occasion of comment and complaint. In late 1942 the War Manpower Commission (WMC) made an exhaustive

---


44 The remaining 1,160 homes under construction were divided in the report into the private conversion (800) and private conversion (360) categories. In all, the 3,320 housing units promised to provide accommodation for 11,628 persons. Houston Post, June 25, 1943, p. 1,13.
study of the Houston housing situation at the request of Albert Thomas. In January 1943 the report recommended that between 5,400 and 6,400 new homes be built on the north and east sides of Houston along with another 1,400 in the Tri-Cities–La Porte area. The Post suggested that without the addition of new, affordable, and high-quality homes, worker morale would be sure to suffer:

A war manufacturing program is only so good as the mental outlook and physical condition of the workers engaged in it. Therefore it is of the utmost importance that adequate housing be available for the workers’ hours of rest... [and that] it is also important that the homes be available near the industries at which individual workers are employed.

The WMC would continue to study the needs of Houston-area defense workers throughout the course of the war. In June 1943 the agency scaled back its recommendations for housing but still maintained that Harris County required over 2,000 additional residences to keep up with the expected need for migrating workers in the next year.

In addition to new construction, to meet this forecasted demand both federal and local authorities enacted programs to utilize Houston’s existing housing stock more effectively. Working through the Home Owners’ Loan

---


Corporation (HOLC), the FHA announced in early 1943 a program to convert single family dwellings and commercial buildings into apartment houses. This effort provided, in the words of an HOLC official, "the most housing for the least money with little use of critical materials." Houston had an abundance of large homes that proved ideal for conversion to multi-family dwellings. The first such property, a ten-room home on West Alabama, was leased by the HOLC on February 13 and work began immediately to reconfigure it to create four apartments for war workers.

While the owners of the property on West Alabama lived elsewhere, many families did not have the luxury of owning more than one home. For those who could only offer a portion of their home as temporary housing, the War Housing Center at 1000 Travis operated as a sort of clearinghouse matching tenants and landlords in response to the needs of both parties. Set up in February 1943, this program allowed property

---

48 By the terms of this program the HOLC would lease properties from their owners for a period of seven years and make the necessary changes to convert them into apartment buildings. The government agreed to pay an annual rent to the owners less one seventh of the conversion costs, thus amortizing the cost. Houston Chronicle, February 3, 1943, p. 6B and Houston Post, February 3, 1943, p. 7 (quote).

49 Houston Chronicle, February 12, 1943, p. 2A and Houston Post, February 14, 1943, p. 1,14. Some Houston landmarks were converted in this manner to apartments. The grand home of Neill Masterson at 5120 Montrose, the first private residence in the city to have a swimming pool, was reconfigured to contain eleven war worker apartments. After the war the home was purchased by Jesse Jones's Houston Endowment and turned into a convalescent home for sufferers of polio. Houston Post, August 29, 1943, p. 2,1.
owners to receive small loans for minor conversions to their buildings.50

This type of arrangement proved especially appealing to certain groups in Houston society. A number of women with husbands away in the armed forces found themselves with extra room at home and welcomed the additional income and company that tenants provided.51 Others who found the “share your home” program attractive included parents whose children had moved away and left unused rooms at home. One War Housing Center advertisement appealed directly to such people. It told the story of the Walkers, a fictional couple with a large house full of vacant rooms that Mrs. Walker finds difficult to keep clean by herself. When friends relate their experience hosting a war workers’s family, the Walkers contact the War Housing Center and are put into contact with the Bartons, a young couple with a child. The Bartons move into the Walkers’ extra rooms and help out with work around the house in return. For their efforts, the Walkers are allowed to place an emblem in their window denoting that they

50The War Housing Center replaced the locally run Homes Registration Bureau that had been maintaining lists of available rooms and apartments in the city for several months. Houston Post, February 11, 1943, p. 2,3; September 9, 1943, p. 1,12; October 2, 1943, p. 1,4; and Houston Chronicle, February 11, 1943, p. 3B.

51Houston Post, August 8, 1943, p. 1,8.
had “shared their home with a war worker’s family.”

An interesting side effect of the limitations placed on wartime housing construction in Houston would have great long-term effect on the residential patterns of the city. Many war workers earning more than they ever had before were forced to stay in their current residences for the duration of the national emergency. However, as early as 1943 a trend was noted by experts in the local real estate market. Many working and middle class families had begun to invest all or part of their newly bulging savings accounts into property with an eye towards building new homes after the war. Suburban housing developments would mushroom across the western prairies of Harris County in the decade following the war. This phenomenon was to be repeated across postwar suburban America as a part of the period’s revolutionary increase in home-ownership.

For many, however, the dream of home-ownership even in the

---

\[52\] *Ibid.*, October 3, 1943, p. 1,8. In another War Housing Center ad, a disconsolate family—mother, father, and daughter—sit on a park bench with their suitcases above bold headlines that read “Share Your Home with a war worker’s family.” Unfortunately, the War Housing Center found that many who made their homes available to war workers refused to permit families with children to take up residence. Thus by late 1943, while hundreds of houses had been registered at the center, more than 500 families with children remained on the waiting list, unable to find places to live. Houston *Post*, September 13, 1943, p. 10 and October 8, 1943, p. 1,10.

\[53\] In the meantime, it was reported, many families used their new plots of land to plant enormous Victory Gardens to grow fruits and vegetables for themselves in aid of the war effort. *Ibid.*, August 22, 1943, p. 2,1.
future was just that, a fantasy.54 These members of society often counted
themselves lucky to find a place to sleep at night in wartime Houston. As
the example of I. J. Woods, a laborer at Humble’s Baytown refinery shows,
sometimes working individuals and families were forced into less than
satisfactory housing situations. With residential vacancy rates hovering
from 0.9 to 0.14 percent in 1943, some found temporary quarters in
tourist courts, cheap rooming houses and hotels, and even in their
automobiles.55 So many newcomers to Houston took up residence in such
accommodations that new city sanitation ordinances were required to

54An example of the wartime inflation of prices that kept many from home
ownership was described in the Chronicle in April 1944. A house in the South End in poor
repair that was purchased in 1939 for $2,500 reportedly sold for $4,750, an appreciation of
exactly 90 percent in four years. Houston Chronicle, April 9, 1944, p. 7B.

55Houston, XIV (April 1943), 44; Houston Post, January 12, 1943, p. 1,2;
February 7, 1943, pp. 1 & 16; and June 6, 1943, p. 1. The issue of migrant workers and
others living in “flophouses,” inexpensive hotels, that came to the forefront of public
consciousness in the summer of 1943 when a series of events highlighted the problems that
crop up when large numbers of people crammed into space too small to accommodate them.
The first occurred in August when it was revealed that a boarding house on Canal was
home to 56 war workers in what authorities estimated was space for eight. Houston Post,
24, 1943, p. 2. The second and more dramatic demonstration of the existence of
dangerous problems with overcrowded “flophouses” was demonstrated by a horrendous
fire that swept through the Gulf Hotel at Preston and Louisiana in the heart of the
downtown district on September 7. The blaze left 54 dead, mostly due to appallingly
overcrowded conditions and other violations of the city fire code. In the wake of the Gulf
disaster city councilmen toured other flophouses to examine the problem firsthand. What
they found surprised many of them. In addition to the derelicts and vagrants that most had
expected to find living in such locations, the council members found war workers forced to
live in the cramped and often squalid surroundings. Most “hotels” like the Gulf were little
more than old office buildings converted into dormitories by the addition of cots crammed
as close together as possible. In the wake of the council investigations, fire inspections
were carried out and numerous establishments cited for violations. Houston Post,
September 9, 1943, pp. 1 & 1,14; September 12, 1943, p. 1,8; and Houston Chronicle,
September 9, 1943, p. 15B. For a discussion of the housing problem on a national scale,
see: John W. Jeffries, Wartime America: The World War II Home Front (Chicago: Ivan R.
prevent their presence from becoming a public health menace. Similarly, a significant number of Houstonians found residence in auto-trailers. By the fall of 1943, city health director Dr. Austin Hill estimated that between 5,000–8,000 people resided in communities that had sprung up with names like Trailer Oaks and Coast to Coast Trailer Town, mostly concentrated in the East End. This number so alarmed Hill that he recommended new city laws requiring that trailers used as permanent domiciles must include a reliable water supply, toilets, and showers.\textsuperscript{56} Ordinances along these lines went into effect on November 22, 1943, but not without strenuous opposition from synthetic rubber producers who had many workers living in trailers and feared that active enforcement of the law would drive them away.\textsuperscript{57} Among the most active opponents of the trailer regulation was Humble Oil and Refining. Its butyl rubber facility at Baytown was, in fact, staffed largely by workers who lived in a collection of some 400 trailers on 35 acres adjoining the plant. Land for “Camp Butyl,” as the site was known, was purchased by the Defense Plants Corporation expressly for the purpose of housing workers unable to find conventional accommodation

\textsuperscript{56}Houston Post, November 8, 1942, p. 1,10 and September 16, 1943, p. 1,6. In a visit to several trailer camps, Post reporter Morris Frank noted the lengths to which residents from around the nation had coalesced into real communities where the birth of babies and other events were shared with enthusiastic neighbors. Houston Post, November 8, 1942, p. 1,10.

\textsuperscript{57}Houston Chronicle, November 12, 1943, p. 5B Among those companies who sought extensions before sanitary laws regarding trailers went into effect on October 22, 1943 were: Humble Oil and Refining, Sinclair Rubber Inc., and the Lummus Construction Company (a builder of synthetic rubber plants). Houston Post, October 13, 1943, p. 4.
nearby.\textsuperscript{58} In response to the obvious need for housing and the attractiveness of trailers as an inexpensive solution, the city contacted the FHA with an eye towards building a model 900-unit trailer camp near Sim's Bayou in southeast Houston. Although the agency refused the request, trailers continued to be a viable option for many seeking affordable housing.\textsuperscript{59}

Interestingly, some Houston entrepreneurs saw the wartime need for inexpensive housing not as a calamity but as a business opportunity. During the war several companies were founded to manufacture

\textsuperscript{58}After the war, the DPC sold Camp Butyl to a private developer who built a residential subdivision on the site, Wooster Terrace, which came to be largely inhabited by Humble workers. Houston \textit{Post}, August 26, 1945, p. 4,6. Camp Butyl was far from the largest trailer community in the area. In Freeport, some 55 miles south of Houston Dow Chemical opened a massive magnesium plant, harvesting the precious material from the seawater of the Gulf. The small town had nowhere near the housing required to accommodate the massive number of workers needed at the plant, and so the DPC spent $3,000,000 creating what came to be called "Camp Chemical," a housing complex for 10,000 workers and consisting of 2,300 mostly trailer homes. It also included a general store, cafeteria, and beauty parlor among other features. Dan Whitehead, \textit{The Dow Story: The History of the Dow Chemical Company} (New York: McGraw-Hill, 1968), 173–75. The project was the subject of much comment in Houston. For examples of local coverage, see: Houston \textit{Chronicle}, April 19, 1942, p. 11D; Houston \textit{Post}, July 16, 1942, pp. 2, 8, 2, 16, & 2,18; and April 18, 1943, p. 1,13. While Camp Chemical was designed strictly as a temporary wartime measure, nearby on the old Jackson plantation Dow demonstrated its long-term commitment to operation in the area by building an entirely new community of permanent homes. Featuring several hundred lots on the shores of a picturesque body of water, Lake Jackson was born. James A. Creighton, \textit{A Narrative History of Brazoria County} (Waco: Texian Press, 1975), 368–72 and Houston \textit{Post}, July 16, 1942, p. 2,8.

\textsuperscript{59}Houston \textit{Chronicle}, October 15, 1943, 10A. The risks associated with life in trailer parks were not inconsequential. As seems so common when a tornado touches down today, these mobile homes seem especially vulnerable to destruction at the hands of nature. When a strong summer storm swept through Houston in the summer of 1943, the only fatality was that of a man who had just moved to the city from Eagle Pass, Texas with his family to work at the Eastern States Refinery in Pasadena. When high winds struck his trailer the structure gave way and the man was killed. Houston \textit{Chronicle}, July 9, 1943, p. 1.
prefabricated homes. Taking advantage of Houston's long-time role as a center of the lumber industry, the Houston Ready-Cut House Company, Contractor Supply and Lumber Company, and Burge Demountable House Company all made easily assembled wooden kits for use both on military bases and in defense industry areas in need of housing. ⁶⁰ Among its other efforts, Ready-Cut provided 300 prefabricated houses for defense workers in the Clinton Village subdivision on Clinton Drive in the heart of the Houston industrial area. ⁶¹ Late in the war, these local concerns were joined by a plant established by the Los Angeles-based Drycemble Corporation to construct prefabricated homes for shipment to war-torn England via the port of Houston. ⁶²

Housing the thousands who flowed into the Bayou City was only one wartime predicament. Schooling the children of war workers and servicemen was yet another. With few area private institutions to meet the needs of thousands of new students, the task of educating them largely fell

---

⁶⁰Burge was partly owned by former Houston mayor Oscar F. Holcombe. Houston Post, February 8, 1942, p. 1; June 20, 1943, p. 2,5; Houston Chronicle, March 25, 1945, p. 15C; and June 10, 1945, p. 12C.

⁶¹Houston Chronicle, June 1, 1941, p. 1.

⁶²Ibid., April 1, 1945, p. 7B and July 1, 1945, p. 14A
to the Houston Independent School District (HISD).63

With a 1940–41 enrollment of around 75,000, the district was the largest in the state. HISD operated 103 schools, 77 for whites and 26 for blacks, and employed some 1,725 teachers.64 As Houston’s wartime economic boom drew thousands of migrants to the city in search of lucrative defense industry work, HISD’s student population rose dramatically. By the end of the 1942 school year the district reported that it had seen an increase in enrollment of nearly 30 percent, for a total of over 90,000 students.65 While that number climbed a little higher in 1943, the peak year of war production, by the end of the conflict HISD’s numbers

63Before the war, there were fewer than 5,000 students in the various private schools of Houston. While Kinkaid School enrolled an unusually heavy proportion of the sons and daughters of Houston’s leadership class, its numbers were insignificant. The overwhelming bulk of students in private schools attended the city’s 18 institutions run by the Roman Catholic church. Like their public counterparts, parochial schools experienced tremendous wartime growth. By the commencement of the 1944–45 school year, the city’s catholic schools could boast an enrollment of nearly 7,000, over 1,000 in high schools alone. So great was the demand for non-secular education in this period that it galvanized church and lay leaders to initiate plans for an institution of higher education. From these wartime roots would emerge St. Thomas University which opened its doors in 1947. In addition to catholic parochial schools, another christian sect became heavily involved in education during the war years. By 1944 there were almost 700 students enrolled at several Lutheran schools around Houston, including several dozen at the newly founded St. John’s School at St. John’s Church, 6602 Avenue E. Houston Post, September 13, 1942, p. 1, 11 and Houston Chronicle, September 11, 1944, p. 1B.

64Houston Chronicle, September 13, 1942, p. 1,11. The breakdown of schools was as follows: 53 white elementary schools; 23 black elementary schools; 7 white combined elementary and junior high schools; 10 white junior high schools; 7 white senior high schools (Reagan–Heights, Sam Houston–central city, San Jacinto–south side, Milby–Harrisburg, Stephen F. Austin–east end, Mirabeau Lamar–southwest side, and Jefferson Davis–north side), and 3 combined black junior and senior high schools (Jack Yates–3rd Ward; Booker T. Washington–4th Ward; and Phyllis Wheatley–5th Ward). Houston Post, January 4, 1942, p. 1,1.

65Houston Post, May 15, 1942, p. 1,8.
had declined slightly, to 89,512 students.\textsuperscript{66} This number represented a net gain of nearly 15,000 students in less than five years, many of whom would continue to attend district schools after the war as their parents opted to remain in Houston.

To adequately meet the demand of such an increase in student population would have been difficult under normal circumstances; in wartime it proved near impossible. Simply providing sufficient classroom space was hindered by the government restrictions limiting construction to projects vital to national defense. Beginning in 1941 with a $134,000 federal grant to erect “cantonment-type temporary buildings” at several schools already swelled to capacity with the children of war workers, the district desperately tapped all avenues of aid to try and house its students.\textsuperscript{67} In addition to that early federal grant, HISD landed several similar appropriations during the war to expand its classroom capacity by as much as possible under the circumstances. With such assistance, two new elementary schools were opened for the 1942 school year—Foster Place for white students and Clinton Park for blacks. Both were constructed entirely from prefabricated wooden buildings provided by the federal

\textsuperscript{66} Houston \textit{Chronicle}, April 25, 1945, p. 6A.

\textsuperscript{67} Houston \textit{Post}, December 18, 1941, p. 11 and Houston \textit{Chronicle}, December 18, 1941, p. 13B.
government. In 1944 several more new schools were also established. For the most part, however, creating new schools was out of the question and the district had to make do with adding space to existing facilities. More than 120 prefabricated temporary additions were either funded in whole or in part by the federal government. Even the addition of dozens of temporary classroom facilities did not solve HISD’s problems. Hand-in-hand with a dramatic increase in the number of students enrolling in district schools went a corresponding shortage of teachers. In peacetime a dearth of teachers might have been made up by more active recruitment by HISD. In wartime, however, military enlistment and the lure of high-paying defense work reduced the number of qualified teaching candidates dramatically. In response, the school district was forced to hold half-day or double sessions at many schools. For example, at the beginning of the 1944-45 school year, teachers at the Ross, Roosevelt, Burbank and West University elementary schools taught a morning session to one group of students and an afternoon class to another. In such a situation, school children could expect less individualized attention in the classroom. While before the war a normal elementary class might number 30–35 pupils, teachers during the war often found themselves confronted with 40–45

---

68 Houston Chronicle, September 18, 1942, p. 14A.

69 Ibid., September 10, 1944, pp. 1 & 14A.

70 Ibid., September 10, 1944, pp. 1 & 14A and September 11, 1944, p. 1B.
students. Fears about the overcrowded nature of Houston classrooms led to the postponement of the beginning of the 1943–44 school year. With the threat of polio, the school board delayed the start of classes worrying that in tightly packed schools the disease might spread like wildfire.

While large numbers of new students did cause problems, their presence also created a windfall of sorts for HISD, which saw its budget grow every year of the first half of the 1940s. The growth reflected not just the district’s efforts to meet the demands of thousands of new students—for each of whom the state provided a per capita apportionment that grew from $25 to $29 during the war—but also the increased revenue it earned from the booming population of the Houston area. As an independent school district, HISD had the authority to levy taxes directly upon residents within its geographical boundaries. Therefore, in many ways, the district emerged from the war in better economic health than it had ever been before. Reflecting an optimism about its postwar future, in the fall of 1944 the district put a $7.5 million bond issue before the voters.

71 Houston Post, October 20, 1944, p. 5.
73 For the growth of the HISD budget, see: Houston Post, April 7, 1942, p. 7 and August 15, 1944, p. 10. In the 1942 budget of $6,246,025, the board had planned to cut its spending by $100,000 but actually added some $50,000—mostly to pay for an expanded kindergarten program to aid working mothers. In 1943, the school board approved an additional $429,331 making the district’s budget $6,675,356. By 1944, the district’s budget reached another record level of spending. That year, the board approved an increase of over $500,000, bringing the district’s budget to $7,230,400 for the 1945–46 school year.
The funds were to be earmarked for the expansion of the district’s physical facilities. The local press enthusiastically endorsed the passage of the issue. The Post editorialized that voters must decide “whether they want their children to have the education to which they are entitled. Those 15,000 children in makeshift classrooms are awaiting the decision.”74 The Chronicle graphically illustrated its feelings about the bond issue by printing a cartoon showing a school building literally bursting at the seams with children, some of whom hang out of the windows, from holes in the walls, and through the roof with protruding tongues as evidence of their cramped conditions. In front of the school a sardine stands atop his can, scratches his head, and mutters “And I Thought I was packed tight!”75

Thanks no doubt to the press coverage and support, the bond issue passed easily on November 7, 1944. As it was not designated how the money was to be spent, in the aftermath of the election groups from across the city pressed their case to be included in a postwar construction campaign. The school board held thirteen meetings throughout the district to hear community requests for funds. The North Side, East End, West End, and other areas of the city each pressed their claims for a lion’s share of the funds.76 Demonstrating a newfound spirit of assertiveness, the

74 Houston Post, October 20, 1944, p. 5.

75 Houston Chronicle, November 1, 1944, p. 14B.

76 Ibid., February 6, 1945, p. 9A; Houston Post, February 6, 1945, p. 2,2; and February 20, 1945, p. 1,3.
city's black and Mexican communities loudly clamored for their fair shares of the $7.5 million bond fund. In at least two meetings with African American parents and teachers, members of the school board heard the litany of ills experienced by black children including leaking roofs, lack of libraries, and lack of adequate playground drainage.77 Mexican residents had similar complaints. At a February 5, 1945, meeting on the needs of the East End, Dr. John J. Ruiz described conditions at the De Zavala school where 600 mostly Mexican students crammed into a 20-by-30 foot auditorium that did double duty as a cafeteria. Ruiz was careful to point to the advantages of improving Mexican schools. ""Good schools,"" he averred ""make good citizens, and if you have a mediocre school you can expect mediocre citizens.""78

While parents pressed their case for a portion of HISD's budget, many of the men and women who oversaw the management of the University of Houston (UH) had grown tired of being just another arm of the public school district. Members of the university's advisory board, including influential business and civic leaders, sought to create an institution that reflected the growth and dynamism occurring in Houston at the time. For them, such a university could only flourish if allowed to do

77 Houston Post, April 10, 1945, p. 1,3; April 17, 1945, p. 2,7; and Houston Chronicle, April 17, 1945, p. 11A. For more on the needs of black schools, see Kate Kirkland, "For All Houston's Children: Ima Hogg and the Board of Education, 1943–1949," Southwestern Historical Quarterly, CI (April 1998), 483–92.

78 Houston Chronicle, February 6, 1945, p. 9A (quote) and Houston Post, February 20, 1945, p. 1,3.
so independently, without competing with elementary and middle schools for funds. The wartime growth of UH seemed to indicate that it could survive on its own. In the 1940–41 academic year, the university had an enrollment of approximately 5,000 students. By 1944, this number had grown by nearly 50 percent and showed the promise of climbing much further still.79

In early 1944 Hugh Roy Cullen, oilman and chairman of the advisory board of UH, sparked a movement to wrest control of the university’s administration from the HISD board. Cullen had been the school’s largest donor since it became a four-year institution in 1934, having provided the funding for many of the buildings constructed on the new campus.80 Cullen dreamed of creating a first-class public institution and had come to resent what he saw as the interference of the school board in achieving that goal.81 In May 1944 the Cullen-dominated university

79 Houston Post, May 11, 1944, p. 2. 1. The city’s private university, Rice Institute also saw significant changes during the war. Perhaps the most significant of these was the school’s purchase of the Rincon Oil Field in 1942. Over the years the payoff from this investment would approach $60 million. John B. Boles, A University So Conceived: A Brief History of Rice (Houston: Rice University, Division of External Affairs, 1992) and Marguerite Johnston, Houston the Unknown City, 1836–1946 (College Station: Texas A&M University Press, 1991), 363–64.

80 McComb, Houston, 149–150 and George Fuermann, Houston: Land of the Big Rich (Garden City, N.Y.: Doubleday & Company, 1951), 116. Prior to its move to its present location southeast of downtown, the University of Houston held classes in the evening at San Jacinto High School. It began life as the Houston Junior College but was expanded to a four-year institution in May 1934.

81 Houston’s other university, Rice Institute, purposely kept entrance requirements high and so could never serve as a mass public university. To fill that role another type of university was needed in the city, hence the creation and expansion of UH.
advisory board formally proposed that UH be permitted to become an independent institution. In a city where wealth usually equalled influence, Cullen was among Houston’s richest and most powerful citizens. Through his considerable powers of persuasion, the oilman gained several allies on the HISD board who on May 29, 1944, after heated debate, helped gain passage of a measure approving the separation of the University of Houston from HISD control.\textsuperscript{82} By Texas law, the next step in the process of creating an independent institution of higher learning was a vote by the legislature in Austin.\textsuperscript{83}

The school board did not, however, unanimously vote to relinquish control of the university. The leading opponent of the move was Dr. Ray K. Daily, a prominent female ophthalmologist and longtime board member. Her resistance seems to have been rooted in a combination of personal and philosophical reasons. Firstly, she seemed inclined to mistrust Cullen. He was a notorious anti-Semite and Daily was one of Houston’s most prominent Jews.\textsuperscript{84} Second, and perhaps most importantly in this case, she feared that given unfettered control of the university’s affairs, Cullen

\textsuperscript{82}Houston Post, May 30, 1944, p. 1.

\textsuperscript{83}The bill introduced into the Texas legislature late in 1944 did not nominally involve the University of Houston, but it was clearly intended for its benefit. Basically, the prospective law allowed any school district in a city with a population of more than 380,000 to “divest itself of control of any junior college or university” ceding control to an independent board of regents. Houston Post, February 4, 1945, pp. 1 & 8 (quote).

\textsuperscript{84}For a discussion of Cullen’s anti-Semitism, see: Frances R Vanzant to Ray K. Daily, no date, Box 1, Folder 3, Ray K. Daily Papers (HMRC).
would waste little time in molding it to suit his own personal, and some
would say, extreme political beliefs. Daily’s fears were confirmed in early
1945 when the Cullen-inspired wording of the UH separation bill was made
public. In it, the power to hire and fire faculty members lay solely with
the new board of regents, who could act without seeking the
recommendation of the university president. As Daily saw it, giving the
regents such power eliminated the concept of tenure, and by extension
academic freedom, at the University of Houston... She argued that such a
situation would ""keep men of high standing from seeking employment at
the university and keep the university from developing into a real
university.""85 In her opposition, Daily had numerous allies in Houston
who made their feelings known to Harris County representatives in Austin.
Interestingly, the Post reported that the bulk of letters opposing the passage
of the UH separation bill were ""signed by women,"" including those penned
by Sarah Gaskill, president of the Houston Teachers Association.86 Some

---

85Houston Post, January 9, 1945, pp. 1 (first quote) and 2,6 (second quote) and
February 12, 1945, pp. 1 & 2. Daily and others saw in the move to invest the University
of Houston board of regents the possibility of a repeat of the events at the University of
Texas that had cast a dark shadow over that institution. For several years liberal president
Homer P. Rainey had battled the university’s conservative regents over the control of
hiring and firing faculty members. Events came to a head in November 1944 when the
regents forced Rainey from office on trumped up charges that included creating at UT a
""nest of homosexuals."" For the outrageous nature of the regents’ conduct, the university
was placed under sanctions by the national American Association of University Professors,
an interdict that would last for nine years. James L. Haley, Texas: From Spindletop
Through World War II (New York: St. Martin’s Press, 1993), 253 and McKay, Texas and
the Fair Deal, 27–28.

86Houston Post, February 4, 1945, pp. 1 (quote) and 7 and February 15, 1945, p. 1.
went beyond the concerns for academic freedom to express the populist-sounding fears that the move was "undemocratic" and "represent[ed] a movement toward fascistic control of education by big business and politics and that the proposed setup would cause the University of Houston to change into a glorified trade school rather than a liberal and cultural university."\textsuperscript{87}

Despite the protests of Daily and a few others, and after a public hearing held before the Harris County delegation in Austin, the bill passed in early March 1945. The city's civic and business leaders endorsed the move as did its newspapers. The \textit{Post} editorialized that "the University of Houston stepped out on its own feet as an independent institution of higher learning, facing the rising sun of a promised brilliant future."\textsuperscript{88} Adding to the luster of that promise, later that same month, Hugh Roy Cullen announced that he had donated the bulk of oil royalties from his interest in the Thompson field in Fort Bend County. Estimates placed the value of this huge gift at between $4 and 6 million, and it was announced that the bulk of it would be used to fund an ambitious construction program that

\textsuperscript{87}Ibid., February 4, 1945, pp. 1 (quote) & 8. Such fears would prove well-founded, in the 1950s Cullen would remove the president of the University of Houston because he felt that the man was soft on communism. See: Don E, Carleton, \textit{Red Scare! Right-wing Hysteria, Fifties Fanaticism, and Their Legacy in Texas} (Austin: Texas Monthly Press, 1985).

\textsuperscript{88}Houston \textit{Post}, March 14, 1945, p. 8.
would greatly expand UH's facilities. While only speculation, it is impossible not to wonder if the timing of Cullen's enormous gift was more than mere coincidence, coming as it did less than two weeks after the bill authorizing separation of the university from the school board, a move for which Cullen had been clamoring for years. Cullen's own authorized biography is mute on the subject, but its would not have been out of character for the autocratic oilman to have made his gift to UH as a form of payment for having gotten his way in the matter.

Besides his involvement with the University of Houston, Hugh Roy Cullen also loomed large in the local cultural scene. The city's institutions of the arts benefitted greatly from the wartime changes in population and prosperity that swept the city. A small but important number of the newcomers to Houston brought with them the experience of living in centers of culture, with fine museums and performing arts organizations. As they adopted Houston as a home, they helped foster a richer local array of cultural offerings. The best example of such migrants, Jean and Dominique de Menil who would later found a world-renowned art

---


91Johnston, *Houston the Unknown City*, 365.
museum, arrived in Houston in 1942. During this period the Museum of Fine Arts was the lucky beneficiary of the major gift that would come to form the core of its fine collection of European masterworks. The donation was made in 1944 by Mr. and Mrs. Percy Straus of New York City and Macy's Department Store fame. The Strauses gave a large portion of their personal collection, including works by Fra Angelico and Hans Memling, to the museum as a benefaction to the city where their son Percy, Jr. had come to live and work. In 1943 Houston arts patron Ima Hogg also engineered the gift to the museum of a collection of sixty-four works by Frederick Remington that had belonged to her brother Mike. The Houston Symphony also saw success during the war years. Under the conductorship of Ernst Hoffman and the presidency of Hugh Roy Cullen, the symphony continued to expand its schedule of performances in Houston and also reached beyond the city in a series of concerts in cities and towns around the region, both live and over the radio airwaves. The symphony also played a significant role in the war effort, performing at military bases and, in arguably one of the most unique events in fundraising history, at a benefit concert in January 1944 accompanying a

---


93 Ibid., 15.

professional wrestling match featuring some of the area’s most notorious grapplers. Attendance at the event required the purchase of war bonds and raised $7,135,000 for the war effort. At one memorable moment, wrestler Ellis Bashara, his face dripping blood, climbed out of the ring and onto the conductors podium. He then grabbed the baton from a startled Maestro Hoffman and energetically began to conduct the symphony in a rendition of “The Merry Widow Waltz.”95 All told, both the Houston Symphony and the Museum of Fine Arts used the war era as a springboard to the postwar growth that saw them become leading cultural institutions of the region. Both would continue to benefit from the city’s prosperity, becoming major recipients of local philanthropists.96

While the city’s educational and cultural institutions adjusted to meet the new realities of wartime life, so too did those of the municipal government. Confronted with a dramatic increase in the city’s population and the transformation of its industrial landscape, Houston authorities were forced to increase the scope and efficiency of the services they delivered.

Out of concerns that the city function at peak performance to meet wartime circumstances, a fundamental change was effected in the structure

95 Houston Post, January 22, 1944, pp. 1 & 19 and Leopold L. Meyer, The Days of My Years: Autobiographical Reflections of Leopold L. Meyer (Houston: Privately Published, 1975), 347.

96 As the 1940s continued, the city continued to grow in importance as a center of culture and the arts. In 1947 Nina Vance founded the Alley Theatre that would go on to become one of the premier theater companies in the nation. The next year saw the organization of the Contemporary Arts Association, the forerunner of the Contemporary Arts Museum. McComb, Houston, 249–50 and Fuermann, Houston, 181–83.
of its government. In 1942 a group of citizens grew frustrated with the squabbling and petty jealousies between Mayor C.A. "Neal" Pickett and the city commissioners who each controlled several city departments. 97

Spearheaded by a group of women, there emerged a movement to adopt the city manager form of government for Houston. Put before the voters in August 1942, a measure establishing this system was approved easily. 98

When Pickett's successor, Otis Masse, was elected in 1942, much of the decision-making authority rested in the hands of new city manager John Edy. 99 Under Edy, the long traditions of Houston city government did not change radically. Emphasis continued to be placed on fostering an environment conducive to business and the free enterprise system.

However, the adoption of a manager style of government, a move Houston had long resisted, showed the dramatic demands that wartime had made on the institutions of the city, and the tenor of the times led many to conclude that change was necessary. 100

---

97 Houston Chronicle, April 16, 1942, p. 14A.

98 Houston Post, August 18, 1942, p. 1.6.

99 Edy had formerly been city manager in Dallas and Toledo, Ohio.

100 Indicative of the fact that the adoption of the city manager form of government was a special wartime development and did not markedly improve city services is the fact that it was repealed shortly after the war, in 1947. McComb, Houston, 227 and Robert D. Thomas and Richard W. Murray, Progrowth Politics: Change and Governance in Houston (Berkeley: IGS Press, Institute of Governmental Studies and International and Area Studies, University of California at Berkeley, 1991), 183–85.
old mayor/commission form of government to handle was that of flood control. One of the lingering fears among Houstonians, especially those involved with business and industry on the ship channel, was the threat of inundation posed by Buffalo Bayou in periods of heavy rainfall. In 1929 and 1935 major floods had submerged much of downtown, and together the two floods caused almost four million dollars worth of damage. 101 Seeking to ensure that the new plants and factories worth tens of millions of dollars lining the ship channel would not be threatened, in early 1942 the city and county moved forward with plans to construct a massive earthen dam upstream on Buffalo Bayou. What would come to be called the Barker-Addicks Dam would stretch for fourteen miles from near Fairbanks in western Harris County southwest across the Fort Bend County line. At completion, the dam would measure 160 feet wide at the bottom tapering to 15 feet in width at the top. The height of the dam varied from 37 feet at low points of the terrain to 15 feet on higher elevations. At the commencement of construction the estimated cost of the project was $2,000,000, to be split evenly by the federal government and the Houston/Harris County flood control authority. 102 While the dam was not

101 McComb, Houston, 207.

102 The Barker-Addicks dam projects were only part of a comprehensive long-term $32,000,000 flood control project that involved city, county, and federal funds. Much of the program, which included the construction of canal that would shunt flood waters from the dam south and around the city all the way to Galveston Bay would not be carried out until after the war. Houston Post, January 10, 1942, p. 13; December 20, 1942, p. 4,4; and Houston Chronicle, August 13, 1944, Sunday Art Gravure Magazine, 7.
finished until 1946, its genesis was to protect the wartime investment that lay downstream.\textsuperscript{103}

Ironically, while the Barker-Addicks Dam represented Houston’s efforts to keep water at bay, throughout the war years it was chronically short of that very substance. By 1942 it had become clear that the traditional sources of supply, artesian wells, could not keep up with the demands of a city growing in population and industrial development. The underground reservoir tapped by such wells was reportedly being overdrawn at the rate of 50,000,000 gallons per day.\textsuperscript{104} Manufacturing plants proved especially demanding of water. The Champion Paper mill near Pasadena, for example, used 20 million gallons of water per day.\textsuperscript{105}

It was believed that if a sufficient surface water supply could be found to

\textsuperscript{103}McComb, \textit{Houston}, 208. The erection of the Barker-Addicks Dam was delayed several times as the city/county flood control district met with resistance from local property owners over the condemnation of their land for the project. In fact, by the beginning of 1943 none of the condemned property had yet been transferred from private hands. The delay was partly occasioned by the discovery of oil on land nearby and a subsequent reappraisal of the value of mineral rights of the land to be used for the dam. In addition in February 1943, the Washington ordered the project temporarily halted on the grounds that the construction equipment in use on the dam could be put into more effective service on projects deemed more vital to the nation’s war effort. \textit{Houston Chronicle}, July 2, 1942, p. 13A; August 13, 1944, Sunday Art Gravure Magazine, 7; \textit{Houston Post}, January 30, 1943, p. 1,4; and February 9, 1943, p. 3.

\textsuperscript{104}\textit{Houston Post}, August 2, 1942, pp. 1 & 4. The problem of adequate supply was demonstrated by the diminished pressure experienced by residential users. Dangerously, the Houston Fire Department found that whereas 60–80 pounds of pressure was adequate for fighting fires, pressure was often as low as 15 pounds at the hydrant. \textit{Houston Post}, June 2, 1943, p. 1. The continued overdependence on subsurface water would continue to plague the city in the postwar years when it would cause widespread subsidence problems, with parts of the city sinking several feet and worsening the prevalence of flooding. McComb, \textit{Houston}, 209 n. 11.

\textsuperscript{105}\textit{Houston Chronicle}, September 22, 1944, p. 13A.
supply industry, underground sources could meet the demands of domestic consumption. The city’s nearest watercourse, Buffalo Bayou carried far too low a volume of water to be of use and therefore another source had to be found. The Trinity, Brazos, and Colorado Rivers were all considered and rejected for various reasons, and the city narrowed its focus to the nearby San Jacinto River. Here, however, it hit a snag. In remarkably shortsighted fashion, the Texas legislature had years before granted water rights on the San Jacinto to both the city of Houston and a private body, the San Jacinto River Conservation and Reclamation District (SJRCRD). When wartime problems of supply first occurred in early 1942, the SJRCRD alone presented a plan to build a dam on the river and construct canals to bring 100,000,000 gallons of surface water per day to the industries on the Houston Ship Channel. Although the War Production Board (WPB) had granted priorities for the materials and the Federal Works Agency had agreed to fund the project, the city in July 1942 sought to block the SJRCRD’s construction plans, apparently realizing that, if completed, its municipal water company stood to lose out on the lucrative...
job of supplying the ship channel industries.\textsuperscript{109} Mayor Pickett travelled to Washington in August and succeeded in having the priorities and funds suspended while the city made its case for control of the project.\textsuperscript{110}

What followed was a series of charges and countercharges by the two parties involved in the San Jacinto dispute. The SJRCRD charged that the city plan was insufficient to meet the projected future needs of the area.\textsuperscript{111} Mayor Pickett responded angrily that as the industries to be supplied were located in Harris County, the city had the legal right to supply them with water.\textsuperscript{112} To bring an end to the bitter dispute, on September 26, 1942, the regional office of the Federal Works Administration announced that it would build the $2,100,000 project and operate it for the duration of the war, at the end of which it would sell the system to the highest bidder.\textsuperscript{113} The plans called for a dam to be built near Sheldon and two canals to bring the water to the industries along the ship channel, one to the Baytown area

\textsuperscript{109}According to a \textit{Post} editorial, the “race” between the city of Houston and the SJRCRD was a result of “the city . . . wish[ing] to have the industries for customers, so that water revenue bonds which the city may issue may be paid off more easily.” \textit{Ibid.}, July 23, 1942, p. 1,5 and August 4, 1942, p. 1,6 (quote).


\textsuperscript{111}Houston \textit{Post}, August 20, 1942, p. 1,5.

\textsuperscript{112}\textit{Ibid.}, August 30, 1942, p. 1,13.

\textsuperscript{113}\textit{Ibid.}, September 27, 1942, pp. 1 & 1,15.
and one to a point just outside the Houston city limits near Pasadena.\textsuperscript{114} Construction began in December 1942, and the east canal reached Baytown in March of 1943.\textsuperscript{115} With the passage of a $14,000,000 water bond issue on June 17, 1944, the city raised funds sufficient to purchase the western canal system and construct a second $4,000,000 dam, reservoir (the future Lake Houston), and filtration plant further upstream to provide drinking water to the city.\textsuperscript{116}

Water supply and flood control were but two issues pushed to the fore by wartime circumstances and addressed by local authorities. Population and industrial pressures led to dramatic expansion of the city’s sanitary sewer system as well as its garbage incinerator facilities. In addition, wartime traffic problems led to the first major long-term coordinated planning of city and county roads and highways in history.\textsuperscript{117}

The city, Harris County, and the chamber of commerce also joined

\textsuperscript{114}Houston Chronicle, October 17, 1942, p. 1 and Houston Post, October 18, 1942, p. 1. For a map of the project, see: Houston Chronicle, May 16, 1943, p. 7B

\textsuperscript{115}Houston Post, December 6, 1942, p. 1,12 and Houston Chronicle, March 21, 1943, p. 11D. The west canal reached completion in August 1943 with the opening of a reservoir and pumping station on Clinton Drive on the north bank of the ship channel opposite Pasadena. Houston Chronicle, August 31, 1943, p. 3B. To also increase the residential water supply, the city embarked on a program of drilling new artesian wells. Houston Chronicle, July 18, 1943, p. 8B

\textsuperscript{116}The SJRCRD purchased the east canal. Houston Post, May 28, 1944, p. 1,1; June 16, 1944, p. 1,5; September 4, 1944, p. 6; June 5, 1945, pp. 1 & 1,4; and Houston Chronicle, June 12, 1944, p. 6A.

together to create a plan for a loop road (later known as Loop 610) to encircle the city. Out of this planning would come the seeds of many of the multilane, limited access "freeways" that so characterize Houston today. Beginning with the Gulf Freeway to Galveston begun in 1946, a roadway widely hailed for its advanced engineering and design, the postwar years saw a web of concrete woven throughout the metropolitan area.\textsuperscript{118} In 1943 the Houston Lighting and Power Company opened a new $2,800,000 power generating station on South Main mostly to meet the increased demand on electricity caused by the explosion of industry in the area.\textsuperscript{119}

While Houston city government played an unusually active role in local affairs in the war years, its power was far from unlimited. The electorate did not hesitate to put office-holders in their place when they exceeded what was popularly held to be their mandate. In August 1943 the city council voted to authorize a 91-square-mile annexation of surrounding areas. The move had been prompted by councilmen's feeling that industrial expansion in the unincorporated strip along the ship channel was robbing the city of significant amounts of tax revenue while companies enjoyed the benefits of city services.\textsuperscript{120} Newspapers, organized labor, and

\textsuperscript{118}McComb, \textit{Houston}, 180–81.

\textsuperscript{119}Bill Beck, \textit{At Your Service: An Illustrated History of Houston Lighting & Power Company} (Houston: HL&P, 1990), 197 and Houston \textit{Chronicle}, July 7, 1943, pp. 1 & 5A.

\textsuperscript{120}Houston \textit{Chronicle}, August 5, 1943, pp. 1 & 7A. The proposed annexation would have more than doubled the size of the city, from 74 square miles to 165.
civic leaders all responded with outrage, arguing that the annexation of industrial land adjoining the ship channel would drive business away from the city.  

A Chronicle cartoon of the time seemed to crystallize the feelings of many. In it, a disembodied strong arm representing the city council is shown squeezing a factory in a vise labelled “Annexation of Industrial Areas,” while in the background factories with suitcases bearing the legend “Industry Bound for Houston” flee in horror.  

Fueled by such images, the electorate responded by overwhelmingly defeating the measure. When voters did approve an enormous annexation in 1948–49 that doubled the land area of the city, the strip along the ship channel was again exempted.  

Houston’s wartime energy showed in the way that the city embraced what is usually termed the civilian war effort. In truth, a discussion of this topic could occupy an entire chapter, but briefly, the city embraced the cause of defeating the Axis nations with great enthusiasm. Thousands of Houstonians enlisted in civilian defense units, acted as air raid wardens,
auxiliary police and firemen, and Red Cross nurses. Victory gardens sprouted up where many a rosebush and azalea had once bloomed. Scrap metal, paper, and rubber drives routinely produced mounds of material to be turned into implements of war, described as "Scrap to Help Slap the Jap." Houston and Harris County civilians also proved extremely responsive to the Washington’s call for voluntary financial contributions to the war effort. Area residents regularly surpassed the quotas for sales of war bonds and stamps set for them by the federal government. It was, in fact, for its purchase of war bonds that Houston received its most significant national attention during the war. In February 1942 the city’s namesake naval vessel, the cruiser U.S.S. Houston, was sunk off the coast of Java in the Battle of the Java Sea with a loss of 1,087 men either killed or captured. When news of the loss was made public in early 1942, a effort was organized to raise funds for the construction of a replacement vessel. Rallying the populace with the slogan “Avenge the Houston!”

---

124 For a useful treatment of the civilian war effort, see: Johnston, Houston the Unknown City, ch. 63; Houston Post, December 20, 1941, pp. 2,11, 3,14, & 5,6; and January 14,1942, pp. 1 & 1,9; 125 For Houston scrap drives, see: Houston Post, June 18, 1942, p. 1,2; June 20, 1942, p. 1; September 11, 1942, p. 1; and September 17, 1942, pp. 1 & 1,11. For victory gardens, see: Houston, XIV (July 1943), 59 and Houston Chronicle, March 14, 1943, Sunday Art Gravure Magazine, 3. 126 Ronald H. Bailey, The Home Front: USA (New York: Time-Life Books, Inc., 1977), 48 and John Gridr Mills, The Battle to Save the Houston, October 1944 to March 1945 (Annapolis: Naval Institute Press, 1985), 2–4. 127 Houston Post, March 19, 1942, p. 1,6.
the $36,100,000 goal was easily surpassed. In fact, there was enough
left over from the funds needed for the cruiser to allow for the
construction of a light aircraft carrier that was named, appropriately, the
U.S.S. San Jacinto. The $85,749,884.24 check was presented on behalf of
the people of Houston by Jesse Jones to Secretary of the Navy Frank Knox
at a patriotic rally on December 21, 1942, at the Sam Houston
Coliseum. Perhaps more memorable, however, was a related event that
had occurred seven months earlier. As part of the project to entirely
replace the lost vessel, 1,400 Houston men had already volunteered to
replace the crew of the cruiser. In a Memorial Day 1942 ceremony
seen by nearly 200,000 in person and in newsreel footage around the
nation, the Houston volunteers were sworn in en masse. In what came to
be the most enduring image of the war for many Houstonians, the 1,000
volunteers took the oath standing shoulder-to-shoulder on Main Street at
McKinney right arms all raised in a stirring display of patriotism.

---

128 Mills, Battle to Save, 6–9; Houston Chronicle, May 26, 1942, p. 10A; Houston
Post, November 29, 1942, pp. 1 & 1,7; and December 18, 1942, p. 1,9. As part of the
December 21 festivities, Brown Shipbuilding arranged for a launch of 7 ships at a
ceremony also attended by Jones and Knox and at which Brown received its Army-Navy
“E” award for excellence in production. Houston Chronicle, December 21, 1942, pp. 1 &

129 Houston Post, December 22, 1942, pp. 1 & 1,8.

130 Bailey, Home Front, 48.

131 Houston Post, May 31 1942, pp. 1 & 12 and Houston Chronicle, May 31,
1942, pp. 1 & 14A.
The ability shown by Houston and Houstonians to respond to the demands of the war years proved to be valuable experience. In the postwar period the city would grow dramatically in population and geographical size. Houston, never lacking in confidence, came to develop an expectation of constant population and economic growth. It welcome outsiders with open arms as contributors to widespread growth. Houston and its leaders emerged with a renewed can-do attitude and an improved infrastructure. Housing, roads, and water systems were improved, largely by federal dollars, and positioned the city well for continued growth. The city’s cultural and educational institutions evolved as well, contributing to the emergence of the city as a cosmopolitan urban center as well. Marked by enormous growth in its population, the improvement of its infrastructure, the maturing of its cultural institutions, and the expansion of educational opportunities, the war years did more than transform Houston into an economic and industrial powerhouse. In that period it vaulted beyond its past as a provincial town and into the era it presently occupies as the modern city of Houston.
VII.

Forgotten Houstonians: Women, Blacks, and Mexicans

World War II is often referred to as a watershed event in the history of the United States. Many scholars point to the first half of the 1940s as a formative period for some of the social crusades that would shape the subsequent decades of the twentieth century. The women’s movement and the civil rights movement, for example, had their beginnings in this period. In this study much attention heretofore has been paid to how World War II stimulated Houston’s economy and elevated it to a place in the national urban scene. Examining the wartime experiences of women, blacks, and Mexicans in Houston makes possible a greater understanding of how the war changed people’s lives as well. All three groups found opportunities during the war—some economic, some political, and some social. The crucible of change that was World War II ensured that none would again be as completely marginalized in Houston society as they had been previously.

Beginning in 1942 when the available supply of white male labor began to be exhausted, Houston area war plants increasingly turned to
white women to fill their work force needs. Of course, such a
development would not have been possible if many women had not been
willing to step beyond their traditional realms of home and family and into
the workplace. While women entered the work force for numerous
reasons, it appears that motives fell into four rough categories or
combination thereof. Some women with husbands in the armed forces took
jobs out of necessity, to meet household expenses or maintain a certain
standard of living. Other women considered work in war plants a patriotic
enterprise. Many had husbands, sons, brothers, or fathers serving the
nation and saw wartime employment as a sign of support for their menfolk.
Others simply saw adventure in the factory or at the shipyard. The fourth
category included women, many of whom already held jobs, who found
unprecedented opportunities to advance into areas of employment
previously inaccessible to their gender. For whatever reason women
worked, most did not view themselves as conscious pioneers for women’s

---

1For examples of the appeals that were made to women to go to work in area war
plants, see: Houston Post, September 3, 1942, p. 1,8 and September 5, 1942, p. 1,4.
Three of the best general works on women in the workplace in World War II are: Sherna
Berger Gluck, Rosie the Riveter Revisited: Women, the War, and Social Change (Boston:
Twayne Publishers, 1987); Ruth Milkman, Gender at Work: The Dynamics of Job
Segregation by Sex During World War II (Urbana, Ill.: University of Illinois Press, 1987);
and Chester Gregory, Women in Defense Work During World War II: An Analysis of the
Labor Problem (Jericho, N.Y.: Exposition Press, 1974).
rights but simply as workers with a job to do.\(^2\)

The first step for most Houston women on the path to work in a war plant or other industrial setting was training in the mostly alien world of machines and tools. A variety of programs sprang up to meet this need. The Houston Independent School District (HISD) offered classes to white women at the Taylor vo-tech school at 1500 Louisiana and a school for black women at 1013 West Dallas, and there was the University of Houston industrial education facility as well.\(^3\) The federal government also participated in training women for war work. The National Youth Administration (NYA) center in South Houston provided lodging for white women as well as paid training in skills such as welding, machine tool operation, and drafting for black and white men and women from Houston and the surrounding area.\(^4\) By mid-to-late-1942, women made up a


\(^{3}\)Houston Post, November 22, 1942, p. 1,13 and December 20, 1941, p. 2,15.

\(^{4}\)Houston Post, July 19, 1942, Sunday Magazine, 7; September 27, 1942, p. 1,2; and Houston Chronicle, September 24, 1942, p. 9A.
majority in most of the area's defense training schools.\textsuperscript{5}

One of the first major employers of women for the war effort was not a shipyard or a factory but a military installation. Ellington Field, an army air training facility just south of the city, hired female mechanics at least as early as March 1942. By August, all-women repair crews were commonplace. Dressed in coveralls and posing by giant propellers and machine tools, these women were frequently featured in the pages of local newspapers.\textsuperscript{6}

Houston's biggest industrial employers, its shipyards, were also among the largest users of female labor.\textsuperscript{7} The Houston Shipbuilding Corporation (HSC) seems to have made especially heavy use of female labor. Early in its existence, the yard hired women only for clerical positions, the first being a file clerk who started work in February 1941.\textsuperscript{8}

Beginning in November 1942, women began work as welders and burners

\textsuperscript{5}Houston Post, July 19, 1942, Sunday Magazine, 6 and Houston Chronicle, October 21, 1942, p. 15B. Of course, some of the larger war plants also had on-site training facilities in which women could learn the skills necessary for those specific operation.

\textsuperscript{6}Houston Post, March 31, 1942, p. 1; May 17, 1942, Sunday Magazine, cover and 5; October 30, 1942, p. 1,8; Houston Chronicle, August 4, 1942, p. 3A; and January 17, 1943, Sunday Art Gravure Magazine, 6.

\textsuperscript{7}While no in-depth studies of women in the shipyards of Houston exists, there are several monographs that examine the issue elsewhere. One of the best is Amy Kesselman, Fleeting Opportunities: Women Shipyard Workers in Portland and Vancouver During World War II and Reconversion (New York: State University of New York Press, 1990).

\textsuperscript{8}Houston Post, August 24, 1943, p. 5.
and in time would fill almost every job at the yard, with the exception of a few that required more physical strength than females could be expected to posses.\textsuperscript{9} While exact numbers are elusive, published reports seem to indicate that at the height of HSC's production in 1943, the yard employed between 1,200 and 2,100 women.\textsuperscript{10}

Shipbuilding by no means had a monopoly on female employment. By the spring of 1944 one source placed the number of women working in the Houston area defense plants at 17,587, which represented 18.2 percent of the entire total work force of 96,727.\textsuperscript{11} While most heavily concentrated in the manufacture of machine tools and ordnance, in which they showed marked aptitude for "precision work," women held positions in virtually every type of defense work done in Houston. They sewed


\textsuperscript{10}To put those numbers in terms of a percentage, in 1943 women made up from 5 to 12 percent of the entire work force at HSC. Houston \textit{Chronicle}, May 9, 1943, p. 11D; Houston \textit{Post}, September 5, 1943, p. 1; October 22, 1943, p. 1,12; and December 15, 1943, p. 17A. Brown Shipbuilding restricted female employment to clerical positions until 1943 when it began to utilize women welders at one of its two units. War Manpower Commission, "Labor Market Survey on the Houston, Texas, Area," February 1, 1943, p. 9. Box 1 Miscellaneous Defense Housing, 1942–44, Albert Thomas Papers (Woodson Research Center, Fondren Library, Rice University, Houston, Texas).

\textsuperscript{11}Houston \textit{Chronicle}, April 16, 1944, p. 6C. Interesting to note, in order to work more than 9 hours per day, women had to gain exemption from a Texas state law limiting the length of their work week to 54 hours. In 1943 as plants came to rely heavily on female employees, many firms applied to and received permission from the state Labor Commissioner for their workers to exceed the statutory limit. By the end of the year some 15,000 women in 46 were so exempted. Houston \textit{Chronicle}, March 3, 1943, p. 9A; May 12, 1943, p. 6B; September 30, 1943, p. 3B; and December 17, 1943, p. 4A.
parachutes at the Conrad Bering Company shop, handled explosives at the San Jacinto Ordnance Depot, processed meat destined for the armed forces at the Houston Packing Company, made synthetic rubber at Humble Baytown, and contributed to the war effort in countless other ways.\textsuperscript{12} The defense industry was not alone in offering Houston women opportunities to work outside of the home. Many replaced men in civilian jobs as well, in retail establishments, business offices, and plants producing consumer goods.\textsuperscript{13}

Despite the apparent success of attracting women to the defense industry, there was a sense that female employment was strictly a wartime measure, not to be continued in peacetime. Several articles appeared in the local press indicating that the proper action for women to take when the war came to an end was to "return to homemaking" and to "seek careers as wives and mothers."\textsuperscript{14} In March 1945 a meeting was held at the Rice Hotel in downtown Houston to discuss the postwar period. Apparently oblivious to the irony of the situation, the mostly male panel told their

\textsuperscript{12}War Manpower Commission, "Manpower Problems, Programs and Results of Programs in Houston Labor Market Area," April 10, 1944, p. 16. Box 1 Miscellaneous Houston Chamber of Commerce, 1943–46, Albert Thomas Papers (Woodson Research Center, Fondren Library, Rice University, Houston, Texas); Houston Post, June 20, 1943, p. 1,8; July 4, 1943, p. 1,4; Houston Chronicle, July 3, 1942, p. 1B; December 15, 1944, p. 16A; and August 17, 1945, p. 8A.

\textsuperscript{13}For examples of women working at gas stations, in breweries, and as delivery drivers, see Houston Chronicle, March 10, 1942, p. 9A; July 12, 1942, p. 11C; and Houston Post, June 27, 1943, p. 1,4.

\textsuperscript{14}Houston Post, February 17, 1943, p. 1,4 (first quote) and April 30, 1945, p. 8 (second quote).
female audience that women overwhelmingly wished to return to their homes as soon as their labor was not needed for national defense. There seems to have been an element of coercion in the panelists' attempt to convince women that their proper place was in the home. Some, they warned, would have no choice in the matter, and the panel warned that those mothers who "allow[ed] their children to run loose on the streets" would be dismissed "automatically." 15

As it turned out, many women were left with little choice of whether they wished to continue in industrial employment. As war production slowed in 1945, many firms began the process of reconversion that necessitated reducing the sizes of their work forces. Arguing that women would occupy possible jobs needed by men returning from war, war plants laid off female employees in large numbers. As the government canceled contracts in the summer and fall of 1945, notices began to appear that certain plants had laid off certain number of employees, usually described as "90 per cent women" or "mostly women." 16 By late August, after V-J Day, the Post reported that women constituted more than half of the 1,600 workers laid off in Houston to that point. For its part, in September 1945 the Chronicle printed statistics showing that 11 percent of the city's 14,779 women then employed in war work had lost their jobs, compared to just 5

15Ibid., March 6, 1945, pp. 1 & 7.

16For examples of these notices, see: Ibid., June 12, 1945, p. 2.5 (McEvoy Co.); August 23, 1945, p. 2.2 (Specialty Manufacturing and Cameron Iron Works); and Houston Chronicle, August 22, 1945, p. 8A (Rheem).
percent of their male counterparts.\textsuperscript{17} While many women no doubt were happy to return to the lives that they had led before the war, others showed a desire to continue to be employed for wages. A survey sponsored by the Houston Chamber of Commerce in November 1945 showed that 9,000 women expected to continue working in 1946. While this was a reduction of some 6,000 workers from 1945 levels, it was still 6,000 more women than had been employed in 1940.\textsuperscript{18}

For women in Houston and other American cities and towns, the decision to seek employment was made more difficult if they had children. Some area women, whose husbands were not in the armed forces, could arrange their schedules so that one parent worked during the day and the other a swing or night shift. Others whose husbands were in the service or otherwise unavailable had to solve the problem more creatively. Many women were fortunate to have family members and friends upon who they could rely for what was called at the time “foster-family day care.”\textsuperscript{19} Grandparents were obvious choices as care-givers, but other relatives and friends were options as well. An interesting example of how two women solved the dilemma of care for their two infant children is provided by two

\textsuperscript{17}Houston \textit{Post}, August 23, 1945, p. 7 and Houston \textit{Chronicle}, September 12, 1945, p. 9A.

\textsuperscript{18}Houston \textit{Chronicle}, November, 1, 1945, p. 14A.

\textsuperscript{19}Children’s Bureau, “Policy of the Children’s Bureau on the Care of Infants Whose Mothers are Employed,” December 1, 1944, War Manpower Commission, Field Service Reports, Office of the Assistant Executive Director for Field Services.
sisters, Myra Dorman and Mary Louise Miller. With husbands in the armed forces and a baby daughter each, the two had migrated to Houston from Gilmer in northeast Texas to do defense work at Reed Roller Bit Company in January 1943. The two lived together and worked out a schedule in which the sisters alternated working during the day while the other stayed home to care of the children.20

Not all women found such an easy solution to their child care problems. Many Houston women did not have family members or friends available to mind their children while at work and were forced to look to outside providers for that care. “Forced” is an appropriate choice of words, for in the early 1940s there was a strong social stigma attached to mothers who placed their children in group care outside the home. It was widely held that children’s mental development could be adversely affected by such a situation.21 For middle-class Houston mothers as with others around the nation, outside child care was also associated with poverty. In the past, day nurseries had mainly been utilized by poor women—those who had never had the luxury of not working outside the home. Even these centers were few and far between. During the Great Depression the federal government had expanded the availability of day care programs,


largely through the aegis of the Works Progress Administration (WPA). In the war years the Federal Works Agency (FWA) spent $50 million to operate over 3,000 of the so-called Lanham centers in vital production areas across the nation. In Houston, FWA wartime disbursements helped to fund numerous centers administered by local churches, charities, and the Houston Independent School District (HISD). None of the area war plants provided facilities for the care of their employees’ children as did Henry Kaiser in his famous Oregon shipyards.

Early in the war, HISD recognized the importance of providing child care for the expected influx of women into war work. In April 1942 the

22By the eve of World War II, the WPA operated four nursery schools in Houston, three for African American children and one for whites. This ratio reflects the role of child care centers catering to the poor. Economically disadvantaged, black mothers were more likely to have to seek employment than were their white counterparts. In April 1941, the four WPA nurseries cared for 276 children (220 black and 56 white) ages 2–4. The lone white center was at the Ben Milam School, 215 Sandman (near Washington Avenue on the northwest side). The three African American centers were located in the Fifth Ward at 1316 Worm, the Third Ward at Dallas and Paige, and on the near north side at 3202 Center. Houston Chronicle, April 30, 1941, p. 1B.

23Hartmann, The Home Front, 58–59 & 84–85 and Houston Post, June 9, 1943, p. 17. The name refers to the piece of congressional legislation, the Lanham Act, that appropriated funds for local public schools to act as co-sponsors of the centers.

24Hartmann, Home Front, 62. Henry Kaiser’s child care centers received national publicity in 1944. The facilities, built at Kaiser’s Oregon Shipbuilding and Swan Island yards, both near Portland, Oregon were remarkably advanced for their day. Built solely for the purpose of housing workers’ children, they were located at the entrances to each plant and designed to be as stimulating and environment as possible for the children cared for in each. Each center was divided into several playrooms each with large glass windows to admit a great deal of natural light into the room. Unlike day care centers in Houston, Kaiser’s facilities remained open around the clock allowing even workers on the graveyard shift to bring their children with them to sleep at the center and eat breakfast the following morning. Viewed in the hindsight of fifty years Kaiser’s innovative approach to child care still stands out as an example that even the most “family friendly” company today would be hard-pressed to emulate. Houston Post, January 16, 1944, Sunday Magazine, 5.
school board held a brief but spirited debate over the district’s kindergarten program. Prior to this point, kindergarten had not been available at every elementary school and in some locations was operated on a fee basis. At the meeting in question, several of the more conservative school board members pushed to abolish the district’s kindergarten program. Instead, others—led by the two female members, Dr. Ray K. Daily and Mrs. B. F. Coop—pushed through a measure that actually expanded the budget for kindergartens from $22,000 to $75,000 for the year and ensured that they would be provided at each of the city’s schools and be offered free of charge.25

In addition to the expansion of HISD programs to care for the young children of female war workers, the Houston Settlement Association (HSA) also expanded its range of day-care options. In addition to its existing Caroline Green Day nursery, the HSA created another at the Ripley Settlement House. The Post praised this service, noting that “working mothers may bring their children, and leave them in the care of competent, trained people in a wholesome environment, during the hours they are at work. . . . Knowledge of the well-being of her child makes a mother happy and increases her working efficiency.”26 The Ripley nursery school

25Houston Post, April 7, 1942, p. 7.

26Ibid., September 23, 1942, p. 1.6. In addition to these two centers, later in the war the Houston Settlement Association under its innovative director Franklin I. Harbach established another day care center at its Rusk House settlement in the mostly Mexican East End.
remained open between 6 A.M. and 7 P.M. to allow mothers sufficient time to deliver their children and reach war plants on time for work. Parents were charged from 10 to 50 cents per day dependent on their ability to pay. With more than thirty 2-to-5 year old boys and girls enrolled, the center employed three female care-givers to supervise a full slate of indoor and outdoor activities, meals, and afternoon naps.\textsuperscript{27}

In addition, the Day Care Committee jointly run by the Council of Social Agencies and the Office of Civilian Defense operated five nursery schools to help meet the need of working women. Of these, two served white children and three African Americans. Each school operated twelve hours a day, from 7 A.M. to 7 P.M., and included a full slate of activities Monday through Saturday.\textsuperscript{28}

As the war ground on, other local charitable organizations offered working mothers facilities for the care of their pre-school age children. In December 1942, responding to estimates that 40,000 women would work in Houston war plants by the end of 1943, the War Chest of Houston and Harris County voted to commit funds through its participating member the Family Service Bureau to establish a network of private homes in which at most two or three children could be cared for while their mothers were at work. All volunteers were subject to investigation by the Family Service Bureau and follow-up supervision to ensure that children in their homes

\textsuperscript{27}Ibid., January 10, 1943, p. 1, 5.

\textsuperscript{28}Ibid., May 16, 1943, p. 1, 19.
received satisfactory treatment. These so-called "foster day care" homes represented something of a compromise between the traditional forms of day care and the more revolutionary group nursery schools. Advocates of such a solution to the day care problem, like society women Mrs. James P. Houstoun who headed the day care committee of the Council of Social Agencies and Mrs. Mike Hogg who chaired the Working Mothers Advice Center, pointed to the more individualized attention that children were able to receive in smaller groups. They also noted that the few requirements of foster day care homes meant that they could be distributed to all parts of the city without the major expenses of the larger group centers. Working mothers were assured that they were able to avail themselves of the service regardless of their ability to pay for the care.

In addition to programs for the very young, after mid-1943 working mothers with children ages six through fourteen could take advantage of a vacation program that provided supervised activities from 6:30 A.M. until 5:30 P.M. in HISD buildings. Similarly, throughout the conflict children of parents involved in war work were offered an opportunity to attend a day camp at the Wolff Memorial Home. Although the members of the

---

29 *Ibid.*, December 12, 1942, p. 8. The War Chest was a wartime incarnation of the Community Chest, an umbrella organization that raised funds and distributed them among its participating agencies.


governing board of the Wolff home included some of the most prominent Jewish leaders in Houston, the camp itself was non-sectarian—although all-white—and each year accepted children recommended by local social work agencies. In 1944, 35 children from the San Felipe Courts housing project and 15 from the Irvington Courts project were among the 120 selected to attend.\textsuperscript{32}

Despite the obvious usefulness of child care facilities, some experts questioned the impact that such centers had on the development of children. The visiting chief of the California Child Welfare Services, Dr. Herbert E. Chamberlain, warned his Houston audience in December 1942 that “anxiety and emotional disturbances, insecurity, overexertion, malnutrition and many other factors are contributing to the undermining of child security in wartime . . . .” Chamberlain—apparently oblivious to the wartime conditions that forced many women to work—seemed to place the blame for these problems squarely on the shoulders of working mothers who left their children in the care of others during the day. He also foretold that the situation would only get worse. Women, he asserted, would be loath to return “to the kitchen sink. They are deriving too much pleasure and satisfaction in the manipulation of intricate machines, and in doing various jobs, some of which they do more adeptly than men . . . .”\textsuperscript{33}

\textsuperscript{32}\textit{Ibid.}, June 21, 1944, p. 1,10. Among those serving on the Wolff Home board were Rene S. Levy of Levy Brothers Dry Goods Store, Simon Sakowitz of the Sakowitz Brothers stores, and real estate investor Ben Taub.

\textsuperscript{33} \textit{Houston Chronicle}, December 10, 1942, p. 8B.
Even as late as 1944, the value of nursery schools and other forms of day care was the subject of heated debate on the Houston School Board. Several members objected to continued district funding for them on the grounds that they undermined the sanctity of the home. Dr. Henry A. Petersen charged that the existence of such centers "tends to break down the family unit," demanding to know, "[w]here will the child get his home training?" Two weeks later, a delegation of working Houston mothers appeared before the school board to plead for the continued funding of the day care centers and after-school programs. Interestingly, they petitioned the board not only to provide funds for the duration of the war but also in peacetime. Rather than emphasize the benefits to themselves, these working mothers stressed the value to the community of ensuring that children had places where they could make constructive use of their time after school. Leader of the delegation Mrs. Kathleen E. Houston pleaded: "We can not stand any more mental anguish. We can not endure more wondering whether our children are going to be on the streets. We have no other place to send them. We urge you to listen to the pleas of these children to be kept off the streets." This argument proved persuasive, prompting several conservative board members to change their vote to

---

34 Houston Post, September 12, 1944, p. 2,5.
favor the continuation of the child care program.\footnote{Houston Post, September 26, 1944, p. 1. Interestingly, a year later after V-J Day had ended the war, the issue of the continued HISD funding of child care centers arose again. As the national emergency came to an end, the FWA announced that funds for the Lanham program were being withdrawn and the school board was faced with the question of whether it wanted to take the lion’s share of responsibility for funding eleven different centers. Those members of the school board who had opposed HISD expenditures in this area in the past continued to do so. Some, including the outspoken Ewing Werlein, with the end of the war emergency apparently felt free to harshly question the motives of working mothers. They questioned whether many mothers had to work or, in fact, chose to do so. Again leading the response from working women was the redoubtable Mrs Kathleen E. Houston, who argued that circumstances still compelled many women to work. Houston pointed out that despite the end of hostilities, many husbands had been killed or remained overseas leaving their wives as the sole support for their families. Fearing that their pleas were falling on deaf ears in Houston, Mrs. Houston’s “Mothers Committee” petitioned President Truman to use federal funds to continue the life of the Lanham program. The telegram to Washington pleaded with the president that if the child care centers were not continued, 250 mothers would be forced to give up their jobs to look after their children and thus have to seek aid on the relief rolls. They implored: “[F]ive hundred and nine small children will be turned into the streets of Houston Saturday due to withdrawal of Lanham center federal funds for child care of working mothers.” Houston Post, August 29, 1945, p. 2.]}

Women like Mrs. Houston had good reason to worry about the supervision of their children outside of school. As working mothers, they had come under attack from some quarters based on the perception that without maternal supervision juvenile delinquency had become a major problem in Houston. The popular press was filled with sensationalistic

While the “Mothers Committee” appeal did not succeed in retaining the extensive federal funding for Houston day care centers, local charities did take up some of the slack. In October 1945, nearly two months after the end of the war, five agencies participating in the Harris County War Chest—the Houston Settlement Association, Jewish Community Center, Industrial Home, the Julia C. Hester House, and the Salesmanship Club’s Bayshore Recreation Home—agreed to continue operation of various child care facilities in 1946.Houston Chronicle, October 9, 1945, p. 4A. The Settlement Association operated day care centers for whites at Ripley House (4401 Lovejoy) and Caroline Greene Day Nursery (1712 Capitol—at Christ Church Cathedral (Episcopal)) and for Mexicans at Rusk House (401 Gable). The Jewish Community Center (4701 Caroline) ran a non-religious after-school youth canteen and recreation center. The Industrial Home (1815 Gano) served as a day care center and after-school center for children of low-income working mothers. The Julia C. Hester House (3605 Lyons) assumed operation of the day care center for blacks formerly run by the Fifth Ward Nursery School. Finally, the Salesmanship Club’s Bayshore Home in Seabrook provided a summer camp for children 6 to 12 years of age.
accounts of a whole new youth culture being spawned out of children left unsupervised by primarily working mothers. In July 1943 the Post reported that the rate of juvenile delinquency had skyrocketed since the war began. It cited figures that showed that 171 girls and 615 boys aged 10 to 18 were arrested in June 1943, a dramatic increase from the year before. In the previous June those numbers had been 72 and 368 respectively. The newspaper pointed to two factors as contributing to this alarming trend: a large concentration of servicemen in the area and the increase in mothers working away from home.\textsuperscript{36}

By citing these two specific factors, the Post alluded to what many Houstonians believed to be the most distressing aspect of working mothers: the breakdown of the family unit and conventional morality. In the early 1940s the Bayou City as it was known was still very much a conservative southern city where traditional sexual roles and norms held sway. Many apparently believed that without a maternal hand to guide them, girls and young women especially ran the risk of falling into what contemporary sources termed “sex delinquency.”\textsuperscript{37} There appeared throughout the war years reports of the so-called “V Girl” or “Victory Girl” who for either patriotic or less noble motives was known to “go out for a good time’ meeting soldiers, defense workers and others at beer parlors and elsewhere . . . .” According to the newspapers, these young women came from every

\textsuperscript{36}Houston Post, July 9, 1943, p. 2,1.

\textsuperscript{37}Ibid., October 16, 1943, p. 1,20.
walk of life—from student to housewife to office clerk.\textsuperscript{38} Popular outrage regarding this breakdown in accepted norms of behavior was further fueled by Houston Police Department reports that, on average, twelve Victory Girls were arrested per night by the morals division in various nightspots around town. Equally scandalous were the estimates that as much as 65 percent of the cases of venereal disease contracted by servicemen in Houston could be traced not to the city’s prostitutes but to amateurs, Victory Girls, who allowed the unique nature of wartime life to cause a lapse in their morality. While the prevalence of venereal disease in Houston was inarguably a serious problem and a blight on the city’s national reputation, it must be remembered that the city lay in what was probably the greatest concentration of military installations in the United States. The southern half of Texas was home to more than fifty army and navy bases and airfields. These included the multitude of facilities around San Antonio, the massive Corpus Christi Naval Air Station, and others. Many of the men stationed at these posts took their rest and relaxation leaves in the Bayou City, seeking out the entertainments and nightlife only Texas’s biggest city could provide. With so many soldiers, therefore, it is perhaps not surprising that rates of venereal disease exceeded national

\textsuperscript{38}Houston Chronicle, August 1, 1942, p. 11.
averages. In early 1944 the Post editorialized that over the course of the previous year the rate of juvenile delinquency had reached its highest level ever, double that seen in 1942, including a record number of “young wayward girls.” To their readers, the editors posed the following question: “are you going to punish a mother for parental neglect due to the fact that she works in a war plant? That’s what the authorities say is the principal cause of juvenile delinquency—mothers working . . . .” While the editorial admitted that such measures would be impossible, it left no doubt that it felt working mothers were indeed to blame. Such condemnation was, of course, simplistic. To simply blame such women was an easy solution to what was a complex problem. The city was changing, sometimes at an alarmingly rapid rate. While the wartime transformation of Houston from

---

39Ibid., June 19, 1943, p. 1. The contracting of venereal disease by servicemen stationed near or in transit through Houston was a matter of concern to many. In early 1942, the city was scandalized to learn that it had been named near the top of a government list of cities where soldiers and sailors were infected by these maladies calling it one of the worst culprits for such infections in the entire United States. The army in fact, in April 1942 threatened to make the city off-limits to its men if dramatic steps were not taken to control the spread of syphilis and gonorrhea. Houston Chronicle, April 12, 1942, pp. 1A & 5A. Later in the same year, it was rumored that due to “near-epidemic proportions . . .” the military was considering establishing an “isolation camp” near Houston to house women with venereal disease. Houston Post, September 22, 1942, p. 6. Taking such warnings as threats to the reputation and honor of the city, the municipal health department was given funds to greatly expand the v.d. clinic in the old Jefferson Davis Hospital. Houston Post, July 15, 1942, p. 1,6.

40Houston Post, February 1, 1944, p. 8. Houston was far from alone in its concerns regarding juvenile delinquency. Around the nation, observers noted a growth in disrespect for authority and traditional modes of behavior. Lee Kennett, For the Duration. . . The United States Goes to War, Pearl Harbor–1942 (New York: Charles Scribner’s Sons, 1985), 197.
a small southern city to a metropolis of national stature was exciting for
some, it was unnerving for others. Sudden infusions of new residents and
federal dollars seemed to push the city into a new era of social and
economic existence. As one observer has put it regarding the nation as a
whole: "the war was doing something unsettling. It was displacing people
socially, pulling them from their accustomed niches . . ."41 Traditional
morals seemed to be falling by the wayside as women went to work, blacks
began protesting their position in society, and the federal government
seemed intent on encouraging both. Historically, societies that undergo
rapid transformation often experience strong reactionary backlashes. The
condemnation levelled at Houston's working mothers may be seen as part
of a conservative, at times radically so, movement in Houston that began
during the Great Depression and would show itself most noticeably in the
postwar McCarthy-inspire Red Scare as the city continued its rapid process
of change.42

Women got somewhat mixed messages regarding their willingness to
seek outside employment. On the one hand, they were lauded for
participating in the war effort in factories and shipyards, while on the
other they were condemned—often by the very same people—for failing to
live up to the conventional standards of female behavior, including their

41Kennett, For the Duration, 196.

42For a detailed account of the extraordinary events of the anti-communist
movement in 1950s Houston, see Don E. Carleton, Red Scare! Right-wing Hysteria Fifties
responsibilities as mothers. As has been shown, the same editorial pages that lionized “Miss and Mrs. War Worker” also seemingly questioned her motivations. It was also unfair to lay the blame for an upswing in juvenile delinquency solely at the feet of working mothers. Rather, they seem to have been convenient scapegoats for a city and society that was changing in many ways.

This change was certainly felt by black Houstonians. By war’s end, blacks were earning slightly more than they had before it began, and they were slightly better housed. But most importantly, African Americans emerged from the years on the home front with a greater sense of assertiveness and a willingness to claim their rightful part of the American dream. Black Houstonians had participated in a fight against tyranny abroad and struck a blow for their rights at home.

By 1940, the black neighborhoods of Houston had reached a dangerous level of decay. A majority of the city’s 86,302 African American residents inhabited dwellings that were substandard, often dangerously so. Indoor plumbing was a rarity, and the primitive privies that many relied upon for sanitary facilities caused endemic health problems. Despite this, many white Houstonians knew little of the

---

43 While admittedly the opinion of a novice in women’s history, it does seem that in the mixed messages given World War II working mothers lies an early example of what today is referred to as the “Superwoman Myth,” the expectation that women must somehow effortlessly balance their jobs and families while giving short shrift to neither.

existence of the squalid conditions that existed in their own city, some within a half mile of the downtown business district. It would not be until the need for wartime housing became obvious that even the first steps, albeit limited and halting, were made to address what had become an appalling situation. By war’s end, a combination of public and private development had created thousands of new housing units to begin to meet the needs of the city’s burgeoning African American population. It was nowhere near enough, but it was a start.

The years of the Great Depression had brought an influx of rural blacks into the city where they crowded into an already overburdened supply of housing. By 1938, the situation in African American neighborhoods had grown so alarming that the newly formed Houston Housing Authority (HHA) specified that its first two undertakings would be in the Third and Fifth Wards where some of the most dangerous conditions existed. However, despite the considerable need, it would take the exigencies of the war emergency beginning in mid-1940 and intervention from the federal government to spur the HHA projects to completion. The HHA was seen by many in the commercial-civic leadership of Houston as an intrusion by Washington into local affairs, especially those, like slum clearance, involving race. As a result the HHA was beset by turmoil from its very inception, and it failed to complete even one of its six intended projects by 1940. Beginning that year, however, housing was transformed from a local issue into one of national importance. With the likelihood of
enormous federal investment in industry and other national defense installations in Houston, the question of where workers were going to live gave new life to the plans of the HHA and overwhelmed local objections to public housing.

The HHA plans called for two separate projects to address the housing projects of the black community. The first was Cuney Homes in the Third Ward, a 564-unit complex designed to cost $2,005,203. The second was the A. K. Kelly Courts, a 344 unit, $1,435,070 development in the city’s predominantly black Fifth Ward. Despite the creation of over nine hundred housing units for Houston blacks, the need for more was evident even before either Cuney or Kelly opened for occupancy. In October 1940 the HHA already had a waiting list of 1,141 applications from black families.

45 The Chronicle described the entire construction program as designed to create homes for 1,662 white families, 897 black families, and 348 Mexican ones. These numbers are contradicted slightly in the same story which indicates that the number of units available to blacks was actually 908. Houston Chronicle, October 6, 1940, p. 10C.

46 Cuney Homes was bounded by East Alabama, Cleburne, Tierwester, and Briley. This project actually consisted of two separate but neighboring developments: Cuney Homes and Cuney Homes Addition, or Annex, at McGregor, Tierwester, Cleburne, and Truxillo Streets. Kelly Courts was bounded by Green, Gregg, Hare, and Meadow Streets in the Fifth Ward north of Buffalo Bayou. Houston Chronicle, July 6, 1941, p. 1; October 6, 1940, p. 10C; Houston Post, December 2, 1941, p. 1,1; and January 9, 1942, p. 1,10. Cuney Homes was named for Norris Wright Cuney, a black leader of the Texas Republican party in the late nineteenth century. Kelly Courts got its name from prominent local African American philanthropist A. K. Kelly. James M. SoRelle, “The Darker Side of ‘Heaven’: The Black Community in Houston, Texas, 1917–1945,” (Ph.D. dissertation, Kent State University, 1980), 245-46.

47 Houston Chronicle, October 6, 1940, p. 10C.
Work on Cuney Homes began in July 1939 but had stagnated until
the U.S. began to move towards full mobilization for war in mid-1940. More than just bricks and mortar, the project was an attempt at social uplift. The physical design of the complex itself with open spaces and trees was meant to eliminate some of the ills and unhealthiness of overcrowding. In addition, two of Cuney’s sixty-three buildings were set aside for a community center and vocational education site where, the white newspaper reporter noted without a trace of irony, residents could learn “to make Waldorf salads, hors-d’oeuvres, chintz curtains or any other of the special niceties of middle class American life.”

In an attempt to give residents alternatives to the lure of the streets, the Cuney development also included features such as a library, a playground for children, and a recreation center for teenagers. The project proved so attractive to many Houston blacks that by July 1942, less than a year after opening, it boasted a population of 2,696. By that date, residents had made efforts to foster a sense of community, establishing a tenants’ association and a boys’ patrol responsible for keeping the housing project’s grounds tidy.

\*\*\*

48Ibid., July 6, 1940, p. 1.

49Ibid., February 26, 1942, p. 13A.

50Ibid., December 19, 1941, p. 1A.

51Ibid., July 5, 1942, p. 8D.
reinforced by announcement of the plans to build a new $3,500,000 campus for the Houston College for Negroes on land directly across Cleburne.52

Also spurred by the war mobilization, construction on the other black project, Kelly Courts, began in mid-1940 and the first forty families moved in on December 1, 1941. Building continued and as units were completed one by one, families from an extensive waiting list were allowed to move in. The project reached completion in January 1942 at a total cost of $1,800,000.53 The complex comprised sixty-three buildings spread across twenty-two acres, and each of the 333 units was equipped with an impressive range of modern conveniences including gas ranges and refrigerators. There were four different apartment configurations, from 3.5 to 6.5 rooms, designed to accommodate families of different sizes. Rents were based on families’ ability to pay. Those who earned less than $500 per year paid a lower rate than those with higher income levels.54

Despite being built largely to meet expected defense housing needs,

52Ibid., March 15, 1945, p. 4B. The Houston College for Negroes was at the time a part of the University of Houston and had been a four year institution since 1934. From its founding in 1927 as a junior college until the new Cleburne campus opened after the war, classes were held in the evenings at nearby all-black Jack Yates High School. Enrollment in this period ranged from 600–1,000 students at any one time and taxed existing facilities to their limits. In order to establish the college on land of its own, during the war a fund-raising campaign was launched jointly by members of the black business leadership and white civic leaders. By mid-1945 in addition to the $125,000 surplus accumulated from tuition fees, the black community had contributed $85,000 to the fund for purchase of the land and construction of campus buildings. Houston Chronicle, May 31, 1945, p. 6A.

53Houston Post, December 2, 1941, p. 1,5.

54Houston Chronicle, December 1, 1941, p. 10.
few residents of Cuney Homes and Kelly Courts found work in war plants. By early 1943 the Chronicle reported that only 10 to 15 percent of families living at the two projects included a defense worker.\textsuperscript{55} Reflecting the discriminatory hiring practices of many area war plants, this number is significantly lower than rates in the two white HHA projects, San Felipe Courts and Irvington Courts. In the former, 60 percent of residents were war workers, while in the latter the figure stood at 45 percent.\textsuperscript{56} Instead of high-paying defense work, a 1942 survey of Cuney Homes residents revealed that most still had the same types of jobs blacks had long held: porters, maids, common laborers, truck drivers, chauffeurs, waiters, and cooks.\textsuperscript{57}

In addition to new public housing projects pushed to completion by war-created demand, several new all-African American residential subdivisions were constructed by private developers, utilizing public funds. Unlike the two central-city HHA projects planned before the nation’s


\textsuperscript{56}\textit{Ibid.}, February 22, 1943, p. 1. As noted in chapter II, San Felipe Courts was located just west of downtown and though all-white was situated in the heart of the historically black Fourth Ward. Irvington Courts was built on the north side of the city and opened in 1942.

\textsuperscript{57}\textit{Ibid.}, July 5, 1942, p. 8D. While a small percentage of black HHA project residents were employed in the defense industry directly, many more held jobs that were also considered secondarily important to the war effort. Therefore housing these people fell under the general rubric of defense housing. Furthermore, the state of black housing was so deplorable that, with the large numbers of blacks migrating to the city, there existed the possibility of serious social and health problems if public funds were not allocated to construct dwellings for some of them.
buildup for war, most of these other settlements were built in close proximity to Houston’s defense industry, on the city’s east side near the ship channel. Designed to house the large numbers of rural dwellers migrating to the city in search of employment, new subdivisions sprang up in areas previously devoid of black inhabitants.

Most notable of these new black residential areas was a massive undertaking on land less than six miles from downtown, just south and east of the Turning Basin of the Houston Ship Channel, in the very heart of the city’s industrial district. Named for Clinton Drive that formed its southern boundary, Clinton Park when it was begun in August 1941 was the largest such development ever built exclusively for African Americans in the United States. The streets that crisscrossed the 206-acre site were all paved, and the 700 four and five room houses sat on 55-by-120 foot lots and were built of wood on concrete foundations. At full occupancy the developers of Clinton Park projected that it would be home to 4,000 African Americans.58 Although the project of a private firm, the Clinton Park Development Company, the vast majority of the funds needed for construction was provided by the Federal Housing Administration. Of the estimated $1,350,000 cost, $1,200,000 had already been loaned by the government agency prior to the beginning of construction in the summer of 1941. At the time, this expenditure was one of the largest yet earmarked by Washington for a defense housing project, black or white. 

58Ibid., August 9, 1941, p. 2A.
and is another example of a Houston company eagerly reaching out for federal funds to create opportunities for itself; the meteoric growth of "free enterprise city" was largely funded by federal dollars.

In the realities of the segregated Houston of the 1940s, the developers of Clinton Park found themselves faced with a problem after the first black families began to move into homes there. Surrounded by industrial and largely white residential areas, inhabitants of the subdivision found themselves forced to travel several miles each way to the Fifth Ward to find businesses that would serve them. With the prospect of stringent wartime gasoline rationing, such trips would become impossible for many to make. To help address this problem, the Clinton Park Development Company constructed a $30,000 community center in 1942 that included a 500-seat movie theater, drug store, medical clinic, restaurant, grocery store, and beauty parlor.59

Settlement at Clinton Park proved attractive to many Houston blacks, and its location on Clinton Drive near such war plants as the Hughes Tool Company’s Dickson Gun plant, Reed Roller Bit’s Tank Transmission plant, the Converted Rice Company mill, and Bethlehem Steel’s wire mill, ensured that some job opportunities would exist for residents at least for the duration of the war. So successful was the Clinton Park development that HISD was prompted to establish a new elementary school there—using

federal funds—for the 1942–43 school year.\textsuperscript{60} With wartime restrictions on construction, the district was not able to build permanent facilities for Clinton Park Elementary, and so the fledgling institution began life in six “cantonment-type frame buildings.” Each building consisted of two rooms and was erected from prefabricated components delivered to the site and easily assembled.\textsuperscript{61}

Despite significant progress, as represented by Clinton Park, Cuney Homes, and Kelly Courts, even as late as V-J Day much of the housing stock available to Houston blacks continued to be sub-standard, some horribly so. In mid-October 1945, with the war over, headlines screamed that 20 percent of the Houston metropolitan residential areas were “in slum condition.”\textsuperscript{62} In a series of articles for the \textit{Chronicle}, reporter Tom Lester profiled various sections of the city and described the deplorable state of housing and sanitary conditions he found there. Most of the slum areas featured were either in all-black or all-Mexican neighborhoods. Lester’s articles employ a mildly condemnatory tone when describing the shameful conditions that existed, often side-by-side, with upscale residential

\textsuperscript{60}Houston \textit{Chronicle}, September 18, 1942, p. 14A.

\textsuperscript{61} The Clinton Park school buildings were part of a $134,500 federal government grant to HISD to provide classroom space to selected “schools crowded by the children of war industry works [sic] in this area . . . .” The Post reported that of the 4 black schools with a total of 12 buildings being erected, Clinton Park received half—6 rooms. The remaining 37 temporary buildings were built at white schools. Houston \textit{Post}, January 6, 1942, p. 4.

\textsuperscript{62}Houston \textit{Chronicle}, November 15, 1945, p. 1.
and commercial districts. Lester argued that more than one-quarter of the city’s population inhabited slums that were “as bad as the worst slums to be found in any large city.” Lester also discovered that physical deterioration also led to social ills. He pointed out that the inhabitants of these blighted areas accounted for almost 42 percent of the city’s juvenile delinquency arrests.63

Alarming as the social environment of crime and lawlessness in Houston’s slums were, their effects were mostly felt among residents of those areas. Lester suggested that the more far-reaching impact of 25 percent of the city’s population living in squalor was the health risk that could affect anyone in the city.64 Overcrowding was commonplace in poor neighborhoods. Homes that had been designed for a single family were often subdivided into apartments for four or five, bringing a house’s total number of inhabitants to as many as forty people.65 Adding to the unhealthiness of such housing was its lack of modern sanitary facilities. In the city’s haste to expand in the first few decades of the twentieth century,

63Ibid., October 19, 1945, p. 5B.

64Lester also argued that the risk of massive fire originating in the city’s slum areas was another reason for action to ameliorate conditions. He pointed to the conflagration of 1912 in the Fifth Ward that caused $7,000,000 and made thousands homeless. While there had been no major blaze in Houston since that date, Lester stressed that the risk was a constant specter recognized by the fire department and insurance men who set key insurance rates for the city. This was a clever argument to persuade the decision-makers of the Bayou City who historically had shown themselves more inclined to take action on issues that threatened the economic well-being of the city as a whole. Houston Chronicle, October 31, 1945, p. 17A.

65Ibid., October 21, 1945, p. 8B.
it outpaced its ability to extend sanitary sewer service to all its residents. Instead, priority was given to commercial and upscale residential districts. As a result, indoor plumbing was a rarity in the slums of the Bayou City; most poor residents instead relied on ancient cesspools or even privies, many of which overflowed in the torrential storms that regularly strike the Gulf Coast. Even in those domiciles that could boast indoor toilets, they were usually shared by so many people as to themselves create a potentially hazardous—and certainly unpleasant—condition.66

Of all the areas profiled by Tom Lester in his 1945 series of articles, he reserved especial outrage to describe what he found around Lyons Avenue and Jensen Drive in the Fifth Ward, an area that was home to around 1,000 African Americans.67 He described trying to drive the streets of this area as an adventure best-suited for those who “do not care if they do break a spring or smash under parts on ridges between ruts and chug holes.” He went on to recommend visitors to bring “hip boots’ in case of rain and a gas mask for “comfort.” He deemed this latter piece of equipment advisable when he saw in the middle of some of the streets in the area a drainage ditch full of “rubbish, garbage of every kind, household filth.” At times, the stench grew so intense from the lack of proper

---

66Ibid., October 21, 1945, p. 8B; November 7, 1945, p. 11B; and November 14, 1945, p. 10B.

67Today, this area lies just north of the interchange of Interstate 10 and U.S. Highway 59, to the east of downtown.
sanitation that one local resident was quoted as saying: "We jest walks de sidewalk, or goes off somewhere and stays until we gets so tired de stink cain't keep us awake." Adding to the discomfort of those living in the area, Lester spied "millions of mosquito larvae wiggling to and fro" that would no doubt grow up to torment their human neighbors and spread disease. As horrific as this description of one black neighborhood may have seemed, it was far from alone in the city. Not only were many of the existing African American areas full of substandard and unsanitary conditions, because of Houston's laissez-faire approach to city planning and its relaxed building code there was little hope in sight for an end to the problem. In late November 1945 Lester pinpointed nearly fifty residential building permits issued in the previous three months that made no plans for connections to the sanitary sewer system. According to the city building code, this was perfectly legal if a sewer line was more than 300 feet away. Since minority neighborhoods were most likely to be without sewer service, this ordinance allowed for the perpetuation of slum conditions where they already existed. According to Lester's map depicting the locations of these new building projects, a substantial majority of them

---

68 Houston Chronicle, November 18, 1945, p. 1. Due largely to the deplorable state of housing stock in African American neighborhoods, the rates of disease and infant mortality were far higher than in white sections. Tuberculosis, for example, ran at almost 3.7 times the white rate. John Davidson and Robert Fisher, "Social Planning in Houston: The Council of Social Agencies, 1928-1976," Houston Review, XVIII (1996), 3.
were located in black neighborhoods, especially in the Fifth Ward.69

Due in large part to the federal government, and that was key, housing for black Houstonians did improve between 1940–45. However, as the city’s population grew, even these efforts proved insufficient. Blacks remained desperately poor, and without addressing this fundamental problem, the state of their housing would not change overmuch.

Employment of blacks in Houston had long been severely limited by the dictates of Jim Crow society. James M. SoRelle has charted black occupational classification and mobility from 1920 through 1940. His figures demonstrate what one might guess: the city’s African American population held proportionately fewer jobs than did the white population. The vast majority of black wage earners worked as domestic servants or unskilled workers, the two lowest status occupational classifications in SoRelle’s schematic. In addition, black employment patterns showed very little room for advancement, the ability to, say, move from unskilled to

---

69 Houston Chronicle, November 25, 1945, p. 9B. Sadly, the state of housing among many of the most economically disadvantaged of Houston remained deplorable. In 1947, the HHA reported that 29 percent (around 34,000) of the city’s residential structures were “substandard.” 51.3 percent of the black population resided in such dwellings compared to 20 percent of whites. Most notorious of all the slum homes was a tenement known as “the Ark” and home to 60 black families. Another tenement held 56 families living 10 to room and sharing a single outdoor toilet. “The People of Houston vs. Slums: Annual Report of the Housing Authority of Houston, 1947,” 1, 4, and 18. The situation did not improve much in the next two years. In 1949 the Informer reported that over 50 percent of Houston blacks lived in substandard dwellings. Houston Informer and Texas Freeman, April 23, 1949, p. 17.
semiskilled employment.\textsuperscript{70} While a small group of black businessmen and professionals did exist, by 1940 even their meager numbers had fallen by 22 percent since 1930.\textsuperscript{71}

Initially, the war in Europe and the stimulation to Houston industry seemed to hold a promise for the city’s black workers of higher wages and better jobs. Unfortunately the reality failed to live up to the potential, and many African Americans found the same old barriers in place. When the United States war effort went into high gear in the second half of 1940, black leaders in Houston sought to ensure that the bonanza of wartime employment that had begun to roll into the city did not bypass their community. Carter Wesley, prominent local businessman and publisher of the influential black weekly \textit{Houston Informer and Texas Freeman}, served as the Texas State Director of Allied Counsels and worked both to rally African Americans to support the war effort and to ensure that employment opportunities were opened for them. He helped establish a


\textsuperscript{71}SoRelle, “Darker Side,” 124. In 1940, census records show that 75.1 percent of black Houstonians held jobs classified as domestic service and unskilled workers; 18.1 percent were skilled and semi-skilled workers; 2.1 percent worked as clerical, sales, or kindred workers; 1.8 percent of blacks were proprietors, managers, and officials; and 2.9 percent worked as professional or semi-professional workers. Reprinted in Wintz, \textit{Blacks in Houston}, 22.
statewide network of committees to investigate complaints of discrimination at war plants. Wesley's effort was given added impetus in June 1941 when President Roosevelt issued Executive Order 8802 forbidding employment discrimination by companies receiving government contracts and establishing the Fair Employment Practices Commission (FEPC). 72 Unfortunately for Wesley and other African Americans, the noble intention of the president's act was blunted by limited enforcement on the local level. The federal government did not make exhaustive efforts to ensure that the prohibition on discrimination was followed in the South. As a result, historian David R. Goldfield points out, "[t]he wartime employment bonanza in Southern defense industries was primarily for

72 The creation of the FEPC was the direct result of a wartime spirit of assertiveness that developed among African Americans. Leader of the all-black Brotherhood of Sleeping Car Porters, A. Philip Randolph, unhappy about the exclusion of blacks from many war industries and their limited role in the armed forces, formed the March on Washington Movement (MOWM) in January 1941 to bring pressure to bear on the federal government to implement changes. Randolph called for 100,000 African Americans to converge on the nation's capitol on July 1, 1941 in a mass demonstration to protest their subordinate role in society. Fearing the impact of such an event on the national preparedness program and prompted by the social consciousness of his wife Eleanor, President Roosevelt arranged to meet with Randolph on June 18 at the White House. At this eleventh hour meeting an agreement was hammered out that resulted in the issuance on June 25 of Executive Order 8802. This act established the Fair Employment Practices Commission to ensure the end of "discrimination in the employment of workers in defense industries or Government because of race, creed, color or national origin . . . ." As a result of 8802, Randolph canceled the march on Washington. John W. Jeffries, Wartime America: The World War II Home Front (Chicago: Ivan R. Dee, 1996), 108–11 and Steven F. Lawson, Running for Freedom: Civil Rights and Black Politics in America Since 1941 (New York and others: The McGraw-Hill Companies, Inc., 1997), 8–12. For Eleanor Roosevelt's influence on her husband's decision to establish the FEPC and on other matters of black civil rights, see: Doris Kearns Goodwin, No Ordinary Time: Franklin & Eleanor Roosevelt: The Home Front in World War II (New York and others: Simon & Schuster, 1994), 246–53. For more on the operation of the FEPC in the Houston area, see Ernest Obadele-Starks, "The Road to Jericho: Black Workers, The Fair Employment Practice Commission, and the Struggle for Racial Equality on the Upper Texas Gulf Coast, 1941–1947," (Ph.D. diss, University of Houston, 1996).
whites only."73

In Houston and across the state, the early boom in the defense industry that occurred in 1940 and 1941 only indirectly benefitted the African American community. At this early stage, the pool of white workers still unemployed or underemployed after the economic hard times of the Great Depression provided the bulk of the newly hired workers in war plants.74 In these years, black Houstonians replaced whites in low-paying jobs provided by the private sector or by New Deal agencies like the WPA. Indeed, so many whites went off its rolls in Texas that in 1941 the WPA projects in the state boasted the largest number of black workers of any southern state.75

Despite the efforts of Houston area employers to limit or altogether bar black employment, white intransigence proved untenable in the long run. By mid-1942 most businesses were pushed by forces beyond their control to draw more heavily on African Americans to fill vacancies

73David R. Goldfield, Promised Land: The South since 1945 (Arlington Heights, Ill.: Harlan Davidson, 1987), 18. Partly as a result of the continued discrimination against them in southern industry, blacks left the region in massive numbers during World War II. Lured by the prospects of more equitable treatment in war plants of Detroit and California, over a million African Americans migrated during the 1940s, most between 1941 and 1945. Goldfield, Promised Land, 24. While Texas provided more opportunities for blacks in defense work, it saw a net out-migration of approximately 75,000 in the 1940s. In the same period the state gained more than 125,000 white inhabitants. Jack Temple Kirby, "The Southern Exodus, 1910–1960: A Primer for Historians," Journal of Southern History, XLIX (November 1983), 591.


75Houston Informer and Texas Freeman, June 28, 1941, p. 3.
created by high rates of labor turnover as a result of white men entering the armed forces.\textsuperscript{76} For the next three years, some blacks did find skilled, high-paying employment in war plants and other establishments.\textsuperscript{77} However, evidence suggests that far more filled positions that emphasized physical labor rather than specialized abilities and were paid correspondingly lower wages. According to a War Manpower Commission (WMC) report in January 1943, 6,740 (10.7 percent of that total) workers in the bulk of defense plants of Houston were non-whites, representing an increase of 3,027 over the previous July. The report noted, however, that “the colored worker in the area is generally restricted to unskilled occupations and the majority of the increase in utilization since July has resulted from replacement of whites by non-whites in unskilled jobs.”\textsuperscript{78} Despite strides made in the employment of blacks in some war plants, even as late as April 1944 among some white employees there was significant resistance to having large numbers of African Americans in

\textsuperscript{76}In December 1942, 6.6 percent of Texas defense industry workers were black. By the end of the war that figure had nearly doubled, to 12.1 percent. Despite this improvement, the latter number was still smaller than the black proportion of the state’s population. And unfortunately, the employment gains registered by the black community would prove fleeting. When postwar industrial reconversion occurred, many blacks were pushed out of skilled jobs and relegated to semi-skilled or unskilled positions or dismissed altogether. Sapper, “Survey,” 266.

\textsuperscript{77}\textit{Ibid.}, 237.

others. Another WMC report noted that “the attitude of many of the employees already at work [toward hiring more blacks] was inimical or, at best, negative.”

Perhaps not surprisingly, the industry that engaged more blacks than any other was shipbuilding. As the biggest wartime employer in the city, HSC and Brown Shipbuilding eventually employed hundreds of African Americans but utilized them in a manner consistent with the dictates of a segregated society. Management was careful to try and avoid situations in which black and white workers might come into close contact, especially after a June 1943 race riot in nearby Beaumont that was touched off.

---

79 War Manpower Commission, “Manpower Problems, Programs and Results of Programs in Houston Labor Market Area,” April 10, 1944, p. 16. Box 1 Miscellaneous Houston Chamber of Commerce, 1943–46, Albert Thomas Papers (Woodson Research Center, Fondren Library, Rice University, Houston, Texas).
largely by the mingling of black and white workers at a shipyard. The Beaumont race riot began when a mob of white workers at the Pennsylvania Shipyards, with a long history of dissatisfaction with sharing their workplace with blacks, heard of an alleged attack on a white yard worker’s wife by a black man. Thousands shipbuilders marched from the shipyard to the city jail and unable to produce the suspect went on a rampage throughout the black section of Beaumont in the early morning hours of June 16th. More than a hundred homes were looted and burned, over 300 blacks were injured, and two blacks and one white were killed before the Texas Rangers and national guard units could arrive on the scene to restore order to the city. Houston Post, June 17, 1943, p. 1,9. Occurring as close to the Juneteenth holiday commemorating the reading of the Emancipation Proclamation in Texas on June 19th, Houston authorities feared that their black residents might use the occasion as an excuse to engage in unrest to retaliate for the violence in Beaumont. The Post editorialized on June 17th warning Houston blacks to resist the temptation to resort to mob activity, arguing that such action “would bring only tragedy and grief” and resound nationally as “evidence of the South’s inability to cope with its own racial problem.” Houston Post, June 17, 1943, p. 1,6. The next day the three Houston daily newspapers all ran an advertisement warning against any “racial troubles” on Juneteenth. To add to the persuasiveness of its argument, the ad took a patriotic tack stressing that civil disturbance would “do Hitler’s work.” Signatories to the notice included the mayor pro tem, city manager, chief of police, and president of the Houston Negro Chamber of Commerce. Houston Post, June 18, 1943, p. 1,2. For a detailed account of the Beaumont riot see: James A. Burran, “Violence in an ‘Arsenal of Democracy’: The Beaumont Race Riot, 1943,” East Texas Historical Journal, XIV (Spring 1976), 39–51. Burran argues that much of the pent-up violence that was unleashed in June 1943 was the result of rapid change in the small East Texas city coupled with overcrowding.

Racial tensions ran high across the nation that spring and summer, for in addition to the violence that took place in Beaumont, Mobile, Los Angeles, Detroit, and New York City experienced racially motivated unrest. Mobile In Los Angeles the series of clashes local Mexican teenagers and sailors were collectively called “Zoot Suit Riots” and took place between June 8–11. Houston Post, June 11, 1943, p. 2,8. In Detroit tensions had been festering since a dispute between whites and blacks over residency in the Sojourner Truth public housing projects had broken out in February 1942. Events came to a climax on June 20, 1943 when a hot summer day turned violent at the city’s Belle Isle recreation area. In the ensuing four days, 25 blacks and 9 whites would die, more than 800 would be injured, and $2,000,000 in property would be damaged or destroyed. Richard Polenberg, War and Society: The United States, 1941–1945 (J.B. Lippincott Company: Philadelphia, New York, and Toronto, 1972), 126–29 and Richard R. Lingeman, Don’t You Know There’s a War On?: The American Home Front, 1941–1945 (G.P. Putnam’s Sons: New York, 1970), 323–329. For detailed monograph length accounts of the Detroit race riot see: Alfred McClung Lee and Norman D. Humphrey, Race Riot (New York: The Dryden Press, 1943) and Robert Shogan and Tom Craig, The Detroit Race Riot: A Study in Violence (Philadelphia: Chilton Books, 1964). Later that summer, in August, another bloody outbreak occurred in Harlem that killed three blacks and injured 300. Jeffries, Wartime America, 114–115. With the exception of New York all the cities that experienced racial unrest were defense “boom towns” that like Houston had experienced a great deal of rapid change to their economies, populations, and social fabrics. Therefore, when city leaders took efforts to ensure that violence would not occur in Houston they did so not from irrational motives but out of reasonable concern to prevent the devastation wrought on other centers of war production.
Unlike the radical segregation undertaken at the Alabama Dry Dock and Shipbuilding Company in Mobile where entire separate ways were set aside for black crews of welders, riveters, and others to build vessels, yards in Houston seemed to have avoided the problem by relegating the vast majority of their black workers to the most unskilled positions in which they did not have to work side-by-side with whites.\textsuperscript{81} As late as February 1943, Brown Shipbuilding was cited in a WMC Report as “restrict[ing] . . . non-whites to unskilled labor.” A plan to modify this policy, “has been approached, but not completely worked out. Tentative plans envision special crews of non-whites in selected semi-skilled occupations.” At the time, about 10 percent of the yard’s employees were non-white.\textsuperscript{82} At HSC, the same report noted that while blacks represented only about 6 percent of the yard’s work force and were restricted to unskilled positions, their “proportion . . . on the payroll is gradually increasing as a result of a policy of replacing white workers who have been upgraded from unskilled occupations with non-whites.”\textsuperscript{83}

\textsuperscript{81}Polenberg, \textit{War and Society}, 120.


\textsuperscript{83}\textit{Ibid.}, 11 & 24. The other major shipbuilding company in the area, San Jacinto Shipbuilders pursued a similar employment policy, using blacks in unskilled positions only. \textit{Ibid.}, 12.
shop, there was a gendered component to all of this continued
discrimination in the workplace. Recall that in addition to blacks gaining
some foothold in many Houston area war plants, white women were being
employed in record numbers. In the traditional southern mores of the
time, close proximity of white women and black men was unacceptable.
Concerns for what might occur in such a situation led at least one employer
to prefer hiring black women to black men.  

While precise numbers are difficult to attain, anecdotal evidence
suggests that in the five years of wartime more blacks found wartime
employment in shipyards than in any other type of war plant in Houston.
This was largely because HSC and Brown Ship were the most labor-intensive enterprises in the city and they experienced some of the highest
rates of work force turnover. Unlike in shipbuilding, however, African
Americans seem not to have made significant inroads into Houston’s most

84 The employer was the Lummus Company, a construction firm involved in many
defense projects. War Manpower Commission, “Manpower Problems, Programs and
Results of Programs in Houston Labor Market Area,” April 10, 1944, p. 16. Box 1
Miscellaneous Houston Chamber of Commerce, 1943–46, Albert Thomas Papers
(Woodson Research Center, Fondren Library, Rice University, Houston, Texas).

85 While accurate measurement of the number of blacks who found employment in
Houston shipyards at some point during the war are difficult to obtain, there is little reason
to believe that the figure falls into line with certain trends observed nationally. Between
September 1942 and March 1943 as the wartime draft reached its highest levels and white
male labor became scarce, the percentage of blacks in the shipyard work forces of the U.S.
climbed from 5.5 percent to 8.4 percent. Lester Rubin and William S. Swift and Herbert
in the Shipbuilding, Longshore, and Offshore Maritime Industries (Philadelphia: Industrial
Research Unit, The Wharton School, University of Pennsylvania, 1974), 33 and Herbert
R. Northrup, Organized Labor and the Negro (New York: Harper & Brothers Publishers,
1944), 212.
important permanent industry, petroleum. Refiners like Humble and Shell experienced enormous growth in the war years but did so without major expansion of their work forces. Their number of employees remained relatively stable and skilled, offering few opportunities for blacks to make inroads.

Humble Oil and Refining, the Houston area’s largest oil company provides an example of the barriers to black employment in the industry. In 1943 Humble employed 1,160 skilled workers, only 1 of whom was black.\textsuperscript{86} Howard Halsey, a construction supervisor at Humble Oil and Refining’s Baytown refinery, recalled that even in the least skilled occupations, those of workers on the numerous wartime construction projects undertaken to expand the Baytown facility, few blacks or Mexicans were employed. In an interview conducted in 1960 he was asked: “You had negroes and Mexicans working for you?” He responded: “No. No. No, never did have any Mexicans on, they were all white men.” He went on to add that minorities were occasionally used on: “a low grade of labor work. In other words, it was—well, not fit for a white man, see. They

had fellows like Mexicans and niggers that would want a job . . . .” 87 And even the few jobs available to African Americans were difficult to obtain. To land a position at Humble regardless of how menial, a black applicant was required to have a white employee vouch for his or her character and conduct. 88 Discrimination did not end with getting a job. Once employed, an African American could expect to earn significantly less than whites doing comparable work. 89

Other Houston war industries such as ordnance production that became major employers utilized black labor to varying degrees. Hughes Tool was known to rely on blacks for as much as 35 percent of its work force, in mostly unskilled heavy labor positions. Most companies, however, like Reed Roller Bit, Cameror Iron Works, and others that engaged in work requiring precise use of machine tools and other equipment, seem to have been dominated by white employees, with blacks filling most of the less skilled and unskilled laborer and custodial

87 Interview with Howard Halsey by Maude Ross, January 27, 1960, Tape No. 213, Transcript p. 22, in Oral History of Oil Industry, Pioneers in Texas Oil Collection (Center for American History, University of Texas, Austin, Texas).


The discrimination in hiring for skilled positions was one of the most frustrating aspects of the black wartime employment experience. This disappointment was sharpened by the presence in Houston of a number of state and federal programs designed to provide training in skills such as welding to the city's African American workers. It was as if the government was leading them to water and the employers were refusing to let them drink.

In October 1941, less than two months before the Japanese attack on Pearl Harbor, a plan was announced to train black Houstonians for employment in the defense industries. Classes were to be held at the three black high schools in subjects such as carpentry, general electric work, automotive repair and maintenance, and training "for work as chefs and bakers pursuant to possible duties in army camps and civilian life . . . ." Note that these early courses offered instruction in rudimentary skills that were not applicable to the higher paying jobs in shipbuilding and other war

---

Despite this fact, even relatively low-paying semi-skilled jobs in war work such as carpentry appealed to African Americans because they were more remunerative than those already held by most black Houstonians. That a significant number took such positions was made evident by the shortages reported in occupations traditionally dominated by African Americans. Affluent whites found domestic servants difficult to retain in the face of better pay elsewhere at local war plants. The city experienced similar problems. Garbage pickup, long dominated by black workers, slowed enough to become an issue in September 1943 when it was estimated that 15 to 20 percent of municipal trash trucks were out of service on any given day due to the shortage of African American laborers.

While a modest boost in income no doubt satisfied many blacks, others decried their lack of access to higher-paying jobs. In 1941 and 1942 editor Carter Wesley of the Houston Informer and Texas Freeman routinely used his weekly editorial column, "The Ram’s Horn," to complain about this situation and to call for greater employment of African

---

91 The three black high schools in the Houston Independent School District were Booker T. Washington High School, (Fourth Ward) Jack Yates High School (3rd Ward), and Phyllis Wheatley High School (Fifth Ward). Houston Chronicle, October 26, 1941, p. 13.


93 Houston Post, September 10, 1943, p. 2,1.
Americans in all types of industry. Another voice of protest against the unwritten rules barring blacks from certain jobs was the biracial Houston Commission on Interracial Cooperation, which made the issue the center of its February 1942 meeting. At the gathering attended by some 1,000 persons, Rabbi Robert I. Kahn attacked such discrimination, deeming it unpatriotic in light of the labor shortage being caused by the war. He suggested a parallel between the results of employment discrimination in the United States and the plagues visited upon ancient Egypt for its enslavement of the Jews. Kahn posited that if America proved unsuccessful in the present war, the failure might be due to the injustice that it had perpetrated upon its black population.

Eventually, the labor shortage described by Kahn grew so acute that Houston employers had little choice but to look to blacks to fill a growing number of skilled positions. In December 1942 the Post reported that the Jackson School of Welding had opened a branch at 2406 McKinney to train blacks for welding jobs in the shipyards. In February 1943 the Informer described the new facility opened at 1227 Dart to train African Americans in eight different advanced skills in demand at the area's war plants, including welding and machine tool operation. The training center was

---

94 Houston Informer and Texas Freeman, see January 24, 1942, p. 4; March 21, 1942, p. 5; and April 4, 1942, p. 4.

95 Houston Post, February 9, 1942, p. 1,14.

96 Ibid., December 20, 1942, p. 2,12.
able to offer its courses at no charge through joint sponsorship by city, state, and federal education authorities. Later that same year, Texas A & M College added to the technical training opportunities available to Houston blacks. The free classes, held at the Houston College for Negroes, taught such skills in demand as engineering drawing, drafting, and blueprint-reading.

While higher paying jobs requiring specific skills slowly become available to the city’s black population, the wages they received was usually lower than the pay white workers received for comparable work. The help-wanted pages of the local newspapers show that despite federal government decrees to the contrary, there was clearly a wage scale based on race. Employers such as the Houston Shipbuilding Corporation, Port Houston Iron Works, Armco Metal Products, and other companies with government contracts routinely made calls for “colored welders” and other designations. Clearly, the reason one advertises for people of a certain race is out of an intention to pay them differently than other workers. And it is safe to surmise that blacks would command a lower wage than would

---

97 Houston Informer and Texas Freeman, February 5, 1943, p. 6.


99 For just a few examples of the race-specific help-wanted advertisements that routinely appeared in Houston papers, both white and black, see: Ibid., July 14, 1943, p. 16; July 19, 1943, p. 12; October 4, 1943, p. 12; October 8, 1943, p. 1,14; and March 11, 1944, p. 3. Even with the increase of blacks filling skilled jobs in war plants and elsewhere, most companies advertising for “colored” workers did so to fill jobs that required little special training. Many jobs for African Americans were still described in ads as custodial or to engage in tasks like unloading rail cars.
whites.

While World War II presented a mixed bag of results for Houston blacks in terms of obtaining access to employment and decent housing, more concrete were the strides made in the realm of civil and political rights. Many historians point to the war years as a watershed in the role of blacks in American society.100 Many African Americans recognized the irony of fighting against totalitarian regimes that trampled on human rights while living as second-class citizens in their own homeland. They were also emboldened by the relative receptiveness of the Roosevelt administration to their concerns. Contemporary observers noted at the time that there was something in the air that seemed to portend change. As Gunnar Myrdal wrote in his seminal work An American Dilemma: The Negro Problem and Modern Democracy, published during the war, “[t]here is bound to be a redefinition of the Negro’s status in America as a result of this War.”101


The tenor of the times that Myrdal observed was certainly felt in the African American community of Houston. Blacks in the Bayou City had long held a reputation for the relatively easy accommodation that they seemed to have made with white society.\textsuperscript{102} That the placid surface, however, concealed surprising depths of assertiveness only became clear in the crucible of change that was World War II. Even before the war, the groundwork was in place for Houston blacks to challenge their place as second-class citizens. The city could boast of the first chapter of the National Association for the Advancement of Colored People (NAACP) in Texas, an active chapter of the Urban League, and several socially conscious black newspapers.\textsuperscript{103} Even during the war, a grass-roots movement brought about the equalization of black and white teacher salaries within the Houston Independent School District (HISD).\textsuperscript{104}

Largely because of the rapid changes that war brought to Houston, the city became the unquestioned center of an attack on the white primary that effectively barred blacks from voting in the southern states. Led largely by the strength of the local chapter of the NAACP, national leaders of that organization, including Thurgood Marshall, selected Houston as the

\textsuperscript{102}For a discussion of this, see SoRelle, “Darker Side,” iv–vi and ch. 1.


\textsuperscript{104}This episode occurred in April 1943 when the Negro Teachers and Principals Association initiated a “friendly suit” against the school board to equalize teachers’ salaries. The matter was settled in less than a week when the board agreed to phase in a pay increase over a three-year period. Houston Post, April 6, 1943, p. 6 and April 13, 1943, p. 9.
most promising location for its continuing attack on the white primary.\footnote{Texas and Houston blacks had been deeply involved in the legal battle over the white primary for a number of years. In 1927, El Paso resident Lawrence A. Nixon was the plaintiff in an NAACP organized suit, \textit{Nixon v. Herndon} that went to the U.S. Supreme Court in 1927 to strike down the Texas state law that banned blacks from voting in Democratic party primaries. The court ruled in Nixon's favor, but it proved a hollow victory. The Texas legislature quickly removed the offending statute but granted political parties, as private entities, the right to create their own membership restrictions arguing that since the Democratic primary was not an election of public officials but rather that it was a means of selecting candidates. This was technically true, however, in a single-party state like Texas, the two functions were for all intents and purposes fused. Frustrated at the result of the earlier suit, Nixon and the NAACP filed a new suit, \textit{Nixon v. Condon} in 1928. In 1932 the case reached the U.S. Supreme Court. Again, the justices ruled in favor of the plaintiff arguing that the responsibility for setting party membership guidelines lay not with a state executive committee but through a vote in a state party convention. Again this decision was less helpful than Nixon and the NAACP had hoped. But now, the focus of the attack on the white primary shifted across the state to Houston where energetic local lawyers agitated to get the chance to spearhead the attack on the white primary. Carter Wesley, J. Alston Atkins, and James Nabrit rallied public support for such an effort and put forward Richard R Grovey, a black Houston businessman and civic leader, as a candidate for a new lawsuit. In 1935 \textit{Grovey v. Townshend} reached the U.S. Supreme Court, which ruled that the Democratic party was indeed a private organization with the right to limit its own membership. The results of the Grovey decision proved so devastating that it would be nine years until Houston blacks again made an effort to challenge the white primary. Robert V. Haynes, "Black Houstonians and the White Democratic Primary 1920–45," in Howard Beeth and Cary D. Wintz, eds., \textit{Black Dixie: Afro-Texan History and Culture in Houston} (College Station: Texas A & M University Press, 1992), 195–202; Darlene Clark Hine, "The Elusive Ballot: The Black Struggle Against the Texas Democratic White Primary, 1932–1945," \textit{Southwestern Historical Quarterly}, LXXXI (April 1978), 373–388; and Lamar L. Kirven, "A Century of Warfare: Black Texans" (Ph.D. dissertation, Indiana University, 1974), 172–180.} Heartened by the 1941 U. S. Supreme Court decision in \textit{United States v. Classic} involving voting fraud in Louisiana that ruled that primaries as part of the process of congressional elections came under federal authority. Marshall and his allies agreed that the time was right to test the legal waters and push for an end to an institution that effectively barred a large portion of the nation's black citizens from exercising their constitutional right to vote. They began making preparations to file a case on behalf of a black Houston plaintiff.
On July 27, 1940, dentist Lonnie Smith attempted to vote in the 48th Precinct in Houston in the Democratic party primary. After appearing before election judges S. E. Allwright and James E. Luizza, Smith was refused a ballot. Seeing in him the sort of educated and dignified plaintiff that would be a good symbol of their cause, Thurgood Marshall along with local black lawyers filed suit on Smith’s behalf in April 1942, basing their case on the *Classic* decision and seeking to overturn the white primary. *Smith v. Allwright* made its way through district court and the circuit court of appeals, both of which ruled that primaries were strictly the province of political parties. On a writ of certiorari, the case reached the United States Supreme Court in the October term of 1943. Marshall presented his case to the court in November 12, 1943, and after delaying to accept an eleventh hour brief from the Texas attorney general, the court reached a decision in January 1944. Voting 8 to 1 in what one scholar has described as “the most important decision since Emancipation . . .,” the court overturned *Grovey v. Townsend*, ruling that the Democratic party could no longer bar blacks from membership.  

106 In the majority opinion, Justice Stanley Reed wrote: “[the United States is a constitutional democracy. Its organic law grants to all citizens a right to participate in the choice of elected officials without restriction by any state because of

---

race. . . ." Heading off charges of inconsistency with past decisions, Reed averred that, "when convinced of former error, this Court has never felt constrained to follow precedent."\textsuperscript{107}

While the black press waxed ecstatic over the outcome of \textit{Smith v. Allwright}, its immediate impact in Houston was not dramatic. There was, as one historian wrote, "no mad rush" of blacks to vote in the immediate aftermath of the court ruling.\textsuperscript{108} In the next primary election, 2,618 African Americans in Harris County cast ballots.\textsuperscript{109}

While black Houstonians were making themselves noticed in unprecedented ways, the city's other major minority remained largely unseen. Of the three groups examined in this chapter, Mexicans were undoubtedly the most forgotten of the forgotten Houstonians. There are several reasons why this was true. Certainly, Mexicans were far fewer in number than either women or blacks. One source put Houston's total Mexican population in 1940 at approximately 20,000, but that number can

\textsuperscript{107}\textit{Smith v. Allwright}, 321 U.S. 660, 661, 64 Supreme Court 757 (1944).


\textsuperscript{109}Houston \textit{Post}, July 25, 1944, p. 5.
only be seen as an estimate.\footnote{Mary Ellen Goodman and Don des Jarlais, *The Spanish Surname Population of Houston: A Demographic Sketch* (Houston: Rice University Press, 1968), 2. As evidenced by their work's title, Goodman and Jarlais rely on the appearance of last names from the federal census to make determinations regarding ethnicity. This is obviously a tricky task as names do not always clearly reflect their bearer's ethnic background. A number of circumstances might cause such an approach to be inaccurate, including: change of name (either through marriage or other reasons), indistinct names, and others. That said, there is probably no better method at approximating the city's Hispanic population in 1940 and surname analysis does result in a rough workable estimate.} In census returns, the only persons whose Mexican identity was made clear were those actually born in Mexico. In 1940, 5,035 such Mexicans were enumerated and listed in the "foreign-born white" category. Others, both citizens and aliens, were simply lumped in with the general white population, making an exact count difficult to make.\footnote{Statistics for Census Tracts: 1940, Houston, Texas, 11. Box 13, Houston, City of 1939–46 folder. Albert Thomas Papers (Woodson Research Center, Fondren Library, Rice University, Houston, Texas).} In some ways, these differing census terms reflected Houston society's ambivalent feelings towards Mexicans. When it served their purposes, Anglos referred to them as white. However, in most situations Mexicans were considered something different and non-white. It is perhaps this divided view of Mexicans that caused them to be the most marginalized, least visible residents of the city.

Also contributing to the near invisibility of Houston's Mexican community, at least from a historical perspective, was the lack of a mass circulation newspaper catering to it. While small neighborhood or other types of publications no doubt existed, they have not survived in archival collections to aid researchers in attempting to recreate the lives of
Mexicans in Houston in the World War II era. Instead we must rely on scattered letters and pamphlets and the representations of Mexicans projected through the prism of the white press.

Like blacks, most Mexicans in Houston lived in housing that was decrepit and lacked the most basic sanitary facilities. To ameliorate some of these conditions, the original plan of the HHA called for the construction of a segregated housing development to serve the needs of Latin Americans. However, it was given lower priority than either the two white or the two black projects, all of which were completed either just before or during the war. Those leaders in the Mexican community with possibly enough visibility and influence to push for the completion of a housing project, refused to do so. Reflecting the strange racial middle-ground that they occupied, men like Mexican American attorney John Duhig protested the separation of Mexicans from other whites in a facility of their own, arguing that such a move would undermine efforts at "Americanization." Without exactly saying so, Duhig understood that the nation’s biracial ideology essentially classified people as either white or black, and any indication that Mexicans were not white would push them toward classification as black. In May 1940, Duhig protested to city council the proposed construction of a segregated housing project for Latin Americans, claiming: "[e]very time segregation is practiced, the American citizen of Mexican extraction is set back many years in his
Americanization.”

What impact Duhig and other Latin American leaders had on the HHA decision is unclear, but the agency did refrain from moving forward with its Mexican project for more than a decade.

Despite the complex motives that lay behind Duhig and other Mexican leaders’ attempts to halt the segregation of their people in a housing project, in many ways they also did them a disservice. Mexicans in Houston barrios desperately needed new housing, even the limited amount being planned by the HHA. Descriptions made during the war years indicate just how badly relief was needed from the appalling squalor. Bertha Wolf was a social worker with the Houston Settlement Association assigned to Rusk House, the organization’s outpost on Maple Street in the city’s overwhelmingly Mexican district in the Second Ward in 1944.

112 Houston Press, May 9, 1940, no page, clipping in Box 13, Miscellaneous Houston, City of—Houston Housing Authority, 1939–58 folder, Albert Thomas Papers (Woodson Research Center, Fondren Library, Rice University, Houston, Texas). Duhig’s attitude is representative of a phenomenon not uncommon in American immigration history. More established former immigrants or children of immigrants often felt that seemingly “foreign” recent immigrants reflected badly on them. By encouraging “Americanization,” Duhig seemed to believe that all people of Mexican extraction, including himself, would benefit from an improved standing in society.

113 The first all-Mexican public housing project would not be completed until 1952 when Clayton Homes opened on land purchased and donated by Mr. and Mrs. Will Clayton in the Second Ward east of downtown. Arnoldo De León, Ethnicity in the Sunbelt: A History of Mexican Americans in Houston (Houston: Mexican American Studies Program, University of Houston, 1989), 101.

114 For a useful description of the Rusk Settlement, see: “‘Little Journeys to the Homes of Great War-Time Services’ No. 13—A Little Journey to the Rusk Settlement Presented over Radio Station KPRC, 3:15 P. M. Saturday, April 15, 1944 by Elwood Street, Director of the Harris County War Chest of the Houston Community Chest and Council,” Box 1, folder 2, Franklin I. Harbach Papers (Houston Public Library, Houston Metropolitan Research Center) (hereinafter cited as HMRC).
an interview conducted in 1979, Wolf remembered the appalling conditions she discovered on her first forays into the community surrounding the Rusk settlement. In a neighborhood known as Schrimp Alley, or El Alacran (the Scorpion) in Spanish, Wolf visited homes that “were so dilapidated and ready to fall in . . . .” When asked what the residents used for sanitary facilities, Wolf remembered one woman’s home:

A: Sanitary facilities were very bad. In fact they had no toilet, no bathroom, no anything. How they took a bath or shower, I’ll never know.
Q: They simply had a hole in the floor for sanitary purposes?
A: Hole in the opposite side of the kitchen. There was another room maybe with a mattress, a bed or something, for they all slept together. She had I think eighteen children all total. I don’t know where they all stayed, all lived. . . . And it smelled to high heaven too. It was very, very bad.115

Wolf’s superior, Franklin I. Harbach, director of the Houston Settlement Association, became one of the strongest advocates to improve the state of Mexican housing and neighborhoods. He pleaded for major efforts to eradicate the slums that surrounded the Rusk Settlement in a very detailed description of conditions in the Second Ward:

The disease, crime and filth stagger our imaginations. . . . The best of medical care and hospital facilities will not prevail and hold back the effects of ravaging communicable diseases in the face of 4-6-8-10 persons sleeping in one room—no toilet, no running water, inadequate heat, no screens, structures in dangerous state of repair and other defects that make for hazardous and unsanitary living conditions. . . . The people who live in this second ward section are mostly of Latin-

115“Thirty Years of Social Work: An Interview with Bertha Wolf,” Houston Review, IV (Summer 1982), 93–95. The area Wolf describes as Schrimp Alley was later cleared to make way for the Clayton Homes housing project built in 1952 to house Mexicans.
American descent. They have small earning capacity. The very nature of their environment makes them subject to disease of all kind. Year after year we watch them sicken and die of communicable disease. We see here the highest infant mortality rate in the city, we know that much of this is preventable if some kind of decent housing could be provided.\(^\text{116}\)

Besides highlighting the obvious social and public health tragedy that resulted from the living conditions in Mexican neighborhoods, Harbach also made explicit the connection between the environment and a problem that received significant press coverage during the war, that of juvenile delinquency.

Sadly, the lion’s share of attention paid to Mexicans by Houston’s white community was in the form of fearful newspaper descriptions of the emerging youth gang problem. It often seemed that the only evidence that Houston even had a Mexican population came from the lurid accounts of the criminal actions of the “Long Hairs,” “Black Shirts,” “Snakes” and other groups.\(^\text{117}\) Stabbings, beatings, and lesser crimes in the neighborhoods of the East End were the subject of numerous articles and letters to the editor by whites who blamed the unsupervised and open atmosphere of wartime for creating the so-called “zoot-suit” culture among

\(^\text{116}\) Handwritten description of conditions in the Second War, 1944. Box 1, folder 2, Franklin I. Harbach Papers (HMRC).

Latin American teens.118

In October 1943 Franklin Harbach reported to the War Chest of Houston and Harris County on the lack of recreation facilities in Magnolia Park, an area in the east end north of Harrisburg Boulevard and east of Wayside Drive where, by Harbach’s estimate, 7,000 Mexicans lived. After describing the area, he stressed that without outlets for constructive activity, such as after-school programs and boy and girl scout troops, children and teenagers turn inevitably to the streets and juvenile delinquency, with sometimes deadly results. Commenting on the prevalence of youth gangs in the area, the report states:

The delinquency rate in this part of the city is not only one of the highest but among the offenses committed in this area have been the most serious offenses committed anywhere in the city. One boy was killed by another boy not long ago and any number have been cut and robbed by assault. It is the home of the Black Shirt gang (boys) and the Black Skirt gang (girls).119

Harbach’s pleas for funds had only limited success, and the prevalence of youth gangs in Magnolia Park and other Mexican areas would continue

---

118 For examples of such stories and letters, see: Houston Post, May 4, 1943, p. 8; June 10, 1943, p. 1,15; June 13, 1943, p. 1; July 6, 1944, p. 1,6; August 21, 1944, p. 6; August 28, 1944, p. 6; September 13, 1944, p. 2,2; January 17, 1945, p. 7; and July 19, 1945, p. 2,2; The problem was considered serious enough that several groups were organized in the Mexican community to deal with youth gangs. The Good Citizens League employed a Spanish-speaking social worker who visited the homes of delinquents and “counsel[ed] with them and their parents for law observance and good citizenship. Houston Post, July 22, 1945, p. 3,10. More proactive was a group of boys clubs that provided athletic equipment and organizers to promote team sports as an alternative to gangs and violence. Houston Chronicle, October 12, 1945, p. 15A.

119 “Magnolia Park,” October 1, 1943, Box 1, folder 1, Franklin I. Harbach Papers (HMRC).
throughout the war.

By the end of the war it was obvious that the condition of Mexican housing and residential neighborhoods needed significant attention. In early 1945, the HHA revived its plans for a $1,000,000, Mexican-only, 340-unit housing project. By August, less than a month before V-J Day, the administration named a 13-person advisory committee consisting of prominent members of both the Mexican and Anglo communities to select a location and help plan the layout for the development. Unfortunately for people who needed it, it would be seven years before the committee’s labor would bear fruit.

Besides years of active neglect by city officials and the Anglo community, the deplorable state of Mexican neighborhoods was due largely to the poverty of their inhabitants. In 1940, according to census returns, over 10 percent of persons of Mexican descent in Houston earned significantly less than $600 per year. The war years did little to improve their economic situation. There is little evidence that Mexicans

---

120 Houston Post, March 1, 1945, p. 3 and May 10, 1945, p. 2,4.

121 Ibid., August 2, 1945, p. 2,1. The members of the committee were: chair George A. Hill, Mrs. J.P. Houstoun, R.E. “Bob” Smith, John J. Herrera, Dr. J. J. Ruiz, Francisco Charles, Albino Torres, Walter Whitson, Franklin I. Harbach, Fernando Salas, John D. Bailleres, A.F. Valdez, and Rafael Morena. Interestingly, the chairman, an oilman with sizable business interests in Latin America, saw the Mexican housing project as an opportunity to further the “commercial and good-neighbor relationships” with possible trading partners in Central and South America. Typed Minutes of November 7, 1945 meeting of Civilian Advisory Council of HHA. Box 22, folder 13, George Alfred Hill Jr. Papers (HMRC).

122 Cited in De León, Ethnicity, 51–52.
shared significantly in the city’s wartime prosperity. While considered white in some contexts, when it came to employment it seems that Mexicans always became colored. As such, like African Americans, they suffered from the restrictions put upon them by a Jim Crow society. Even during the war when labor was scarce, some businesses posted signs reading, “We Do Not Hire Mexicans Here.”\textsuperscript{123} Those that did employ Mexicans usually did so only as laborers, janitors, and other unskilled positions. They were subject to policies, written or unwritten, that prevented them from gaining promotion beyond such menial occupations.

Evidence suggests that major defense plant employers such as the Houston Shipbuilding Corporation, Brown Shipbuilding, and others did employ Mexicans, some in significant numbers. Although most no doubt worked in back-breaking manual labors, as the war entered its late stages, it appears that Mexicans had managed to find work in most phases of the shipbuilding process, including such skilled posts as welders and pipefitters. There were enough Hispanic employees at HSC to prompt the Houston War Loan Committee to send a special representative to the plant to give six speeches in Spanish on a single day in order to sell war bonds.\textsuperscript{124} Owing in part to its sizable number of Mexican employees, the Maritime Commission agreed to name one of the Liberty Ships produced at the yard in honor of a Latin American figure. On April 14, 1943, during Pan-

\textsuperscript{123}\textit{Ibid.}, 91.

\textsuperscript{124}Houston Post, June 14, 1944, p. 1,8.
American week, the Mexican workers at HSC gathered to watch as Senator Dennis Chavez sent the S.S. *Benito Juárez* sliding down the ways.\(^{125}\)

While on the surface events like the launching of the *Juárez* seemed to recognize the role played by Mexicans at the shipyard and in the war effort, the employment policies at both HSC and Brown often conveyed a different message. As president of the local League of United Latin American Citizens (LULAC) chapter, John Herrera, an attorney and native-born Texan, acted as advocate for a number of workers at the

\(^{125}\) *Lulac News*, April 1943, p. 2, Reel 1, Frame 55, John J. Herrera Papers (HMRC); Houston *Chronicle*, April 15, 1943, p. 15A; and de León, *Ethnicity*, 93. John J. Herrera, president of Houston’s Lulac Council Number 60 had written a letter in February 1943 suggesting to the Maritime Commission that naming a ship for a Mexican would boost the morale of “hundreds of Latin Americans working at this yard [HSC] . . . [and that] The potential lift to hemispheric morale is tremendous in our estimation.”* Houston *Chronicle*, March 7, 1943, p. 4A. Maintaining cordial relations with Mexico played a major role in relations between Anglos and Latin Americans in Houston during the war. Recognizing that economic ties with their neighbors to the south would be important in the postwar world, Houston businessmen were ever conscious of how the treatment of Mexicans in Texas was viewed beyond the Rio Grande. In response to the complaints from Mexico regarding the treatment of Mexicans in Texas, the state house passed a resolution promising to guarantee the equal rights of all members of the “Caucasian Race,” which presumably included Latin Americans, in the interests of “Hemispherical solidarity.” Copy of House Concurrent Resolution No. 105, May 5, 1943. Box 22, folder 10, George Alfred Hill, Jr. Papers (HMRC). Texans in general had good reason to be cautious in their treatment of Mexicans in this period. The state’s agriculture—especially in wartime when much native labor was serving in the military—was made possible largely through the use of *braceros* or migratory laborers from Mexico. For an interesting account of the *bracero* agreements reached by the U.S. and Mexican governments during the war, see: Johnny M. McCain, “Texas and the Mexican Labor Question, 1942–1947,” *Southwestern Historical Quarterly*, LXXXV (July 1981), 45–64. For a description of the harsh life of wartime *braceros*, see: Patrick J. Carroll, “Tejano Living and Educational Conditions in World War II South Texas,” *South Texas Studies*, (1994), 82–99.
shipyards who encountered discrimination during their employment. It seems from Herrera’s correspondence that he fought a constant battle to make shipyard management live up to its legal requirements under the Fair Employment Practices Act. In addition to writing to the yard’s personnel offices, Herrera was in close contact with Carlos Castañeda, a professor at the University of Texas and assistant to the chairman of the regional office of the FEPC. For example, in August 1942 Herrera wrote to E. L. Hausler, the personnel director at Brown Shipbuilding, on behalf of two Mexican men whom the company had refused permission by the company to take welding classes that would have allowed them to earn promotion to skilled jobs at higher wages. The men were apparently told that to learn such a new skill would be “a waste of time” as the “yard would not hire Mexican welders.” Hausler responded a few days later, refuting some of Herrera’s charges but in no way denying that Brown Shipbuilding practiced discrimination against Mexicans. Two years later, Herrera

---

126 The Latin American Club (LAC) had been formed in 1935 by several prominent Mexicans in Houston. Founding members of the LAC included the afore-mentioned attorney Paul Duhig, owner of “Felix’s” Mexican restaurant Felix Tijerina, and Manuel Crespo, a mortician. F. Arturo Rosales, “Mexicans in Houston: The Struggle to Survive, 1908–1975,” Houston Review, III (Summer 1981), 224–248. In 1938, the organization became Council 60 of the national League of Latin American Citizens (LULAC). Margarita Melville, Mexicans in Houston (Houston: Houston Center for the Humanities, 1982), 7.

127 John J. Herrera to E. L. Hausler, August 14, 1942, reel 2, frame 1405, John J. Herrera Papers (HMRC).

128 E. L. Hausler to John J. Herrera, August 17, 1942, reel 2, frame 1406, John J. Herrera Papers (HMRC). The outcome of the case is unknown.
again became involved in a dispute with Brown Shipbuilding. He acted as representative for eleven Mexican women who were laid off from their jobs as burners in the yard hull shop in July 1944. Although the company claimed that the lay-offs were not motivated by race but by the attendance records of the women in question, for a number of reasons Herrera suspected otherwise. First, the eleven Mexicans were the only workers dismissed from the hull shop where they were assigned. Second, one woman reported that her “foreman remark[ed] that he was glad to get rid of all those Mexicans.” And third, although Anglo women had been hired since the lay-offs in question, not a single Latin American woman had been recalled to her job.¹²⁹

Herrera also saw the end of the war as possibly signalling an end to even the limited opportunities that had been opened to Mexican workers. He later observed that despite the gains made by Mexicans in finding work at the shipyards, that progress was coming to naught as “[with decreased government war orders] the yards are beginning to let workers go. . . . They are letting the Latin Americans go before the Anglo Americans.”¹³⁰ Castañeda responded to Herrera’s complaints by holding official FEPC hearings into the Brown Shipbuilding matter in which testimony was heard

¹²⁹John J. Herrera to Carlos E. Castañeda, undated, reel 1, frame 1121, John J. Herrera Papers (HMRC).

¹³⁰John J. Herrera to Carlos E. Castañeda, August 11, 1944, reel 1, frame 1079, John J. Herrera Papers (HMRC).
from both the eleven women in question and the yard management. After the hearings in October 1944, the FEPC ruled that the women be allowed to return to work.\textsuperscript{131} In November, Castañeda wrote Herrera urging that similar cases be brought to the FEPC, stressing the "need to establish precedents before the war is over."\textsuperscript{132}

In addition to the FEPC's involvement in cases of discrimination in Houston shipyards, the agency also battled on behalf of Mexicans working in the city's oil refineries. In 1943, six of the seventy-five Mexicans working at Humble's Baytown refinery filed a complaint charging the company's management with six counts of discriminatory wage practices. Although Humble officials argued that any change in their current wage policies would incite revolt among the company's Anglo workers, it eventually capitulated, granting the complainants the raises that they sought.\textsuperscript{133} Charges similar to those levelled at Humble were brought against Sinclair's Houston refinery in December 1943. The plant employed 100 Mexicans out of a work force of some 1,500, and one-quarter of them bought charges that the company had different pay scales for Anglos and

\textbf{Mexicans as well as an unwritten rule against promoting Mexican workers}

\textsuperscript{131}Carlos E. Castañeda to John J. Herrera, August 24, 1944, reel 1, frame 1120; August 30, 1944, reel 1, frame 1124; W. Don Ellinger to John J. Herrera, September 28, 1944, reel 1, frame 1095; and October 4, 1944, reel 1, frame 1096. John J. Herrera Papers (HMRC).

\textsuperscript{132}Carlos E. Castañeda to John J. Herrera, November 15, 1944, reel 1, frame 1122, John J. Herrera Papers (HMRC).

\textsuperscript{133}Zamora, "Failed Promise," 332–35.
to skilled or semi-skilled positions. Again, like Humble, Sinclair management denied the existence of discriminatory practices in its refinery but agreed to increase the pay of those who had filed the original complaint. Unfortunately, the company’s acquiescence proved short-lived, and as the FEPC’s existence came to an end at the cessation of the war, complaints were again heard from Mexicans at Sinclair that discrimination had resumed.\(^{134}\)

The disputes at Humble and Sinclair proved much easier to resolve than that at another of Houston’s large refineries, the Shell Deer Park plant. Making charges regarding wages and discrimination in promotions similar to their counterparts at the other refineries, thirty-four Mexican workers at Shell filed a complaint in May 1943. In a case that dragged on for almost two years, the company refused to submit to FEPC mandates that it end discrimination at Deer Park. In its intransigence, Shell acknowledged that strong resistance to any such a change in company policy existed among its Anglo employees. Workers feared that if Mexicans were allowed promotion, then blacks would soon demand to follow suit, and the whole racial hierarchy of the plant would break down. The depth of these fears showed in early 1945 when management grudgingly agreed to upgrade two Latin American laborers to jobs as carman’s helper and truck driver. White workers of Local 367 of the Oil Workers’ International Union voted to strike and walked off the job.

\(^{134}\textit{Ibid.}, 336-39.\)
Fearing a complete shutdown of a vital war plant, the War Labor Board intervened and, while technically agreeing with the FEPC, affirmed the union’s right to vote on racial policies. While a temporary peace reigned at Shell, when the war ended and the operation of the FEPC was dissolved, the status quo returned at Deer Park and other Houston area refineries, bringing to a disappointing end a promising chapter in the efforts of Mexicans to achieve equal opportunity in the workplace.135

Although none of the three groups profiled in this chapter revolutionized their role in Houston life during World War II, each demonstrated a spirit of assertiveness that was important for the postwar period. Whether they remained in the work force or not, women in Houston and across the nation took an major step beyond the traditional roles dictated to them by society. While this encountered some resistance, for the most part, Houston women earned respect and recognition by demonstrating great skill and determination in war work. Emboldened by their successful challenge to the white primary and buoyed by the apparent ally they had found in the federal government, black Houstonians emerged

from the war with a new level of confidence. Despite being excluded from many of the defense industry's most lucrative jobs, in the war blacks experienced a surge in prosperity that allowed them to support legal challenges to discrimination both monetarily and philosophically. It was no accident that a few months after V-J Day, it would be another Houston African American, Heman Sweatt, who spearheaded the effort that would culminate in *Sweatt v. Painter*, a lawsuit filed in 1946 that would begin the

---

end of segregated education.\textsuperscript{137} Black Houstonian’s wartime prosperity showed too in their support of charitable institutions within their own community such as the Black Child Center and St. Elizabeth’s Hospital, both of which were begun in these years. Even Mexicans, seemingly left out of wartime prosperity, evinced a new spirit of assertiveness. Their willingness to speak out against discrimination was an important first step in promoting the rights of Latin Americans in Texas, and leading that effort would be men like John Herrera—who went on to become national

\textsuperscript{137}Heman—the spelling of the first name is correct—Sweatt was a well-educated black Houston mail carrier with a strong background in the fight against racism and discrimination. His father James was a charter member of the Houston branch of the NAACP and the National Alliance of Postal Employees, a group organized to provide insurance services and a forum to air grievances for black postal clerks. Heman graduated from Wiley College in Marshall, Texas before finding employment as a teacher in Cleburne, Texas. He moved back home to Houston in 1938 where he went to work for the post office. Sweatt continued his father’s interest in the NAACP, helping raise funds for the legal challenges to the white primary. His activism, combined with his desire to attend law school, led the NAACP to select Sweatt as the plaintiff in a lawsuit to bring about the desegregation of the University of Texas law school, basing its challenge on the fact that there was no law school in the state open to blacks. Planning and fund raising took place throughout 1945 and in February 1946 Heman Sweatt attempted to register at UT. After being denied admission, Sweatt and the NAACP filed a suit demanding that the state either change UT’s admissions policy or establish an all black professional and graduate school. As Sweatt v. Painter (the defendant being UT President T. S. Painter) wound its way through the courts, the state attempted to satisfy the plaintiffs by establishing a “Negro University” in Houston, out of the existing Houston College for Negroes. Renamed Texas State University for Negroes (and in 1951 changed again to Texas State University, the name it bears today), the school included a law school that eventually came to bear the name of the NAACP attorney who led the charge against the white primary and the attack on segregated education, Thurgood Marshall. By the late 1980s the Thurgood Marshall School of Law had turned out more than two-thirds of the black attorneys in Texas. Interestingly, although the state legislature had established a separate university for blacks, Sweatt v. Painter was not withdrawn and reached the U. S. Supreme Court in 1950. On June 5 the court ruled that Heman Sweatt must be admitted to the UT law school, thus ending legal segregation in graduate education. Michael L. Gillette, “Heman Marion Sweatt: Civil Rights Plaintiff,” in Alwyn Barr and Robert A. Calvert, eds., \textit{Black Leaders: Texans for Their Times} (Austin: Texas State Historical Association, 1981), 158–70; Robert D. Bullard, \textit{Invisible Houston: The Black Experience in Boom and Bust} (College Station: Texas A&M University Press, 1987), 126–29; and Neil Sapper, “The Fall of the NAACP in Texas,” \textit{Houston Review}, VII (1985), 54–61.
president of LULAC—who cut their civil rights teeth during World War II. These far-reaching social changes only began in the war years and would take decades to significantly affect African Americans and Mexican Americans in particular, but at least the momentum of change was set underway in the years after Pearl Harbor. The nation explicitly sought to advance democracy and freedom abroad, but at home greater freedom and opportunity for women, blacks, and Mexicans only haltingly began during World War II.
VIII.

Conclusion: The Legacies of Wartime Growth

On August 15, 1945, 200,000 people took to the streets of Houston to celebrate the surrender of Japan and the end of World War II. Like the rest of the nation, they rejoiced at the end of a bitter conflict that had called away many of the city’s sons, young and old, some of whom would not return. But besides rejoicing in an historic victory, Houstonians had something else to celebrate, whether or not they realized it on V-J Day. Due in large part to the integral role that it played in the war effort, Houston had undergone a remarkable maturation. It had, in effect, come of age. In the span of five years the industrial and economic base of the city was transformed. In that short period, Houston made the leap from being a processor and transporter of raw materials to an industrialized dynamo whose manufacturers utilized cutting-edge technology in turning out the very products that would shape the postwar world. As evidenced by their receipt of production awards, Houston manufacturers emerged as

---

1For coverage of the V-J Day celebrations in Houston, see Houston Chronicle, August 15, 1945, pp. 1 & 11A and Houston Post, August 16, 1945, p. 1.
some of the most successful and productive in the nation. The city built upon its existing economic and industrial strengths, such as oil and gas, and added new ones, like shipbuilding, petrochemicals, and steel. Much of this extraordinary change was made possible through the efforts of a small group of business leaders who proved adept at channeling funds from the federal government into projects that stimulated the growth of Houston and its economy. Other changes stemmed from the city’s growth and prosperity. It attracted tens of thousands of new residents to man the shipyards and synthetic rubber plants created for the war emergency. The arrival of so many newcomers pushed Houston past its longtime rival New Orleans to become the biggest city in the South and among the largest in the nation. Inevitably in a city transformed, the war wrought social change as well. The city’s marginalized citizens, women, blacks, and Mexicans, found opportunities that would forever alter their roles in the life of Houston. And as in many societies that undergo rapid transfiguration, Houston soon found itself buffeted by winds of reaction and backlash.

\[\text{In all, 11 Houston firms won the highest production awards for their respective industries. Winners of the Army-Navy “E” (with number of renewals in parentheses): Brown Shipbuilding Co. (4), Cameron Iron Works (6), Emsco Derrick and Equipment Co. (1), Houston Milling Company (1), Houston Oil Field Material Co. (2), McEvoy Co. (2), National Instrument Corp., Port Houston Iron Works, Specialty Manufacturing Co. (1), Texas Washer Co., Humble Oil and Refining Co. Baytown Ordnance Works (5). Winners of the Maritime Commission “M”: Houston Shipbuilding Corp. (10 & the Gold Eagle designation “for continued production merit”) and W.K.M. Co.. In addition, Houston construction firms Brown & Root, W. S. Bellows, and Columbia Construction Co. won the “E” for their work on the U.S. Naval Air Station at Corpus Christi. Also, the Houston Packing Co. received the Department of Agriculture “A” award. Also in the Houston area, the Dow Chemical Co. at Freeport, Dow Magnesium Corp. at Velasco, and the Texas Gulf Sulphur Co. at Newgulf all were awarded the “E.” Nationally, only 5 percent of war plants received these high honors. Houston Chronicle, December 5, 1945, p. 6B.}\]
against the falling away of traditional mores. All of the above wartime changes became currents that would shape and guide the course of the city’s postwar development and influence its startling growth to become the fourth largest city in the nation.

Donald M. Nelson, Chairman of the War Production Board (WPB), observed shortly after the war that “A bird’s-eye view of large-scale Southern industry makes you feel that the South has rubbed Aladdin’s lamp.” In all, southern states received nearly $17 billion in defense contracts, representing approximately 20 percent of total federal wartime expenditures. Of this figure, Houston attracted a significant share. In 1945 the WPB reported that the Houston area placed sixth in the nation in industrial expansion made during the war, reeling in a total of $584,628,000.

The massive investment sparked a revolution in local industry. In the ten years between 1939 and 1949, the city’s industrial employment increased by nearly 300 percent (from 22,000 to 64,000), annual industrial

---


4 This figure included both private and public funds. Ahead of the Houston area in wartime industrial investment were Detroit—$1,038,000; Chicago—$932,500,000; New York—$872,400,000; Los Angeles—$813,500,000; and Pittsburgh—$586,900,000. Houston placed ahead of such traditional national industrial centers as Cleveland (7th place—$419,700,000), Philadelphia (8th place—$408,100,000), Buffalo (9th place—$317,000,000), Boston (10th place—$262,000,000), and Baltimore (11th place—$240,500,000). Houston’s intrastate rival Dallas appeared further still down the list—a fact of which Houstonians no doubt delighted—in 14th place with a wartime industrial investment of $143,000,000, much of it in the aircraft industry. Houston Post, July 19, 1945, p. 1; Houston Chronicle, July 20, 1945, p. 10A; and John H. Mollenkopf, *The Contested City* (Princeton: Princeton University Press, 1983), 105–8.
payrolls ballooned from $194,000 to $60,000,000, and the value of Houston's industrial products grew by 600 percent. Also illustrative of the tremendous surge in the city's prosperity was the rise of bank debits between 1940 and 1945. In those five years the amount of debits to individual Houston accounts doubled from about $3,000,000,000 to more than $6,000,000,000, thereby surpassing longtime rivals Dallas and New Orleans and taking the lead among southern cities. The source of much of this growth lay in the wartime birth and subsequent explosive growth of the petrochemical industry. In 1940 there were only 180 persons in Houston employed in chemical production; nine years later there were 20,000. Like the city's earlier emergence as the center of the petroleum industry, its postwar position as heart of the petrochemical production served as a tremendous spur to its development, stimulating everything from pipeline and plant construction to transportation to research and technology development. Entirely new industries emerged just to serve the needs of petrochemical makers, creating some of the most lucrative business opportunities the city had ever seen.

---


new developments, by the end of the 1940s the city led the entire nation in the value of industrial construction.\(^8\)

One of the key elements in Houston’s continued prosperity in the postwar period was that unlike such cities as Mobile and Norfolk, its industries did not undergo a traumatic process of reconversion from military to civilian production. Most companies had such lengthy back-orders for their products that they were not forced to lay-off large numbers of their employees. In fact, Houston was named one of the nation’s reconversion bright spots in September 1945, and one local historian has commented that “Houston was nearly a model for the successful reconversion of the American economy in the postwar era.”\(^9\)

This relatively seamless transition from wartime to peacetime operation was in part made possible by farsighted planning. As early as June 1942 Houston magazine had asked “What of Houston’s Post-War Plans?” That same year, the Chamber of Commerce appointed a Post-War Planning Committee to advise local firms on ways that they could minimize disruption to their business. Similar efforts continued for the duration of the war and greatly aided in ensuring that peacetime would not end the city’s prosperity.\(^10\)

\(^8\)Carleton, Red Scare!, 13


\(^10\)Houston, XIII (June 1942), p. 4 and XIV (February 1943), p. 9.
If the manufacturing growth of the Houston area stands as one of World War II's most durable legacies, no less valuable was the experience gained by the city's commercial-civic elite in establishing that industry. For much of its history Houston had maintained a reputation as a "free enterprise city," welcoming outsiders who sought to do business there and hostile to governmental interference. As early as the 1910s and the creation of the ship channel, however, city leaders had welcomed government aid when it suited their purposes. And, as the federal government took on a more active role during the years of the Great Depression and especially World War II, it became clear that new opportunities lay in partnership with Washington. Once they realized what the new era of federal largesse could mean to their city, Houston entrepreneurs and politicians proved incredibly successful at securing this new and lucrative form of investment whether it was, like shipbuilding, of short-term benefit to the city or, like the petrochemical industry, of much longer-term impact. And it was in these wartime ventures that lay the roots of much subsequent growth. Even in wartime philanthropic projects like the creation of the Texas Medical Center, the Houston commercial-civic elite found useful ways of bringing the state and federal governments in as partners. The creation of the M.D. Anderson Cancer Hospital and the naval/V.A. hospital as parts of the project was but the beginning of a relationship between the TMC and Washington that continues to this day in the form of millions of dollars in federal research grants awarded to the
center's member institutions every year.

The war brought a group of energetic capitalists to a position of leadership in Houston that they would maintain for the better part of two decades. This unofficial governing body of business leaders included construction, shipbuilding, and natural gas tycoon George R. Brown; oil tool maker and insurance magnate Gus Wortham; lawyer and jurist James Elkins; oilfield equipment manufacturer and oilman James Abercrombie; and several others. These men maintained key contacts in government who ensured that in both war and peacetime federal dollars continued to flow to companies and projects that benefitted Houston. During the war, the Brown brothers, George and Herman, cultivated ties with an ambitious young congressman from central Texas, Lyndon Baines Johnson, including major financial support in the latter's unsuccessful wartime senate race. These connections would pay off for the Browns and the city many times over in the years to come, in projects such as the establishment of the $125 million Johnson Space Center in Houston in 1961. Representative Albert Thomas served the city in congress from 1934 until the mid-1960s, and his close relationships with city leaders turned many a cherished project into reality. Thomas proved an especially effective advocate for Houston after 1944 when he gained appointment to the powerful house appropriations committee. Although his influence diminished after the war, Jesse H. Jones served as a powerful ally of the Houston elite in Washington for over a

---

decade. Jones was arguably one of the single most powerful men in the federal government for most of the duration of the war. In an almost unprecedented concentration of authority, Jones simultaneously held positions as chairman of the Reconstruction Finance Corporation, Federal Loan Administrator, and Secretary of Commerce. At his discretion were billions of dollars to award to endeavors that benefitted the cause of national defense. Needless to say, Jones never neglected his home city in the disbursement of these monies.

Thanks in large part to the efforts of the city’s leaders, the war produced tremendous wealth in Houston. Evidence of prosperity and confidence is seen in the immediate postwar period that was marked by almost frenzied construction. Wartime restrictions on civilian construction had resulted in a backlog of projects that were ready to get underway as soon as peace arrived. In the waning months of the conflict, the city’s newspapers and magazines breathlessly reported that area businesses and institutions planned to embark on a building spree the likes of which Houston had never seen. In May 1945, Houston magazine predicted that “this city is planning to spend between $200,000,000 and $250,000,000 for new construction within the four or five years following the close of the European war.” The Houston Post speculated that the figure would be far higher, anywhere from $300 to $400 million. Such optimistic speculation proved well-founded. In 1946 Houston’s $83 per capita

\(^{12}\)Houston, XVI (May 1945), p. 10–11; Houston Post, August 26, 1945, p. 4,6; and October 10, 1945, pp. 1 & 16.
construction rate outpaced every other urban center, second-place Los Angeles trailed far behind at $62.50, and a plot of land downtown on Main Street sold for the then unheard of sum of $2,000 per front inch.13

Of all the building projects proposed in the final days of the war and executed in its immediate aftermath, none better exemplified Houston’s bold, optimistic spirit and captured national attention than did two located at either end of Main Street. In May 1945, reflecting the ambitious nature of Houston at the time, Foley Brothers announced its plans to build a new state-of-the-art $6 million downtown department store “designed to serve a city of 1,000,000 people.” This 7-story, fully air-conditioned edifice, “the first complete department store to be built in the nation since 1929,” opened to national recognition in October 1947 for its radical new

---

13 City of Houston, Texas: An Economic and Financial Study and An Analysis of the Probable Effects of the City’s Post-War Public Improvement Program (New York: Blyth & Co., Inc., 1946), 29. Of this extraordinary figure, the lion’s share was reportedly earmarked for industrial expansion and new construction, including an enormous new chemical plants to built by E. I. Du Pont & Nemours and Diamond Alkali on the ship channel. Besides industrial expansion, large amounts were pledged for other private sector projects. There was a shortage of 21,000 residences in the city and Houston estimated that over the next few years $84 million would be spent in meeting that shortfall. Also in the private sector, it was estimated that $47 million were to be spent on the new hospitals of the Texas Medical Center and elsewhere, on new buildings at the University of Houston and Rice Institute, and a host of projects involving the city’s religious institutions. Significant sums were also ready to be spent in “public improvements” as part of the bond funds that had been authorized late in 1944 for the use of the City of Houston, Harris County, the Houston Independent School District (HISD), and the Navigation District. The city planned a host of projects including a $14 million expenditure to address the problems that had become evident in the water supply system as well as nearly the same amount to be spent updating its sewer and drainage systems. HISD, responding to wartime overcrowding, planned to spend $7.5 million building new school buildings and renovating existing ones. Houston, XVI (May 1945), pp. 12–13 and McComb, Houston, 190.
approach to retail architecture. Some four miles south on Main, the other building that epitomized Houston’s brash postwar optimism was the legendary Shamrock Hotel, the brainchild of local oil wildcatter Glenn H. McCarthy. Enriched by World War II’s demand for his oil, McCarthy succeeded in erecting a monument that reflected the city’s aspirations. Towering over the flat featureless prairie that surrounded it, the nearly $21 million hotel was begun in 1946 and opened on Saint Patrick’s Day 1949 accompanied by fanfare perhaps never seen before or after in Houston. The grand opening was covered live on national radio and attended by celebrities brought to Houston especially by McCarthy for the occasion, including Dorothy Lamour and Pat O’Brien. For better or worse, the Shamrock announced Houston’s arrival on the national consciousness with a swagger.

While built in a largely undeveloped part of the city, McCarthy’s Shamrock Hotel soon found itself surrounded by new residential and


15McCarthy’s original plans were far more ambitious for the 15-acre piece of land at South Main and Bellaire Boulevard that he purchased in 1945. Besides the 18-story hotel that was eventually built, the oilman planned a “Rockefeller Center-type” complex that included six apartment buildings, a department store, a bank, office building, restaurant, and ice skating rink. The reason that only the hotel ever came to fruition from these audacious plans may lie in its price tag. Initially the entire development was designed to cost $17 million, however when the Shamrock Hotel was completed in 1949, it had cost McCarthy $21 million. Houston Post, June 3, 1945, p. 2,4 and Houston Chronicle, June 2, 1945, pp. 1 & 2.

commercial construction. This was occasioned by the tremendous boost that the war had given to Houston’s population. Spurred by the wartime creation of thousands of high-paying industrial jobs, the city’s population grew by as much as 150,000 between 1940 and 1945. This tidal wave of new residents continued in the city’s flush postwar years. The 1950 census reported that Houston had become home to 596,163 persons, 55 percent more than in 1940, and was now the twelfth largest city in the nation. It had surpassed New Orleans to become the largest city in the South. This trend continued in the 1950s, and by 1960 the city had nearly reached the one million mark.\(^{17}\)

Dramatic growth in population both during and after the war did not come without attendant problems. Some in Houston reacted to the changes being wrought in the city with fear and uncertainty. In his insightful work, *Red Scare! Right-wing Hysteria Fifties Fanaticism and Their Legacy in Texas*, Don E. Carleton argues that “[t]he city of Houston after the Second World War was caught up in rapid growth and change, unsettling enough to encourage fear among those unable to adjust.”\(^{18}\) In truth, this period of transformation began during the war and the sort of reactionary right-wing

---

\(^{17}\) Although seemingly prosaic, another factor that contributed to the growth of Houston other southern cities in the 1950s and afterwards was the postwar proliferation of residential air conditioning. From virtually nothing in 1940, the proportion of southern homes with air conditioning grew to 10 percent in 1955 and 50 percent in 1970. Raymond Arsenault, *The End of the Long Hot Summer: The Air Conditioner and Southern Culture*, *Journal of Southern History*, L (November 1984), 609–10.

\(^{18}\) Carleton, *Red Scare!*, 5.
political sentiment depicted so ably in Carleton’s Houston of the 1950s was alive and well in the early 1940s. In 1944, for example, Houston’s precinct 135, which included the affluent River Oaks neighborhood, provided the most significant source of strength for the splinter Texas Regulars party. Virulently condemnatory of President Franklin D. Roosevelt, the Regulars denounced his “Communist-controlled New Deal,” and, in the immediate aftermath of the *Smith v. Allwright* decision, strongly advocated the maintenance of white supremacy. In Houston prominent figures Hugh Roy Cullen, Anderson-Clayton president Lamar Fleming, oilman Craig Cullinan, and head of the U.S. Women’s Army Corps and Houston *Post* publisher Oveta Culp Hobby all supported this party and its fearful distrust of outside influences on Houston and Texas.\(^{19}\)

While Houston’s rise to national prominence has occasioned considerable comment, the roots of this meteoric rise have gone generally unexplored. In a host of ways, from the city’s economic flowering to its staggering population growth to its emergence as a center of health care, World War II provided the catalyst. Massive federal investment in the city’s industry transformed it from a sleepy southern town into a dynamic city integrated into the life of the nation. Houston’s leaders seized the

---

\(^{19}\) In Precinct 135 voted Democrat–441; Republican–330; and Texas Regular–1,617; and Socialist–1. This was the highest concentration of Texas Regulars in Harris County, which was also fielded the greatest support for the Regulars of any county in the state. Houston *Chronicle*, November 8, 1944, p. 1 and November 14, 1944, p. 10A and George Norris Green, *The Establishment in Texas Politics: The Primitive Years, 1938–1957* (Westport, Conn. and London: Greenwood Press, 1979), 47–57, 50 (quote).
opportunities presented to them by wartime circumstances to catapult themselves and their city into a trajectory of postwar growth that has been virtually unmatched in the nation. A five-year period forever altered the fate of the city and gave birth to an urban giant.
Bibliography

Primary Sources

Manuscript and Special Collections

Archive Department, Museum of Fine Arts, Houston, Houston, Texas. Masterson Family Collection.

Center for American History, University of Texas, Austin, Texas.
Brown, George Rufus Vertical File.
Brown, Herman Vertical File.
Julia Elston Battle Narrative.
Houston, Texas Industries Vertical File.
Humble Oil & Refining Co. Vertical File.
Oral History of the Oil Industry, Pioneers in Texas Oil Collection.
Labor Movement in Texas Collection.

Houston Metropolitan Research Center, Houston Public Library, Houston.
Ray K. Daily Papers
Franklin I. Harbach Papers.
George Alfred Hill Jr. Papers.
John J. Hererra Papers.
Leopold L. Meyer Papers.
C.A. "Neal" Pickett Papers.
C.W. Rice Collection.
Paul C. Roemer Papers.
A.D. Simpson Family Collection.
WWII Ration Books.

Woodson Research Center, Fondren Library, Rice University, Houston, Texas.
Albert Thomas Papers.
J. Russell Wait Papers.

Government Documents and Publications

Surplus War Property Division of the Defense Plant Corporation.
Advance Listing of Industrial Plants and Plant Sites to be Disposed of by Defense Plant Corporation. (Washington: United States
Children's Bureau. "Policy of the Children's Bureau on the Care of Infants Whose Mothers are Employed." December 1, 1944. War Manpower Commission Service Reports, Office of the Assistant Executive Director for Field Services.

*City of Houston, Texas: An Economic and Financial Study and An Analysis of the Probable Effects of the City's Post-War Public Improvement Program.* (Blyth & Co., Inc., 1946).


*General and Special Laws of the State of Texas, 47th Legislature, Regular Session,* (Austin, 1941).

Harris County Houston Ship Channel Navigation District, Annual Reports, 1936–45.

Port of Houston, Annual Reports of the Director, 1940–45.


Census Reports

Manuscript Census Returns, Seventh Census of the United States, 1850, Harris County, Texas, Schedule 2, Slave Population. (Microfilm copy).

Manuscript Census Returns, Eighth Census of the United States, 1860, Harris County, Texas, Schedule 1 and Schedule 2, Slave Population. (Microfilm copy).

Judicial Decisions


Newspapers

Houston *Chronicle*, 1930, 1933, & 1940–46.
Houston *Post*, 1931 & 1940–46.
Houston *Press*, 1936 & 1940–46.
Houston *Shopping News*, 1942–44.
Houston *Telegraph and Texas Register*, 1845.

Magazines

*Houston*, 1939–46.
*Houston Port Book*, 1940–46.
*Oil Weekly*, 1940–46.
*Time*, 1940–46.
Secondary Sources

Books


Allen, O. Fisher. The City of Houston from Wilderness to Wonder. (Temple, Tex.: By the Author, 1932).


Biles, Roger. The South and the New Deal. (Lexington: University Press


Boles, John B. *A University So Conceived: A Brief History of Rice.* (Houston: Rice University, Division of External Affairs, 1992)


Castaneda, Christopher J. and Joseph A. Pratt. *From Texas to the East: A Strategic History of Texas Eastern Corporation.* (College Station: Texas A&M University Press, 1993).


Deming, Frederick and Weldon A. Stein. *Disposal of Southern War Plants.* (NPA Committee of the South reports, no. 2).

*Documents of Major General Sam Houston, Commander in Chief of the Texian Army, to His Excellency David G. Burnet, President of the Republic of Texas; Containing a Detailed Account of the Battle of San Jacinto.* (Austin: Pemberton, 1964, reprint of the 1836 edition).


*Four Reports of "The Battle of San Jacinto." April 21, 1836 as Made by*
General Santa Anna and Colonel Delgado of the Mexican Forces and General Sam Houston and Colonel Thos. J. Rusk of the Texan Forces. (Houston: Union National Bank, 1927).


Goodman, Jack, ed. While You Were Gone: A Report on Wartime Life in


Hartmann, Susan M. The Home Front and Beyond: American Women in the 1940s. (Boston: Twayne Publishers, 1982).


Hoover, Herbert. American Individualism. (Garden City, N.Y.: Doubleday, 1922).


Merrill, Francis. *Social Problems on the Home Front: A Study of Wartime

Meyer, Leopold L. The Days of My Years: Autobiographical Recollections of Leopold L. Meyer (Houston: Privately Published, 1975).


Milkman, Ruth. Gender at Work: The Dynamics of Job Segregation by Sex During World War II. (Urbana, Ill.: University of Illinois Press, 1987).


Moursund, Walter H. A History of Baylor University College of Medicine, 1900–1953. (Houston: Baylor College of Medicine, 1956).


Proceedings at the Dedication of the M.D. Anderson Hospital for Cancer Research, Houston, Texas, February 27, 1944. (Houston: The M.D. Anderson Foundation and the University of Texas, 1944).


———. Victory Ships and Tankers. (Cambridge, Md.: Cornell

*Shell . . . Soldier and Civilian.* (Shell Union Corporation and Associate Companies, 1945).


*The First Twenty Years of the University of Texas M.D. Anderson Hospital and Tumor Institute* (Houston: The University of Texas M.D. Anderson Hospital and Tumor Institute, 1964).

*The University of Texas Medical Branch at Galveston: A Seventy-five Year History by the Faculty and Staff.* (Austin & London: University of Texas Press, 1967).


Tindall, George B. *The Emergence of the New South.* (Baton Rouge: Louisiana State University Press, 1967).

*Twenty-Five Years.* (Houston: Cameron Iron Works, Inc., 1946).


Vatter, Harold G. *The U.S. Economy in World War II.* (New York:


Wintz, Cary D. *Blacks in Houston*. (Houston: Houston Center for the


Articles


Mohl, Raymond A. "The Transformation of Urban America since the Second World War." in Robert B. Fairbanks and Kathleen Underwood, eds., *Essays on Sunbelt Cities and Recent Urban*


Wooster, Ralph A. “Foreigners in the Principal Towns of Ante-Bellum


**Theses and Dissertations**


