MEMORANDUM

TO: Interested Individuals

FROM: Lori Sokol, Executive Director
Eric Wright, Director of Planning and Development

DATE: March 26, 2025

RE: East Alabama Regional Planning and Development Commission - EDA Comprehensive Economic Development Strategy (CEDS)

Enclosed is the 2024 Annual Update of the 2022 CEDS for the East Alabama Regional Planning and Development Commission - Economic Development District. The annual update to CEDS has been approved by the Commission through resolution 6631, in addition to compliance with all submittal requirements. The attached information can also be found at:

https://www.earpdc.org/

Should you have any questions or need any additional information, please contact Director of Planning and Development Eric Wright at (256) 237-6741 or eric.wright@earpdc.org.

Sincerely,

Lori Sokol

Lori Sokol
Executive Director

EAST ALABAMA   CALHOUN CHAMBERS CHEROKEE CLAY CLEBURNE COOSA ETOWAH RANDOLPH TALLADEGA TALLAPOOSA
Regional Planning and Development Commission   1130 Quintard Avenue Suite 300 Quintard Tower P.O. Box 2186 Anniston, AL 36202

Phone (256) 237-6741   Fax (256) 237-6763   Email earpdc@earpdc.org   Website www.earpdc.org

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MAYOR OF SOUTHSIDE

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CITY CLERK/CITY OF
LAFAYETTE

TREASURER
HONORABLE BILL BAKER
MAYOR OF PIEDMONT

Resolution No. 6631

WHEREAS, the East Alabama Regional Planning and Development Commission (EARPDC) receives planning grant funds from the Economic Development Administration (EDA).

WHEREAS, the work plan consists of developing a yearly update to the region's Comprehensive Economic Development Strategy (CEDS);

WHEREAS, EARPDC staff has developed the 2024 update and submitted it to the East Alabama Regional Planning and Development Board;

THEREFORE, BE IT RESOLVED that the East Alabama Regional Planning and Development Board adopts the 2024 update to the CEDS and any changes made under the guidance of the EDA or EARPDC staff;

FUTHERMORE, the East Alabama Regional Planning and Development Board will use this document in guiding the agency's development efforts.

Passed and adopted this 26th day of March, 2025.

Dana Snyder, Mayor, City of Southside
Chairman

CERTIFICATION:

I, the undersigned, hereby certify that the foregoing is a true and correct copy of a resolution passed and adopted by the Board of Directors of the Commission stated therein, in a meeting of such Board called and held in accordance with its Bylaws and the laws of Alabama on the 26th day of March, 2025.

Witness my hand this 26th day of March, 2025.

ATTEST:

Louis T. Davidson, City Clerk, City of LaFayette
Secretary

2022 Comprehensive Economic Development Strategy for the East Alabama Region

ALABAMA REGION IV

Prepared by
East Alabama Regional Planning and Development Commission

EARPDC

COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY FOR THE EAST ALABAMA REGION

Alabama Region IV

2022

East Alabama Regional Planning and Development Commission

ACKNOWLEDGEMENTS

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Table of Contents

INTRODUCTION

A comprehensive economic development strategy (CEDS) is designed to bring together the public and private sectors in the creation of an economic roadmap to strengthen a regional economy. The East Alabama CEDS provides an analysis of the regional economy and serves as a guide for establishing regional goals and objectives, developing and implementing a regional plan of action, and identifying investment priorities and funding sources.

The East Alabama Regional Planning and Development Commission (EARPDC) serves as the Economic Development District (EDD) for a ten-county region encompassing the following counties: Calhoun, Chambers, Cherokee, Clay, Cleburne, Coosa, Etowah, Randolph, Talladega, and Tallapoosa. The Comprehensive Economic Development Strategy (CEDS) is a regional planning and implementation process designed to create jobs, foster more stable and diversified economies, improve living conditions, and provide a mechanism for guiding and coordinating the efforts of people and organizations involved in economic development. Through the planning process, a CEDS document is developed which:

- outlines the region's assets, challenges, needs, and opportunities;
- identifies the goals and objectives of the development program;
- presents the strategies and action plans devised to achieve those goals; and
- outlines criteria for evaluating the program's achievements.

The program is intended to provide greater economic and social stability for the region and its people and to assist existing and guide new economic development activities in the region.

This document is being prepared to keep the *Comprehensive Economic Development Strategy for the East Alabama Region* in compliance with the requirements of the Economic Development Administration Regulatory Revision Final Rule, which went into effect on January 20, 2015. It will be comprehensively updated once every five years. Annual reports will be prepared in the interim years to summarize and assess any significant changes that may affect development within the region.

East Alabama Economic Development District
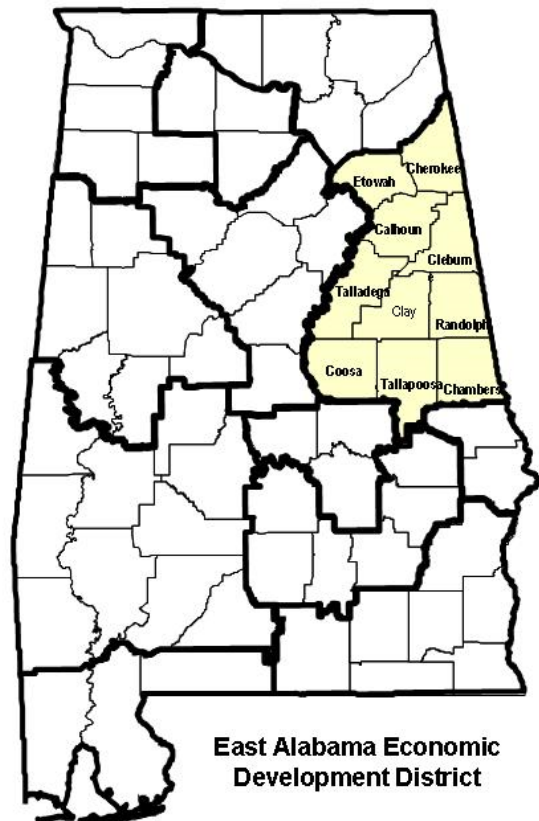
Public Participation

The 2022 CEDS incorporates information gathered for the *CLEAR Plan 2030: Community Livability for the East Alabama Region*—a citizen-based, grassroots planning effort designed to enhance the quality of life for residents in the region and provide a course to economic resiliency, housing affordability and land reuse and preservation. The project was funded by a Sustainable Communities Regional Planning Grant from the U.S. Department of Housing and Urban Development.

The *CLEAR Plan 2030* was the culmination of a three-year planning process conducted by the East Alabama Partnership for Livability, a thirteen-member consortium of public and private entities and non-profit organizations—including the EARPDC—that provide services to multiple jurisdictions in east central Alabama. The Consortium hired Partners for Livable Communities and The Walker Collaborative—which partnered with Randall Gross / Development Economics, Skipper Consulting, Inc., and Epiphany Collaboration, LLC—to assist with the project.

Each Consortium member co-chaired one of six Livability Resource Teams (LRTs), comprised of regional stakeholders (including local elected officials and residents) and experts in one of six key aspects of livability: Community Engagement, Economic Competitiveness, Transportation, Housing, Education, and Health. Each LRT created individual studies pertaining to its area of expertise. Each study included an examination of existing conditions, identification of needs, and establishment of goals, objectives, and performance measures.

The planning process also included an extensive community outreach campaign consisting of a regionwide survey, two "County Conversations" in each county, sessions at senior centers and housing authorities, "mini-conversations", distribution of printed materials, use of local broadcast stations and newspapers, and the CLEAR Plan 2030 website and Facebook and Google Plus pages. Participants in these activities received information about livability and provided feedback about livability practices and needs in their communities. Partners in community outreach included Chambers of Commerce, educational institutions (including Alabama Institute for Deaf and Blind), civic clubs, human service providers, and local governments. Ultimately, at least 5,400 people throughout the region contributed to the *CLEAR Plan 2030*.

In addition to continuing to utilize the beneficial research provided by the *CLEAR Plan 2030,* the 2022 CEDS planning process included a regionwide survey, regional public hearings, and use of the EARPDC website. Survey results are available in Appendix A. Also, for additional sourcing and information, please see the Appendices.

PART I
BACKGROUND

The East Alabama Regional Planning and Development Commission serves a ten-county area in east-central Alabama, bordering the Alabama-Georgia state line. The region lies between the expanding Birmingham and Atlanta metropolitan areas and is convenient to the Montgomery, Chattanooga, Tennessee and Columbus, Georgia metropolitan areas. Some of the region's ten counties and 59 municipalities have shared in the neighboring regions' successes or leveraged their own natural, human, and/or man-made resources to generate their own success; others have not been as fortunate. The following chapters present an overview of East Alabama's people, economy, and resources.

Population

People are the most important part of the economic engine. People need goods and services, people need to make and provide the goods and services, and people need jobs to earn an income to buy the goods and services. The following sections describe general characteristics of the people living in the East Alabama Region.

Population Trends

As of the 2020 Census, 464,726 people lived in the East Alabama region, a nearly 8% increase from 2010. Meanwhile, Alabama grew by 5.1% and the U.S. by 7.4%. A little over half of the region's population is concentrated in only 3 counties: Calhoun, Etowah, and Talladega. Calhoun and Etowah Counties are the region's two metropolitan statistical areas, with Anniston and Gadsden as their core cities.

Population by County, 2020

Legend: Calhoun, Chambers, Cherokee, Clay, Cleburne, Coosa, Etowah, Randolph, Talladega, Tallapoosa
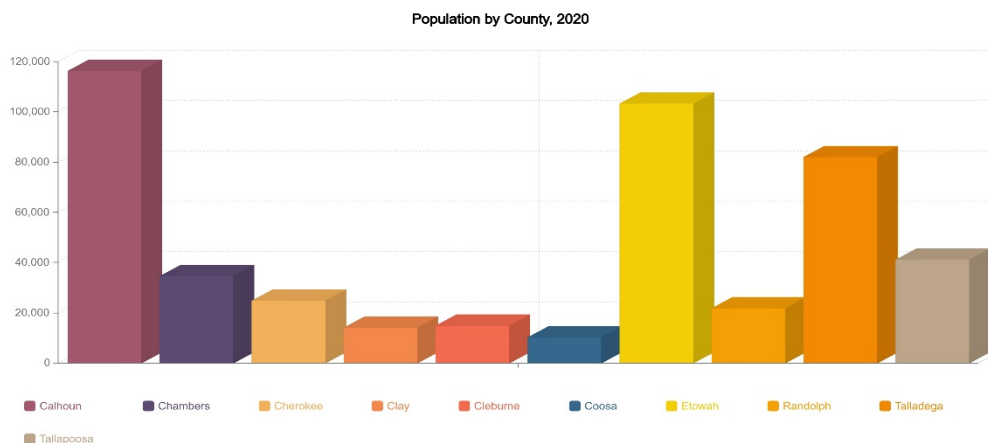
The region's three most populous counties were not necessarily the fastest growing counties, however. Instead, two of the more rural counties, Chambers and Clay, had the highest growth rates, followed by Cleburne County. The remaining counties in the region lost population from 2010 to 2020.

Population Change, 2010 to 2020
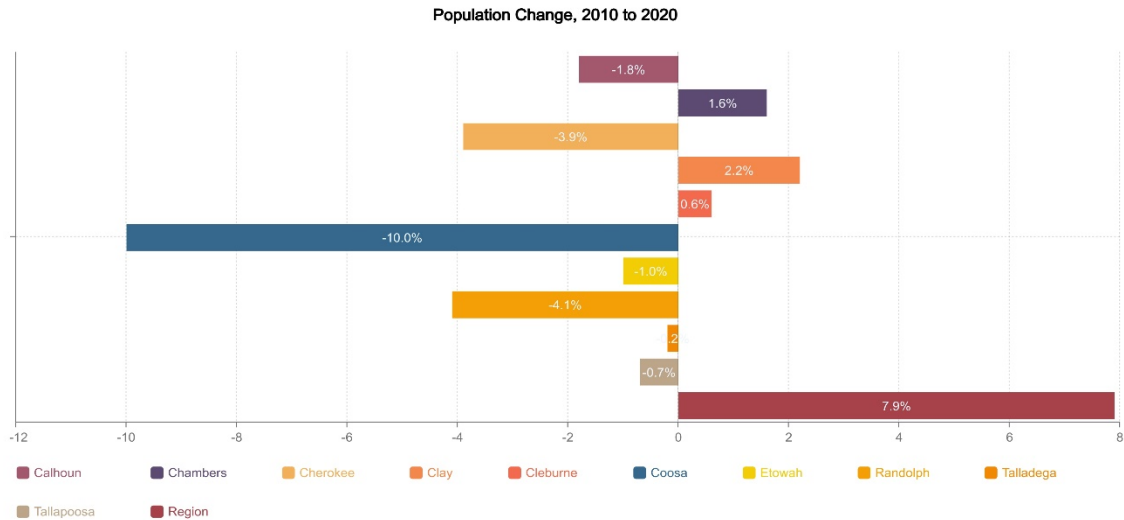
Cherokee, Cleburne, and Randolph Counties offer people working in metro areas (including Atlanta) scenic country and small-town living. Calhoun, Etowah, and Talladega Counties are employment centers traversed by Interstates. Chambers, Clay, Coosa and Tallapoosa Counties were significantly impacted by textile plant closings, although automotive plant suppliers have helped Tallapoosa County recover.

Long-range data show fluctuating population with a generally upward trend in eight of the region's counties. Fifty-year growth rates, calculated as percent change, ranged from 9.9% in Etowah County to 60%

Population Change, 1970 to 2020

in Cherokee County. Only Chambers County and Coosa County had a net population decrease, at -4.4% and -2.6%, respectively. Regionally, the greatest population gain occurred between 1970 and 1980, when all ten counties enjoyed growth. Over the 50-year period, East Alabama's growth rate was 25.9%, much lower than the state's 45.9% or the nation's 63% growth rates.
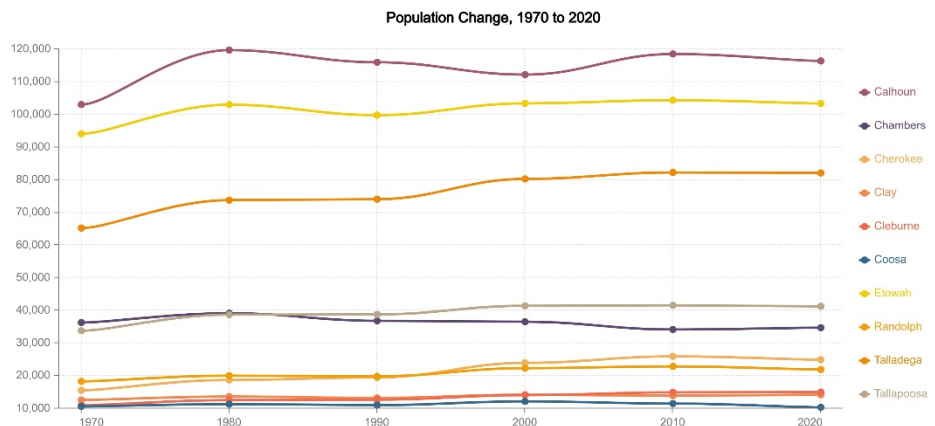
Municipality size in the East Alabama Region reflects the area's rural nature. Of the 58 municipalities, nearly half were towns of less than 1,000 people in 2020. Just over a quarter had populations between 1,000 and 5,000, and nine cities had more than 10,000 residents. The largest city in the region, Gadsden, has been slightly dropping in population since 1990. Oxford, the second largest city, has been steadily increasing since 1990, seeing it's largest rise of 56% from 1990 to 2000. From 2010 to 2020, Oxford overcame Anniston to become the region's second largest city. Therefore, although half of the region's ten counties—Calhoun, Chambers, Etowah, Talladega, and Tallapoosa—have more people living in incorporated cities and towns than in the unincorporated areas, rural and small-town life prevails.

Municipality Size, 2020

Less than 1,000 47%   1,000-4,999   28%
5,000-9,999   10%   10,000+   16%

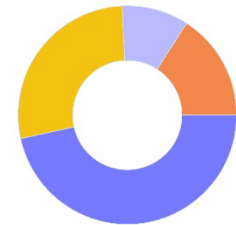"City life" did gain popularity in six counties (Calhoun, Cherokee, Clay, Cleburne, Coosa, and Talladega) between 2000 and 2010, however. From 2010-2020, of the region's 58 municipalities, 27 gained population, and eight grew by over 10%. Small towns saw the bulk of the major municipal population shifts, which may reflect a move away from cities and more crowded areas during the COVID-19 pandemic. However, more municipalities lost population than gained it from 2010-2020, and the major municipal population losses were also in rural municipalities.

Major Municipal Population Shifts, 2010 - 2020

Municipal Population Growth		Municipal Population Loss	
Bon Air	48.3%	Kellyton	-40.6%
Cusseta	23.6%	Rockford	-26.8%
Woodland	20.1%	Ridgeville	-25.9%
Gaylesville	18.1%	Five Points	-18.7%
Jacksonville	14.6%	Daviston	-18.7%
Southside	12.1%	Fruithurst	-17.3%
Walnut Grove	10.7%	Roanoke	-12.6%
Valley	10.6%	Goodwater	-12.5%

Although population loss was spread throughout the region, the rate of decline was higher in the rural areas than in cities and towns. Of the 31 municipalities that lost population, twelve suffered losses of more than 10%. As of 2010, Calhoun and Etowah Counties have the highest percentage of urban population in the East Alabama region, at 69.0% and 60.2% respectively. These counties are followed by Chambers County, at 50.2%, and Talladega County, at 44.5%. At the other end of the spectrum, Cherokee, Clay, and Cleburne Counties had no urban area whatsoever. In Coosa County, only 2.6% of the population lived in an urban area, and in Randolph County, 21.8% was considered to be urban.

Map of the East Alabama Region
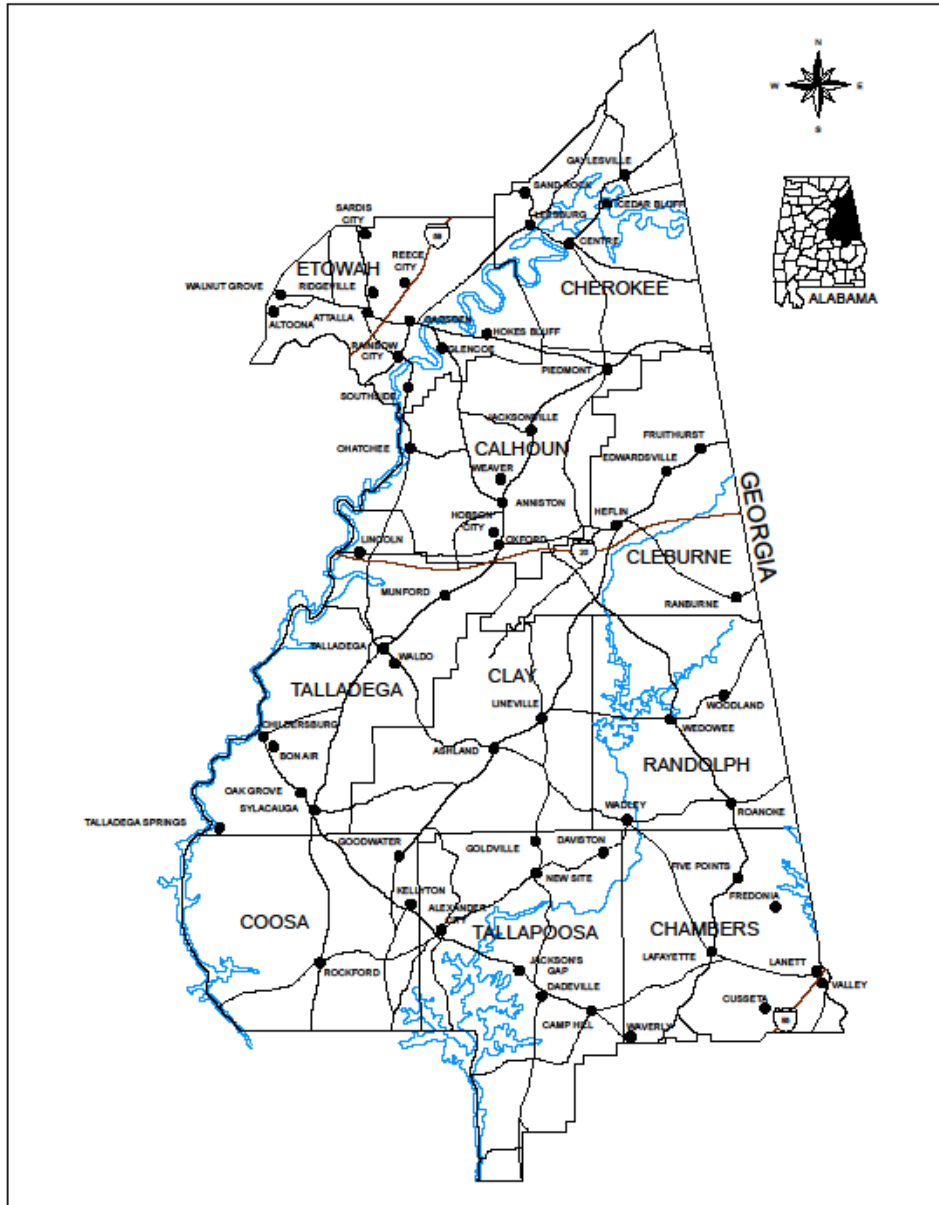
The East Alabama region is experiencing a period of population decline, with the rate being considerably lower than that of the state or the nation. As stated previously, the East Alabama region had a -2.4% loss in population between 2010 and 2020 and a 13.9% population increase between 1970 and 2020. Comparatively, the population of the State of Alabama increased by 2.4% in the last ten years and 42.1% since 1970. The United States experienced a 5.8% increase in population between 2010 and 2020 and a 60.6% increase between 1970 and 2020.

In terms of physical size, the East Alabama region encompasses 11.8% of the land in the state. The proportion of the state's population residing within the East Alabama region continues to slowly decrease. In 1980, East Alabama was home to 12% of the state's residents. That number has slipped to 10.4% in 2000, and 8.6% in 2020. It was expected that the steady expansion of the Atlanta and Birmingham area commuter sheds, the retirees who have been attracted to the region's rural character and natural amenities, and those fleeing urban areas during the COVID-19 pandemic would be reflected in the regional perspective with the 2020 Census. Unfortunately, that is not the case. It does appear, however, that the influx of commuting residents and retirees has assisted in maintaining a somewhat stable population base.

Population By Age Group

The movement of the Baby Boomers (people born from 1946 through 1964) into retirement age has been a national dialog for quite some time. Besides the potential impact of this generation's retirement on Social Security, there has been great concern about a shortage of employees to fill the void that will be left when these experienced workers retire. The Baby Boom was followed by a "baby bust," a sharp decline in birth rates that lasted through 1976. The birth rate did increase between 1976 and 1990 (sometimes called the "echo boom"), but the jobs the Baby Boomers vacate will have to be filled by increasingly younger–and less experienced–workers over time. Much discussion has ensued about means to entice Baby Boomers to remain in, or otherwise contribute to, the workforce longer. Additionally, since 2014, births in the U.S. have been declining, with 2021 seeing the first increase in birth rate since that time. Birth rates, overall, have been falling since 2007.

The effects of the boom-bust-echo, with declining birth rates since 2007, are evident in the pattern of change in age distribution between 1990 and 2020, with Generation Z becoming more prevalent as they were declared the largest generation as of 2021. People born during the first ten years of the Baby Boom have been moving into the 65+ age category during the past ten years, causing a very high rate of increase; every county in the region saw growth in this category from 2010-2020. Low growth and decline in the 25 to 44 and 20 to 24 age categories reflect the decline in births at the end of the Baby Boom and during the "baby bust". The negative change in Alabama's and the region's college age population also could indicate an increase in the number of young adults who chose to go to college, or get employment, out of state. The "echo boom" is evident in figures for the United States and less so for Alabama. The region appears to have missed out on the "echo boom". The decline in birth rates since 2007 is sharply felt across the region, state, and nation, as the under 5 and 5 to 19 categories saw decline, some substantial, across every geography.

East Alabama has been plagued by young adults leaving the region to attend college then obtaining jobs outside the region. This tendency exacerbated the effects of the "baby bust" and essentially negated the "echo boom". In 2020, the majority of geographies saw decline in 5-19 and 20-24 age categories, showing that this issue is not abating. Unless the exodus of young adults is halted then reversed, East Alabama businesses will have more difficulty filling positions vacated by retiring Baby Boomers than will businesses in other parts of

Alabama or the nation as a whole. The region has been attracting retirees and older workers, however. These people have been attracted to East Alabama because of the State's low taxes and the region's numerous lakes, Appalachian foothills, rural character, and easy access to larger urban areas.

Age Distribution, 2020
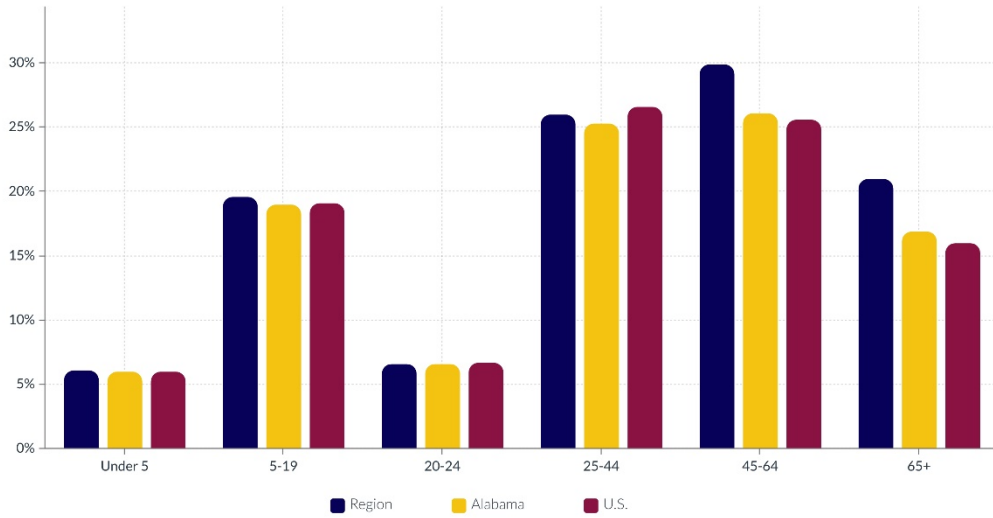
Population Change by Age Groups, 2010 to 2020
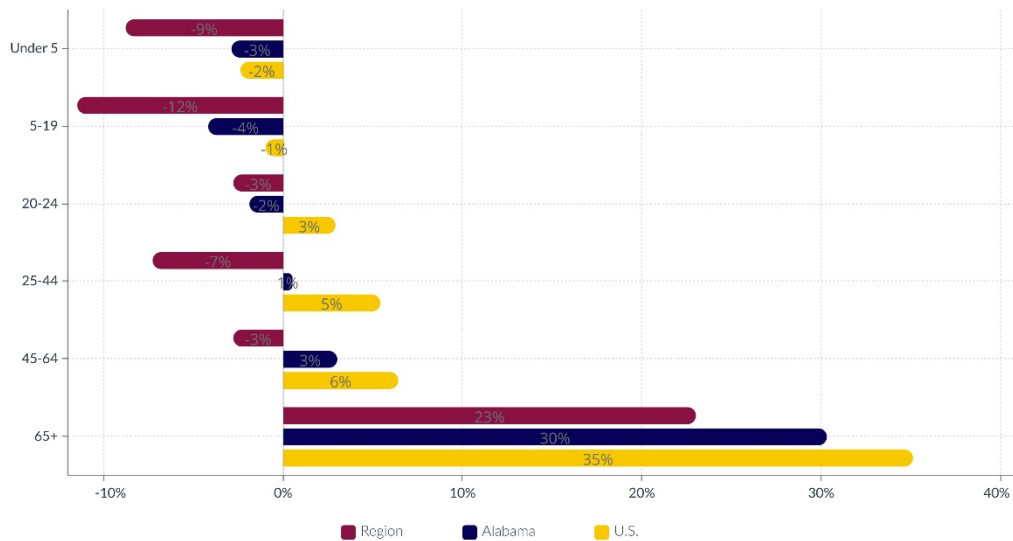
Population by Race & Hispanic Origin

Across the East Alabama region, about three-fourths of the population was white and just under one-fourth was black or African American as of the 2020 Census. The remaining population, at 1.6 percent, was people who are of another race. Between 2010 and 2020, there was a -7% decrease in the white population and a -1.8% decrease in the black population. People of races other than white or black increased considerably by 30%. The percentage of Hispanic people grew by 22% over the 10-year span, with 3.6% of the population claiming to be of that ethnic origin in the 2020 Census. Hispanic or Latino origin is reported separately from race because people who are Hispanic or Latino share a common culture but may be of any race. At present, the number of people who may face language barriers when seeking employment is small. While this fact may seem to be beneficial for the region-in that most of the present and future workforce should have minimal communication problems-it is a detriment to foreign-born people who move into the region, as few resources exist to help them to acclimate.

The increase in persons who are of other races or multi-racial is due not only to immigration but also to the continued efforts of the Census Bureau to document and count these persons as a separate race sector since the 2000 Census. For data management purposes, multi-racial persons (due to their relatively small numbers), other small, single race categories, and the "some other race" category were combined into "other".

East Alabama Regional Population by Race, 2010 and 2020
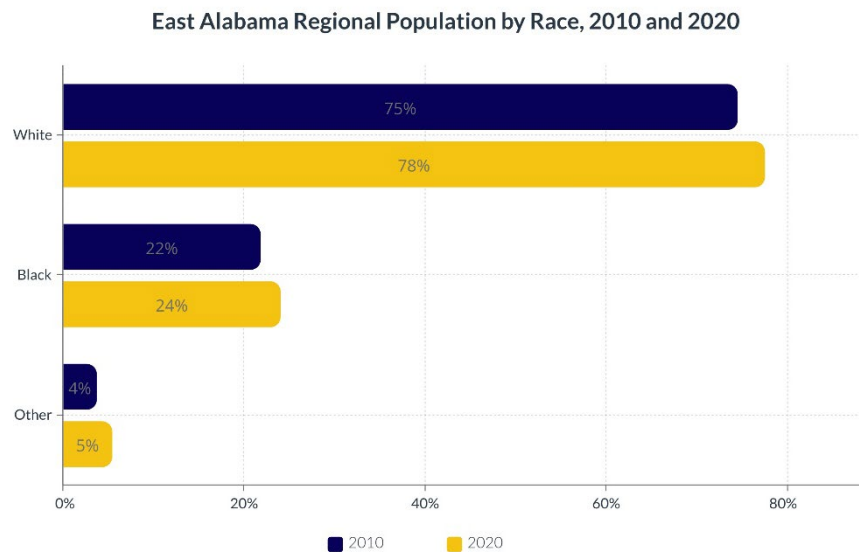
The three counties with the strongest minority presence are Chambers, Coosa, and Talladega Counties. Even in Chambers County, which has the highest minority representation, the black population only comprises 40% of the total population, and all minority races combined make up less than half of the population.

Cleburne and Cherokee Counties have the smallest concentrations of minority population, at 6.9% and 7.7%, respectively. Minority population in the remaining seven counties ranges from 19.0% to 36.9%. The Hispanic population is highest in Calhoun and Etowah Counties, each with approximately 4%. The smallest concentrations of Hispanic persons are found in Tallapoosa County, at 1.0% of the population, and Cherokee County, at 1.5%.

Population by Race and Hispanic Origin, 2020

	White	Black	Other	Hispanic
Calhoun	70%	22%	6%	4%
Chambers	56%	40%	4%	1%
Cherokee	87%	4%	4%	2%
Clay	85%	15%	4%	3%
Cleburne	92%	3%	4%	2%
Coosa	64%	28%	4%	2%
Etowah	76%	15%	6%	5%
Randolph	73%	17%	4%	3%
Talladega	63%	33%	4%	2%
Tallapoosa	70%	26%	6%	1%
Region	78%	24%	5%	4%
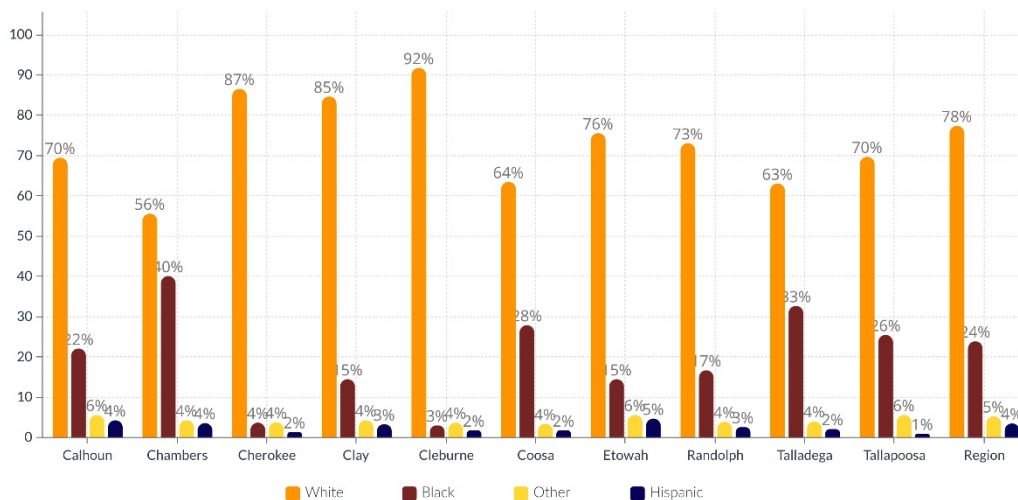
Workforce Development and Use

Even if a community has people to fill the jobs economic developers attract, those people must have the skills employers need. The following sections discuss educational and training opportunities available in East Alabama and examine indicators of present workforce preparedness for the ever-changing economy.

Educational Facilities

Workforce development begins when we are children. In our youth, we learn the skills we need to survive–including skills to obtain and retain employment. We learn to read, to write, to perform mathematical calculations, and we begin to form ideas about what we want to be when we grow up. The East Alabama region has numerous educational facilities that help children and young adults prepare for entry into the working world.

Due to the impact of COVID-19, the U.S. Department of Education (USDOE) issued a waiver to Alabama on June 9, 2021, waiving the requirement of reporting accountability results for the 2020-2021 school year; therefore, for some metrics older statistics are used. As of the 2020-2021 school year, primary and secondary education is offered through 21 different city and county school systems, which collectively have 150 schools. According to 2019-2020 data, nearly two-thirds of the school children in the region are eligible for free or reduced-price meals, at 61.4 percent, as compared to approximately 50% statewide. Only five school systems have fewer than 59% of their students receiving meal assistance. And, in only two systems are there less than 50% of the students eligible for the free or reduced meal programs. Meal assistance is an indicator of poverty levels in the school systems, and children living in low-income households also may need other types of assistance to remain in school and be successful in their educational endeavors. The East Alabama region's high school graduation rate for 2020-2021, at 90.6 percent, is on par with the state, also at 90.6%. Over half (52 percent) of the region's school systems have a high school graduation rate that is equal to or higher than that of

the state. Ten school systems in East Alabama have a graduation rate that is lower than the state. According to the Alabama Department of Education school system report cards, the Anniston city school system had the lowest graduation rate, at 77 percent, followed by the Lanett City school system and the Coosa County school system, at 82.4% and 80.0%, respectively.

School System Comparison, 2020-2021
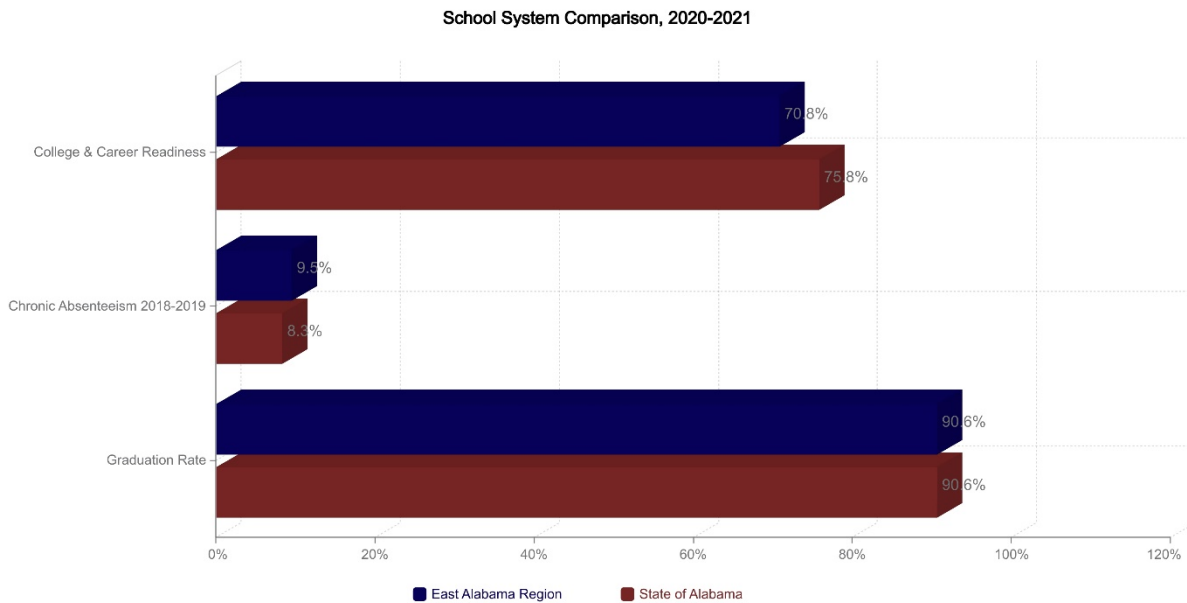
Of particular interest to those in economic development is the availability and quality of vocational education programs. All of the school systems have career and technical training programs. Many of the school systems appear to do a good job of informing students about career and technical education classes and of helping students find jobs in related fields or schools at which to continue their education.

Although students may continue their education in other parts of the state and country, they also have opportunities to receive training in a specific career or to attend college closer to home. Trade schools and similar professional training programs are too numerous to list. There are six main campus colleges and universities and five associated satellite centers in the East Alabama region, which are shown on the map on the opposite page and described in the following section.

Jacksonville State University, located in Jacksonville, was founded in 1883 as a teacher's college. Since then, Jacksonville State (JSU) has grown to offer a wide range of majors within the Schools of Arts & Humanities, Business & Industry, Education, Health Professions & Wellness, Human Services & Social Sciences, and Science. Over 40 of JSU's programs are accredited by their professional associations, including Art, Business, Communication, Computer Sciences and Computer Information Systems, Drama, Education, Music, Nursing, and Social Work. JSU offers seven bachelor's degrees, nine master's degrees, two doctoral degrees and an educational specialist degree. The University also offers basic engineering and pre-professional training for medicine, law, veterinary medicine, and pharmacy.

The University of Alabama Gadsden Center offers masters and educational specialist degrees in the College of Education, a bachelor's degree in interdisciplinary studies, and UA Early College, a program for college credit for high school students.

Talladega College, in the City of Talladega, is a private liberal arts college that confers the Bachelor of Arts degree in several disciplines under the Divisions of Business and Administration, Humanities and Fine Arts, Natural Sciences and Mathematics, and Social Sciences and Education. Students in the Division of Natural Sciences and Mathematics also can earn special degrees and certificates. Founded by former slaves William Savery and Thomas Tarrant in 1865 to educate the children of former slaves, and chartered in 1869, Talladega College remains dedicated to serving the educational needs of African Americans.
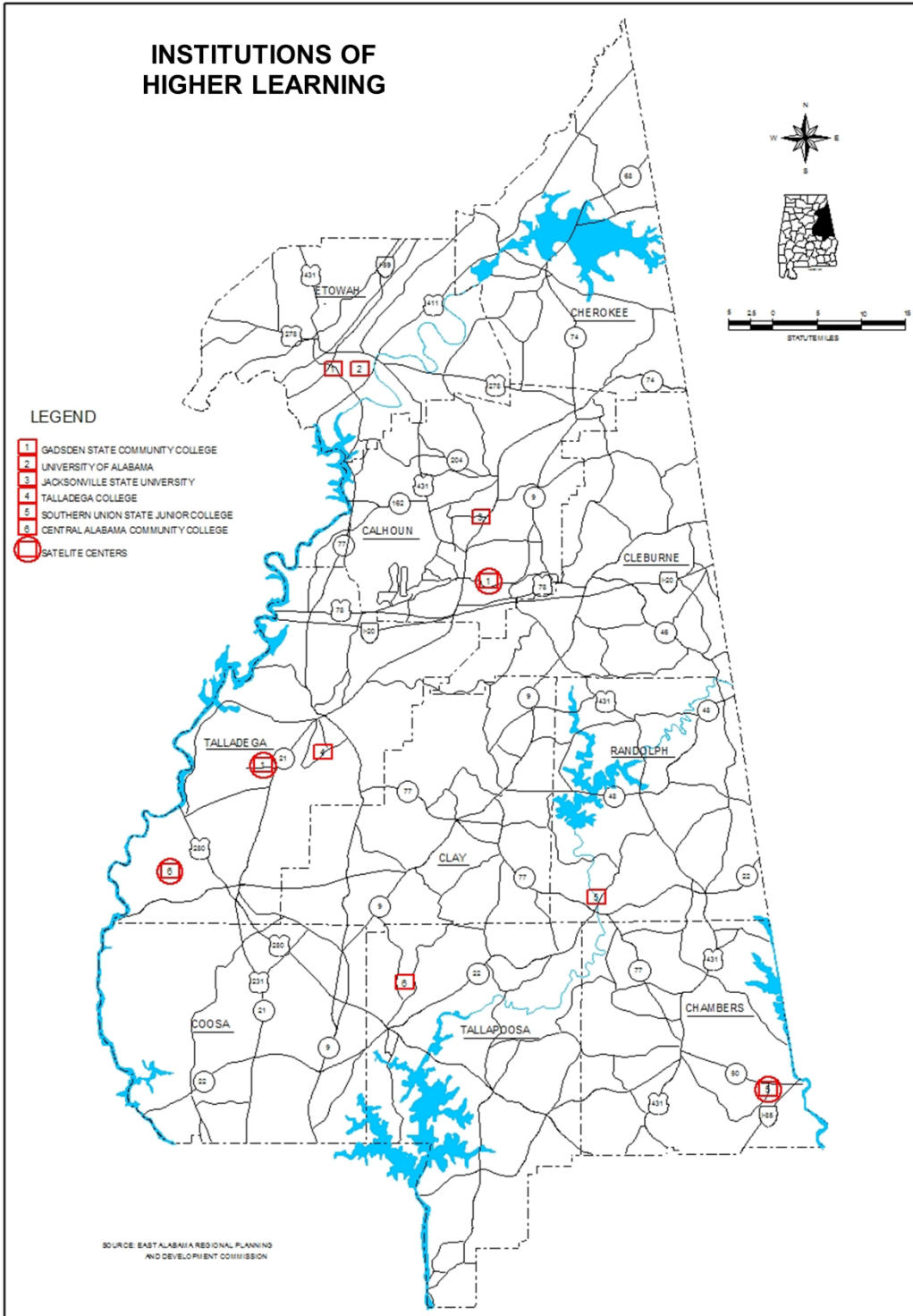
Central Alabama Community College (CACC) is a two-year institution with two main campuses–one in Alexander City and one in Childersburg. It serves Clay, Coosa, Talladega, and Tallapoosa Counties in East Alabama. CACC offers Associate degrees in Science, Applied Science, and Occupational Technology plus certificate programs. Degrees and certificates are offered in fifteen fields of study, including industrial engineering technology and manufacturing technology. Students can transfer core courses to four-year colleges and universities, and CACC has partnered with Capstone School of Nursing at The University of Alabama and with Faulkner University to enable CACC students to obtain Bachelor and Master degrees primarily through distance learning. CACC has also developed a Skills Training program to offer employment training to students not wishing to pursue a degree. CACC is fully accredited in its academic and technical programs of study.

Gadsden State Community College (GSCC) has three campuses in Gadsden, one campus in Centre, one campus in Anniston, one instructional center at McClellan, and instructional sites (in the region) at Piedmont High School and in Cleburne County. GSCC offers academic and technical programs. The academic division offers Associate in Science, Applied Science, and Arts degrees in over fifty majors in its two-year transfer/career program. The technical division offers Associate in Applied Sciences degrees and certificates in engineering technologies and applied technologies (e.g., automotive, cosmetology, welding). GSCC's Skills Training Center offers short-term, non-credit, competency-based training programs in air conditioning and refrigeration, machine trades, office careers, and welding. GSCC is fully accredited in its academic and technical programs of study. GSCC also recently partnered with Anniston Fire Department to offer an EMT class for senior who are duel enrolled at GSCC, and to provide them a scholarship. Upon graduation, and successfully completing the course, the students will be fully licensed EMT'S after turning 18 years old.

Southern Union State Community College (SUSCC) serves Randolph and Chambers Counties within the region, with campuses in Wadley and Valley. The two Opelika campuses also are convenient to those counties. The Academic Division offers an Associate in Science degree, and academic courses are transferable to other colleges and universities. The Health Sciences Division offers programs leading to certificates, awards of achievement, occupational certificates, and Associate in Applied Science degrees. Some of the courses in this division may be transferable to a four-year college or university. The Associate Degree Nursing, Emergency Medical Services, Nursing Assistant, Practical Nursing, Radiography, and Surgical Technology programs are accredited/approved by their professional associations. The Technical Division offers Tech-Prep and Dual Enrollment programs for high school students, Business and Industry programs to meet area employers' training needs, and Associate degree and certificate programs. The Cosmetology, Therapeutic Massage, and Automotive Collision Repair programs are accredited/approved by their professional associations. The Adult Education and Skills Training Division assists non-traditional college students in obtaining the basic and/or occupational skills necessary to obtain a job in the shortest period possible. SUSCC is fully accredited in its academic and technical programs of study.

INSTITUTIONS OF
HIGHER LEARNING

LEGEND

1 GADSDEN STATE COMMUNITY COLLEGE
2 UNIVERSITY OF ALABAMA
3 JACKSONVILLE STATE UNIVERSITY
4 TALLADEGA COLLEGE
5 SOUTHERN UNION STATE JUNIOR COLLEGE
6 CENTRAL ALABAMA COMMUNITY COLLEGE

SATELITE CENTERS

SOURCE: EAST ALABAMA REGIONAL PLANNING
AND DEVELOPMENT COMMISSION

Professional Development Programs

The community colleges and JSU provide training and services to those who need to increase or update their work skills and to area businesses and industries. JSU's Small Business Development Center provides counseling and training to small businesses free-of-charge. The Small Business Development Center is housed in the Center for Economic Development (CED), which provides applied research in economic development to state and local government agencies and conducts business research for private commercial enterprises on contractual bases. The CED has conducted economic impact studies, marketing research, and business research. JSU-Gadsden houses a satellite office for both programs.

CACC's Alexander City campus is the only WorkKeys Certified Testing Center in the region. WorkKeys is a job skills assessment system measuring "real world" skills that employers believe are critical to job success. It assesses an individual's skills through a work-related problem-solving process. The Center then compares the individual's skills with skills required for particular positions within a business or industry and helps identify additional training that could help that individual achieve career goals. The Alabama Office of Workforce Development initiated this program to help job seekers and employers, who can use WorkKeys to gage a prospective employee's skill level.

East Alabama has two of the state's sixteen Alabama Technology Network (ATN) Centers, which is a partnership between two-year colleges, the University of Alabama system, Auburn University, and the Economic Development Partnership of Alabama. They are located at CACC and at GSCC. ATN helps businesses remain competitive by teaching employees the latest practices in the areas of health safety and environmental, human resources and organizational development, information technology, lean manufacturing, and quality systems. ATN members also provide technical assistance to businesses if needed, helping them identify existing or potential problems and possible solutions to those problems, plus resources to implement those solutions.

The Alabama Department of Economic and Community Affairs' Office of Workforce Development has 30 One-Stop Centers and 31 satellites throughout the state to provide jobseekers with information on job development, occupational and educational training, vocational rehabilitation, veterans services, and unemployment insurance. Employers work with local centers to locate employees with specific skills. Many centers are electronically linked with partner agencies, such as the Alabama Departments of Industrial Relations, Human Resources, Rehabilitation Services and Education, two-year colleges, and others. The Alabama Career Center System sites in the East Alabama region are the Cheaha Career Center (Anniston), Gadsden Career Center, Roanoke Career Center, and Talladega Career Center. Career Center partners in the region are Alexander City CareerLink (satellite), Anniston CareerLink, Gadsden CareerLink, the Sylacauga Re-employment Center, and Talladega CareerLink.

The Alabama College System's industrial training institute, AIDT, provides job-specific training free of charge to new and expanding industries. Alabama's influx of new automotive plants has drawn employees away from existing industries. The two-year colleges are offering a federally funded program to train workers to fill jobs vacated by those who found work in the expanding automotive industry. The program provides training and job placement services at 34 sites around the state, concentrating in areas around Alabama's automotive manufacturing plants. Existing industries seeking more workers include carpet, metals, and machinery manufacturers.

The Senior Community Service Employment Program (SCSEP) is a source of employment training for job seekers who are at least 55 years old and who have a limited gross household income. The program prepares participants to re-enter the full- or part-time job market by providing paid, temporary part-time community service training in governmental or 501(c)(3) non-profit agencies. The East Alabama Regional Planning and Development Commission (EARPDC) administers the program, managing 98 authorized SCSEP slots. The EARPDC is a sub-grantee of Senior Service America, Inc. (a national contractor) and the Alabama Department of Senior Services. Many older workers have gained valuable on-the-job experience and self-sufficiency through this program.

Locally initiated workforce development initiatives also abound. For instance, the Greater Valley Area Chamber of Commerce and the University of Georgia's Small Business Development Center offer local business owners and employees a series of five weekly classes called the MBA (Moving Business Ahead) Institute. Other program sponsors include local banks and the county's two newspapers. People who attend all five classes receive certificates of completion.

Programs for People with Special Training Needs

Human service organizations, housing authorities, and businesses throughout the region have made efforts to provide worker training for populations that have difficulty finding and keeping employment, such as people who are homeless, who have low incomes or are on welfare, who are elderly, or who have disabilities.

Probably the most well-known facility serving people with disabilities is the Alabama Institute for Deaf and Blind (AIDB) in Talladega, which was founded in 1858 by Dr. Joseph Henry Johnson as the Alabama School for the Deaf. Since then, AIDB has grown to become the world's most comprehensive education, rehabilitation, and service system, serving children and adults who are deaf, blind, and multi-disabled and their families. All AIDB services are available to Alabama residents at no charge. Out-of-state students are accepted in the residential programs when space is available. They pay tuition and room and board charges. In addition to providing services on campus, AIDB has eight Regional Centers that provide a wide range of services, from at-home visits for parents of infants who are sensory impaired to programs for seniors who may be experiencing hearing and/or vision loss late in life. AIDB's E.H. Gentry Technical Facility is an accredited two-year technical school which offers adults with sensory impairments aged 16 and up a program of evaluation, adjustment, and vocation training in thirteen different fields. Alabama Industries for the Blind is the state's largest employer of people who are blind or visually impaired, with two manufacturing plants, one retail store, and three stores on military bases in Alabama and Georgia. Employees at the Talladega facility and the Birmingham satellite make and distribute home and office products.

Fire Science Programs

Fire Science programs are offered at high schools across the region. If a student is successful in passing all tests, and state certification, they will leave high school with a 160 or Volunteer Firefighter certification, that becomes active on their 18th birthday. If the student chooses to attend a 5-week bridge recruit school in the summer, after their senior year they will become a certified firefighter I/II; this enables work at a paid fire department anywhere in Alabama and close to 30 other states. The Fire College offers some scholarships for the bridge program, and a lot of individual fire departments offer scholarships as well.

Each county in our ten-county region has county school systems offering Fire Science programs for seniors in high school. The following city school systems also have high school Fire Science programs: Anniston, Gadsden, Oxford, and Piedmont.

The Present Workforce

According to the Census Bureau, East Alabama had a 2020 civilian labor force of over 200,000 persons, which is a -0.5% decrease since 2016. The labor force has declined by more than 1,000 people (net) during the past five years. Calhoun County lost the most people from the labor force, at 1,009 persons. Chambers, Coosa, Etowah, and Tallapoosa Counties saw slight gains in labor force, while the other counties experienced losses of fewer than 1,000 people.

Change in Labor Force and Employment, 2016-2020

	Region	Alabama
Change in Employment	2.9%	3.8%
Change in Labor Force	-0.5%	1.6%
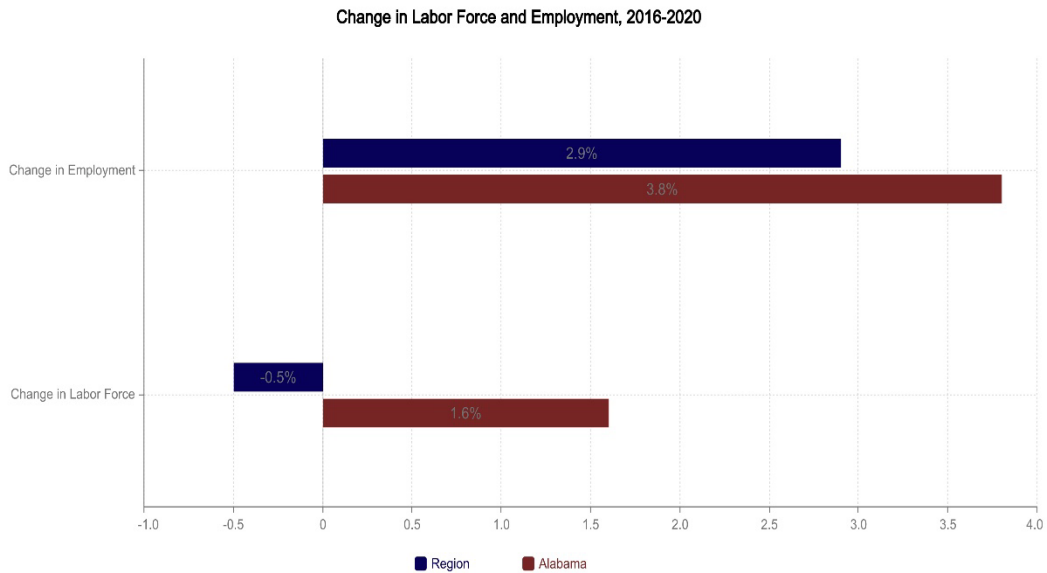
Cleburne County, however, did experience a moderate labor force loss in terms of percentage of the labor force, at 3.5% (218 people). Clay County lost 2.8% of its workers during the five-year period, followed by Calhoun County at 1.9%. During the same time period, the state grew by 35,357 persons from the labor force, which equates to an overall increase of 1.6%.

While the local labor force decreased slightly and the state labor force increased moderately from 2016 to 2020, the number of people who are unemployed dropped significantly during that period for both geographies. In East Alabama, unemployment decreased by more than 7,000 persons, or 35.5%. Likewise, the state saw a 31.3% decrease in unemployed persons. In addition, the region lost over 22,000 jobs (a 15% decrease), most of which located in Tallapoosa, Cleburne, and Etowah Counties. Statewide, businesses lost over 6,000 jobs, a -0.3% drop.

Unemployment Rate, 2020
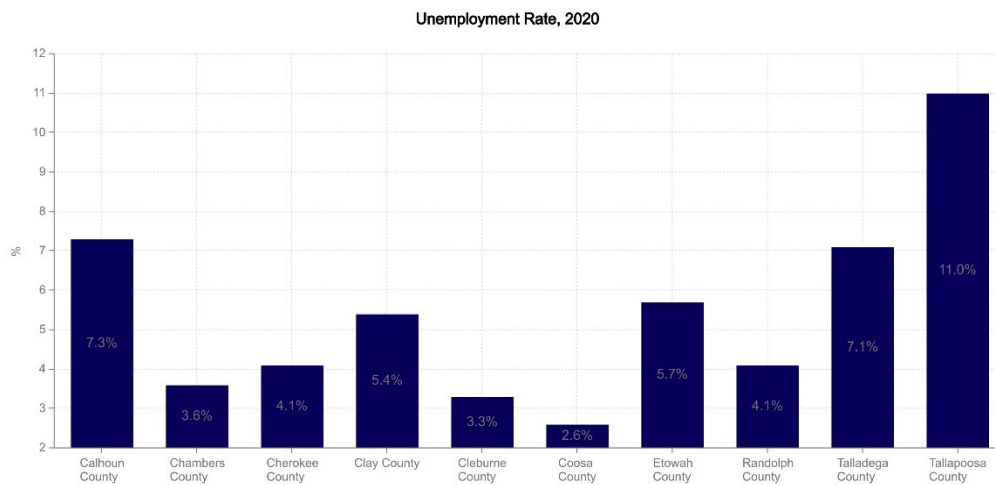
More than half of the region's counties had an unemployment rate that equaled or was lower than the state's rate of 5.6% in 2020. Coosa County had the lowest unemployment rate, at 2.6 percent, followed by Cleburne County, at 3.3 percent, and Chambers County, at 3.6%. The other seven counties had unemployment rates greater than 4.0%. Unemployment rates were highest in Tallapoosa County, at 11.0 percent, Calhoun County, at 7.3 percent, and Talladega County, at 7.1%. East Alabama's unemployment rates have been improving since 2016 and have had a rate on par or lower than the state since 2019. The unemployment gap between the state and the region has been decreasing steadily since 2009. The overwhelming majority of East Alabama counties saw unemployment levels decline between 2016 and 2020. The most dramatic improvement occurred in Coosa County, which dropped from 12.6% to 2.6% in five years.

Unemployment Trends, 2016 to 2020
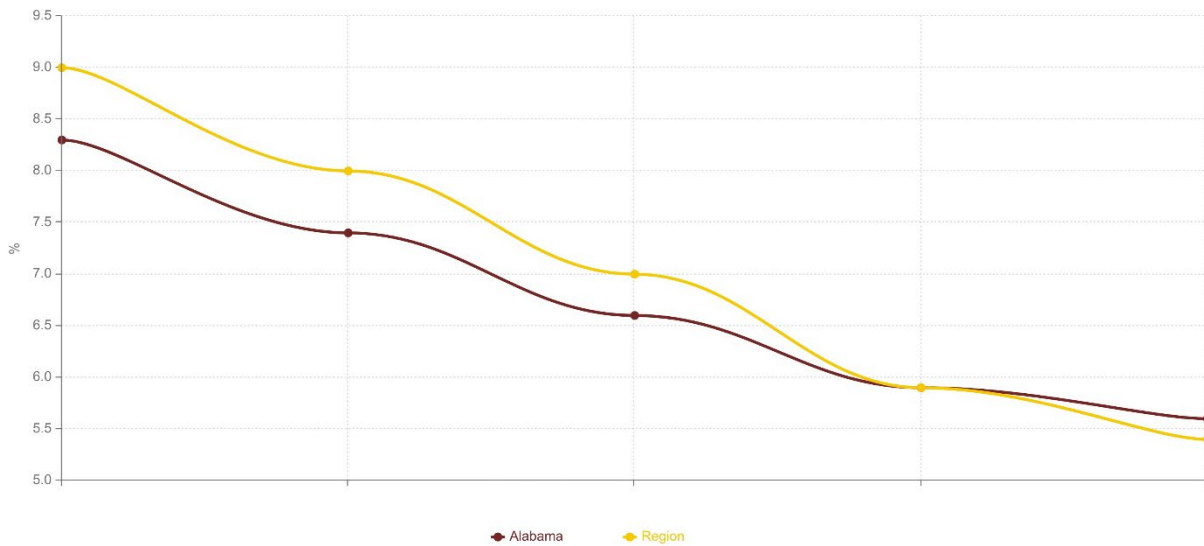
In the 2020 American Community Survey, the majority of East Alabama's employed residents reported working in management or business, in spite of the number of manufacturing businesses based in the region. The "production and transportation" and "sales and office" occupations ranked a close second and third respectively. This shift toward management and professional jobs was recognized as early as the 2008-2012 American Community Survey. However, the East Alabama region has a moderately larger percentage of the labor force working in production and transportation at 23.6% than the state at 17.2%.

Employment by Occupation, 2020

■ Management/Business	28%	■ Service	17%	■ Sales and Office	21%	■ Natural Resources/Construction 11%
■ Production/Transportation	24%					
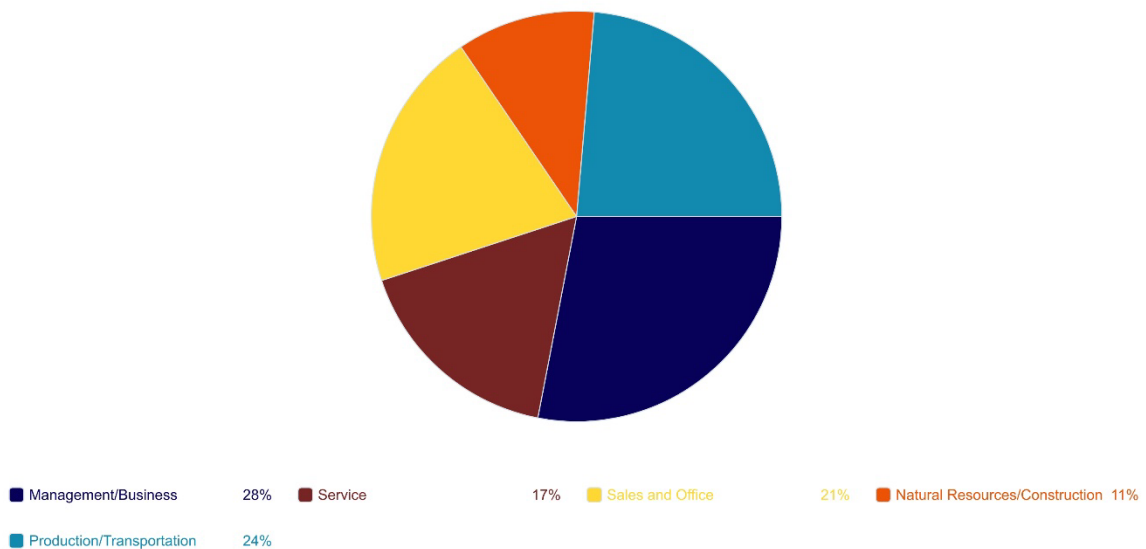
As with unemployment, underemployment is prevalent in the East Alabama region. 2020 State of the Workforce Reports—produced by the University of Alabama's Center for Business and Economic Research— found that 22% of East Alabama's workers are underemployed. This publication defines underemployed persons as "workers who believe that their education and training, skills, or experience (i) are not fully utilized

in their current jobs and (ii) qualify them for higher paying or more satisfying jobs for which they could leave their current positions."

Although underemployment could lead workers to seek employment outside the region, the publication's authors point out that underemployment can identify economic potential that is not being realized. Those who are underemployed would be likely to apply for new jobs that more closely match their skill levels, provided that the new job had better pay (or other incentives) than the current job. Furthermore, the positions these workers vacate would become available to others who are looking for a job or a career change. East Alabama experienced this phenomenon when Honda Manufacturing opened, and subsequently expanded, its plant in Talladega County.

In addition, and per the same reports, worker shortfall is projected to be 23,705 for the region for 2016 to 2030. Knowing there is expected worker shortfall projected through 2030, the report's authors suggest prioritizing this issue to address shortfalls for critical occupations.

Median household incomes in many parts of the region have been below the State's median for quite some time, so the relatively high-paying jobs at Honda drew thousands of applicants. Hopefully these and other higher-tech and manufacturing jobs that have followed in the years since will help stem the erosion of household incomes in East Alabama. The median household income did increase by nearly $7,000 between 2010 and 2020. However, the regional median income slipped from 86% of the State's median in 2010 to 82% in 2020.

The growing discrepancy between regional and state incomes occurred because the percentage of households earning below $25,000 decreased more statewide than it did in East Alabama. On the other end of the spectrum, the State experienced a more robust gain in households earning $75,000 or more than did the region. In addition, only the state kept pace with inflation. According to the Bureau of Labor Statistics' Inflation Calculator, $1.00 in 2010 had the same buying power as $1.20 in 2020, or a 20% inflation rate. During that time, the median household income rose 24% statewide and 18% across the region.

Median Household Income
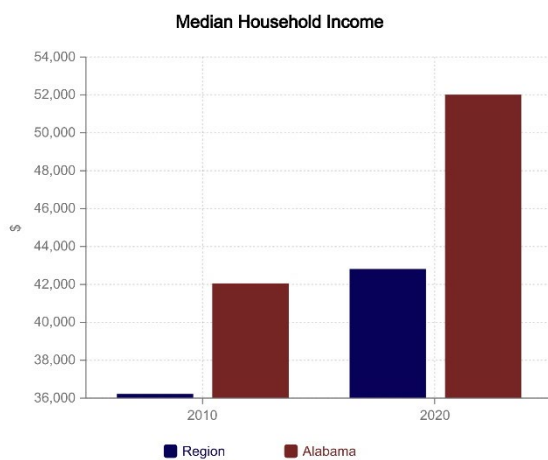
Another indicator of regional (and worker) prosperity is the poverty rate. The gap between regional and statewide poverty rates has been growing smaller, with both the region and state decreasing in population below the poverty line from 2010 to 2020. From 2010 to 2020, poverty rates declined in all but one county. Overall, the region held a higher portion of families below the poverty line and female-headed households than the state in 2020. Randolph and Tallapoosa Counties fared worse than the other counties, with a 9.0 percentage point increase in household poverty in Randolph County, and a minor -3% decrease in Tallapoosa County. It should be noted that though the region holds a higher poverty rate, it also decreased at a higher rate than the state for both female-headed households and families from 2010-2020.

Change in Poverty, 2010 to 2020
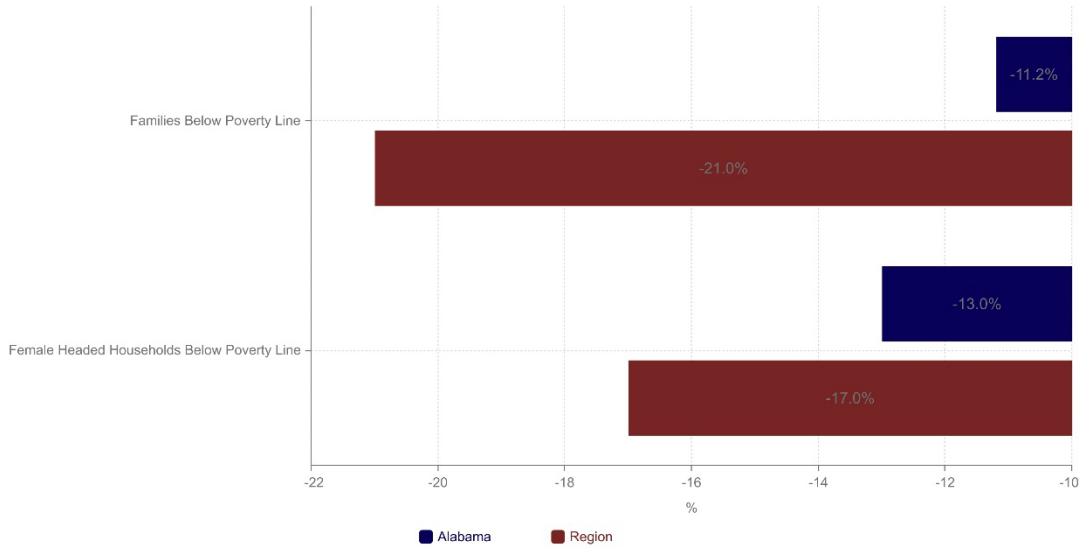
Households headed by a female tend to have higher poverty rates than those headed by a male or shared by a married couple. Conditions seemed to be improving for Alabama women who were heading a family household, as their poverty rate fell from 36.3% in 2010 to 32.1% in 2020. In East Alabama, the percentage of female-headed families with an income below the poverty level also decreased slightly, dropping from 40.4% in 2010 to 37.5% in 2020.

Income levels often correlate strongly with educational levels. Adult educational levels in East Alabama have been improving over time. More people aged 25 and over had completed high school and received at least some college education in 2020 than in 2010; in addition, the region has higher rates than the state in these 2 categories. Many factors may have contributed to this change, some of which are: the introduction of jobs requiring a better education; the infusion of Atlanta-area retirees and commuters, who tend to have relatively high incomes and high education levels; and the loss of some older long-time residents, who had been more likely to drop out of school to work in area industries.

Regional Change in Level of Educational Attainment, 2010 to 2020
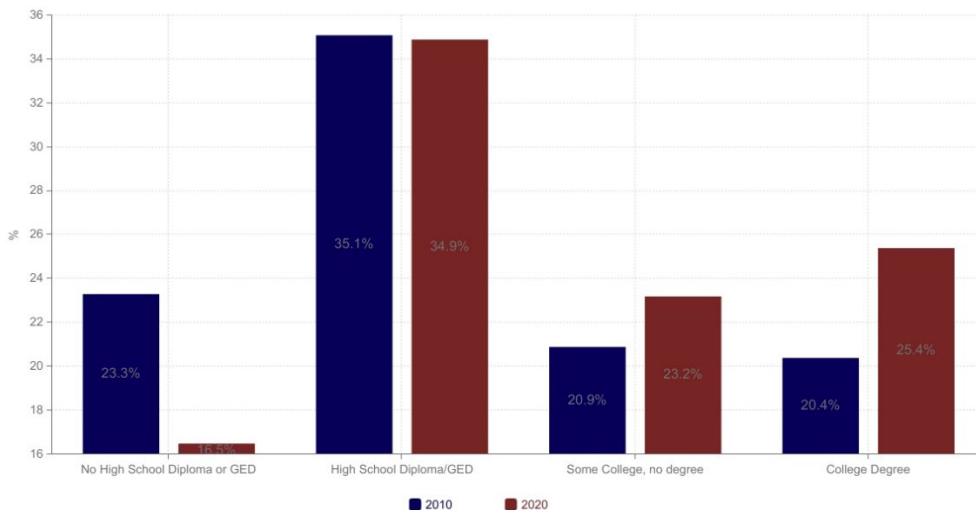
Despite this progress, the region still lags the state in college educational attainment. This discrepancy probably is caused, in part, by East Alabama having a higher proportion of people in the older age categories than the state. Also, the region has a history of high school graduates going to college elsewhere, then looking for jobs that require higher skill levels and offer higher pay than they can find in East Alabama.

At this time, the automotive industry (manufacturing plants and their suppliers) is an opportunity for East Alabama's future workforce needs. The Honda plant dramatically increased its production and employment since it began operations in 2001. This industry not only has brought more jobs to the

Comparison of Educational Attainment, 2020

Category	Region	Alabama
No High School Diploma or GED	16.5%	13.1%
High School Diploma/GED	34.9%	30.3%
Some College, no degree	23.2%	21.6%
College Degree	25.4%	35.0%

■ Region ■ Alabama

area but also has supported many smaller specialized businesses and spin-off industries in the region. Although not in East Alabama, the Kia plant near West Point, Georgia, has begun to have a similar effect on the region. Kia and Hyundai tend to share suppliers, and a Hyundai plant is located in Montgomery, positioning the region's southern tier counties as competitors for automotive suppliers. The next chapter will discuss the region's economy in more detail.

Changes are taking place in the occupational structure of East Alabama's labor market. Many new, complex, specialized job choices are appearing due to such factors as technological advances, changing lifestyles, governmental policies, and the offering of new goods and services to the public. Those engaging in workforce development need to ensure that training opportunities within the region keep pace with these changes. See below a community profile for the East Alabama region. Profiles for individual counties can be found in Appendix A.
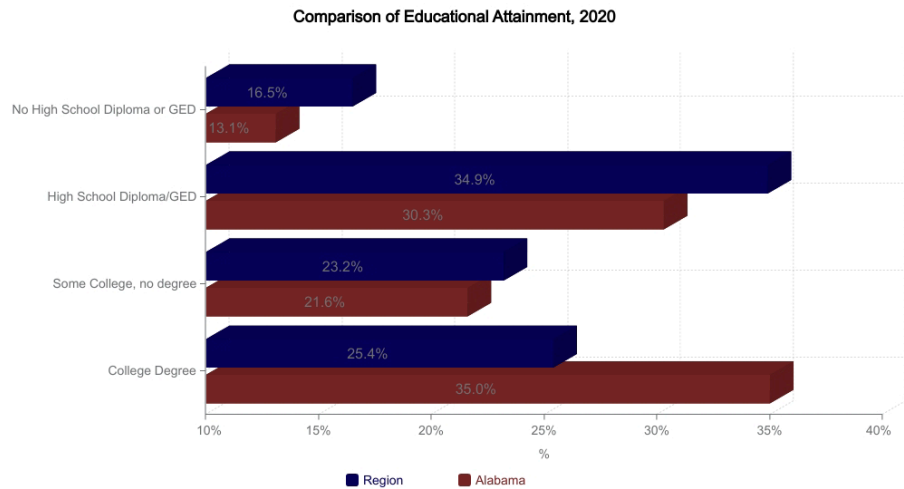
COMMUNITY PROFILE

Geography: County

10 Counties

461,546	-0.30%	2.38	49.0	42.8	$50,691	$142,103	$106,930	19.8%	59%	96,232
Population Total	Population Growth	Average HH Size	Diversity Index	Median Age	Median HH Income	Median Home Value	Median Net Worth	Age <18	Age 18-64	Age 65+

14.7% Services

36.1% Blue Collar

49.1% White Collar

Mortgage as Percent of Salary

(x-axis: <10, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-49, 50+; y-axis: 0%, 4%, 8%)

Home Value

(x-axis: <$50,000, $150,000, $250,000, $400,000, $750,000, $1,000,000+; y-axis: 0%, 4%, 8%, 12%, 16%)

Household Income

(x-axis: <$15,000, $35,000, $75,000, $150,000, $200,000+; y-axis: 0%, 4%, 8%, 12%, 16%)
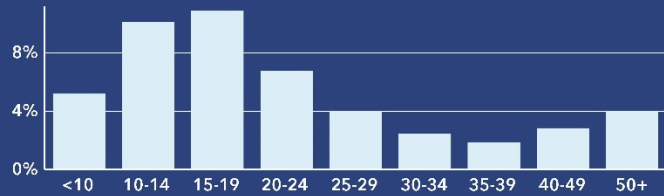
Age Profile: 5 Year Increments
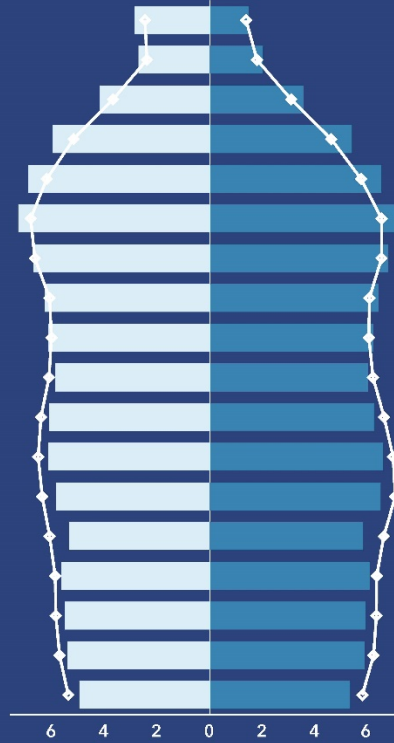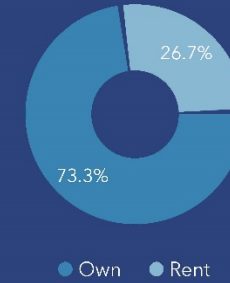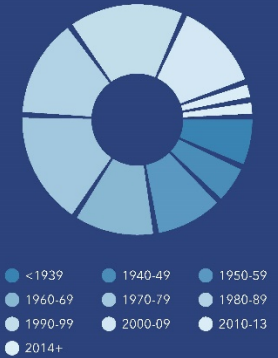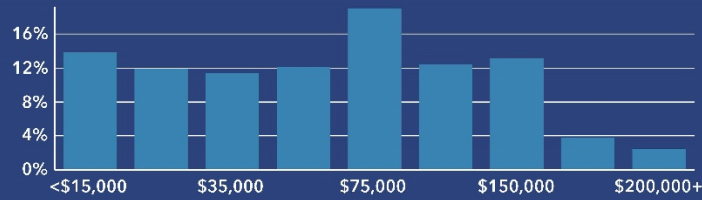
(x-axis: 6, 4, 2, 0, 2, 4, 6)

Dots show comparison to **Alabama**

Home Ownership

26.7%

73.3%

● Own   ● Rent

Housing: Year Built

● <1939 ● 1940-49 ● 1950-59
● 1960-69 ● 1970-79 ● 1980-89
● 1990-99 ● 2000-09 ● 2010-13
● 2014+

Educational Attainment

● < 9th Grade   ● No Diploma
● HS Diploma   ● GED
● Some College ● Assoc Degree
● Bach Degree   ● Grad Degree

Commute Time: Minutes

● <5   ● 5-9   ● 10-14
● 15-19   ● 20-24   ● 25-29
● 30-34   ● 35-39   ● 40-44
● 45-59   ● 60-89   ● 90+

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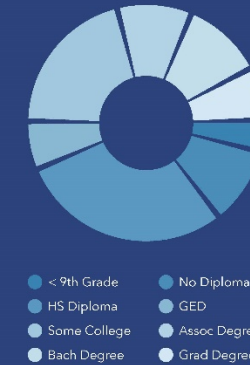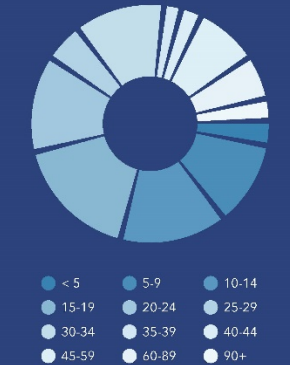
The Regional Economy

Economic developers have a complex task: bringing jobs into their communities and capitalizing on economic clusters while promoting economic variation. Although they are discussed in more detail later in this chapter, in general, economic clusters are interrelated businesses that are in close proximity to one another, such as automobile manufacturing plants, the companies that provide the plants with parts, and the companies that provide the parts plants with materials for their manufacturing processes. While communities should make efforts to create an economic synergy by bringing together interrelated businesses, they also need to foster multiple clusters of businesses that center around different types of industries. Doing so will help buffer the community from a potential downturn in one industry. The following sections examine the different components of East Alabama's economy.

Overview

The East Alabama region is home to approximately 9,004 businesses, which employ over 141,000 people. As would be anticipated, most of these businesses are located in the three counties that have the most people: Calhoun, Etowah, and Talladega Counties. In fact, the distribution of business throughout the region strongly correlates with the distribution of people throughout the region. Over two-thirds of the region's residents (71 percent) live in Calhoun, Etowah, and Talladega Counties, and just over two-thirds of the region's businesses (67 percent) have located in these three counties.

Although much emphasis is placed on an area's largest employers, the vast majority of East Alabama's businesses employ 20 or fewer people. Small businesses are just as prevalent throughout the state. In fact, in the region and across Alabama, less than 1% of all businesses have over 250 employees. However, these statistics should not

Comparison of Population and Business by County, 2020

County	Percent of Region Businesses	Percent of Region Population
Calhoun	28.4%	27.2%
Chambers	7.0%	8.0%
Cherokee	4.7%	6.2%
Clay	2.5%	3.2%
Cleburne	2.6%	3.6%
Coosa	.5%	2.5%
Etowah	23.3%	24.4%
Randolph	4.5%	5.4%
Talladega	15.8%	19.1%
Tallapoosa	9.7%	9.6%

detract from the fact that an industrial plant that is located in a rural county and employs 350 people could eliminate most of the jobs in the county should it relocate or close. That county would lose not only that business and at least some of its resident workforce but also jobs in the businesses that supported that industry or that provided goods and services to that industry's employees.

East Alabama's 9,000 businesses pumped over $6 billion in pre-tax income into the area's economy in 2020. People who worked in the region averaged roughly $38,363 in gross pay, which is $13,847 below the average pay statewide. It is important to note that not all these people spent their money in East Alabama. Some workers commuted into the region, and some East Alabamians commuted to jobs outside the region. In 2020, 28.6% of the region's workforce aged 16 and older worked outside their county of residence, according to the American Community Survey.
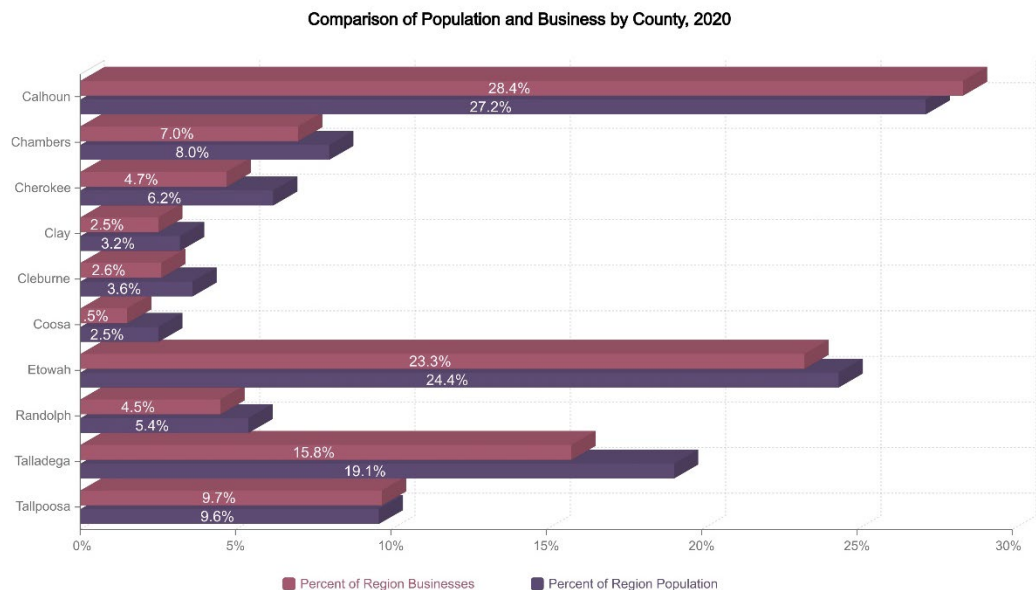
Regional Percentage of Businesses by Number of Employees, 2020
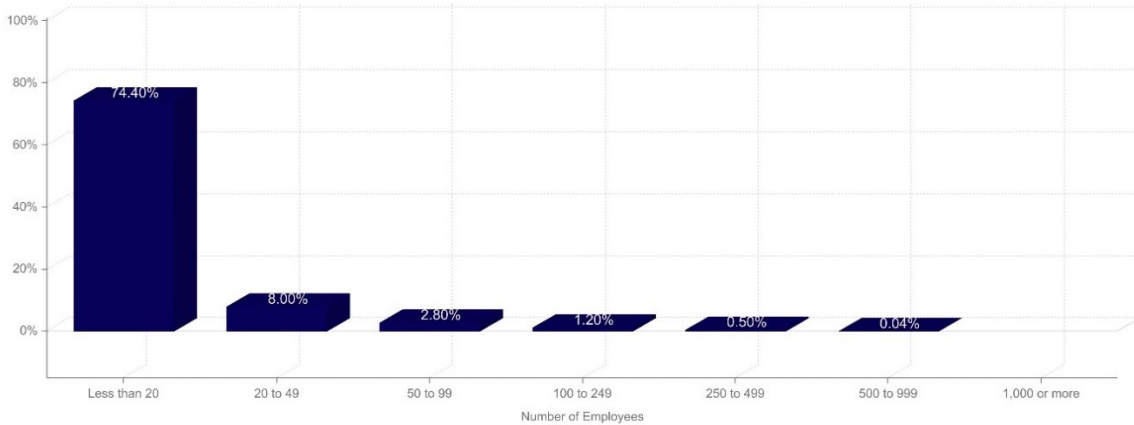
At the county level, the 2016-2020 American Community Survey estimates that commuting patterns varied greatly throughout the region, with 77% of Coosa County's workers driving to another county to work and 82% of Randolph County's workers going to jobs within the county. Local residents traditionally have held most of the jobs in their county of residence, with the majority of counties in the region reporting less than 30% of workers aged 16 and older leaving the county to work in 2020. Interestingly, though Coosa County had the largest percentage of people leaving the county to go to work, it wasn't in the top five counties with the highest mean travel time to work. Cleburne County had the highest average commute time at 33.7 minutes, and Chambers County had the lowest at 23.2 minutes. See below a regional commute profile; county commute profiles can be found in Appendix A.
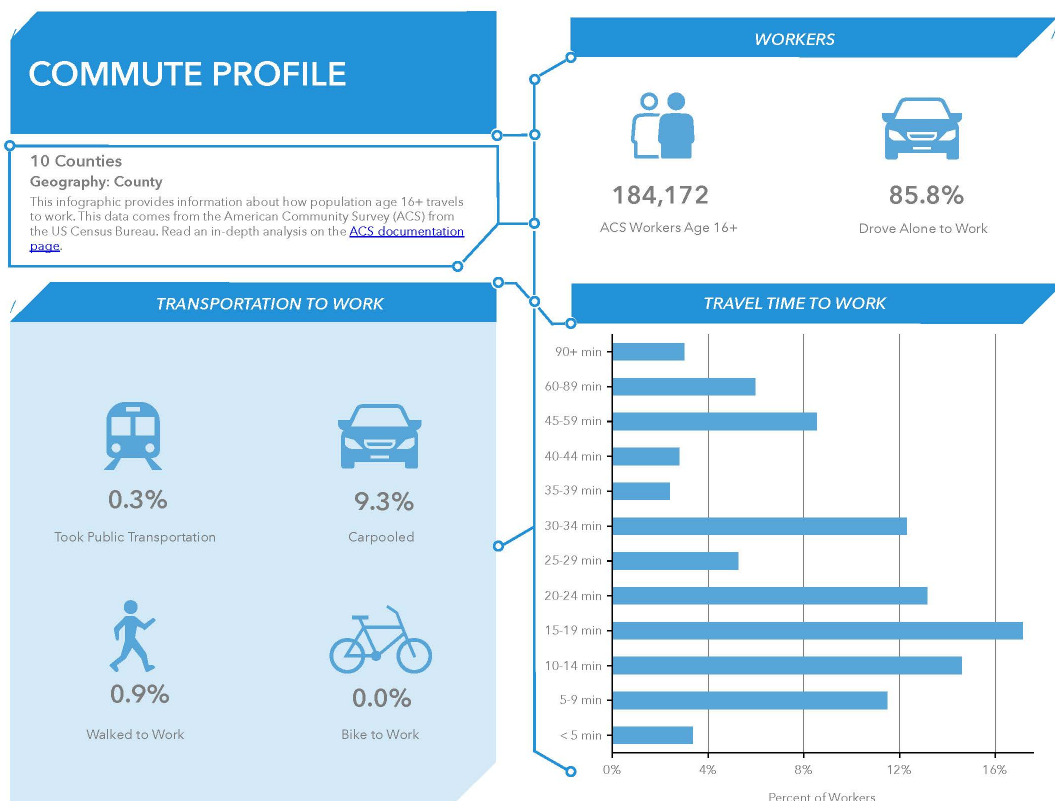
Nearly one-fourth (22 percent) of the people working in East Alabama work in educational services, healthcare, and social assistance. This is the top employer in the region and in four of the region's ten counties. Manufacturing closely follows as a major employer for the region, with 21% working in this sector, and ranking first in six of the ten counties. At least 12% of all East Alabama employees work in retail trade as the third most popular sector. Rounding out the top five employment sectors are "arts, entertainment, and recreation, and accommodation and food services" and "construction".

East Alabama is more reliant on manufacturing than the state as a whole. Statewide, more people work in educational services, health care and social assistance, at 22.7 percent, than in manufacturing, at 14.2%. Retail trade is a close third, employing 11.6% of all workers throughout the state. Likewise, the State of Alabama is more reliant on manufacturing than the country as a whole. Nationwide, manufacturing only employs 10% of workers, behind educational services, health care, and social assistance, at 23.3 percent, professional, scientific, and management, and administrative and waste management services, at 11.7 percent, and retail trade, at 11.0%.

Comparison of Employment by Major Industry Sectors, 2020

	Agriculture, forestry, fishing and hunting, and mining	Construction	Manufacturing	Wholesale Trade	Retail Trade	Transportation and warehousing, and utilities	Information	Finance and insurance, and real estate and rental and leasing	Professional, scientific, and management, and administrative and waste management services	Educational services, and health care and social assistance	Arts, entertainment, and recreation, and accommodation and food services	Other services, except public administration	Public administration
Alabama	1.4%	6.7%	14.2%	2.5%	11.6%	5.5%	1.5%	5.6%	9.6%	22.7%	8.3%	4.9%	5.5%
Region	1.6%	6.8%	20.7%	2.2%	11.9%	5.3%	1.2%	3.8%	6.0%	21.9%	7.9%	5.0%	5.7%
Calhoun	1.3%	5.2%	18.1%	2.6%	13.2%	4.3%	1.3%	3.8%	6.9%	22.7%	8.5%	4.4%	7.7%
Chambers	2.3%	4.2%	30.4%	2.0%	8.7%	5.3%	2.2%	4.3%	7.8%	18.2%	6.6%	3.7%	4.3%
Cherokee	3.3%	9.3%	22.2%	1.2%	10.4%	5.8%	0.7%	3.5%	3.7%	23.4%	6.2%	5.0%	5.4%
Clay	2.4%	6.8%	30.0%	1.2%	13.8%	5.5%	0.6%	4.0%	4.4%	19.5%	4.5%	3.2%	4.0%
Cleburne	3.4%	12.2%	20.8%	4.1%	8.4%	5.0%	0.3%	4.1%	7.3%	18.0%	6.4%	4.1%	6.0%
Coosa	2.1%	8.4%	21.7%	1.8%	14.0%	6.8%	0.7%	3.4%	3.9%	19.9%	7.0%	5.2%	5.1%
Etowah	0.5%	6.9%	17.4%	2.2%	12.8%	4.6%	1.3%	3.0%	5.6%	24.0%	10.1%	6.4%	5.0%
Randolph	3.5%	7.2%	26.5%	1.2%	11.0%	5.8%	1.2%	4.9%	5.8%	20.6%	3.6%	4.3%	4.5%
Talladega	1.5%	7.1%	19.7%	2.1%	11.8%	7.2%	1.2%	4.3%	5.5%	21.0%	7.9%	4.8%	5.8%
Tallapoosa	1.8%	8.5%	23.1%	2.4%	10.4%	5.6%	0.5%	4.3%	5.9%	21.3%	6.9%	5.5%	3.9%

Economic Trends

Although the State of Alabama fared well in the early 2000s, those economic gains were diminished by industry and business down-sizing, consolidations, and closings in the latter part of the decade. During the 2016 through 2020 period, Alabama saw a net increase of 9,816 businesses—a 0.001% growth—and a modest loss of 6,161 jobs, a -0.3% decline rate. Average annual pay increased from $44,832 in 2016 to $52,210 in 2020—an increase of $7,378 or 16.5%. East Alabama showed somewhat differing trends during that period. The region experienced the economic downturn much more severely than other parts of the state, with a net loss of nearly 23,000 jobs and 700 businesses. The average worker did receive an increase in annual pay, but that "raise" was lower than the state average by $5,298, growing from $36,284 in 2016 to $38,363 in 2020.

East Alabama has lagged other areas of the state in attracting new residents, employers, and jobs for quite some time. The region contains 15% of Alabama's counties (10 of 67) and 12% of the state's land area. In 1980, 10.6% of Alabamians called East Alabama home, and the region claimed 9.9% of Alabama businesses and 10.4% of Alabama jobs. The economic figures declined slowly but steadily over the next 32 years, to 6.0% of the State's businesses and 6.5% of Alabama jobs by 2020. This trend should reverse as the Atlanta and Birmingham metropolitan areas continue to push outward, making East Alabama more attractive to metro-area workers who want a more rural lifestyle and, subsequently, to businesses. However, it would be prudent to determine which of East Alabama's economic sectors have been strengthening and which have been weakening, so economic developers know how to target their efforts.

Economic Clusters

Once upon a time, the textile industry permeated East Alabama–not just its economy, but also its communities. Textile companies built plants, they built housing for their workers around their plants, and sometimes they even built stores, schools, parks, and civic buildings. The companies provided all the necessities for residents of these mill villages. Gradually, the companies gave up ownership of the stores, the schools, the parks, the civic buildings, the houses. Worker wages and the cost of keeping up the plant equipment and facilities increased. Many of the companies started moving production to countries that could offer lower production costs. Some of the companies that attempted to remain in East Alabama were driven out of business by low-cost competition. Although it is still one of the region's economic clusters, the once thriving textile industry has eroded precipitously over the past ten to 20 years.

According to a 2007 report produced by the Harvard Business School's Institute for Strategy and Competitiveness, *Clusters and Cluster Development*, clusters are geographic concentrations of interconnected companies, specialized suppliers, service providers, and associated institutions in a particular field that are present in a nation or region. Clusters arise because they increase the productivity with which companies can compete. The development and upgrading of clusters is an important agenda for governments, companies, and other institutions. Cluster development initiatives are an important new direction in economic policy, building on earlier efforts in macroeconomic stabilization, privatization, market opening, and reducing the costs of doing business.

While the textile cluster has declined, other economic clusters have been rising. East Alabama sits in an area ripe with automobile manufacturing plants: Honda Manufacturing of Alabama, in Lincoln; Hyundai Motor Manufacturing Alabama, in Montgomery; Mazda Toyota and Toyota Motor Manufacturing, in Huntsville; Mercedes Benz, in Vance; and Kia Motor Manufacturing Georgia, in West Point, Georgia. In addition to being the home of the Honda plant, the region reaped the benefits of Honda's supplier network and has attracted Kia and Hyundai suppliers, as the two companies have the same parent company and share suppliers.

Wood products are another of the region's clusters. This cluster originates in the region's countless wooded acres. Timber growers. Timber harvesters. Timber trucking. Pulp mills. Paper mills. Lumber mills.

Lumber stores. Cabinet makers. Wood preserving factories. Numerous individuals and companies engage in wood-related business in East Alabama.

Tourism is an under-emphasized cluster in East Alabama. Tourism revolving around outdoor recreational activities exists in abundance. Hikers in the Talladega National Forest purchase last-minute supplies, eat at local restaurants, and may want to stay one night in a hotel. People who float the canoe or kayak trails or go fishing may use a local outfitter, purchase supplies locally, eat at local restaurants, and sleep at local hotels. Area lakes are home to local, state, and national fishing tournaments that draw fishers to area hotels, campgrounds, restaurants, and stores. Rock climbers at Cherokee Rock Village may want to spend the night nearby, eat a meal or two, and purchase forgotten equipment. Visitors to the Little River Canyon National Preserve may wish to rent a cabin at DeSoto State Park or a hotel room in a nearby town. Cyclists on the Chief Ladiga Trail can stop for a drink or a meal, an overnight stay, or bicycle equipment or repairs. The City of Heflin's frisbee golf course has attracted visitors from other states. Heritage tourism has been increasing nationally as more places lose their historic flavor. Locally, many communities have brochures guiding visitors along historic sites walking or driving tours. The City of Talladega has an annual Pilgrimage. The City of Valley, made up of four former mill villages, has been a participant in a multi-state textile heritage trail. The City of Sylacauga holds an annual Marble Festival, showcasing the city's native white marble and drawing visitors from around the world. The City of Anniston holds the Annual Noble Street Festival and Sunny King Criterium, which has an international draw. Local assessments of natural, historical, and cultural assets and coordinated development and marketing efforts could help this economic cluster reach its full potential.

Geography, Environment, and Natural Resources

The East Alabama region's ten counties encompass 6,164 square miles of land, making it the second largest of Alabama's 12 regions. These counties form a generally triangular region sandwiched between the Alabama/Georgia state line on the east and the Coosa River on the west. As would be expected in a region of this size, there is great natural variety and an abundance of natural resources, giving the region great potential for expanding its economic base and realizing considerable economic growth.

Geographic Features

Geographic features are major determinants of an area's physical potential. These features determine opportunities and constraints that shape land use patterns. They may also facilitate or impose restrictions on economic development activities. The East Alabama region is an area of distinct topographic contrast and is physically varied and rich with natural resources. The northern two-thirds of the region is characterized by the mountainous terrain of the southern Appalachians, interspersed with broad, low-lying river valleys. The Coosa and Tallapoosa Rivers flow southwest through this portion of the region, draining a large headwaters area in northwestern Georgia. The two rivers eventually converge in the Montgomery area to form the Alabama River. The main mountain ridges separating these two rivers possess the highest elevations in Alabama. The summits of Mount Cheaha, the State's highest point, Dugger Mountain, and Choccolocco Mountain are over 2,000 feet above mean sea level. The main mountainous ridges extending through Talladega, Calhoun, Cleburne, and Cherokee Counties constitute the heart of the Ridge and Valley geographic province. Small portions of Etowah and Cherokee Counties north and west of Lookout Mountain are in the Cumberland Plateau geologic province. The remaining southeastern half of the region is characterized by the rolling plains of the Piedmont geologic province, which extends east into Georgia and south to the Fall Line, extending roughly from Columbus, Georgia, to Montgomery.

Topographic Elements

Topographic information provides a quick overview of the characteristics of an area, such as hilly or flat areas, soil conditions, vegetated areas, and mineral collection areas. This information on the land may suggest the best sites for buildings, transportation access, and activity areas. Alternatively, imposing conventional development patterns on variable topography may result in hazardous conditions. Geological features in the region that may present major barriers to economic development are soil limitations and severe slopes.

There are many soil types in the region that may pose problems for various land use development. The greatest limitations imposed by these soil types are soils subject to frequent flooding and soils having shrink-swell characteristics and low strength. The Soil Conservation Service publishes reports periodically which can be used in determining the suitability of soils for various urban uses. By determining the suitability of soil and identifying problem areas, development may proceed and provide a safe and healthy environment. Severe or steep slopes also present limitations to urban development in the region. Slopes in excess of 25% may cause severe limitations for all types of development.

Various mineral collection areas are found in almost every county in the region. Only Chambers County in the southeastern corner of the region has virtually no mineral supply, with only a portion of a deposit of corundum/asbestos that extends eastward from Tallapoosa County into Chambers County. Although the other nine counties in the region all have mineral deposits to some degree, the most abundant mineral resources are in the northwestern half of the region.

Mineral Deposits
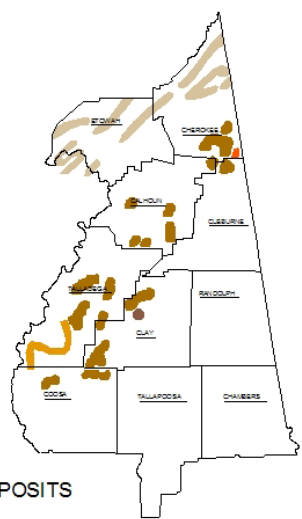
IRON ORE DEPOSITS

RED IRON ORE, MORE THAN 2' THICK, GENERALLY
GRAY IRON ORE
MANGANIFEROUS IRON ORE
BROWN IRON ORE
PYRITE
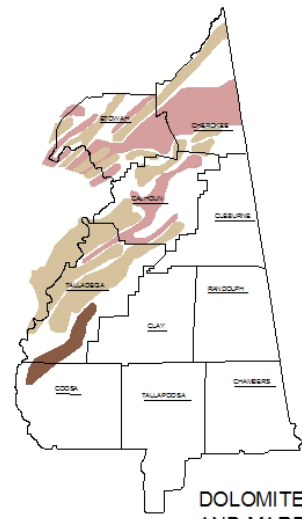
DOLOMITE, LIMESTONE
AND MARBLE DEPOSITS

DOLOMITE
LIMESTONE
MARBLE
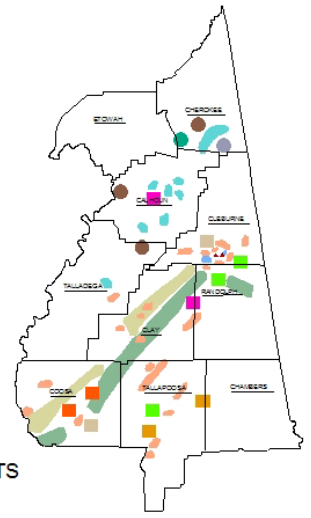
MISCELLANEOUS MINERAL DEPOSITS

KAOLIN
KYANITE
CORUNDUM, ASBESTOS
TIN
LEAD, ARSENIC

GLASS SAND, SILICA
CLAY
FLUORITE

COPPER

BARITE
MICA
GRAPHITE
GOLD
BAUXITE

SOURCE:GEOLOGICAL SURVEY OF ALABAMA

Hydrologic Resources

While the area's surface water system is the most obvious hydrologic feature, it is only one of the several hydrologic resources found in the East Alabama region. Other resources include groundwater resources, wetlands, flood plains and watershed protection. Since water is a basic requirement for all life, these hydrologic resources require special consideration and protection. The East Alabama region is home to an extensive surface water system that includes the main stems of three rivers: the Coosa River, the Tallapoosa River and a small portion of the Chattahoochee River. Flowing southwest from Georgia, the Coosa River flows through Cherokee and Etowah Counties before forming the western border of the region along Calhoun, Talladega and Coosa Counties. The Tallapoosa River also enters the state from Georgia and flows through Cleburne, Randolph, Chambers and Tallapoosa Counties before merging with the Coosa River to form the Alabama River in Elmore County south of the East Alabama region. Finally, the Chattahoochee River flows from Georgia into Alabama in Chambers County and travels south forming the border between the two states.
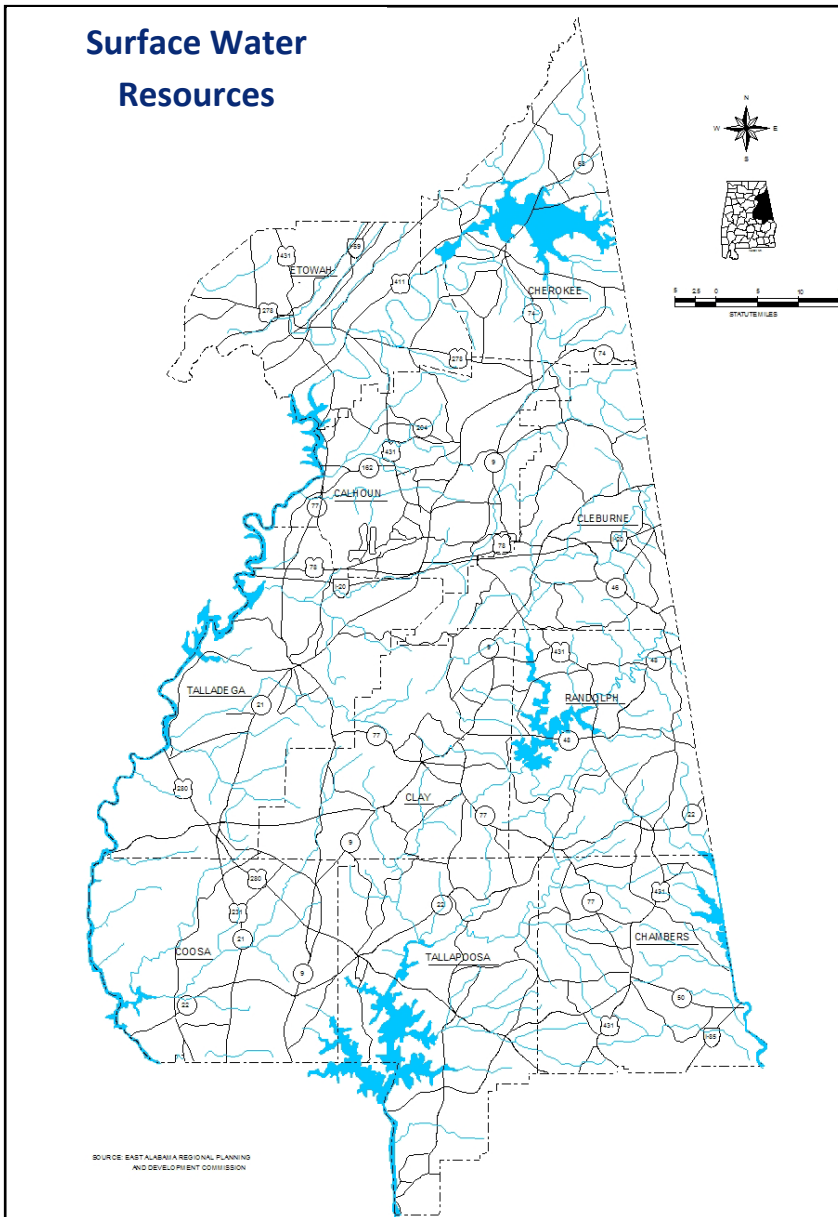
The Tallapoosa River system includes Lake Wedowee (an impoundment of the R.L. Harris Dam) in Randolph County, Lake Martin in Tallapoosa County, and Yates Lake, also in Tallapoosa County. Lake Martin is the largest of the reservoirs that is wholly located within Alabama. The East Alabama Region also includes portions of two lakes on the Chattahoochee River system, both of which are partially located in Chambers County: West Point Lake and Lake Harding. The remainder of these lakes are in Georgia.

Equally as important as the surface water resources are the region's groundwater resources. Most of East Alabama's groundwater resources are located in the northwestern part of the region that lies in the Appalachian Ridges and Valleys Formation. All or most of Calhoun, Cherokee, Etowah, and Talladega Counties are located in this formation. This area generally has high yield wells, at 150 gallons per minute (GPM) or more. In addition, the southern

part of Tallapoosa County, which lies in the Southern Coastal Plan Formation, also has high yield wells, at up to 1,000 gallons per minute. The remainder of the East Alabama region is located in the Southern Piedmont Formation, in which the aquifers generally yield less than 50 gallons per minute. These counties include Chambers, Clay, Cleburne, Coosa, Randolph, and Tallapoosa Counties.

Floodplains and wetlands are found throughout the region. Many of the region's municipalities and counties participate in the National Flood Insurance Program. Flood insurance rate maps for the participating jurisdictions are available through the Federal Emergency Management Agency and the East Alabama Regional Planning and Development Commission. Several of the region's municipalities and counties have had special flood hazards identified by the Federal Emergency Management Agency (FEMA) yet are not in the National Flood Insurance Program. Wetlands, such as bogs, swamps, and marshes, are now recognized as prime environmental features. The State SCS has recently completed a statewide inventory of the wetland locations utilizing infrared photography. Additional information concerning wetland locations is available from the U.S. Fish and Wildlife Services (USFWS) and local SCS offices.

Ground Water Resources

LEGEND

SOUTHERN COSTAL PLAIN-AQUIFERS GENERALLY YIELD UP TO 1000 GPM

APPALACHIAN RIDGES AND VALLEYS- AQUIFERS MAY YIELD UP TO 1500 GPM

APPALACHIAN RIDGES AND VALLEYS- AND SAND FORMATION POTTSVILLE FORMATION-AQUIFERS GENERALLY YIELD UP TO 50 BPM

SOUTHERN PIEDMONT-AQUIFERS GENERALLY YIELD LESS THAN 50 GPM

NOTE: SOME ISOLATED SPRINGS THROUGHOUT THE REGION MAY YIELD UP TO 3000 GPM

SOURCE: EAST ALABAMA REGIONAL PLANNING AND DEVELOPMENT COMMISSION

Endangered Species

Endangered species are those in danger of extinction throughout all or a significant portion of their range. Their prospects for continued survival and propagation are in immediate jeopardy. A list of rare and endangered species is available through the U.S. Department of Interior, Bureau of Sport, Fisheries and Wildlife. The Alabama Department of Conservation and Natural Resources has also compiled a database indicating at least 145 known native plants and animals from around 20 or fewer sites in the state. In an effort to protect endangered species, the United States government prohibits any action, including the removal of advantageous habitat that would endanger any of their numbers. Most construction that is viable to economic development reduces habitat acreage. Not only are land type species subject to these effects, but birds and aquatic life as well. Fish populations, for example, are seriously affected by channel changes, construction-generated pollution, and point and non-point discharges of pollution.

The single biggest problem affecting protected fish is sedimentation, which smothers fish eggs and habitat. Sedimentation results from agricultural and forestry practices and from bridge and road construction, all of which can cause erosion. Soil conservation measures, such as leaving buffer strips adjacent to streams when cutting timber on steep slopes, should be employed. Also, pesticides should not be sprayed near waterways. The best way to avoid impacts on fish is to closely follow Alabama's Best Management Practices for Forestry.

Vegetation Resources

The East Alabama region has abundant vegetation resources, including several federal and state forest and park areas. These areas include two districts of the Talladega National Forest -- the Shoal Creek District and the Talladega District, the Mountain Longleaf National Wildlife Refuge, Cheaha State Park, and Wind Creek State Park. These forest areas provide a variety of recreational opportunities, as well as functioning as a conservation tool for the forest resources. Three types of forests are dominant throughout the region. Oak-Pine forests are found in the northern part of the region, primarily in Calhoun, Cherokee, Cleburne, and Randolph Counties. There are small forests of longleaf-slash pine in western Clay and Coosa Counties and eastern Talladega County. The predominant forest type is the loblolly-shortleaf pine forest, which is found in Chambers, Cherokee, Clay, Cleburne, Coosa, Etowah, Randolph, Talladega, and Tallapoosa Counties. The region's forest resources are closely tied to its economic health, making it imperative that these resources be managed properly.

Transportation Access and Other Development Resources

The region's infrastructure and other development resources are important in retaining and attracting both a population base and business and industrial base. In this section, the region's existing infrastructure is reviewed, including transportation systems and utility systems, along with the financial resources available to improve that infrastructure.

Transportation Facilities

There are several means of transportation available in the ten-county region, which maximize accessibility for the essential movement of people and goods between linked activities. Due to the low population density of most of the region, travel demand is primarily served by the highway network. The East

Alabama Region has a good basic network of federal and state highways, and many miles of paved county roads, as shown on the map.

Almost all of the region's population growth centers and major employment hubs are accessible by one of the interstates or federal highways; there are, however, a few municipalities that have experienced population growth that are only accessible by a state highway.

Airports

LEGEND

● AIRPORTS WITH HARD SURFACE RUNWAY

SOURCE: EAST ALABAMA REGIONAL PLANNING
AND DEVELOPMENT COMMISSION
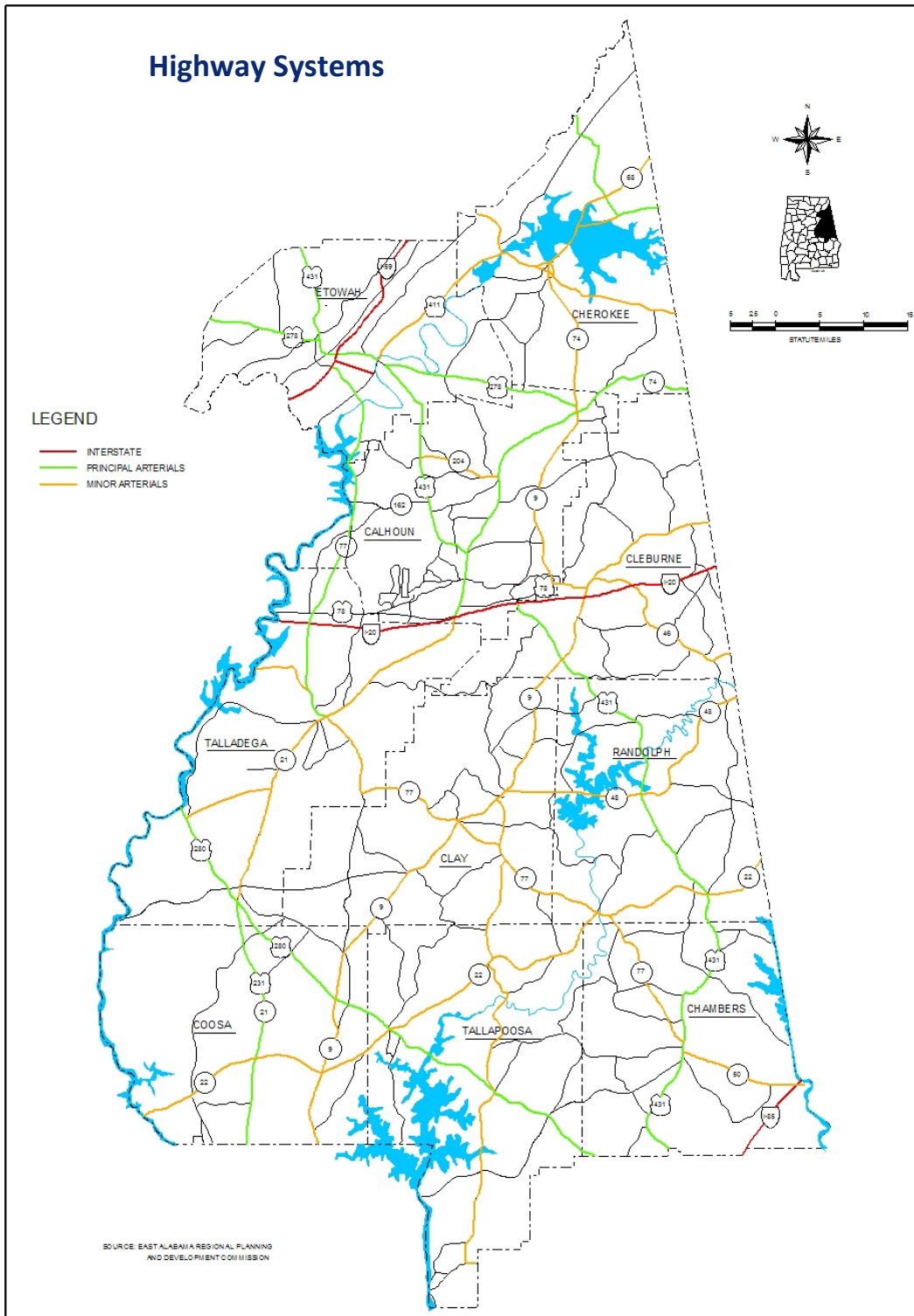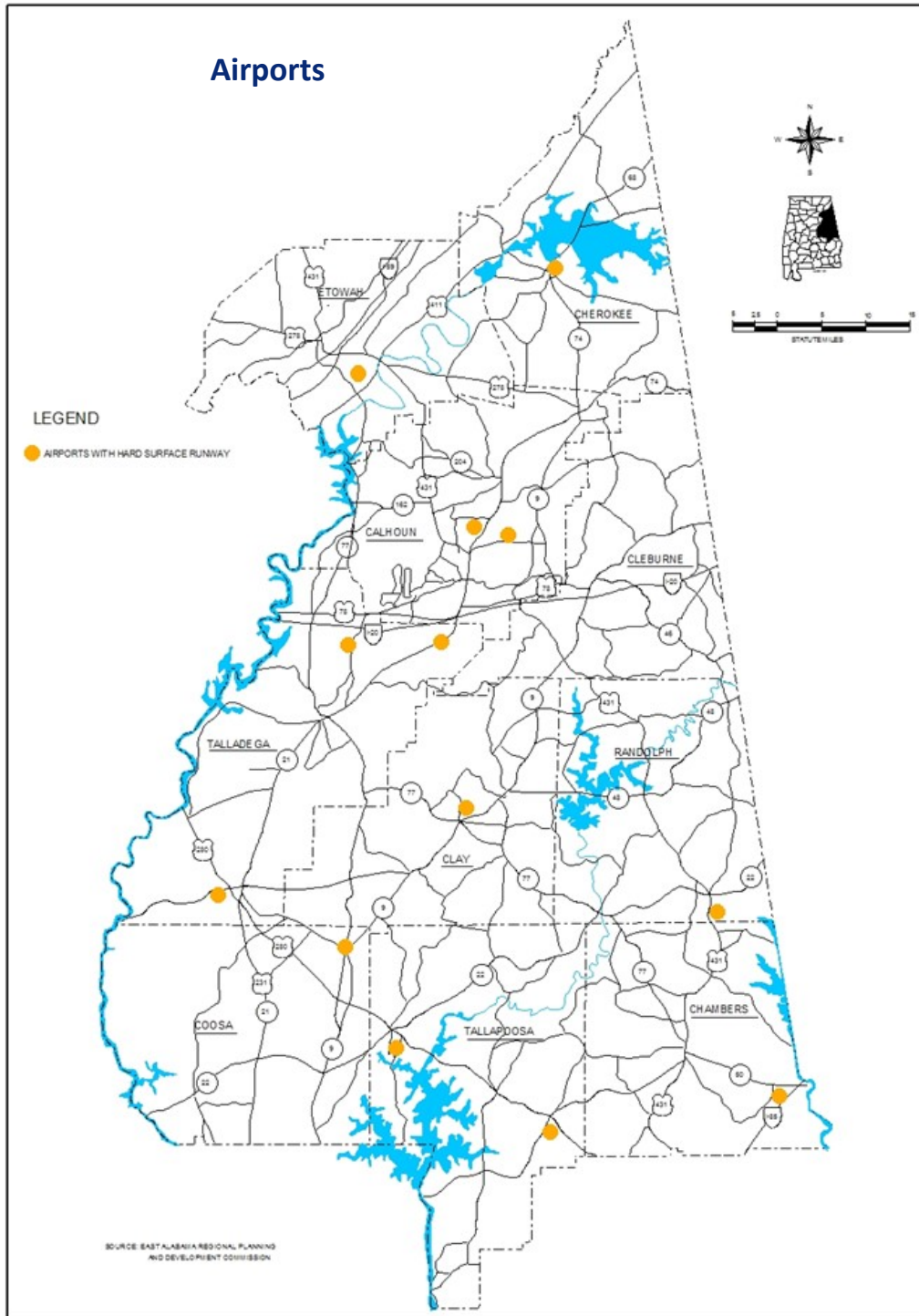
There are 13 airports located throughout the region. The majority of these airports serve local residents who own small passenger planes. Anniston-Calhoun County Airport and Gadsden Municipal Airport are the only two airports in the region capable of supporting commercial air traffic, although regular airline service to both airports was suspended in 1996. Commercial air service, however, is available in nearby Birmingham.

The major railroads that operate through the East Alabama Region are Norfolk-Southern Corp, CSX Transportation Incorporation, and Alabama & Tennessee Railway, LLC.

The region has numerous motor freight lines to provide freight service. The regular and frequent schedules, in addition to the good connections in nearby metropolitan areas, enable this area to be close to market centers across the nation.

There is one commercial bus line available in the ten-county region, Greyhound Bus Line. The City of Gadsden has a demand-response urbanized transportation system called Demand and Response Transportation (DART). The Cities of Goodwater, Childersburg, Oak Grove, Sylacauga, and Talladega operate a demand response service through the EARPDC's Areawide Community Transportation System (ACTS), serving northeaster Coosa County. The City of Lineville contracts to provide transportation services to residents along a fixed route. Calhoun County operates an urbanized fixed route transit system and complementary paratransit service, which serves Anniston, Oxford, Weaver, Jacksonville, and Hobson City. Rural area transportation services are available in all but Chambers, Randolph, and Talladega Counties.

Water and Sewer Facilities

The provision of water supplies and sewage treatment facilities within the region is of utmost importance. The provision of these services also constitutes one of the primary determinants of land use intensity throughout the East Alabama Region. This is particularly true of water service areas. Individual wells often yield water in low quantities during certain periods of the year. Therefore, intense urban development must depend on public supplies. Water and sewer service areas are typically located within and adjacent to incorporated municipalities in the East Alabama Region. Most often the water is supplied by these municipalities, and in some cases public water authorities provide service to the unincorporated areas. Private wells are also used in isolated areas throughout the region. All sewage treatment plants in the area are owned by municipalities, except in areas where they are owned by governmental installations.

Public Utilities

The Alabama Power Company serves an area in and around the Anniston, as well as all the counties within the region except for the northern portion of Cherokee County. The Cherokee Electric Cooperative provides for the electrical needs of those residing in Cherokee County and portions of Calhoun and Etowah Counties. In addition, several of the municipalities located throughout the region have their own electric systems. They buy power from either the Alabama Power Company or rural electric co-ops (REA) and distribute the electricity within the corporate limits through their own system.

Natural gas is provided by Transcontinental Gas Pipeline Company in the southern portion of the region and by Southern Natural Gas company in the northern portion of the region. Although natural gas facilities are not available for every municipality in the region, most areas are served by natural gas facilities. Transcontinental Gas Pipeline Company purchases natural gas in Texas, Louisiana, and Mississippi and moves it across the continent, selling it principally to local utility companies and local gas distributing systems. Southern Natural Gas Company has transmission lines running through the northern portion of the East Alabama Region, with small lines to the individual cities. Alabama Gas Corporation serves as a natural gas distribution company and distributes the gas supplied by Southern Natural Gas Company to residential, commercial, and industrial customers in the area. In addition to Alabama Gas Corporation, there are many smaller municipal and private distribution systems serving various communities in our region. The natural gas transmission lines are located throughout the district so that natural gas facilities could be made available to nearby communities upon demand. Public utilities for the most part, are adequate for current needs and for foreseeable future demands of the district.

Opportunity Zones

The Tax Cuts and Jobs Act of 2017 designated opportunity zones to furnish tax investments for investors to develop in underdeveloped and lower income areas. The program gives investors the opportunity to defer and reduce capital gains taxes by reinvesting into businesses and projects within the opportunity zone. These powerful tax incentives can serve to make areas more attractive for investors to locate. According to the Alabama Department of Economic and Community Affairs (ADECA), "Opportunity Zones are low-income census tracts with a poverty rate of at least 20 percent and a median family income of less than 80 percent of the statewide or area income." There are twelve opportunity zones across the East Alabama Region. 52.3 million Americans live in economically distressed communities, making this an important endeavor for all localities. Each county contains at least one section, with Calhoun County containing the most with opportunity zones in two census tracts. Our infrastructure, existing business clusters, and rich historical and natural resources suited to tourism are economic assets to any investor looking to take advantage of the region's opportunity zones. The critical infrastructure, which was discussed previously in this plan, makes East Alabama an attractive location for investment, when considering the connectivity of highways systems and nearby airports.

Established economic clusters, such as the automobile industry, provide opportunities for investors to come to opportunity zones and join this flourishing ecosystem. Educational services and healthcare, another abundant industry opportunity in the region, provide this same opportunity for expansion into an existing atmosphere. One underutilized economic activity for the region is tourism; with several tourism attractions present already, the region has the opening to expand, drawing more tourists to visit, and spend more time and money, in the East Alabama region.

East Alabama is also home to economic assets that can be leveraged for opportunity zones in the form of partnerships. Opportunity Alabama highlights several potential partners that can help the Opportunity Zone environment thrive, which includes "community foundations, economic development groups, incubators and accelerators, and colleges and universities", to name a few.

Two business incubators are located in the region, including Northeast Alabama Entrepreneurial Center in Anniston, Calhoun County, and Lake Martin Innovation Center in Alexander City, Tallapoosa County. Additional incubators are in nearby Auburn, Bessemer, and Birmingham. Incubators can help generate capable businesses that may utilize opportunity zones in the coming years.

As mentioned earlier when discussing economic clusters, East Alabama's education system is another great partner and asset to Opportunity Zones. The Educational Facilities section goes into depth on the many educational institutions and opportunities across the region, including colleges, universities, professional development programs, and programs for people with special training needs. These institutions present a great potential for partnership and connections for engagement on this subject.

Every county in the region, apart from Cleburne County, is also affiliated with an economic development group, and all counties have an active and engaged County Commission as well as Chambers of Commerce. Such groups include Calhoun County Economic Development Council, Chambers County Development Authority, Cherokee County Industrial Development Authority, Clay County Economic Development Council, Lake Martin Economic Development Alliance, Etowah County Economic Development, Gadsden-Etowah Industrial Development Authority, Randolph County Economic Development Authority, and Talladega County Economic Development Authority. Local groups such as these can have great impacts on opportunity zone funding throughout the region.

Opportunity Zones

East Alabama Regional Planning
And Development Commission

Scale

6   3   0   6   12   18

Miles

Prepared By The East Alabama Regional Planning And Development Commission, 2022.

Approved Opportunity Zones
(with Census Tract ID)

EARPDC Counties

Source: Alabama Department of Economic and Community Affairs (ADECA)
Approved April 18, 2018
Website: https://adeca.alabama.gov/opportunityzones/

Resiliency Strategy

There are many variations of the definition of "resilience", depending which dictionary or field of study you refer to, but resiliency all boils down to an entity's ability to recover from hardship. Economic resiliency is a community's ability to withstand and recover from rarely foreseen and often unforeseen economic shocks such as recession, natural disasters, and pandemics to just name a few.

Economic resilience cannot rest on one county, industry, business, or person alone. Interregional agility among government agencies, industries, businesses, and communities is necessary for economic resilience in a regional setting when assessing impacts on economic assets, anticipating risks, and boosting responsiveness. Local economic development professionals and organizations should think about their role in both preparing for future economic disruptions and recovery when addressing economic resilience. Planning and economic development approaches concentrating on enhancing economic development initiatives to satisfy new demands, enhance innovation and entrepreneurship, increase regional population, and reduce the gap between urban and rural areas, just to name a few, is imperative to increased regional economic resilience.

Importance of Gauging Economic Resiliency through the Measure of Economic Variety

According to Chmura JobsEQ, "economic diversity measures the degree to which a region utilizes a broad mix of economic activities." For example, a region that relies predominantly on one sole industrial sector, such as poultry production, is not economically varied, while another that possesses a vibrant manufacturing section and forestry sector in addition to poultry production is said to be more economically different.

For the purpose of this document, we are utilizing the Chmura JobsEQ economic diversity index. The methodology for Chmura's economic diversity index is that this analysis "computes the Economic Diversity Index for every county and MSA at the 6-digit NAICS level even when employment suppression issues make it difficult to find data for all industries. While the Bureau of Labor Statistic's county-level dataset is bound by non-disclosure rules, this analysis utilizes JobsEQ employment data which incorporates additional sources and methodologies to provide a complete employment dataset of all regions, making a thorough Economic Diversity Index calculation possible."

This metric is crucial for determining how adaptable and stable an economy will likely be amid an unanticipated economic event. An effective tool for planning is a measure of economic variety. With COVID-19's effects on economic circumstances being so pervasive lately, a more differentiated economy is better able to withstand economic decline and job losses brought on by such shocks.

With a national index rating of 0.00, the United States is the region with the greatest economic variety. When comparing two regions, a region with a comparatively lower index value is thought to be more economically differentiated than one with a higher value. Index measures are presented as numerical values and percentage changes for this analysis. When compared to the national index standard, all index values for each county and region are more than 0.00, suggesting a lower level of economic variety. Positive numbers across periods (a negative percent change) indicate higher levels of economic variety throughout time. For the

EARPDC ten-county region, the economic range index is considered for 2011, 2016, and 2021 as index measurements and percent changes for each county, and region average.

EARDPC 10- County Region Diversity Index

Region Code	Region Desciption	Diversity Index 2011	Diversity Index 2016	Diversity Index 2021	2011-2016 % Change	2016-2021 % Change	2011-2021 % Change
01015	Calhoun County, Alabama	73.93	73.46	75.38	-0.64%	2.61%	1.96%
01017	Chambers County, Alabama	99.91	103.87	99.37	3.96%	-4.33%	-0.54%
01019	Cherokee County, Alabama	106.72	108.01	107.04	1.21%	-0.90%	0.30%
01027	Clay County, Alabama	123.91	129.38	133.49	4.41%	3.18%	7.73%
01029	Cleburne County, Alabama	123.21	125.25	119.66	1.66%	-4.46%	-2.88%
01037	Coosa County, Alabama	147.05	142.2	132.09	-3.30%	-7.11%	-10.17%
01055	Etowah County, Alabama	74.88	76.95	76.93	2.76%	-0.03%	2.74%
01111	Randolph County, Alabama	106.16	107.53	112.06	1.29%	4.21%	5.56%
01123	Tallapoosa County, Alabama	90.42	92.52	93.96	2.32%	1.56%	3.92%
01121	Talladega County, Alabama	94.09	97.7	100.66	3.84%	3.03%	6.98%
	EARDPC Region Average	104.03	105.69	105.06	1.59%	-0.59%	1.00%

In relation to the EARPDC 10-county region, the counties of Calhoun and Etowah are more economically varied with Diversity Index values ranging in the mid-70s for both counties. With these two counties exhibiting the lowest economic range index values and therefore the highest levels of economic assortment, points to the importance of economic dynamics in urbanized areas when firms locate to a region. Tallapoosa County is also more economically assorted with values in the mid-90s. Clay and Coosa Counties are the least economically different counties in the region with Diversity Index values in the mid-130s.

Diversity Index value changes from 2011-2016 were overall negative; eight of the ten counties experienced lower levels of diversity, while only two counties became more economically expanded. The biggest improvement in economic variety was for Coosa County as its index value declined from 147.05 to 142.2, a -3.30% improvement. Clay County experienced the largest percent decline in economic variety as its index value increased by 4.41% from 123.91 to 129.38.

From 2016 to 2021, economic variety conditions in the region improved with five of the counties experiencing more economic variation and five counties experiencing lower levels of diversity. Only one county that improved from 2011 to 2016 also improved from 2016 to 2021 and that was Coosa County. The biggest improvement in economic variety during this period was again for Coosa County as its index value continued to decline by -7.11% from 142.2 to 132.09. During the period, Randolph County experienced the largest decline as its index measurement worsened by 4.21%, 107.53 to 112.06. The ten-county EARPDC region increased in economic assortment as its index value declined by -0.59% from 105.59 to 105.06.

Perhaps the best measure for economic range is the change over a longer period that considers values before and during the economic shock of COVID-19. From 2011 to 2021, the largest percent change decline was 7.73% in Clay County with much of the decline occurring in the 2011-2016 time period. Coosa County experienced the most improvement in economic multiplicity as its index value declined by -10.17% over the period. For this ten-year period, the EARPDC ten-county region worsened in economic multiplicity by 1.00%.

Source: CHMURA Economics & Analytics https://www.chmura.com/blog/chmura-economic-diversity.

Strategic Areas to Focus on to Increase Regional Economic Resiliency

Innovation and Entre-preneurship	Retaining and Growing Population	Broadband Connectivity	Rural-Urban Collaboration	Tourism
				•Outdoor Recreation •Cultural Heritage Tourism •Agritourism, etc.
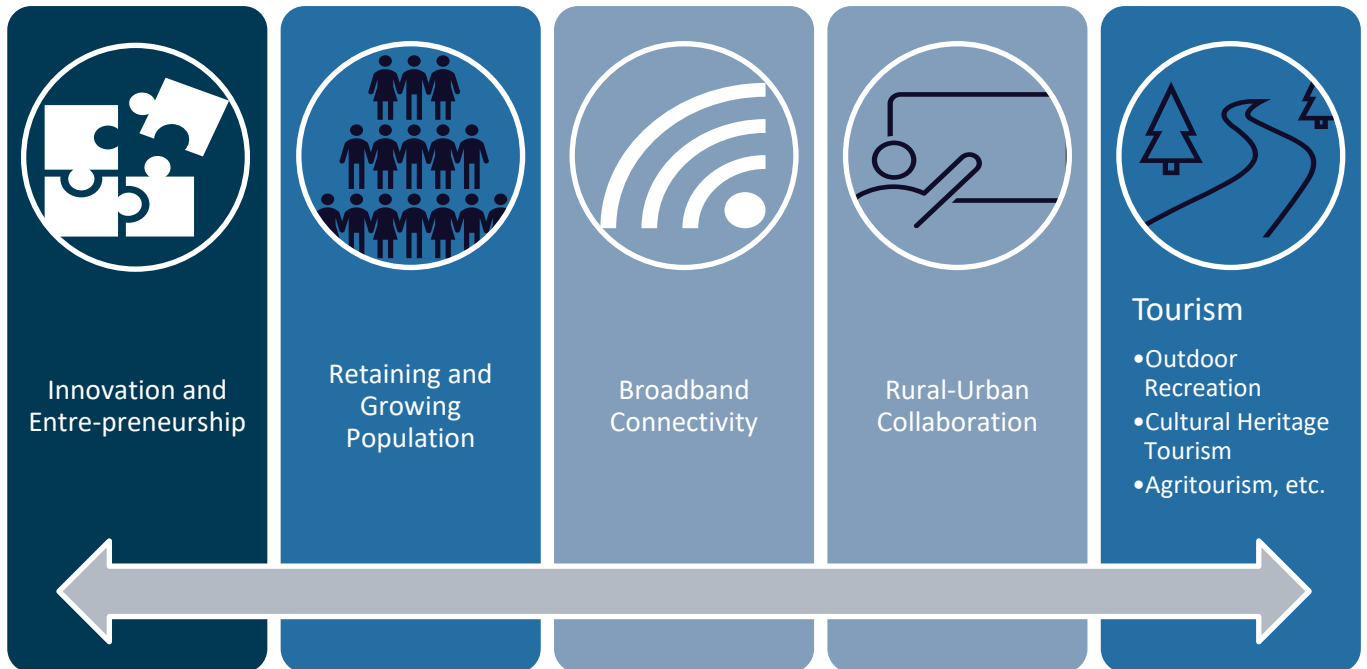
Disaster Strategy

Each of the counties in the region is a part of a recently updated hazard mitigation plan, which are now done regionally and divided by Alabama Emergency Management Divisions. The Alabama Emergency Management Agency classifies them as follows: Division F includes Etowah and Cherokee Counties; Division G includes Calhoun, Cleburne, Clay, Randolph, and Talladega Counties; and Division D includes Chambers, Coosa, and Tallapoosa Counties. These plans go into detail describing emergency planning, disaster information, and response and recovery actions and plans for each county.

COVID-19 Impact

The COVID-19 pandemic had a considerable economic impact on the East Alabama Region. Communities were unprepared in this unprecedented situation to prevent, prepare for, and respond to coronavirus. Many businesses, institutions, and production and manufacturing companies were forced to shut down or implement work from home policies to protect the public from infection. This had a far-reaching impact on supply chains, school systems, and government budgets, just to name a few examples. A huge issue in the East Alabama region was the lack of internet availability and connectivity, which effected the capability of students to attend online classes, or employees to safely work from home. The COVID-19 pandemic made apparent many of the region's economic development issues, which were considered to determine regionally developed strategies to build capacity for economic development based on local business conditions and needs. The Comprehensive Economic Development Strategy for the East Alabama Region planning process considered recovery and resilience regarding all these matters during plan development. Please the impact planning and at-risk population reports below. Individual County reports can be found in Appendix A.

KEY INDICATORS: IMPACT PLANNING
10 Counties

LANGUAGE (ACS)	Age 5-17	18-64	Age 65+	Total
English Only	67,937	263,562	86,777	418,276
Spanish	2,756	7,104	542	10,402
Spanish & English Well	2,583	5,230	417	8,230
Spanish & English Not Well	167	1,380	72	1,619
Indo-European	295	1,461	498	2,254
Indo-European & English Well	234	1,251	440	1,925
Indo-Euro & English Not Well	61	152	52	265
Asian-Pacific Island	85	1,206	294	1,585
Asian-Pacific Isl & English Well	85	932	249	1,266
Asn-Pacific Isl & English Not Well	0	246	8	254
Other Language	177	448	95	720
Other Language & English Well	177	428	95	700
Other Lang. & English Not Well	0	20	0	20

461,546	2.38	188,136	42.8	$50,691	$142,103	177	91%
Population	Avg Size Household	Households	Median Age	Median Household Income	Median Home Value	Housing Affordability	Internet at Home

POPULATION AND POVERTY STATUS (ACS)	Total
Population for whom Poverty Status is Determined	447,979
Income to Poverty Ratio <0.50	29,801
Income to Poverty Ratio 0.50-0.99	42,339
Income to Poverty Ratio 1.00-1.24	28,360
Income to Poverty Ratio 1.25-1.49	23,245
Income to Poverty Ratio 1.50-1.84	39,294
Income to Poverty Ratio 1.85-1.99	14,322
Income to Poverty Ratio 2.00+	270,618

POPULATION BY AGE

Under 18 (21.0%)   Age 18 to 64 (59.0%)   Age 65+ (21.0%)
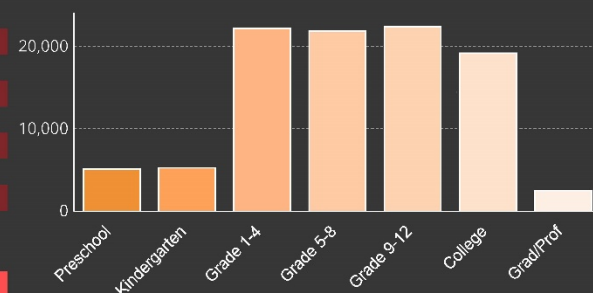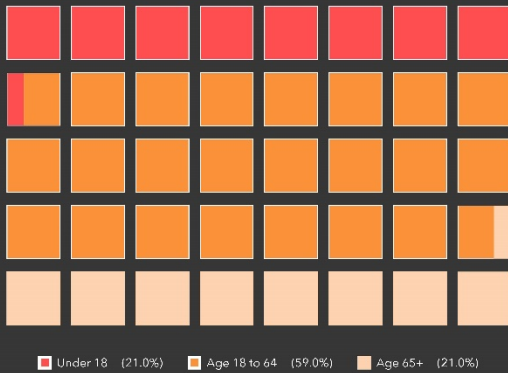
POVERTY LEVELS (ACS)	Below	Above	Total
Total	30,424	149,090	179,514
Married Couple Families	4,709	80,078	84,787
Other Families w/Male Householder	1,226	7,054	8,280
Other Families w/Female Householder	8,732	17,342	26,074
Nonfamilies w/Male Householder	6,133	21,413	27,546
Nonfamilies w/Female Householder	9,624	23,203	32,827

NO HEALTH INSURANCE COVERAGE	(ACS) %	Total
Population <19	0.7%	3,013
Population Age 19-34	4.0%	18,265
Population Age 35-64	5.1%	22,927
Population Age 65+	0.1%	411

SCHOOL ENROLLMENT (ACS)
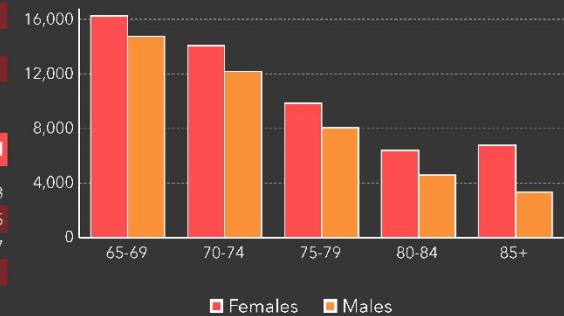
SENIOR POPULATION

Females   Males

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AT RISK POPULATION PROFILE
10 Counties

Geography: County

461,546	**188,136**	**2.38**	**42.8**	**$50,691**	**$142,103**	**56**	**177**	**49**
Population	Households	Avg Size Household	Median Age	Median Household Income	Median Home Value	Wealth Index	Housing Affordability	Diversity Index

AT RISK POPULATION

64,381	**96,232**	**10,698**
Households With Disability	Population 65+	Households Without Vehicle

POVERTY AND LANGUAGE

17%	**30,424**	**53**
Households Below the Poverty Level	Households Below the Poverty Level	Pop 65+ Speak Spanish & No English

POPULATION AND BUSINESSES

436,896	**14,303**	**158,878**
Daytime Population	Total Businesses	Total Employees

POPULATION BY AGE

	Under 18	18 to 65	Aged 65+
	91,430	280,314	96,232

Language Spoken (ACS)	Age 5-17	18-64	Age 65+	Total
English Only	67,937	263,562	86,777	418,276
Spanish	2,756	7,104	542	10,402
Spanish & English Well	2,583	5,230	417	8,230
Spanish & English Not Well	167	1,380	72	1,619
Spanish & No English	6	494	53	553
Indo-European	295	1,461	498	2,254
Indo-European & English Well	234	1,251	440	1,925
Indo-European & English Not Well	61	152	52	265
Indo-European & No English	0	58	6	64
Asian-Pacific Island	85	1,206	294	1,585
Asian-Pacific Isl & English Well	85	932	249	1,266
Asian-Pacific Isl & English Not Well	0	246	8	254
Asian-Pacific Isl & No English	0	28	37	65
Other Language	177	448	95	720
Other Language & English Well	177	428	95	700
Other Language & English Not Well	0	20	0	20
Other Language & No English	0	0	0	0

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SWOT ANALYSIS

A SWOT Analysis examines the Strengths, Weaknesses, Opportunities, and Threats facing the region and the regional economy. The CEDS Strategy Committee and the public were invited to contribute to the analysis. The results were utilized to inform the update process of the Development Strategies and Action Plan section.

SWOT Analysis components are defined by the U.S. Economic Development Administration (EDA) as follows:

- **Strengths** are a region's relative competitive advantages (e.g., industry supply chains and clusters, extensive port, rail, and broadband assets, specialized workforce skills, higher education levels, collaboration among stakeholders) and often are internal in nature;
- **Weaknesses** are a region's relative competitive disadvantages (e.g., a risk-averse or change-resistant regional culture), also often internal in nature;
- **Opportunities** are chances or occasions for regional improvement or progress (e.g., expansion of a biosciences research lab in the region), often external in nature; and
- **Threats** are chances or occasions for negative impacts on the region or regional decline (e.g., several companies in the region considering moving to lower-cost areas of the state), also often are external in nature.

Key SWOT issues for the East Alabama Region are identified below.

Strengths

- Lake and River Areas Colleges and Universities
- Resources available to businesses and public in general
- Local agencies collaborate and promote one another
- Medical facilities Rural Area Personality Tourist attractions
- Easy access to highways
- Education system
- Local options for shopping
- Local trucking companies provide transportation opportunities for businesses
- Rich history
- Quality law enforcement
- Community spirit, courage, and determination whether it be sports, education, etc.
- Natural resources, environment, recreation value, agriculture, and tourism potential
- Cultural heritage
- Employment opportunities
- Cost of living and taxes
- Interstate highway connectivity
- Low crime rate
- Hospital and health clinics

- Elderly care facilities
- Willingness to collaborate as a region
- Land, natural resources, regional universities, and community colleges
- Partnerships for economic incentives with the state
- Airport connections
- Close knit community who often stand together when individuals/entities are in peril
- Solid education system
- Comparatively reasonable land prices
- Railroads
- Quarries
- Williams Pipeline Natural Gas
- Growing industries
- Strong economic development organization
- Abundant water and sewer capacity
- Multiple telecom and power providers (options)
- Strong & unique manufacturing/industrial base
- Strong non-profit base
- Increasing population
- Abundance of land
- Strong entrepreneurship presence
- Strong relationships with state partners/agencies
- Various employment opportunities

Weaknesses

- Road Conditions
- Aging population
- Lack of public transportation systems
- Lack of childcare availability
- Distance between rural and urban areas
- Lack of cell phone reception
- Small reliable workforce pool
- Low wages
- Lack of local job opportunities with good benefits
- Local employers with archaic business practices (prejudiced, close-minded)
- Locals with "no outsiders" mindset
- Traffic congestion and wrecks
- Housing stock
- Insufficient broadband
- Infrastructure
- Entertainment for children of all ages
- Empty, deteriorating buildings
- Hotels and meeting centers

- o   Recreational facilities
- o   Technology access and an elevated need for broadband
- o   Housing for workers of business and industry
- o   Lack of affordable housing
- o   Lack of zoning and ordinances
- o   Limited labor force
- o   Shortage of industrial buildings
- o   Lack of continuity and agreement on growth
- o   Lack of affordable rental properties
- o   Need for relocation of business professionals
- o   School performance compared to greater Alabama
- o   Lack of accountability for commission staff
- o   Social media
- o   Lack of walkability
- o   Lack of young leaders
- o   Need for more leadership education on economic growth
- o   Split time zones
- o   Lack of business/entrepreneurship support programs
- o   Poverty, low HH income

Opportunities

- o   Continued partnerships and collaborations
- o   Enhanced private & public sector partnerships
- o   A broad Ecotourism economy
- o   Room to expand
- o   Pull from larger areas' workforce pool
- o   Better internet service throughout the county
- o   Organic food options grown in the area
- o   Growth in tourism
- o   Possible food production for local landowners
- o   Housing developments
- o   Employment: Retail, restaurants, and industry to locate
- o   Infrastructure investment
- o   Developable land
- o   Talent retention
- o   Tie education & workforce development programs to business/industry targets
- o   Attract light, clean industry
- o   Rivers and lakes
- o   Farmland
- o   Architecturally significant downtowns
- o   Broadband access
- o   Progress: influx of individually who are willing to invest

- School system
- Reasonably priced land
- Agritourism
- Forest Industry
- Museums
- Rails to Trails
- Lake and River areas
- Walkable towns and micro-communities that are self-sustaining
- Hiking Trails
- Boating
- Regional partnerships
- Airports
- Retaining and recruiting talent
- Tech entrepreneurship growth (CORI Rural Innovation Initiative)
- Education partnerships with secondary and post-secondary entities
- Federal funding to improve infrastructure (water/sewer, roadways, broadband) Internship, co-op, and apprenticeship
- Assisting with workforce development
- Consolidated school system

Threats

- Students finishing school then moving to another location
- Education not molding a qualified workforce
- Rural dis-connectivity with workforce
- Lack of resources and products for marketing the region
- Younger generations leaving lake area and being replaced with retirees
- Too much expansion will taint the rural character of the area
- Poverty and drugs
- Aging and decrease in population
- Exodus of young adult who cannot find a job locally
- Educational disparities
- Ignoring smart growth
- Downtowns in peril
- Lack of united front by mayors & councils to lobby state leaders
- Untrained or unavailable workforce Instability and conflict in the country and world
- Inflation
- Poverty Level
- Higher wages elsewhere
- Tax base decline
- Lack of motivation to change
- Disruptive citizen behavior
- Competition and lack of relationships between cities within counties and among counties

- o Competition from neighboring larger communities
- o Low wages for automotive jobs
- o Decreased workforce participation
- o Lack of state support for recruitment and funding
- o Lack of funding to grow infrastructure and tax base
- o Division between school systems
- o Not enough participation in grant funding opportunities
- o Region has worst two performing MSAs in the state

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PART II
DEVELOPMENT STRATEGIES AND ACTION PLAN

This final phase of the Comprehensive Economic Development Strategy entails devising program development strategies and determining which strategies will be most likely achieve the overall economic development goal for the region. The EARPDC's overall goal is to develop an expanded economic base within the East Alabama Region which utilizes the region's natural and human resources, provides full employment for the region's citizenry, facilitates economic resilience, and improves the area's quality of life. The following chapters translate this broad goal into a series of long-range goals and short-range objectives and establish ways to achieve those goals and objectives and to measure success.

This section summarizes the *CLEAR Plan 2030 Implementation Plan*, which was the culmination of an intensive two-year public engagement process. The *CLEAR Plan 2030* was also utilized in the previous 5-year CEDS update, and it was determined that due to the amount of research, effort, and public engagement that went into the plan, it was still a valuable resource to guide the 2022 CEDS.

The *Implementation Plan* presents rural and small urban communities (ranging in size from 55 to 37,000) and rural and small urban counties (ranging from 11,000 to 120,000 inhabitants) with potential means to attain the goals their residents identified as crucial to improving livability. The *Implementation Plan* considers feasibility and potential impacts of plan implementation, addressing the resources needed to carry out the proposed projects and providing case studies. Strategies are phased and potential challenges are addressed. The *Implementation Plan* is intended to aid in maximizing the potential for long-term success of these initiatives and to facilitate marketing the region to prospective investors and businesses. The full document is available in the online library at www.earpdc.org.

The *CLEAR Plan 2030* utilized eight livability principles to guide the planning process.

1. *Encourage Prosperity and Upward Mobility*
   - Recognize the potential to grow and create prosperity for all
   - Mobilize resources to encourage an comprehensive, competitive, and satisfied workforce
   - Support all-encompassing, competitive, and satisfied workforces
   - Provide opportunities for young people (jobs, education, recreation) as reasons to stay

2. *Champion Valued Communities*
   - Encourage healthy lifestyles and strong families
   - Create safe environments for all residents
   - Support communities of faith
   - Address health of both mind and body

3. *Value and Protect the Region's Beauty and Natural Resources*

- Support stewardship to ensure that natural resources meet the needs of present and future generations
- Preserve the natural beauty and unique assets in the region
- Provide open access to active and passive recreational pursuits

4. *Celebrate Heritage and Cultural Assets*
   - Express the region's history, variety, sense of place, accessibility, and vibrancy through high-quality urban design and historic preservation
   - Host ample and assorted arts and cultural resources that are available to all residents

5. *Think Regionally, Act Locally*
   - Support different, accessible, and affordable transportation options that allow all people to be mobile
   - Take advantage of proximity to other cities and increase access, allowing for regional connectivity
   - Leverage political and economic resources together to solve problems
   - Capitalize on opportunities that cannot be handled within neighborhoods, towns, or cities
   - Create infrastructure that supports economic growth, cultural vitality, and stability

6. *Invest in Quality and Accessible Education*
   - Promote high-quality learning environments, along with opportunities for continued education for all age groups
   - Increase access to job skill training and other higher-level education opportunities

7. *Promote a Sense of Place and a Pride of Ownership and Home*
   - Promote a love of home and hearth as community values
   - Value engaged, well-informed citizens whose voices influence government processes and who take pride and active interest in issues affecting their community
   - Support high quality, various, and affordable housing options that are available to all residents

8. *Grow Local and Regional Leadership*
   - Be far-seeing enough, flexible enough, and wise enough not to undermine either physical or social support systems
   - Engage all members of a community to create more prosperous, convenient, impartial, healthy, and attractive places for present and future generations
   - Build visionary and entrepreneurial team-based leadership that invites public participation across all spectrums and works creatively to accomplish its goals
   - Create linkages among all stakeholders and foster public/private partnerships

COMMUNITY ENGAGEMENT

The Community Engagement Livability Resource Team (LRT) identified the following regional needs:

- **There is a need for constant, consistent, long-term communication.**
  - Foster grassroots planning efforts through open and consistent messaging about project status and implementation, accompanied by constant acceptance of resident input.
  - Institute a long-term messaging process to keep the process "alive."

- **The concept of *Regionalism* is foreign to many residents and should be promoted.**
  - Nurturing regionalism in elements such as tourism, commerce and transportation will make the concept familiar to residents and foster acceptance.
  - Building geographically on existing partnerships will expand the concept of regionalism.

- **There are populations that require specialized outreach.**
  - Some populations will require additional effort to engage in the planning and implementation processes. The effort is needed so that residents will have knowledge of and opportunities to provide input on proposed activities prior to implementation.

- **To truly engage residents throughout the region, the community engagement process must be in a constant state of evolution.**
  - The community engagement process should be expanded to reach out to all corners of the region and contain a truly representative sample of the region's population.

- **Funding is vital to proper community engagement.**
  - A well thought out community engagement strategy should allow for some financial expenditure (e.g., professional facilitators, advertising, technology, meeting facilities).
  - Offering to cover transportation costs of residents attending public meetings in the extreme rural areas of the region would lessen the burden experienced by some.
  - Avenues for input, messaging, and information dissemination must be varied to accommodate those with no or limited access to the internet, radio, broadcast TV, and/or print media.

COMMUNITY ENGAGEMENT

Goal 1. Provide long-term communication avenues to inform stakeholders and the public of the status of livability throughout the region.

Objectives
- Maintain a website with regional livability status and information.
- Publish and distribute periodicals with information regarding livability.
- Conduct an annual status update public meeting in locations varying year to year.

Strategies
- Partner with existing communication entities (media, internet providers, local governments, etc.)
- Identify entities throughout the region champion livability and promote communications.

Metrics
- Increase awareness of livability and resources available to livable communities. Measure using web counter hits, number of inquiries regarding livability, number of local governments incorporating livability principles in planning.
- Identify and train two (2) individuals willing to champion the concept of livability in each county in the region.

Implementation Steps
- Establish an organization to spearhead regional livability efforts.
- Develop a multi-faceted communications program.
    - Create an organization logo
    - Create an organization website
    - Develop a regularly-issued newsletter
    - Develop an annual report
    - Host regularly-scheduled public forums
    - Maintain on-going communications with the region's media outlets
    - Utilize social media to promote the organization and Its mission

Goal 2. Promote the concept and benefits of *regionalism* to local governments and the public.

Objectives
- Increase support for regionalism by increasing the number of individuals promoting it.
- Increase the number of local governments incorporating regional partnerships in planning and economic development.

Barriers

- Time constraints on individuals capable of and willing to educate residents and promote the concept of regionalism.
- Competition for scarce resources (economic development, funding, etc.)

Strategies
- Identify and train two (2) individuals willing to champion the concept of regionalism in each county in the region.
- Promote regionalism to show that, by combining resources, competition is not so aggressive and possibly detrimental to development, resource accumulation, etc.

Metrics
- Identify and train two (2) individuals willing to champion the concept of regionalism in each county in the region.
- Educate local governments on the benefits of regionalism regarding resource sharing, economic development, etc.

Implementation Steps
- Provide educational opportunities on regionalism.
  - Utilize educational forums on regionalism
  - Provide additional educational opportunities on regionalism
- Identify and utilize regionalism-oriented organizations.
  - Identify and utilize national-level organizations promoting regionalism
  - Identify and study regional-level model organizations promoting regionalism

Goal 3. Identify and provide outreach to specialized populations.

Objectives
- Provide convenient and meaningful access to input from all populations residing in the region.

Barriers
- Diversity of needs throughout the region
- Rural nature of the region
- Funding

Strategies
- Identify diverse needs and partner with entities already meeting the needs (for example, translating surveys into Braille by AIDB—a service they already provide).
- Provide outreach and one-on-one contact throughout the region in the most remote of places.
- Seek funding partnerships and collaboration with entities already meeting needs.

Metrics

- Increase in contacts made and input received, as well as awareness of livability and its principles.

Implementation Steps
- Identify categories of relevant specialized populations
- Develop and implement an outreach strategy for each relevant group

Goal 4. Expand the LRT—or its successor—to include representation from local governments, private entities and residents throughout the region.

Objectives
- Identify and train one (1) individual in each county in the region who is willing to champion the concept of community engagement and livability.
- Identify one (1) local government in each county that is willing to champion the concept of livability.

Barriers
- Lack of resources to inform residents and local governments about the importance of livability
- Apathy
- Time constraints on individuals

Strategies
- Educate on the importance of livability to overcome apathy.
- Provide planned, long term schedule of events to fit into individuals' time schedules.

Metrics
- Increase the number of LRT members to twenty (20) by 12/31/2027.
- Increase the variety of LRT members to include representatives from each county in the region.

Implementation Steps
- Recruit new members to the organization's committees.
  - Take advantage of public forums to identify and recruit new committee members
  - Contact local governments, chambers, businesses and other entities for committee recruits
- Provide an orientation program for new committee members

Goal 5. Design a sustainable funding stream to cover community engagement costs.

Objectives
- Provide incentives for residents of extreme rural regions to cover transportation costs to attend public meetings.
- Obtain funds to cover costs associated with community engagement.

Barriers

- There is currently no identified entity to donate or manage funding.

Strategies
- Partner with local businesses to provide incentives.
- Identify funding source to provide funds (donations, foundation grants, fund raisers).

Metrics
- Obtain an annual budget of $1,500 by 12/31/2027

Implementation Steps
- Conduct community engagement in a financially viable manner.
    - Establish a carpooling program for meetings
    - Pursue grants and foundation and corporate support for community engagement

Goal 6. Improve technology access and availability to include broadband internet

Objectives
- Improve interconnectivity of citizens via internet to interact with, learn more about, and contribute to public activities and projects
- Obtain funds to cover costs associated with internet technology infrastructure.

Barriers
- Internet connectivity and infrastructure is lacking or completely absent across the region.

Strategies
- Partner with local businesses to provide space with internet availability
- Identify funding source to provide funds (donations, foundation grants, fund raisers).

Metrics
- Improve internet access across the region by 20% by 2027

Implementation Steps
- Provide educational opportunities on internet access and usage

ECONOMIC COMPETITIVENESS

REGIONAL NEEDS FOR ECONOMIC COMPETITIVENESS

The Economic Competitiveness Livability Resource Team (LRT) and the Education LRT held combined meetings due to the intertwining nature of workforce development, economic competitiveness, and education. Discussion centered on the following regional needs:

   o   ener They include automated manufacturing, construction, healthcare, services, and tourism.

- **Apathy regarding cooperation among entities can be difficult.**
   o   There is a need to motivate people to be involved in improving the economy and supporting their community and larger region.

- **Thinking regionally, but acting locally is necessary.**
   o   However, doing so is a difficult concept to incorporate into everyday life.
   o   Economics, natural resources, and tourism are especially important to a regional outlook and could be tied to the region.
   o   Creating corridor plans connecting cities to one another would help tie together the region.

- **Define the regional advantages and how to market them.**
   o   Identification of what makes the region unique and advantageous is integral to marketing it to national and international businesses, industries, and people looking for a new place to call home.

- **Enrich the support system for existing business and industries.**
   o   Make sure people know they are appreciated and a vital part of the East Alabama economy.
   o   Create a plan to help recruit businesses, industry, and people into small communities.
   o   Infrastructure costs can be prohibitive to development and hinder progress; therefore, something needs to be done to address it.

- **Creation of "Leadership East Alabama" program.**
   o   This program would facilitate an exchange of ideas and promote a more regional perspective.

- **Workforce development and coordination is vital to meeting industry needs.**
   o   There is a need to link education and industry needs.
   o   Connect community colleges and high schools with industries.
   o   School funding for training in specific industrial techniques can be difficult to obtain and may be unpredictable.

- **Need to change the mindset regarding career tech education.**
   o   There is a negative connotation associated with career tech and 2-year degrees. This mindset needs to be changed.

- **Career coach and job shadowing.**
   o   More job shadowing and career coach opportunities need to be offered to students so they can determine the best path for their future.

- **Need to identify what skills already exist in the region and what skills are needed.**

o   Identify industry needs/skills gaps. Technological advances are changing labor force needs, specifically the number of people needed to do a specific task.

ECONOMIC COMPETITIVENESS

GOALS, OBJECTIVES, BARRIERS, STRATEGIES, METRICS & IMPLEMENTATION STEPS

Goal 1. Align needed skills with jobs.

Objectives
- Develop an effective collaborative environment between industry and education.
- Continually analyze employer needs and employment trends.
- Align education and training programs with actual needs.
- Provide learning opportunities through real life experiences.

Barriers
- Lack of knowledge of how to or desire to participate in an effective collaborative environment between industry and education.
- Lack of knowledge of available training for students and businesses.
- Financial costs associated with developing specific career aligned curriculum.
- Identifying specific employer needs can be problematic, time consuming, and ever changing.
- Limited involvement of local businesses and industries in workforce and economic development conversations, which are needed to further the region economically.

Strategies
- Work with the Region 5 and Region 8 Workforce Development Councils, EDAA, and AIDT to further communication between industry and education.
- Pursue low cost mechanisms and grant funding to identify needs and provide training and real life employment experiences.
- Provide workshops/training seminars on grant opportunities and how to write grant applications.
- Promote the ACT WorkKeys program, which utilizes the National Career Readiness Certificate, across the region.
- Create a database which lists all available training programs throughout the region.
- Utilize workforce apprenticeships or internships.

Metrics
- Increase the percentage of over 25 population with an associate's degree or higher to the State's average (currently 29%) over a five-year period. Measure using American Community Survey.
- Increase the number of ACT WorkKeys program schools and graduates obtaining a National Career Readiness Certificate by 2% over a five-year period. Measure using data from ACT.

Implementation Steps
- Develop strong partnerships with private employers for training and education.
    - Coordinate with Region 5 and Region 8 Workforce Development Councils
    - Conduct direct personal outreach to existing private employers
    - Leverage private funding for scholarship programs
- Increase access to higher-education resources.
    - Maximize the use of scholarship programs
    - Work to enhance Jacksonville State University as the region's premier four-year institution of higher education
- Enhance communication and promotion of existing workforce programs.
    - Work with the Workforce Development Councils to promote the State's existing workforce training and education programs

Goal 2. Increase the number of people prepared for high wage, high growth jobs.

Objectives
- Market and promote the region to national and international industries.
- Increase awareness of career opportunities in local high growth sectors.
- Enhance and increase educational and training opportunities.

Barriers
- Differentiating the region from the state and nation can be difficult
- Lack of desire to complete the necessary education to be prepared for the high wage, high growth jobs

Strategies
- Develop a comprehensive marketing package to promote the region to the world.
- Provide informational packets in schools and online stating career paths and the steps to take to achieve the high wage, high growth jobs.
- Increase the number of career coaches promoting occupational options.

Metrics
- Increase the number of ACT WorkKeys program schools and graduates obtaining a National Career Readiness Certificate by 2% over a five-year period. The data will come from ACT.

Implementation Steps
- Enhance and promote amenity value to retain businesses and educated workforce.
    - Work with the Community Foundation of Northeast Alabama's member foundations to generate funding for enhancing community amenity assets
    - Promote community assets and amenities to existing and prospective businesses
    - Examine opportunities for regional amenity corridors
- Identify local economic development strengths and small-town targets.

- Identify market opportunities in small towns and rural communities
- Assist with implementation of economic development "readiness" projects and programs
- Promote fairs and trade shows to enhance networking
  - Promote the use of mobile job and training fairs
  - Promote larger cities in the region as sites for trade shows
- Engage students and prospective workers with technology training.
  - Promote the use of emerging technologies to increase interest in training and education
  - Work with area businesses to promote more apprenticeships and other hands-on training

Goal 3. Provide training and job opportunities to enhance human capital.

Objectives
- Communicate opportunities to special populations, training providers and employers.
- Identify and connect special populations to employment and training opportunities.
- Assist with training providers and employers in how to accommodate special populations.

Barriers
- Identifying and communicating training and employment opportunities to special populations can be extremely difficult
- Financial cost and unpredictable nature of grants to fund training programs and the costs associated with marketing the programs are troublesome

Strategies
- Work with social service and economic development agencies to communicate training and other opportunities to special populations and employers.
- Dovetail this work into as many other programs as possible to lower expenses.
- Utilize internship, co-op, and apprenticeship opportunities to assist with workforce development

Metrics
- Increase the number of training events held each year by 2% over a five-year period.

Implementation Steps
- Support the existing social service framework.
  - Work with existing social service and development agencies
- Engage and incentivize the private sector in special needs training and employment.
  - Engage with the private sector
  - Establish incentive programs
- Enhance access to support systems to enable participation in training and employment programs.
  - Enable use of life skills training
  - Inventory and distribute information about existing services
  - Increase access to standard industry equipment and technology
  - Enhance volunteer recruitment

    o Enable child care services

Goal 4. Support existing businesses and spur local entrepreneurship.

Objectives
- Create a business incubator to provide resources to support entrepreneurs.
- Develop a marketing brand for the East Alabama region.
- Develop a strategy to enhance the tourism industry.
- Coordinate efforts to retain existing businesses and industries.
- Enhance financial incentives/opportunities for local existing business/industry.

Barriers
- Extensive collaboration and knowledge is required to create a business incubator
- Finding common ground can be difficult and prohibitive to the collaboration needed to develop a marketing brand, creating a strategy to enhance the tourism industry, and coordinating efforts to retain existing businesses and industries
- Financial burden associated with developing a business incubator and offering incentives/opportunities to local existing business/industry
- Geographic size of the region can be problematic when trying to promote collaboration throughout the region. Thinking regionally but acting locally is difficult.
- Technology deficit in the region. There is a lack of consistent, high-quality long distance and cell phone service, nor is there high-speed internet everywhere in the region.

Strategies
- Utilize existing educational resources—e.g., University of Alabama Center for Business and Economic Development or Jacksonville State University Small Business Development Center—to provide knowledge to galvanize collaboration and development of a business incubator, marketing brand, tourism strategy, and retain existing business and industries.
- Pursue partnerships, grant-funding sources, and other resources to relieve the financial burden associated with developing a business incubator or offering incentives/opportunities to local existing business and industry.
- Utilize technology as much as possible to connect the region; for example, conference calls and web conferencing can bring people together.
- Collaborate with Connecting Alabama and other organizations to bring high-speed internet and other communication technology to as many people as possible in the region.

Metrics
- Increase the number of collaboration/planning meetings held each year by 2% over a five-year period.
- Increase participation in the Alabama Communities of Excellence (ACE) program by 1% over a five-year period.

Implementation Steps

- Establish a regional marketing program and brand.
    - Build on existing economic development resources
    - Work with existing industries to identify competitive strengths
    - Determine regional economic development branding concepts
    - Develop a regional economic development program
- Leverage tourism potential.
    - Develop a regional tourism development strategy
    - Establish tourism corridors and nodes
- Assess the feasibility of business incubator projects.
    - Work with universities to identify incubator concepts
    - Test the feasibility of incubators
- Promote the use of existing small business resources.
    - Take advantage of resources available through Made in Alabama organizations
    - Communicate with area businesses about assistance programs
- Focus on business retention and growth efforts.
    - Most new jobs will be created by businesses that already exist in the region
    - Enable the growth of existing businesses
- Enhance amenity value as a tool for economic development.
    - Costs and amenities drive location decisions
    - Link economic development and tourism efforts
- Focus financial and other incentives on growing local businesses.
    - Local businesses create jobs and create amenity value
    - Let the State handle incentives for out-of-state relocations

Goal 5. Capitalize on existing downtown areas.

Objectives

- Conduct a comprehensive plan and zoning ordinance review and update, if needed, to create appealing downtown areas which promote opportunities for mixed-use space.
- Develop a marketing plan to accentuate downtown areas.
- Establish and promote social, recreational, cultural, and commercial activities downtown.
- Design an effective and safe multimodal transportation plan to and within downtown.

Barriers

- Apathy regarding downtown areas, especially ones in complete disrepair
- Time and fiscal constraints and apathy towards reviewing comprehensive plans and zoning ordinances
- Establishing clear governance over downtown areas, including maintenance and ability to conduct activities, is needed
- Prioritization of the personal motor vehicle over any other form of transportation is problematic when trying to promote biking and walking
- Conflict between rural and urban counties regarding priorities and competition

Strategies

- Organize small activities downtown to draw people to the area, building on the momentum to launch an aggressive program of events to draw people to the area, promote biking and walking.
- Acquire research that promotes downtowns and what can happen if a community focuses their efforts on their downtown.
- Work with the regional chamber of commerce programs to communicate the benefits of collaboration and identify the priorities of rural areas.

Metrics

- Increase the number of communities that have a downtown association or equivalent program by 2% over a five-year period.
- Increase the number of communities that participate in the Main Street program by 2% over five-years (they are currently not accepting new applicants).

Implementation Steps

- Establish a regional main street program and recruit downtowns.
  - Establish a regional main street program
  - Promote the merits of downtown revitalization
  - Identify candidate communities for a revitalization program
- Establish a local revitalization program (recommended for each community, adapted to meet their unique circumstances and needs).
  - Establish a downtown revitalization entity
  - Prepare a downtown revitalization plan
  - Implement the revitalization plan
- Establish a local historic preservation program.

Goal 6. Assist in the development of physical infrastructure and facilities; for example, utilizing or demolishing abandoned industrial and commercial sites.

Objectives

- Identify and seek funding sources to improve existing industrial and commercial sites and provide adequate community facilities and services.
- Repurpose or remediate existing properties.
- Designate and promote buildings comparable to the AdvantageSite program.
- Provide best practices regarding the permitting process for construction and demolition of buildings.
- Insure a safe, efficient and economic transportation system.
- Provide safe, decent, and sanitary housing in a suitable living environment for all residents of the region.

Barriers

- Environmental and regulatory concerns associated with reuse or demolishing of existing structures, especially former industrial sites
- Funding and collaboration is needed to create a program for buildings that is comparable to the AdvantageSite program
- Funding
- Current transportation practices
- Lack of affordable housing

Strategies
- Develop partnerships for sharing best practices, identifying potential funding sources, and addressing regulatory and environmental concerns.
- Work with the existing AdvantageSite program to modify/adapt it for buildings.
- Work with transportation professionals to modernize transportation practices.
- Collaborate with housing providers to increase available affordable housing.

Metrics
- Increase the number of reutilized industrial and commercial sites by 2% over a five-year period.
- Develop a program for buildings comparable to the AdvantageSite program and see the number of certifications increase each year over a five-year period.
- Increase the percentage of local governments with adequate community facilities and services by 2% over the next five years.

Implementation Steps
- Utilize programs for inventorying and marketing industrial properties.
    - Utilize the existing AdvantageSite program for industrial sites
    - Establish a program for buildings modeled after AdvantageSite
- Utilize programs for funding infrastructure and facilities.
    - Pursue funding from existing programs for infrastructure and facilities
    - Explore the potential for new programs for infrastructure and facilities funding
- Utilize existing environmental clean-up programs.

Goal 7. Assist in the development of internet infrastructure and facilities

Objectives
- Identify and seek funding sources to improve existing internet infrastructure and provide adequate community facilities and services.
- Designate and promote buildings to serve as co-working space for remote workers
- Create opportunities for more residents to utilize remote work
- Insure an efficient and economic technology system to promote local businesses
- Foster an environment for digital economies to thrive

Barriers
- Lack of access to internet can restrict access to jobs or business location
- Internet infrastructure is missing or lacking across the region
- Funding
- Learning curve of newer technology

Strategies
- Develop partnerships for sharing best practices and identifying potential funding sources
- Work with technology professionals to modernize infrastructure and practices.
- Collaborate to increase available internet connectivity.

Metrics
- Increase the percentage of local governments with adequate internet connectivity by 2% over the next five years.

Implementation Steps
- Utilize programs for funding infrastructure and facilities.
  - Pursue funding from existing programs for infrastructure and facilities
  - Explore the potential for new programs for infrastructure and facilities funding
- Promote technology improvements

TRANSPORTATION

REGIONAL NEEDS FOR TRANSPORTATION

The Transportation Livability Resource Team (LRT) identified the following regional needs:

Urban Transit

- **Steady funding for transit**
  - The only funding sources for local transit in the region are from federal sources, matched with required local government support.
  - There are no State contributions for transit.
  - There are no private partnerships for funding transit throughout the region.

- **Reduction in headways for existing fixed route transit systems**
  - Established fixed route transit systems currently have one-hour headways. This situation makes for ineffective and unreliable transportation for employment purposes.

- **Improved, less fragmented transit routes**
  - Existing land use patterns prohibit compact development and promote sprawl, reducing the effectiveness of the existing transit systems.

- **Promotional options are limited because promotion will not reduce headway and make the system more attractive to new users.**
  - Many potential users have the perception that the system is only available to specialized populations.
  - Sprawl prevents residents from accessing services.
  - The existing service routes do not support all ranges of housing costs (primarily convenient for low-income housing).

- **There is a need for better coordination among transit providers and expanded funding sources.**
  - There is no interconnected transit across county lines. The existing fixed route transit systems rarely cross municipal boundaries.

Rural Transit

- **In various areas throughout the region, transit options are non-existent.**

- **There is a lack of State and local financial contributions to rural transit systems.**
  - Existing transit systems operate on federal grants with only required matching funds submitted by local governments.

- **Continued residential dispersion creates challenges for transit.**
  - Land use patterns do not discourage sprawl; in fact, in some cases it is encouraged.
  - Zoning practices segregate land uses and discourage compact development.

- **Potential users view transportation services as being limited.**
  - Many potential users have the perception that the system is only available to specialized populations.
  - Sprawl prevents residents from readily accessing services.

Urban Roads and Highways

- **There is unchecked low-density sprawl throughout the region. Focus should occur on reuse and redevelopment.**
  - Sprawl results in limited resources being spread even thinner to maintain existing and extend new infrastructure in far flung developments.
  - Alternatives to strict Euclidian zoning should be instituted. Compatible, mixed-use zoning should be considered, promoted and adopted.
  - Public schools located outside of neighborhoods create new traffic congestion and the perceived need to transport students by private automobile. Additionally, those who use transport services provided by the school system are forced to endure long transit times on the school buses.
  - Obsolete height restrictions in the Central Business Districts discourage higher densities and mixed-use multi-story structures.

- **There is too much dependence on federal money and sales tax to support road maintenance.**
  - A reliable, steady funding stream is needed to properly maintain the existing road network.

- **Best management practices should be used for access management. There is currently a lack of access management regulation and interagency planning/collaboration.**

- **Alternative transportation access is extremely limited.**
  - There is little emphasis on sidewalks, bike lanes and bike paths.
  - There is little connectivity between land uses.
  - Most municipalities are over-zoned for highway commercial. Limit highway commercial zoning to key intersections only.

Rural Roads and Highways

- **Low-density sprawl in rural areas places extreme financial burdens on local governments and residents associated with the large number of road miles that must be maintained using limited revenue sources.**
  - Infill development is not encouraged in rural communities.
  - Walkable, compact design should be practiced in existing rural communities.

- **Rural areas in Alabama tend to have weak land use controls, with no zoning authority in the unincorporated areas.**

- **There is limited funding for necessary maintenance and bridge replacement.**
  - A steady, predictable, adequate funding stream is required for proper maintenance of roads and bridges.

TRANSPORTATION
GOALS, OBJECTIVES, BARRIERS, STRATEGIES, METRICS & IMPLEMENTATION STEPS

Goal 1. Promote public and private partnerships for funding both transportation and transit.

Objectives

- Identify non-traditional, steady funding alternatives for transportation and transit in both the urbanized and rural areas of the region.
- Encourage Best Management Practices and investigate new uses of emerging technologies for transit and transportation maintenance.

Barriers

- Dependence on federal money and existing state tax structure.
- Lack of State contributions to transit.
- Reduced local government contributions to transit and transportation.
- Lack of coordination among public and private entities to fund transit and maintain transportation facilities.

Strategies

- Work with legislators to identify revenues to enable municipal and county resurfacing projects (not capacity building) and investment in transit as needed.
- Work with Legislature and State DoT to begin contributions to supplement transit funding.
- Engage the Citizens Advisory Committee and the Transit Advisory Board in multi-modal transportation planning activities.

Metrics

- Improved tax structure to allow for funding to maintain existing transportation infrastructure.
- Begin State contributions to fund transit by 2027.
- Keep a running inventory of invested funds for transportation projects. MPO, RPO, TAP, RTP, grants, etc. for the region.

Implementation Steps

- Promote public and private partnerships for transportation funding.
  - Pursue creative funding approaches to general transportation initiatives.
  - Pursue new strategies and partnerships to provide transit throughout the region.

Goal 2. Promote compact development, land/structure reuse and infill development to avoid sprawl and low-density land use.

Objectives

- Encourage compatible mixed-use developments where feasible; where not feasible, promote higher residential densities that make transit and pedestrian trips feasible. Coordinate these policies in regional and local transportation plans.

- Reduce minimum parking space requirements for retail and commercial uses.
- Encourage mixed-use urban development that includes mixed-income and elderly residential facilities. Develop affordable housing and housing needs assessment approaches.
- Promote alternative transportation and reduction of Daily Vehicle Miles Travelled.
- Promote and encourage municipalities and counties to utilize Best Management Practices in access management.
- Promote sidewalks, trails and bike paths (interior connections) between adjacent land uses. Establish practices and policies in comprehensive plans and subdivision regulations.

Barriers
- Unchecked low-density sprawl both in urban and rural areas.
- Lack of access management compliance and consistency.
- Lack of infill development, reuse of existing structures and land for redevelopment.

Strategies
- Encourage mixed-use development with flexible parking and height allowances.
- Seek investment sources for land and structure redevelopment.

Metrics
- Increase the number of local governments practicing mixed use zoning to five (5) throughout the region by 2027.
- Inventory the region for adopted policies and types that address mixed use or formed-based zoning for compatibility.

Implementation Steps
- Pursue goals 5 and 7 within "Section B: Economic Competitiveness".
  - o Capitalize on existing downtown areas and Main Street initiatives.
  - o Utilize land use and growth management policies
- Emphasize compact land use and development patterns in appropriate locations.

Goal 3. Promote Complete Streets Concepts, to include Public Transit

Objectives
- Encourage and facilitate walkability and bicycling
- Encourage public transit development
- Ensure quality and capacity of existing infrastructure systems
- Increase transportation options

Barriers
- Weak land use control and lack of zoning power.
- Urban and rural sprawl.

Strategies
- Promote the practice of, and educate the public and officials on, the benefits of complete streets

Metrics
- Use of complete streets in three (3) municipalities.
- Capture development patterns and map the areas for future connectivity and transportation connection planning

Implementation Steps
- Emphasize concepts such as bicycle facilities, sidewalks, crossing opportunities, and transit to provide safe, accessible streets for all users

HOUSING

REGIONAL NEEDS FOR HOUSING

The Housing Livability Resource Team (LRT) identified the following regional needs:

- **Increase the affordable housing stock.**

- **Aging in place services.**
  - According to the Centers for Disease Control and Prevention, "aging in place is the ability to live in one's own home and community safely, independently, and comfortably, regardless of age, income, or ability level." Aging in place services allow people to stay in their homes rather than moving to a nursing home, which can be costly and removes people from mainstream society. Therefore, ADA accessible housing and supportive housing services are needed for the growing over-60 population in East Alabama.

- **More transitional housing is needed for several populations.**
  - Homeless programs are needed in East Alabama. Many people do not realize the high level of homelessness in the Region. Long-term transitional housing is needed, as transitional housing is typically for a limited period. Additionally, quick sources of housing are needed for people in times of need, especially during a natural disaster or personal financial emergency.

- **Better utilization of existing housing and empty properties.**
  - Vacant properties attract mischief and lower the visual appeal of a neighborhood. Utilizing empty properties and houses could provide sources of housing for people who need it most and improve the community as a whole. However, financial resources are needed to rehabilitate properties.

- **Public housing needs to look more inviting.**
  - Public housing does not have to look unattractive. It can be appealing looking, which would boost the morale of residents.
  - Unappealing structures may cause residents to not want to live there, even if it may be a better situation than their current living arrangements.

- **More deeply subsidized housing is needed.**
  - Subsidized housing includes public housing authorities (which typically have a 2-3 year wait list), Housing Choice Vouchers, and other housing assistance programs. Housing Choice Vouchers allow residents to live in housing that is not located at the public housing authority but is subsidized through a voucher. Therefore, the tenant pays a set amount of the rent based on a percentage of their income and the government pays for the rest of the rent not covered by the tenant. However, as government funding is tightened, fewer Housing Choice Vouchers are available.

- **Mixed-use and mixed-income developments are desired.**
  - Mixed-use refers to neighborhoods, which have residences, businesses, offices, churches, and shopping within the same area. This approach promotes accessibility through walking and provides people without transportation the opportunity to utilize the various functions with ease. Furthermore, healthy food and employment are also needed in proximity to housing and would be ideally placed in a mixed-use development.

- **Financial resources for mobile home purchases and rent-to-own/lease purchases are needed.**
  - There is a lack of financing options for people wishing to purchase a mobile home (which may be the most affordable option). Some rehabilitation programs require applicants to own their home, which is problematic for long-term renters. Therefore, a rent-to-own program is needed.

- **Weatherization and improvement of substandard housing is greatly needed.**
  - Improvements to existing housing are needed throughout the region. People may lack the knowledge or resources to weatherize their homes. In addition, improvement of substandard housing is needed. These homes may have a tree caving in their roof or an extremely cracked foundation and need assistance to fix it.

HOUSING
GOALS, OBJECTIVES, BARRIERS, STRATEGIES, METRICS & IMPLEMENTATION STEPS

Goal 1. Every Alabama resident should have the opportunity for safe, decent, affordable housing regardless of income level.

Objectives
- Housing assistance providers complete an assessment of services provided to eliminate redundancies or duplication of efforts.
- Increase the number of affordable housing units available in East Alabama.
- Increase awareness of the lack of housing affordability in the region.
- Leverage Opportunity Zones in East Alabama

Barriers
- Funding is needed to complete an assessment, increase the number of affordable housing units, and create materials to increase awareness
- Reluctance and difficulty in collaborating to reduce overlap and the development of affordable units
- Lack of awareness of the issues regarding affordable housing
- Perceived risks to investing
- Lack of affordable rentals and middle housing.

Strategies
- Identify and apply for assistance to complete an assessment, increase affordable housing units, and create materials to increase awareness.
- Explain the need for affordable housing units and form partnerships to develop it.
- Encourage redevelopment in areas suffering from disinvestment.
- Overall assessment of developable land on a regional level.
- Promote middle housing.
- Address blight to promote additional housing.

Metrics
- Develop a comprehensive list of housing assistance providers throughout the region with a list of services they offer.
- Collaborate with local government, non- profits, and developers to increase the number of affordable and available units in the region by 20 units in five years.
- Show a 2% decrease in the number of people spending over 30% of their income on housing within the next five years. (This indicates affordability.)
- Show a 2% in Opportunity Zone development across the region

Implementation Steps
- Develop strong partnerships with housing-related real estate, construction, finance, and retail businesses.
  - Establish a housing committee of the proposed east Alabama partnership (eap) to assess affordable housing needs
  - Conduct comprehensive housing conditions assessments
  - Develop model house, fundraising, and awareness programs
- Enhance coordination and service delivery among existing housing providers.
  - Inventory and assess existing housing service provider base
  - Develop targeted resources for reducing gaps or problems in existing service delivery
- Utilize a "carrot and stick" approach to encourage the rehabilitation of rental housing.
  - Inventory rental housing resources and conditions
  - Encourage local governments to provide incentives for rental housing construction and improvements
  - Match incentive "carrots" with regulatory "sticks" where necessary

Goal 2. Increase awareness and availability of accessible housing in the East Alabama Region.

Objectives
- Identify and promote ADA compliance measures so existing housing can be rehabilitated to meet access needs.
- Locate funding sources for modifying homes to be more ADA accessible.

Barriers
- Funding to increase awareness and make modifications to homes
- Lack of knowledge regarding federal regulations requiring accessibility

Strategies
- Identify and obtain funding resources
- Create educational materials about ADA accessibility requirements and possible modifications

Metrics
- Collect the number of clients with newly accessible elements due to awareness and programs over five years.
- Collect the number of grants funded for modifying homes to make them more accessible by nonprofits and the Partnership over five years.

Implementation Steps
- Help maximize the region's share of available accessibility grant funding and volunteer support
  - o Identify and track grants, volunteers and other resources for enhancing accessibility
- Establish housing accessibility programs through area hospitals or associated providers
  - o Develop Collaborations with Area Hospitals
  - o Assist in Producing Information Packets

Goal 3. Increase the number of transitional programs, including services for the homeless and victims of abuse.

Objectives
- Increase available occupancy at existing and new shelters.
- Decrease the number of homeless in the region by providing long-term transitional housing.

Barriers
- Funding for programs
- "Not in my back yard" (NIMBY) issues: People may not want these programs located in their neighborhood

Strategies
- Raise awareness of the needs that the general population is not aware exists, i.e. homelessness, the need for affordable housing, and services for victims of abuse, through educational programs.
- Pursue grant funding to provide transitional housing programs.

Metrics
- Increase the number of available occupancies at shelters by 2% over five years.

- Decrease the number of homeless in the region by 2% over five years.

Implementation Steps
- Raise awareness of homelessness and target affordable housing for the homeless.
  - Encourage use of "housing first" models.
- Target hands-on support services and training and work initiatives to homeless.
  - Initiate homeless work initiatives.

Goal 4. Increase awareness of housing assistance programs and the discrimination reporting processes.

Objectives
- Develop targeted marketing strategies to reach the population in need.
- Many are unaware of problems in affordability. Make people aware through education.
- Develop educational materials and presentation kits regarding affordable and fair housing.
- Collect data on discrimination occurring throughout the region.

Barriers
- Awareness of options. Many people do not know what to do when facing discrimination or need housing assistance.
- False perception that needs are being met.
- There is an overwhelming need; however, there are not enough resources to meet the need.

Strategies
- Provide funding for fair housing initiatives program grant, which will provide funding for education regarding discrimination.
- Promote providers of housing assistance and their programs.
- East Alabama Partnership for Livability should create a list, identifying the population in need of resources over the next five years.

Metrics
- **Th**e East Alabama Partnership for Livability should increase the number of educational materials and presentation kits to three over the next five years.

Implementation Steps
- Increase awareness of housing assistance opportunities and options.
  - Work with fair housing centers to develop model homes, awareness and fundraising campaigns

Goal 5. Fill data gaps related to housing needs and discrimination.

Objectives
- Collaborate with providers of housing assistance to determine existing data related to livability.
- Collaborate with Fair Housing Centers to expand services and education throughout the East Alabama Region regarding housing discrimination education and appropriate reporting methods.

Barriers

- Funding
- Fears of reporting discrimination due to retaliation
- Entities that provide housing assistance do not have the staff or manpower to create the needed data

Strategies
- Identify and obtain funding resources.
- Promote the benefits of reporting discrimination through the appropriate channels, which will deter the practice in the future.
- Establish and implement a volunteer program that consists of properly training volunteers to ferret out data resources and speak to clients about discrimination

Metrics
- Collect data, which did not exist before, regarding housing needs over the next five years.

Implementation Steps
- Utilize university and community college resources for data collection.
    - Work with area universities and community colleges to establish a joint health and housing research center
    - Generate baseline and regular data for use by area housing agencies and planners
- Work with the fair housing centers to strengthen their capacity.
    - Integrate data collection into needs assessments and use data to inform program design
    - Help strengthen programs to prevent and address discriminatory practices in the housing sector
    - Help communicate and advocate for affordable housing resources for the region

Goal 6. Promote developing suitable housing to increase availability

Objectives
- Collaborate with local governments, non-profits, developers, and local businesses to provide housing options in high opportunity downtown neighborhoods, which would allow people easy access to employment, shopping, and other services.
- Partner with local governments, non-profits, and developers to incorporate housing into existing neighborhoods.
- Advance availability of affordable and quality housing for all ages, incomes, and abilities.

Barriers
- Cost prohibitive expenses associated with retrofitting space above businesses to residences.
- Business owners and developers requiring too large of rent payments.
- It can be less expensive to develop a "greenfield" rather than use a vacant lot in an existing neighborhood.

Strategies
- Provide training and education on how to retrofit space above businesses for residents and the appropriate costs associated with the space.
- Pursue grant funding to supplement the cost associated with retrofitting space.
- Encourage utilization of vacant lots by offering incentives to developers.

- Rehabilitate & maintain existing housing stock.
- Promote incentive program for suitable housing and housing assistance

Metrics
- Increase the percentage of available housing by 2% over a five-year period.
- Decrease the percentage of vacant lots within cities by 5% over a five-year period.

Implementation Steps
- Use housing market analyses to recruit downtown development.
  - Commission housing market analyses
  - Integrate housing market studies into broader downtown master planning efforts.
- Encourage local voluntary site assembly equity partnerships with property owners.
  - Encourage voluntary site assembly strategies
  - Facilitate "matchmaking" between private property owners and potential developers
- Encourage integration of mixed-income or affordable housing.
  - Work with local governments to enable incentives for presence of affordable units in downtown housing.
- Help create incentives for downtown building rehabilitation.
  - Help create and promote a package of incentives for building rehab
  - Help promote downtown building rehabilitation and communicate success stories

Goal 7. Increase availability of broadband internet in both residential and rural areas

Objectives
- Develop vital infrastructure to reach residences in need across the region
- Many are unaware of opportunities to increase connectivity. Make people aware through education.
- Enable remote work and e-learning opportunities for all residents
- Decrease regional residential internet access disparity

Barriers
- Awareness of options.
- False perception that needs are being met.
- There is an overwhelming need; however, there are not enough resources to meet the need.
- Lack of existing infrastructure

Strategies
- Pursue grant funding to supplement the cost of creating and/or improving infrastructure
- Seek partnerships to provide areas with free, public internet access

Metrics
- Residential internet access should see a 5% increase over the next 5 years.

Implementation Steps
- Increase awareness of internet access disparities across the region.
- Collaborate with regional partners to increase access and availability of broadband internet

EDUCATION

REGIONAL NEEDS FOR EDUCATION

The Education Livability Resource Team (LRT) and the Economic Competitiveness LRT held combined meetings due to the intertwining nature of workforce development, economic competitiveness, and education. Discussion centered on the following regional needs:

Begin career exploration early.
- Career exploration and mentorship (including businesses and industry) for elementary age and 7th and 8th grade students with examples of successful people and what they had to do to get to their position.
- Give students examples of how schooling fits into "real" life.

Early childhood education is an economic competitiveness driver and needs to be improved.
- Quality early childhood education is vitally important to attract people to the region and as an economic driver.
- In addition to writing, reading, math, and science, early childhood education curricula should include teamwork and problem solving.

Accessibility
- In some areas, internet access—even at schools—can be inaccessible and unaffordable.
- The community colleges and universities are limited in their geographic area.

Students need to be taught how to be successful in life.
- Students need to be educated with basic skills to succeed in life such as work ethic, decision-making consequences, personal finance, budgeting, entrepreneurship, fiscal responsibility, balancing a checkbook, credit worthiness.
- The ACT Ready to Work Initiative and WorkKeys program teach many of the basic life skills.

Promote alternatives to a 4-year college degree.
- There is a need for more work study programs in high schools so students can understand the work place and why it is important.
- The negative mindset toward two-year schools needs to be changed.

EDUCATION
GOALS, OBJECTIVES, BARRIERS, STRATEGIES, METRICS & IMPLEMENTATION STEPS

Goal 1. Increase educational attainment by beginning with early education and giving people the opportunity to advance their education.

Objectives
- Increase percentage of 3- and 4-year-olds in school throughout region to at least 50%.

- Increase the number of people graduating from high school.
- Increase the number of people with an associate degree or higher.

Barriers
- Financial costs associated with developing an increased number of preschools.
- Transportation to and from school can be problematic.
- Apathy towards educational attainment.

Strategies
- Each community develops their own planning strategies to address the issue.
- Provide information about how people who graduate from high school or obtain a GED generally have higher income than people who do not.
- Education partnerships with secondary and post-secondary institutions

Metrics
- Increase the percentage of 3- and 4-year-olds in school to at least 50% over a five-year period. Utilize data from the American Community Survey.
- Increase the percentage of on-time high school graduation (% of freshmen who graduate in 4 years) to over 80% in a five-year period. Utilize data from *www.countyhealthrankings.org.*
- Increase the percentage of the over-25 population with an associate degree or higher to at least the State's average over a five-year period. Utilize data from the American Community Survey.

Implementation Steps
- Develop measures to recruit and support early childcare facilities throughout the region.
  - Establish an Education Committee to develop measures for recruitment and support of early childcare facilities.
  - Determine funding sources.
- Develop and distribute information to parents on the importance of pre-k education.
  - Provide educational materials to parents on the value of early childhood education.

Goal 2. Decrease dropout rate with specific tasks, programs, and ideas for how to accomplish this.

Objectives
- Career exploration for elementary/middle school age students.
- Before and after-school programs and mentorships.

Barriers
- Availability of businesses to partner with for mentorships, especially in rural areas.
- Identifying resources can be an issue.
- Transportation to and from school and programs.
- Financial cost associated with specific tasks and programs.

Strategies
- Involve local business and industry to introduce careers.
- Identify mentors, programs through YMCA, churches, after school programs, recreation departments.
- Wi-Fi at public places, such as recreation departments, so students have access to the internet.
- Utilize grant funding for tasks and programs.

Metrics
- Decrease the dropout rate to less than 1% over the next five years. Conduct an annual review using State of Alabama data.

Implementation Steps
- Have the education committee work with local schools to develop career exploration resources and programs.
  - Build a basic website template for career exploration that can be modified to suit individual schools' needs.
  - Develop a Career Day at schools or a Workplace "Shadowing" Program for older students.
- Work to establish mentoring programs in high schools.
  - Develop guidelines for establishing mentoring programs for high school students

Goal 3. Work together to use resources.

Objectives
- Identify resources, including monetary and human.
- Find ways to increase communication and update others about educational successes.

Barriers
- The lack of a formal communication network with established education agencies makes it difficult to collaborate effectively.
- High speed internet is not available everywhere, which can make collaboration difficult.

Strategies
- Share successes and new initiatives across the region.
- Share faculty/resources to expand offerings, using virtual education.
- Develop and expand regular communication between all groups, especially universities, K-12, and pertinent agencies such as the Alabama Virtual Library.
- Involve Connecting Alabama in future discussions regarding resources.

Metrics
- Increase the number of meetings and communication within education leadership to at least two meetings a year over the next five years. Collect the meeting information.

Implementation Steps

- Increase programing in public libraries.
  - Work with the region's public libraries to increase programming and ensure as many as possible are actively participating in the Alabama Virtual Library.
- Develop and expand communication and information networks and enhance existing facilities.
  - Develop alternative public information avenues to showcase educational successes and initiatives.
  - Seek assistance with expanding internet capabilities to those areas with limited or no service.
  - Enhance and upgrade existing education infrastructure.

Goal 4. Collaborate with regional workforce development councils to link industry needs with training and education.

Objectives
- Identify needs for training by working with the economic development agencies in the region.
- Training at 2-year schools, such as Gadsden State and Southern Union, and vo-tech education should be aligned with needs.

Barriers
- Fewer resources are available now than in the past.
- Few life coach opportunities and career exploration programs are available.
- Overall lack of knowledge about training available within the region.

Strategies
- Involve AIDT in the effort to link industry needs with training and education.
- Meet with large employers/industries, including automotive and health care, to identify needs.
- Coordinate with existing effective career exploration programs, like the Boy Scouts of America Explorer Program, to provide resources for students.
- Work with the Workforce Development Councils to identify sustainable funding sources and employers/industries to be involved in career days, job shadowing, and other programs.
- Promote "on the job" videos with local businesses.

Metrics
- Increase collaboration between industry, business, and K-12 in providing training and workforce development over a five-year period. Document the number of meetings.
- Increase membership in the Region 5 and 8 Workforce Development Councils by 2% over five years. The Region 5 and 8 Workforce Development Councils will document members.
- Decrease the regional unemployment rate to fewer than 4% over the next five years. Use Alabama Department of Labor data.

Implementation Steps
- Increase awareness of job training opportunities.

- o Develop additional forms of outreach to increase citizen awareness of available job training within the region.
- Strengthen the region's voice on statewide boards and establish additional career development centers in the region.
  - o Increase the region's presence on Workforce Development Boards and in Career Development Centers.
- Encourage county participation in the ACT® Certified Work Ready Communities Program.
  - o Promote the ACT® Certified Work Ready Communities Program.

Goal 5. Work with state agencies to obtain grants to support training and education.

Objectives
- Increase the number of grants successfully funded across the region.
- Provide training in how to write grants.

Barriers
- Identification of grant writers who are willing to provide their services.
- Availability of grant funding.

Strategies
- Workshops/training seminars on grant opportunities and how to write grant applications.

Metrics
- Increase the number of grants reported over the next five years. Gather the data through a survey process or other methods.
- Increase number of grants successfully funded over the next five years. Gather the data through a survey process or other methods.

Implementation Steps
- Form a consortium of educators, non-profits and public agencies to develop and hold grant writing workshops.
  - o Work with the East Alabama Regional Planning and Development Commission (EARPDC) to identify and coordinate appropriate entities to provide grant writing training.

Goal 6. That school systems use the "Best Practices," data, studies, trends and resources of the Public Affairs Research Council of Alabama (PARCA), as well as other educational resources, in development, implementation and assessment of their school system's goals and objectives.

Objectives
- Use best practices in school systems to reach goals and objectives.
- Use PARCA to provide best practices data in higher achievement measures, which would indicate success in applying best practices.

Barriers

- Financial barriers associated with gathering data and best practices.

Strategies

- Provide programs to assist with data and best practices collection.

Metrics

- Increased use of best practices used to reach school systems' goals and objectives over a five-year period. Collect data on school systems using best practices.
- Increase the number of school systems reaching their goals and objectives over a five-year span. Collect data on school systems reaching their goals and objectives.

Implementation Steps

- Develop a best practices model.
    - Develop a model "Best Practices" Plan that can be used by all schools in the region to develop and track goals and objectives.
- Develop a strategic plan for education in the region.
    - Establish a collaborate effort, that includes education professionals, to develop a Model Strategic Plan for Education.
    - Identify a school or schools to participate in a Strategic Planning Pilot Program.

Goal 7. Increase broadband internet available for educational purposes.

Objectives

- Increase the number of schools able to fully implement e-learning
- Decrease internet access disparity among students and schools
- Expand access to technology and facilities that increase educational opportunities

Barriers

- Rural areas and smaller municipalities lack funding and infrastructure.
- Availability of funding.
- Technology disparities based on school budgets

Strategies

- Build partnerships to expand internet availability
- Seek funding to improve and expand infrastructure

Metrics

- Increase the number of students able to utilize e-learning opportunities. Gather the data through a survey process or other methods.

Implementation Steps
- Hold speaker series and/or workshops to educate the public on technology opportunities
- Develop and expand broadband internet networks

HEALTH

REGIONAL NEEDS FOR HEALTH

The Health Livability Resource Team identified the following regional needs:

To promote effectiveness of health care systems, an all-inclusive collection of data should be conducted.
- Social aspects of users
- Payers

- Federal access to hospitals

There is a need to improve connectivity.
- How residents can connect to proper health care resources and services.
- How professionals can connect with residents and health care maintenance information.

Public Education
- There is a need to educate the public on existing health care and resources within the region.

HEALTH
GOALS, OBJECTIVES, BARRIERS, STRATEGIES, METRICS & IMPLEMENTATION STRATEGIES

Goal 1. Make East Alabama the healthiest region in the State.

Objectives
- Encourage programs that provide health care to the uninsured.
- Educate the public on self-management of health issues
- Educate the public on healthy life styles at an early age**.**

Barriers
- Lack of financial resources/insurance, which leads to escalation of existing ailments.

Strategies
- Seek investment to educate the public on self-care and healthy life styles.
- Encourage the development of programs to provide services to those with no insurance.

Metrics
- Lower rates of the most common preventable diseases by 2% in 10 years.

Implementation Steps
- Develop a healthy lifestyles program for youths.
    - Develop programs to educate youth on healthy lifestyles and making healthy choices.
- Develop a health, prevention and wellness program.
    - Develop a Health, Prevention and Wellness Program starting with senior citizens and expanding over time to Include all adults in the region.
- Establish a Food Policy Council in the East Alabama region.
    - Establish a Food Policy Council within the East Alabama region to promote and develop Healthy Eating and Health, Prevention and Wellness Programs.

Goal 2. Decrease non-life-threatening emergency room visits.

Objectives

- Encourage programs that provide health care to the uninsured.
- Educate the public on the proper use of the health care system.

Barriers
- Lack of programs to educate the public.
- Lack of transportation network, which leads to the improper use of ambulance services and emergency services.

Strategies
- Public education to inform residents of existing resources and alternatives.

Metrics
- Reduction in non-life-threatening emergency transport and services by 2% in 10 years.

Implementation Steps
- Broaden access to alternative care services.
    - Broaden access to alternative care services.
    - Encourage emergency rooms to provide Ambulatory Care Units on-site for frequent ER users.
- Address other barriers to alternative health care options.
    - Evaluate transportation services in rural areas to determine the level of services provided.

Goal 3. Increase awareness of existing health programs and services in the East Alabama region.

Objectives
- Provide an easily accessible comprehensive list of existing resources and services throughout the region to all residents.
- Provide outreach and education through existing partnerships (such as school/County Extension) on health resources.
- Improve and expand internet access to increase access to information and resources, such as telemedicine

Barriers
- Funding to compose a resource guide
- Champions for outreach
- Lack of internet access

Strategies
- Promote partnerships of existing health care and resource centers to create a resource guide.
- Identify an entity to champion the process.
- Improve and expand internet infrastructure

Metrics

- Decrease in non-essential ER visits.
- Decrease in relapse or repeated admission for the same reasons.
- Increase in telemedicine visits.

Implementation Steps
- Develop a healthcare and transportation resource directory.
  - Develop public information on healthcare and transportation services

Goal 4. Quality after-care management

Objectives
- Create a specialized call center for the medical community that would be a regional cooperative among care providers manage patient care (especially important for after-care management).

Barriers
- Financial resources

Strategies
- Garner investment and funding from local governments, non-profit and private entities for the creation and management of such a call center.

Metrics
- Decrease in non-essential ER visits.
- Decrease in relapse or repeated admission for the same reasons.

Implementation Steps
- Investigate the viability of creating a call center for the management and informing of patient care
  - Investigate the viability (cost, responsible operating party, location, etc.) of creating a call center.

Goal 5. Promote the development of medical facilities to be available equally across the region

Objectives
- Increase the number of medical facilities available in the region
- Address current needs, such as mental health and opioid abuse

Barriers
- Financial resources
- False perceptions about needs to be met

Strategies
- Explains need for a range of medical offerings

- Encourage development for medical facilities
- Promote partnerships of existing medical facilities
- Expand and improve the condition of existing medical systems
- Promote telemedicine

Metrics
- Increase in medical facilities
- Decrease in average travel time to receive treatment

Implementation Step
- Conduct feasibility study for additional facilities and recruit new facilities and companies, and enhance existing infrastructure
- Enhance broadband internet capabilities

Implementation Matrix

The following three pages feature a plan Implementation Matrix that summarizes the key recommendations of this plan, as follows:

Subject Category
The matrix is organized to reflect the following six subject categories:

A. Community Engagement

B. Economic Competitiveness

C. Transportation

D. Housing

E. Education

F. Health

Alphanumeric Designation
Each subject category has been assigned a sequential letter and each primary plan recommendation has been given a sequential number. The category letter and recommendation number are combined for an alphanumeric designation for easy referencing.

Page Number
This column indicates the plan page numbers that explain the recommendation in detail.

Responsible Party
This column indicates the recommended party (or parties) to spearhead implementation in order of their level of responsibility.

Timeframe
This section sequences implementation into Ongoing (Year 1), Mid Term (Years 2-3) and Long Term (Years 4-5) categories.

#	Action	Page #	Time Frame	Potential Partners
Community Engagement				
A-1-1	**Establish an organization to spearhead regional livability efforts.**	52	Long term	EAP-EARPDC
A-1-2	**Develop a multi-faceted communications program.**	52	Long term	EAP-Community Engagement
A-2-1	**Provide Educational Opportunities on regionalism.**	52	Mid-term	EAP-Community Engagement
A-2-2	**Identify and utilize regionalism-oriented organizations.**	52	Ongoing	EAP-Community Engagement
A-3-1	**Identify categories of relevant specialized populations.**	53	Ongoing	EAP-Community Engagement
A-3-2	**Develop and implement an outreach strategy for each relevant group.**	53	Mid-term	EAP-Community Engagement
A-4-1	**Recruit new members to the organization's committees**	54	Mid-term	EAP-Community Engagement
A-4-2	**Provide an orientation program for new committee members**	54	Long-term	EAP-Staff
A-5-1	**Conduct community engagement in a financially viable manner**	54	Ongoing	EAP-Community Engagement
A-6-1	**Provide educational opportunities on internet access and usage**	55	Mid-term	Local ED Agencies, JSU
Economic Competitiveness				
B-1-1	**Develop strong partnerships with private employers for training and education.**	57	Ongoing	EAP, WDCs, Local ED Agencies
B-1-2	**Increase access to higher-education resources.**	57	Ongoing	EAP - Workforce Committee, Colleges
B-1-3	**Enhance communication and promotion of existing workforce programs.**	57	Ongoing	EAP - Workforce Committee, WDCs
B-2-1	**Enhance and promote amenity value to retain businesses and educated workforce.**	58	Ongoing	EAP, Local ED Agencies, Chambers, CFNEA

#	Action	Page #	Time Frame	Potential Partners
B-2-2	Identify local economic development strengths and small-town targets	58	Mid-term	EAP - ED Committee, EARPDC
B-2-3	Promote fairs and trade shows to enhance networking.	58	Ongoing	EAP - Workforce & ED Committees
B-2-4	Engage students and prospective workers with technology training.	58	Mid-term	EAP - Workforce Comm., Schools
B-3-1	Support the existing social service network.	59	Ongoing	EAP - Workforce Comm., Service Orgs.
B-3-2	Engage and incentivize the private sector in special needs training and employment.	59	Long-term	EAP - Wkfrce & ED Comms. / Special Pop.
B-3-3	Enhance access to support systems to enable participation in training and employment programs.	59	Ongoing	EAP - Workforce Comm., Service Orgs.
B-4-1	Establish a regional marketing program and brand.	60	Long-term	EAP - ED Comm., ED Orgs, Chambers, Inds.
B-4-2	Leverage tourism potential.	60	Ongoing	EAP - ED Comm., ED Orgs, CVBs
B-4-3	Assess the feasibility of business incubator projects.	60	Long-term	EAP - ED Comm., JSU / Colleges
B-4-4	Promote the use of existing small business resources.	60	Ongoing	EAP - ED Comm., ED Orgs, State
B-4-5	Focus on business retention and growth efforts.	60	Ongoing	EAP - ED Comm., Local Govts.
B-4-6	Enhance amenity value as a tool for economic development.	60	Mid-term	EARPDC
B-4-7	Focus financial and other incentives on growing local businesses.	60	Ongoing	EAP - ED Comm., Local Govts.

#	Action	Page #	Time Frame	Potential Partners
B-5-1	Establish a regional main street program and recruit downtowns	61	Ongoing	EAP, EARPDC, Alabama Main St. Program
B-5-2	Establish a local revitalization program (recommended for each community, adapted to meet their unique circumstances, and needs).	61	Long-term	EAP, EARPDC, Alabama Main St. Program
B-5-3	Establish a local historic preservation program.	61	Long-term	Local Gov'ts, ADAH, EAP
B-6-1	Utilize programs for inventorying and marketing industrial properties.	62	Ongoing	Econ. Develop. Orgs., EAP
B-6-2	Utilize programs for funding infrastructure and facilities.	62	Ongoing	Econ. Develop. Orgs., EAP
B-6-3	Utilize existing environmental clean-up programs.	62	Ongoing	Econ. Develop. Orgs., EAP
B-7-1	Provide educational opportunities on land use and growth management.	63	Mid-term	EAP, EARPDC
B-7-2	Assist communities with planning and zoning initiatives.	63	Ongoing	EAP, EARPDC
B-7-3	Educate the public on energy efficiency measures and encourage action.	63	Ongoing	EAP, EPA / HUD / DOE
B-7-4	Promote other existing energy programs.	63	Ongoing	EAP, EARPDC, Local Govt.
B-8-1	Utilize programs for funding infrastructures and facilities.	64	Mid-term	Local Govt.
B-8-2	Promote technology improvements.	64	Ongoing	Local Govt., Colleges, JSU
Transportation				
C-1-1	Promote public and private partnerships for transportation funding.	68	Ongoing	EAP-EARPDC
C-2-1	Pursue Goals 5 & 7 within "Section B: Economic Competitiveness".	68	Mid-term	See Section B Above

#	Action	Page #	Time Frame	Potential Partners
C-2-2	**Emphasize compact land use and development patterns in appropriate locations.**	68	Ongoing	EAP-EARPDC
C-3-1	**Emphasize concepts such as bicycle facilities, sidewalks, crossing opportunities, and transit to provide safe, accessible streets for all users.**	69	Ongoing	ALDOT, Local Govt., EARPDC
Housing				
D-1-1	**Develop strong partnerships with housing-related real estate, construction, finance, and retail businesses.**	73	Mid-term	EAP - Hsg Comm., JSU, CFNEA, providers
D-1-2	**Enhance coordination and service delivery among existing housing providers.**	73	Ongoing	EAP - Hsg Comm., EARPDC
D-1-3	**Utilize a "carrot and stick" approach to encourage the rehabilitation of rental housing.**	73	Mid-term	EAP - Hsg Comm., Local Govts, EARPDC
D-2-1	**Help maximize the region's share of available accessibility grant funding and volunteer support.**	74	Ongoing	EAP-Hsg. Comm.
D-2-2	**Establish housing accessibility programs through area hospitals or associated providers.**	74	Long-term	EAP - Hsg Comm., Hosp., Retail, Serv. Prov.
D-3-1	**Raise awareness of homelessness and target affordable housing for the homeless.**	74	Mid-term	EAP - Hsg Comm., Fair Housing Centers
D-3-2	**Target hands-on support services and training and work initiatives to homeless.**	74	Mid-term	EAP - Hsg Comm. / Wrkfrc Comm., Colleges
D-4-1	**Increase awareness of housing assistance and options.**	75	Ongoing	FHCs, Local govt., HUD
D-5-1	**Utilize university and community college resources for data collection.**	76	Ongoing	Colleges (JSU), EARPDC

#	Action	Page #	Time Frame	Potential Partners
D-5-2	**Work with fair housing centers to strengthen their capacity.**	76	Mid-term	EAP - Hsg Comm., JSU, FHCs, Banks
D-6-1	**Use housing market analyses to recruit downtown development**	76	Mid-term	EARPDC, Main St. Orgs, Local Govts
D-6-2	**Encourage local voluntary site assembly equity partnerships with property owners.**	76	Ongoing	EARPDC, MS Orgs, EAP-ED Com., Loc Govs
D-6-3	**Encourage integration of mixed-income or affordable housing.**	76	Ongoing	EARPDC, Main Street Orgs, Local Govts
D-6-4	**Help create incentives for downtown building rehabilitation.**	76	Mid-term	EARPDC, Main Street Orgs, Local Govts
D-7-1	**Increase awareness of internet access disparities across the region.**	77	Ongoing	EARPDC, Chambers, Local govts.
D-7-2	**Collaborate with regional partners to increase access and availability of broadband internet.**	77	Long-term	Local govts., County Commissions, Colleges (JSU)
	Education			
E-1-1	**Develop measures to recruit and support early childcare facilities throughout the region.**	80	Long-term	EAP, Education Administration
E-1-2	**Develop and distribute information to parents on the importance of pre-k education.**	80	Mid-term	EAP - DOE
E-2-1	**Have the education committee work with local schools to develop career exploration resources and programs.**	80	Long-term	EAP - Education Comm., Schools, Colleges
E-2-2	**Work to establish mentoring programs in high schools**	80	Long-term	EAP - Ed. Com., Schools/Colleges, EARPDC
E-3-1	**Increase programing in public libraries.**	81	Ongoing	EARPDC, Library Boards, Local Gov'ts.

#	Action	Page #	Time Frame	Potential Partners
E-3-2	Develop and expand communication and information networks and enhance existing facilities.	81	Mid-term	EARPDC-EAP
E-4-1	Increase awareness of job training opportunities.	82	Ongoing	EARPDC, Workforce Dev. Councils
E-4-2	Strengthen the region's voice on statewide boards and establish additional career development centers in the region.	82	Long-term	EARPDC, City and County Leaders
E-4-3	Encourage county participation in the ACT Work Ready Communities Program.	82	Ongoing	EARPDC, Local Leaders, Businesses
E-5-1	Form a consortium of educators, non-profits, and public agencies to develop and hold grant writing workshops.	83	Long-term	EARPDC, Chambers of Commerce
E-6-1	Develop a best practices model.	84	Mid-term	EAP-Schools, Colleges
E-6-2	Develop a strategic plan for education in the region.	84	Long-term	EAP-Schools, DOE
E-7-1	Hold speaker series and/or workshops to educate the public on technology opportunities.	84	Long-term	Schools, Colleges, Local govts.
E-7-2	Develop and expand broadband internet networks.	84	Ongoing	Local govt., schools, Local leaders
Health				
F-1-1	Develop a healthy lifestyles program for youth.	86	Long-term	EAP, EARPDC, Local health depts.
F-1-2	Develop a health, prevention, and wellness program.	86	Long-term	Local health depts, EARPDC-Area Agency on Aging
F-1-3	Establish a Food Policy Council in the East Alabama Region.	86	Mid-term	EARPDC, EACPA, Schools, Local Govt.
F-2-1	Broaden access to alternative care services.	87	Ongoing	EAP, EARPDC, Chambers of Commerce

#	Action	Page #	Time Frame	Potential Partners
F-2-2	**Address other barriers to alternative health care options.**	87	Mid-term	EARPDC
F-3-1	**Develop a healthcare and transportation resource directory.**	87	Long-term	EARPDC, Colleges, Local health depts.
F-4-1	**Investigate the viability of creating a call center for the management and informing of patient care.**	88	Long-term	EAP, EARPDC, Local leaders
F-5-1	**Conduct feasibility study for additional facilities, recruit new facilities and companies, and enhance existing infrastructure**	88	Long-term	Local businesses, local leaders, EARPDC, Chambers of Commerce
F-5-2	**Enhance broadband internet capabilities**	88	Ongoing	Local leaders, local govts, Ec Dev Orgs

Comprehensive Economic Development Strategy (CEDS) Update for East Alabama: 2024

Community Engagement

Community engagement remains a cornerstone of East Alabama's development strategy. Efforts to foster regionalism and grassroots participation have been pivotal in creating a shared vision for the region's future. The CLEAR Plan 2030 emphasized the importance of consistent communication and inclusive outreach, which continues to guide engagement efforts.

Key initiatives include:

- Long-Term Communication: Maintaining a regional website and distributing newsletters to inform residents about livability initiatives.
- Promoting Regionalism: Encouraging collaboration among municipalities and counties to pool resources for shared economic and social goals.
- Specialized Outreach: Expanding efforts to engage marginalized populations, including rural residents and those with disabilities, through tailored strategies like Braille translations and transportation assistance for public meetings.
- East Alabama is building a more inclusive and engaged community by broadening participation and ensuring equitable access to decision-making processes.

Economic Competitiveness

Economic competitiveness in East Alabama hinges on workforce development, business retention, and fostering entrepreneurship. The region's diverse economic base, including manufacturing, healthcare, tourism, and education, provides a foundation for growth. However, challenges such as underemployment and skill gaps persist.

Key strategies include:

- Workforce Alignment: Strengthening partnerships between industries and educational institutions to align training programs with market demands. Initiatives like ACT WorkKeys certifications are expanding opportunities for residents to gain industry-recognized credentials.
- Entrepreneurship Support: To nurture startups and small businesses, establishing business incubators in partnership with universities like Jacksonville State University (JSU).

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- Downtown Revitalization: Promoting mixed-use zoning and Main Street programs to enhance the appeal of urban centers as hubs for commerce and culture.
- By addressing these priorities, East Alabama aims to attract new investments while retaining its existing businesses.

Transportation

Transportation infrastructure is critical to connecting East Alabama's urban and rural communities. The region faces limited transit funding, urban sprawl, and inadequate multimodal options.

Key focus areas include:

- Urban Transit Improvements: Reducing headways on fixed-route systems and expanding service coverage to support employment access and ridership growth. Marketing campaigns rebrand transit as a universal service rather than limited to specific populations.
- Rural Connectivity: Enhancing coordination among counties to provide reliable rural transit options while advocating for state-level funding contributions.
- Complete Streets Concepts: Promoting bike lanes, sidewalks, and public transit integration to create safer, more accessible streets for all users.
- These initiatives aim to create a balanced transportation network that supports economic mobility and viability.

Housing

Housing affordability is a pressing issue across East Alabama. Key challenges include aging infrastructure, limited transitional housing options, and inadequate ADA-accessible units.

Strategic actions include:

- Affordable Housing Development: Partnering with local governments and private developers to increase the stock of affordable homes.
- Aging-in-Place Services: Expanding ADA-compliant housing options to enable seniors to live independently within their communities.
- Transitional Housing: Developing programs for all populations and disaster recovery efforts through quick-response housing solutions.

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- These efforts will ensure all residents can access safe, affordable housing that meets their needs.

Education

Education is central to workforce development and regional competitiveness. While high school graduation rates are on par with state averages, disparities in post-secondary attainment remain a concern.

Key initiatives include:

- Career Technical Education (CTE): Expanding vocational training programs in high schools to prepare students for high-demand industries like manufacturing and healthcare.
- Higher Education Partnerships: Strengthening collaborations between community colleges like Southern Union Community College and industries to align curricula with workforce needs.
- Youth Retention: Addressing the outmigration of young adults by creating local career opportunities through internships, apprenticeships, and job shadowing programs.
- East Alabama can build a skilled workforce that drives economic growth by investing in education at all levels.

Health

Healthcare access remains a challenge in rural areas of East Alabama. The transition of East Alabama Medical Center-Lanier into a Rural Emergency Center highlights the need for innovative solutions.

Key priorities include:

- Telehealth Expansion: Building on the success of the OnMed station in LaFayette by scaling telemedicine services across the region.
- Physician Recruitment: Developing incentive programs to attract medical professionals while addressing the impending retirement of existing practitioners.
- Preventive Care Access: Increasing outreach programs focused on preventive care to reduce long-term healthcare costs.
- These strategies aim to improve health outcomes while addressing systemic gaps in healthcare delivery.

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                                   DEVELOPMENT AT CITY OF ANNISTON LAFAYETTE

East Alabama's CEDS update reflects an integrated approach that addresses community engagement, economic competitiveness, transportation, housing, education, and health. By aligning resources with strategic goals across these areas, the region is poised for viable growth that enhances the quality of life for all residents.

Additionally, the City of Anniston's Economic Development was adopted as an appendix to the East Alabama CEDS in 2024.

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2020 Census Summary

East Alabama Region
Geography: County

esri
THE SCIENCE OF WHERE

The 2020 Census data includes information on population and housing as well as detailed data on age, sex, race, Hispanic origin, household and family type, relationship to householder, group quarters population, housing occupancy, and tenure.

KEY FACTS

464,726 Total Population	**224,113** Housing Units
75.7 Population Density	**2.39** Average Household Size
188,888 Total Households	**48.5** Diversity Index

2010-2020 ANNUAL GROWTH RATE

-0.12% Population

2.61% Group Quarters

0.03% Households

HOUSEHOLD POPULATION

- 2000: 449,798
- 2010: 460,034
- 2020: 451,225

TOTAL POPULATION BY RACE

- White: 70.8%
- Black: 21.8%
- American Indian: 0.4%
- Asian: 0.7%
- Pacific Islander: 0.1%
- Other Race: 1.8%
- 2+ Races: 4.3%

1 Race — 96%
2+ Races — 4%

GROUP QUARTERS

- 2000: 11,254
- 2010: 10,435
- 2020: 13,501

POPULATION BY AGE AND RACE	Less Than 18 Years	18 Years and Older
Total	96,534	368,192
1 Race	89,305	355,339
White	61,984	267,224
Black	23,101	78,203
American Indian/Alaska Native	451	1,542
Asian	599	2,756
Pacific Islander	72	151
Some Other Race	3,098	5,463
2 or More Races	7,229	12,853

2020 Census Summary

East Alabama Region
Geography: County

The 2020 Census data includes information on population and housing as well as detailed data on age, sex, race, Hispanic origin, household and family type, relationship to householder, group quarters population, housing occupancy, and tenure.
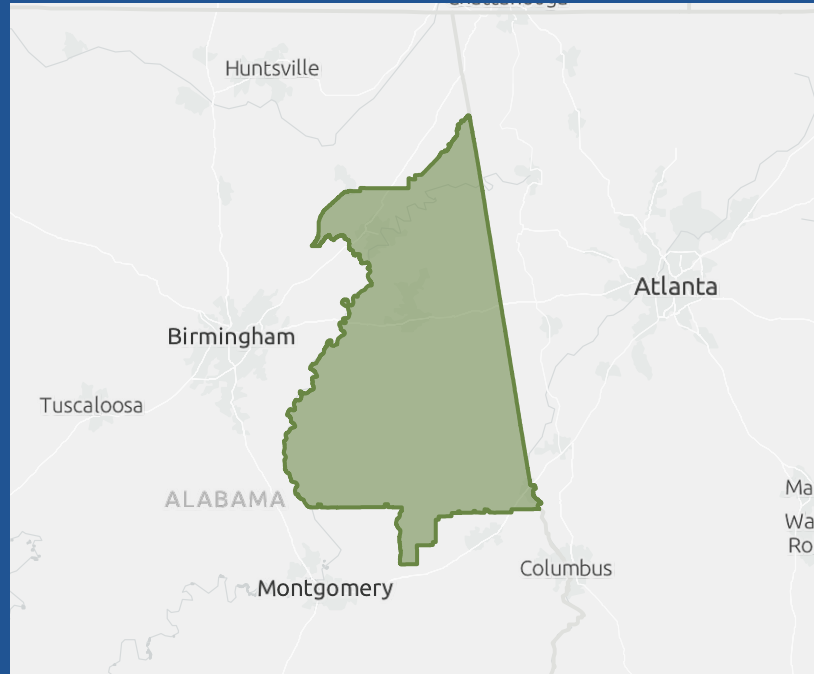
KEY FACTS

464,726	224,113	75.7	2.39	188,888	48.5
Total Population	Housing Units	Population Density	Average Household Size	Total Households	Diversity Index

Population by Relationship

Relationship	%
Other Nonrelatives	2.2%
Foster Child	0.1%
Other Relatives	1.4%
Son-in-law or Daughter-in-law	0.5%
Parent-in-law	0.2%
Parent	1.0%
Brother/Sister	1.1%
Grandchild	3.8%
Stepchild	1.6%
Adopted Child	0.8%
Biological Child	24.5%
Same-Sex Unmarried Partner	0.1%
Opposite-Sex Unmarried Partner	2.2%
Same-Sex Spouse	0.1%
Opposite-Sex Spouse	18.5%
Householder	41.9%

HISPANIC POPULATION BY AGE AND RACE	Less Than 18 Years	18 Years and Older	Total
Total	5,990	10,014	16,004
1 Race	4,451	7,629	12,080
White	1,383	1,975	3,358
Black	208	385	593
American Indian/Alaska Native	266	399	665
Asian	12	40	52
Pacific Islander	12	14	26
Some Other Race	2,570	4,816	7,386
2 or More Races	1,539	2,385	3,924

NON-HISPANIC POPULATION BY AGE AND RACE	Less Than 18 Years	18 Years and Older	Total
Total	90,544	358,178	448,722
1 Race	84,854	347,710	432,564
White	60,601	265,249	325,850
Black	22,893	77,818	100,711
American Indian/Alaska Native	185	1,143	1,328
Asian	587	2,716	3,303
Pacific Islander	60	137	197
Some Other Race	528	647	1,175
2 or More Races	5,690	10,468	16,158

2020 Census Summary

East Alabama Region
Geography: County

The 2020 Census data includes information on population and housing as well as detailed data on age, sex, race, Hispanic origin, household and family type, relationship to householder, group quarters population, housing occupancy, and tenure.

KEY FACTS

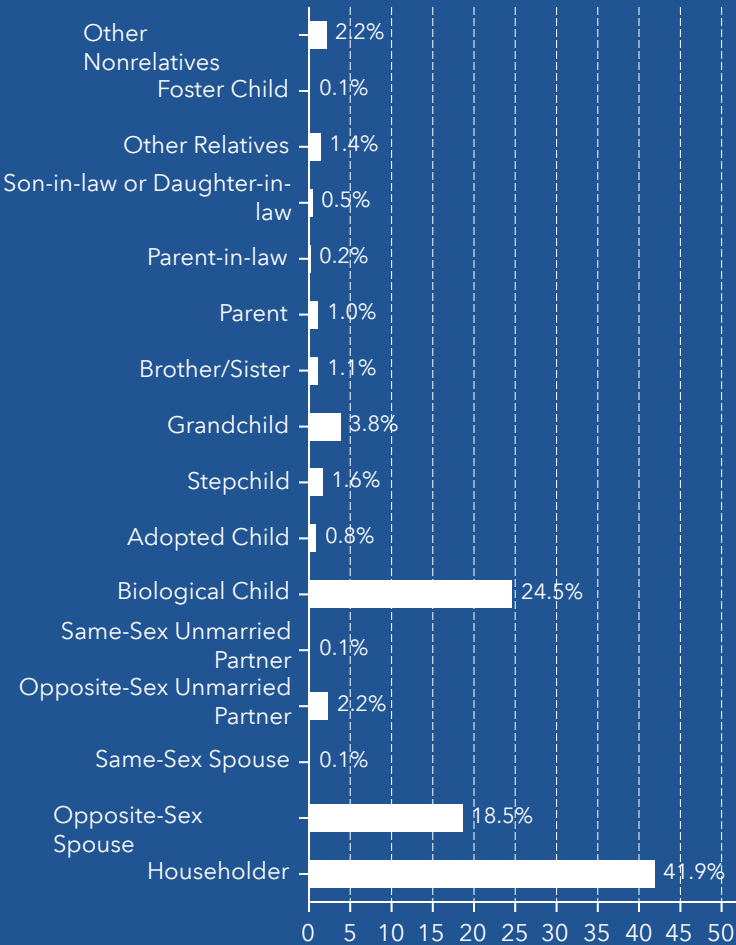|					
464,726 Total Population	**224,113** Housing Units	**75.7** Population Density	**2.39** Average Household Size	**188,888** Total Households	**48.5** Diversity Index

Households by Size	Number	Percent
Total Households	188,888	-
1-Person Household	56,078	30%
2-Person Household	65,463	35%
3-Person Household	30,110	16%
4-Person Household	21,564	11%
5-Person Household	9,709	5%
6-Person Household	3,755	2%
7+ Person Household	2,209	1%
Average Household Size	2.39	-

Total Housing Units by Occupancy
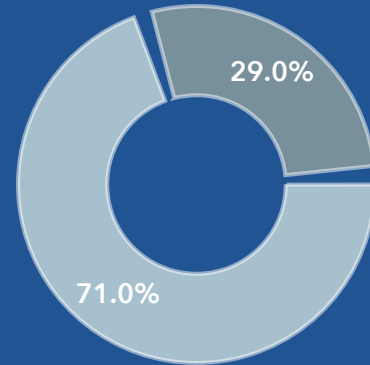
- 29.0%
- 71.0%
- Owner Occupied HUs
- Renter Occupied HUs

Total Housing Units by Vacancy

- Vacant Housing Units: 15.7%
- Rented Not Occupied: 1.9%
- For Sale Only: 6.9%
- Sold Not Occupied: 5.0%
- Seasonal/Rec/Occasional: 28.5%
- Migrant Workers: 0.0%
- Other Vacant: 39.4%
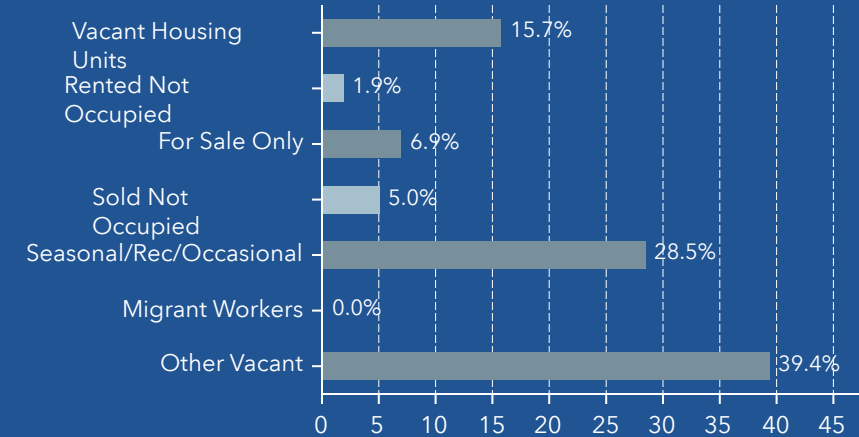
Households by Type
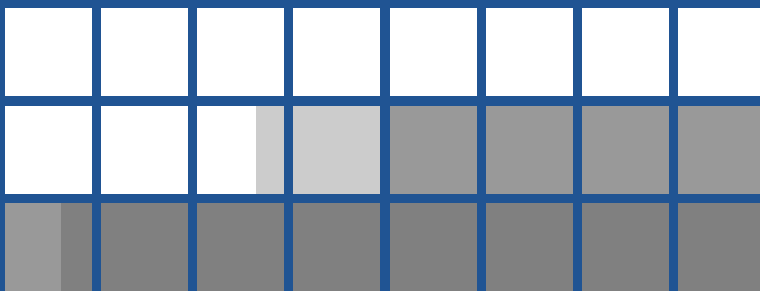
- Married Couple (45%)
- Cohabitating Couple (6%)
- Male Householder: No Spouse (19%)
- Female Householder: No Spouse (31%)

Group Quarters Population

- Adult Correctional: 29.1%
- Juvenile Facility: 1.5%
- Nursing Facility: 26.4%
- Other Institutionalized: 2.4%
- College Student Housing: 35.0%
- Military Quarters: 0.0%
- Other Noninstitutionalized: 5.6%
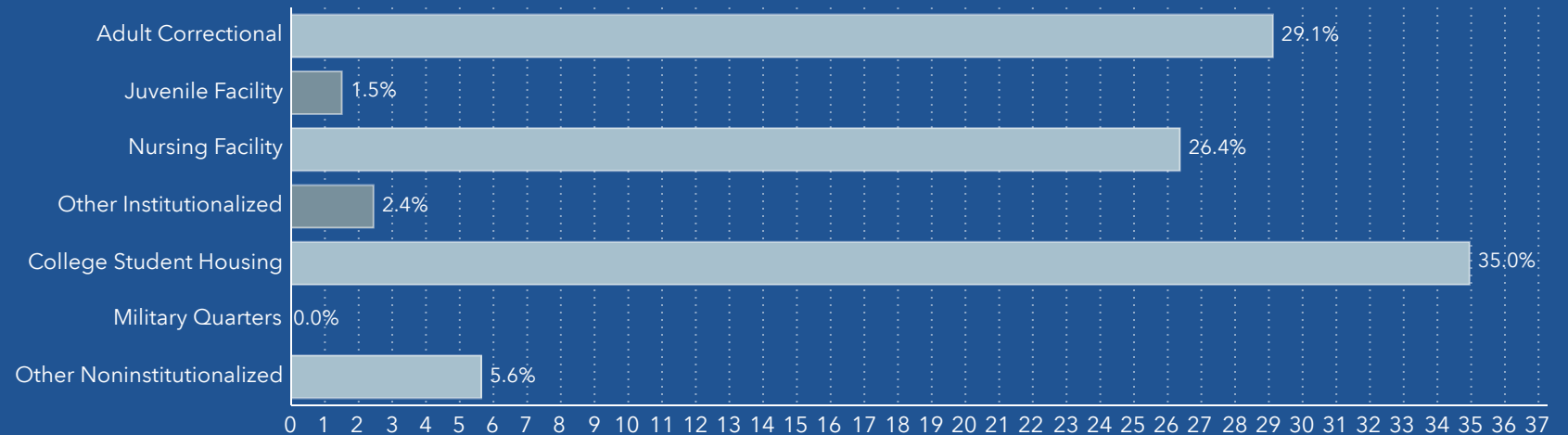
Source: This infographic contains data provided by U.S. Census (2000, 2010, 2020). © 2025 Esri

Community Change Snapshot

East Alabama Region
Geography: County
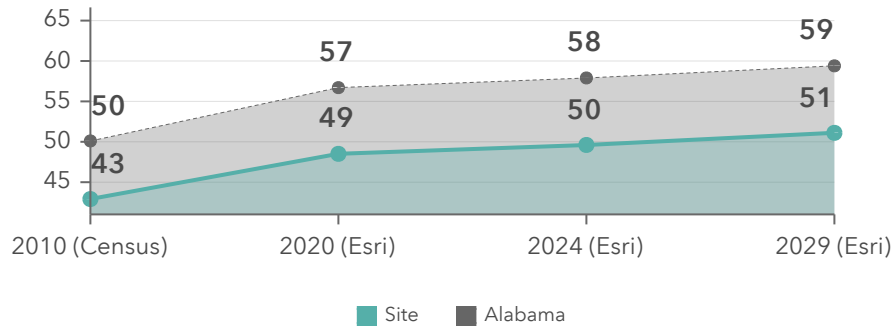
esri | THE SCIENCE OF WHERE

Diversity Index

- 2010 (Census): Site 43, Alabama 50
- 2020 (Esri): Site 49, Alabama 57
- 2024 (Esri): Site 50, Alabama 58
- 2029 (Esri): Site 51, Alabama 59

■ Site ■ Alabama

Dots show comparison to [Alabama]

Total Population

- 2000 (Census): 461,052
- 2010 (Census): 470,469
- 2020 (Census): 464,726
- 2021 (Esri): 463,601
- 2022 (Esri): 463,112
- 2023 (Esri): 462,692
- 2024 (Esri): 461,555
- 2029 (Esri): 458,230

Median Age

- 2010 (Census): 40.2
- 2020 (Census): 42.8
- 2024 (Esri): 43.2
- 2029 (Esri): 43.8

Average Household Size

- 2010 (Census): 2.44
- 2020 (Census): 2.39
- 2024 (Esri): 2.38
- 2029 (Esri): 2.37
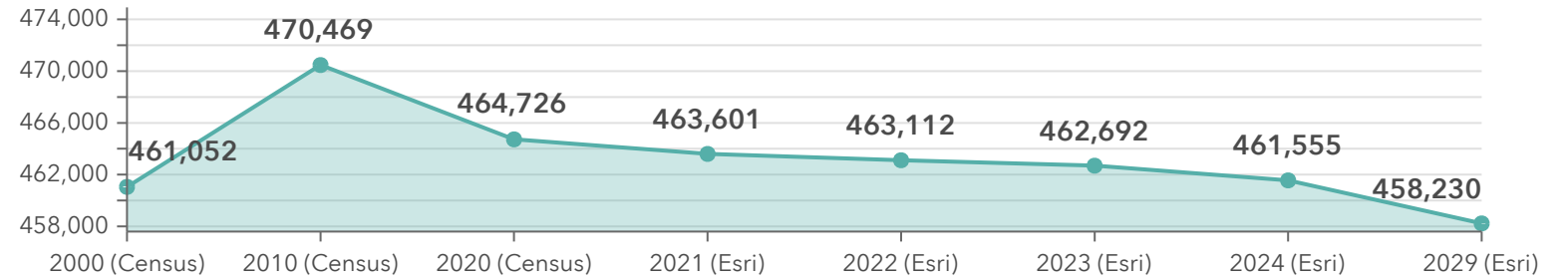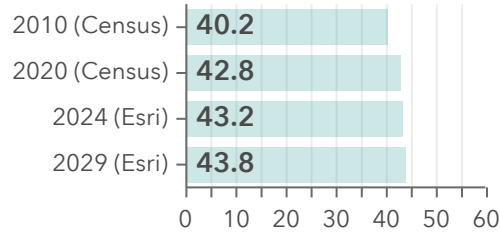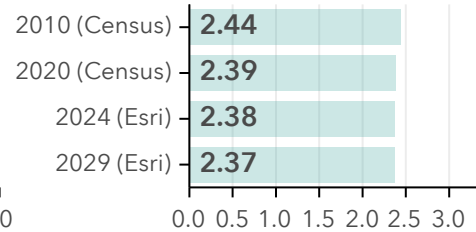
Owner vs Renter Occupied Units

	2000 (Census)	2010 (Census)	2020 (Census)	2024 (Esri)	2029 (Esri)
Renter	24.3%	27.8%	29.0%	27.8%	27.0%
Owner	75.7%	72.3%	71.0%	72.2%	73.0%

■ Owner ■ Renter

Median Home Value

- 2022 (ACS): Site $139,144, Alabama $179,400
- 2024 (Esri): Site $170,107, Alabama $227,314
- 2029 (Esri): Site $203,355, Alabama $288,729

■ Site ■ Alabama
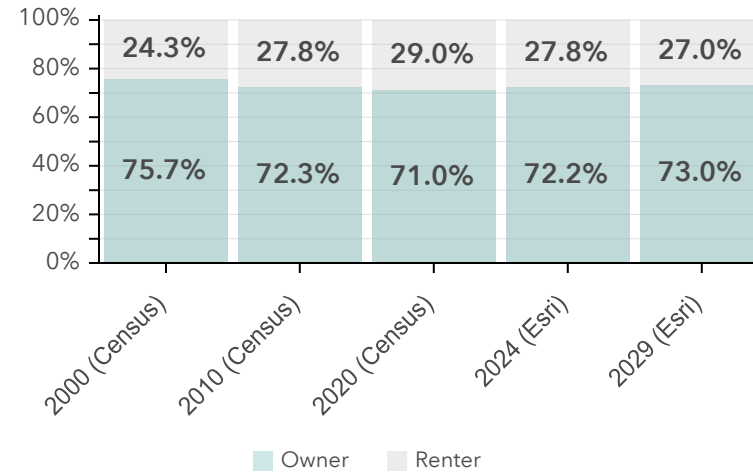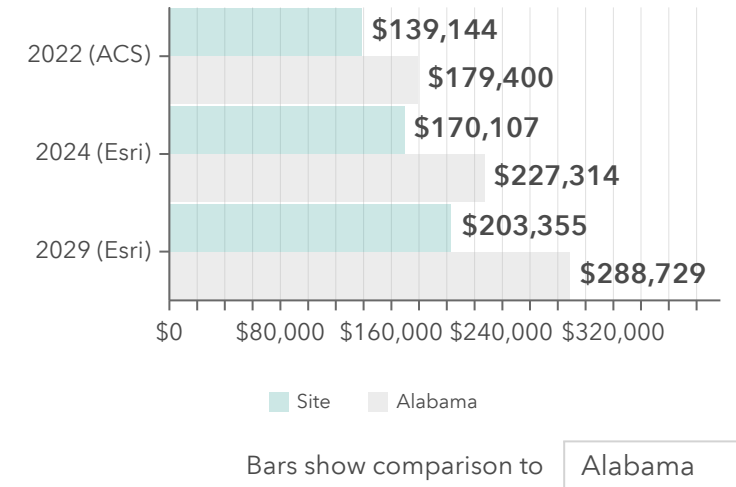
Bars show comparison to [Alabama]

2000-2020 Compound Annual Growth Rate

- **0.04%** Population (Census)
- **0.15%** Households (Census)
- **0.28%** Housing Units (Census)
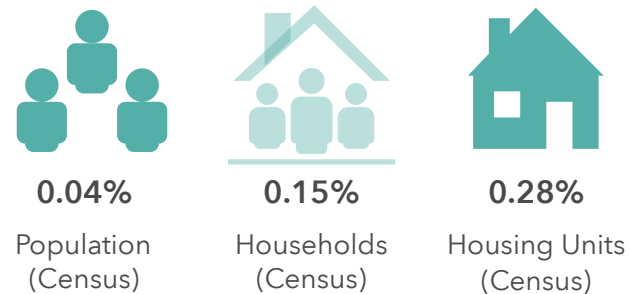
Total Housing Units: Past, Present, Future

- **225,167** 2010 (Census)
- **224,113** 2020 (Census)
- **225,461** 2024 (Esri)
- **225,120** 2029 (Esri)
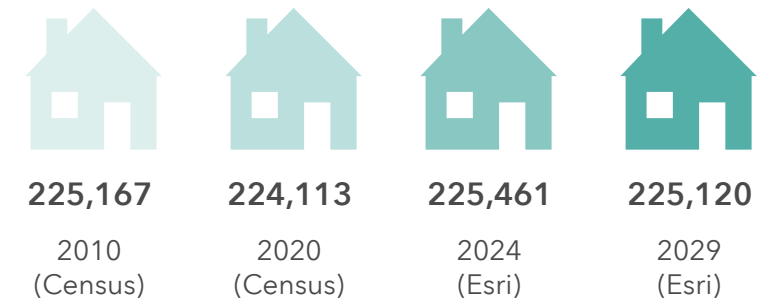
Economic Development Profile

East Alabama Region
Geography: County

esri
THE SCIENCE OF WHERE

Labor Force by Industry

Industry	Percent
Management	0.1%
Mining	0.3%
Real Estate	1.0%
Information	1.0%
Arts/Entertainment	1.1%
Agriculture	1.1%
Utilities	1.4%
Wholesale Trade	2.0%
Prof/Tech	2.6%
Finance/Insurance	2.7%
Admin/Waste	3.6%
Transportation	3.8%
Other Services	4.9%
Public Admin	5.6%
Accom/Food	7.1%
Construction	7.1%
Educational Services	7.9%
Retail Trade	11.8%
Health Care	14.2%
Manufacturing	20.6%

Percent in Labor Force

WorkforceOverview

Employment

16.7% Services

33.8% Blue Collar

49.5% White Collar

Businesses

14,264 Total Businesses

155,068 Total Employees

Commute Time: Minutes

Commute Time	Percent of Commuters
90+	3.1%
60-89	6.1%
45-59	8.4%
40-44	2.8%
35-39	2.5%
30-34	12.0%
25-29	6.1%
20-24	12.7%
15-19	17.2%
10-14	14.8%
5-9	11.3%
< 5	3.2%

Percent of Commuters

Transportation to Work

0.4% Took Public Transportation

8.8% Carpooled

1.0% Walked to Work

0.1% Bike to Work

85% Drove Alone to Work

Community Overview

Home Ownership

- Owner Occupied HUs — 72.2%
- Renter Occupied HUs — 27.8%

Home Value

Value	Percent
<$50,000	12.9%
$100,000	16.2%
$150,000	14.5%
$200,000	16.0%
$250,000	12.5%
$300,000	8.5%
$400,000	8.9%
$500,000	4.0%
$750,000	3.3%
$1,000,000	2.3%
$1,000,000+	0.4%

Household Income

Income	Percent
<$15,000	13.6%
$25,000	9.8%
$35,000	9.0%
$50,000	12.5%
$75,000	18.6%
$100,000	13.5%
$150,000	14.0%
$200,000	5.0%
$200,000+	4.0%

Educational Attainment

- Associate's Degree 10.3%
- Bachelor's Degree 11.7%
- Grad/Prof Degree 7.3%
- < 9th Grade 3.8%
- No Diploma 9.6%
- HS Diploma 28.9%
- GED 7.6%
- Some College 20.9%

Tapestry segments

10A	**Southern Satellites** 33,172 households	**17.6%** of Households	⌄
10E	**Rural Bypasses** 30,530 households	**16.2%** of Households	⌄
10B	**Rooted Rural** 28,899 households	**15.3%** of Households	⌄

Key Facts

225,461 Total Housing Units	**138** Housing Affordability Index	**32,331** Households Below the Poverty Level
43.2 Median Age	**$45,332** Median Disposable Income	**461,555** Total Population
63 Wealth Index	**50** Diversity Index	**124** Total Crime Index

Emergency Information

East Alabama Region
Geography: County

January 31, 2025

Population

461,555
Total Population

32,331
Households Below
Poverty Level (ACS)

435,953
Daytime Population

188,569
Total Households

Facilities

33
Hospitals

357
Schools

23
Assisted Living
Centers

474
Fueling Centers

205
Public Safety Buildings
(Fire and Police)

21
Community Center

At Risk

92,894
Child Population
(Age <18)

99,100
Senior Population
(Age 65+)

16%
HHs with No Internet
Access (ACS)

3%
Households with
No Vehicles (ACS)

0
Pop 18-64 Speak
Other Language &
No English (ACS)

66,628
Households with 1+
Persons with a
Disability (ACS)

89,097
HH Owns Dog

650
Insurance
(Owner & Renter Avg)
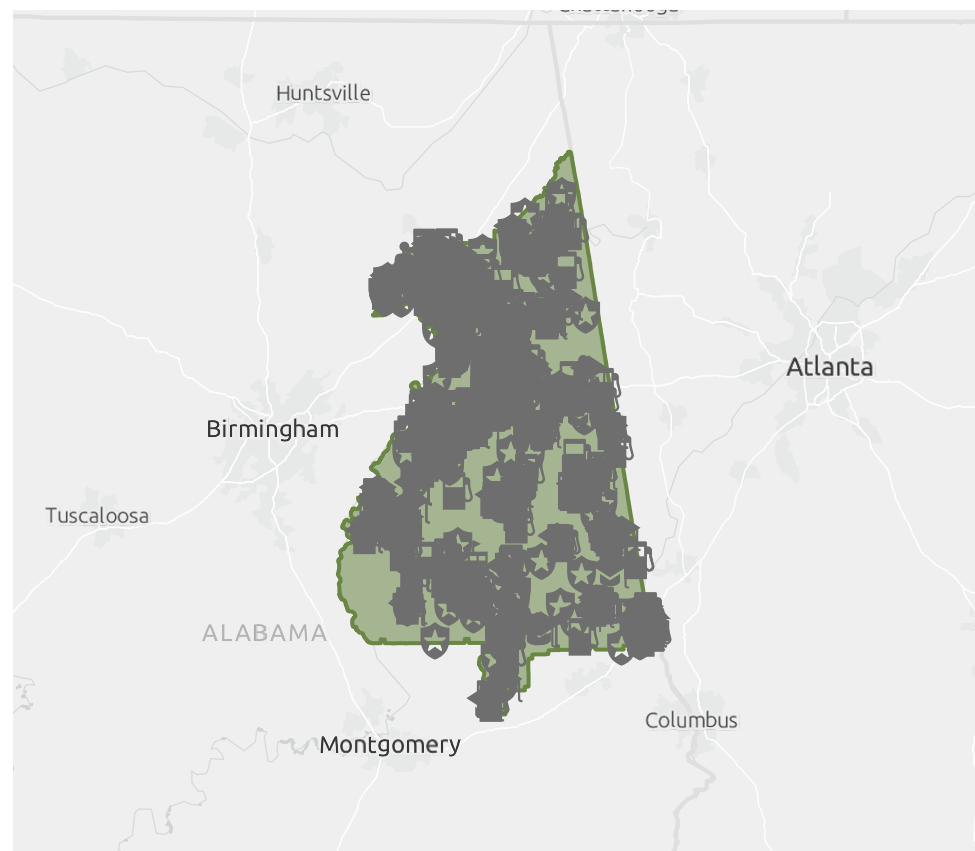
Nonprofit Charitable Profile

East Alabama Region
Geography: County

Key Population Facts

188,569	$156,610	$55,031	43.2	$45,332
Total Households	Median Net Worth	Median Household Income	Median Age	Median Disposable Income

Estimated Consumer Charitable Spending

$13,709,919	$76,709,375	$137,578,121
Gifts of Stocks/ Bonds/Mutual Funds	Cash Gifts to Charities	Other Cash Gifts
$188,195,131	$13,375,546	$3,893,275
Cash Gifts to Churches/Religious Organizations	Cash Gifts to Educational Institutions	Cash Gifts to Political Organizations

Key Volunteer Behaviors (Index)

89	96	93
Served on Committee for Local Org	Engaged in Fundraising	Volunteered for a Charitable Org
92	96	96
Participated in Public Activity	Social Media: Follow Charitable Groups	Attended Public Meeting on Town or School Affairs

Estimated Market Potential for Charitable Giving (Index)

74	76	85	78
Arts or Cultural Organizations	Environmental Organizations	Health Organizations	Social Services Organizations

Greenvi

Atlanta

Birmingham

ALABAMA

GEORGIA

PPI

Montgomery

ACCELERATE ALABAMA 2.0

MADE IN ALABAMA

Table of Contents

Introduction

In July 2011 the Alabama Economic Development Alliance (Alliance) was created by Executive Order of Governor Robert Bentley. The Alliance engaged Boyette Strategic Advisors (BSA), an economic development consulting firm, to facilitate the development of the Accelerate Alabama economic development strategic plan. Accelerate Alabama, which was delivered in January 2012, included identification of 11 targeted business sectors, as well as recommendations and related tactics focused on three economic development drivers: Recruitment, Retention and Renewal. Accelerate Alabama was meant to provide direction for the state's economic development efforts over a three-year period. The Alliance diligently followed through with the implementation of the Accelerate Alabama plan.

BSA was engaged to work with the Alliance to develop Accelerate Alabama 2.0, an update of the 2012 Accelerate Alabama plan, which will provide direction related to the economic development efforts of the state over the next three to five years. BSA, working closely with the Alliance, conducted the following six-step process in developing Accelerate Alabama 2.0.

Accelerate Alabama 2.0 includes the identification of targeted business sectors for Alabama to focus its efforts, as well as recommendations or accelerators, and related tactics, centered on three economic development drivers: Recruitment, Retention and Renewal. The targets and accelerators were identified based on extensive research, as well as input from the Alliance members and other stakeholders who participated in the process.

This Accelerate Alabama 2.0 version was updated in November 2016 to incorporate the Alabama Experimental Program to Stimulate Competitive Research (ALEPSCoR) Science and Technology (S&T) Plan. The S&T Plan, which is attached as Appendix A, addresses support for statewide Renewal of industry through the growth of innovation and research and development activities that are directly related to the expertise and strength of Alabama's universities and laboratories. This Plan also makes recommendations for enhancing and expanding Alabama's infrastructure and lists resources needed to "Accelerate Alabama" and ensure that the state is nationally and internationally competitive.

ALLIANCE MEMBERS (AS OF JANUARY 2016) AND CONTRIBUTING ORGANIZATIONS:

GREG CANFIELD

Secretary of Commerce
Alabama Department of Commerce
Alliance Chair

BILL TAYLOR

President
Economic Development Partnership of Alabama

DR. TOMMY BICE

State Superintendent of Education
Alabama State Department of Education

DR. MARK HEINRICH

Chancellor
Alabama Community College System

DR. ROBERT WITT

Chancellor
The University of Alabama System

DR. JAY GOGUE

President
Auburn University

ALABAMA EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESEARCH (ALEPSCoR)

BILL NEWTON

Acting Director
Alabama Department of Finance

JIM BYARD

Director
Alabama Department of Economic and Community Affairs

GREG BARKER

Vice President
Alabama Power Company
Alabama Marketing Allies

ELLEN MCNAIR

Senior Vice President
Montgomery Area Chamber of Commerce
Local / Regional Economic Development Organizations

VALERIE GRAY

Director
Industrial Development Authority of Chambers County
Local / Regional Economic Development Organizations
Auburn University

Targeted Business Sectors

Metal and Advanced Materials

Aerospace/ Aviation

Agricultural Products/ Food Production

Forestry Products

Automotive

Chemicals

Bioscience
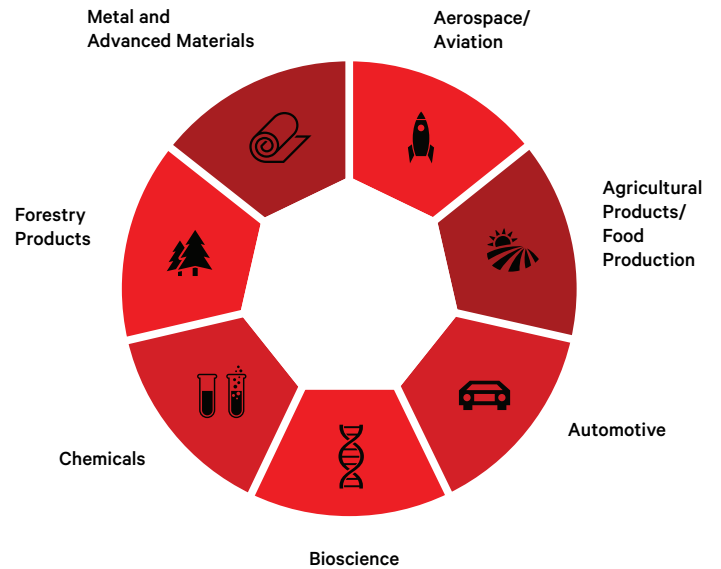
Seven targeted business sectors, each with areas of focus, along with six foundational targets, have been updated/refined for the State of Alabama to focus its recruitment, retention and renewal efforts over the next three years. Foundational targets may be defined as sectors that are intrinsic to the core competencies of a wide range of industries and provide operational processes and services to other sectors the state may target.

The determination of these targets involved the review of the current business/industry base in Alabama, current targeted sectors of the state, regional and local economic development organizations in Alabama, as well as the various power providers, recent project activity, and other emerging sectors that have shown growth at the national, state and possibly local level. The strengths of Alabama related to each sector were also considered. The targeted sectors, foundational targets and areas of focus are outlined below and further defined in this section.

Advanced Manufacturing

Advanced manufacturing involves new ways to manufacture existing products and the emerging products resulting from new technologies. The process of advanced manufacturing may include use of information, automation, computation, software and networking. Additionally, advanced manufacturing may use nanotechnology, chemistry or biology. [1]

The McKinsey Global Institute identified 12 disruptive technologies, which are advances that will transform life, business, and the global economy, as it relates to advanced manufacturing. One of the disruptive technologies identified is additive manufacturing, or 3D printing, which has been mostly used to produce prototypes. As the technology improves and additional materials can be used, the price for the materials and printers is expected to rapidly decline, creating an increase in the use of this process. Robotics has also seen higher adoption rates as robots become more intelligent and agile, allowing them to work safely alongside the human labor force. [2]

In the U.S. more than 12 million workers are employed in the manufacturing industry, and in Alabama there are more than a quarter of a million, or nearly 13 percent of all jobs in the state and more than eight percent of jobs in the U.S. Average earnings for the manufacturing industry are $77,995 in the U.S. and $65,045 in Alabama. Earnings in manufacturing are 20 percent higher than the average for all industries in the state and the U.S. [3]

TARGETED SECTORS:

AEROSPACE/ AVIATION	CHEMICALS
	FORESTRY PRODUCTS
AGRICULTURAL/ FOOD PRODUCTION	METAL AND ADVANCED MATERIALS
AUTOMOTIVE	

Aerospace/ Aviation

Growth Opportunity and Trends

Military spending and air travel drive demand in the aerospace and aviation industry. [4] Revenue for the U.S. air transportation industry is expected to increase at a compound annual rate of 4 percent between 2015 and 2019. [5] Military spending is unlikely to increase in the coming years, but funding remains for development of new aircraft, including the F-35 Joint Strike Fighter. It is projected that demand for unmanned aerial vehicles will increase.

Boeing has projected a demand of more than 36,000 airplanes between 2014 and 2033. It is estimated that 40 percent of this demand will replace older aircraft, while the balance is a result of fleet expansion. [6] Air cargo traffic is expected to see growth at a higher rate than passenger traffic. Projected growth of the global freighter fleet is expected to increase 150 percent by 2025. [7]

U.S. aircraft manufacturers consider China a significant opportunity for expansion. China's air traffic is projected to increase seven percent each year over the next 20 years, and air cargo traffic in China is projected to increase 6 percent each year over the same time period. [8]

Aircraft production has seen an increase in the use of composite components made of plastics and fibers, replacing steel and metal. Additive manufacturing, or 3D printing, has been adopted by aircraft engine and parts makers and allows them to produce complex parts with little waste. [9]

The U.S. has the largest space program in the world and includes both private and government organizations. The global space economy grew four percent between 2012 and 2013 to reach $314.17 billion. Commercial space products and activities revenue saw an increase of seven percent between 2012 and 2013. [10] Of the 81 orbital launch attempts in 2013, 23 were commercial, and six of those were conducted in the U.S. The space industry in the U.S. is concentrated in the following states: California, Texas, Florida, New Mexico, Colorado and Alabama. [11] Micro to heavy-duty satellites serve commercial and military purposes, ranging from communication to navigation. [12]

AREAS OF FOCUS	
MAINTENANCE, REPAIR & OVERHAUL Includes scheduled or unscheduled maintenance and repair of mechanical, plumbing or electrical components	**COMMERCIAL SPACE PRODUCTS** Private sector investment in production of goods or services for use in space, including satellite televisions/radio and fixed satellites that transmit data, Internet services and voice
SUPPLY CHAIN Companies that manufacture, market and deliver parts for the aerospace/aviation sector	**UNMANNED SYSTEMS** Powered aerial vehicles typically guided without an onboard crew that are often used for surveillance and reconnaissance for military operations

Airbus is ramping up production at its $600 million manufacturing facility in Mobile, following the first customer-deliveries of Alabama-made aircraft.
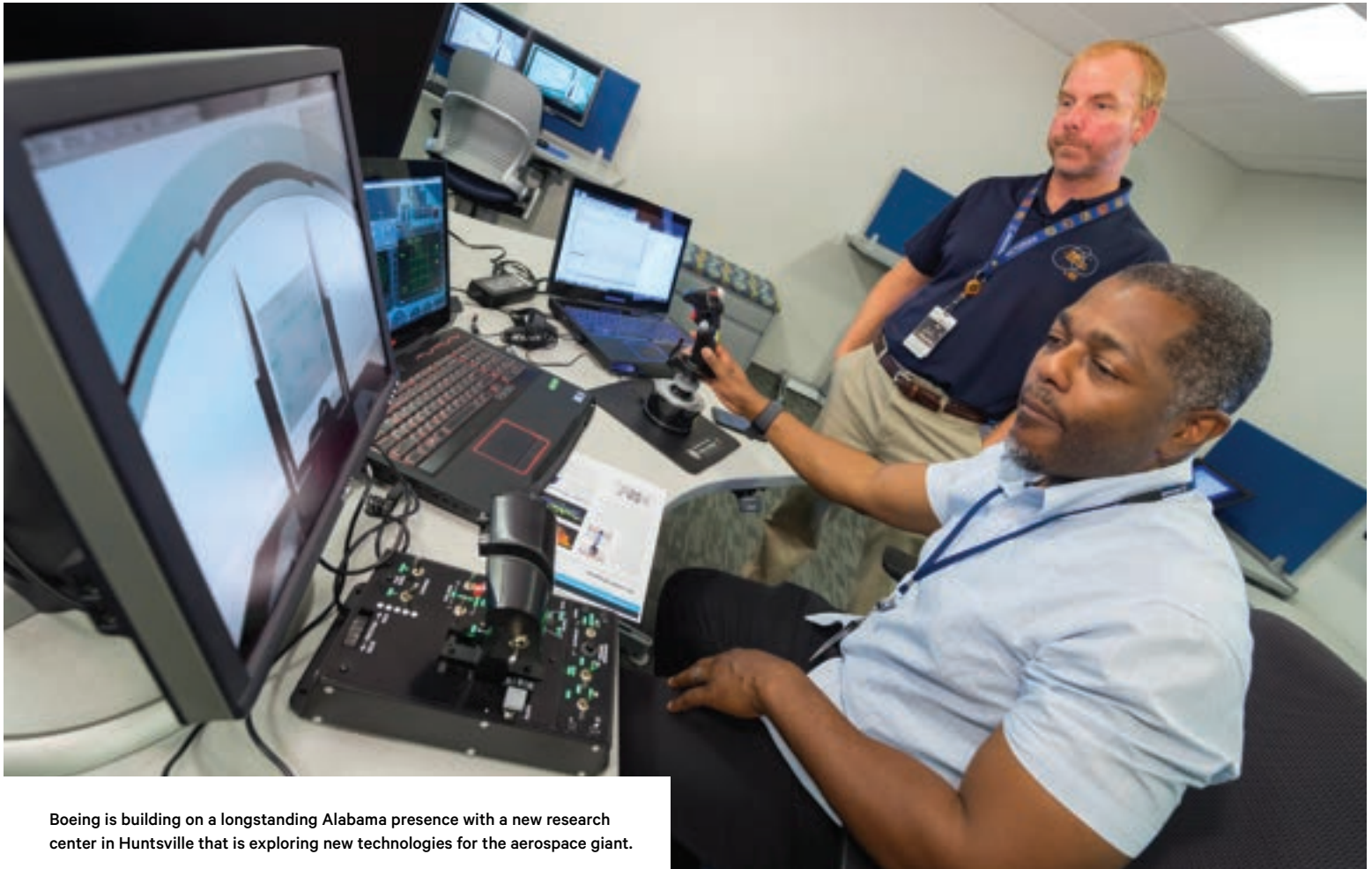
Boeing is building on a longstanding Alabama presence with a new research center in Huntsville that is exploring new technologies for the aerospace giant.

Alabama Advantages

The aviation and aerospace industry represents nearly 16,000 jobs in Alabama, 59 percent higher than the U.S., and is projected to see job growth of 5 percent between 2014 and 2019. [13] Nearly 13 percent of jobs in Alabama are manufacturing, the second highest industry by employment in the state, representing more than 250,000 of Alabama's labor force of 2.1 million. [14] [15] In addition, nearly 30 percent of residents over the age of 25 hold an Associate's degree or higher. [16]

Airbus' A320 Family final assembly line in Mobile began incremental production in 2015 and delivered its first assembled aircraft in April 2016. [17] Alabama is also home to Boeing, Lockheed Martin, GE Aviation, Raytheon, United Launch Alliance, Vector Aerospace, GKN Aerospace, and scores of other aerospace/aviation companies. [18]

LOCATION ASSETS

- AFFORDABLE, AVAILABLE WORKFORCE
- PROXIMITY TO CUSTOMERS
- INTERMODAL TRANSPORTATION INFRASTRUCTURE

In addition to private companies, Alabama also has a strong military aerospace/aviation presence. The Army Aviation Center at Fort Rucker is located in the southeast corner of the state and is focused on the development of the aviation force for its worldwide mission. [19]

NASA's Marshall Space Flight Center and the U.S. Army's Redstone Arsenal are both located in Huntsville. Redstone Arsenal is a major federal research, development, test and engineering center that houses the United States Army's missile, missile defense and aviation programs, the Missile Defense Agency, the Defense Intelligence Agency, and NATO's MEADS. The facility also performs missile and helicopter research for the U.S. Army. [20] Also located at Redstone Arsenal is the Marshall Space Flight Center, one of NASA's largest and most important field centers. It manages key programs involving the International Space Station, Payload Operation Center, space science and Space Launch System (SLS). [21] The Propulsion and Structural Test Facility at the Marshall Space Flight Center develops and matures propulsion technologies, including boost, upper-stage, and in-space applications for current and future space transportation and science missions. [22]

The Robotics Technology Park near Decatur offers three specialized training centers, including the Robotics Maintenance Training Center. The Robotics Maintenance Training Center provides workforce training for robotics, advanced manufacturing, manual weld and robotic safety. [23] The Alabama Aviation Center, located at the Mobile Aeroplex at Brookely, offers an aviation maintenance program with hands-on training in airframe and powerplant training. [24]

Alabama has a strong intermodal transportation system with six interstate highways, including Interstate 10, which runs east-west from Florida to California; Interstate 20, which runs east-west from South Carolina to Texas; Interstate 59, which runs diagonally from Tennessee to Louisiana; Interstate 65, which runs north-south from Illinois to Alabama; Interstate 22, which runs from Birmingham to Memphis; and Interstate 85, which runs diagonally from Virginia to Alabama. [25] The state is also home to more than 3,700 miles of track and five Class I railroad companies, including BNSF Railway Company, Canadian National Railway Company, CSX Transportation, Kansas City Southern Railway Company, and Norfolk Southern Corporation. [26] The Port of Mobile is a deep-water port of 45 feet that is located along the Mobile River, where it meets Mobile Bay. The port can handle containerized, bulk, break bulk, roll-on/roll-off, and heavy-lift cargoes served by 100 overseas shipping lines, all five Class I railroads in Alabama, and Interstates 10 and 65. [27]

KEY ALABAMA LOCATIONS
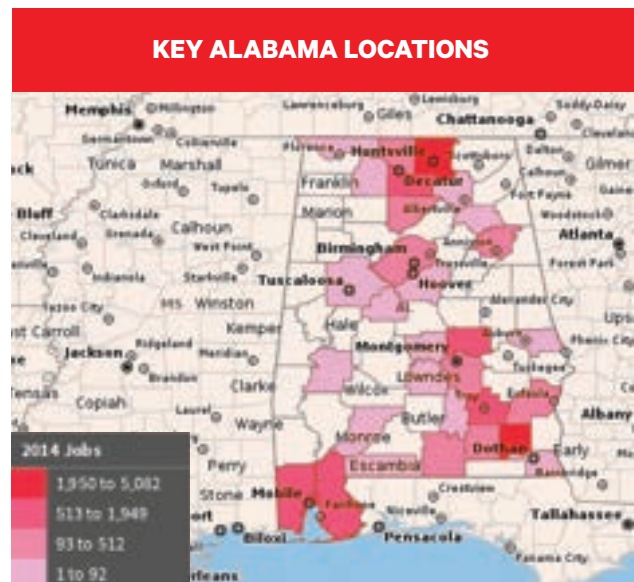
Agricultural Products/Food Production

Growth Opportunity and Trends

U.S. food manufacturers are projected to see revenue growth at a 4 percent annual compound rate between 2015 and 2019. The consumer price for food increased 3 percent in February of 2015 compared to February of 2014. [28] Large food processors are considering expansion into emerging markets, including Latin America and Asia. Other trends in food manufacturing include increasing consumer preference for healthier options with ingredients like organic wheat flour, cane sugar, rice syrup, and cornstarch. [29]

Crop production trends show an increase of larger farms led by enterprises. Use of genetically modified crops has also seen an increase, despite international trade bans. Genetically modified seeds represent 90 percent of planted corn and cotton and 95 percent of soybeans. At the same time the industry has increased use of genetically modified seeds, organic and heirloom produce has seen growing interest. Organic food sales total $35 billion annually and continue to grow. The 2014 Farm Bill provided funding for $20 million annually toward research around organic farming methods and increased crop insurance protection for organic farmers. [30]

Increased use of technology can be found in agricultural production. This includes increased automation at the equipment manufacturing facility to the use of autonomous vehicles in farm production. This robotic equipment could be controlled remotely or by software and can lead to reduced labor costs. At a much lower cost, farmers are able to use GPS in an economic, practical way on large farms, and most equipment sold has GPS as an optional upgrade. [31]

Alabama Advantages

Alabama is the second largest producer of broilers and fourth largest producer of poultry and eggs in the U.S. Alabama is ranked in the top 10 for production of cotton, aquaculture, quail, and pullets for laying flock replacement. [32] Agricultural exports exceed $1 billion annually. More than 48,500 farms in Alabama account for 9 million acres of farmland in the state. [33]

AREAS OF FOCUS	
AGRICULTURAL PRODUCTS	**FOOD PRODUCTION**
Includes production of crops and animals for food-processing operation, as well as the manufacturing of agricultural and machinery equipment	Manufacture and processing of food, including meat, seafood, dairy products, fruits and vegetables, milled grains and oilseeds, baked goods, and candy

Food production facilities located in Alabama are within one day's drive of half the U.S. population, providing proximity to markets required by this sector. [34]

The state has a strong intermodal transportation system with six interstate highways, including Interstate 10, which runs east-west from Florida to California; Interstate 20, which runs east-west from South Carolina to Texas; Interstate 59, which runs diagonally from Tennessee to Louisiana; Interstate 65, which runs north-south from Illinois to Alabama;

Interstate 22, which runs from Birmingham to Memphis; and Interstate 85, which runs diagonally from Virginia to Alabama. [35] The state is also home to more than 3,700 miles of track and five Class I railroad companies, including BNSF Railway Company, Canadian National Railway Company, CSX Transportation, Kansas City Southern Railway Company, and Norfolk Southern Corporation. [36] The Port of Mobile is a deep-water port of 45 feet that is located along the Mobile River, where it meets Mobile Bay. The port can handle containerized, bulk, break bulk, roll-on/roll-off, and heavy-lift cargoes served by 100 overseas shipping lines, all five Class I railroads in Alabama, and Interstates 10 and 65. [37]

Agricultural products and food manufacturing represent more than 34,000 jobs in Alabama, and employment is projected to remain stable for the next five years. Meat and poultry processing, retail and commerical bakeries, and animal food manufacturing are the largest subsectors in the state. [38]

Nearly 13 percent of jobs in Alabama are manufacturing, the second highest industry by employment in the state, representing more than 250,000 of Alabama's labor force of 2.1 million. [39] [40]

More than half a million jobs are generated by the agriculture industry. [41] In addition, nearly 30 percent of residents over the age of 25 hold an Associate's degree or higher. [42]

Auburn University Food Systems Institute provides research as well as industry training on all aspects of the food system from "farm to table." [43] Facilities at the institute include multipurpose lab, cold lab and a

flex lab. In addition, Auburn has a meat processing facility along with a USDA lab as part of a pilot processing facility. Additional areas of research regarding food systems at Auburn include food safety and environmental sustainability. [44]

Automotive

Growth Opportunity and Trends

Automotive manufacturing revenue is projected to increase at a compound annual rate of 4 percent between 2015 and 2019 in the U.S. Retail sales for automotive and parts dealers increased 7.9 percent for the first two months of 2015 when compared to the same time period in 2014. [45]

Automotive manufacturers are increasing production of environmentally friendly vehicles as a result of consumer demand and legislation. Consumer demand for hybrid vehicles has exceeded production at times. Eight states have adopted rules requiring 15 percent of all new cars sold be zero-emission vehicles by 2025. To reach this goal, these states are purchasing zero-emission vehicles for public fleets and offering financial incentives for zero-emission vehicles. [46] Other trends in automotive manufacturing include the integration of wireless devices to a vehicle's infotainment system and increased safety. [47]

Suppliers of automotive manufacturers are increasing their role in research and development. Technologies likely to become standard in vehicles include electronically operated systems for transmissions, suspensions and safety systems. Suppliers are also working to develop new technologies that will improve fuel efficiency, including smaller, turbocharged engines and advanced combustion models. [48]

Automotive parts manufacturers are seeing an increase in demand as Americans own vehicles longer, with the average light vehicle on the road for more than 11 years old. [49]

AREAS OF FOCUS	
ORIGINAL EQUIPMENT MANUFACTURERS	**SUPPLIERS**
Includes companies that produce cars and light trucks, as well as chassis for those vehicles	Produce parts for automobiles, including transmission and power train components, engines and engine parts, electronics and steering, and suspension

Research and development expenditures for the automotive industry in the U.S. are $18 billion annually. Increasing technology in vehicles and innovative manufacturing processes, which often include robotics, are two reasons the automotive industry represents 16 percent of global research and development funding among all industries. [50] Automotive manufacturers are reducing the overall weight of vehicles to increase fuel efficiency. One way this is being achieved is the use of carbon fiber in place of steel. The material is lightweight and durable. [51] Additive manufacturing, or 3D printing, has been used by automotive manufacturers for prototyping purposes for more than a decade. The next phase for additive manufacturing in the automotive industry is rapid manufacturing and tooling, which will produce end-use products. Early adopters of this production method include companies in the performance motorsports and racing industry. [52]

Alabama Advantages

Employment in the automotive manufacturing sector represents nearly 57,000 jobs in the State of Alabama and is projected to increase nearly 13 percent between 2014 to 2019, compared to 0.7 percent in the U.S. during the same time period. Nearly 13 percent of jobs in Alabama are manufacturing, the second highest industry by employment in the state, representing more than 250,000 of Alabama's labor force of 2.1 million. [53] [54] In addition, nearly 30 percent of residents over the age of 25 hold an Associate's degree or higher. [55]

The Consortium for Alabama's Regional Center for Automotive Manufacturing (CARCAM) provides next-generation manufacturing employees with training in automated control systems, robotics and mechatronics. The program also offers an automotive manufacturing technology degree. [56] The Robotics Technology Park near Decatur offers three specialized training centers, including the Robotics Maintenance Training Center, which provides workforce training for robotics, advanced manufacturing, manual weld and robotic safety. [57]

The Center for Advanced Vehicle Technologies, a University of Alabama Research Center, is focused on closer collaboration with industry partners. This has been demonstrated by the hiring of former Daimler Vice President Dr. Bhar at Balasubramanian as executive director. [58] The Center provides interdisciplinary research and education in the following areas: electronics, energy storage and fuel cells, materials and manufacturing, and powertrains. [59]
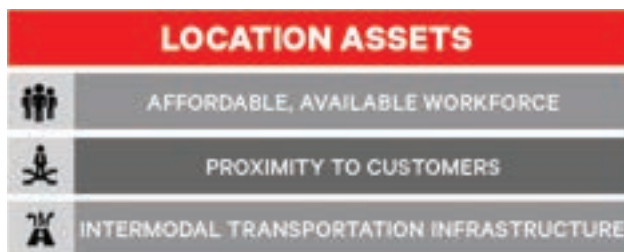
The Southern Alliance for Advanced Vehicle Manufacturing is a consortium of Auburn University, University of Alabama at Huntsville and Tennessee Tech University. This Industry/University Cooperative Research Center Center aims to provide a clear research contribution to the automotive sector by addressing challenges faced by the industry. [60]

Automobiles are Alabama's No. 1 export as a result of four original equipment manufacturers being located in the state. Honda, Hyundai, Toyota and Mercedes-Benz all contributred to the production of more than 1 million vehicles and 1.7 million engines in 2016. [61] There are also more than 450 automotive suppliers in the state. [62]
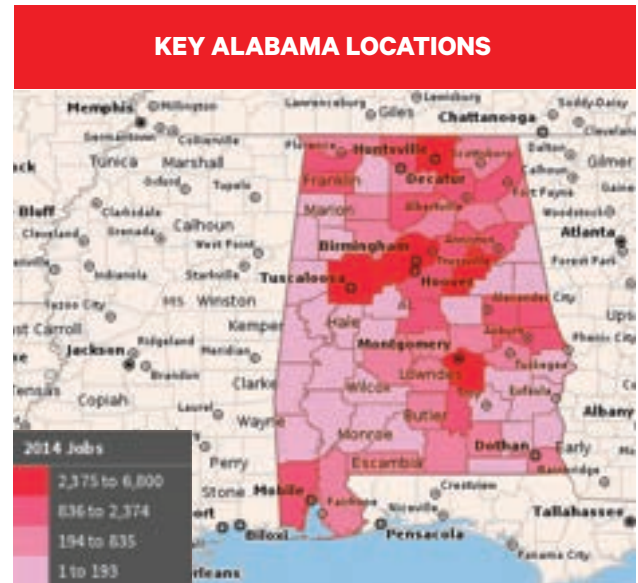
Alabama has a strong intermodal transportation system with six interstate highways, including Interstate 10, which runs east-west from Florida to California; Interstate 20, which runs east-west from South Carolina to Texas; Interstate 59, which runs diagonally from Tennessee to Louisiana; Interstate 65, which runs north-south from Illinois to Alabama; Interstate 22, which runs from Birmingham to Memphis; and Interstate 85, which runs diagonally from Virginia to Alabama. [63] The state is also home to more than 3,700 miles of track and five Class I railroad companies, including BNSF Railway Company, Canadian National Railway Company, CSX Transportation, Kansas City Southern Railway Company, and Norfolk Southern Corporation. [64] The Port of Mobile is a deep-water port of 45 feet that is located along the Mobile River, where it meets Mobile Bay. The port can handle containerized, bulk, break bulk, roll-on/roll-off, and heavy-lift cargoes served by 100 overseas shipping lines, all five Class I railroads in Alabama, and Interstates 10 and 65. [65]

Chemicals

Growth Opportunity and Trends

Revenue for the U.S. chemical manufacturing industry is projected to increase at an annual compound rate of 5 percent between 2015 and 2019. The increase in natural gas production used for energy and feedstock has stimulated growth in the chemical manufacturing sector. [66]

Global revenue for chemicals more than doubled over the last 10 years, reaching $5.2 trillion in 2013; and much of this growth can be attributed to emerging markets, especially China. Basic chemicals make up two-thirds of that growth. [67]

Chemical manufacturing companies are following the global trend of energy-efficiency. Examples of the adoption of these trends include using lighter-weight plastic in packaging and using renewable energy sources to power facilities. [68] Another trend in chemical manufacturing is the increased use of technology and automation as part of their production and supply chain. [69]

This growth of additive manufacturing, or 3D printing, may create an opportunity for chemical manufacturers. This process will require modified properties or completely new materials as new products are created. [70]

Agricultural chemicals are one subsector of the industry that is seeing increased specialization. As industrial farms become more scientific, fertilizers and pesticides can be matched to soil conditions and growing cycles. Additionally, insect-specific pesticides can be used in place of broad-spectrum products. [71]

Alabama Advantages

Chemical manufacturing represents more than 12,000 jobs in Alabama, and employment is projected to remain stable for the next five years. Nearly 13 percent of jobs in Alabama are in manufacturing, the second highest industry by employment in the state, representing more than 250,000 of Alabama's labor force of 2.1 million. [72][73] Of that workforce, nearly 30 percent over the age of 25 hold an Associate's degree or higher. [74]

AREA OF FOCUS

CHEMICAL MANUFACTURING

Creates products by transforming organic and inorganic materials by a chemical process

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More than 200 chemical companies call Alabama home, including DuPont, Sabic Innovative Plastics, 3M Company, Olin Corporation, BASF, BP Decatur, Evonik Industries, Ascend Performance Materials and Daikin. [75] The Alabama Gulf Coast Chemical Corridor is comprised of 25 companies, stretching 60 miles throughout the Mobile Area from Theodore to McIntosh. [76] Evonik Industries announced an

expansion in Theodore, Alabama, in 2014 that involved a $114 million investment and 72 new jobs. Evonik plans to transform its property within the Theodore Industrial Park into a chemical park, which would focus on enticing other chemical manufacturers that supply materials to Evonik, as well as their customers, to colocate production facilities of their own in the chemical park, resulting in increased efficiencies, as well as capitalizing on the infrastructure benefits colocation provides, such as reduced transportation costs. [77]

In addition to the strong cluster of chemical companies in the state, universities in Alabama that offer degrees and research opportunities in chemical engineering include the University of Alabama, Auburn University, the University of Alabama at Huntsville, and the University of South Alabama. The College of Engineering at the University of Alabama Department of Chemical and Biological Engineering conducts research regarding biotechnology, computational, polymers and soft materials, electronic materials and devices, and energy and the environment. [78]
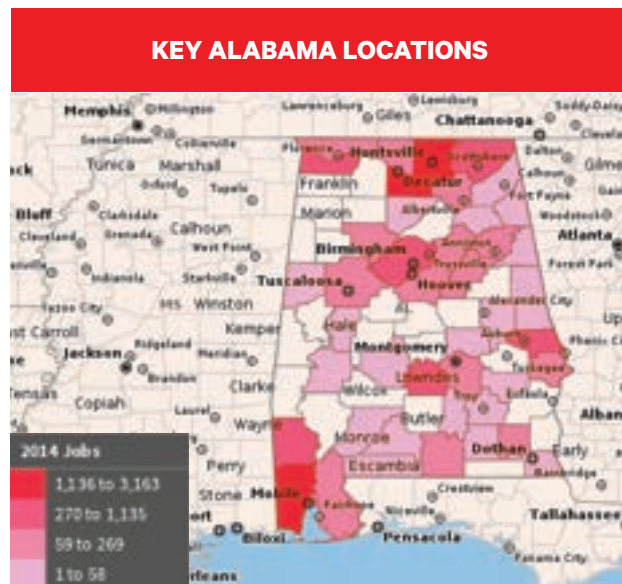
KEY ALABAMA LOCATIONS

LOCATION ASSETS

- AFFORDABLE, AVAILABLE WORKFORCE
- PROXIMITY TO CUSTOMERS
- INTERMODAL TRANSPORTATION INFRASTRUCTURE

Alabama also has a strong intermodal transportation system with six interstate highways, including Interstate 10, which runs east-west from Florida to California; Interstate 20, which runs east-west from South Carolina to Texas; Interstate 59, which runs diagonally from Tennessee to Louisiana; Interstate 65, which runs north-south from Illinois to Alabama; Interstate 22, which runs between Birmingham and Memphis; and Interstate 85, which runs diagonally from Virginia to Alabama. [79] The state is also home to more than 3,700 miles of track and five Class I railroad companies, including. BNSF Railway Company, Canadian National Railway Company, CSX Transportation, Kansas City Southern Railway Company, and Norfolk Southern Corporation. [80] The Port of Mobile is a deep-water port of 45 feet that is located along the Mobile River, where it meets Mobile Bay. The port can handle containerized, bulk, break bulk, roll-on/roll-off, and heavy-lift cargoes served by 100 overseas shipping lines, all five Class I railroads in Alabama, and Interstates 10 and 65. [81]

Forestry Products

Growth Opportunity and Trends

Public and private spending on construction in the U.S. is expected to increase at a compound annual rate of 7 percent between 2015 and 2019. [82] Residential construction has rebounded since the recession, and demand for single-family housing is projected to increase more than 25 percent in 2015 when compared to 2014, with a 35 percent increase projected for 2016. [83]

The southern U.S. has become a favorable location for harvesting trees. The flat terrain combined with warm temperatures and lower fuel prices have made the South more desirable than the Pacific Northwest for these operations. [84]

AREA OF FOCUS

CONSTRUCTION AND
BUILDING MATERIALS

Used to produce or construct building components, including doors, windows and flooring

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Engineered wood product is the process of gluing smaller wood pieces together to create a structural element that is oftentimes stronger than solid wood. This process allows the use of smaller trees to be used in lumber operations that would otherwise have only been appropriate for a pulp mill. Another engineered wood product, oriented strandboard, has seen an increase in use because it is equal to plywood for structural strength but less expensive for production. [85]

Consumers are becoming more interested in environmentally sustainable products. This has led to an increase in forestry companies obtaining certification for their forests and additional sustainably sourced product offerings. [86]

Alabama Advantages

Timberland covers more than 22 million acres in the State of Alabama and is recognized as the third-largest commercial forestland in the nation. It is estimated that 94 percent of Alabama's timberland is privately owned. Almost half of the forests are hardwood stands. [87]

Alabama is also the second-largest producer of pulp and paper in the U.S. and ranks seventh for lumber production and eighth for wood panel production. In 2013 an estimated 28 wood products companies announced new locations or expansions in Alabama. [88]

Notably, Alabama saw 9 percent growth in construction industry employment between 2013 and 2014. Alabama was ranked eighth in the United States in increased construction jobs from 2013 to 2014. [90]

Forestry products facilities located in Alabama are within one day's drive of half the U.S. population, including major cities such as Chicago and Kansas City. [91] The state has a strong intermodal transportation system with six interstate highways, including Interstate 10, which runs east-west from Florida to California; Interstate 20, which runs east-west from South Carolina to Texas; Interstate 59, which runs diagonally from Tennessee to Louisiana;

Interstate 65, which runs north-south from Illinois to Alabama; Interstate 22, which runs from Birmingham to Memphis; and Interstate 85, which runs diagonally from Virginia to Alabama. [92] The state is also home to more than 3,700 miles of track and five Class I railroad companies, including BNSF Railway Company, Canadian National Railway Company, CSX Transportation, Kansas City Southern Railway Company, and Norfolk Southern Corporation. [93] The Port of Mobile is a deep-water port of 45 feet that is located along the Mobile River, where it meets Mobile Bay. The port can handle containerized, bulk, break bulk, roll-on/roll-off, and heavy-lift cargoes served by 100 overseas shipping lines, all five Class I railroads in Alabama, and Interstates 10 and 65. [94]

The forestry products sector represents 18,000 jobs in

Alabama. Wood container and pallet manufacturing, wood kitchen cabinet and countertop manufacturing, and prefabricated wood building manufacturing are expected to see an increase of nearly 1,300 jobs between 2014 and 2019. [95]

Nearly 13 percent of jobs in Alabama are manufacturing, the second-highest industry by employment in the state, representing more than 250,000 of Alabama's labor force of 2.1 million. [96] [97] Nearly 30 percent of residents over the age of 25 hold an Associate's degree or higher. [98]

Alabama also has key advantages related to education and research opportunities for the forestry products market. The School of Forestry and Wildlife Sciences at Auburn University offers Bachelor's, Master's, and Doctorate degrees in several areas, including Forestry and Forest Engineering. [99] The Forest Products Development Center, which is part of the School of Forestry, supports forest-based economic development in Alabama. The center can assist with services related to forest resource studies, economic feasibility studies, capital project investment analyses,

project financing opportunities, technical training, and others. [100]

The Alabama Consortium on Forestry Education and Research at Tuskegee University is a collaboration of Alabama A&M Univeristy, Auburn University and Tuskegee University. Research of the consortium is focused on understanding the role of forests on rural economics, forest management, and the social and economic importance of the industry. [101]

Primary Metals and Advanced Materials

Growth Opportunity and Trends

AREAS OF FOCUS	
STEEL MANUFACTURING Companies in this industry engage in converting pig iron to steel, making steel, and manufactuing steel shapes, pipes, and tubes	**FABRICATED METAL PRODUCTS MANUFACTURING** Companies in this industry transform purchased metals into intermediate or end-use products by forging, stamping, bending, forming, welding, machining, and assembly
ADDITIVE MANUFACTURING, OR "3-D" PRINTING Describes the technologies that build 3D objects by adding layer-upon-layer of material, whether the material is plastic, metal, or concrete	**CARBON FIBER COMPOSITES** Strong, lightweight material used in aircraft and automotive manufacturing

Companies in the primary metals sector engage in smelting and refining of ferrous and nonferrous metals, including iron and steel mills, rolled steel shape manufacturers, aluminum producers, and copper foundries. Major U.S.-based companies include Alcoa, Nucor, and US Steel. The industry includes about 3,800 companies with combined annual sales of $270 billion. [102]

Advanced materials can be defined as any materials that are considered advanced over traditional materials and early in their technology or product lifecycle. [103] Examples of advanced materials include light metals such as titanium, magnesium and aluminum, and composites such as carbon fiber and metal laminates. Certain types of steel are also considered to be advanced materials. [104]

An alloy is an advanced material comprised of at least two different chemical elements, one of which is a metal, to make them stronger, harder, lighter, or better in some way. Alloys may be found in the fillings in our teeth to the alloy wheels on our cars. [105] Aluminum and other specialty alloys are in high demand in the aerospace/aviation, automotive and other sectors due to their light weight.

Demand for steel depends largely on the health of the U.S. manufacturing sector, in particular; the demand for motor vehicles; fabricated metal products and machinery; as well as commercial construction activity. [106] The global steel industry produces an estimated 1,600 million metric tons of steel per year, and China is the largest steel maker in the world, followed by Japan, the U.S., India, South Korea, Russia, and Germany. [107] The U.S. steel industry includes an estimated 250 companies, with combined annual revenues of more than $110 billion. Domestic demand for steel products is forecasted to grow at an annual compounded rate of 5 percent between 2015 and 2019. [108]

Fabricated metal product manufacturing is the second step in the steel product lifecycle, as it transforms purchased metals, typically coiled or flat-rolled steel, by forging, stamping, bending, forming, welding or machining. Examples of the types of products produced by a fabricated metal product manufacturer include cans, fixtures, plumbing, tanks, tools, and vents, as well as structural components such as doors, towers and windows. [109]

Increasing demand for end-use products such as automobiles, aerospace equipment and parts, and machinery is driving demand for many types of fabricated metal products. The U.S., China, Japan, Germany, Italy and Canada are top producers. [110] The U.S. fabricated metal product manufacturing sector includes an estimated 55,000 companies, with combined annual revenue of $340 billion. The sector is projected to grow at a 4 percent annual compound rate between 2015 and 2019. [111]

LOCATION ASSETS

AFFORDABLE, AVAILABLE WORKFORCE

PROXIMITY TO CUSTOMERS

INTERMODAL TRANSPORTATION INFRASTRUCTURE

Closely intertwined within the steel/metal product manufacturing sector is the architectural and structural metals manufacturing sector. Emerging markets and urbanization across the globe have led to the expansion of this industry, and the demand for these types of products is driven from commercial and industrial construction. Additionally, this sector is seeing an evolution of product design as green-building trends grow among new construction. [112] Job growth in this sector in Alabama is projected to increase by 9 percent by 2019. [113]

Remarkably, the shipbuilding industry is projected to experience 28 percent job growth by 2019 in Alabama. [114] While annual revenue in this industry is $25 billion, the United States Department of Defense is the largest buyer of military vessels. Austal USA's shipyard in Mobile produces two vessels for the U.S. Navy. The increased use of U.S. inland waterways has also increased demand for new ships. [115]

Global revenue for the carbon fiber market in 2013 was $1.77 billion. The industry has seen an annual growth rate of 8.1 percent since 2008. North America accounts for 30 percent of global production capacity of carbon fiber. The aerospace and defense industry is the largest consumer of carbon fiber, representing 30 percent of production. Alabama is home to two major players in carbon fiber production – Toray and Hexcel.

Alabama Advantages

Employment in the steel/metal products sector represents nearly 52,000 jobs in the State of Alabama and is projected to increase by nearly 6 percent between 2014 to 2019, comp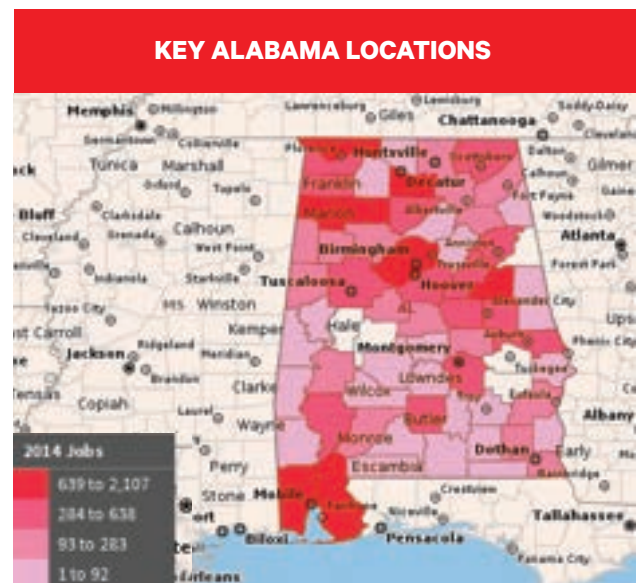ared to 0 percent in the U.S. during the same time period. Nearly 13 percent of jobs in Alabama are manufacturing, the second-highest industry by employment in the state, representing more than 250,000 of Alabama's labor force of 2.1 million. [116] [117] In addition, nearly 30 percent of residents over the age of 25 hold an Associate's degree or higher. [118]

The University of Alabama's Metallurgical and Materials Engineering program grants bachelor's, master's and doctorate degrees. Faculty and students in the programs are also involved in research in the areas of metal matrix composites, mechanical properties of materials and metals, and physical modeling of materials-processing operations such as solidification and steel making, foundry methods, and metal casting. [119]

Auburn University and 20 partners worked to establish the Consortium for Industrialized Additive Manufacturing, which focuses on identifying and addressing the barriers to high-volume additive manufacturing of metals. The consortium is led by major aerospace end-users of additive manufacturing such as GE Aviation, Aerojet Rocketdyne, Pall Corporation, Air Force Research Lab, and NASA Marshall Space Flight Center, along with suppliers to the industry. In July 2014, GE Aviation announced plans to add high-volume additive manufacturing to its facility in Auburn, resulting in the first facility of its kind to mass-produce additive components for the jet propulsion industry. [120]

The steel/metal products sector is largely driven by the construction industry. Notably, Alabama saw 9 percent growth in construction industry employment between 2013 and 2014. [121] Alabama ranked eighth in the United States in increased construction jobs from 2013 to 2014. [122]

Alabama has numerous advantages in attracting the Metal and Advanced Materials industry, including its transportation resources, especially the Port of Mobile. The port is currently ranked as twelfth in the U.S. in terms of total volume (54.9 million tons) and can handle containerized, bulk, break bulk, roll-on/roll-off, and heavy-lift cargoes. [123] It includes 41 ship berths, more than four million square feet of warehouse and open yard space, and handled approximately 29.1 million tons of freight in fiscal year 2014. Additionally, the State of Alabama has a high concentration in the steel industry in areas such as Mobile, Tuscaloosa, Birmingham and Decatur, as seen in the map on the previous page.

Alabama also has a strong transportation system with six interstate highways, including Interstate 10, which runs east-west from Florida to California; Interstate 20, which runs east-west from South Carolina to Texas; Interstate 59, which runs diagonally from Tennessee to Louisiana; Interstate 65, which runs north-south from Illinois to Alabama; Interstate 22, which runs from Birmingham to Memphis; and Interstate 85, which runs diagonally from Virginia to Alabama. [124] The state is also home to more than 3,700 miles of track and five Class I railroad companies, including BNSF Railway Company, Canadian National Railway Company, CSX Transportation, Kansas City Southern Railway Company, and Norfolk Southern Corporation. [125]

KEY ALABAMA LOCATIONS
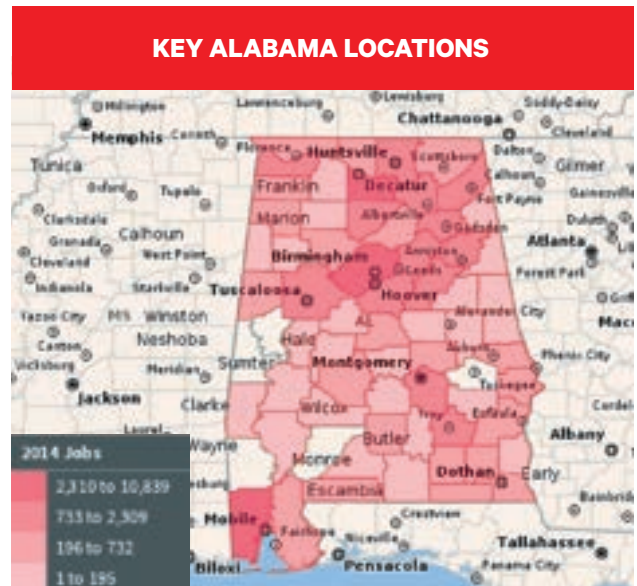
Bioscience

Growth Opportunity and Trends

Revenue for scientific research in the U.S. is expected to increase at a compound annual rate of 7 percent between 2015 and 2019. [126] Bioinformatics uses biological databases to identify similar processes and develop hypothesis about how cells and genetic material are affected by certain products. Increased availability of Big Data for scientific research has created a need for researchers to have data analysis and management skills in addition to traditional research skills. [127]

AREAS OF FOCUS
MEDICAL EQUIPMENT & SUPPLIES
Manufacture of surgical and medical instruments, dental equipment and surgical appliances
PHARMACEUTICALS
Process and manufacture of medicine used to treat illness
BIOTECHNOLOGY
The use of biological processes, organisms, or systems to manufacture products intended to improve the quality of human life

The medical equipment and supplies manufacturing industry is projected to see revenue growth at an annual compound rate of 4 percent between 2015 and 2019. [128] One driver of demand for medical equipment and supplies is the aging population of the U.S. Over the next ten years, those aged 65 and older is projected to increase by 38 percent. [129] Additional demand is expected to come from the improving healthcare infrastructure in developing countries, especially Asia and Latin America. Lower regulatory standards in these countries also make them attractive to medical equipment and supplies companies. [130]

Pharmaceutical manufacturing is expected to see increased demand. At the same time, managed care organizations are discouraging the use of brand-name drugs. [131]

Alabama Advantages

Science and technology represents more than 17,000 jobs in Alabama and is projected to grow nationally by 4.7 percent between 2014 and 2019. According to the National Science Foundation, Alabama had a total of more than $820 million in research and development (R&D) expenditures at colleges and universities in 2013. [132] In addition, nearly 30 percent of Alabama residents over the age of 25 hold an Associate's degree or higher. [133]

The HudsonAlpha Institute for Biotechnology (HudsonAlpha) is a nonprofit genomic science and applications organization. It produces a high volume of genomic data for thousands of academic, clinical and commercial clients. [134] HudsonAlpha is located in Cummings Research Park in Huntsville, the second-largest research park in the U.S. [135] Researchers and entrepreneurs are clustered in HudsonAlpha, as well
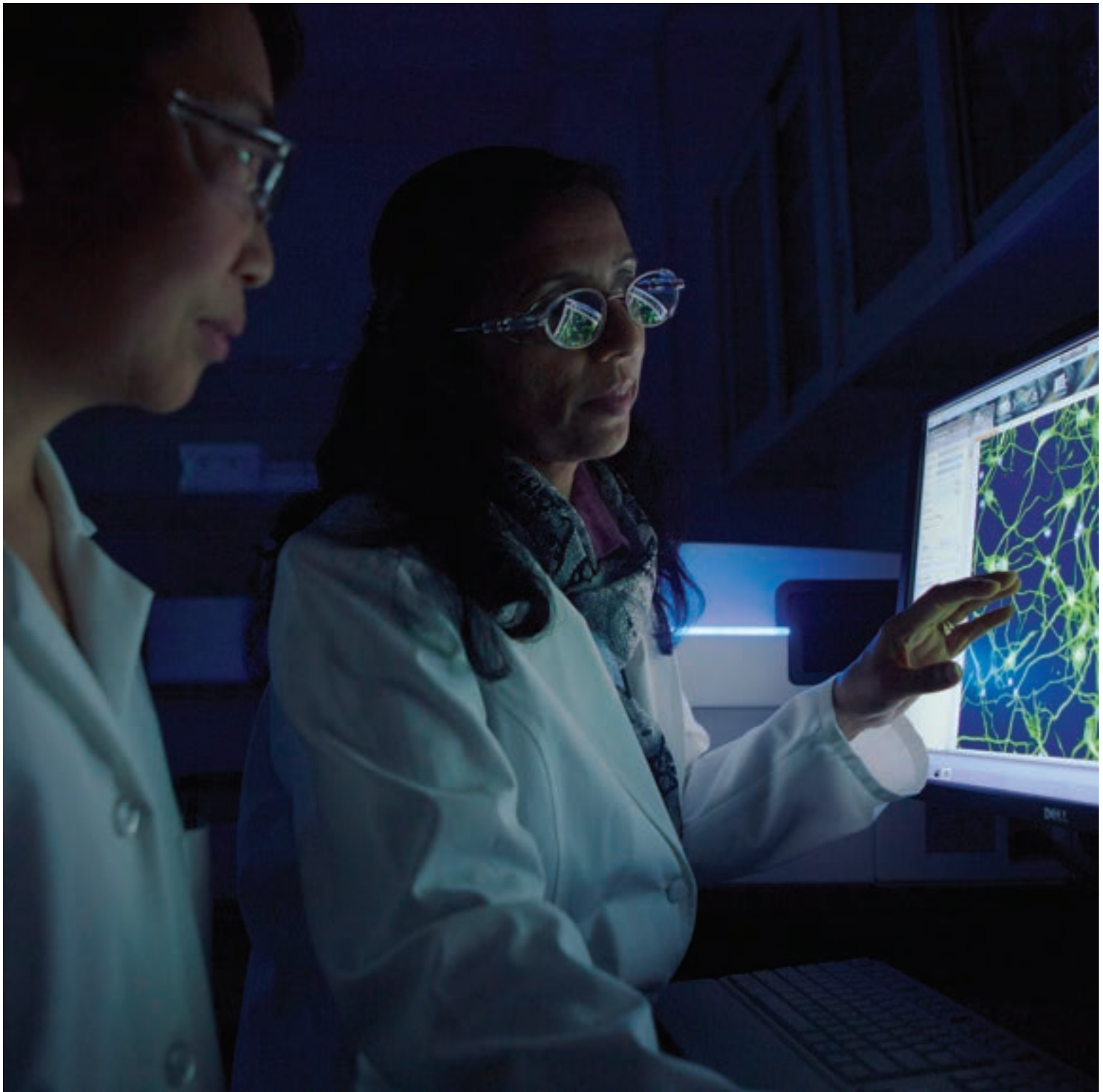
Birmingham's Southern Research has discovered seven FDA-approved anticancer drugs and has developed a pipeline of potential new treatments for a wide range of diseases.

as the Innovation Depot in Birmingham, the Auburn Research Park in Auburn, and the University of South Alabama's Biotechnical Research Unit in Mobile. [136]

The University of Alabama in Birmingham (UAB) has more than $433 million in research funding, much of which goes to the life sciences, and ranks among the top 20 institutions to receive federal research funding. [137] UAB is also home to the Center for Nanoscale Materials and Biointegration, whose research crosses physics, chemistry, cell biology, materials, mechanical, and biomedical engineering disciplines. [138] UAB also has a Graduate Biomedical Sciences program with eight interdisciplinary themes: biochemistry, structural and stem cell biology; cancer biology; cell, molecular and developmental biology; genetics, genomics and bioinformatics; immunology; microbiology; neuroscience; and pathobiology and molecular medicine. [139]

The College of Engineering Department of Chemical and Biological at the University of Alabama conducts research regarding biotechnology, computational, polymers and soft materials; electronic materials and devices, and energy and the environment. [140]

Southern Research in Birmingham is another leading research organization. This organization's life sciences research focuses on cancer, infectious and neuro/CNS diseases, and it has discovered seven FDA-approved anticancer drugs, with other potential treatments in a discovery pipeline in a partnership with UAB called the Alabama Drug Discovery Alliance. [141][142] Other bioscience organizations located in the state include USA Mitchell Cancer Center and Discovery BioMed. [143]

The State of Alabama is home to more than 800 bioscience companies. [144] In November of 2014, Oxford Pharmaceuticals announced that its new manufacturing facility will be located in Birmingham. The $29 million project will be located at the

Jefferson Metropolitan Lakeshore Industrial Park. The company cited the employment base and support of the universities as assets of the area. [145] Other bioscience companies located in the state include Evonik Corp., which announced plans to open its first Innovation Center for research and development of medical devices and technology at the company's Birmingham facility, and Baxter International, which announced an investment of nearly $300 million to expand its plant in Opelika, where it produces dialyzers, an important component in the treatment of advanced kidney disease. [146]
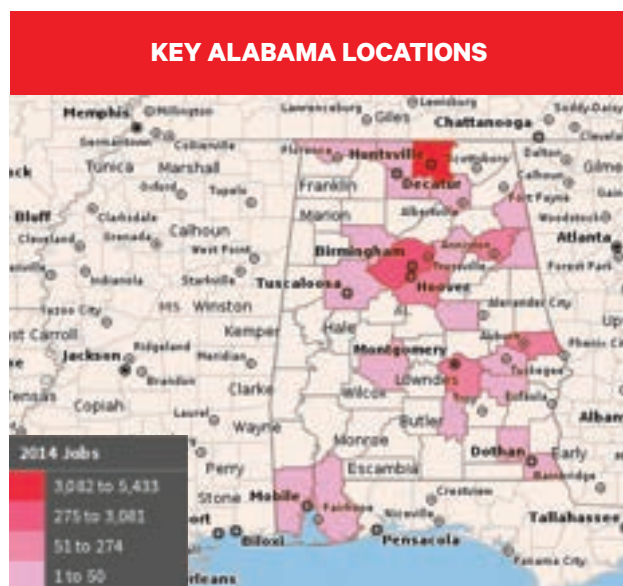
Foundational Targets

As part of the process of identifying targets for Alabama, it was determined that some sectors that present strong opportunities for the state are more than just a vertical, stand-alone industry. Instead, these sectors are intrinsic to the core competencies of a wide range of industries and provide operational processes and services to other sectors the state may target.

Additionally, these support sectors, which are embedded in various other industries, play a critical role in the recruitment of those sectors that rely on the infrastructure they provide. With the understanding that these sectors cross a variety of others and serve, in a sense, as a foundation for them, BSA has categorized a group of targets as Foundational Targets.

FOUNDATIONAL TARGETS:

CORPORATE OPERATIONS	DISTRIBUTION/ LOGISTICS
CYBERSECURITY	INFORMATION TECHNOLOGY
DATA CENTERS	RESEARCH AND DEVELOPMENT

Corporate Operations

Growth Opportunity and Trends

Corporate operations include not only the corporate and/or regional headquarters of an organization, but also operations centers that provide support functions to the business. A corporate headquarters is generally the central hub of corporate governance and operations for a business and may include marketing, financial, legal, administrative, and human resources functions.

AREAS OF FOCUS
CUSTOMER CONTACT CENTER
Utilize voice, web and data applications to interact with and provide support to customers, including technical assistance
OPERATIONS CENTERS
Include functions such as information technology, accounting, human resources and customer support and are generally located away from the corporate headquarters
REGIONAL HEADQUARTERS
House corporate functions similar to a corporate headquarters, with a focus on a specific area or region

A variety of factors impact a company's decision to relocate its corporate or regional headquarters or expand its corporate operations, including regional economic growth and stability, local infrastructure, availability of a skilled workforce, and the overall business climate. [147] Many recent corporate operations location projects have cited cost-saving opportunities and talent recruitment as key factors. Additionally, changing work space needs have reduced space requirements, with the average square feet per employee dropping from 250 square feet to as little as 125 square feet in the last 10 years. Companies are also considering moving to collaborate work environments in urban core areas in an effort to attract and retain talented young workers. [148]

Another trend currently impacting the corporate operations sector involves the importance of risk management. Many companies are exploring new business models that reflect increased transparency and consideration of risks involved in key functions and transactions. Maximizing vast data tools and understanding how "big data" can assist corporations in making more sound business decisions are also a key to corporate strategy, marketing, entrepreneurship, supply chain and accounting departments. [149]

Alabama Advantages

In addition to the presence of key headquarters operations for companies such as Regions Financial Corp., HealthSouth, BBVA Compass, and Books-A-Million, the State of Alabama has also seen recent expansions in the corporate operations sector. AT&T has created additional jobs in the state to support Project Velocity IP, an expansion of its wired and wireless broad band network. [150] Additionally, Verizon Wireless has expanded its customer contact center in Huntsville. [151]

The corporate operations sector currently employs approximately 28,000 people in the state, with projected growth of almost 12 percent through 2019. Average annual earnings for the sector in Alabama are more than $71,000. [152]

The business climate in Alabama is also very conducive to corporate operations. According to CNBC's 2014 Top States for Business, Alabama has the fourth lowest cost of doing business and seventh lowest cost of living in the United States. [153]

The State of Alabama has 14 public four-year universities, seven of which have Doctoral research programs. Those universities are Alabama A&M University, Alabama State University, Auburn University, University of Alabama, University of Alabama in Birmingham, University of Alabama at Huntsville and University of South Alabama. [154]

LOCATION ASSETS

- BUSINESS CLIMATE
- PRESENCE OF EXISTING COMPANIES
- RECREATIONAL AND CULTURAL AMENITIES

The University of Alabama is the largest four-year public university in the state and offers bachelor's, master's and doctoral degree programs. Colleges and professional schools at the University of Alabama include College of Arts and Sciences, Culverhouse College of Commerce, College of Communication and Information Sciences, College of Community Health Sciences, College of Continuing Studies, College of Education, College of Engineering, Honors College, College of Human Environmental Sciences, School of Law, Capstone College of Nursing, School of Social Work and the Graduate School. [155] Also, a part of the University of Alabama System includes the University of Alabama in Birmingham and the University of Alabama in Huntsville.

Auburn University is the second largest public four-year university in the state. Colleges include the College of Agriculture; College of Architecture, Design and Construction; College of Business; College of Education; Samuel Ginn College of Engineering; School of Forestry and Wildlife Sciences; Graduate School; Honors College; College of Human Sciences; College of Liberal Arts; School of Nursing; Harrison School of Pharmacy; College of Sciences and Mathematics; and the College of Veterinary Medicine. [156]

The State of Alabama is served by seven commercial airports, including Birmingham-Shuttlesworth International Airport, Huntsville International Airport, Dothan Regional Airport, Mobile Regional Airport, Montgomery Regional Airport, Northwest Alabama Regional Airport, and Columbus Airport. A total of six major commercial airlines and several commuter airlines operate throughout the seven airports. The state also has 78 general aviation airports, many of which can also accommodate corporate jets. [157]

The State of Alabama is home to four National Forests and 22 State Parks located throughout the state, which offer opportunities for boating, water sports, fishing, hiking, camping, and bicycling. The northern part of Alabama is home to the Alabama Mountain region, part of the southern foothills of the Appalachian Mountains. Mount Cheaha, located near the community of Delta, is the highest point in Alabama, and offers opportunities for hiking, rock climbing and mountain biking. Much of the southern border of Alabama is formed by the Gulf of Mexico and features beautiful, white sand beaches, plus opportunities for deep sea fishing. [158]

Alabama is also home to the well-known Robert Trent Jones Golf Trail, which is the largest public golf system in the world and can be played year-round due to Alabama's mild climate. Designed by Robert Trent Jones, Sr., the trail is comprised of 26 courses located at 11 sites throughout the state and includes 468 holes of golf. Courses are located in the communities of Greenville, Prattville, Opelika, Huntsville, Dothan, Point Clear, Mobile, Birmingham, Hoover, Anniston, and Muscle Shoals. [159]

KEY ALABAMA LOCATIONS

2014 Jobs
2,172 to 8,162
461 to 2,171
92 to 460
1 to 91
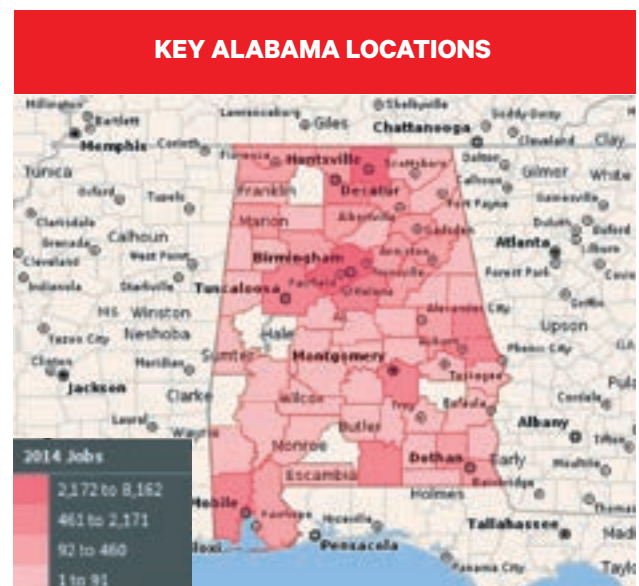
Cybersecurity

Growth Opportunity and Trends

Cyber attacks generally take aim at governments, including military, government agenices and figureheads, companies with sensitive or critical information, and the general public. [160] Defense companies are primed for growth and increased market share in this sector. These companies have either provided security technologies for a government in the past or are starting to look at acquiring companies to add value to their current government contract or services provided. [161] With global military defense budgets shrinking, the focus on cybersecurity has increased through developing new technologies or new applications that can extend the life cycle of platforms or systems already in use. [162] Another trend that will continue to increase cybersecurity applications is the growing online services, or e-government, provided by states and the federal government. [163]

The cybersecurity market is categorized in three niche sectors, which include traditional security vendors, aerospace and defense companies such as Lockheed Martin or Symantec, or systems integrators like AT&T. The customer focus for both the security vendors and the aerospace and defense companies is predominantly fueled by government agencies and private-sector companies. Additionally, to become more marketable, these companies within the three niche sectors are projected to collaborate to combat state-versus-state conflict, espionage and crime. [165]

Companies such as Boeing Co., Harris Corp. and Lockheed Martin are expecting significant growth in the next three to five years. Lockheed Martin, the largest provider of information technology to the U.S. government, is expecting to see double-digit growth. Moreover, Lockheed Martin is seeing increased spending on cybersecurity from companies in many sectors, including utilities, oil and gas companies, chemical companies and financial firms. [165]

CYBERSECURITY DEFINED:

Cybersecurity is the protection of digital infrastructure, information systems, general data and hardware from unauthorized access or direct attacks by various individuals

ALABAMA TARGETS SUPPORTED BY CYBERSECURITY SECTOR:

AEROSPACE/AVIATION	DATA CENTERS
BIOSCIENCE	INFORMATION TECHNOLOGY
CORPORATE OPERATIONS	

Alabama Advantages

Cybersecurity companies, much like general IT companies and government initiatives, have the opportunity to expand and enhance products and services in Alabama due to the strong base of research and education to support product development and

workforce needs. The Center for Materials for Information Technology at the University of Alabama performs research ranging from studies on materials for data storage to the application and technologies of industrial fields related to all types of information technology. [166] Additionally, the University of Alabama in Birmingham (UAB) offers a Master's in Computer Forensics and Security Management, which focuses on critical infrastructure protection, privacy, identity and the safety of e-commerce. UAB also has a partnership with The Center for Information Assurance and Joint Forensics Research that provides the opportunity for students to train in a lab environment to work as cyber criminal investigators. [167]

Cybersecurity-related industries in Alabama boast average wages of more than $90,000 and accounted for more than 50,000 jobs in 2014. Within a five-year period from 2014 to 2019, job growth in Alabama in cybersecurity is expected to increase by 22 percent, which is higher than the national average as seen in the chart to the right. [168]
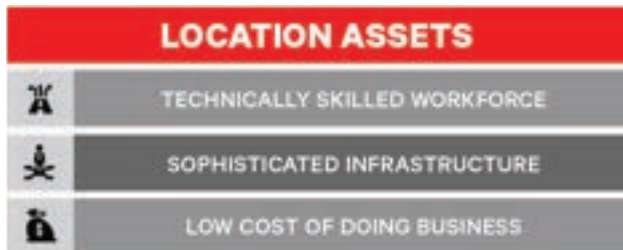
For the past seven years, the Southeastern Cyber Security Summit has convened in Huntsville, Alabama. This conference brings together federal government, business leaders, and educators. [169] In addition, the University of Alabama at Huntsville (UAH) recently added a Master's of Science in Information Assurance and Security, a Master's degree in Cybersecurity, and a graduate certificate in Cybersecurity. [170]

The University of South Alabama Center for Forensics, Information Technology and Security is involved in the study and application of digital forensics and information technology security and assurance. The National Security Agency (NSA) and the Department of Homeland Security (DHS) have designated the University of South Alabama as a National Center of Academic Excellence in Information Systems Security Education. [171]

Alabama is one of the nation's recognized leaders in the development and application of modeling and simulation technologies. UAH's Center for Modeling, Simulation, and Analysis (CMSA) conducts leading-edge research on modeling, simulation and systems engineering. Moveover, CMSA has 10 PhD-level scientists and engineers. [172] The Alabama Modeling & Simulation Council is a non-profit organization focused on encouraging the growth and development of the industry in the state. Alabama's collaborative efforts between the military, academia and private industry ensure its position as a location for growth. [173]
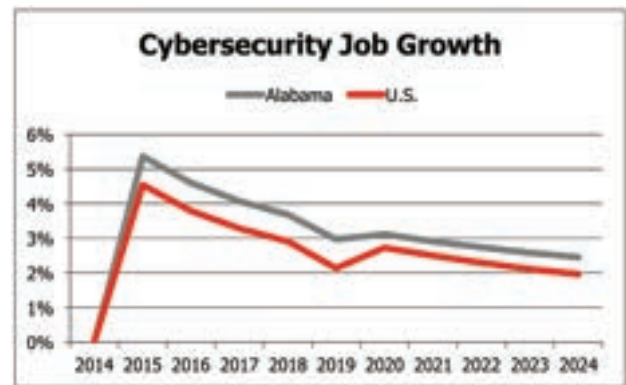
Data Centers

Growth Opportunity and Trends

Once part of an IT department within a company consisting of a few servers, data centers have evolved into multiple physical locations housing various data services and enterprise components. With virtualization and cloud computing changing the industry, companies are looking to optimize their data storage needs. [174]

As this industry changes, major data center operators and large Internet content providers are moving toward owning their own networks and dark fiber. This trend is removing the need for data centers to rely on commercial carriers and accounted for a large percentage of network interconnect capacity in 2015. [175] Additionally, telecommunications firms are expected to increase their current data centers by nearly double to account for more products and services offered. [176]

The development and expansion of the Internet of Things (IoT) will push companies to invest more in data center operations as businesses will be extended into new markets and technologies. IoT is essentially the creation of a network of things to things, people to people, or people to things. From the ability to turn on your coffee pot by your smart phone or control a drill of an oil rig, the IoT is impacting consumers and industry. Gartner has projected that there will be more than 26 billion devices connected by 2020. [177] IoT will cause the big data center operators to consider possible consolidation or alliances with various companies. [178]

The bigger data centers are projected to get bigger. Cloud computing saw a 70 percent increase in workloads being processed in the cloud by 2015. Because of this growing demand, companies are considering investing in mega data centers or multiple data centers on the same site. [179]

DATA CENTERS DEFINED:

A centralized repository, either physical or virtual, for the storage, management, and dissemination of data and information organized around a particular body of knowledge or pertaining to a particular business

ALABAMA TARGETS SUPPORTED BY CYBERSECURITY SECTOR:

AEROSPACE/AVIATION	DISTRIBUTION/ LOGISTICS
AGRICULTURAL PRODUCTS/FOOD PRODUCTION	FORESTRY PRODUCTS
AUTOMOTIVE	INFORMATION TECHNOLOGY
BIOSCIENCE	METAL AND ADVANCED MATERIALS
CHEMICALS	
CYBERSECURITY	

Alabama Advantages

Employment in Alabama in the data center sector represents nearly 25,000 jobs and is projected to increase nearly 14 percent between 2014 to 2019, compared to 10 percent in the U.S. during the same time period. Notably, Alabama has a higher projected job growth rate in the data center sector of all of its boarder states, including Georgia (8 percent), Tennessee (9 percent), Mississippi (12 percent) and Florida (12 percent). [180] In addition, nearly 30 percent of residents over the age of 25 in the State of Alabama hold an Associate's degree or higher. [181]

Across the State of Alabama, education centers are providing training for data center management and engineering. Six universities, including Alabama A&M, Auburn University, Tuskegee University, University of Alabama, University of Alabama Birmingham, and University of South Alabama, offer an array of degrees, including computer science, software engineering, wireless engineering, information engineering and computer forensics, and security management. [182] Additionally, a high concentration of data center occupations in Huntsville, Decatur, Birmingham, Montgomery and Mobile can be seen in the map to the right. Google's decision to locate a $600 million data center in Jackson County is expected to drive growth in the sector across the state.

Alabama has six sites that have been designated as Primary Data Center Sites by TVA. Such sites are located in the communities of Athens, Dutton, Florence, Guntersville, Hartselle, and Huntsville. Primary Data Center Sites have been certified by Deloitte Consulting as ready-for-development and meet the requirements to support a major data center. Selection criteria used in the certification process included accessibility, telecommunications infrastructure, electric power availability and reliability, and other characteristics beneficial to data center development. [183]
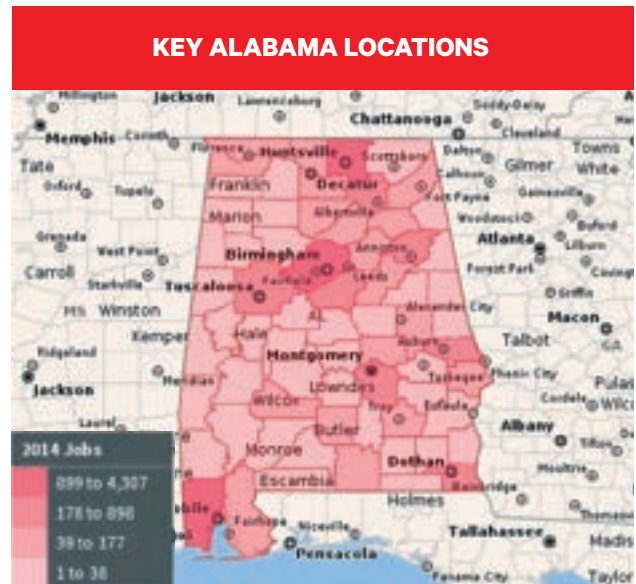
Moreover, Alabama Power Co. has multiple sites, including Birmingham's Jefferson Metropolitan Park Lakeshore and Grand River that have had fiber connectivity studies conducted. The fiber carriers present in these areas include Access Fiber, AT&T, CenturyTel, Intelefiber, KDL Windstream, Southern Telecom, Time Warner Telecom, Level 3, Qwest, Sprint, XO Commmunications and Verizon Wireless. [184]

In 2012 the State of Alabama enacted the Data Processing Center Economic Incentive Act that provides tiered tax abatements for a period of up to 30 years to data center operations, depending upon the total capital investment of the project. [185]

Distribution/ Logistics

Growth Opportunity and Trends

The distribution and logistics sector includes basic storage, freight transportation arrangement, inventory control, order processing, and pick-up and delivery services. The U.S. warehousing and storage industry includes approximately 7,000 companies, with annual revenue of almost $30 billion, and approximately 70 percent of revenue from general warehousing services. Other services include refrigerated storage, farm products storage and records storage. [186] Logistics services companies provide supply chain management services, including planning, implementing and controlling the movement and storage of goods, in-process inventory management, quality control, and warehouse operations related to moving goods from the point of origin to the point of consumption. [187]

Because the sector supports a wide variety of manufacturing and consumer sectors, its growth is generally tied to the state of the overall economy. With recent improvement in the U.S. economy, revenue for warehousing and storage services is projected to grow at an annual compound rate of four percent through 2019. [188] One driver of this growth is the increase in electronic commerce, which is a $220 billion industry, with growth much greater than traditional brick-and-mortar retail stores. [189] While total U.S. retail growth is projected to be about 5.5 percent, e-commerce is expected to grow between 11 and 16.5 percent through 2018. [190]

Technology is driving many of the trends in the distribution and logistics sector. New distribution facilities are larger, with one million square feet being a common size. These facilities are managed by computer systems, with some having computer-guided forklifts. Additionally, robots, which were once viewed as too expensive and not mobile enough for distribution centers, are now seeing increased use. In addition to the computer-guided forklifts, robotic applications include mechanical systems equipped with computers to locate and lift items and shuttles that bring goods to workers. Improved tracking systems are being developed, with potential replacements for the Price Look-Up (PLU) code being explored. The GSI, formerly the Uniform Code Council, is developing a smaller bar code, while Radio Frequency Identification (RFID) tags are also being tested. [191]

DATA CENTERS DEFINED:
Distribution is the movement of goods from the source to the final customers. Logistics includes managing inventory throughout distribution channels

ALABAMA TARGETS SUPPORTED BY THE DISTRIBUTION/LOGISTICS SECTOR:	
AEROSPACE/AVIATION	BIOSCIENCE
AGRICULTURAL PRODUCTS/FOOD PRODUCTION	CHEMICALS
	FORESTRY PRODUCTS
AUTOMOTIVE	

Alabama Advantages

Alabama is home to distribution facilities for such household names as Walmart, Target, Home Depot and Sysco. In addition, two distribution companies in the state – Atlas RFID Solutions and ARI Logistics – are listed on the Inc. Magazine list of the Fastest Growing Private Companies in 2014. [192]

The sector currently employs almost 60,000 people in the state, with projected growth of 8 percent through 2019. Average annual earnings for the sector in Alabama are more than $54,000. [193]

In addition to existing distribution facilities, Alabama has a significant presence of major manufacturers that require a strong distribution network. Three automotive manufacturing facilities, a booming aerospace sector, a diverse biosciences industry, and agriculture and food production all are major distribution users.

The state's multi-modal transportation network is a key asset to distribution and logistics businesses. Alabama has six interstate highways: Interstate 10, which runs east-west from Florida to California; Interstate 20, which runs east-west from South Carolina to Texas; Interstate 59, which runs diagonally from Tennessee to Louisiana; Interstate 65, which runs north-south from Illinois to Alabama; Interstate 22, which runs from Birmingham to Memphis; and Interstate 85, which runs diagonally from Virginia to Alabama. [194]

Alabama's rail infrastructure includes more than 3,700 miles of track and five Class I railroad companies, including BNSF Railway Company, Canadian National Railway Company, CSX Transportation, Kansas City Southern Railway Company, and Norfolk Southern Corporation. [195] The International Intermodal Center located in the Port of Huntsville Global Logistics Park is a single location specializing in receiving, transferring, storing, and distributing international and domestic cargo via air, rail, and highway. Air freight service is provided by FedEx, UPS, Cargolux and Panalpina, while rail service is provided by Norfolk Southern. The International Intermodal Center is located near Interstates 65 and 565. [196]

Alabama also has one of the largest inland waterway systems in the United States, which includes six primary river systems, with a total of almost 1,300 miles of navigable waterways. Primary waterway corridors include the Alabama-Coosa Waterway, the Chattahoochee-Apalachicola Waterway, the Gulf Intracoastal Waterway, the Tennessee Waterway, the Tennessee-Tombigbee Waterway, and the Warrior-Tombigbee Waterway. [197] The Port of Mobile is located along the Mobile River, where it meets Mobile Bay. The port is currently ranked as the ninth-largest seaport in the United States in terms of total volume and can handle containerized, bulk, break bulk, roll-on/roll-off, and heavy-lift cargoes. [198]

LOCATION ASSETS

- INTERMODAL TRANSPORTATION INFRASTRUCTURE
- PROXIMITY TO MAJOR CUSTOMERS
- LOW COST OF DOING BUSINESS
- EDUCATION AND TRAINING RESOURCES
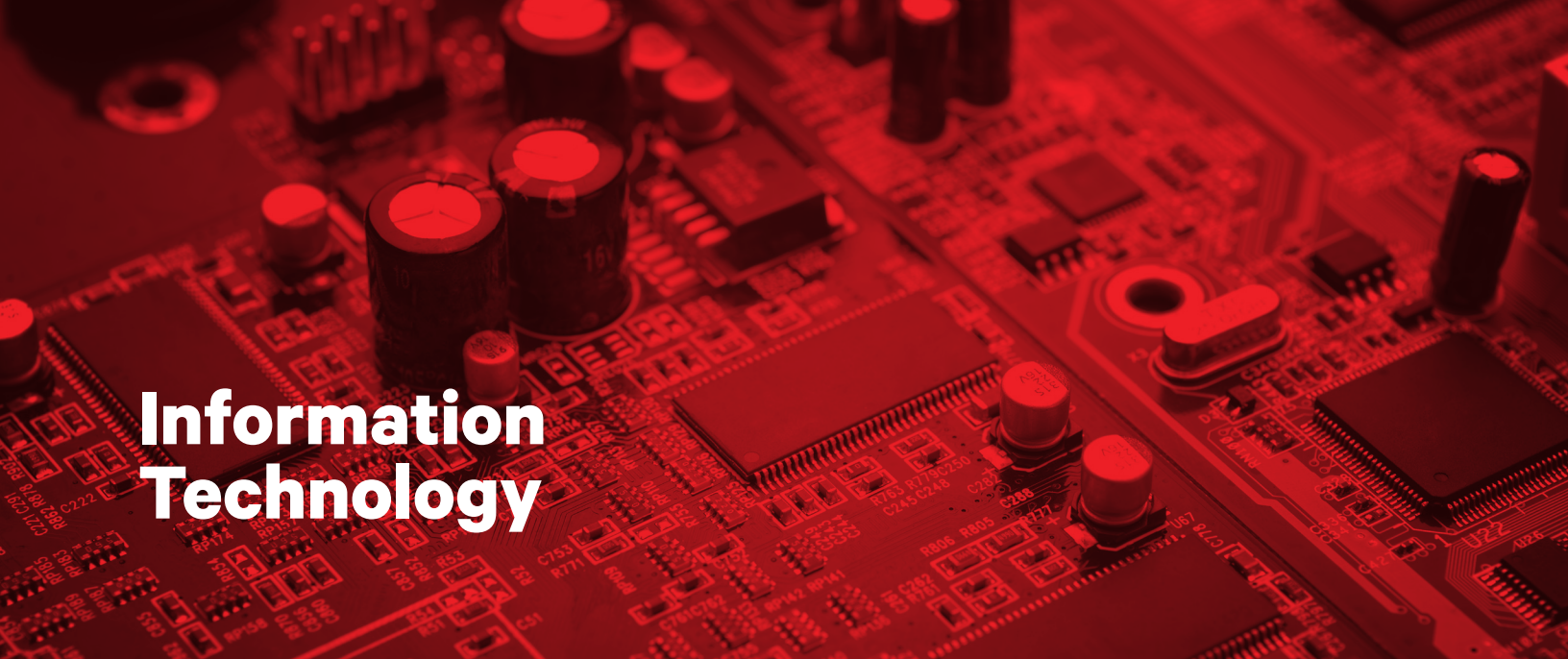
Auburn University (AU) offers a bachelor's degree in supply chain management within the Harbert College of Business and is establishing a research and resource center to facilitate industry engagement. The AU faculty has been ranked eighth globally for supply chain management research productivity by a leading industry journal. [199] The University of Alabama (UA) has both bachelor's and master's degree programs in Operations Management, which include logistics and supply chain management components, in addition to an MBA with a concentration in supply chain and operations management. [200] In addition, both UA and UA-Huntsville offer certificate programs in supply chain management. [201]

The business climate in Alabama is also very conducive to distribution and logistics businesses. According to CNBC's 2014 Top States for Business, Alabama has the fourth lowest cost of doing business and seventh lowest cost of living in the United States. [202] Additionally, Alabama imposes no inventory tax, which is a significant incentive for distribution facilities. [203]

The Robotics Technology Park, located in Tanner, Alabama, includes three individual training facilities focused on robotic maintenance; advanced technology research and development; and integration, entrepreneurship, and paint/dispense. The park represents a collaboration between the State of Alabama, the Alabama Community College System, AIDT and the robotics industry. [204]

KEY ALABAMA LOCATIONS

Information Technology

Growth Opportunity and Trends

Hardwired in almost every industry and general consumer alike is the need for information technology (IT) infrastructure. From software design and support, sophisticated computer systems, data processsing, information security, entertainment applications and customer service, the IT industry is growing at an exponential rate year over year. [205]

INFORMATION TECHNOLOGY DEFINED:

Refers to anything related to computing technology, such as networking, hardware, software, the Internet, or the people that work with these technologies. Many companies now have IT departments for managing the computers, networks, and other technical areas of their businesses

ALABAMA TARGETS SUPPORTED BY THE IT SECTOR:

AEROSPACE/AVIATION	DATA CENTERS
AUTOMOTIVE	DISTRIBUTION/ LOGISTICS
BIOSCIENCE	RESEARCH AND DEVELOPMENT
CORPORATE OPERATIONS	
CYBERSECURITY	

While revenue generated by U.S. companies is estimated at $315 billion, global spending on IT services is nearly $4 trillion. The market is equally lucrative for small and large businesses because of the ability for large companies to offer full, comprehensive services while small companies can fill niche markets. [206]

The growth of 3D printing in industrial, biomedical and consumer applications will aid in reducing costs for the IT sector. In addition, the continued growth of cloud computing services and mobile computing will allow for more processing and applications to become quickly scaleable. Notably, in a survey conducted by Information Age, nearly 70 percent of the businesses that participated stated that they had some data in the cloud. [207] Additionally, applications designed for security or cybersecurity will continue to revolutionize the digital future. [208]

Due to recent information that was leaked by many companies, including Google, Sony and Apple, cybersecurity, which may be defined as "measures taken to protect a computer or computer system against unauthorized access or attack," will be at the forefront as colleges and universities train students for IT careers. [209] The Internet Security Systems Association has developed a framework to prepare students for a cybersercurity career. [210] Notably, attacks on healthcare systems, financial services provided by retailers, and mobile devices are projected to increase in 2015 and beyond. [211]

Alabama Advantages

IT companies and government intiatives thrive in Alabama due to the strong base of research and education to support product development and workforce needs. The Center for Materials for

Information Technology at the University of Alabama performs research ranging from studies on materials for data storage to the application and technologies of industrial fields related to all types of information technology. [212] In addition, the University of Alabama at Huntsville (UAH) recently added a master's of science in Information Assurance and Security, a master's degree in Cybersecurity, and a graduate certificate in Cybersecurity. [213] For the past seven years, the Southeastern Cyber Security Summit has convened in Huntsville, Alabama. This conference brings together federal government, business leaders, and educators. [214]
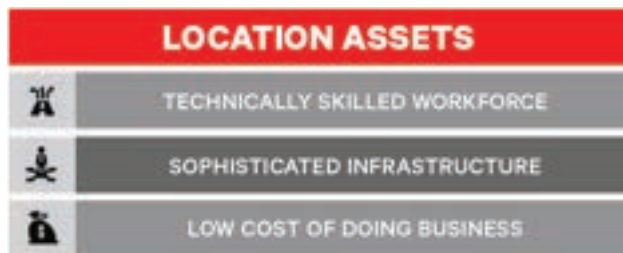
LOCATION ASSETS

	TECHNICALLY SKILLED WORKFORCE
	SOPHISTICATED INFRASTRUCTURE
	LOW COST OF DOING BUSINESS

The University of South Alabama Center for Forensics, Information Technology and Security is involved in the study and application of digital forensics and information technology security and assurance. The National Security Agency (NSA) and the Department of Homeland Security (DHS) have designated the University of South Alabama as a National Center of Academic Excellence in Information Systems Security Education. [215]

Alabama is one of the nation's recognized leaders in the development and application of modeling and simulation technologies. UAH's Center for Modeling, Simulation, and Analysis (CMSA) conducts leading-edge research on modeling, simulation and systems engineering. Moveover, CMSA has 10 PhD-level scientists and engineers. [216] The Alabama Modeling & Simulation Council is a non-profit organization focused on encouraging the growth and development of the industry in the state. Alabama's collaborative efforts between the military, academia and private industry ensure its position as a location for growth.

Gunter Annex is a United States Air Force installation located in Montgomery, under the administration of the 42d Air Base Wing at nearby Maxwell Air Force Base. The Business and Enterprise Systems Directorate, located at Gunter Annex, is the Information Technology (IT) leader for the Air Force community and Department of Defense (DoD), delivering comprehensive IT solutions and

providing expert contracting, acquisition and program management. The Directorate employs more than 2,200 across five states (Alabama, Texas, Utah, Ohio, and Massachusetts). [217]

Hourly wages within this industry are nearly double that of the national average. Notably, the State of Alabama will see a projected 11 percent growth in this sector by 2019, resulting in nearly 55,000 new jobs. [218] The map to the right illustrates that a high concentration of IT jobs are currently in Huntsville, Birmingham, Montgomery, Mobile and Dothan.

KEY ALABAMA LOCATIONS

2014 Jobs
1,449 to 7,200
331 to 1,448
67 to 330
3 to 66
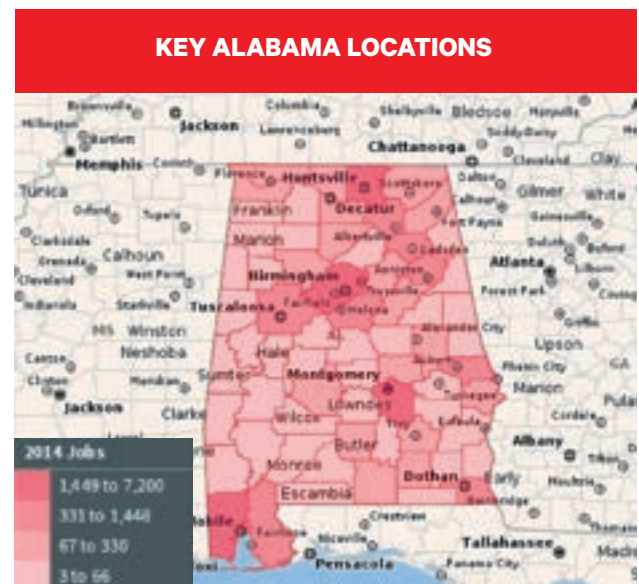
Research & Development

Growth Opportunity and Trends

Research and innovation are key drivers of competitiveness and success in a wide variety of industry sectors. Development of new products and processes, as well as improvements to existing products, have both short- and long-term advantages for companies seeking to improve and expand their operations. In addition, research and development is a component of addressing societal challenges in the fields of health, energy, security, information, and manufacturing. Research and development activities are conducted by large corporations within certain sectors, as well as by private research companies and university research departments. [219] Revenue growth of seven percent annually is projected for U.S. scientific research and development services between 2015 and 2019. [220]

In the field of biotechnology, research is focused on agriculture/food production; medicine and science, driven by an expanding population; increasing food demand; and the need for alternative fuels. [221] Nanotechnology and cloud computing are also top research and development fields, in addition to healthcare diagnostics and development of new healthcare products resulting from changes in healthcare laws. Additionally, technology is increasingly being incorporated into medicine, with demand for new healthcare technology expected to continue growing. [222] With increasing use of data analytics, there is greater demand for research skills related to data management to assist researchers in processing large volumes of data. Data mining of biological information is also becoming an efficient

resource for scientists to identify processes and test hypotheses related to genetics and cell development. [223]

Suppliers of automotive manufacturers are increasing their role in research and development. Technologies likely to become standard in vehicles include electronically operated systems for transmissions, suspensions and safety systems. Suppliers are also working to develop new technologies that will improve fuel efficiency, including smaller, turbocharged engines and advanced combustion models. [224]

RESEARCH AND DEVELOPMENT DEFINED:

Investigate activities that a business or organization chooses to conduct with the intention of making a discovery that can either lead to the development of new products or procedures, or to improvement of existing products or procedures

ALABAMA TARGETS SUPPORTED BY THE RESEARCH & DEVELOPMENT SECTOR:

AEROSPACE/AVIATION	DISTRIBUTION/ LOGISTICS
AGRICULTURAL PRODUCTS/FOOD PRODUCTION	FORESTRY PRODUCTS
AUTOMOTIVE	INFORMATION TECHNOLOGY
BIOSCIENCE	METAL AND ADVANCED MATERIALS
CHEMICALS	
DATA CENTERS	
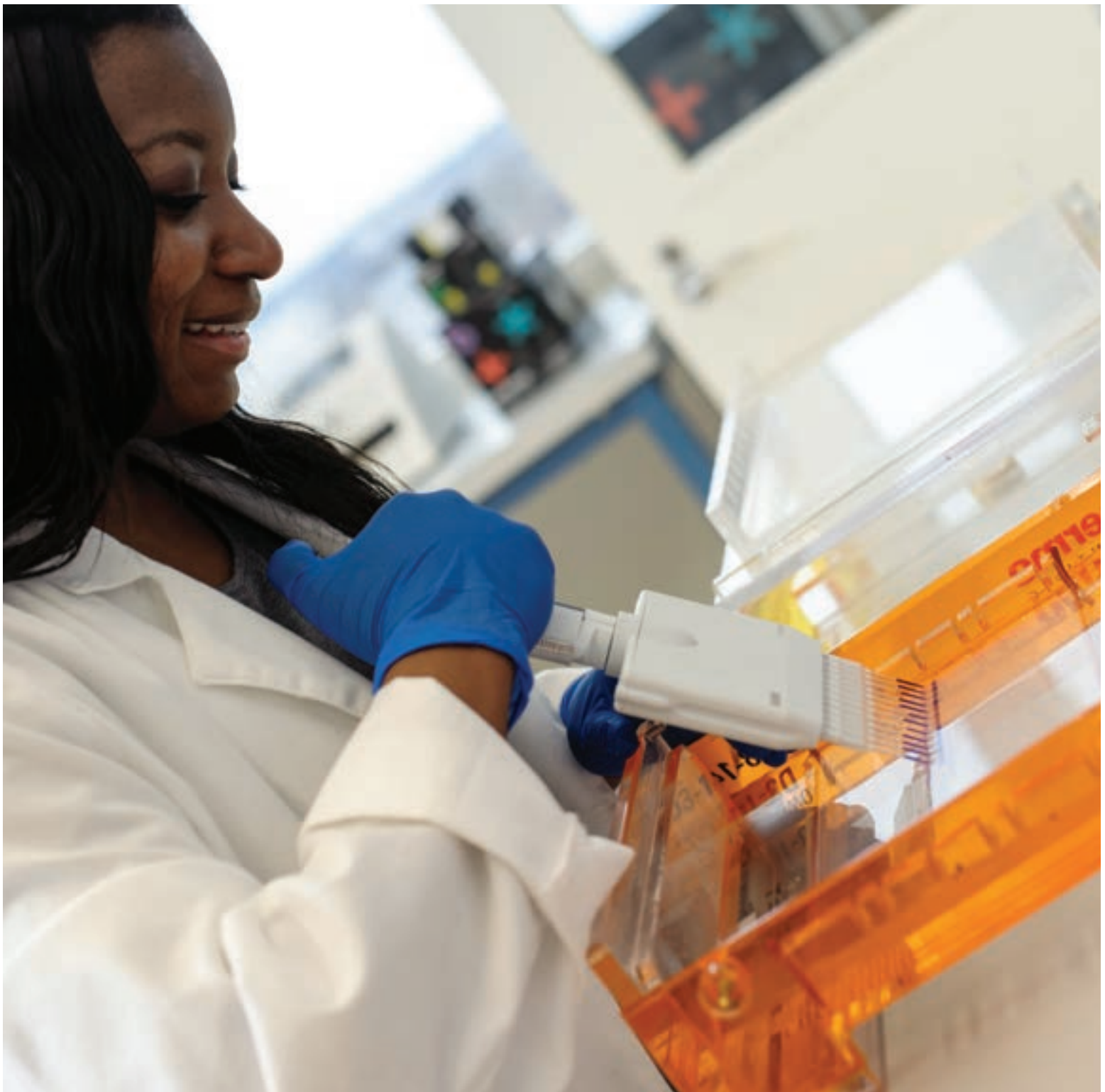
The HudsonAlpha Institute of Biotechnology in Huntsville, a worldwide leader in genomics, has become a hothouse of biotech economic development.

Alabama Advantages

Alabama has a significant and growing research and development sector that supports a large number of industries. In addition to more than 5,000 jobs in companies dedicated to research and development, additional positions are found in industry sectors such as automotive and aerospace, as well as at the state's research universities. According to the National Science Foundation, Alabama had a total of more than $820 million in research and development (R&D) expenditures at colleges and universities in 2013. [225]

LOCATION ASSETS

- UNIVERSITY EDUCATION & RESEARCH ASSETS
- PRESENCE OF BROAD-BASED R&D SECTOR
- BUSINESS CLIMATE

The HudsonAlpha Institute for Biotechnology (HudsonAlpha) is a nonprofit genomic science and applications organization. It produces a high volume of genomic data for thousands of academic, clinical and commercial clients. [226] HudsonAlpha is located in Cummings Research Park in Huntsville, the second-largest research park in the U.S. Researchers and entrepreneurs are clustered in HudsonAlpha, as well as the Innovation Depot in Birmingham, the Auburn Research Park in Auburn, and the University of South Alabama's Biotechnical Research Unit in Mobile. [227] Southern Research is another leading research organization. This organization focuses on cancer and infectious and neuro/CNS diseases and has discovered seven FDA-approved anticancer drugs. [228] Other bioscience organizations located in the state include USA Mitchell Cancer Center and Discovery BioMed. [229]

The University of Alabama research programs include the Alabama Innovation and Mentoring of Entrepreneurs (AIME). AIME brings together a multifunctional, multidisciplinary research team, students for market research and business plan development, entrepreneurial training, as well as idea selection committee and support for the Bama Technology Incubator. [230] The Central Analytical Facility, also located at the University of Alabama, is a user facility, housing major research instrumentation. [231] The College of Engineering Department of Chemical and Biological Engineering at the University of Alabama conducts research regarding biotechnology, computational, polymers and soft materials, electronic materials and devices, and energy and the environment. [232]

The four major themes of research at Auburn University are environment and energy, security and commerce, health, and transportation. [233] The Auburn University Huntsville Research Center matches Auburn's research capacities with the needs of Huntsville's agencies and industries. [234]

The University of Alabama in Birmingham (UAB) is home to the Center for Nanoscale Materials and Biointegration, whose research crosses physics, chemistry, cell biology, materials, mechanical, and biomedical engineering disciplines. [235] UAB also has a Graduate Biomedical Sciences program with eight interdisciplinary themes: biochemistry, structural and stem cell biology; cancer biology; cell, molecular and developmental biology; genetics, genomics and bioinformatics; immunology; microbiology; neuroscience; and pathobiology and molecular medicine. [236]

NASA's Marshall Space Flight Center and the U.S. Army's Redstone Arsenal are both located in Huntsville. Redstone Arsenal is a major federal research, development, test and engineering center that houses the United States Army's missile, missile defense and aviation programs, the Missile Defense Agency, the Defense Intelligence Agency, and NATO's MEADS. The facility also performs missile and helicopter research for the U.S. Army. [237] Also located at Redstone Arsenal is the Marshall Space Flight Center, one of NASA's largest and most important field centers. It manages key programs involving the International Space Station, Payload Operation Center, space science and Space Launch System (SLS). [238] The Propulsion and Structural Test Facility at the Marshall Space Flight Center develops and matures propulsion technologies, including boost, upper-stage, and in-space applications for current and future space transportation and science missions. [239]

On the corporate side, Boeing opened a technology research center in Huntsville in 2015 that focuses on simulation and decision analytics. It employs 300 to 400 people. [240]

The Consortium for Alabama's Regional Center for Automotive Manufacturing (CARCAM) provides next-generation manufacturing employees with training in automated control systems, robotics and mechatronics. The program also offers an automotive manufacturing technology degree. [241]

REHAU, an automotive parts manufacturer, opened its first automotive technical center outside of Germany would be located in Cullman, Alabama, in September 2015. The $3 million, 12,000-square-foot technical center provides an ultra-modern working space for 45 engineers and enables REHAU to bundle production, engineering and development capacities together in one location. [242]

Other recent R&D successes in Alabama include Evonik Corporation, which announced plans for its first Innovation Center in Birmingham near their current medical devices production facility. An additional 25 jobs will be created as part of this expansion. [243]

The State of Alabama is served by seven commercial airports, including Birmingham-Shuttlesworth International Airport, Huntsville International Airport, Dothan Regional Airport, Mobile Regional Airport, Montgomery Regional Airport, Northwest Alabama Regional Airport, and Columbus Airport. A total of six major commercial airlines and several commuter airlines operate throughout the seven airports. The state also has 78 general aviation airports, many of which can also accommodate corporate jets. [244]

The business climate in Alabama is also very conducive to research and development operations. According to CNBC's 2014 Top States for Business, Alabama has the fourth lowest cost of doing business and seventh lowest cost of living in the United States. [245]

KEY ALABAMA LOCATIONS
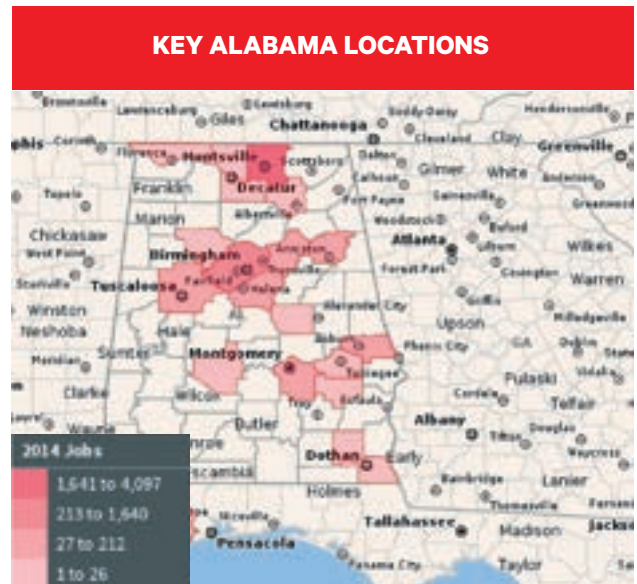
Economic Development Drivers

Three economic development drivers were identified during the development of the Accelerate Alabama plan, which will continue to be the focus in the update of that plan, Accelerate Alabama 2.0. Those economic development drivers are as follows:

RECRUITMENT

Programs that focus on the attraction of new business and industry.

RETENTION

Programs that focus on the retention and expansion of existing business and industry.

RENEWAL

Programs that focus on job creation through innovation, entrepreneurship, research and development, and commercialization.
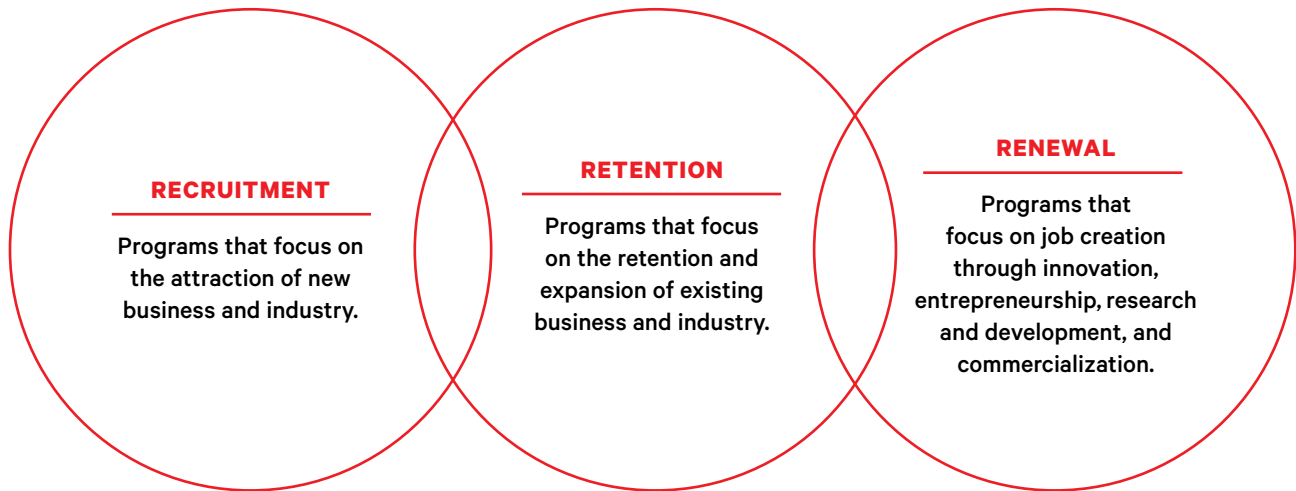
The State of Alabama has had much success in the past three years in the Recruitment and Retention arena, with more than 75,000 announced jobs and $20.2 billion in capital investment from 2012 to 2015. [246] These announcements included expansions and new locations from across the spectrum of the targeted business sectors identified in 2012 and updated and refined as part of Accelerate Alabama 2.0. These successes also included the announcement in July 2012 that Airbus would construct a $600 million aircraft assembly plant in Mobile, creating 1,000 new jobs, as well as more recent announcements by Boeing, the largest aerospace company in the state, that it would create a Research & Technology Center in Huntsville; by Evonik Corp., which announced plans to open its first Innovation Center for R&D of medical devices and technology at its Birmingham facility; by Toyota Motor Manufacturing of Alabama, who announced the investment of $150 million to increase its capacity at its Huntsville facility; by Baxter International, which is investing nearly $300 million to expand its plant in Opelika; GE Aviation, which decided to launch a 3-D printing initiative at its Auburn plant, involving an investment of $125 million and 300 new jobs; Remington Outdoor Company, the nation's oldest firearms manufacturer, which announced establishment of a new production site in Huntsville, creating 2,000 new jobs; and many others. [247]

During this time, the State of Alabama also launched its "Made in Alabama" campaign in 2013 through the Alabama Department of Commerce, with the goal to reach more people in the business community, sharing successes and encouraging them to locate in the state. Efforts included the launch of the new Made in Alabama website, use of earned media and social media, as well as other marketing efforts.

Other successes in the recruitment arena include the increase in the number of certified AdvantageSites during the last three years, as well as the passage of the Data Center Incentive; passage of Amendment 2, resulting in $130 million in the Capital Improvement Trust Fund; and a significant portion of the Accelerate Alabama Jobs Incentives Package, which includes a withholding incentive.

Also in the area of Retention, related to workforce systems alignment, the Alabama State Department of Education (ALSDE) and the Alabama Community College System (ACCS) have engaged in further collaboration, and there has also been an alignment of K-12 programs and Regional Workforce Development Councils during the past three years. There has also been a formal alignment of workforce services with ACCS under the umbrella of the Alabama Workforce Training System (AWTS), and AWTS continues to focus on existing industry coordination. There were other programs implemented over the past three years related to training programs for Existing Business and Industry (TEBI) staff, a marketing campaign by ACCS, and other initiatives by ALSDE.

In the area of Renewal, the Alabama Launchpad Start-up Competition continued and resulted in increased investment in companies; the Alabama Launchpad Innovation and Entrepreneurship Conference continued to be held each year; and the Alabama Innovation Fund continues to be funded.

In order to continue to successfully compete for the jobs of the future in each of the updated and refined targeted business sectors, the State of Alabama must persist in diversifying its economic development efforts through a balanced emphasis on recruitment, retention and renewal. The recommendations or accelerators below are organized within the context of the three economic drivers, but most will require collaborative efforts across the full spectrum of Alabama's economic development leadership and partners.

Below is a master list of acronyms of the organizations referenced in this section:

Alabama Community College System	ACCS
Alabama Department of Economic & Community Affairs	ADECA
Alabama Department of Commerce	DCOM
Alabama Experimental Program to Stimulate Competitive Research	ALEPSCoR
Alabama Industrial Development Training	AIDT
Alabama Research Alliance	ARA
Alabama State Department of Education	ALSDE
Economic Development Association of Alabama	EDAA
Economic Development Organizations	EDOs
Economic Development Partnership	EDPA

Economic Development Driver: Recruitment

OVERVIEW OF ACCELERATORS

1. Create a One-stop shop for economic development in Alabama

2. Increase DCOM capabilities in business intelligence activities

3. Build equity in the Made In Alabama brand among both internal and external audiences

4. Ensure workforce skills are aligned with refined targeted business sectors

5. Ensure sites and infrastructure are available to meet the needs of the refined targeted business sectors

6. Align Alabama tax policy and financial assistance programs with refined targets

7. Continue proactive lead generation efforts

8. Increase focus on the film/entertainment sector

9. Understand sustainable assets and plan for the future

ACCELERATOR

CREATE A ONE-STOP SHOP FOR ECONOMIC DEVELOPMENT IN ALABAMA

GOAL/OBJECTIVE

Ensure the economic development fuctions in Alabama are fully aligned at the state level and, therefore, most effective.

TACTICS | TIMELINE: 2016-2018

• Compare and analyze structure, staffing and funding of the Alabama Department of Commerce (DCOM) and its partners to other competing state EDOs. Focus on ways to eliminate redundancies, increase efficiencies, and maximize resources of DCOM to result in a more clearly aligned economic development function.

• Coordinate with strategic partners to ensure economic development success for the state now and in the future.

• Address DCOM funding and staffing needs based on the outcome of this research.

FUNDING	METRICS	RESPONSIBLE PARTIES
State Federal	Elimination of redundancies Increasing efficiences Maximization of resources	DCOM EDPA

ACCELERATOR

INCREASE DCOM CAPABILITIES IN BUSINESS INTELLIGENCE ACTIVITIES

GOAL/OBJECTIVE

Ensure DCOM employees have access to the best data tools possible.

TACTICS | TIMELINE: 2016-2018

• Explore option of incorporating a business intelligence process into the DCOM function that interfaces with EDPA, and explore and evaluate coordination of the business intelligence function with other partners.

• Pursue adequate funding for staffing the business intelligence interface at DCOM.

- Consider purchasing access to adequate databases for lead development activities of project managers and that would meet other resource needs.

- Conduct sector analysis in partnership with EDPA of refined target business sectors on an annual basis, identifying growth patterns, new trends, and other relevant information. This data should be updated on the target profiles on the Made in Alabama website.

FUNDING	METRICS	RESPONSIBLE PARTIES
TBD	Assistance provided to DCOM employees	DCOM EDPA

ACCELERATOR

BUILD EQUITY IN THE MADE IN ALABAMA BRAND AMONG BOTH INTERNAL AND EXTERNAL AUDIENCES.

GOAL/OBJECTIVE

Enhance the perception of Alabama as a business location to create greater wealth in the state.

TACTICS | TIMELINE: 2016-2019

- Provide information about the findings and recommendations of Accelerate Alabama 2.0 among key internal allies and stakeholders through group presentations, newsletter stories, and postings on the Made in Alabama website.

- Utilize the rollout of Accelerate Alabama 2.0 to promote Made in Alabama social media accounts among in-state stakeholders in order to increase the use of these accounts.

- Develop an advertorial about Accelerate Alabama 2.0 for publication in the monthly purchased space in Business Alabama.

- Prepare a talking points document for DCOM

staff to use in talking with in-state stakeholders about the findings and recommendations of Accelerate Alabama 2.0.

- Develop a focused marketing program to promote the new incentive package approved in the 2015 legislative session, along with any other policy changes impacting Alabama's competitiveness.

- The Alabama Secretary of Commerce should host one-on-one meetings with site location consultants and prospects in key geographic markets tailored to the interest of that individual that will focus on introduction to the new incentives package in Alabama.

- Host a series of luncheons or dinners for site location consultants, existing businesses and prospects in key geographic markets, including New York, Chicago and the Bay Area. The event should be built around the Made in Alabama brand, featuring an Alabama farm-to-table meal, an Alabama craft gift, and other ties to the brand. An introduction to the new incentives package should also be included in the discussion.

- Expand the reach of the Made in Alabama brand across all sectors and all components of economic development success. This would include messages about how the workforce, infrastructure, supply chain, and innovation are all Made in Alabama. Include these topics in social media strategies.

- Encourage economic development partner entities throughout the state to utilize the Made in Alabama brand. For example, when Alabama universities are advertising outside the state in markets such as Atlanta, Dallas and Miami, the Made in Alabama concept could be the message about how graduates are Made in Alabama.

- Utilize existing social media channels to promote economic development success stories and, when appropriate, tag key organizations and sectors in social media posts to extend their reach.

- Rebrand the DCOM Facebook page to Made in Alabama in order to ensure consistency with the website domain and Twitter handle, as well as further building equity in the brand.

- Reactivate the DCOM YouTube channel to feature

videos about success stories and testimonials of companies within the identified targeted sectors. Also, rebrand the channel to Made in Alabama.

- Develop concentrated social media strategies around key targeted sector events and initiatives to include promoted posts, unique messaging, and strategic hashtags to ensure decision makers in the sectors are receiving the information.

- On an annual basis, determine which events, trade and industry shows, and other forums in each targeted business sector provide the best opportunities to reach the right contacts.

- Explore creation of an organization similar to the Georgia Allies focused on marketing and promotion of the state that will be a pay-to-play structure. DCOM and EDPA should collaborate on the formation of this organization.

FUNDING	METRICS	RESPONSIBLE PARTIES
State appropriations Private partnerships	Increases in social media followers Attendance at events Expansion of use of Made in Alabama brand	DCOM EDPA Alabama Marketing Allies

ACCELERATOR

ENSURE WORKFORCE SKILLS ARE ALIGNED WITH REFINED TARGETED BUSINESS SECTORS.

GOAL/OBJECTIVE

To be recognized as a state with a skilled workforce that can meet the needs of business and industry long and short term.

TACTICS | TIMELINE: 2016-2018

- The non-academic workforce resources from ACCS and ADECA should be streamlined as programs at DCOM to meet the needs of future prospects and existing Alabama companies.

- The 2010 Standard Occupational Classification (SOC) system is used by Federal statistical agencies to classify workers into 840 different occupational categories. Identify SOCs related to the refined targeted business sectors and analyze data related to completions, openings and growth in each to determine current and future demand.

- Have a targeted focus on meeting the needs of the Information Technology sector, in which Software Developers is one of the top 20 fastest growing, top 40 high-demand and top 50 high-earning occupations in the State of Alabama, based on the State of the Workforce Report VIII: Alabama released in March 2014.

- Continually assess curriculum and programs at two- and four-year institutions to determine alignment with targeted business sectors.

- Update the identified strengths of curriculum and programs that can be used in marketing/recruiting to the refined targeted business sectors, as well as gaps that the state can begin to address.

- Develop additional programs at the high school, two-year and four-year institution levels to produce qualified workers with skills that may be in urgent demand within the targeted business sectors.

FUNDING	METRICS	RESPONSIBLE PARTIES
State appropriations	Survey feedback from companies that locate/expand operations in the state	Governor/DCOM
ACCS workforce funds		ADECA
ADECA workforce funds		ALSDE
ALSDE (K-12) technical education funds	Tracking number of "open" positions for various skilled positions	EDPA
		ACCS
	Tracking length of time various skilled positions remain "open"	Four- and Two-Year Institutions
	Tracking percent of skilled positions filled from out of state	

ACCELERATOR

ENSURE SITES AND INFRASTRUCTURE ARE AVAILABLE TO MEET THE NEEDS OF THE REFINED TARGETED BUSINESS SECTORS.

GOAL/OBJECTIVE

Confirm Alabama has sufficient and geographically diverse sites that meet anticipated infrastructure requirements.

TACTICS | TIMELINE: 2016-2018

- DCOM should partner with the primary utility companies, EDPA, and local EDOs to conduct an assessment of all available sites/buildings, including identification of any challenges that need to be addressed, and develop a plan to address any issues.

- Commit to identify a certain number of sites each year in rural areas with the focus on meeting the potential site requirements of the refined targeted business sectors that are more likely to consider locating in such areas.

- Generate a map of all marketable sites that can be used to identify product gaps in different areas of the state where assistance with site

identification and advancement may be needed.

- Encourage and pursue AdvantageSite designations for sites that best meet product gaps and meet the potential criteria of the refined targeted business sectors.

- Re-evaluate AdvantageSite designation criteria to ensure that all sites certified under the program are marketable to prospects.

- Assess transportation (roads, water, rail, and air) and community infrastructure (water, sewer, and telecom/broadband) needs, focusing on rural or underserved regions.

- Ensure that rural communities are aware of and utilize the new Accelerate Rural Alabama Fund, which allows SIDA to make loans to rural entities of up to $2 million for funding site preparation and other expenses associated with projects creating jobs in a rural area.

FUNDING	METRICS	RESPONSIBLE PARTIES
Local Partners	Increase in number of Alabama AdvantageSites	AdvantageSite Committee
Federal		ADECA
Local	Increase in number of 50-100-acre sites that are "prospect ready" in all parts of the state	DCOM
Utilities		EDPA
		Utilities
	Increase in number on 100-500-acre sites that are "prospect ready" in all parts of the state	Local EDOs
	Number of improvements in transportation and community infrastructure in rural arease	
	Amount loaned through the Accelerate Rural Alabama Fund each year	

ALIGN ALABAMA TAX POLICY AND FINANCIAL ASSISTANCE PROGRAMS WITH REFINED TARGETS.

GOAL/OBJECTIVE

Ensure that all target sectors meet the requirements of Alabama tax policies and financial assistance programs.

TACTICS | TIMELINE: 2017-2018

- Assess any new or existing corporate tax laws or financial assistance programs that may be inhibiting to companies seeking to locate that are in the targeted business sectors, and seek changes to such laws in the next legislative session.

- Each year, conduct an analysis of the use and value of the new incentives under the Made in Alabama Jobs and Incentives Package and prepare a summary report at the end of the three-year period outlining the success of the incentives, as well as identifying any potential gaps.

FUNDING	METRICS	RESPONSIBLE PARTIES
Legislative Appropriation Other TBD	New incentives or tax law changes approved by legislatures to support recruitment and expansion of business in the state	Governor DCOM ADECA Alabama Allies Alabama State Legislature EDAA
	Increase in job creation over the next three years	
	Increase in capital investment over the next three years	

CONTINUE PROACTIVE LEAD GENERATION EFFORTS.

GOAL/OBJECTIVE

Increase the number of investment inquiries, project leads, projects and locations in refined targeted business sectors.

TACTICS | TIMELINE: 2016-2018

- **Additive Manufacturing/3-D Printing**

  -Focus on potential opportunities in Additive Manufacturing, or 3-D Printing, by becoming more involved in the Consortium for Industrialized Additive Manufacturing, which will focus on identifying and addressing the barriers to high-volume additive manufacturing.

  -Focus on division expansions of existing operations into 3-D printing.

  -Explore the potential opportunity of attracting manufacturers of 3-D printer materials and production systems.

- **Cybersecurity**

  -Examine the number of start-up companies, as well as established companies, focused on cybersecurity, and determine ways to provide support to further develop those companies in the State of Alabama.

  -Develop a targeted lead generation effort on companies on the Cybersecurity 500 List, which is updated quarterly, focused on companies located in more expensive markets such as California and New York.

- **General (Across all Targeted Business Sectors)**

  -For established sectors in the State of Alabama, such as Automotive, pursue the foundational targets for the existing companies that have a strong base in the state. For example, pursue the R&D and Data Center operations for some of the automotive OEMS and larger suppliers.

-Pursue eminent scholars that sectors such as the automotive, aerospace/aviation and bioscience sectors would need in a joint initiative by and among DCOM, Alabama universities that conduct research, and corporate and other partners, such as HudsonAlpha.

-With the existing base and continued success with the attraction of international companies, continue to focus on foreign direct investment.

-Continue to develop a process for gathering and incorporating existing industry input regarding supply chain in the marketing effort.

FUNDING	METRICS	RESPONSIBLE PARTIES
TBD	Number of investment inquiries (to be defined) Number of project leads (to be defined) Number of active projects (to be defined) Number of established projects (jobs, capital investment and wages) - Determine baseline and increase percentage	Governor DCOM ADECA Alabama Marketing Allies EDPA Local EDOs

- Conduct an economic impact study of the film/entertainment industry in the State of Alabama.

- Determine ways to capitalize on the film industry success in Georgia, including, but not limited to, the infrastructure, workforce talent, educational programs and other areas.

- Integrate Alabama Film Office website into Made in Alabama website.

- Alabama should consider expanding its existing Entertainment Incentive or passing new legislation to include digital media and software development, as IT is one of the targeted business opportunities.

FUNDING	METRICS	RESPONSIBLE PARTIES
Legislative appropriation	New legislation to support the Entertainment Industry New educational programs to support the Entertainment Industry Total expenditures by entertainment productions in the state	DCOM/Alabama Film Office ADECA Alabama State Legislature Four- and Two-Year Institutions

ACCELERATOR

INCREASE FOCUS ON THE FILM/ENTERTAINMENT SECTOR.

GOAL/OBJECTIVE

Understand and capitalize on the film/entertainment/digital media sector.

UNDERSTAND SUSTAINABLE ASSETS AND PLAN FOR THE FUTURE.

GOAL/OBJECTIVE

Gain awareness and understanding of sustainability efforts in the state to be prepared for certain prospects.

TACTICS | TIMELINE: 2016-2018

- Review and gain an understanding of sustainability efforts in other competitive states.

- Complete inventory of sustainability efforts in the State of Alabama at both the public and private level.

- Ensure that state project managers receive training to have an understanding of the sustainable efforts in the state and how to respond to related questions on Request for Information (RFI)/Request for Proposals (RFP).

- Ensure that local EDOs are aware of key messages to utilize in responding to RFIs/RFPs issued by prospects.

- Promote sustainable assets, including at the higher education and community level, as well as companies practicing sustainability, such as Toyota, in marketing efforts. The Toyota Engine plant in Huntsville has won at least 11 consecutive Energy Star Partner of the Year Awards, which is more than any other automaker. Toyota has saved nearly $600 million, reduced 14 billion kilowatt hours of energy, and cut CO2 emissions by 40 percent per vehicle since benchmarking began in 2002. [248]

- Develop Sustainable Plan to guide future efforts.

FUNDING	METRICS	RESPONSIBLE PARTIES
Legislative appropriation	Complete Sustainable Inventory Complete Sustainable Plan	DCOM Local EDO's Four- and Two-Year Universities

Economic Development Driver: Retention

OVERVIEW OF ACCELERATORS

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1. Ensure workforce skills are aligned with existing business and industry

2. Provide support for BR&E activities at the local level

3. Understand resources and financial assistance for retention projects

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ACCELERATOR

ENSURE WORKFORCE SKILLS ARE ALIGNED WITH EXISTING BUSINESS AND INDUSTRY.

GOAL/OBJECTIVE

Meet the needs of existing business and industry by providing a trained and skilled workforce.

TACTICS | TIMELINE: 2015-2018

- Further alignment of all workforce preparedness and education processes.

- Continue to improve interconnectivity between universities and economic development leadership.

- Create an accessible and searchable database for higher education degrees/programs/graduates.

- Continue to use available data/information and existing industry input to assess current workforce needs.

- Identify skill sets and job classifications that are in greatest demand, as well as any gaps.

- Continually assess curriculum and programs

at two- and four-year institutions to determine alignment with existing business/industry.

- Develop additional programs at the high school and two-year and four-year institution levels to produce qualified workers with skills that are in urgent demand with existing business/industry.

- Explore ways to retain, attract and engage young Alabamians through the creation of a Generation Alabama Commission that is comprised of individuals 35 and younger.

- Develop and implement strategies that direct student career interests toward appropriate programs within K-12, two-year colleges and four-year universities that are aligned with jobs being created across the state.

FUNDING	METRICS	RESPONSIBLE PARTIES
State appropriations	Survey feedback from existing business/industry	Governor/DCOM
ACCS workforce dollars	Tracking number of "open" positions for various skilled positions	ADECA
ADECA workforce dollars	Tracking length of time various skilled positions remain "open"	ALSDE
ALSDE (K-12) technical education dollars	Tracking percent of skilled positions filled from out of state	EDPA
		ACCS
		Four- and Two-Year Universities

ACCELERATOR

PROVIDE SUPPORT FOR BUSINESS RETENTON & EXPANSION (BR&E) ACTIVITIES AT THE LOCAL LEVEL.

GOAL/OBJECTIVE

Develop guidelines for BR&E activities in the State of Alabama in order to encourage consistency and effectiveness throughout the state.

TACTICS | TIMELINE: 2016-2018

- Establish a BR&E Committee comprised of DCOM representatives, EDAA members and business representatives drawn from the different regions of the state, as well as representatives from higher education and utility partners, to develop guidelines of a consistent approach to BR&E to be implemented at the local level.

- Include the use of higher education resources in the BR&E process, as needed, to work with local businesses to identify workforce and training needs, and ensure that such needs are addressed.

- Include the use of utility partners in the BR&E process, as needed, to work with local businesses to identify utility infrastructure needs and issues, and ensure that such needs/issues are addressed.

- Once the guidelines are developed and approved by the Committee, develop a plan to present the new guidelines at the next EDAA annual meeting.

- Utilize the Made in Alabama website, as well as the various social media outlets that are currently used by DCOM, to further ensure that all local EDOs in the state are informed of the new BR&E guidelines.

FUNDING	METRICS	RESPONSIBLE PARTIES
DCOM	Number of communities who implement BR&E guidelines	DCOM
EDPA		EDPA
Utility Partners		Utility Partners
		Four- and Two-Year Institutions

ACCELERATOR

UNDERSTAND RESOURCES AND FINANCIAL ASSISTANCE FOR RETENTION PROJECTS.

GOAL/OBJECTIVE

Ensure that existing business and industry have the resources and/or financial assistance needed to retain jobs long term.

TACTICS | TIMELINE: 2016-2018

- Evaluate the level of financial assistance available to existing business and industry to retain jobs versus creating new jobs based on a review of new and existing Alabama incentives.

- Ensure that competitive programs are available for the retention of jobs in Alabama.

- As part of the promotion of the new incentive package approved in the 2015 legislative session, ensure that local EDOs have an understanding of which new and existing incentives can be used for the retention of business/industry.

FUNDING	METRICS	RESPONSIBLE PARTIES
TBD	TBD	DCOM
		ADECA
		EDAA
		EDPA
		Utility Partners

Economic Development Driver: Renewal

OVERVIEW OF ACCELERATORS

1. Create a renewal statewide standing committee

2. Provide access to resources and information in the area of renewal

3. Continue to build research and development capacity in the state of Alabama

4. Continue to work to coordinate and increase commercialization efforts

5. Provide financial assistance for innovation-based activities

6. Foster entreprenuership and innovation

ACCELERATOR

CREATE A RENEWAL STATEWIDE STANDING COMMITTEE.

GOAL/OBJECTIVE

Create a Statewide Standing Committee to implement the *Renewal* component of Accelerate Alabama 2.0.

TACTICS | TIMELINE: 2016-2018

- Identify potential committee members, including ALEPSCoR and Economic Development at Alabama Universities, Southern Research and HudsonAlpha, representatives from the Economic Development Partnership of Alabama Foundation, and individuals from industry and government to be appointed by the Alabama Secretary of Commerce.

- Select Renewal Statewide Standing Committee members.

- Define roles and responsibilities of Committee members.

- Contact nominees to offer Committee Renewal role and finalize Committee membership.

- Schedule and conduct launch meeting of Committee.

FUNDING	METRICS	RESPONSIBLE PARTIES
TBD	Creation of the Renewal Statewide Standing Committee Renewal tactics accomplished	DCOM ALEPSCoR Southern Research HudsonAlpha EDPA Foundation

ACCELERATOR

PROVIDE ACCESS TO RESOURCES AND INFORMATION IN THE AREA OF RENEWAL.

GOAL/OBJECTIVE

Ensure local EDOs and others have access to information on R&D, commercialization activities, and entrepreneurial support available at Alabama universities and other organizations in the state.

TACTICS | TIMELINE: 2016-2017

- Identify all Renewal Allies in the state, which may include the research universities, private research institutions and government facilities, Alabama Launchpad, incubator facilities across the state, the venture capital and angel investor community, and start-up companies.

- Develop a list of universities conducting R&D in the state and publish a list of a point of contact at each university that can provide information on university resources. This list should be posted to the Made in Alabama website, as well as provided electronically to each EDO contact in the state.

- Develop a list of private research institutions in the state, as well as a point of contact for additional information. This information should also be posted to the Made in Alabama website, as well as provided electronically to each EDO contact in the state.

- Further define the roles and responsibilities of each point of contact.

- Develop a digital directory of resources available at each research university, as well as at other research institutions in the state, such as HudsonAlpha. This directory can be accessible from the Made in Alabama website.

- Ensure that these resources are made available to the venture capitalist community in the state, as well.

FUNDING	METRICS	RESPONSIBLE PARTIES
State appropriations	Increase in knowledge of R&D, commercialization activities	DCOM ALEPSCoR Private Research Institutions

ACCELERATOR

CONTINUE TO BUILD RESEARCH AND DEVELOPMENT CAPACITY IN THE STATE OF ALABAMA.

GOAL/OBJECTIVE

Continue to increase research and development capacity at the state's four-year research universities, private research institutions, and government assets.

TACTICS | TIMELINE: 2016-2017

- Have a focused initiative on attracting R&D operations across all targeted business sectors, with an initial focus on the existing automotive, aerospace/aviation, and bioscience companies in the state with the recent successes in 2014.

- Organize a Renewal conference in a major manufacturing region of Alabama to synergize and expand university/industry collaborations. The conference proceedings would lay the foundation for a strategic roadmap for future collaborations and provide a vehicle for communication between industries, universities, and laboratories.

- Link university and private research institutions together around targets and develop coordinated plan to expand capacity.

- Review current R&D funding at research universities and set target funding aspirations for the next three years.

FUNDING	METRICS	RESPONSIBLE PARTIES
State appropriations	Track R&D operations that locate in the state Increase R&D funding at research universities	Governor Legislative Leadership DCOM ACHE ALEPSCoR Private Research Institutions Venture Community

ACCELERATOR

CONTINUE TO WORK TO COORDINATE AND INCREASE COMMERCIALIZATION EFFORTS.

GOAL/OBJECTIVE

Create a statewide, coordinated initiative that results in increased commercialization efforts, including increased venture/angel funding.

TACTICS | TIMELINE: 2016-2017

- Research commercialization is the transformation of new ideas and discoveries into products or processes that will lead to economic development success in a state or region. Efforts in research commercialization across the state

should be catalogued and integrated into an effort with all of the Renewal Allies, as previously defined.

- The Renewal Allies should meet quarterly to discuss ways to coordinate and increase commercialization efforts in the state.

- Research partnerships among research universities and private research institutions should continue to be encouraged.

- Research partnerships among research universities and private corporations should also continue to be encouraged.

- Assess the performance of the various incubator facilities in the state to determine which could most effectively use additional state support.

- Continue to expand the Alabama Launchpad program focusing on increasing its investment in start-up companies each year.

- Develop an Innovation-to-Enterprise Commercialization program at one or more of the research universities, which provides opportunities for students to learn about research commercialization and develop entrepreneurial and business skills.

FUNDING	METRICS	RESPONSIBLE PARTIES
State appropriations	Increase in research partnerships between universities and private institutions Increase in venture capital/angel funding in the state Increased investment in start-ups by the Alabama Launchpad program	Governor DCOM State Legislature EDPA ALEPSCoR Venture Community

PROVIDE FINANCIAL ASSISTANCE FOR INNOVATION-BASED ACTIVITIES.

GOAL/OBJECTIVE

Increase the state's capacity to foster creation of companies from public and privately funded research.

TACTICS | TIMELINE: 2016-2017

- Increase level of funding for the Alabama Innovation Fund to $20 million annually and ensure the funds are distributed competitively in support of R&D that enhances Alabama's economic growth.

Support the following legislation:

- The proposed Small Business Early Stage Investment Act is essentially an Angel Investment Tax Credit that provides a credit of 30 percent of qualified investment made in a business with less than 20 employees that has annual revenues of less than $500,000, if the equity investment is less than $1 million.

- The proposed Accelerate Alabama Innovation Act is an R&D tax credit equal to 5 percent of research expenses incurred in Alabama, which is increased to 25 percent if the research is conducted with an Alabama university, HudsonAlpha, Southern Research, and other similar research institutions in the state.

- Explore the possibility again of creating and funding an SBIR/STTR Matching Grant Program.

- Explore the possibility again of creating and funding an Applied R&D Matching Grant Program to encourage private sector/university research partnerships.

FUNDING	METRICS	RESPONSIBLE PARTIES
State appropriations	Increase in funding under the Alabama Innovation Fund Passage of legislation	DCOM State Legislature EDPA/Alabama Launchpad ALEPSCoR Private Research Institutions Venture/Angel Community

ACCELERATOR

FOSTER ENTREPRENUERSHIP AND INNOVATION.

GOAL/OBJECTIVE

Create an entrepreneurial culture and environment in the State of Alabama.

TACTICS | TIMELINE: 2016-2018

- Rebrand the Alabama Office of Small Business Advocacy to be called the Alabama Office of Entrepreneurship and Innovation at DCOM to enhance the state's existing efforts to help start-up businesses by facilitating connections to the right partners and resources all across the state.

- Add an Entrepreneurship and Innovation section to the Made in Alabama website.

- Develop an Alabama Entrepreneurs Resource List, which will provide a list of entrepreneurs who are available to mentor or provide leadership to early-stage companies or other entrepreneurs based on their experience.

- Encourage development and implementation of entrepreneurship programs in middle and high school.

- Partner with the Center for Rural Entrepreneurship to develop other programs

in Alabama to support small business/entrepreneurs.

- Create a fund, perhaps called the Alabama Rural Innovation Fund, which targets existing small or start-up business with growth potential in Alabama's favored geographic areas for investments ranging from $100,000 to $300,000.

- Seek a top-10 ranking on State Entrepreneurship Index (SEI), which is a measure of a state's ability to grow new enterprises created by economists at the University of Nebraska-Lincoln.

FUNDING	METRICS	RESPONSIBLE PARTIES
State appropriations	Obtaining a top-10 ranking on the State Entrepreneurship Index Increasing number of entrepreneurship programs at the middle and high school levels Passage of a Rural Innovation Fund	EDPA - Alabama Launchpad DCOM Center for Rural Entrepreneurship

ALEPSCoR State Science and Technology Roadmap

Executive Summary

In 2009, the Alabama Research Alliance sponsored the development of the *Alabama Science and Technology Roadmap (2009 Roadmap)*. The update to that Science and Technology (S&T) Plan, the ALEPSCoR State Science and Technology Roadmap (AESSTR), is incorporated into *Accelerate Alabama 2.0* to address support for statewide *Renewal* of industry through the growth of innovation, research, and development activities directly related to the expertise and strength of Alabama's universities and laboratories. This document identifies areas of research expertise across Alabama and maps this expertise to targeted industry clusters in the State. We anticipate that these resources will describe a pathway for utilizing the skills and resources at Alabama's research institutions to achieve the goals of *Accelerate Alabama 2.0*.

This AESSTR plan for *Renewal* is designed to i) make recommendations for enhancing and expanding Alabama's infrastructure and list resources needed to "Accelerate Alabama" and ensure that the state is nationally and internationally competitive; ii) identify current technology expertise and planned focus areas in S&T resident at Alabama universities and institutes as well as map this expertise to potential industry sectors; and iii) provide point of contact information for each Alabama research university, Southern Research and HudsonAlpha Institute for Biotechnology (HudsonAlpha).

The recommendations are:

- **Recommendation #1:** Increase level of funding for the Alabama Innovation Fund to $20 million annually and ensure that funds are distributed competitively in support of R&D that enhances Alabama's economic growth.

- **Recommendation #2:** The Alabama Department of Commerce should charge a Statewide Standing Committee with implementing the *Renewal* component of *Accelerate Alabama*. This Committee would include the Vice Presidents for Research and Economic Development at Alabama universities, Southern Research (SR) and HudsonAlpha, representatives from the Economic Development Partnership of Alabama Foundation, and individuals from industry and government appointed by the Alabama Secretary of Commerce.

- **Recommendation #3:** Organize a *Renewal* conference in a major manufacturing region of Alabama to synergize and expand university/industry collaborations. The conference proceedings would lay the foundation for a strategic roadmap for future collaborations and provide a vehicle for communication between industries, universities, and laboratories.

I. INTRODUCTION

On a national level, the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES) Act was enacted in 2007 and reauthorized in 2010. America COMPETES articulates the need for increased national attention to science, technology, engineering, and mathematics (STEM) education, research, and development. Alabama has long recognized the economic importance of encouraging growth in targeted STEM research areas.

The 2009 *Alabama Science and Technology Roadmap* (2009 Roadmap) provided guidance for leaders in the public and private sector to ensure the growth of a strong science and technology foundation in Alabama. The 2009 Roadmap identified core technology assets in the state and called for enhancing state and private support for "applying core technologies more extensively to promote innovation and global competitiveness of Alabama's key industries, such as automotive, aerospace, healthcare, agriculture, forest products and advanced manufacturing."

The 2009 Roadmap could be used as a companion document to Accelerate Alabama, the state plan later developed that recommended tactics for moving forward on three economic development drivers: *Recruitment* of new business and industry, *Retention* and expansion of existing business and industry and *Renewal* through job creation, innovation and research and development, as well as commercialization.

In coordination and in support of the Accelerate Alabama economic development strategic plan, Alabama EPSCoR (www.ALEPSCoR.org) developed the Alabama EPSCoR State Science and Technology Roadmap (AESSTR). The AESSTR identifies statewide research priorities and areas of research expertise across Alabama's universities and laboratories that provide the targeted economic growth of Accelerate Alabama 2.0. Statewide research priorities identified in the AESSTR are: advanced manufacturing, agricultural/food products, biosciences/biotechnology, chemical/petrochemical, energy, forestry products, information technology and cybersecurity, metal and advanced materials, nanotechnology, plasma science, and transportation. The AESSTR was crafted in consultation with the research leaders of the seven Ph.D. granting institutions in the State, representatives from the Alabama Department of Commerce, the Economic Development Partnership of Alabama (EDPA) and with input from research oriented companies Hudson Alpha Institute for Biotechnology (HudsonAlpha) and Southern Research (SR). This AESSTR plan, formally approved and endorsed by the Alabama EPSCoR Steering Committee on July 21, 2016, will be updated yearly to reflect evolving research priorities and new areas of research expertise.

Education and research organizations contribute directly to economic development efforts and are important for the *Recruitment* of new business and industry. An important element in the *Retention* of industry is research and development in collaboration with existing industries in Alabama. Alabama's efforts toward *Renewal* of industry through the development of innovations and research and development activities are directly related to the expertise and strength of Alabama's universities and laboratories.

The ALEPSCoR State Science and Technology Roadmap is incorporated into *Accelerate Alabama 2.0* and primarily addresses the support for statewide *Renewal*. The S&T segment of *Accelerate Alabama 2.0* identifies the vast areas of expertise across Alabama's research infrastructure and maps expertise to targeted industry sectors in the State. It is anticipated that this information will help describe a pathway for leveraging the skills and resources at Alabama's universities and private and public laboratories to achieve the goals of *Accelerate Alabama 2.0*. This document has two areas of focus:

1. Identification of current technology expertise and planned focus areas in science and technology resident at Alabama universities and research institutes and maps these capabilities to potential industry sectors. In addition, institutional primary points of contact are included, as well as a detailed spreadsheet outlining institutional capabilities and expertise.

2. Recommendations for implementation of the strategies/tactics posed in the 2016 Roadmap for enhancing and expanding Alabama's infrastructure and resources needed for *Accelerate Alabama 2.0* and ensuring that the state is nationally and internationally competitive.

II. RESEARCH EXPERTISE AND CAPABILITIES DATABASE

A critical step in the effort to support *Renewal* in Alabama is the creation of a comprehensive database of current programs in research and technological development underway at research universities and institutions in the state. The AESSTR identifies statewide research priorities and expertise across Alabama's universities and laboratories that provide the targeted economic growth of Accelerate Alabama 2.0. Those statewide research priorities identified in the AESSTR in alphabetical order are:

1. Advanced Manufacturing
2. Agricultural Products/Food Production
3. Biosciences/Biotechnology
4. Chemical/Petrochemical
5. Energy
6. Forestry Products
7. Information Technology and Cybersecurity
8. Metal and Advanced Materials
9. Nanotechnology
10. Plasma Science
11. Transportation

Institutional research expertise in these priority areas is illustrated graphically in the Alabama Expertise Maps with more detail provided in the Alabama Research and Technology Data Base, Appendix I.

a. Alabama Expertise Maps

The maps provided on the following pages graphically describe the targeted industry sectors and expertise for priority research and technology that supports Alabama's industries. The icons reflect the major research emphases at Alabama research institutions. More detailed information on the specific focuses in each area is provided in Appendix I.

Advanced Manufacturing
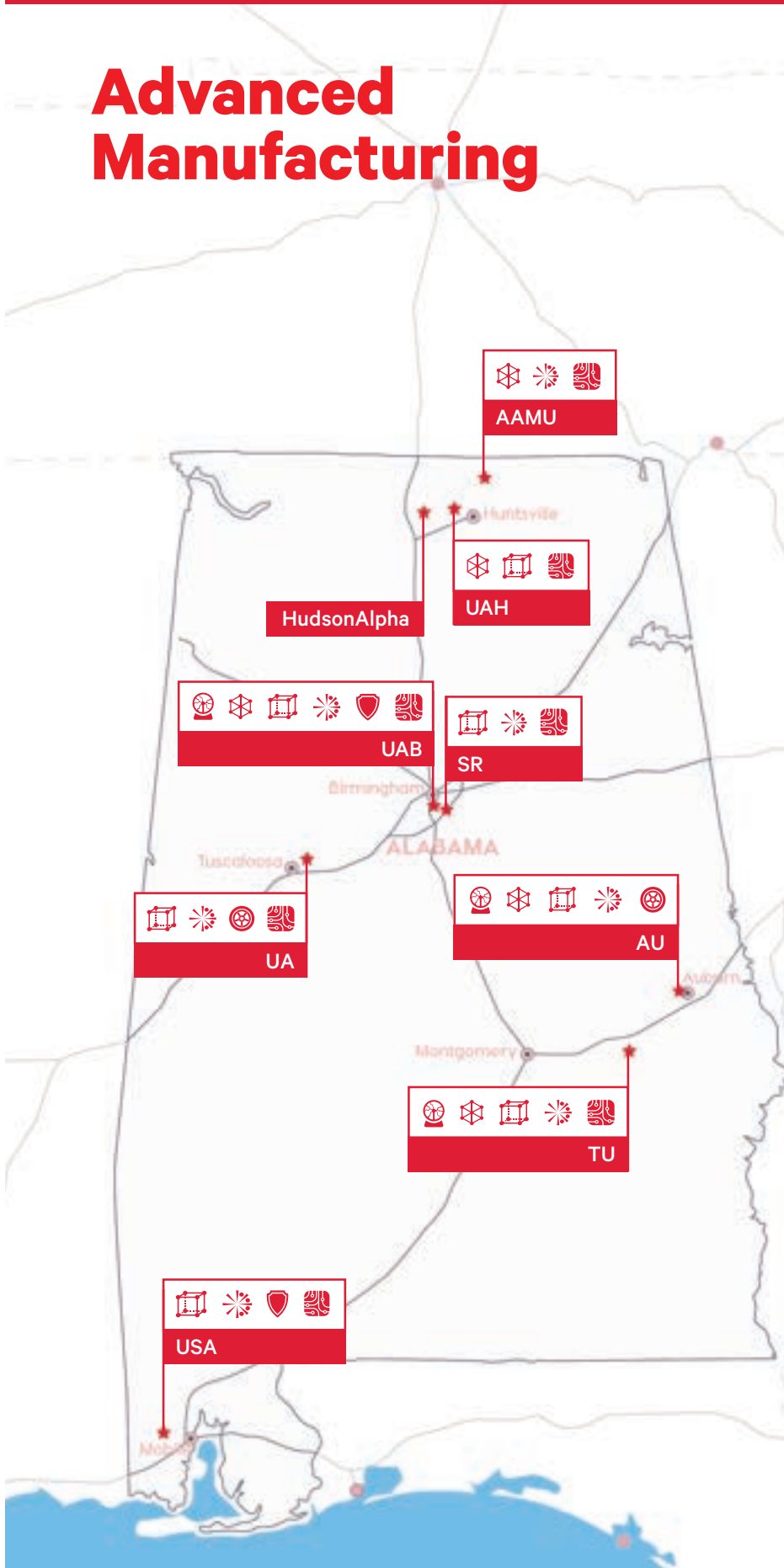
AAMU

HudsonAlpha

UAH

UAB

SR

UA

AU

TU

USA

HudsonAlpha
HudsonAlpha Institute for Biotechnology

AAMU
Alabama A&M University

AU
Auburn University

TU
Tuskegee University

UA
University of Alabama

UAB
University of Alabama at Birmingham

UAH
University of Alabama in Huntsville

USA
University of South Alabama

SR
Southern Research

Modeling & Simulation

Additive Manufacturing

Advanced Materials

Security

Tribology, Wear & Coatings

Systems Engineering

Plasma

Agricultural Products/Food Production
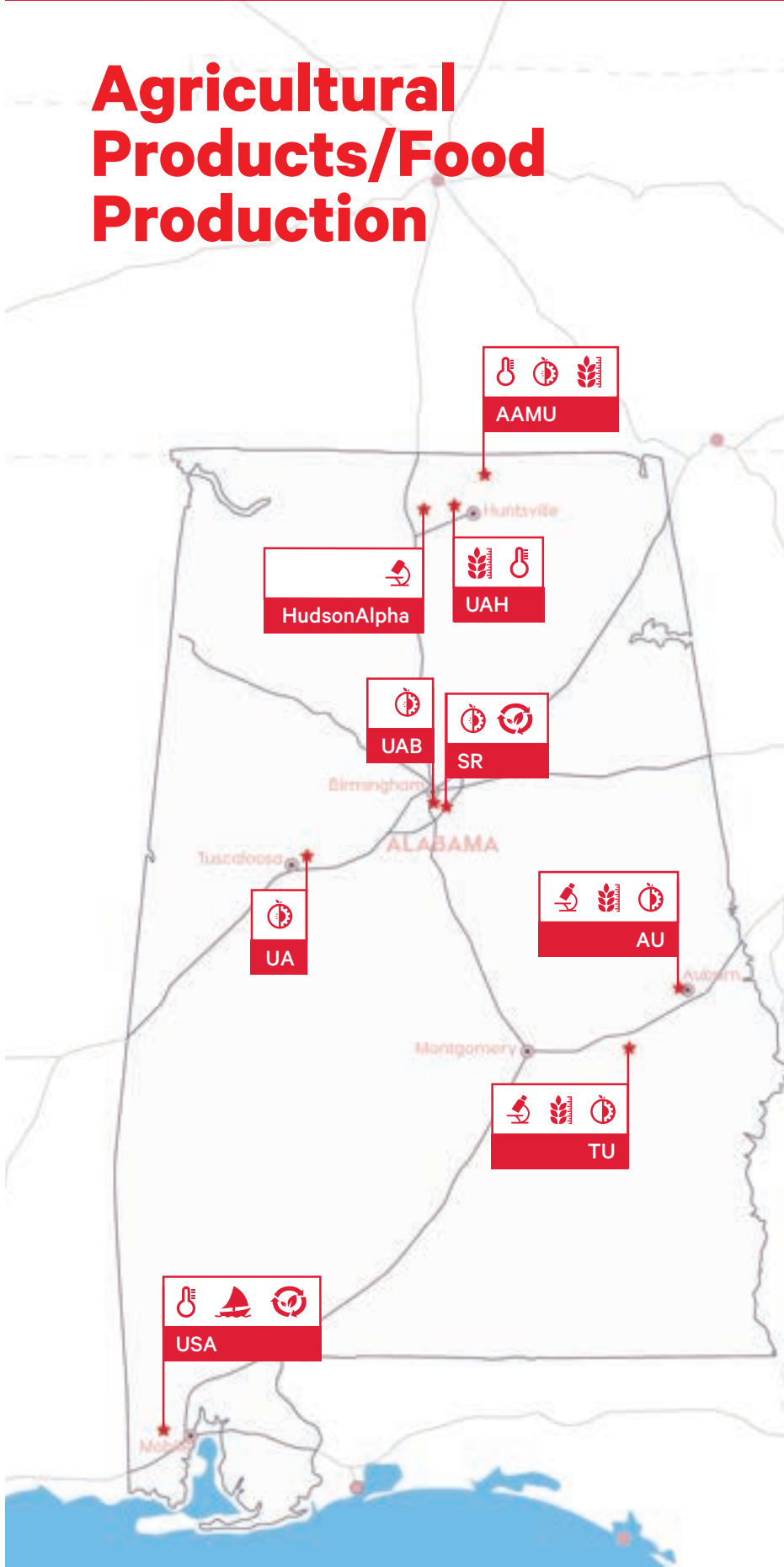
HudsonAlpha
HudsonAlpha Institute for Biotechnology

AAMU
Alabama A&M University

AU
Auburn University

TU
Tuskegee University

UA
University of Alabama

UAB
University of Alabama at Birmingham

UAH
University of Alabama in Huntsville

USA
University of South Alabama

SR
Southern Research

AAMU

HudsonAlpha

UAH

UAB

SR

UA

AU

TU

USA

Genomics & Biotechnology

Precision Agriculture

Modeling - Soil, Climate & Water

Food Processing Nutrition & Packaging

Fisheries & Aquaculture

Agricultural Waste Management

Biosciences/Biotechnology
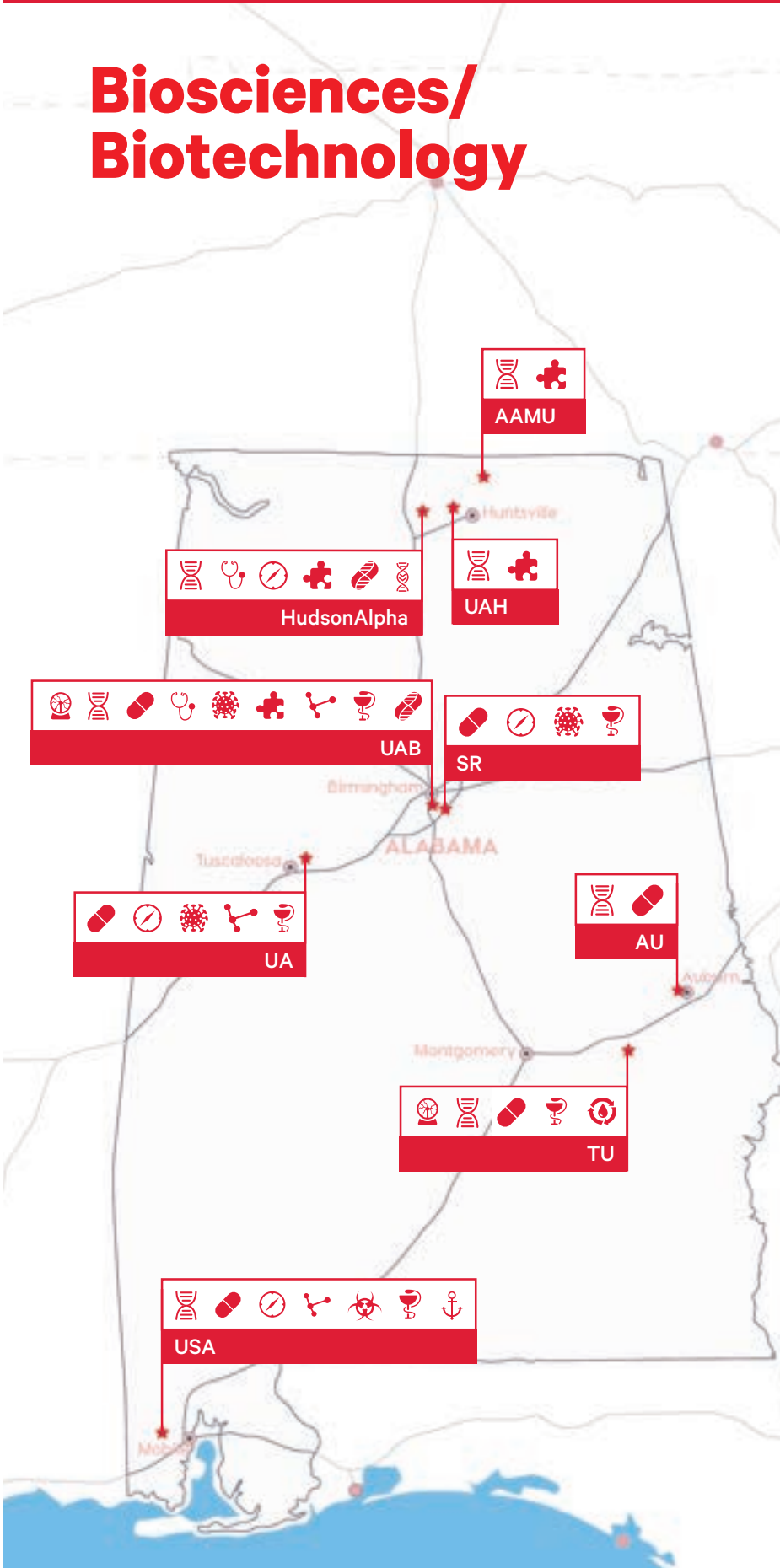
HudsonAlpha
HudsonAlpha Institute for Biotechnology

AAMU
Alabama A&M University

AU
Auburn University

TU
Tuskegee University

UA
University of Alabama

UAB
University of Alabama at Birmingham

UAH
University of Alabama in Huntsville

USA
University of South Alabama

SR
Southern Research

Biomedical Genomics & Informatics

Pharmaceutical Development

Patient Care & Clinical Research

Biomarker Discovery

Disease Models

Systems Biology

Protein Chemistry & Engineering

Remediation & Waste Management

Biomedical Devices & Materials

Marine Pharmacology

Molecular Medicine

Agricultural Genomics & Informatics

Waste Water Treatment

Plasma

Chemical/ Petrochemical
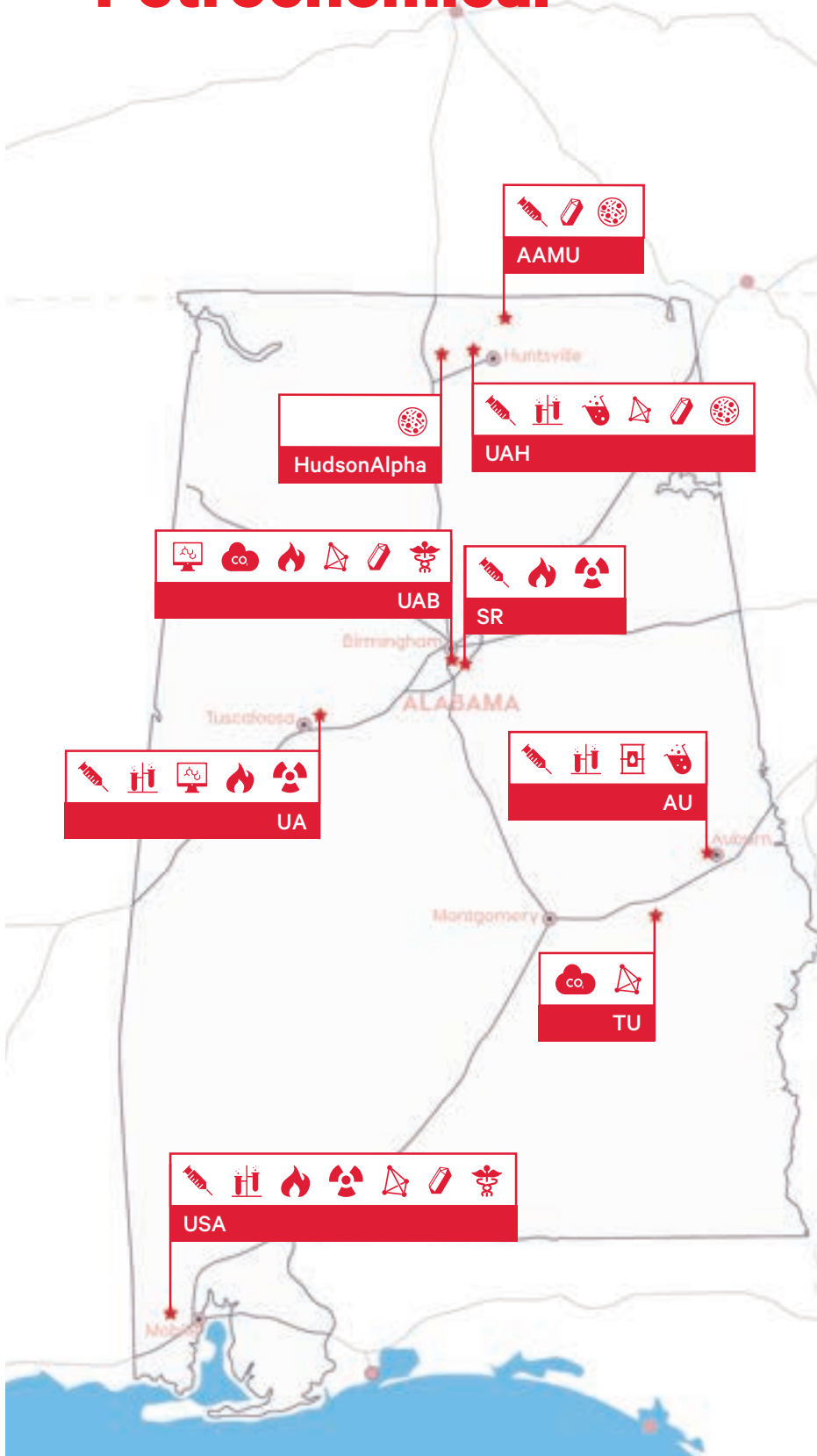
AAMU

HudsonAlpha

UAH

UAB

SR

UA

AU

TU

USA

HudsonAlpha
HudsonAlpha Institute for Biotechnology

AAMU
Alabama A&M University

AU
Auburn University

TU
Tuskegee University

UA
University of Alabama

UAB
University of Alabama at Birmingham

UAH
University of Alabama in Huntsville

USA
University of South Alabama

SR
Southern Research

Analytical Chemistry

Chemical Engineering

Petroleum Remediation & Management

Computational Chemistry

Carbon Sequestration

Catalysis

Environmental Chemistry & Toxicology

Surface Chemistry

Polymer & Material Chemistry

Crystallography

Biochemistry

Medical Chemistry

Energy
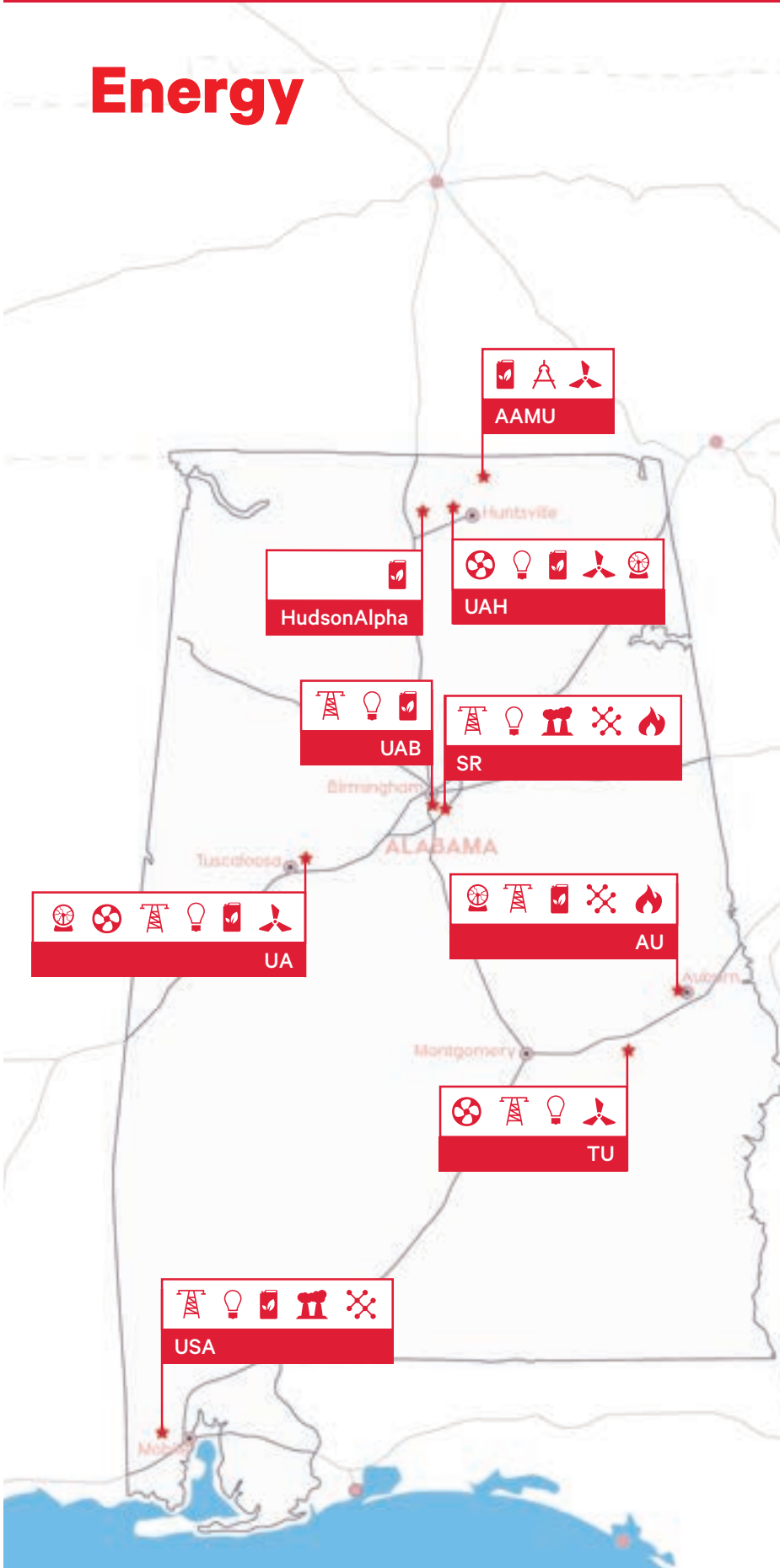
AAMU

HudsonAlpha

UAH

UAB

SR

UA

AU

TU

USA

HudsonAlpha
HudsonAlpha Institute for Biotechnology

AAMU
Alabama A&M University

AU
Auburn University

TU
Tuskegee University

UA
University of Alabama

UAB
University of Alabama at Birmingham

UAH
University of Alabama in Huntsville

USA
University of South Alabama

SR
Southern Research

Propulsion Systems

Power Grid Technology

Energy Storage

Biofuels

Wind & Solar

Pollution Control

Hydrocarbon Energy

Modeling & Engineering

High Temperature Materials

Plasma

Forestry Products
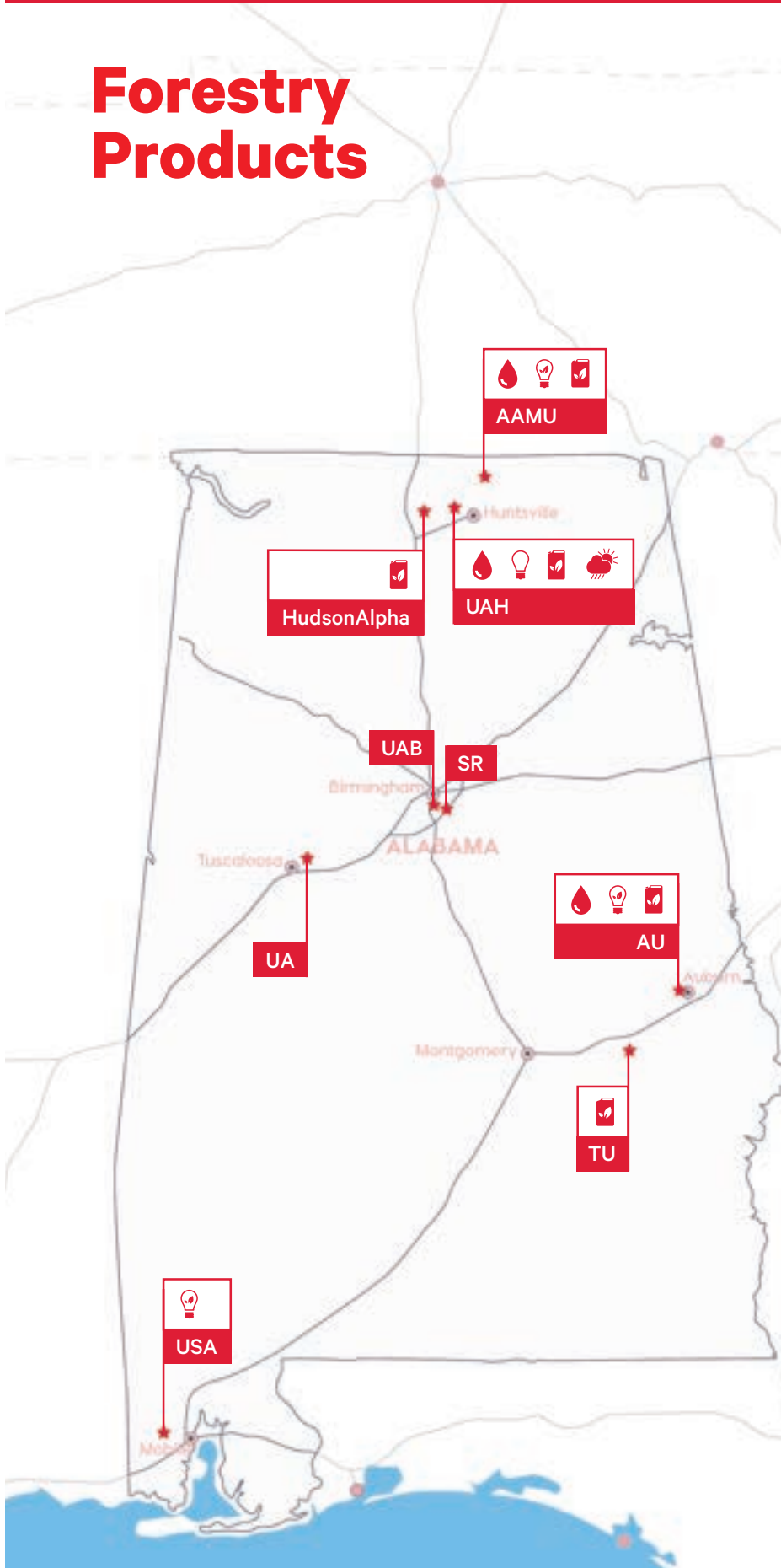
HudsonAlpha
HudsonAlpha Institute for Biotechnology

AAMU
Alabama A&M University

AU
Auburn University

TU
Tuskegee University

UA
University of Alabama

UAB
University of Alabama at Birmingham

UAH
University of Alabama in Huntsville

USA
University of South Alabama

SR
Southern Research

Water Resources

Environmental Health & Modeling

Biofuels & Products

Atmospheric Science

Information Technology & Cybersecurity
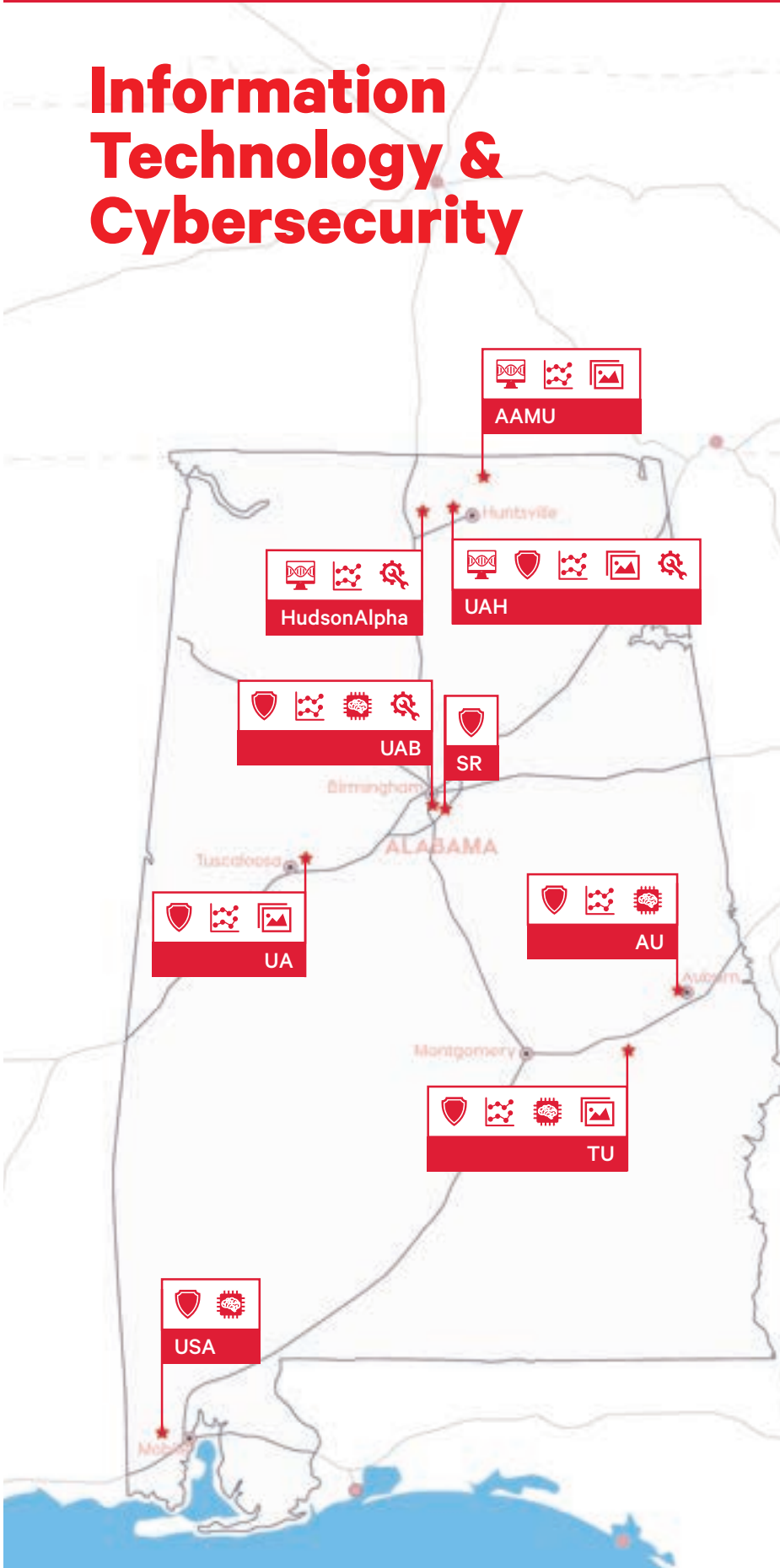
HudsonAlpha
HudsonAlpha Institute for Biotechnology

AAMU
Alabama A&M University

AU
Auburn University

TU
Tuskegee University

UA
University of Alabama

UAB
University of Alabama at Birmingham

UAH
University of Alabama in Huntsville

USA
University of South Alabama

SR
Southern Research

Bioinformatics

Security

Big Data

Artificial Intelligence Machine Learning

Modeling & Image Processing

Software Engineering
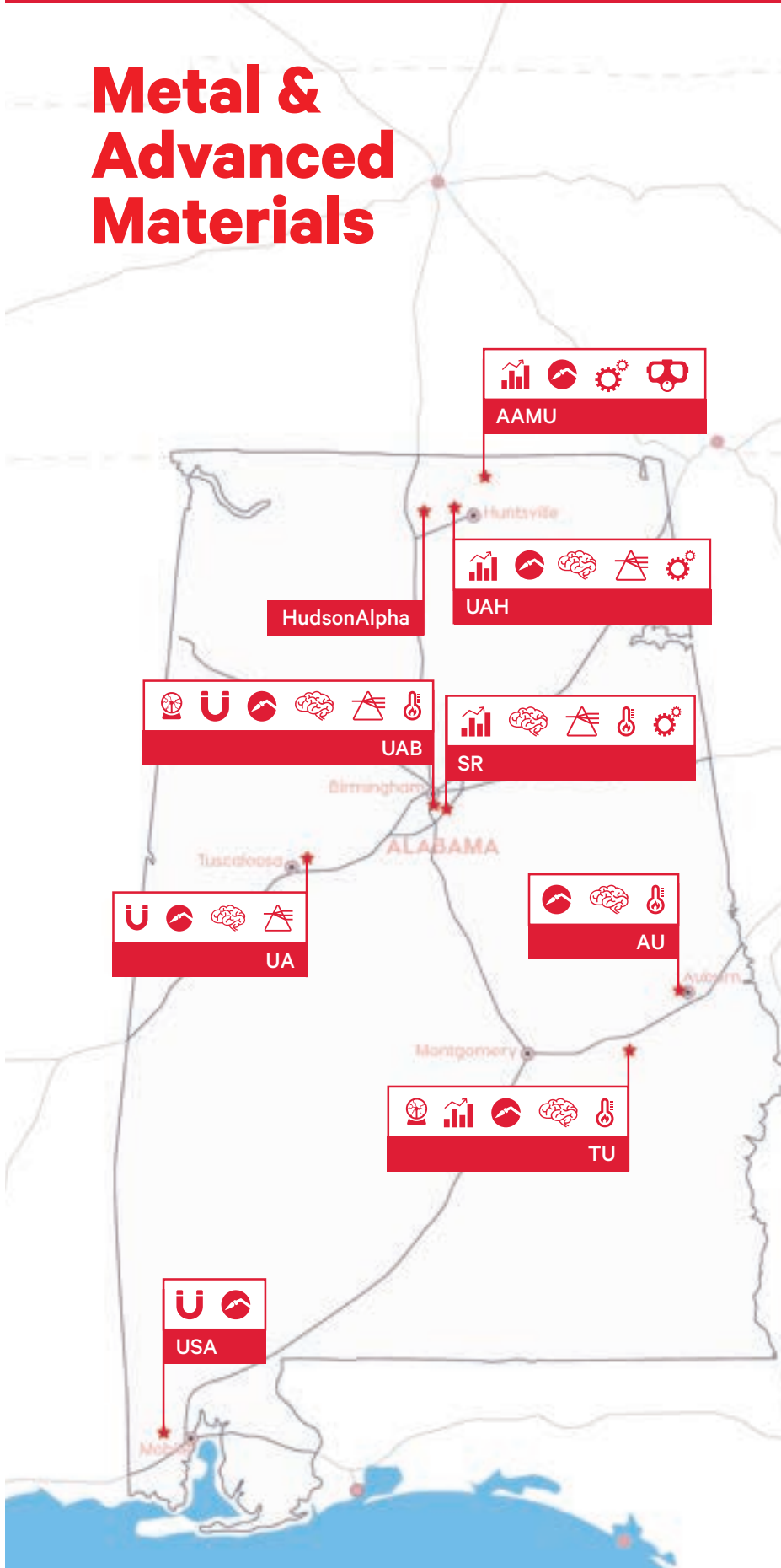
AAMU

HudsonAlpha

UAH

UAB

SR

UA

AU

TU

USA

Metal & Advanced Materials

HudsonAlpha
HudsonAlpha Institute for Biotechnology

AAMU
Alabama A&M University

AU
Auburn University

TU
Tuskegee University

UA
University of Alabama

UAB
University of Alabama at Birmingham

UAH
University of Alabama in Huntsville

USA
University of South Alabama

SR
Southern Research

Chemical Property Analysis & Testing

High Magnetic Materials

Materials Processing & Chemistry

Smart Materials

Electronic & Optical Materials

Extreme Materials

Materials Treatment

Nuclear Material Safety

Plasma
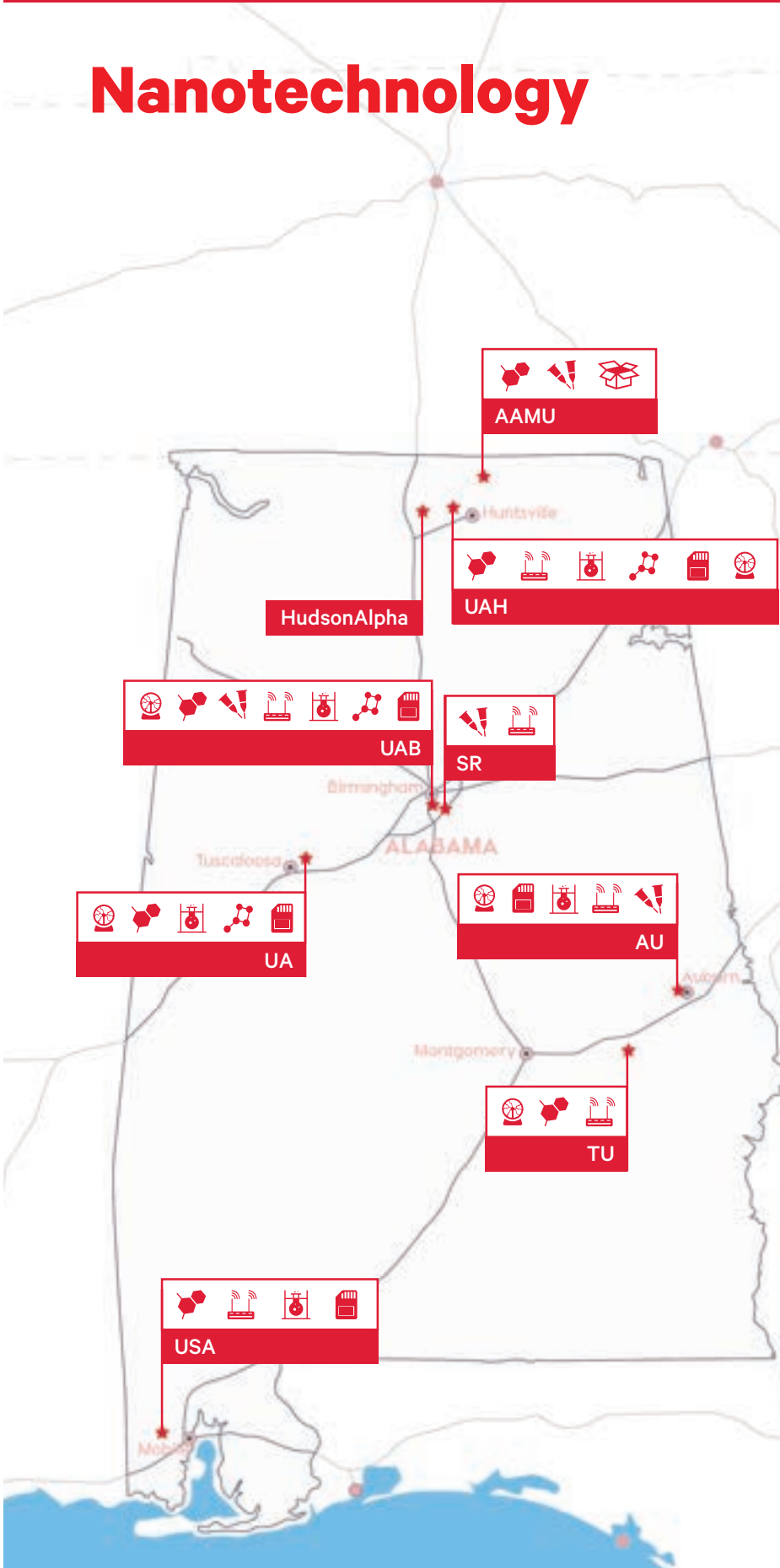
AAMU

HudsonAlpha

UAH

UAB

SR

UA

AU

TU

USA

Nanotechnology

HudsonAlpha
HudsonAlpha Institute for Biotechnology

AAMU
Alabama A&M University

AU
Auburn University

TU
Tuskegee University

UA
University of Alabama

UAB
University of Alabama at Birmingham

UAH
University of Alabama in Huntsville

USA
University of South Alabama

SR
Southern Research

Nano Material Compositer & Fabrication

Therapeutics & Drug Delivery

Food Packaging

Sensor Technology

Nanostructures, Particles & Chemistry

Engineered Nano Effects

Nanoelectronics

Plasma

AAMU

HudsonAlpha

UAH

UAB

SR

UA

AU

TU

USA

Plasma Science

HudsonAlpha
HudsonAlpha Institute for Biotechnology

AAMU
Alabama A&M University

AU
Auburn University

TU
Tuskegee University

UA
University of Alabama

UAB
University of Alabama at Birmingham

UAH
University of Alabama in Huntsville

USA
University of South Alabama

SR
Southern Research

AAMU

UAH

HudsonAlpha

UAB

SR

UA

AU

TU

USA

Nano Material Compositer & Fabrication

Therapeutics & Drug Delivery

Plasma

Sensor Technology

Nanostructures, Particles & Chemistry

Engineered Nano Effects

Nanoelectronics

Transportation
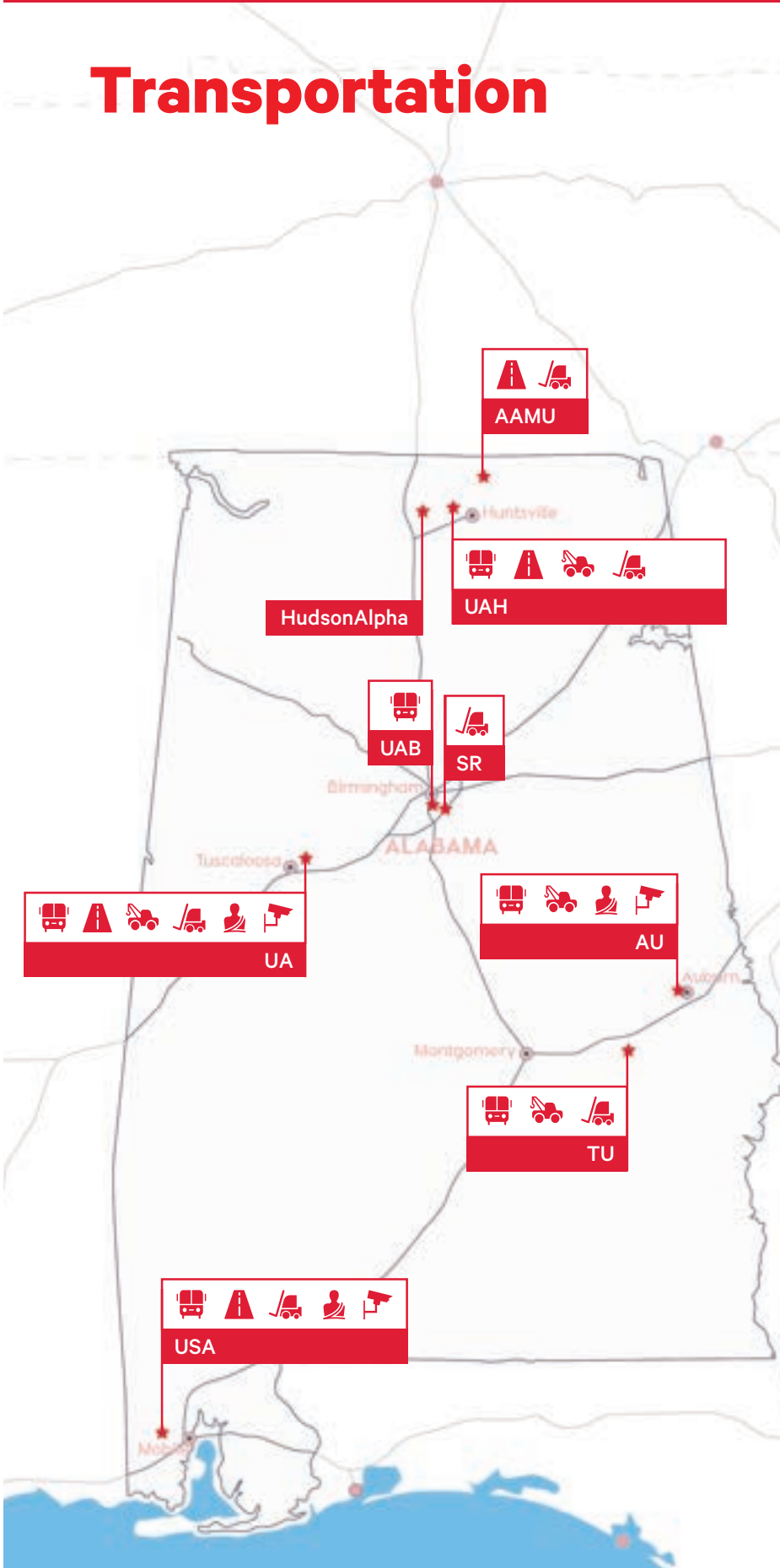
HudsonAlpha
HudsonAlpha Institute for Biotechnology

AAMU
Alabama A&M University

AU
Auburn University

TU
Tuskegee University

UA
University of Alabama

UAB
University of Alabama at Birmingham

UAH
University of Alabama in Huntsville

USA
University of South Alabama

SR
Southern Research

Intelligent Transportation

Traffic Management

Vehicle Development

Transportation Related Engineering

Transportation Safety

Road Technology

AAMU

HudsonAlpha

UAH

UAB

SR

UA

AU

TU

USA

b. Alabama Research and Technology Database

The research expertise and capabilities data collected from the State's major research institutions are summarized in greater detail in Appendix I, in three levels of increasing detail. At the top level, research expertise across the State has been separated into eleven Primary Target categories described previously.

Each of these Primary Target Categories (see first column of Appendix 1) is subdivided into several secondary Sub-Target Categories, each distinguished by a separate color (within the Primary Category). Specific institutional research strengths and capabilities are listed by column according to research institution with each specific capability highlighted in the same color as the Sub-Target Category for the State. As an example, the first Primary Target Category is Agricultural Products/Food Production. The first Sub-Target Category under this Primary Target is Genomics and Biotechnology in yellow, with specific research capabilities listed under HudsonAlpha (third column), Auburn University (fifth column), and Tuskegee University (sixth column).

This Research Capabilities Table will eventually be expanded into an extensive database of major research and development resources for the State. This will include not only expertise, but also physical resources such as, but not limited to, high throughput screening labs for small molecule drug development, resources for additive manufacturing and the manufacture of advanced composites, and facilities to develop high temperature superconductors. This database will facilitate collaboration between and among universities, government labs and businesses in the State, and help minimize duplication of effort. The establishment and updating of this database will be supervised by members of the Alabama EPSCoR Steering Committee and the EDPA Foundation Board working with the Alabama Commerce Department. This group will track the development of new large-scale collaborative projects undertaken in Alabama. The continuing outcome assessment will be essential to determine the <u>effectiveness</u> of this component of the *Renewal* effort.

III. STRATEGIES FOR ENHANCING COLLABORATION

Research institutions throughout Alabama have, from their founding, engaged with their respective communities and regions to address public and private sector challenges. Whether responding to crises like natural and man-made disasters like the BP oil spill in the Gulf of Mexico, addressing societal issues or economic development opportunities, or contributing expertise to a space race that landed a man on the moon, Alabama colleges, universities and research centers have and continue to play a critical role in the state's growth and prosperity.

For more than a century, the talents of higher education faculty and staff have been leveraged to support community development efforts, education, and training. Experts from academia provide technical assistance to targeted populations; support Alabama business recruitment and expansion efforts; conduct industry-sponsored research and development; and make use of business and faculty knowledge to create innovative products that result in commercialization, increased entrepreneurship, and technology transfer.

Given their extensive existing infrastructures and tradition of engagement, Alabama's research institutions are poised to play an ever increasing role in fostering the state's flourishing knowledge-based economy through strategic public/private sector interactions. Groundwork for these interactions is already being laid in research parks, business incubators, and workforce development efforts throughout the State.

Collectively, we are working to build stronger and better-informed collaborative relationships through extensive engagement with economic developers, civic leaders, state agencies, Chambers of Commerce professionals, and other professional organizations across the region with improved economic development outcomes as our goal. The Alabama EPSCoR Steering Committee is one such collaborative organization where the Vice Presidents for Research (VPRs) representing Alabama's seven Ph.D. granting research institutions meet quarterly with Alabama industry leaders from AT&T Alabama, HudsonAlpha, Southern Research, Alabama Power, Boeing Research, and TVA, as well as, leaders from Alabama Commerce Department, the Alabama Commission on Higher Education (ACHE), and the Economic Development Partnership of Alabama (EDPA). The EDPA Foundation Board is another such collaborative organization where many of these same university and government leaders meet quarterly with Alabama industrial leaders.

Alabama's institutions of higher education have maintained continuously positive relationships with their valued external stakeholders and are now poised to explore creative ways to better serve existing partners and identify new ones. Meaningful partnerships and collaborations are currently on-going between Alabama's research institutions and noted partners such as GE Aviation in Auburn, NASA Marshall Space Flight Center and Redstone Arsenal in Huntsville, and the Mercedes, Honda, and Hyundai automotive plants in Tuscaloosa, Lincoln, and Montgomery, and Airbus and Austal in Mobile, to identify a few. We are committed to strengthening external engagement and economic development efforts, and work strategically and intentionally to build the economy of Alabama and the Southeast.

IV. GROWTH OF ALABAMA R&D

As in industry, universities and laboratories chart their future growth areas. Many of the areas in which universities are investing track well with the Renewal innovations and investments needed by Alabama's small to large businesses and industries. As an example, listed below are some of the stated areas in which Alabama institutions are increasing their investments in faculty, instrumentation and facilities. As shown on the capability table (Appendix I) many universities and laboratories have already developed extensive R&D capabilities in multiple sectors and with the added capacity, Alabama will expand its support for economic growth. Some examples are:

- **Additive Manufacturing/3D /4D Printing:** This effort, which could revolutionize low cost, high throughput manufacturing technology for Alabama, has institutional participants including University of Alabama, Auburn University, University of Alabama in Huntsville, University of Alabama at Birmingham, University of South Alabama, Alabama A&M University, Southern Research and Tuskegee University.

- **Precision and/or Smart Agriculture:** This effort, which could significantly increase Alabama crop yields and reduce costs, includes expertise at Alabama A&M University, University of Alabama at Birmingham, Auburn University, University of Alabama, University of Alabama in Huntsville, and Tuskegee University.

- **Low Temperature Plasma Science and Technology:** This effort, which underpins the existing aerospace and defense sectors, is finding novel applications within multiple areas including the automotive, health, agricultural, food, plasma medicine, nanotechnology and microprocessor, bio-electrochemistry, and optoelectronics industries from experts at University of Alabama in Huntsville, HudsonAlpha, Auburn University, University of Alabama at Birmingham, University of Alabama, Tuskegee University, University of South Alabama and Alabama A&M.

- **Cybersecurity and Big Data Analytics:** This effort, which could make Alabama a leader in analyzing Big Data and reducing the vulnerability of the nation to cyber-attacks, has experts at Auburn University, University of South Alabama, University of Alabama in Huntsville, University of Alabama at Birmingham, Tuskegee University, and HudsonAlpha.

- **Biosensor Technology Development:** This effort, which could revolutionize biological and medical sensing is primarily centered at Alabama A&M, University of Alabama in Huntsville, Auburn University, Tuskegee University, University of South Alabama, Southern Research and HudsonAlpha.

- **Alternative Energy Systems:** This effort to make Alabama a leader in renewable energy research has experts at Auburn University, Tuskegee University, University of Alabama in Huntsville, University of South Alabama, Southern Research, and HudsonAlpha.

- **Transportation:** This effort to develop creative solutions for improvements in vehicle safety; design, construction and maintenance of roads and bridges; as well as the impact that a quality transportation system has on the state exist at Auburn University, Tuskegee University, University of Alabama, University of Alabama at Birmingham, University of Alabama in Huntsville and the University of South Alabama.

A key component of ensuring the Renewal of Alabama industries is maintaining global competitiveness. Innovation through research and development is critical to Alabama's universities and other research institutions. Equally critical is enhancing Alabama's R&D infrastructure. Listed below are some of the key resources included in strategic roadmaps at Alabama

universities and laboratories. Provided below are examples of one important statewide priority and several institutional priorities:

STATEWIDE PRIORITIES:

Expansion of the Alabama Innovation Fund (AIF): A Statewide priority is the expansion of the Alabama Innovation Fund (AIF). This fund was created by the Alabama Legislature to promote R&D at universities, Southern Research and HudsonAlpha. The AIF has not been consistently funded since it was created in 2012. As described in Recommendation #1 in the Executive Summary, we recommend that the AIF be funded annually at the $20M level. When fully funded, the AIF will support the recruitment of top tier researchers and R&D funding to enhance the Renewal of Alabama industries and be a primary job creator in the State.

INSTITUTIONAL INVESTMENT PRIORITIES:

University of Alabama at Birmingham (UAB):

Data and Genomic Sciences Building: Construction of a new research building that will house new investigators studying the genetics underlying personalized medicine and other "big data" subjects and result in an additional $20 million in grants annually and create hundreds of high-paying jobs.

Alabama Drug Discovery Alliance: Expand the initiative by UAB and Southern Research (and potentially expand to other State universities) leading to new pharmaceuticals and add a lucrative ongoing new revenue stream to support State medical science initiatives.

University of Alabama in Huntsville (UAH):

Engineering Research Building: Construction of a new College of Engineering/UAH Research facility to replace the aging Von Braun Research Hall and College of Engineering buildings to enhance and support state-of-the-art research efforts at UAH.

Auburn University (AU):

Additive Manufacturing Laboratory: Equipment support and staffing to rapidly advance the state-of-the-art Additive Manufacturing Laboratory currently under construction to develop new low cost, high throughput manufacturing technologies.

University of South Alabama (USA):

USA Environmental Sciences Building: Construction of a state-of-the-art teaching and laboratory building. This will enable the development of solutions to pressing environmental issues, help support and create Alabama's resilient and sustainable ecosystems, and educate the next generation of environmental scientists and professionals.

Nuclear Genome Technology and Research Center: An interdisciplinary research group focused on DNA damage and repair, genome sequencing, big data analytics and mitochondrial DNA in metabolic syndrome. Funds would be used to support the recruitment of nationally recognized researchers and research grants, leading to job creation in Alabama.

Alabama A&M University (AAMU):

Science Building: Construction of a new science building that will be used for science educational activities.

Discovery Center: Construct and equip a major co-laboratory where basic Science, Technology, Engineering, and Math (STEM) research activities will be centralized.

University of Alabama (UA):

Alabama Transportation Institute (ATI): Build on the strengths in surface transportation research directed toward solving many of our nation's transportation problems, particularly in the areas of highway safety, roadway engineering, and automated vehicles. This initiative will consolidate several ongoing efforts at UA by providing a single interface to maintain a broad, interdisciplinary focus that will include every academic unit.

Alabama Water Institute (AWI): Basic and applied research in water, severe weather, and disaster management to solve national and regional water issues including water resource management, severe weather issues including improvements in warning processes and disaster management for emergency responders.

Southern Research (SR):

Increased Capabilities for Renewable Energy and Energy Storage: Matching funds over a 3-year period to enhance the infrastructure being established for grid-ready energy storage, creating jobs for testing and development of new technologies.

Bioscience Discovery Building: Matching funds for construction of a new research building on the SR campus to replace 50-year-old buildings to recruit new principal investigators and teams who will drive innovations in infectious disease (including Zika), oncology and CNS research via commercial clients, grants and new drugs.

Tuskegee University (TU):

New Research Building: Perform cutting edge research that will lead to new start-up businesses for the state.

Student Endowments: Tuition support and stipend for 10 graduate students per year and salaries for five postdoctoral fellows per year to support cutting edge research that will create new jobs for the state.

HudsonAlpha Institute for Biotechnology (HudsonAlpha):

Genomics and Pharmacogenomics Core: Provide whole genome sequencing for Alabamians with rare diseases while enhancing the scientific prestige. This program may reduce the cost and make Alabama the first state to offer whole genome sequencing to all babies by 2021 through a combination of government, self-pay, insurance and philanthropy.

Correct Care Initiative: Provide genome sequencing for the elderly and offer cutting-edge care to senior citizens of Alabama and make Alabama a hub for pharmaceutical companies interested in developing new targeted medical treatments. The funding would allow HudsonAlpha to provide genomic analysis for known genetic markers and work with commercial partners to develop new ones.

Institutional Points of Contact

AAMU	Daniel Wims	Provost, VP for Academic Affairs and Research	256-372-5275	Daniel.wims@aamu.edu
AAMU	Xiaoqing Qian	Interim Executive Director, Research and Sponsored Programs	256-372-8187	Xiaoqing.qian@aamu.edu
AAMU	Chance M. Glenn	Dean, College of Engineering, Technology, and Physical Sciences	256-372-4166	chance.glenn@aamu.edu
AU	John Mason	Vice President for Research and Economic Development	334-844-5977	jmason@auburn.edu
AU	Larry Fillmer	Executive Director, External Engagement and Support and *Interim* Executive Director, Auburn Research & Technology Foundation	334-844-6140	larry.fillmer@auburn.edu
HudsonAlpha	Andy Crouse	Intellectual Property and Industry Partnership Development, Research Affairs	256-327-9623	acrouse@hudsonalpha.org
SR	Art Tipton	President and CEO	205-581-2664	atipton@southernresearch.org
SR	Watson Donald	Director, External Affairs	205-581-2641	wdonald@southernresearch.org
TU	Shaik Jeelani	Vice President for Research and Dean of Graduate Studies	205-727-8970	jeelanis@mytu.tuskegee.edu
UA	Carl Pinkert	VP for Research and Economic Development	205-348-4566	cap@ua.edu
UA	John Higginbotham	Associate VP for Research and Economic Development	205-348-7259	jhiggin@cchs.ua.edu
UAB	Christopher Brown	Vice President for Research	205-934-1294	csbrown@uab.edu
UAH	Ray Vaughn	Vice President for Research and Economic Development	256-824-6100	ray.vaughn@uah.edu
UAH	Kannan Grant	Director, Office of Technology Communication	256-824-6621	kannan.grant@uah.edu
USA	Lynne Chronister	Vice President for Research and Economic Development	251-460-6333	lchronister@southalabama.edu
USA	Andy Byrd	Director of Commercialization and Industry Collaboration	251-460-6384	andrewbyrd@southalabama.edu

Primary Target Areas: Advanced Manufacturing (p. 1 of 2)

Secondary, Sub-Target Areas

Alabama Research Target Areas - Capabilities

Spring 2016

Institution	Low Temperature Plasma	Advanced Materials	Additive Manufacturing	Modeling and Simulation
HudsonAlpha	Surface Engineering			
AAMU				Modeling and Simulation
AU	Nano- and Microparticle Formation and Control	Nano Materials; Polymers; Ceramic and Polymer Matrix Composites; Organic Electronics and Microfibrous Materials	Additive Manufacturing, Polymeric	Automotive Process, Systems and Data Analysis
TU	Surface Treatment	Polymeric Composites, Fiber Reinforced Composites; High-Temperature Polymer Composites; Microfluids for Materials Processing	3D Printing with Biocompatible Plastics	Modeling and Adaptive Control of Electromechanical Systems
UA	Surface Treatment, Surface Ablation	Composite Characterization, Development and Processing	3-D Printing / Additive Manufacturing	
UAB	Deposition	Lightweight Composites for Automotive and Aerospace; Long Fiber Reinforced Thermoplastic Materials Processing; Thin Wall Casting, Lost Foam Casting; Electrospinning; Induction Melting Efficiency; Highway Safety (Roadside Barriers)	UAVs for Infrastructure Safety and Monitoring; Manufacturing Process Optimization and Cost Minimization; Additive Manufacturing; Additive Manufacturing of Biomedical Implants	Extrusion Compression Molding, Injection Molding; Manufacturing Process Simulation
UAH	Surface Treatment	Concrete Science	Additive Manufacturing; Lean Manufacturing; Supply Chain Manufacturing; 3-D Printing/Additive Manufacturing	
USA		Concrete Science; Intelligent and Virtual Manufacturing for Composite Materials; Green Manufacturing; Liquid Composites Molding; Cellulose Nanofiber Extraction	Printable Electronics	
SR		Composite Fabrication Capabilities; Optics and Electro-Optics Manufacturing under ISO and TS for Military Applications	Machine Shop with Broad Capabilities including Rare Materials and Composites	

Advanced Manufacturing
(p. 2 of 2)

Category	HudsonAlpha	AAMU	AU	TU	UA	UAB	UAH	USA	SR
Systems Engineering					Manufacturing Metrology				
Systems Engineering					Embedded Systems		Advanced Robotics		
Systems Engineering					Electromechanical Systems		Systems Engineering		
Systems Engineering				Micro-Fabrication and Rapid Prototyping with Multi-Materials	Joining Technology	Spacecraft Thermal Systems	Industrial Control Systems	Steel Structural Engineering	
Tribology, Wear and Coatings			Tribology		Tribology, Wear and Coatings				
Security						Cyber Security for Critical Infrastructure Interdependency and Cascading		Supply-Chain Security	
Security								Cybersecure Electronics Manufacturing	

Agricultural Products/ Food Production

	Low Temperature Plasma	Agricultural Waste Management	Fisheries and Aquaculture	Food Processing Nutrition and Packaging	Modeling - Soil, Climate and Water	Precision Agriculture	Genomics and Biotechnology
HudsonAlpha							De Novo Assembly of Complex Plant Genomes; Plant Genome Sequencing; Plant Genomics/Genetics
AAMU				Food Chemistry and Safety; Nutritional Biochemistry; Food Processing/Engineering/Packaging	Soil/Climate Modeling		
AU				Food Chemistry and Safety	Disease / Pest Management	Precision Ag	Agricultural Biotechnology
TU	Nanoparticle Treatment for Polymer Filler Compatibility			Sustainable Organic Plant and Animal Production; Enhanced Novel Food Products		Microirrigation and Enhanced Water Use Efficiency	Plant Genetics
UA	Surface Chemistry			Food Processing: Nutrient Content			
UAB				Nutrient Flow Sensing; Food Production			
UAH	Seed Treatment and Food Processing				Water Resource Management; Atmospheric Science	Multispectral Remote Sensing	
USA		Agricultural Waste Management	Fisheries; Aquaculture		Atmospheric Science		
SR				Toxicology and Reproductive Toxicology Testing of New Additives and Ingredients; Chemical and Biochemical Testing			

Biosciences/ Biotechnology
(p. 1 of 3)

Institution	Biomedical Genomics and Informatics	Pharmaceutical Development
HudsonAlpha	Medical Genomics; Bioinformatics and Data Analysis; Genomics; Immunogenomics	
AAMU	Nutrigenomics	
AU	Omics / Informatics; Molecular Medicine; Genomics	Pharmaceutical Engineering; Drug Discovery / Drug Delivery
TU	Gene Discovery	Drug Delivery; Nano-Biomedicine
UA		Drug Delivery; Nanomaterial Based Diagnostic Systems
UAB	Bio-Informatics; Genomics	Nanoscale Materials and Biointegration; Biomaterials
UAH	Genomics/Transcriptomics; Genetics	
USA	Microbial Metagenomics; Population Genetic Analysis; Immunotoxicology; Plant Genomics; MicroRNA Technologies; Novel Reagents to Assess DNA Damage and Repair; Silver Nanoparticles in Skin Cancer Prevention	Drug Discovery
SR	1 Million Compound Library for New Drug Analysis; HTS (High Throughput Screening) Capabilities; Medicinal/Organic Chemical Synthesis and Combinatorial Design; Commercialization Capabilities for New Drugs; FDA Regulated Preclinical Capabilities; Infectious Disease Screening for New Drugs and Vaccines including Biothreat; Preclinical Toxicology	

Biosciences/ Biotechnology
(p. 2 of 3)

Institution	Systems Biology	Disease Models	Biomarker Discovery	Patient Care and Clinical Research
HudsonAlpha	Cancer Biology; Brain and Nervous System; Metabolic Systems; Cardiovascular Disease		Cancer Diagnosis and Prognosis; Drug Response and Pharmacogenomics; Cell Free DNA Analysis	Personalized Medicine; Clinical Genomic Medicine; Rare Diseases
AAMU	Reproductive Physiology/ Endocrinology; Lipid Biotechnology; Plant Molecular Biology			
AU				
TU				
UA		Tumor Models/Cancer Progression and Therapy Mechanisms	Bio-Scaffolds	
UAB	Structural Biology	Cancer Diagnosis and Treatment; Animal Models of Human Disease		Arthritis and Autoimmunity Diagnosis and Treatment; Diabetes and Obesity Research, Nutrition, and Clinical Care; Disability Health and Rehabilitation Science; Basic and Clinical Studies of Aging; Pulmonary Diseases; Health Disparities Research; Patient Outcomes and Comparative Effectiveness; Exercise Biology and Medicine; Infectious Diseases; Visual and Oral Systems
UAH	Evolutionary Biology; Microbiology; Molecular Biology; Structural Biology			
USA			Biomarkers for the Detection of Ovarian Cancer; Biomarkers for the Detection of Pancreatic Cancer; Tissue Engineering	
SR		Immuno-Oncology Models	Relevant Models in Cancer, CNS, Infectious Disease	

Biosciences/ Biotechnology
(p. 3 of 3)

Institution	Low Temperature Plasma	Agricultural Genomics and Informatics			Waste Water Treatment	Molecular Medicine	Marine Pharmacology	Biomedical Devices and Materials		Remediation and Waste Management		Protein Chemistry and Engineering	
HudsonAlpha		De Novo Assembly of Complex Plant Genomes	Plant Genome Sequencing	Plant Genomics/Genetics		Broad Genomics and Genetics in Clinical and Research Approaches							
AAMU													
AU													
TU	Nanoparticles Based Cancer Treatment				Waste Water Treatment			Biomedical Device Technology	Bio-Sensors and Recognition				
UA								Bio-Robotics and Prosthetics	Bio-Tissue Mechanics			Metallobiochemistry	Protein Chemistry and Enzymology
UAB						Novel Microbiological Approaches		Biosensors	Device Development for Patient Rehab				Synthetic Vaccines
UAH	Plasma Biology and Medicine												
USA	Cancer Treatment						Marine Pharmacology	Biomedical Devices	Hyperspectral Imaging	Microbial Remediation	Biological Waste Management		Traditional and Novel Adsorbents
SR									Medical Device Engineering				

Chemical / Petrochemical
(p. 1 of 2)

Institution	Surface Chemistry	Environmental Chemistry and Toxicology	Catalysis	Carbon Sequestration	Computational Chemistry	Petroleum Remediation and Management	Chemical Engineering	Analytical Chemistry
HudsonAlpha								
AAMU								
AU	Surface Chemistry					Petroleum Chemistry / Oil Spill Management	Chemical Engineering	Small Molecule Synthesis
TU				CO2 Capture and Storage, Adsorption, Membrane Separation				
UA		Ionic Liquids	Heterogeneous Catalysis		Computational Chemistry		Functionalized Membranes for Separations and Reactors	Organic/Inorganic synthesis / Chemical Analysis
UAB			Catalysts and Sensors	CO2 Sequestration	Computational Chemistry			
UAH	Surface Chemistry							Analytical
USA		Ionic Liquids / Environmental Chemistry and Toxicology	Phase – Transfer Catalysis / Supercritical Fluids / Sensors				Process Control and Automation	Environmentally Benign Solvent Systems / Natural Chemical Synthesis / Analytical Chemistry
SR			Design and Analysis of Catalysts					Carbon Fuels and Other Chemical Analysis

Chemical / Petrochemical
(p. 2 of 2)

	Low Temperature Plasma	Medical Chemistry		Biochemistry	Crystallography		Polymer and Material Chemistry
HudsonAlpha				Computational and Structural Biochemistry			
AAMU							
AU							
TU	Plasma Induced Nanoparticles Synthesis						Polymer Chemistry- Nanoparticle Catalysis, Nanoparticle Synthesis, Cellulose Deconstruction, Small Molecule Synthesis and Characterization; Plant Derived Extracts; Bioactive Compound Synthesis
UA							
UAB	Microwave Plasma Synthesis and Processing of Superhard Materials	Medicinal Chemistry	Drug Design and Development		Crystallography		Polymer Chemistry, Materials Chemistry
UAH	Plasma Induced Chemical Reactions			Biochemistry	Crystal Growth	Chemical Oceanography	Polymers
USA	Combustion For Micro-Thrusters		Adhesive Joints for Composite Materials		Crystallography		Materials Chemistry
SR							

Energy
(p. 1 of 3)

Institution	Power Grid Technology	Propulsion Systems
HudsonAlpha		
AAMU		
AU	Optimization of Electric Power Systems	
TU	Distributed Co-Operative Control, Optimization and Stability of Power Systems; Particle Swarm Optimization Applied to Power Systems; Renewable Energy Integration and Micro-Grid Simulations; Smart Grid Data Analysis; Dynamic Co-Operative Distributed Control and Optimization of Power Systems with Integrated Renewable Energy Systems Using Game Theory; Particle Swarm Optimization Test Bed for Power Loss in Transmission Lines; Hardware-In-The-Loop Simulation of Power Systems/Smart Grid; Real-time Statistical Analysis of Smart Grid Data	Energy Device Characterizations
UA	Building Energy and HVAC Systems	Internal Combustion Engines; Advanced Vehicle Systems and Components; Traditional and Alternative Fuel Combustion
UAB	Development and Hardware for Systems Resiliency	
UAH	Smart Grid	Power Systems; Propulsion
USA	Gas Turbine Technology / Power Generation	
SR	Water/Fuel Interface at Power Plant Stage (Cartersville, GA)	

Energy
(p. 2 of 3)

Institution	Wind and Solar	Biofuels	Energy Storage
HudsonAlpha		Cellulosic Crop and Biomass Genomics; Plant Genomics/Genetics; Plant Genome Sequencing; De Novo Assembly of Complex Plant Genomes	
AAMU		Biofuels (Diesel); Biomass Production	
AU		Bioenergy Production and Bioproducts; Growing and Harvesting Bioenergy Fuels	
TU	Conversion of Solar Energy, Mechanical Energy, Chemical into Electrical Energy; Wind/Photo-Voltaic (PV)/Fuel Cell Modeling, Simulation and Control; Hardware Validation of Wind/PV/Fuel Cell-Grid Models; Wind and Solar Modeling and Energy Prediction; Renewable Energy, Power Systems Analysis		Fuel Cell Science and Technology; Conversion of Water into Hydrogen Energy; Thin Film Super-Capacitors, Light Weight Energy Storage; Energy Storage Modeling and Simulation for Renewable Energy Systems; Radiant Heat Control for Solar HVAC Application; Dynamic Analysis Tool for Renewable Energy/Grid Integration
UA	Photovoltaic Materials	Bioreactors for Fuel and Fine Chemical Production; Alternative Fuels	Chemical Approaches to Energy Storage
UAB		Microbiological Energy Production	Solid Oxide Fuel Cell Materials; Energy Systems Modeling; Power System Protection and Control, Fault Detection Hardware
UAH	Photon and Particle Sensing Technology; Solar/Wind/Hydro Modeling	Biofuels	Advanced Energy Storage; Industrial Control Systems; Energy Efficiency & Environmental Sustainability
USA		Biomass Processing	Natural Gas Storage; Hydrogen Storage; Ionic Liquids; Home Energy Monitoring; Battery Technology; Rapid Charging Technology
SR			Solar and Energy Storage for Grid-Ready

Energy
(p. 3 of 3)

	Low Temperature Plasma	High Temperature Materials	Modeling and Engineering				Hydro-Carbon Energy	Pollution Control		
			Civil Engineering	Modeling and Simulation	Thermodynamics and Fluid Mechanics	Population, System Testing				
HudsonAlpha										
AAMU	Plasma Radiation		Civil Engineering	Modeling and Simulation	Thermodynamics and Fluid Mechanics	Population, System Testing				
AU	Thermal Properties of Plasmas	High Temperature Materials					Hydrocarbon Systems			
TU										
UA	Satellite Propulsion, Space Systems									
UAB										
UAH	Electric Propulsion									
USA	Small Satellite Propulsion						Petroleum Geology			Carbon Capture
SR							Hg Testing from Fossil Fuels	Fuel and Chemical Production for Waste Streams	Carbon Capture at Power Plant Stage (Wilsonville, AL)	Broad Range of Technology and Testing for Air Pollution Control from Fossil Fuels

Forestry Products

Group	Capability	HudsonAlpha	AAMU	AU	TU	UA	UAB	UAH	USA	SR
Atmospheric Science	Atmospheric Science							X		
	Weather/Climate Models							X		
Biofuels and Products	Plant Functional Genomics/Genetics	X								
	Plant Genome Sequencing	X								
	De Novo Assembly of Complex Genomes	X								
	Wood Products Technology		X							
	Biofuels		X							
	Expanding Products, Reducing Manufacturing Costs			X						
	Lowering Transportation Costs for Bioenergy Feed Stocks			X						
	Lignocellulose Extraction				X					
	Biopolymers				X					
	Biocomposites				X					
	Bioenergy/ Biorefinery Technologies, Pulp and Paper Process Engineering				X					
	Biodiesel From Vegetable Oils with Honeycomb Monolithic Catalysts				X					
	Natural Products Chemistry							X		
Environmental Health and Modeling	Ecology		X							
	Forest Ecology		X							
	Forest Fire Fighting Technology		X							
	Aquatic Ecology		X							
	Wildlife Management		X							
	Sustainable, Healthy Wildlife Populations			X						
	Carbon Sequestration			X						
	Environmental Health for Humans			X						
	Control of Animal and Plant Invasive Species			X						
	Modeling of Climate Influences on Forests, Wildlife, and People			X						
	Socioeconomic Factors			X						
	Environmental Engineering							X		
	Genetics							X		
	Combustion							X		
	Insect Pheromonology								X	
Water Resources	Water Resources		X	X				X		

Information Technology and Cybersecurity
(p. 1 of 2)

Institution	Artificial Intelligence Machine Learning	Big Data	Security	Bioinformatics
HudsonAlpha		Bioinformatics and Study Design; Biological Meta Analysis; Big Data		Bioinformatics and Data Analysis
AAMU		Data Mining; Big Data		Bioinformatics
AU	Agent-Directed Simulation	Internet of Things	High Performance Computing Intrusion Detection; UAV Security; Cyber Vulnerability Assessment	
TU	Artificial Intelligence, Machine Learning, and Smart Health Networks	Big Data Analysis; Data Mining	Security and Privacy, Wireless Networks, Cyber Physical Systems	
UA		Data Analytics	Network Security; Software Reliability and Security	
UAB	Digital Thread for Manufacturing	Cloud Computing; Internet of Things; Big Data Analytics	High Performance Computing; Computer Forensics, Phishing, Signcryption, Cloud Security; Cyber Security; Cyber Security of In-Vehicle and Inter-Vehicle Systems; Device Design for Cyber Security, Signal Processing, Embedded Systems	
UAH		Data Mining; Big Data	Server-Area Networking; UAS Security; Industrial Control System Security (SCADA); Automotive Security/Smart Car Research; Digital Forensics; Embedded Systems; Software Safety	Biometrics
USA	Machine Learning; Ontology		Smart Grid; Software Protection; Cyber Physical Systems; Cloud Security; Security of 3D Printing; Voting Systems; Insider Threats; Supply-Chain Security; Malware Analysis; Electronic Medical Device Security; Mobile Device Protection	
SR				

Information Technology and Cybersecurity
(p. 2 of 2)

Institution	Low Temperature Plasma	Software Engineering	Modeling and Image Processing
HudsonAlpha		Genomics Analysis Pipeline Development; Clinical Genomics Software for CLIA Certified Use; Bioinformatics and Data Analysis	
AAMU			
AU	High Performance Computing of Atomic Processes in Plasmas; High Speed Imaging and Image Processing		
TU			Signal/Image Processing, Sensor Data Analytics, Intelligent Systems; Statistical Signal and Image Processing; Modeling and Simulation of Systems (Communications, Bio, UAV, Vehicles); Automatic Target Detection and Tracking
UA			Geographic Information Systems
UAB		Software Engineering	
UAH		Software Engineering; Gaming; Software Metrics	Control Theory; Image Processing; Modeling and Simulation; Visualization and Graphics
USA			
SR			

Metal and Advanced Materials
(p. 1 of 2)

Institution	Low Temperature Plasma	Smart Materials	Materials Processing and Chemistry	High Magnetic Materials	Chemical Property Analysis and Testing
HudsonAlpha					
AAMU			Material Processing		Crystal Growth; Mechanical Property Testing
AU	Plasma Erosion of Surfaces, Atomic Processes at Plasma-Surface Interfaces	Smart Nanomaterials and Nanocomposites; Adaptive (Bio, Acoustic Wave, and Electrochemical) Sensors	Process and Fabrication (Metal Casting and Microjoining)		
TU	Surface Modification of Nanoparticles, Metals, Metal Oxides, Alloys, and Polymers for Compatibility	Flexible Electronics; Semiconductor Thin Film Techniques	Fracture and Failure Analysis; Characterization of High-Z Materials; Welding and Repair of Rail Steel and Thick Section Structures; Metal Coatings and Corrosion		Material Detection and Classification; Low-Temp Epitaxial Growth of Semiconductors; Plasticity and Dislocation Dynamics
UA	Surface Interactions, Low Work Function Materials	Micro and Nanostructure Characterization; Two-Dimensional Quantum Materials; Carbon Materials; Spintronic Materials; Alloy Formulation and Characterization	Metal Casting and Solidification; Integrated Computational Materials Engineering; Solid State Chemistry; Materials Chemistry	Magnetic Materials	
UAB		Computational Alloy Design; Low RE Containing Magnesium Alloys; HLSA Cast Material, 7000 Series as Cast Aluminum; Metamaterials for Wireless Sensing; Semiconductors, Complex Materials	Low Cost Carbon and, Natural Fiber Materials, Reinforced Ceramics	High Temperature Superconductors	
UAH	Surface Treatment	Advanced Composites	Reliability and Failure Analysis; Friction Stir Welding; Structural Engineering; Bioprocesses; Material Science		
USA			Advanced Metal Casting Technology; Lanthanide and Actinide Chemistry; Steel Structural Engineering	Superconductors	
SR		Composite Fabrication Capabilities			Surface and Other Capabilities for Characterization

Metal and Advanced Materials
(p. 2 of 2)

SR	Nuclear Material Safety	Materials Treatment		Extreme Materials		Electronic and Optical Materials
HudsonAlpha						
AAMU	Nuclear Material Safety	Ion-Bombardment	Laser Treatment			
AU					High Temperature Materials	
TU					High Strength Low Alloy Steels	
UA						Photonics and Biophotonics
UAB				High Temperature Ceramic Materials	Materials Under Extreme Pressure and Electromagnetic Fields	Electronic and Optical Materials
UAH			Surfaces and Interfaces			Optics
USA						
SR			Machine Shop with Broad Capabilities Including Rare Materials and Composites		High Temperature Testing of Materials for Hypersonics	Optics and Electro-Optics Manufacturing Under ISO and TS for Military Applications

Nanotechnology

Institution	Low Temperature Plasma	Nanoelectronics	Engineered Nano Effects	Nanostructures, Particles and Chemistry	Sensor Technology	Food Packaging	Therapeutics and Drug Delivery	Nano Material Composites and Fabrication
HudsonAlpha	Plasmonics							
AAMU						Food Packaging	Laser Treatment	Material Processing
AU	Nanoparticle Pattern Formation in Magnetized Plasmas	Nanoelectronics		Nanofibers	Bio Sensing		Metal Core Nanomaterials (Cancer Therapeutics); Tissue Engineering	
TU	Nanoparticles and Polymer				Sensor Technology			Novel Nano-Composite Development and Application; Polymer Nano-Composites and Their Applications
UA		Nanoimprint Lithography	Quantum Dots	Magnetic Nanomaterials; Nanomaterial Formulation and Characterization; Inorganic Nanomaterials				Nano-Phase Stability
UAB	Smart Materials	Carbon Based Transistors and Interconnects for Computing Hardware; Low-Power Custom-Integrated Nano Electronic Systems	Plasmonics	Nanoparticles; Nanostructures and Nanostructured Biomaterials	Nanoenabled Biosensors; Nanotechnology-Based Sensing		Nanoparticle-Based Drug Delivery and Biomedical Imaging; Bionanotechnology	Nanocomposites
UAH		Electrodeposition; Microelectronics and MEMS Packaging	Plasmonics	Silicon/Protein Interfaces	Microfluidics; Liquid Crystal Sensing			Nano- & Fabrication
USA	Device Fabrication Processes and Diagnostics	Asynchronous Digital Circuits		Inorganic Chemistry; Lanthanide and Actinide Chemistry	Mechanical Force Sensors; Sensor Technology			Engineered Nanoporous Materials; Nanostructure Functionalized Fibers; Nanocomposites
SR					Imaging Capabilities		Capabilities for Production and Testing of Drug Products (SLN, Nano and Microparticles)	

Plasma Sciences

Institution	Experimental Plasma Science	Engineering	Theory / Computation / Modeling	Education / Human Resources	Applications of Plasma Science
HudsonAlpha					Plasmonics; Plasma Engineering of Surfaces for Manufacturing
AAMU					Plasmas for Food and Agriculture; Plasma Radiation for Energy Applications
AU	Laboratory Plasma Experiments; Probe Development; Optical Plasma Diagnostics	Engineering of Optical Plasma Diagnostic Systems; Plasma Probe Engineering	Space Plasma; Atomic Physics	Human Development	Nanoparticle Pattern Formation in Magnetized Plasmas; Plasma Erosion of Surfaces; Atomic Processes at Plasma-Surface Interfaces; Plasmas for Nano and Microparticle Formation and Control in Manufacturing; Plasma Science for High Speed Imaging and Image Processing; Plasma and Atomic Science for High Performance Computing; Energy Related Thermal Properties of Plasmas
TU	Material Science / Engineering; Chemistry			Human Development	Plasma Induced Nanoparticle and Polymer Synthesis; Nanoparticle Based Cancer Treatment; Plasma Surface Treatment for Nanoparticles and Polymers; Plasma Surface Treatments for Manufacturing
UA	Material Science / Engineering; Gas Discharges		Space Plasma; Material Science / Engineering; Chemistry		Plasma Surface Interactions; Plasmas for Surface Chemistry; Plasma Surface Treatments and Surface Ablation for Advanced Manufacturing; Plasma Related Satellite Propulsion and Systems
UAB	Material Science / Engineering; Chemistry; Gas Discharges	Bioscience / Bioengineering		Human Development	Microwave Plasma Synthesis and Processing of Superhard Materials; Plasma Based Smart Materials; Plasma Surface Deposition for Advanced Manufacturing
UAH	Gas Discharge	Propulsion; Aerospace	Space Plasma	Human Development	Seed Treatment and Food Processing Applications; Plasma Induced Chemical Reactions; Plasma Biology and Medicine; Plasma Surface Treatments for Advanced Materials and Advanced Manufacturing; Plasmas for Electric Propulsion
USA	Probe Development		Space Plasma		Plasma Related Combustion for Micro-Thrusters; Plasma Based Nanodevice Fabrication and Diagnostics; Plasma Based Cancer Treatment; Plasmas for Small Satellite Propulsion
SR					

Transportation

ALABAMA RESEARCH INSTITUTIONS - CAPABILITIES

Institution	Road Technology	Transportation Safety	Transportation Related Engineering	Vehicle Development	Traffic Management	Intelligent Transportation
HudsonAlpha						
AAMU						
AU	Asphalt Pavement Research	Construction Site Work Zone Safety and Erosion and Sediment Control on Construction Sites		Use of the NCAT Test Track for Testing of Vehicle and Fuel Systems; Hybrid Propulsion System for Automobiles		Testing of Electronic Components for Harsh Environment, CAVE3, Center for Advanced Vehicle Electronics for Extreme Environment; Autonomous Vehicle Development, Control and GPS Systems
TU			Materials Engineering for Transportations Sector: Automotive, Aerospace, Defense and Marine	Electric Battery Impedance Measurement Facility		Intelligent Transportation; Vehicle Sensing and Re-Identification Applications; Automatic Road Sign Detection for Smart Vehicles
UA	Concrete Pavement Friction and Texture; Reinforced Structural Composites; Design Prestressed Girders	Repository and Study Center for Data for Crashes, Roadway Characteristics, Traffic, Driver Credentials, Emergency Response and Patient Treatment	Timely and Less Costly Roadway Pavement Rehabilitation Techniques	Heavy Equipment Engine Efficiency Combustion; Vehicle Antennas for a Connected-Vehicle Environment	Test Bed is a Prototype for Alabama's DOT State-Wide Signal System	One of the Top Five Test Bed Facilities in the Nation; Test Bed of 85 Radio-Instrumented Traffic Signals; Infrastructure-to-Vehicle Communication Test Bed Research
UAB					Public Transport	Vehicle Dynamics and Controls; Wireless Sensor and Bridge Weigh in Motion (BWIM) System for Next Generation Infrastructure Safety
UAH			Transportation Engineering; General Civil Engineering	Spacecraft Propulsion Systems	Public Transport; Urban Planning; Management Systems	Traffic Engineering; Geographic Information Systems; Simulation
USA	Bridge Maintenance; Infrastructure Resilience; Bridge Wave Load; Highway Runoff Treatment and Management; Pile Foundation Setup (Geotechnical)	Transportation Safety	Coastal Engineering		Round-About Design	Route Optimization
SR			Composites Testing	Fuels Testing		

Endnotes

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Anniston Assessment
and Economic Development Action Plan

Prepared for the Anniston Mayor and City Council

by:

Tucson Atlantic Consulting & Byard Associates, LLC

March 2024

Table of Contents

Data Sources and Analysis:

To the best of our knowledge, all proprietary competitive information and statistical data was provided by Jacksonville State University Center for Economic Development under their contract with Economic Modeling Specialists International (EMSI) and Chmura JobsEQ.

Additional information was collected through personal interviews by the authors or provided by local sources. All the statistics are the most current, collected in 2022 and 2023. Where practical, maps and charts have been used to simplify data interpretation and trends.

Introduction & Purpose

The purpose of this assessment is to evaluate the current economy of Anniston from a distinct economic development perspective.

We will look at the assets and actions necessary to successfully grow the economy, as well as identify the barriers to growth. We will examine community development, manufacturing, and retail trade, and offer recommendations to expand the economy from each of those perspectives.

We will also offer specific business marketing effort strategies necessary to leverage strengths, along with information regarding improvements that need to be made to successfully manage weaknesses.

Anniston and Calhoun County are productive and culturally diverse, with a long history of growth and economic success. We offer insights that we believe will stimulate growth and ensure the community's well-being into the near future.

All conclusions, recommendations, and classifications are derived from recent data and 30 plus community stakeholder interviews. Some interviews included more than a single individual and were conducted confidentially; consequently, no individual is quoted directly in this document. Our goal is to identify and clarify perceptions and reality combining personal interviews and recorded, published data. The result is the **Competitive Assessment Matrix** which represents the essence of what of our research.

The detailed elements of the assessment include the following:

1. Overall Competitive Assessment Matrix
The Competitive Assessment Matrix has two components:

1) Interviews with community civic leaders, tourism, industrial, and educational leaders, retail, and utility leaders, as well as other recognized leaders of the area. These interviews were conducted to evaluate both the city and the county's assets and liabilities, as perceived by its residents and stakeholders.

2) Community input is then evaluated to further clarify or substantiate the published data. The Competitive Assessment Matrix evaluates 10 general and 42 specific community issues that affect economic development. The matrix classifies critical city and county categories as either strength, weakness, or neutral. An analysis of the matrix itself then identifies both problems and opportunities to address weaknesses or promote strengths.

2. Community Development (Non-manufacturing, non-retail)

A comprehensive, authentic, on-the-ground assessment of the city and county's strengths, weaknesses, and assets related to business development and community development activities, and the strategies which would potentially increase local economic activity and the city and county's tax revenue—based on both consultant experience and community perspectives.

3. Manufacturing

A professional rating of how site selection consultants or corporate real estate executives often perceive rural southern communities. This is followed by a second rating based upon the Anniston and Calhoun County websites, and a third rating based upon actual time spent touring the county with economic development officials.

A business recruitment strategy will be suggested to attract complementary manufacturing.

4. Retail

This section evaluates the dynamics of current retail, its economic impact, leakages and surpluses, high probability targets, and marketing strategies.

5. Recreation & Tourism

Examines current activities and offers recommendations to enhance these existing options; offers ideas with regards to adding new activities.

6. Key Recommendations

This section consists of summary recommendations derived from the entire assessment and will serve as a basis for future city and county strategies and actions.

A final oral presentation will propound the recommendations to city and county leadership covering the dynamics of community economics, the basics of industrial development, community opportunities, retail growth, attraction, and recruitment.

Executive Summary

Tucson Atlantic Consulting and Byard Associates, LLC were employed to complete the following tasks:

- Analyze and assess the local and regional economy

- Conduct and evaluate a SWOT (Strengths, Weakness, Opportunities & Threats) assessment of the city and county from 10 primary and 42 secondary sectors that will assist the city to identify strategic priorities and focus resources that will promote growth and a healthy economy.

- Evaluate Anniston and the surrounding regional economy.

- Recommend business targets and actions suitable for Anniston and Calhoun County based on objective research and on-site analysis.

- Provide recommendations that will enable the city to enhance the economic well-being of the community.

Recommendations

The City of Anniston possesses assets that are exceptional as well as qualities that detract from the image of the city and should be improved. Among the positive assets are tourism attractions, downtown development, Anniston Airport, industrial base, the County Courthouse, and available utilities. Qualities that need improvement include the public school system, crime prevention, closer coordination with Oxford, active participation in economic development efforts. Consequently, we offer recommendations to accelerate positive assets as well as fundamentally change and overcome the negative perceptions.

1. Chief Ladiga Bike Trail is a novel and exceptional recreational resource that has burgeoning appeal and the potential to grow exponentially. Since it crosses several municipal/county jurisdictions, these cities and counties should be *united in a cooperative association* and work and market together as a team to ensure that the trail is uniformly maintained and promoted. A marketing effort that highlights Main Street Anniston, Chief Ladiga Trail, Berman/Natural History Museum complex and the Civil Rights & Heritage Trail should be "website linked" and jointly promoted

2. Anniston and Calhoun County should **support the multi-county, One East Economic Regional Development** organization, which provides marketing, recruiting, and coordination advantages for the east Alabama region and is being organized by Alabama Power Company.

3. Anniston and Oxford are two separate cities, however, together form a single interactive community. We recommend that the *Mayors and Senior Staff meet regularly*—bi-monthly or quarterly—to coordinate municipal services, utilities, and economic development efforts. Joint cooperation on regional pedestrian/bike trails, speculative buildings or the new Airport Workforce Center are good examples of this potential partnership.

4. The Anniston school system needs a major academic upgrade. Anniston High School ranks in the bottom 50 percent of all Alabama Schools. **A coordinated effort needs to be initiated to improve the high school.** A cooperative agreement with the proposed Oxford Workforce Center located at the Anniston Airport is recommended.
   There are numerous examples of systems that have developed successful strategies to

improve academics particularly in the minority community. The current school system is directly affecting city out-migration and discouraging potential new residents.

5. ***An engineering geotechnical assessment needs to be performed at the Anniston Regional Airport*** to identify precisely how much usable industrial land is available. The airport has a 7,000-foot runway that is valuable to many aviation and aerospace businesses. Anniston Airport appears to have the assets to become a major economic development resource.

6. The city should ***encourage residential conversion to the second floor of downtown businesses and provide additional greenspace landscaping and lighting to encourage downtown retail commerce.***

7. ***Crime ranked high as a concern*** *from interviews and these perceptions are supported by federal crime statistics.* This observation is causing residents to relocate to safer areas outside the city. We advise the continued effort to reduce crime. We recommend that the city:
   Continue to coordinate and assist efforts to provide for homelessness. A united effort by the city, St. Michaels, Martha Vanderhoot Shelter, and United Way is ongoing. Understand that homelessness is primarily caused by drugs, mental illness, and violence.
   Intensify a police effort to reduce murder, rape, robbery, assault, property crime, and burglary—together, these crimes are twice the national average in the city.

Strengths, Weaknesses, Opportunities, Threats

A **SWOT** evaluates the city's primary economic and community characteristics. For this assessment, the project team analyzed 10 major categories and 42 sub-groups.

To better understand the importance of each of these categories, we have divided them into two basic functions: ***product*** and ***process***. We have examined them in terms of how they function in the community.

Product refers to what we have, and *process* is how we administer it. Below is a summary of these elements, followed by the aforementioned Competitive Assessment Matrix, which provides an overview of the strengths, weaknesses, and neutrals for the City of Anniston and Calhoun County, analyzed in both **product** and **process**:

1. Available Land & Buildings	6. Education
2. Labor/Workforce	7. Quality of Life
3. Utilities	8. Retail
4. Transportation & Economic Geography	9. Economic Development
5. Business, Political, & Economic Climates	10. Infrastructure

Following the matrix, the major categories and their components are discussed in more detail.

"Product" Clarification:
Business location and expansion are an extremely competitive process; executives and consultants screen communities on paper by looking for "knock-out" factors to narrow the list and select only a few communities they will actually visit.

"Fatal Flaws," such as a lack of suitable, available sites or building space, can eliminate a community at the onset of a site research project. The same logic applies to existing businesses that want to expand or local entrepreneurs who want to start a new business.

An absence of necessary resources and/or a bad business climate will inhibit job creation and hurt a community's ability to recruit companies and create jobs. This eliminates the community from potential opportunity avenues.

The *product* section acknowledges the strengths and weaknesses in Anniston and Calhoun County and will include recommendations for addressing the items indicated as weaknesses.

"Process" Clarification:
The *process* of economic development is just as important as the *product*. Without effective strategies, programs, and implementation, the likelihood of success concerning economic development is greatly reduced.

As with the product, the process component acknowledges the strengths and weaknesses in the City of Anniston and Calhoun County and will include recommendations for addressing the items indicated. The *process* section will cover the item entitled Economic Development.

Competitive Matrix

Both Anniston and Calhoun County possess obvious economic development strengths and resources; however, like any other community or region, the area also possesses limitations and weaknesses from a business investment perspective.

Working to improve limiting conditions and overcome weaknesses while highlighting and marketing the area's strengths and resources are hallmarks of successful economic development practices.

The following community assessment is an analysis of the strengths and weaknesses of Anniston and Calhoun County from the perspective of business investment. Simply put, this

depicts how an outside business investor might view the area and its communities as a potential facility.

Key economic development strengths and weaknesses are summarized on the following pages. This report describes the significance of economic development factors and assesses these factors in terms of their potential contribution to the business development climate in the area.

The factors are evaluated as strengths, weaknesses, or neutrals as outlined below:
- **Strength:** A significant asset for promoting economic growth and job creation in the area.
- **Neutral:** Factors that have neither a strong positive nor negative impact on potential growth. Neutral factors may include a combination of strengths and weaknesses that tend to offset each other, or conditions that are just average or may be a less critical location factor.
- **Weakness:** A significant limitation, potentially constraining future growth and development; a critical deficiency in a key location factor.

The findings in this community assessment are based on qualitative and quantitative data obtained through interviews with local employers and stakeholders in the city, and through research, data, and analysis of key economic and demographic variables.

We met key community stakeholders in 25 separate interviews, many of them with multiple participants. Our team applied their experience from long standing involvement in economic development and site location projects to assess the competitive strengths and weaknesses of Anniston and Calhoun County from both a business and community perspective.

Anniston and its eight-county region support 2023 cost of living at just *84.8%* of the U.S. average. Consequently, it is a statistically inexpensive community to reside or work in. Salaries and wages should be viewed within this context.

Chart 1.

Demographic Comparison	8-County Region	Alabama	U.S.
Population	420,837	5,074,296	333,287,557
Labor Participation	54%	57.6%	63.4%
Per capita Income	$26,804	$30,458	$37,638
Poverty Rate	16.1%	15.8%	12.6%

Chart 2.

Location	Avg. Annual Salary	Cost of living U.S.=100	Purchasing Power
Anniston City, AL	$46,528	84.8	$54,868
Alabama	$57,658	88.6	$65,045
USA	$70,318	100.0	$70,318

Accordingly, expanding businesses will often favor low-cost locations such as Anniston and its service area.

Chart 1 offers basic demographic information on Anniston and its eight-county service area compared to the State of Alabama and the U.S.

Note that the labor participation rate and per capita income lag Alabama and U.S. averages, while the poverty rate exceeds averages.

Chart 2 displays cost of living information comparing regional data to state and national averages.

Combined, **Charts 1 and 2** offer insight and context to the following **Competitive Matrix.**

Competitive Assessment Classification

Category	Strength	Neutral	Weakness
Available Land and Buildings			
Industry readily available land	☐		
Airport manufacturing sites and support hangars and facilities		☐	
Retail sites		☐	
Available buildings		☐	
Labor Skills/Workforce			
Labor cost	☐		
Labor availability – skilled		☐	
Labor availability – unskilled		☐	
Workforce productivity and work ethic		☐	
Utilities			
Electricity	☐		
Water	☐		
Sewer	☐		
Natural Gas	☐		
Telecommunications and Broadband Service		☐	
Transportation and Economic Geography			
Airport		☐	
Roads and Highways		☐	

Rail		🟨	
Port Access			🟥
Location		🟨	
Business, Political, and Economic Climate			
Local Incentives	🟩		
Local Government Support	🟩		
Zoning and Enforcement		🟨	
Image and Appearance		🟨	
Regional Cooperation			🟥
Education			
K-12			🟥
Career and Technical Training	🟩		
Higher Education	🟩		
Quality of Life			
Cost of Living	🟩		
Housing Availability		🟨	
Healthcare	🟩		
Public Safety – Police			🟥
Public Safety – Fire	🟩		
Cultural Activities	🟩		
Recreational Opportunities	🟩		
Economic Development			
Economic base		🟨	
Long term vision		🟨	
Strategic plan	🟩		
Active economic development marketing	🟩		
Retail and Tourism			
Retail stores		🟨	
Chief Ladiga Trail & Recreation	🟩		
Natural History Museum and LaGarde Park	🟩		
Infrastructure			
Roads		🟨	
Highway access		🟨	

Matrix Assessment Summary

1) Available Industrial Land and Buildings

Industrial

The available land and building assets for manufacturing in and around Anniston are suitable to encourage and accommodate growth. These assets are managed and/or marketed by the

Calhoun County Economic Development Council (CCEDC) Board of Directors and their Executive Director and staff. The economic development **process** of CCEDC is well-proven and the organization has provided **product** by constructing speculative buildings to accommodate new industry.

The organization has an excellent reputation and a solid history of success. The Commission has had success building five speculative buildings, recruiting manufacturing, and recruiting businesses to occupy them.

There are currently three buildings at the McClellan industrial site totaling 30,000 sq. ft. There is also additional land that could be used by potential industrial sites. These sites should be identified precisely and have preliminary engineering completed.

NAICS	Industry	Empl	Avg Ann Wages	LQ	Empl Change	Ann %
3261	Plastics Product Manufacturing	687	$60,346	10.00	280	11.0%
3369	Other Transportation Equipment Manufacturing	507	$62,581	108.40	75	3.2%
3315	Foundries	293	$95,071	24.01	-35	-2.3%
3329	Other Fabricated Metal Product Manufacturing	185	$113,239	5.76	-1	-0.1%
3364	Aerospace Product and Parts Manufacturing	122	$70,447	2.09	-47	-6.3%
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	88	$77,242	9.22	73	43.1%
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	44	$63,572	1.11	12	6.5%
3254	Pharmaceutical and Medicine Manufacturing	41	$123,860	1.05	26	23.1%

Chart 4. Anniston's Highest Wage Manufacturing Industries

The CCEDC is planning to construct a 60,000 sq. ft. building in the 165-acre Oxford Industrial Park. The Anniston Regional Airport (KANB) consists of 596 acres, and although the former commercial flight terminal building is currently vacant, the facility is an available building that could be utilized.

There is also space available for additional aircraft-related businesses. With a newly paved 7,002' X 150' runway as of 05/23, it can support commercial aircraft, and is well-suited to managing any regional aircraft needs. Currently, there are aviation 63 operations per day and 26 based aircraft, ILS approach, MASLR, 4-light PAPI and the FBO offers major airframe and powerplant maintenance.

A 10–20-acre parcel with potential taxiway access to the runway would offer a desirable site to an aerospace parts or maintenance business that required runway access.

The former "Honeywell Aerospace Building" (95,238 sq. ft.) will be converted into a workforce training facility by the Oxford School Board and open in August 2024 to students from Oxford and surrounding school systems. It will enhance activity at the airport and will offer academic as well as technical training to high school students. Computer science, robotics, engineering, construction skills and criminal justice will be offered initially. In 2025 industrial maintenance, transportation, logistics and STEM skills courses will be followed by aviation in 2026.

Retail
Retail buildings are available downtown along Noble Street and along the primary thoroughfares in Anniston (**Map 6** - *pg. 25*). Fortunately, Anniston has a substantial surplus of retail trade (**Chart 10** - *pg. 20*) due to its large trade area, medical services, county courthouse, and manufacturing businesses. Anniston has employed Retail Coach as a well-respected consultant to assist the city in its retail development strategy, marketing, and recruitment.
  2) Labor Skills & Workforce
Labor Skills
Chart 4 lists the city's highest wage manufacturing industries.

Local industries reported that they depended on Anniston and Calhoun County High Schools and the Ayres Campus of Gadsden State Community College to train technical skills for their specific industry.

Similarly, health care, engineering, management, and many other academic skills are offered at both Jacksonville State University and the Ayres Campus in Anniston.

The skills taught are determined by the employment requirements of the businesses in the area. Anniston is extremely fortunate to have a four-year university, a community college, and five K-12 school systems that coordinate to provide the skills that are in regional demand.

It is notable that 58 percent of Anniston's workforce is employed by four primary businesses: manufacturing (21.8%), health care (15.9%), retail (10.6%), and accommodation and food (9.8%).

Workforce
Approximately 30 percent of Annistion's workforce commutes 30 minutes or more per day to work, which means they likely reside outside the city (**Chart 3** - *pg. 16*).

Map 1 (*pg. 15*) indicates the density of the workforce in Calhoun and surrounding counties. Calhoun, Etowah, and Talladega clearly offer the most workforce opportunities.

3) Utilities
Electricity, water, sewer, and natural gas service offers capacity and quality service throughout the city. Broadband service is also available throughout most of the city.

4) Transportation and Economic Geography
East/west access to Interstate 20 offers excellent service. State Highway 21 offers a north/south corridor, although not a four lane. Anniston's location between Birmingham and Atlanta is a geographic advantage to supplement both Metropolitan Statistical Areas with support for business and industry.

5) Business, Political, and Economic Climate
Both Anniston and Calhoun County are pro-growth and industry friendly, and the economic climate is positive.

6) Education
JSU offers a quality, four-year academic and technical education and is located just outside the Anniston City limits. The Gadsden State Community College Ayers Campus offers two-year academic associate degrees, as well as technical training courses that support local businesses.

The K-12 city school system is not adequately supported by local residents. Anniston High School ranks in the bottom 50% of all Alabama Schools in 2022-2023. Math and reading proficiency are also in the lower 50% of the state average.

Ninety-six percent of the student body identifies as a minority, and 85% are classified as poor. Consequently, many have chosen to send their children to one of the other four school systems in Calhoun County and reside outside of Anniston.

7) Quality of Life

Livability is positive. The cost of living in the city and county is only 84.8% of the national average; as a result, one can purchase more with less (**Charts 1 and 2** - *pg. 8*).

Yet, in 2023 per capita income was $26,804, compared to $30,458 for the State of Alabama, and a national average of $37,638.

More robust housing growth has been apparent in Calhoun County and the City of Oxford, as they offer higher academic performance and lower crime statistics (**Chart 11**).

Anniston serves as a critical regional healthcare center. The Regional Medical Center (RMC) together with its Stringfellow Hospital Campus provides comprehensive in-patient care for the entire East Alabama Region. Together they employ 1,600 people, including 200 physicians, and they provide 400 beds. Healthcare is the second largest employer in Anniston.

Public safety is perceived as a problem due to the high incidence of crime as shown on **Chart 11**. This unfavorable situation has resulted in many residents electing to reside outside of the city.

Chart 11. Anniston Crime	
2023 Crime Indexes (AGS) **100 = National Average**	
Total Crime Index	185
Personal Crime Index	205
Murder Index	312
Rape Index	113
Robbery Index	166
Assault Index	231
Property Crime Index	181
Burglary Index	219
Larceny Index	175
Motor Vehicle Theft Index	16

Fire protection, meanwhile, is positive. The Fire Department maintains an ISO overall rating of 2 and supports five fire stations.

The 33-mile Chief Ladiga Bike Trail is an exceptional recreational asset that extends far beyond Anniston City limits, connecting with the Silver Comet Trail. Together, the trails total roughly 95 miles, ending in Atlanta. The Chief Ladiga Bike Trail has a significant economic impact and hosted over 34,000 visitors in 2023.

Chart 5.

NAIC	Industry	Average Wage
31	Manufacturing	$69,068
22	Utilities	$108,995
55	Management	$116,710

The Anniston Berman Museum of World History, Natural History Museum and adjacent Longleaf Botanical Gardens create a very exclusive tourism destination for a city the size of Anniston as well as the State of Alabama This attraction draws over 40,000 visitors each year and generates an annual economic impact of $7,151,775 (2017 JSU study).

The Civil Rights Trail includes nine sites associated with the struggle and includes the Greyhound Bus Station that was attacked and fire-bombed in 1961.

Map 1. Industry density, 100+ Employees

1) Economic Development

Anniston has an exceptionally strong economic base (Chart 5), supporting 2,770 jobs—or 21.8% of the workforce—versus 17% in Alabama and 8.5% nationally. The healthcare sector employs 15%, retail 10%, and accommodation and food at 9%.

Long term vision for economic development is positive with an active and effective Calhoun County EDC.
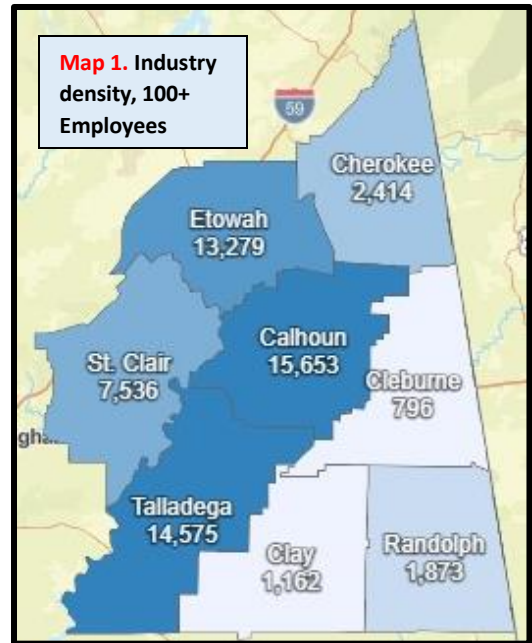
Retail and Tourism

The city has a commitment to expanding its retail and tourism businesses and has employed a retail specialist to guide its effort.

The Anniston Natural History Museum and LaGarde Park are popular tourist destinations; the Civil Rights Trail is also a historical attraction. The Chief Ladiga Bike Trail is scheduled for a major expansion this year. Downtown also has several new restaurants and businesses. Downtown was designated as a Main Street City in 2014, and since that time, the downtown area has grown significantly with 44 new businesses, and over $66,000,000 in public and private investment.

Map 2. Manufacturers, 100+ employees
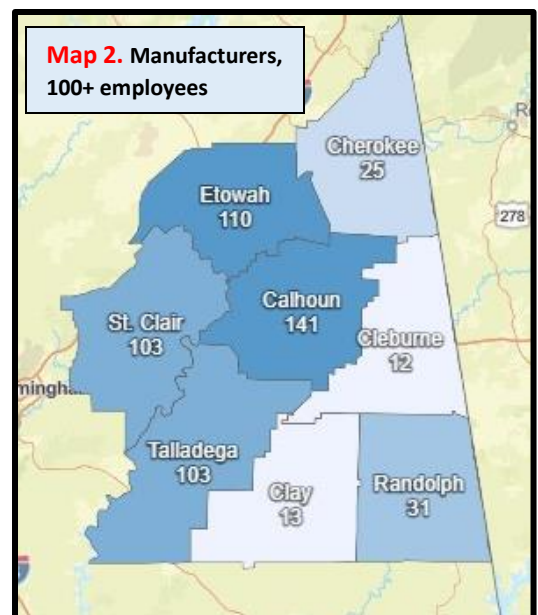
The Chief Ladiga Bike Trail is also scheduled to be extended into downtown, close to the Anniston City Meeting Center.

The downtown area has become a primary generator of sales tax revenue and commercial activity. Noble, Gurney, 10th, 11th, and 12th streets form the primary commercial districts. Downtown Anniston has the potential to develop residential occupancy by converting the vacant second story space to apartments or condomiums.

This would attract younger workers and increase retail activity, adding consumer businesses with more variety to the central business area. Millennials (28-43) and Generation Z (12-27) often opt for downtown and walk-around friendly communities.

2) Infrastructure

Water, sewer, and natural gas services are adequate to supply immediate and future needs. The broadband service is provided by three companies based in Anniston, all of whom have indicated plans to expand service in 2024-25. Main throughfares maintained by the state, city, or county are reported satisfactory.

Anniston Airport is maintained by the Anniston Public Works Department and is leased to a fixed base operator. The facility has the potential for additional development of business and industry.
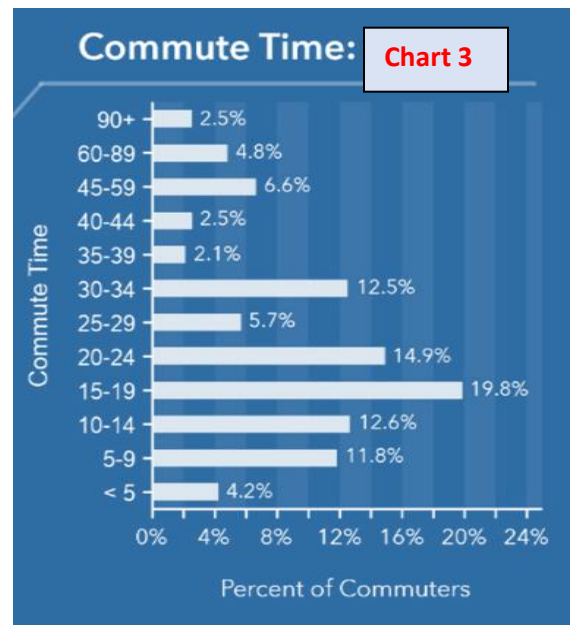
Economic Data Analysis

Workforce and Skills Availability

The availability of workers and skills are a principal determinant for most business and industry decisions. We will first examine the workforce and skills in Calhoun County.

Notably, workers are not confined to the city or county, with 31% commuting over 30 minutes to work daily (**Chart 3**).

Chart 4 (*pg. 12*) illustrates Anniston's highest wage manufacturing industries. Fortunately, "Plastics," "Transportation Equipment," and "Engineered Wood Products" have a five-year expansion record. Meanwhile, the others experienced stability or only modest declines.

Commute Time: Chart 3

Commute Time	Percent of Commuters
90+	2.5%
60-89	4.8%
45-59	6.6%
40-44	2.5%
35-39	2.1%
30-34	12.5%
25-29	5.7%
20-24	14.9%
15-19	19.8%
10-14	12.6%
5-9	11.8%
< 5	4.2%

Transportation equipment manufacturing supports an extremely high location quotient (LQ) of 108.4. Only aerospace products and parts experienced significant job loss.

All of the highest wage industries have a high LQ, with "Transportation Equipment Manufacturing" and "Foundries" supporting the highest.

Chart 5 (*pg. 14*) lists the three top paying industry classifications in Anniston. Note the manufacturing annual salary of $69,068. Its total annual payroll in the city is $191,318,360.

Salary classification averages in Anniston range from a low of $19,794 for food services and lodging to management at $116,710.

Map 1 shows the density of the manufacturing ***workforce*** within the eight-county region, by workplace. Note the heavy concentration in Calhoun, Talladega, and Etowah Counties.

Map 2 illustrates the density of manufacturing ***industries*** with over 100 employees. The four westernmost counties contain 88% of the manufacturing workforce and 82% of the industries that employ over 100.

An extremely positive outcome of labor and management in the Anniston region reveals that output per worker was 16% higher at $775,000 compared to a national average of $651,000.

This suggests that Anniston workers are more productive than the U.S. average, offering a positive incentive for prospective industries to locate in the area.

Similarly, average annual growth in the Anniston region averaged 3.7%, compared to the national average of 3.5%.

These two workforce and industry characteristics present a solid case to expand or locate in the Anniston region.

Post Secondary Education

The region is served by the Alabama Community College System (ACCS) via three primary community colleges: Gadsden State, Jefferson State, and Central Alabama.

One primary four-year college, Jacksonville State University (JSU), offers a full range of business and industry academic and technical training to support the area business requirements.

THREE YR COMPLETERS & CURRENT ENROLLMENT
Chart 8
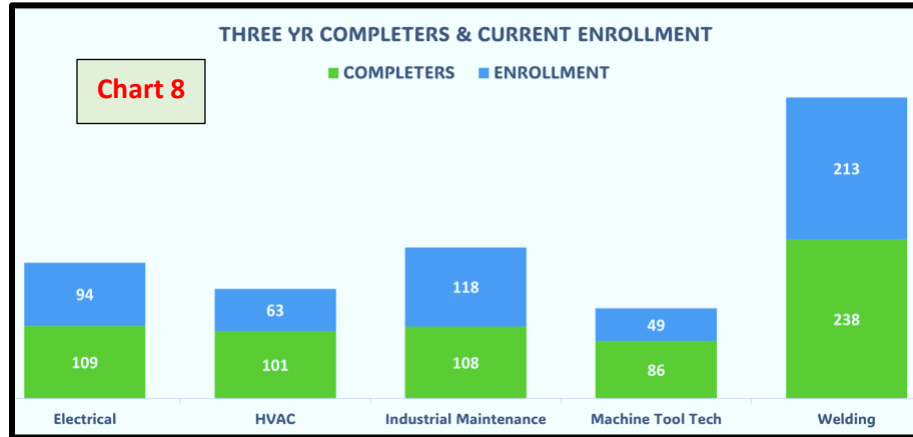
Similarly, the three community colleges currently offer the following technical training required by regional industry.
Charts 8 and 9 indicate the current enrollment in the combined three community colleges and completers in technical in demand in the region within the past three years.
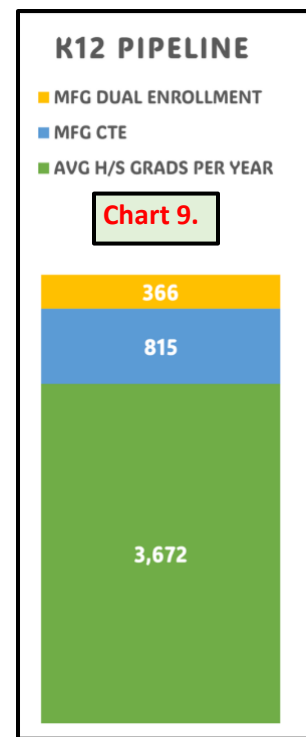
The chart indicates a consistent demand for technical training in the region. A total of 1,181 students have completed or are enrolled in technical education programs. Welding is by far the most requested, consisting of 38% of the three ACCS schools' technical education.

K-12 Education

Within a 45-minute drivetime of Anniston, K-12 high school education currently has 1,179 students enrolled in technical training programs. This represents one-in-three regional students. These technical programs are either Dual Enrollment (college credit courses), Manufacturing Career Cluster (CTE), or industry specific training**.**

Many of these graduates will directly fill industry positions and some will secure additional training and certification in the three regional ACCS institutions.


K12 PIPELINE

■ MFG DUAL ENROLLMENT
■ MFG CTE
■ AVG H/S GRADS PER YEAR

Chart 9.

366
815
3,672

Map 3 indicates **15**, **30**, and **45**-mile drivetimes from Anniston, covering most of the eight-county region.

Anniston and Calhoun County are in an unusually strong academic and technical training area, supported by JSU, Gadsden State Community College Ayres Campus, and 18 county-wide high schools.

Fifty-nine additional high schools and two community colleges are found within a 45-minute
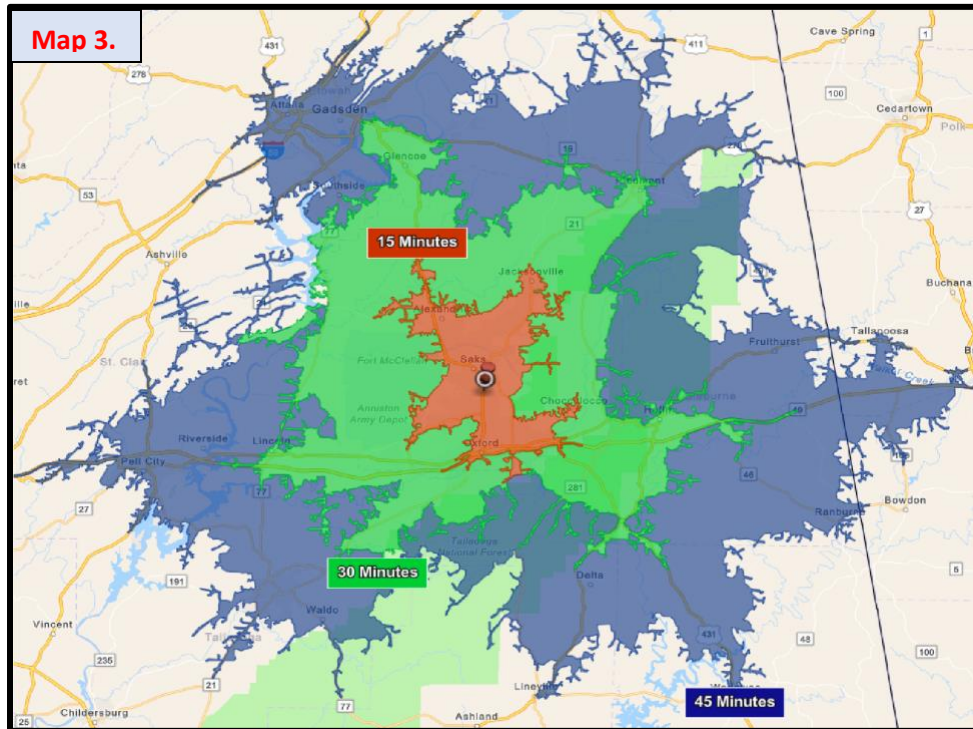
drivetime of Anniston and are found in the surrounding seven counties.

A new "Workforce Center" is planned to launch at the Anniston Airport in the 95,238 sq. ft., former Honeywell Aerospace building. The Workforce Center will be operated by the Oxford School Board and will be available to surrounding area students.

Marketing/Recruitment Targets

Manufacturing, and business location and expansion are dependent upon critical factors including incentives, facilities, workforce and skills, existing industries, transportation, geography, quality of life, utilities, education, and business climate—which have been discussed in the **Competitive Matrix** section. Here, we will identify the businesses that best align with the key location factors.

Location quotients (LQs) of local businesses are reflections of, and a testament to, what type of industries have been successful and prefer the Anniston area.

Chart 6 identifies business clusters and manufacturing as the number one labor force in Anniston. Be aware that these manufacturers have been successful for a reason.

When their presence supports a high LQ, it is an indication that the conditions are present to support their profitability.

Because these industries have proven successful in the Anniston area, workforce skills and training have evolved and are present and offered in local schools and colleges to sustain their operation.

The infrastructure that has been established to support these now-successful local industries will be a great foundation for similar industries that employ the same work, infrastructure, and skills.

Accordingly, prospective manufacturers with similar needs should also prosper in this area.

As noted previously, high schools and colleges in the Anniston area are currently offering training that matches the needs of existing business; thus, identifying businesses that share skill needs with local industries will complement the existing workforce.
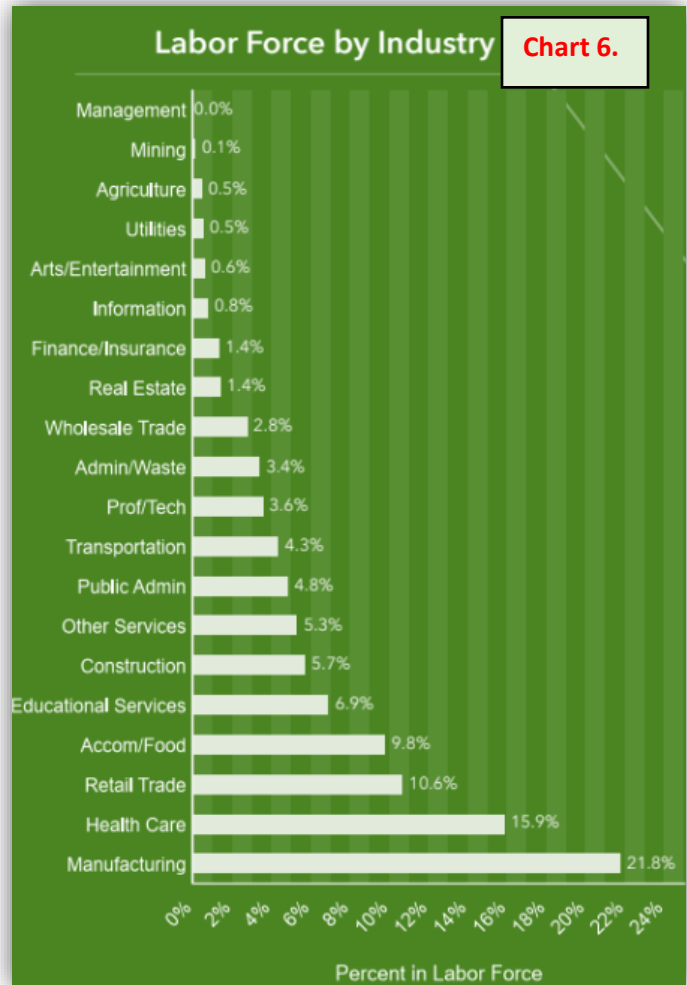
On the following page, **Chart 7** identifies the **Primary Regional Expanding Industry** that composes the largest, most prominently expanding, and most successful existing industries. All nine have experienced employment growth in the past five years.

The optimal business sectors selection is based on the specific characteristics of the Anniston Regional Economy.

Recommended targets are designed to enable the area prioritization of resources by focusing on industry sectors for which the region holds a competitive advantage and has significant growth potential.

This approach will help policymakers prioritize the community's community and economic development strategy.

Charts 10 and 11 below show the nine primary, expanding industries of the region which match the recruitment targets noted in **blue**. These target industries require a similar workforce and skills to the existing regional industries shown in **green**.

These related industries attend similar trade shows and many share parts suppliers. They are excellent high-probability recruitment targets for Anniston and Calhoun County.

	Chart 7.	
NAICS	**Primary Regional Expanding Industry**	**Jobs**
3369	Other Transportation Equipment Manufacturing	1,232
3361	Motor Vehicle Manufacturing	5,454
3315	Foundries	1,324
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	706
3313	Alumina and Aluminum Production and Processing	436
3271	Clay Product and Refractory Manufacturing	241
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	225
3363	Motor Vehicle Parts Manufacturing	2,970
3116	Animal Slaughtering and Processing	2,560

3369 Transportation Equip. Manufacturing	3361 Motor Vehicle Manufacturing **Chart 10.**	3315 Foundry	3212 Eng. Wood Products Manufacturing	3313 Aluminum Prod. & Processing
-Bicycles, Motorcycles & Parts	-Motor Vehicle Parts	- Metal Fabrication -Pipe & Tubing	-Truss Mfg. -Engineered Wood Prod.	-Electro Metallurgical Products
-All other Trans. Equipment, ATVs, Golf Carts, etc.	-Body & Trailer Mfg.	-Stamping -Wire parts -Casting	-Reconstituted -Wood Product Mfg.	-Ferroalloys -Metal Forming

3271 Clay Products	3253 Pesticides, Fertilizer, and other AG Products	3363 Motor Vehicle Parts Manufacturing	3116 Animal Slaughtering & Processing
-Clay Building Material and Refractories Mfg.	-Medicinal & Botanical Mfg.	-Engine Parts Manufacturing, -Seating & Interior	-Meat Biproduct Processing
-Glass &Glass Products	-Resin, Rubber & Artificial Fibers	-Steering & Suspension	-Poultry Processing, Drying & Canning
-Concrete Block & Brick Mfg.	-All other Chemical Mfg.	-Metal Stamping & Other Parts	-Frozen Specialty Foods

Chart 11. (appears within first column header cell)

Existing Industry and Recommended Target Industries

Business Recruitment Strategy

Currently, Calhoun and the seven adjoining counties each support individual economic development organizations (EDO's); however, the counties are not organized as a functional working association or formally structured organization with common or cooperative goals.

Each county has evolved its own goals, objectives, and priorities. Since the workforce is presently commuting county-to-county for work, retail, medical, residential, and professional services, a coordinated approach could be effective.

Advantages would allow for concentrated resources, focused effort, and shared expenses. In some cases, two or more regional EDO's could actively recruit and pursue a target prospect.

Additionally, data and industrial sites could be promoted on a regional East Alabama website. Suggestions for marketing will be discussed in more detail in the recommendations below.

Two Recommended options:

1. Local industries are presently in Anniston because the labor, resources, skills, training, and geographic location are favorable. Consequently, new industries are likely to establish themselves in the area if/because they seek the same resources as the existing economic base.

   Therefore, the aim of locating industry as indicated on **Charts 10 and 11** is a proven strategy for attracting prospects. These industries match Anniston's resources and have similar NAICS classifications.

An active industry visitation program can reveal complementary businesses or allied suppliers that will assist the local industry and develop prospective leads.

2. A regional approach examines a larger area that includes primary industry clusters including large metro areas and the area between them. **Map 4** below shows the dominant industry groups between Nashville, Atlanta, Birmingham, and Knoxville.

   Within this area there are 5 industries: *aerospace, agricultural-production, automobile manufacturing, wood flooring and forest products, and trucking.* These clusters represent ideal recruiting targets for Anniston and Calhoun County.
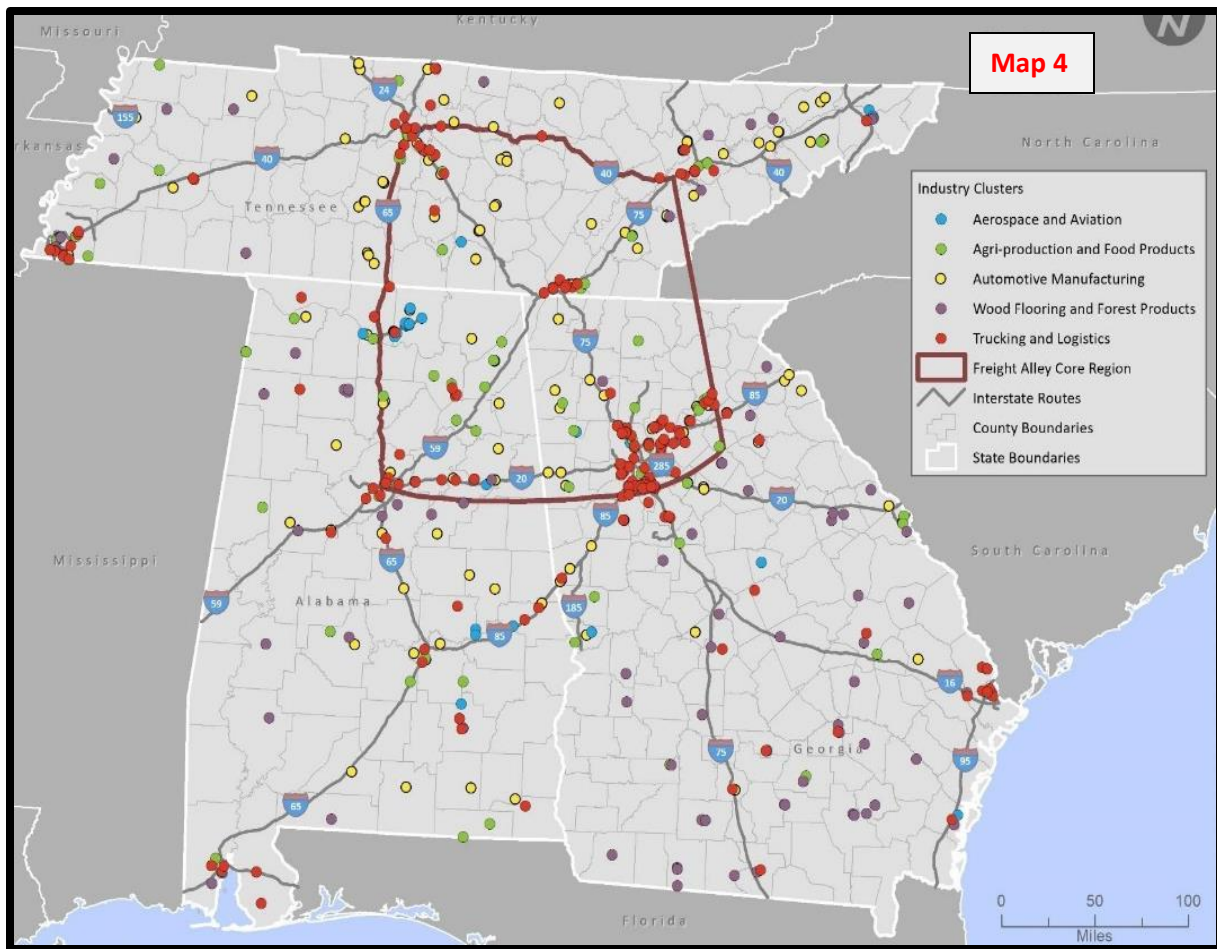
Retail Opportunities

A mutual characteristic of each national retailer is that all have developed a defined set of demographics that identify a "most favorable" community, and location within that community.

Therefore, each retailer must be considered independently, and recruited to meet their individual standards.

These requirements involve population density, income, drivetime, social and cultural characteristics, and existing competition.

Sales tax is also a critical revenue source for cities and counties throughout Alabama.

Map 5 illustrates outshopping patterns for each Alabama county for 2014 and 2022.

Map 5.

2014 & 2022 Outshopping Patterns for Alabama Counties

Legend
2014 Outshopping Index
2022 Outshopping Index

The number 1.00 indicates that a county is generating sales tax equal to its population. A number above indicates a net gain over population, and a number below indicates a loss.

The 2014 numbers are displayed in **Purple** and 2022 in **Red.** Thus, it reveals if a county is gaining or losing potential sales tax income.

Calhoun County is positive, indicating that regional customers are traveling to Calhoun County and Anniston to purchase retail items resulting "surplus sales tax revenue collection." Five of the
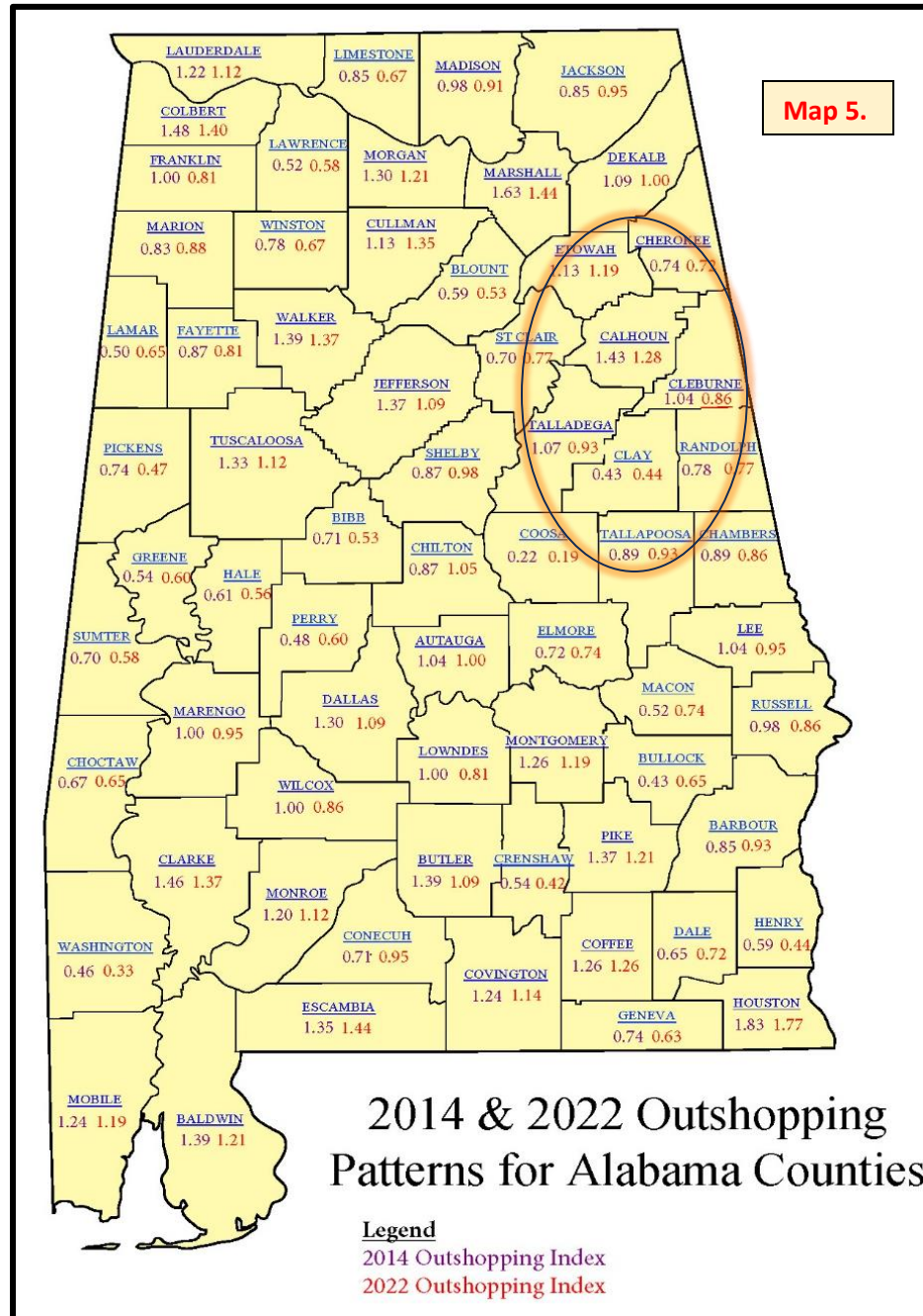
seven surrounding counties are losing potential sales tax revenue, while Calhoun, Etowah, and Talladega Counties are net sales tax generators beyond their populations.

Furthermore, Calhoun County is the largest percentage gainer with 1.25%. This indicates that for every retail dollar spent, Calhoun County and Anniston gain an "extra 25 percent" and lead the region in percentage of these collections.

Traffic Counts

Map 6 identifies average primary traffic counts in Anniston in 2022.

Alabama Highway 21, Anniston Bypass, US Highway 431, and the Interstate 20 corridor are the most heavily traveled roads in both Anniston and Oxford and support a majority of the retail trade in the county.

It is likely that future retail will also prefer these more heavily traveled thoroughfares.

Map 6. Anniston Traffic Counts
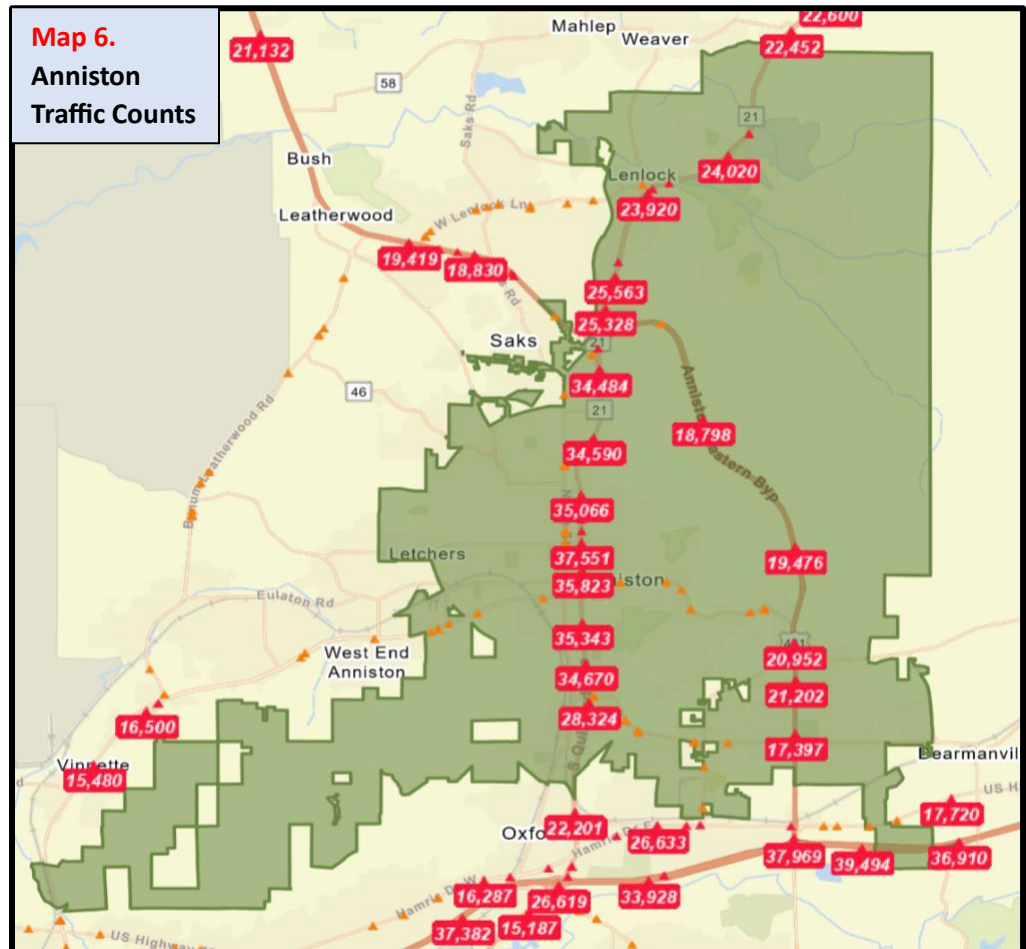
Retail Gaps

Retail purchases can be calculated by examining state and local sales tax revenues and classifying them into retail subsectors to determine "retail gaps" in a city or county. These "gaps" also identify retail opportunities by revealing unserved or underserved retail markets.

As may be expected, these underserved retail categories can serve as potential retail "targets" for a community.

Chart 12 below identifies the leakage/surplus factors by retail sectors. Note that Anniston generates a positive surplus balance in "total retail trade" and "food and drink," amounting to

$271,107,228. The city has, over time, developed a successful and regional-based retail trade business. Opportunities for new retailers or expanded existing retailers exist in the following sub-categories: motor vehicle dealers, electronic and appliances, home furnishing, office supplies, used and merchandise stores, shoes, lawn, garden and supply, specialty food, elec. shopping, and mail order houses.

Chart 12. Retail Gap example, Anniston	NAICS	Demand	Supply	Retail Gap	
		(Retail Potential)	(Retail Sales)		
Total Retail Trade and Food & Drink	44-45,722	$227,690,139	$498,797,367	-$271,107,228	
Total Retail Trade	44-45	$206,462,771	$453,442,586	-$246,979,815	
Total Food & Drink	722	$21,227,368	$45,354,781	-$24,127,413	
	NAICS	Demand	Supply	Retail Gap	
2017 Industry Group		(Retail Potential)	(Retail Sales)		Factor
Motor Vehicle & Parts Dealers	441	$45,526,778	$88,029,375	-$42,502,597	-31.8
Automobile Dealers	4411	$35,407,079	$76,097,531	-$40,690,452	-36.5
Other Motor Vehicle Dealers	4412	$5,675,004	$938,744	$4,736,260	71.6
Auto Parts, Accessories & Tire Stores	4413	$4,444,695	$10,993,100	-$6,548,405	-42.4
Furniture & Home Furnishings Stores	442	$7,260,242	$12,261,491	-$5,001,249	-25.6
Furniture Stores	4421	$4,264,059	$9,465,063	-$5,201,004	-37.9
Home Furnishings Stores	4422	$2,996,183	$2,796,428	$199,755	3.4
Electronics & Appliance Stores	443	$6,125,905	$4,450,532	$1,675,373	15.8
Bldg. Materials, Garden Equip. & Supply Stores	444	$13,170,633	$31,449,962	-$18,279,329	-41.0
Bldg. Material & Supplies Dealers	4441	$12,276,048	$31,449,962	-$19,173,914	-43.9
Lawn & Garden Equip & Supply Stores	4442	$894,585	$0	$894,585	100.0
Food & Beverage Stores	445	$32,405,961	$126,168,771	-$93,762,810	-59.1
Grocery Stores	4451	$29,812,708	$123,676,583	-$93,863,875	-61.2
Specialty Food Stores	4452	$1,173,153	$762,852	$410,301	21.2
Beer, Wine & Liquor Stores	4453	$1,420,100	$1,729,336	-$309,236	-9.8
Health & Personal Care Stores	446,4461	$12,995,035	$40,255,494	-$27,260,459	-51.2
Gasoline Stations	447,4471	$25,524,558	$38,605,559	-$13,081,001	-20.4
Clothing & Clothing Accessories Stores	448	$7,147,525	$10,680,350	-$3,532,825	-19.8
Clothing Stores	4481	$4,671,076	$8,622,599	-$3,951,523	-29.7
Shoe Stores	4482	$1,024,312	$282,126	$742,186	56.8
Jewelry, Luggage & Leather Goods Stores	4483	$1,452,137	$1,775,625	-$323,488	-10.0
Sporting Goods, Hobby, Book & Music Stores	451	$6,555,245	$13,493,900	-$6,938,655	-34.6
Sporting Goods/Hobby/Musical Instr. Stores	4511	$5,632,600	$11,723,887	-$6,091,287	-35.1
Book, Periodical & Music Stores	4512	$922,645	$1,770,013	-$847,368	-31.5
General Merchandise Stores	452	$39,516,162	$79,943,073	-$40,426,911	-33.8
Department Stores Excluding Leased Depts.	4521	$27,552,674	$70,648,491	-$43,095,817	-43.9
Other General Merchandise Stores	4529	$11,963,488	$9,294,582	$2,668,906	12.6
Miscellaneous Store Retailers	453	$8,733,241	$8,016,905	$716,336	4.3
Florists	4531	$381,453	$721,360	-$339,907	-30.8
Office Supplies, Stationery & Gift Stores	4532	$1,615,496	$478,604	$1,136,892	54.3
Used Merchandise Stores	4533	$1,464,173	$1,263,298	$200,875	7.4
Other Miscellaneous Store Retailers	4539	$5,272,119	$5,553,643	-$281,524	-2.6
Non-store Retailers	454	$1,501,486	$87,174	$1,414,312	89.0

Electronic Shopping & Mail-Order Houses	4541	$467,122	$0	$467,122	100.0
Vending Machine Operators	4542	$256,819	$0	$256,819	100.0
Direct Selling Establishments	4543	$777,545	$87,174	$690,371	79.8
Food Services & Drinking Places	722	$21,227,368	$45,354,781	-$24,127,413	-36.2
Special Food Services	7223	$119,415	$875,831	-$756,416	-76.0
Drinking Places - Alcoholic Beverages	7224	$484,471	$1,463,217	-$978,746	-50.3
Restaurants/Other Eating Places	7225	$20,623,482	$43,015,733	-$22,392,251	-35.2

Downtown Development

Anniston Main Street was created to assist downtown development. Noble Street, 10th, and 11th Streets are the primary downtown arteries. Over 50 businesses are in the downtown area. The downtown area appears clean and well-kept, and growth has been led by Main Street Anniston.

Recruiting Retail

There are proven, successful approaches to attracting retail stores. First, retailers may prefer to build and develop their own stores; others lease them from commercial real estate developers; and others still will franchise locally to owner-operators.

Understand, there is no "single" method to fund and operate retail development. Therefore, local economic developers should adapt and simply assist where possible.

There are also specific actions that cities and counties can take that will enhance recruitment, and several actions that tend to confuse and undermine the process. We will simply classify these as *Do's and Do Not's*:

1. **Do** *designate a single person* as the retail contact. This prevents prospect confusion and contradictory commitments. It also helps to ensure confidentiality during the recruitment process. This person will serve as the "Retail Project Manager" for the community.

2. **Do Not** *overpromise* an incentive you cannot deliver, such as Amendment 772 tax refunds, access or utility access, or other assistance that is not assured.

3. **Do** *join the ICSC* and participate in their National RECon Conference in Las Vegas, as well as the regional ICSC Atlanta Conference. RECon is the nation's largest retail

conference, and many well-known national retailers attend. It is a proven approach to introduce your community to a retailer, and it is an opportunity to attend the *Alabama Reception* offered on Sunday evening of the conference; prospects, commercial realtors, retail recruiting companies, and community leadership will be present.

4. **Do Not** *offer incentives* unless they are needed to close the deal.

5. **Do** *Identify potential and available buildings and retail sites* including owners and prices.

6. **Do** *identify local or regional commercial developers* that can assist, locate, or partner with a retail prospect.

7. **Do** *identify community individuals and organizations* that can assist with the process, such as local realtors, utility managers, state and local highway officials, attorneys, and construction companies, etc.

Remember, this is often a three-way process between community, commercial developers, and the prospective retailer. Oftentimes, a community will also contract with a company or individual that specializes in retail attraction. Accordingly, this contractor often assumes the role of "Retail Recruiting Manager," guiding the location process.

Recreation & Tourism
Anniston has a wealth of distinctive tourist and recreation opportunities not found in similar sized cities. The 125-acre *Anniston Natural History Museum, Berman Museum, LaGarde Park, and Longleaf Botanical Gardens Complex* are unique and unusual developments in East Alabama. These attract over 40,000 visitors each year and generate over $7,000,000 in net economic impact on the area.

Downtown Anniston has added 44 new businesses and 192 jobs since its businesses designated it a Main Street Town in 2014. Public and private investment downtown have totaled over $66,000,000.

Downtown has become a destination for food, entertainment, professional services, Noble Park, and a 15,850 sq. ft. Downtown City Market.

City Market serves as a farmer's market as well as a Business Center. The Farmer's Market is open every Saturday (weather permitting).

The Chief Ladiga Bike Trail will soon be extended into Downtown and terminate near the City Market. The trail is currently 38 miles in Alabama and extends another 60-miles on the Silver Bullet Trail through Georgia, to Atlanta. The paved trail carried over 34,100 visitors to Anniston in 2023, supported 13 jobs and generated $202,000 in tax revenue.

By extending the trail, downtown economic impact is expected to significantly increase.

Other primary recreation opportunities include:
- ➢ Hamilton Ballard Park – green space, playgrounds, and picnic areas
- ➢ Norwood Hodges Community Center – pickle ball and basketball courts, weight and sauna rooms, and an indoor pool
- ➢ Anniston Aquatic and Fitness Center – Large indoor pool, fitness classes and exercise space
- ➢ Anniston Civil Rights Trail – featuring historic sites.

Appendix

We would like to express our appreciation to those 30 or so individuals in the community with an interest in Anniston and Calhoun County who took their time to be interviewed for this assessment.

Our goal was to interview a broad range of community leaders to discuss their respective views not only on their role in the community but concerning the community in general. Our intention was to verify and explain existing data as well as gain insight into community challenges, needs, and opportunities.

In most cases, their insights and understandings were remarkably similar. We kept all conversations confidential, where they shall remain. The following is a list of organizations that were interviewed:

- Retail Coach
- East Alabama Regional Planning & Development Commission
- City of Anniston Mayor, City Manager, Director of Planning and Economic Development & Public Works Director
- JSU, Center for Economic Development
- JSU College of Arts, Humanities and Sciences
- JSU Center for Manufacturing Support
- Anniston Main Street
- Calhoun County Tourism
- Gadsden State Ayres Campus
- Calhoun County EDC
- M&H Valve
- Spire
- Anniston Housing Authority
- Anniston High School
- Anniston Natural History and Berman Museum
- Water Works and Sewer Board
- Alabama Power Company
- Economic Development Partnership of Alabama