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Alabama's Rocket City **Cotton, Missiles, and Change in Huntsville and Madison County**

By
Christopher M. Young

Milton K. Cummings encapsulates World War II's dramatic economic and social repercussions on North Alabama. A native of small-town Gadsden, Cummings launched his storied career while a high school student in Huntsville—Gadsden's more urban neighbor—with work as a part-time clerk and bookkeeper at his father's local cotton gin. At the time, cotton was the region's dominant industry, and North Alabama's Madison County—with Huntsville as its county seat—was Alabama's leading cotton producer.¹

Following his graduation from high school at the age of sixteen, Cummings turned down an all-expenses-paid scholarship to Harvard Medical School in Boston and opted instead to join North Alabama's local economic engine; the cotton industry's influential Shelby Fletcher—the same man who had offered the scholarship—brought Cummings under his tutelage. Fletcher was a large-scale merchant operating his own firm, Shelby Fletcher Brokerage, out of the center of the Madison County cotton trade: Huntsville's influential "Cotton Row."² The Row served as Cummings's training ground; cotton merchants, lawyers, and bankers—Cummings among them—sat in their offices directly across from the county courthouse, overseeing the comings and

¹ Phil Garner, "For Years Cotton Row Symbolized the South," *The Huntsville Times*, 22 May 1966.

² "Cotton Row" in downtown Huntsville became the financial center of North Alabama's formidable cotton industry. Elfriede Richter-Haaser, "Madison County History," <http://madisoncountyal.gov/government/about-your-county/history> (accessed January 3, 2016).

goings of the wagons and carts loaded with the crop that reigned supreme.³ The Row and its power brokers groomed Cummings's business acumen, and taught him to find success even against the backdrop of the severe economic depression, today known as the Great Depression, which was gripping the nation.

In 1937, one year after Fletcher's death, the 25-year-old Cummings opened his own brokerage operation with the aid of Fletcher's \$5,000 bequeathal to him.⁴ Cummings's role as a cotton merchant made him an intermediary between the farmer selling cotton and the miller purchasing it. As with any merchant, he aimed to buy low and sell high, and proved rather adept at it: he quickly became one of North Alabama's most successful merchants.⁵

Then came the advent of World War II. The region's young men left the farms and fields to fight alongside the Allies, creating severe labor shortages for the manpower-heaving cotton industry; six of the area's seven mills closed shop.⁶ Even the face of an adverse business landscape, Cummings persevered; he abstained from taking up arms and contributed to the war effort through increased economic output at home. His reward was lofty profits and a substantial fortune.

Yet notwithstanding the wartime prosperity of his cotton-centered empire, the post-war Cummings developed deep-seated doubts about the long-term viability of a strong cotton market given prevailing government policies in the area.⁷ Less than a

³ Ibid.

⁴ "Gadsden Native Builds Space Industry," *The Gadsden Times*, 13 February 1966, 28.

⁵ Ibid.

⁶ "Huntsville Economy Rides On Rockets," *Tuscon Daily Citizen*, 30 June 1960, 36.

⁷ For more information on the impact of federal agriculture policy from the 1950s through the early 1970s, see Robert S. Firch, "Adjustments in a Slowly Declining U. S. Cotton Production Industry," *American Journal of Agricultural Economics* 55:5 (December 1973), 892-902.

decade after the end of the war that made him one of North Alabama's wealthiest men, Cummings left the cotton industry in 1953, choosing instead to invest his money and management skills in stocks. Nevertheless, he maintained his office on Cotton Row until 1958, when he joined the executive ranks at Brown Engineering, an aeronautics venture, in the early days of Huntsville's space boom. Cummings delegated the Row to his past and left old Huntsville behind. "We live in a different age now," reflected Hugh Doak, himself a former cotton merchant and Row occupant. "We've got to go along with progress."⁸

The "progress" referenced by Doak first arrived in Huntsville on July 3, 1941, in the form of national defense. In a special issue printed that afternoon, *The Huntsville Times* published a breaking headline: "Huntsville Given \$41,293,000 Chemical War Service Plant."⁹ Although unknown at the time, the Second World War began a process that would permanently disassemble the traditional economic dynamics of North Alabama—it began a significant economic realignment that would wean the region off dependence on agriculture in general, and cotton in particular.

In North America, the defense industry would come to supersede Big Ag, with missiles replacing cotton as its chief unit of economic output. The late 1940s still saw cotton fields come up to within a few blocks of Huntsville's main street; by the late 1950s, "King cotton had retreated before long rows of housing projects and factories."¹⁰ By decade's end, the space industry would also join the Huntsville community with the dedication of NASA's Marshall Space Flight Center in 1960.¹¹

⁸ Garner, "For Years."

⁹ "Huntsville Given \$41,293,000 Chemical War Service Plant," *The Huntsville Times*, 3 July 1941, 1.

¹⁰ Drew Pearson, "'Rocket City' Booming," *The Anniston Star*, 13 December 1958, 4.

¹¹ Wayne Flynt, *Alabama in the Twentieth Century* (Tuscaloosa: University of Alabama Press, 2004), 155.

Huntsville had become Rocket City, USA.¹² The introduction of the national defense enterprise into Madison County during the early years of the Second World War permanently shifted the regional economy away from cotton's domination as increasing federal military expenditures in the region heralded the establishment of substantial wartime activities at the newly minted Huntsville and Redstone arsenals. These military installations—established to augment the country's national security apparatus amid global conflict—would create a fundamentally different city. Before July 1941, no industry possessed the stamina to compete with King Cotton in North Alabama. However, with the precipitous decline in cotton production in the decades during and after the war, coupled with substantial investments by the federal government and private contractors in defense-related enterprises, Huntsville overcame cotton's formidable monopoly on its economy and began the immense economic diversification that would eventually see it become one of America's most technological cities.

This paradigm shift was not exclusively economic in scope: the two arsenals and their related industries also diversified the psychology of Huntsville's citizenry. World War II saw Huntsville's people begin to associate themselves and their contributions to the nation with defense and aerospace industries, not with their more entrenched agricultural base. These changing associations and identifications carried over and developed into the post-war years, and guided Huntsville's citizens as they developed their city anew.

Huntsville traces its roots to the squatter John Hunt, who arrived in North Alabama in 1805. In 1809, the governor of the Mississippi territory designated the area around John Hunt's home as Madison County, named to honor then-President James Madison. Huntsville became the territory's first incorporated town

¹² Pearson, ““Rocket City’ Booming,” 4.

in 1811; when the Alabama territory — later created and separated from the Mississippi territory when the latter received its statehood in 1817 — entered the Union as a sovereign state in 1819, Huntsville became its first capital.

Even prior to statehood, Huntsville was a “frontier metropolis”—and cotton was its economic lifeblood. Madison County historian Elfriede Richter-Haaser described early Huntsville as “a flourishing cultural, commercial, and social center of 'King Cotton's' realm.”¹³ In the early 1800s, Madison County farmers were consistently harvesting 1,000 pounds of cotton per acre per annum.¹⁴ Small businesses lined Huntsville's streets, occupied by cotton merchants, bankers, and lawyers. The merchants favored offices on the west side of the city square, adjacent to the courthouse; this would become the Cotton Row of Cummings' time.¹⁵ Opened for business in Huntsville in 1809, Huntsville Bell Factory was the state's oldest textile mill. From an early point in its history, cotton was the regional cash crop, and the regional culture and society were intertwined with its production.

Despite the consistent economic strength that cotton provided the region, Huntsville was no exception to the economic hardship experienced throughout the South during the Civil War and later Reconstruction. From after the war until even as late as 1883, no cotton dealers held shop in the North Alabama's principal cotton market, although two cotton manufacturers operated out of Madison County at this time.¹⁶

The region's financials began to look up near end of the nineteenth century. Emphasis moved toward industry, and the scars of the Civil War began to heal. By 1897, three cotton dealers

¹³ Richter-Haaser, “Madison County History.”

¹⁴ *Ibid.*

¹⁵ *Ibid.*

¹⁶ *Textile Manufacturers' Directory of the United States* (New York: 1883), 250, 450-52.

inhabited the Huntsville metropolitan area alone, and three cotton manufacturers could be counted in the city-county market.¹⁷

Cotton industry writer Josephine Perry marked 1894 as “the beginning of the modern age of weaving.”¹⁸ Cotton Belt mills began to install the most modern machinery of the day. In the South's cotton commerce, Alabama, Georgia, and North and South Carolina led the pack.¹⁹ As for Huntsville, its cotton market continued to expand, with World War I serving as a significant catalyst. By the 1920s, ten textile mills called Madison County home.²⁰

However, economic growth would hit a wall in 1929; the cotton-facilitated boom collapsed with the onset of the Great Depression. In 1947, the Eighth Cotton Research Congress reflected on the dire health of their industry during the previous decade. In a speech to the Congress delegation, E.D. White—at the time the Assistant to the Secretary of Agriculture—recalled that the American cotton industry had faced “mounting surpluses of raw cotton and cotton textiles both here and abroad; by increasing foreign production cutting in on our markets; by increasing competition from synthetic textiles; by a depressed world economy and ruinous prices in many segments of the cotton industry.”²¹ At the following Congress in 1948, Secretary of Agriculture Charles Brannan also chose to recount cotton's shift from vibrancy to depression: “In 1920 American cotton production was about twice as large as total foreign production. In the middle 1930's, foreign production became larger than American production, and the

¹⁷ Textile Manufacturers' Directory of the United States and Canada (New York: 1896-97), 195, 396.

¹⁸ Josephine Perry, *America at Work: The Cotton Industry* (New York: Longmans, Green and Co, 1943), 76.

¹⁹ *Ibid.*

²⁰ “A Brief History of Huntsville,” http://history.msfc.nasa.gov/huntsville/hsv_history.html (accessed January 11, 2016).

²¹ E.D. White, “The Road Ahead for Cotton,” *Proceedings of the Eighth Cotton Research Congress* (1947), 10.

volume of cotton we sold abroad fell to about half the 1920 level.”²²

In the worldwide financial chaos, U.S. cotton was hit especially hard. The number of Alabama farms harvesting cotton fell from 231,824 in 1929 to 200,649 by 1939. Alabama acreage devoted to cotton plummeted from 3,566,498 to 1,930,560 acres during the same decade, a 45.9% decrease ending with the lowest number of acres allocated to cotton since the mid-1800s; the state's total value of lint cotton and cottonseed plummeted from \$129,186,873 to \$43,933,746. Accounting for 62.2% of the total value of all crops produced in the state in 1929, cotton could claim only 39.6% in 1939. The average price for a bale of cotton—\$84.15 in 1929—was \$47.31 by 1939.²³ By the time the curtain closed on the 1930s, cotton was simply no longer of financial value.

Despite these economic tribulations, agriculture—and principally cotton—remained an entrenched economic necessity in the largely rural Madison County. The 1930 U.S. Census listed 53,069 of the county's 64,623 residents as living in rural areas, an 82% share.²⁴ Embracing the realities of their region's greatest resource, a majority of the county's population age ten and up worked in agriculture, 51% for white males and 77% for black males. Moreover, over 48% of employed white women worked in cotton mills and related textile industries, with an additional 21% of white men doing the same.²⁵ The 1940 Census continues to develop this familiar story pattern: of Madison County's 13,735 employed men—both white and black—7,337, or 53%, worked in agriculture. That same year, textile mills became the county's

²² Charles Brannan, “Cotton Makes a Comeback,” *Proceedings of the Ninth Cotton Research Congress* (1948), 22–23.

²³ “Agriculture: Special Cotton Report,” *Sixteenth Census of the United States: 1940*, XIV–XV.

²⁴ For comparison, the Alabama statewide rural population percentage was 72% in the same census cycle. “Population,” *Fifteenth Census of the United States: 1930*, 83, 102.

²⁵ Alabama State Chamber of Commerce, *Huntsville, Madison County and Trade Territory: A General Survey* (1940), 16.

second highest employer of men, staffing 1,859 within their ranks.²⁶

The size, scope, and share of the cotton economy reflected these lopsided employment statistics. In a 1935 survey by the Alabama State Chamber of Commerce, 78% of Madison County's income from agricultural production—including land rental and benefit payments, and totaling a staggering \$2,855,672—came from cotton and cottonseed. Crops other than cotton brought in \$324,845 total, or about 9% of the county's income. Madison County was Alabama's highest cotton-producing county in 1935, leading all other counties by more than \$200,000. "The cotton mills are, of course, [Huntsville's] major industries," wrote the Chamber, accepting the dominance of the mills as obvious and matter-of-fact.²⁷ Of course, this state of affairs was obvious at the time: the cotton mills were prominently situated as the city's dominate industry. No other economic base could compete against it, at least not yet.

Quite unexpectedly, cotton was soon to be replaced as Huntsville and Madison County's economic lifeline. Alabama historian Allen Cronenberg has insisted that "no town in Alabama experienced more dramatic, permanent change from the construction of military plants than Huntsville."²⁸ On the advent of World War II, Huntsville was a serene town of 13,000, the seat of rural Madison County and agricultural hub of the Tennessee Valley. In 1939, Huntsville contained 17 manufacturing firms, which total employed 133 workers; yet only 5 years later, in 1944, Huntsville had 17,000 manufacturing jobs, 11,000 of which were

²⁶ "Population," *Sixteenth Census of the United States: 1940*, 259.

²⁷ Chamber of Commerce, *Huntsville, Madison County and Trade Territory*, 37, 59.

²⁸ "Total Expenditure Due to Exceed \$47,000,000 for Vast Establishment," *The Huntsville Times*, 3 July 1941, 1.

civilian positions at one of Huntsville's two arsenals and its ordnance depot.²⁹

Seismic shifts in Madison County's economic structure and industrial production capacity were heralded in the July 3, 1941, issue of *The Huntsville Times*: the United States War Department announced that it had chosen Huntsville as the site for a new \$41,293,000 chemical warfare plant. This arsenal would function as its own base and community, and would include chemical manufacturing plants, plants for loading chemical shells, a storage depot, numerous warehouses, and a laboratory, as well as shops, offices, and hospitals. Total operations would require more than 1,000,000 square feet of floor space; more than 30,000 acres would be allocated to host the building sites and a base for railroad yards. The Department estimated that the facilities would employ several thousand people when construction was completed and operations were kicked into full gear.³⁰

Major General William Porter, chief of the Chemical Warfare Service, was quick to compliment the soon-to-be plant—and the region, by extension—declaring that “these new facilities of the Chemical Warfare Service, to be located at Huntsville, Ala., will greatly strengthen and improve the national defense of the country.”³¹ His rhetoric was emblematic of the continued praise that would accompany the area's fast-rising national profile and importance to the nation writ large. Huntsville and Madison County would soon be contributing much more substantially to the Allies than its famed cotton.

The initial facility to be constructed—aptly named Huntsville Arsenal—consisted of three plants, two of them identical twins (in the event of a bombing, the Department hoped one would survive the attack). The plants produced numerous toxic agents and gases—including mustard gas and phosgene—and inflammables

²⁹ Allen Cronenberg, *Forth to the Mighty Conflict: Alabama and World War II* (Tuscaloosa: University of Alabama Press, 1995), 48–49.

³⁰ Ibid.

³¹ Ibid.

such as smoke grenades, bombs, and canisters. Despite the dangers that came with working with the hazardous materials on site, thousands flocked to Huntsville to vie for one of these newly-created, high-paying defense jobs.³²

Prior to its decision to build in North Alabama, the U.S. government had investigated a number of sites across several states as possible locations for the new plant. Of the multitude of factors taken into account during the evaluation process, the most significant included transportation; availability of materials for construction and raw materials for operation; accessibility of electric power and fuel; and relative immunity from attack in wartime (this final factor would be key to the site that would house vital missile defense systems).

At the end of the process, Huntsville won the site. In justifying its decision, the War Department cited Huntsville's transit systems—both rails and rivers—as well as power supplies, natural resources, and appropriately good weather all as positive aspects that helped to set the city a cut above the rest. In addition to sitting along key Southern Railway and Nashville, Chattanooga and St. Louis Railway routes, Huntsville also had easy access to the Tennessee River, a central artery through the American South. In terms of power, the combined output of the Tennessee Valley Authority's hydroelectric dams, soft coal from nearby mines, and fuel oil sent up the Tennessee River could easily supply the strenuous power demands of the wartime facility. Moreover, raw materials for construction and manufacturing were readily at hand in the surrounding region. All this, plus Huntsville's yearlong moderate temperatures, made the area an attractive site for government development.³³

Five days after announcing construction of Huntsville Arsenal, the War Department awarded Huntsville a second defense project: a \$6,000,000 assembly plant employing about 370 people per

³² *Ibid.*, 50–51.

³³ “Total Expenditure,” *The Huntsville Times*, 1.

shift.³⁴ In addition to the hundreds of full-time jobs, a great deal of temporary work was also available in the construction of the new facilities. The building of Huntsville Arsenal alone would require the labor of over 12,000 men.³⁵

Anticipating a population influx from the War Department projects, Huntsville public officials asked the federal Public Works Administration for a grant totaling \$2,664,500 to expand existing public facilities, including paving the runways at the municipal airport and the access roads catering to the new military operations; expanding the local public school system; and building a modern sewage disposal plant.³⁶

Throughout Alabama, military activity was changing business-as-usual. Agriculture was losing its monopoly on the state economy as wartime production pushed industrialization forward. Alabama Governor Chauncey Sparks reflected that “[f]or half a century industry has made itself felt more and more in this once entirely agricultural domain, until now Alabama is the outstanding industrial State of the Southeast. Her industries have entered the conflict with a will which is nothing short of remarkable.”³⁷ Sparks named Huntsville as the standard bearer of the rapid changes occurring across his state, precipitated by the needs of World War II combat. In the 14 months between July 1, 1940, and August 31, 1941, the War Department spent more than one-and-a-half billion dollars on defense industries in the South, with more than \$424,000,000—about 27%—going into Alabama.³⁸

³⁴ “\$6,000,000 Ordnance Plant Authorized Here,” *The Huntsville Times*, 8 July 1941, 1.

³⁵ “12,000 Will Be Required in Constructing Arsenal,” *The Huntsville Times*, 8 July 1941, 1.

³⁶ “Millions Asked for Expansion in Huntsville,” *The Huntsville Times*, 18 July 1941, 1.

³⁷ Chauncey Sparks, “The Impact of the War on Alabama,” *War Comes to Alabama* (Tuscaloosa: University of Alabama Press, 1943), 1.

³⁸ *Ibid.*, 6.

However, this enervation had its accompanying problems. This uptick in war activity required a great deal of manpower, more than the available supply. In Governor Sparks' words, the result was a "grave labor shortage," not only in factories, but also on farms.³⁹ Another problem was skill, or rather lack thereof. Available workers came from predominantly agricultural backgrounds and did not possess the training necessary for work in intensive manufacturing. In conversation with Governor Sparks, Colonel Carroll Hudson—the Commanding Officer of the U.S. Army Ordnance Department—initially expressed his concerns at the Army difficulties in recruiting and training Alabama workers for the available Madison County-based defense jobs. However, Hudson later praised Alabama laborers for their eagerness to adjust to manufacturing and their efficiency after the transition period.⁴⁰

In sum, Huntsville, Madison County, and the rest of Alabama flourished during the war years of the 1940s. As during World War I, global conflict brought wealth and capital to the state, but this time missiles, rather than cotton, were the local cash crop.

Although Huntsville's newly inaugurated defense industries immediately began to shift the local economy away from agriculture, cotton remained a major player in the regional and state economy throughout the course of World War II. Speaking on behalf of the state agricultural sector's eagerness to devote its efforts full-throttle to the Allies' cause—and speaking for what he viewed as the fundamental importance of agriculture to the war effort—Governor Sparks wrote that:

Notwithstanding the rapid rise of industry in recent decades, this is still primarily an agricultural State, and agriculture has gone all-out in the war effort [C]otton, for example, is used in such a variety of ways as to make it second only to steel in important as a war material. The farmers of Alabama,

³⁹ Ibid., 5.

⁴⁰ *Huntsville Has What It Takes* (Keller-Crescent Co.), 16.

therefore, are making a direct contribution to the war effort, both in raising food for the armed forces and for civilian workers and in producing many of the essential raw materials of war.⁴¹

Likewise, State Commissioner of Agriculture and Industries Joe N. Poole observed that cotton—in addition to being the primary income source for Alabama farmers—was a “war crop,” and Alabama's cotton farmers were contributing in huge ways to the strength of the war program.⁴² The Quartermaster Corps of the Army praised cotton as a vital war material second only to steel; more than 11,000 cotton items appeared on the Army’s procurement list—clothing, tents, and other pieces of equipment were all produced from cotton fiber. In addition, cotton was vital to the proper functioning of other essential military goods, such as rubber tires and wires in mechanical equipment. It was used in the manufacture of conveyor belts, hoses, abrasives, polishing clothes, and even played a part in the proper construction and function of planes, jeep cars, and rubber boats. According to Poole, “[n]o tank runs, no ship sails, and no plane flies without cotton as a part of its equipment and structure.”⁴³

The cotton industry adopted similar reasoning to that of Poole in its branding and marketing efforts, and used cotton’s role in the war as means to promote itself and its products as quintessentially American, naturally patriotic and benevolent. Published in 1943, Josephine Perry's *America at Work: The Cotton Industry* begins with a nationalistic ode to the sector. She writes that her book is “presented to the boys and girls of America to tell them a brief story of a great industry which has been developed by the ingenuity, resourcefulness, skill and hard work of farmers, craftsmen, business men, engineers, chemists and scientists,

⁴¹ Sparks, “The Impact,” *War Comes to Alabama*, 1.

⁴² Joe N. Poole, “Agriculture,” *War Comes to Alabama* (Tuscaloosa: University of Alabama Press, 1943), 67.

⁴³ *Ibid.*, 67–68.

working together for the good of the nation.”⁴⁴ In her opinion, the US cotton textile industry was the world’s foremost of its field and “exemplified the greatness of a nation that believes in the value of work.”⁴⁵

In this vein, the president of the Cotton-Textile Institute, Dr. Claudius Murchison, unveiled “A Charter for Cotton” at the Third Cotton Research Congress in 1942. Drafted by the Texas State-Wide Cotton Committee, this declaration was a self-described “reflection” on the tenets of the Atlantic Charter and their relation to the nation’s cotton business.⁴⁶ The Charter asserted that cotton was the world’s single most important textile fiber and that the US produced well more than half of the world’s best cotton. The Charter claimed itself to be the “expression of men who feel that their unique position in relation to the whole matter of setting up a better-ordered world, as some compensation for the fearful sufferings and sacrifices of mankind in the present war, places upon them a special responsibility.”⁴⁷ Cotton producers and manufacturers viewed themselves as sitting atop a unique pedestal within the greater world economy, controlling an industry that they viewed as a guiding light to the world’s salvation.

This campaign to promote cotton during the early years of the war would serve Huntsville well. As one may recall, by the late 1930s Madison County had established itself as the seat of Alabama’s cotton production. In 1940, Madison County ginned 40,122 of Alabama’s 710,175 running bales of cotton. Second-place Marshall County, bordering Madison on the southeast, ginned 27,061, about 32% less than Madison.⁴⁸ Alabama’s cotton

⁴⁴ Josephine Perry, *America at Work: The Cotton Industry* (New York: Longmans, Green and Co., 1943), 5.

⁴⁵ *Ibid.*, 6.

⁴⁶ Claudius Murchison, “Position of Cotton Textiles in the War,” *Proceedings of the Third Cotton Research Congress* (1942), 55.

⁴⁷ *Ibid.*, 56.

⁴⁸ “Agriculture: Statistics For Counties,” *Sixteenth Census of the United States: 1940*, 528.

output continued to increase, hitting a statewide net-total of 796,405 bales in 1941. Again, Madison County held its lead with 49,569 of the total, and again Marshall County followed; at 38,533 bales, it fell short of Madison by over 10,000.⁴⁹ The region's lead continued throughout the war, with Poole observing in 1943 that the Sand Mountain and Tennessee Valley regions in North Alabama were the largest producers of cotton.⁵⁰

Wartime advertisements in the region's newspapers also point to the area's reliance on cotton and the crop's significance to its ordered society, as well as the patriotism underlying cotton production. A 1941 *Huntsville Times* ad encouraged its readers to "Buy Cotton! For America! For the South! For Defense!"⁵¹ A cotton purchase was simultaneously an investment in the nation and the region, and in safety as well as economic well being. "Cotton's the Fabric of America," declared the ad, which went on to advance a view of cotton's significance in American life: "Cotton is an American product, raised in America, processed in America, and finished in America. It is the duty of every American to use more cotton in preference to imported materials."⁵² The word 'America' is repeated several times, each time emphasizing further creating an image of cotton as a quintessentially American crop. Cotton—and the South by association—was equated with the America. The crop was promoted as a means by which Huntsville residents could significantly contribute to America's war effort, as well as touted as a necessity that only the American South could provide to a world starving for it.

Another 1941 *Huntsville Times* ad continued this trend of marketing cotton as a global economic necessity that America was uniquely situated to supply. The ad featured a "Cotton Quiz: Who

⁴⁹ "Madison Ginnings Top State By Far," *The Huntsville Times*, 11 December 1941.

⁵⁰ Poole, "Agriculture," *War Comes to Alabama*, 69.

⁵¹ Advertisement, "Buy Cotton!" *The Huntsville Times*, 2 November 1941.

⁵² *Ibid.*

is the biggest bedding maker in the world?"⁵³ Answer: the U.S. government, which the ad identified as having used American cotton to produce 3,990,000 mattresses for needy American families.⁵⁴ Cotton was seen as helping America in fights both overseas and at home, both political and economic.

Despite the cotton industry's efforts to protect its regional interests via associations with patriotism, World War II quickly changed industry and society in Huntsville and Madison County. These changes to the region's economic base would be profound and permanent. In 1943, Acting Director James B. McMillan of Bureau of Business Research at University of Alabama predicted that the war would inject balance into the state's economy, with industrial development killing off agriculture's gripping monopoly. "World War II should leave the State [of Alabama] with a better balance between agriculture and industry," McMillan predicted, "no small part of which will result from the shift of surplus manpower from sub-marginal agriculture to augmented industrial capacity."⁵⁵ Alabama's economy was in transition, and Huntsville was leading the trend. Major General Porter insisted that "Huntsville's arsenal will be no fly-by-night war defense industry. It will be a permanent industry, and adequate provision has been made for the erection of a sufficient number of new residences to house the expanded population."⁵⁶

In 1943, Professor Hallie Farmer of the Alabama State College for Women outlined what he considered Alabama's most likely postwar prospects. Farmer understood that the Alabama that would emerge from the war would be a fundamentally different

⁵³ Advertisement, "Cotton Quiz," *The Huntsville Times*, 3 November 1941.

⁵⁴ Ibid.

⁵⁵ James B. McMillan, "Business and Industry," *War Comes to Alabama* (Tuscaloosa: University of Alabama Press, 1943), 81.

⁵⁶ "12,000 Will Be Required In Constructing Arsenal," *The Huntsville Times*, 8 July 1941, 1.

state than the one that entered it; the significant defense investments in the northern part of the state would leave a deep impression, he reasoned. The state's supply of skilled and semi-skilled labor would become larger than at any other point in its history. Wartime production would convert to its peacetime equivalent. Echoing the cotton industry's earlier rhetoric, Farmer noted that "Alabama has a responsibility in the postwar world, as well as in a world at war, which she dare not evade."⁵⁷ However, unlike earlier rhetoric, Huntsville's residents began to connect this newer sense of responsibility not with cotton or agriculture more generally, but instead with a new financial matron: defense.

Over the course of the war, ads promoting cotton gradually disappeared from *The Huntsville Times* and other regional publications. Even before the ceasing of hostilities, cotton's stronghold on Huntsville and Madison County began to waver. A consequence of the two arsenals now operating within its boundaries, the focus of Madison County's contributions toward the national war effort had shifted from indirect to a direct connection to defense, from cotton to chemical warfare and missile defense. While cotton remained a necessary wartime good, its contributions were implicit and behind the scenes. Missiles were very much the opposite; they were on the front lines, topping headlines on international news wires. In comparison, cotton brought up the rear.

Post-war, Huntsville's shift toward adopting defense as core to its identity continued unabated, its wartime contributions touted in the October 1946 issue of *The Merchant Journal* as being three-fold: "men, munitions and money."⁵⁸ The media's focus on the two arsenals, Huntsville and Redstone, further propagated the notion that "[t]hese Arsenals contributed abundantly to the drive for Victory," the message being that U.S. military success would

⁵⁷ Hallie Farmer, "Postwar Prospects," *War Comes to Alabama*, (Tuscaloosa: University of Alabama Press, 1943), 134, 139.

⁵⁸ *The Merchants' Journal* (October 1946), 7.

not have been feasible without Huntsville and its missile production capacity.⁵⁹

These arsenals were not only viewed as integral to the war effort, but also to Huntsville's greater industrial development. In 1945 alone, "16 new industries came into the picture helping absorb the unemployment caused by the reduced activities of the two Government Arsenals,"⁶⁰ and capitalizing on the skilled labor first trained in the arsenals and now emerging from their downsized activity. The late 1940s saw much praise for the region's defense industry, but little for cotton; *The Merchant Journal* mentioned the industry in a single line near the end of the article: "The largest cotton warehouse facilities in Alabama are located in Huntsville."⁶¹ Five years earlier, cotton had been praised and revered with little competition. Now, it was becoming merely acknowledged.

Huntsville and Redstone Arsenals brought a new vitality to Madison County, and Huntsville's business leaders sought to ward off any economic slump from hitting their community post-war. "Huntsville has not been content to put all its eggs in the arsenal basket," *Alabama Magazine* duly noted in December 1947.⁶² City leaders were proactive in diversifying the local economy and not depending too heavily on any one industry.

Entrusted with the task of attracting business to the city, the Huntsville Industrial Expansion Committee was formed in 1945, and promptly initiated a vigorous campaign to market the city and region—with its post-war economy no longer dominated by cotton and brimming with a newly skilled labor force—to the national business community. "Huntsville today is where the gears of commerce and industry mesh to form a smoothly functioning

⁵⁹ Ibid.

⁶⁰ Ibid.

⁶¹ Ibid.

⁶² "Huntsville Takes Steps To Make Her 'Boom' Permanent," *Alabama* 12, No. 52 (26 December 1947): 12.

industrial machine,” wrote the Committee in their advertisements and promotional materials.⁶³ They sought to shape Huntsville’s image as a fundamentally altered city than what it had been pre-World War II, when agriculture, and especially cotton, dominated the local economy.

In a letter to the president of the Committee, the Commanding Officer of the U.S. Army Chemical Warfare Service, Colonel E. C. Wallington, complimented Huntsville and Madison County’s flexible and fast-learning labor supply, and applauds the rapid conversion of the area’s labor from its peacetime agricultural industries to wartime production of military supplies. He wrote that “I am glad to say, because of the ease with which workers responded to training and on-the-line instruction, we were able to go into production months ahead of schedule It is my opinion based on performance that this section has much to offer in the way of adaptable labor.”⁶⁴ Colonel Hudson also praised the area’s labor and its ability to adapt to new industry. Writing to Governor Sparks, Hudson bolstered that:

it is my opinion that Alabama labor readily adapts itself to the manufacturing industry...A large percentage of the Explosive Operators, our production people, were farmers or housewives before coming to work at Redstone. . . . Alabama labor is outstandingly responsive to leadership, very cooperative, and if given good training, will make productive and efficient industrial workers.⁶⁵

Significant alterations in the labor supply were a significant difference between pre- and post-war Huntsville: “The saga of one of Huntsville’s contributions to the war effort [namely the development of the arsenals] illustrates the high quality of manpower available.”⁶⁶ The city’s labor supply suddenly shifted

⁶³ *Huntsville Has What It Takes* (Keller-Crescent Co.), 5.

⁶⁴ *Ibid.*, 16.

⁶⁵ *Ibid.*

⁶⁶ *Ibid.*, 17.

away from unskilled agricultural labor and toward skilled manufactures. Out of a total 3,968 men employed in Huntsville in 1950, 2.8% worked in agriculture.⁶⁷ Total men jumped to 17,603 by 1960, with the agriculture sector declining to only 1.7% of the whole.⁶⁸ While the raw number of men employed in agriculture did increase from 112 to 302 men, agriculture's growth was simply not keeping pace with growth in other economic sectors.

Huntsville's cotton industry was well established and certainly did not disappear overnight. In 1946, the city still retained Alabama's largest cotton warehousing facilities.⁶⁹ However, economic change was swift and seismic. Out of the 13,735 males employed in Madison County in 1940, 7,337 (53%) worked in agriculture.⁷⁰ By 1950, the number had risen to 16,959 while the number working in agriculture had shrunk to 6,510 (38%).⁷¹ Agriculture—or more specifically, cotton—was dying out as the area's financial matron.

Shortly after the war, Alabamians recognized cotton's perilous situation. In August 1945, the *Alabama Courier* described the imminent demise of cotton production coming to most Alabama counties: "Mule-power cotton is becoming a thing of the past. . . . The mechanical age for cotton production is just around the corner in America."⁷² Mechanical cotton pickers were gaining ground, especially in light of the renewed foreign competition in the wake of the war. However, Alabama geography was simply not suited

⁶⁷ "Characteristics of the Population: Alabama," *Census of Population: 1950*, 57.

⁶⁸ *Ibid.*, 163.

⁶⁹ *The Merchants' Journal*, (October 1946), 7.

⁷⁰ "Population," *Sixteenth Census of the United States: 1940*, 259.

⁷¹ "Characteristics of the Population: Alabama," *Census of Population: 1950*, 94.

⁷² "Exit Cotton," *The Alabama Courier*, 30 August 1945.

to the machines, which required large acreages of level land.⁷³ Cotton production was moving west, and Alabama would find itself left behind to mend the wounds of its departure.

This transition did not come out of the blue. The dean of the School of Agriculture at Mississippi State College, Dr. Frank Welch, commented in 1947 that the diversification of the Southern economy was breaking the region's economic dependence on cotton—simply put, new industries were moving in and pushing cotton offstage. Decrying the South's transition away from agriculture with the rapid rate of industrial development, Welch staunchly criticized the region's inability to keep pace with the technological advancements made in agriculture elsewhere, further risking what remained of the South's cotton industry: "Per capita production on southern farms is low, physical resources are uneconomically and often unwisely used, and capital equipment is deficient."⁷⁴ Southern residents no longer had a compelling desire to keep pace with their cotton competitors. New public and private operations had revitalized the South during the war, and those industries had superseded now-expendable cotton.

For the South's economy, cotton had lost its weight. At the International Cotton Conference in Italy in 1957, the situation of the U.S. cotton and textile industries in the world market was direly reported to conference attendees by W. J. Erwin, Chairman of the Foreign Trade Committee of the American Cotton Manufacturers' Institute. Erwin declared that although total U.S. cotton consumption increased in the years from 1939 through 1948, the situation has changed since then. For example, between 1948 and 1956, U.S. consumer spending increased by about 32%, but textile mill consumption increased only 2%, and cotton consumption decreased. Textile mill profits began to decline in

⁷³ Ibid.

⁷⁴ Frank Welch, "Cotton in the Agricultural Economy of the South," *Proceedings of the Eighth Cotton Research Congress* (1947), 110, 112.

1948, hitting a new industry low of an average 1% after-tax profit by 1954.⁷⁵

The 1940 U.S. Census listed “textile-mill products (manufacturing)” as an Industry Group.⁷⁶ The reason was simple: at the time, textile mills comprised Madison County’s sole manufacturing. However, come 1950, “Manufacturing” and “Textile mill products” are listed separately. Moreover, “Manufacturing” was beating out “Textile mill products” in terms of Huntsville’s labor, 3,094 men employed in the former compared to 1,519 in the latter.⁷⁷ By 1960, textile mills were no longer distinguished from the manufacturing sector at large.⁷⁸ Cotton was no longer a clearly dominant and discernible industry for the region.

While Huntsville’s cotton industry crumbled, its growing defense sector sparked tremendous population growth. Between 1950 and 1960, Huntsville’s population skyrocketed from 16,437 to 72,365, a 340% increase. By the late 1960s, the population topped 160,000.⁷⁹ No other municipality in Alabama came close to Huntsville’s explosive growth; going one step farther, R. B. Searcy—Huntsville’s mayor from 1952 until 1964—nicknamed Huntsville the “‘growingest’ city in the world.”⁸⁰

Also of considerable note, by 1960, 1.5% of Huntsville’s citizens were foreign-born, the largest percentage of any other metropolitan area in the state. (Mobile and Montgomery tied for

⁷⁵ W. J. Erwin, “The Position of the Cotton and Allied Textile Industries of the United States in World Trade,” *The Cotton Industry in a World Economy* (Manchester: International Federation of Cotton and Allied Textile Industries, 1958), 53, 55.

⁷⁶ “Population,” *Sixteenth Census of the United States: 1940*, 259.

⁷⁷ “Characteristics of the Population: Alabama,” *Census of Population: 1950*, 57.

⁷⁸ *Ibid.*, 163.

⁷⁹ Bruce Biostat, “Space Paces Huntsville’s Economy,” *Anderson Daily Bulletin*, 7 July 1969, 14.

⁸⁰ Pearson, “‘Rocket City’ Booming,” 4.

second at 0.8%).⁸¹ The war had transformed Huntsville into a flourishing metropolis and center of urban development. Attractive to individuals as well as business, Huntsville's population boomed in the face of massive emigration on the heels of its industrial expansion. Moreover, these new residents were unlikely to have any connection to the pre-war cotton tradition; cotton had no special significance for them. With their influx, Huntsville's population increasingly lost its ties to historic Huntsville and its tradition, and they did not fight to maintain it.

World War II had a profound impact on Huntsville and Madison County. With the establishment of the region's defense sector in July 1941, this cotton-dominated economy began a colossal realignment toward manufacturing and technological industry. Huntsville and Redstone Arsenal modernized the area's labor supply, training farmers and merchants for work in the area's new military-industrial complex. New industries—including Chrysler, Thickol, Warrior Tool and Engineering, Brown Engineering, Redstone Machine and Tool, Diversey Consultants, General Electric, Rohm and Ilaas Chemical, Rocketdyne Division of North American Aviation—also commenced operations in the region, drawn by this new supply of skilled labor.⁸² As more businesses set up and the economy diversified, cotton as the economic staple became no longer necessary. In fact, cotton and textile mill production in the South entered into a deep slump after World War II. Unable to compete with the rising global market, the once-dominant cotton market in Madison County began to wane.

Concurrently, the local citizenry began to psychologically devalue cotton and—following the lead of men like Milton Cummings—move on. Even during the course of the war, county residents began to disassociate their regional identities from cotton

⁸¹ “Characteristics of the Population: Alabama,” *Census of Population: 1950*, 9, 115.

⁸² Pearson, ““Rocket City’ Booming,” 4.

as defense industries began to dominate the scene. They could now point to a tangible contribution to the war effort, that of missiles and chemical defense. They had found a new significance to their role in the nation. Cotton simply could not provide them with an equivalent sense of patriotic pride.

Contributing to this profound regional shift was nothing short of a population boom. Emigrants with no prior connection to the area's cotton-centered culture quickly came to exert their influence on the rapidly shifting local society. A new folk, people who had a national sense of themselves rather than one dependent on the region, came to dominate Huntsville and overcome its cotton roots.

In 1949, the newly organized Department of Defense centralized U.S. military rocket research in Huntsville. This decision concluded with the foundation of the Ordnance Rocket Center at Redstone Arsenal and launched Huntsville into an exhilarating future.⁸³ This future would be divorced from the past; cotton's strength would be gone, and the region would integrate into a larger national network, rather than exist as a place apart from it.

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⁸³ Cronenberg, *Forth to the Mighty Conflict*, 51.