

# Alabama Commission on Higher Education Retain Alabama Survey Report



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Note: All data in this report is compliant with the Family Educational Rights and Privacy Act (FERPA).

## Table of Contents

EXECUTIVE SUMMARY .....	1
KEY FINDINGS.....	1
RECOMMENDATIONS .....	2
RETAIN ALABAMA: OVERVIEW .....	3
METHODOLOGY .....	5
FINDINGS: Staying in Alabama After Graduation .....	9
Overall .....	9
Analysis by Demographic Variables .....	9
Open-Ended Questions .....	15
FINDINGS: Openness to Career Opportunities in Alabama .....	17
Overall .....	17
Analysis of Demographic Variables .....	17
FINDINGS: Impressions of Alabama Versus Importance .....	19
OVERALL .....	19
Impressions of Alabama Expressed as Mean Ratings.....	21
Residency Status .....	22
Sex.....	22
Race/Ethnicity .....	22
STEM Major Status.....	23
FINDINGS: Alabama Regions Visited.....	29
Positive Views of Alabama Regions.....	30
CONCLUSIONS AND RECOMMENDATIONS.....	33
APPENDICES .....	35
Appendix A: Retain Alabama Survey.....	37
Appendix B: Stay in Alabama After Graduation Comments .....	43
Appendix C: Impression and Importance Tables by Demographic Variables .....	53
Appendix D: Inspiration for Major .....	59
Appendix E: Career Clusters and CIP Codes.....	65
Appendix F: Alabama Regions.....	69



## THE RETENTION PROBLEM

*Forbes* has ranked Alabama the **nation's third worst** at retaining its college graduates.

Although 2 out of 3 in-state students are in the workforce one year after graduation, the retention of recent Alabama graduates is low compared to other states.

Source: The Wall Street Journal  
Forbes Magazine  
StrategyWise Innovation & Entrepreneurship Report for EDPA

# Alabama Commission on Higher Education

## Retain Alabama Survey Report 2021

### EXECUTIVE SUMMARY

Alabama's continued growth and prosperity requires a skilled workforce, and Governor Ivey's Success Plus goal recognizes the need to add 500,000 highly educated and skilled individuals to the workforce within the next five years. But, like many other states, Alabama struggles to retain graduates from its public institutions. The Retain Alabama Survey was designed to help college leaders, employers, and policy makers in their efforts to keep this talent in the state.

In Spring 2021, the Alabama Commission on Higher Education (ACHE) partnered with Alabama's 14 public universities to conduct the Retain Alabama Survey. The twenty-question survey asked bachelor's degree students (sophomores, juniors, and seniors) about their plans to seek employment in Alabama after graduation, along with their impressions of the state on various factors compared with the importance of those factors for considering where to live and work. A total of 8,208 anonymized survey responses were received and analyzed based on students' self-identified demographic characteristics, including Alabama residency, sex, race/ethnicity, age, expected graduation year, first-generation status, and academic major. Analysis of the responses produced a number of statistically significant findings that can inform statewide efforts to retain graduates.

### KEY FINDINGS

- **Only one-third of respondents definitely plan to stay in Alabama after graduation, while nearly a quarter of respondents plan to leave the state.** The greatest number of respondents (43.2%) are undecided about remaining in Alabama after graduation. When asked about whether they were open to considering career opportunities in Alabama, the majority of respondents (73%) said "Yes." There were important differences by demographic groups:
  - Alabama residents were two and a half times more likely than non-residents to indicate they plan to stay in Alabama (42% of residents versus 17% of non-residents). Residents were also more likely to be open to career opportunities in Alabama (79% of residents versus only 61% of non-residents).
  - White students were more likely than students of color to indicate that they plan to stay in Alabama after graduation (37% of white respondents versus 28% of non-white respondents).
  - First-generation students were more likely than non-first-generation students to indicate they plan to stay in Alabama after graduation (40% of first-generation respondents versus 29% of non-first-generation respondents).

- Traditional-age students were less likely than non-traditional students to indicate that they plan to stay in Alabama after graduation (29% of traditional students aged 24 years or younger versus 45% of non-traditional respondents aged 25 years or older).
- Students majoring in STEM fields were less likely than non-STEM majors to indicate they plan to stay in Alabama (26% of STEM-major respondents versus 37% of non-STEM major respondents).
- Respondents had the **highest impressions of Alabama’s natural environment, access to outdoor activities, cost of living, friendliness of the people, and opportunities to practice their faith.**
- Respondents had the **lowest impressions of Alabama’s political and social environment, salaries, acceptance of diversity, and overall reputation.**
- Respondents indicated that **the most important factors for their future plans were job opportunities, potential for career advancement, salaries, and employer benefits, along with cost of living and public safety.**
- Respondents rated the **Birmingham and Huntsville areas as the most desirable places to live and work after graduation.**

## RECOMMENDATIONS

These findings indicate that most undergraduates are open to staying in the state after graduation, but more must be done to keep young talent in Alabama. In particular, Alabama should focus its efforts in the following three ways:

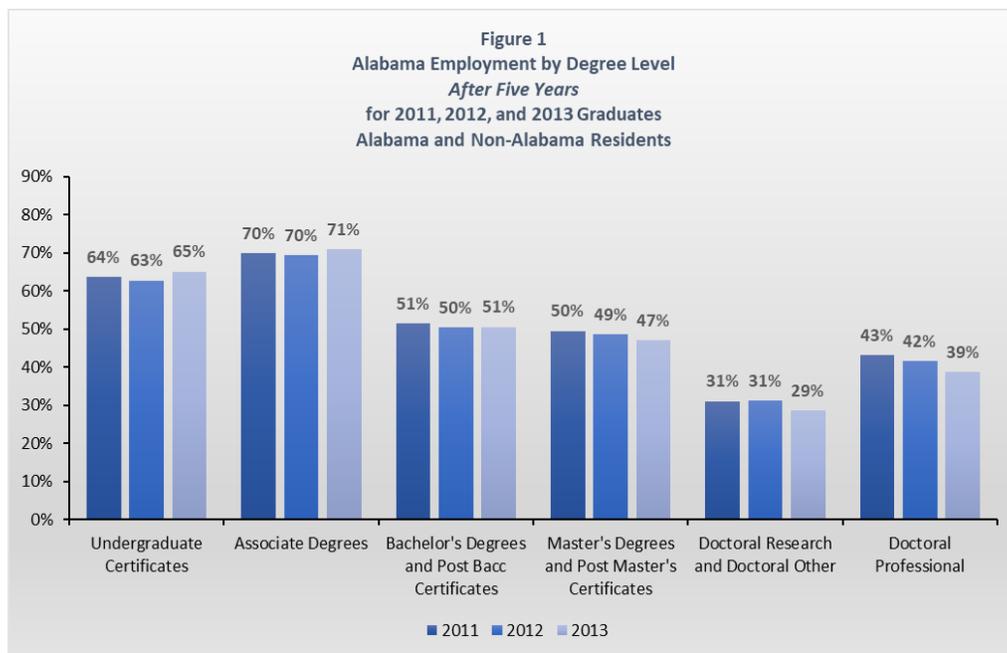
- 1) Develop a coordinated outreach campaign focusing on Alabama’s strengths, and target those students most likely to stay in Alabama after graduation.
- 2) Make it easier for students to find high-quality job opportunities in Alabama.
- 3) Work to improve impressions on those factors that are most important to students’ future plans.

The findings and recommendations in this report are intended to support the strategic vision for an ongoing Retain Alabama Initiative led by ACHE, Alabama’s public higher education institutions, and the Economic Development Partnership of Alabama (EDPA).

## RETAIN ALABAMA: OVERVIEW

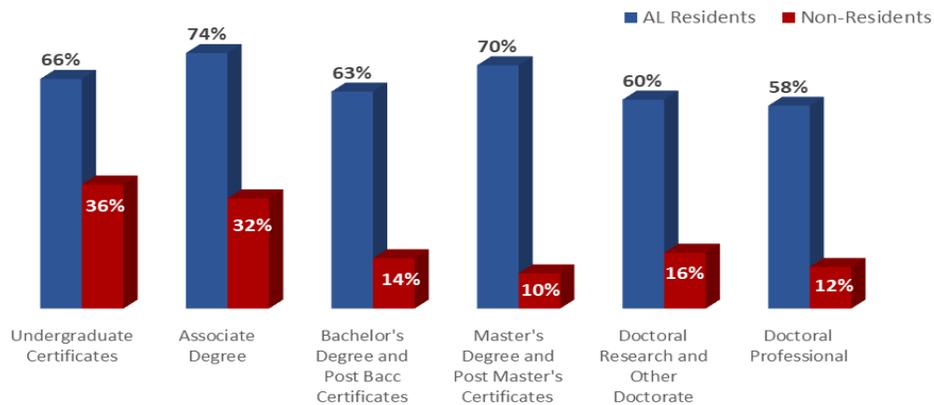
### *Employment Outcomes for Alabama's Graduates*

In 2020, the Alabama Commission on Higher Education (ACHE) published its [Employment Outcomes Report](#) based on a match of employment data from the Alabama Department of Labor and ACHE's student completions data. Overall, a majority of Alabama public higher education institution graduates (57 percent) were employed in Alabama five years after graduation, contributing to the state's economy and opportunities for growth. Yet, findings showed important differences between outcomes for graduates by degree level and residency status. Individuals earning higher levels of education tend to remain in the Alabama workforce at lower rates.



As shown in the table above, 51 percent of the 2013 bachelor's degree recipients were employed in Alabama five years later, as compared to 71 percent of associate degree earners. At the graduate level, less than half of master's graduates (47 percent) were still employed in the state five years later, and only 29 percent of doctoral research graduates and 39 percent of doctoral professional graduates.

Alabama Employment by Residency Status and Level of Degree for 2011 Graduates After Five Years



After five years, Alabama resident bachelor's, master's, doctoral research/other and doctoral professional degree graduates were found employed in Alabama at **three or more times** the rate of non-residents.

Like many other states, Alabama is losing its most highly educated talent at higher rates. The Retain Alabama Survey was designed as a follow up to the *Employment Outcomes Report*, with the goal of identifying factors that could help keep talent in Alabama.

### Survey

In contrast with the previous research on post-graduate employment, the **Retain Alabama Survey asked current students about their employment plans prior to graduation**. In Spring 2021, ACHE coordinated with Alabama's 14 public universities to collect information from bachelor's degree students (sophomores, juniors, and seniors) in order to help guide the state's efforts to better connect graduates with career opportunities and communities, and inform community and state leaders about what is important to students entering the workforce. The survey was developed through discussions with legislative representatives and Governor's staff and was distributed February 8 -March 26, 2021.

The following report provides the data and analysis of the survey responses. Specifically, this report addresses the following:

1. Students' intentions to stay in Alabama after graduation
2. Students' impressions of Alabama across various factors and importance of factors for future plans
3. Alabama regions visited and regions with the highest positive rating

## **METHODOLOGY**

### ***Survey Design and Development***

The Retain Alabama Survey was developed by the Alabama Commission on Higher Education (ACHE), in partnership with representatives from the 14 public universities in Alabama and with input from state leaders. The survey contained 20 questions that asked about regions of Alabama that students have visited, the regions students rate most positive, influences for students' major selection, intentions to stay in Alabama after graduation, and student impressions of Alabama along with importance of various factors for students' post-graduation plans. In addition, the survey asked students to self-identify on demographic characteristics, including sex, race/ethnicity, age, residency status, first-generation status, major, full-time status, institution, and anticipated graduation date. The demographic variables are used to disaggregate the survey questions to deepen the understanding of the survey results. A full list of survey questions is available in Appendix A.

### ***Survey Administration Process***

Once the survey design and development were completed, representatives from ACHE and the 14 universities regularly convened to ensure smooth and consistent survey distribution. The target population was identified as undergraduate students at the sophomore, junior, and senior level. Freshmen were excluded because many have yet to elect a major course of study, which would have the potential to obscure results. University staff emailed target students from their institutions inviting them to complete the survey and providing them a link. The survey was open from February 8, 2021 through March 26, 2021. A total of 8,208 survey responses were received, representing a 9% response rate.

The 14 public universities collaborating with ACHE on this project were Alabama A&M University, Athens State University, Alabama State University, Auburn University, Auburn University at Montgomery, Jacksonville State University, Troy University, University of Alabama, University of Alabama at Birmingham, University of Alabama in Huntsville, University of Montevallo, University of North Alabama, University of South Alabama, and University of West Alabama.

### ***Analysis of Survey Results***

The analysis of the survey results was completed using descriptive statistics and chi-square tests for statistical significance. Student responses to the survey questions are shared as

percentages of the total. For selected questions, additional analyses were conducted by disaggregating the results by various demographic factors. The disaggregations include residency status, sex, race/ethnicity, age, expected graduation year, first generation status, STEM-related major, and major category. A chi-square test of independence was performed to examine the relationship between the response options and these demographic variables. The analysis for this report used a 95% confidence interval, meaning that chi-square likelihood ratios less than or equal to .05 are considered statistically significant. All references to statistical significance in this report meet the 95% confidence interval ( $p = .05$ ) threshold.

### ***Resident versus Non-Resident***

In survey question fourteen, students are asked to share in which state they completed high school (or a GED). Students replying with any U.S. state or territory other than Alabama, or country outside of the U.S. are deemed non-resident students.

### ***Major Categories***

ACHE grouped majors (CIP codes) into career clusters using the National Career Clusters® Framework which serves as an organizing tool for Career Technical Education (CTE) programs, curriculum design and instruction. There are 16 Career Clusters in the National Career Clusters Framework, representing 79 Career Pathways to help learners navigate their way to greater success in college and career. See Appendix E for a complete list of career clusters and corresponding CIP codes.

### ***STEM (Science, Technology, Engineering, and Mathematics)***

ACHE utilizes the Department of Homeland Security (DHS) STEM Designated Degree Program list to determine which fields of study should be classified as STEM. This list includes fields of study in engineering, biological sciences, mathematics, and physical sciences, or a related field. In general, related fields include those involving research, innovation, or development of new technologies using engineering, mathematics, computer science, or natural sciences (including physical, biological, and agricultural sciences). See *Appendix E: Career Cluster and CIP Codes* for a complete list of career clusters, corresponding CIP codes, and STEM designations.

### ***First-Generation College Student***

While there are many definitions for a first-generation college student and colleges can apply their own definitions, ACHE has chosen to use the definition established by the Department of Education, in the Higher Education Act of 1965 and 1998. This defines a first-generation college student as one whose parents did not complete a bachelor’s degree, or in the case of students who live with and are supported by only one parent, a student whose only such parent did not complete a bachelor’s degree.

### ***Alabama Regions***

In order to ask students about their regional knowledge of Alabama, ACHE segmented the state into 16 “regions,” which were formed from a composite of the following geographic categories already in existence:

- The seven “Regional Workforce Regions” established by the Alabama Department of Commerce
- Cities with 25,000 or greater populations according to the “Populations of Alabama Cities Ranked by Population Size” table from the U.S. Census Bureau, Census 2010
- The university regional service areas (only the University of Alabama and Auburn University a state-wide “constitutional” responsibility)

<b>List of Alabama Regions for Retain Alabama</b>
Birmingham & Surrounding Suburbs
Huntsville/Madison/Athens/Decatur
Gulf Shores/ Orange Beach
Tuscaloosa/Northport
Auburn/Opelika/Phenix City/Tuskegee
Montgomery/Prattville/Wetumpka/Pike Road
Mobile/Saraland
Gadsden/Anniston/Oxford/Jacksonville
Bay Minette/Fairhope/Foley
Troy
Dothan/Enterprise/Ozark
Florence/Muscle Shoals/Tuscumbia
Fort Payne/ Guntersville
Selma
Demopolis/Livingston

Additional tables related to the segmentation are included in *Appendix F: Alabama Regions*.

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## FINDINGS: Staying in Alabama After Graduation

### Overall

Students were asked about their intentions to stay in Alabama after graduation. Of the 8,208 students who responded, 33.4% indicated they plan to stay in Alabama, 23.4% indicated they do not plan to stay in Alabama, and the largest percentage (43.2%) indicated they might stay in Alabama after graduation. The large number of students who are unsure about staying presents an opportunity for the State to encourage and recruit these students to live and work in Alabama after graduation.

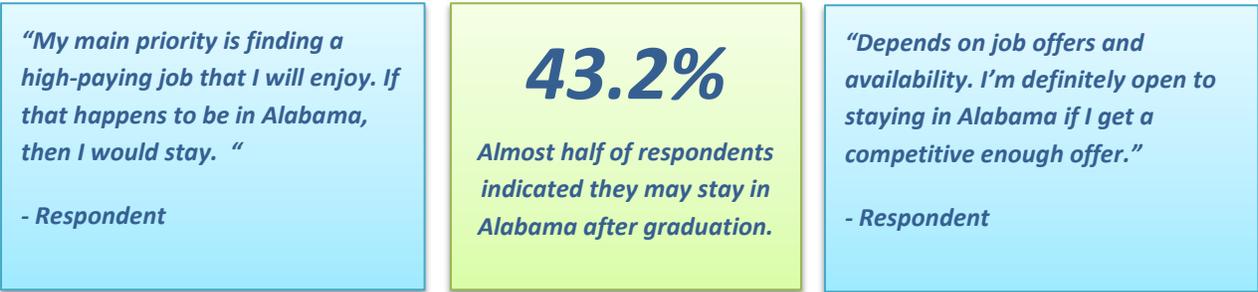
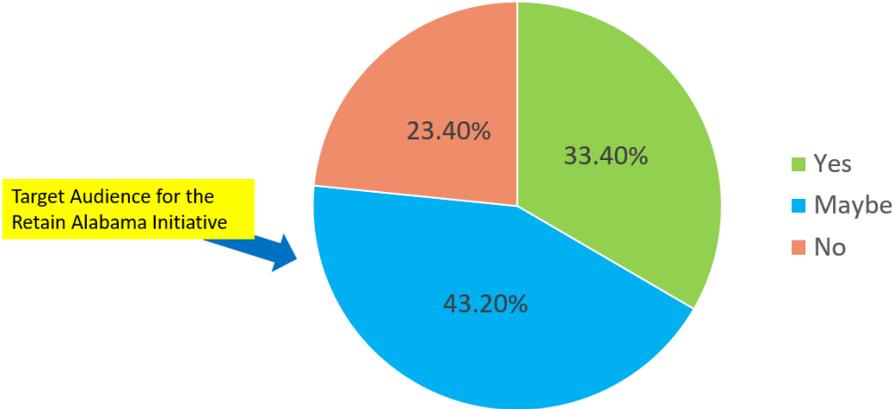


Figure 1: Percentage of Students Intending to Stay in Alabama after Graduation

### Staying in Alabama: all respondents



### Analysis by Demographic Variables

Analyzing student intentions to stay in Alabama after graduation by several demographic variables provides additional insights about students attending Alabama public four-year universities.

Students who are residents of Alabama (*i.e.*, they graduated from an Alabama high school), are more than twice as likely to plan to stay in Alabama than non-residents, 42.5% versus 17.2%. Conversely, non-residents (*i.e.*, those who graduated from high schools outside of Alabama) are more than twice as likely to not plan to stay in Alabama after graduation, 16.7% versus 35.4%. For both residents and non-residents, over 40% of respondents indicated they may stay in Alabama after graduation.

**Figure 2: Percentage of Students Intending to Stay in Alabama by Residency Status**

	AL Resident	Non-Resident
Yes	42.5%	17.2%
Maybe	40.9%	47.4%
No	16.7%	35.4%

\* Statistically significant difference

Female students were more likely than male students to respond with either “yes” or “no” as compared with “maybe.” As a result, females were more likely to indicate they planned to stay in Alabama (35% of females versus 30% of males), and they were also more likely to indicate they planned to leave (27% of females versus 22% of males). While the overall number was small, students who identified their sex as “other” were dramatically less likely to indicate they had plans to stay (only 5% indicating “yes”), and much more likely to indicate they planned to leave (45% indicating “no”).

**Figure 3: Percentage of Students Intending to Stay in Alabama after Graduation by Sex**

	Female	Male	Other
Yes	35%	30%	5%
Maybe	41%	47.5%	50%
No	27%	22%	45%

\* Statistically significant differences

When analyzing the student responses by race/ethnicity, students who identified as white were the most likely to plan to stay in Alabama after graduation (37%), and they were also the least likely to select “maybe” (40% of white students versus 50+% for other race/ethnic groups). Asian-American/ Pacific Islander students were the least likely to plan to stay in Alabama (18%);

however, they had the highest percentage of students who were unsure (58%). African American, Hispanic, and other minority students had a similar percentage who plan to stay in Alabama after graduation (26%-28%). Approximately half of African American and Hispanic students were unsure of plans to stay in Alabama, 50% and 52%, respectively.

**Figure 4: Percentage of Students Intending to Stay in Alabama by Race/Ethnicity**

White students expressed a greater interest in staying in Alabama than minority students.

**Stay in Alabama by Race/Ethnicity\***

	AAPI	AA	Hisp	Other Min	White
Yes	18%	27%	26%	28%	37%
Maybe	58%	50%	52%	45%	40%
No	23%	23%	22%	27%	23%

\* Statistically significant difference

Students who identify as first-generation college students are more likely to plan to stay in Alabama after graduation than non-first-generation students, 40% versus 29%.

**Figure 5: Percentage of Students Intending to Stay in Alabama by First Generation Status**

**Stay in Alabama by 1<sup>st</sup> Generation Status\***

	1 <sup>st</sup> Gen	Non-1 <sup>st</sup> Gen
Yes	40%	29%
Maybe	40.5%	45%
No	19.5%	26%

\* Statistically significant difference

Students who are considered non-traditional, namely aged 25 years or older, indicated they were more likely to stay in Alabama than traditional students (those aged 24 and younger), 45% versus 29%. Older students were also less likely than younger students to be unsure about their plans on staying in Alabama, 36% versus 46%.

**Figure 6: Percentage of Students Intending to Stay in Alabama by Student Age**

As expected, adult learners expressed a greater interest in staying in Alabama.

**Stay in Alabama by Student Age\***

	Traditional (≤ 24)	Non-Traditional (≥ 25)
Yes	29%	45%
Maybe	46%	36%
No	25%	19%

\* Statistically significant difference

Students who are closer to graduation (graduation 2021) are less likely to be unsure (35%) and more likely to either plan to stay in Alabama (39%) or not plan to stay (26%), when compared with students further from graduation (both graduation in 2022 and 2023+).

**Figure 7: Percentage of Students Intending to Stay in Alabama by Expected Graduation Year**

Students nearer to graduation were more likely to express an interest in staying in Alabama.

**Stay in Alabama by Expected Graduation Year\***

	2021	2022	2023+
Yes	39%	34%	27%
Maybe	35%	47%	50%
No	26%	21%	23%

\* Statistically significant difference

Communicating to students throughout their time in college is needed.

Students who have a STEM-related major are equally planning to stay and not stay in Alabama, 26% for each. The majority of students with STEM-related majors are unsure about their plans after graduation (48%). In comparison, students with non-STEM related majors are more likely to plan to stay in Alabama (37%) and fewer are not planning to stay (22%) or are unsure (41%).

**Figure 8: Percentage of Students Intending to Stay in Alabama by STEM-Major Status**

**Stay in Alabama by STEM-Related Status\***

	STEM-Related	Non-STEM Related
Yes	26%	37%
Maybe	48%	41%
No	26%	22%

\* Statistically significant difference

In comparing students by major category, education majors are the most likely to plan to stay in Alabama after graduation (53%) followed by health sciences majors (40%). The major categories with the lowest percentage of students planning to stay in Alabama are arts and communication; public administration, safety, and law; and STEM, 23%, 24%, and 25%, respectively. These same major categories have the highest percentage of students not planning to stay in Alabama (27% - 31%) and some of the highest percentages of students who are unsure about their plans to stay in Alabama (45% - 48%). The major category with the highest percentage of unsure students is the STEM field (48%).

**Figure 9: Percentage of Students Intending to Stay in Alabama by Major Category**

**Stay in Alabama by Major Category\***

	Arts & Comm	Business	Education	Health Science	Human Services	Public Admin, Safety, Law	STEM majors **
Yes	23%	35%	53%	40%	30%	24%	25%
Maybe	45.5%	43%	32%	42%	45%	45%	48%
No	31.5%	22%	15%	18%	25%	31%	27%

\* Statistically significant difference  
\*\* STEM-Related students (from previous slide) are found in STEM, education, and health science majors)

**Table 1: Student Intentions to Stay in Alabama by Demographic Variables**

Category	Demographic Variable	# Students	Yes	Maybe	No
Residency Status*	Alabama Resident	5274	42.5%	40.9%	16.7%
	Non-Resident	2934	17.2%	47.4%	35.4%
Sex*	Female	5499	35%	41%	27%
	Male	2651	30%	48%	22%
	Other	58	5%	22%	45%
Race/Ethnicity*	Asian-American/ Pacific Islander	308	18%	58%	23%
	African American	1715	27%	50%	23%
	Hispanic	309	26%	52%	22%
	Other Minority	331	28%	45%	27%
	White	5438	37%	40%	23%
1st Generation Status*	1st Generation Student	3137	40%	40.5%	19.5%
	Non-1st Generation Student	5048	29%	45%	26%
Age*	Traditional Aged ( $\leq 24$ )	5939	29%	46%	25%
	Non-Traditional Aged ( $\geq 25$ )	2269	45%	36%	19%
Expected Graduation Year*	2021	2892	39%	35%	26%
	2022	2538	34%	47%	21%
	2023 or after	2778	27%	50%	23%
STEM-related Major*	STEM related major <sup>^</sup>	2512	26%	48%	26%
	Non-STEM related major	5696	37%	41%	22%
Major Category*	Arts & Communication	629	23%	45.5%	31.5%
	Business	1536	35%	43%	22%
	Education	1188	53%	32%	15%
	Health Science	1197	40%	42%	18%
	Human Services	1035	30%	45%	25%
	Public Administration, Safety, Law	394	24%	45%	31%
	STEM Field <sup>^</sup>	2229	25%	48%	27%

\*Statistically significant difference (likelihood ratio chi-square = 0.000)

<sup>^</sup> STEM-related major is more expansive than STEM field since it includes majors in other major categories that are related to STEM (ex: math and science education are STEM-related; however, their major category is Education).

**Open-Ended Questions**

After being asked about their plans to stay, students were asked to explain their selection. Of the 8,208 students who completed the survey, 4,638 (56.5%) provided a response to the open-ended question. Of those providing a written explanation, 1,377 students planned to stay in Alabama, 2,006 were unsure if they will stay, and 1,255 did not intend to stay. Further review of the comments resulted in similar statements being grouped into one set of categories for ‘Yes’ responses and another set for ‘Maybe’ and ‘No’ responses. In Figures 11-13, the percentages for each comment category are provided.

**Figure 10: Open-ended Question Respondents: Intentions to Stay in Alabama**

	Open-Ended Question Respondents N = 4,638
Yes, stay	1,377
Maybe/ not sure	2,006
No, will not stay	1,255
TOTAL	4,638

Of the 1,377 students who plan to stay in Alabama and wrote a comment, 70% indicated they are already in Alabama working or looking for work. This type of response far exceeds any other reason provided for staying in Alabama. (See Appendix B for sample comments by Resident and Non-Resident status.)

**Figure 11: Open-Ended Question Respondents: Yes, Will Stay Comment Categories**

	Yes, Will Stay Open-Ended Question Respondents N = 1,377
Alabama is home; already working or looking for work; staying to make Alabama better	70%
Already accepted a job offer; good career opportunities in the state	13%
Pursuing graduate school or further study	5%
Alabama feels like home; staying close to spouse/family; love the South	10%
Like the social and political environment	0%
Like the cost of living and growth of urban areas	2%

For the 2,006 students providing comments about “maybe” staying in Alabama and the 1,255 students providing comments about not staying in Alabama, the main rationale was the desire to seek better opportunities elsewhere (46% for maybe staying and 50% for not staying). Of students considering staying in Alabama, 20% indicated they might stay if offered a good job. For students not staying in Alabama, 23% indicated that the political, social, or educational environment is unacceptable. The third most common reason for both groups is the desire to live closer to family or move due to military service (10% for maybe staying and 13% for not staying).

**Figure 12: Open-Ended Question Respondents: Maybe, Will Stay Comment Categories**

	Maybe, Will Stay Open-Ended Question Respondents N = 2,006
Stay if offered a good job/competitive pay/upward mobility	20%
Pursue better opportunities outside of Alabama/no incentive to stay/ follow the money	46%
Pursuing graduate school or further study	10%
Unacceptable environment: political/ social/ education	4%
Move with the military or closer to/ with family	10%
Unsure of plans	9%
Distance education student	2%

**Figure 13: Open-Ended Question Respondents: No, Not Staying Comment Categories**

	No, Not Staying Open-Ended Question Respondents N = 1,255
Stay if offered a good job/competitive pay/upward mobility	0%
Pursue better opportunities outside of Alabama/no incentive to stay/ follow the money	50%
Pursuing graduate school or further study	7%
Unacceptable environment: political/ social/ education	23%
Move with the military or closer to/ with family	13%
Unsure of plans	0%
Distance education student	6%

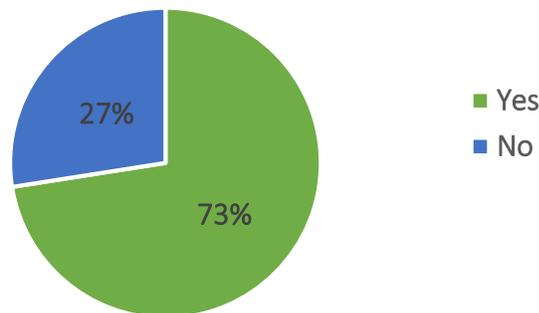
## FINDINGS: Openness to Career Opportunities in Alabama

### Overall

When students were asked if they were interested in learning about career opportunities in Alabama, the response was positive, with 73% of students surveyed responding “Yes.” This question was intended to gauge whether students were open to living and working in Alabama in comparison with the previous question about plans to stay. Just over a quarter of students (27%) indicated that they had no interest in career opportunities in Alabama, suggesting that those students are not open to staying after graduation and that targeted outreach will do little to change their minds. These findings are consistent with findings on plans to stay, where one approximately one quarter of students (23%) indicated “no” they did not plan to stay and three quarters indicated “yes” or “maybe.”

**Figure 14: Percentage of Students Interested in Alabama Career Opportunities**

Interest in Alabama Career Opportunities:  
All Respondents



### Analysis of Demographic Variables

Analyzing student openness to career opportunities in Alabama by demographic variables showed positive responses across all groups. In looking at residency status, a majority of residents and non-residents expressed interest in career opportunities, but the percentage was much higher for resident students (79% versus 61% of non-residents).

**Figure 15: Percentage of Students with Interest in Learning About Career Opportunities in Alabama by Residency Status**

	AL Resident	Non-Resident
Yes	79%	61%
No	21%	39%

Female and Male students consistently say they are interested in learning about careers in Alabama, while students identifying as Other are evenly split.

**Figure 16: Percentage of Students with Interest in Learning About Career Opportunities in Alabama by Sex**

	Female	Male	Other
Yes	72%	74%	50%
No	28%	26%	50%

When analyzing the student responses by race/ethnicity, students who identify as minorities are the most likely to be interested in learning about careers in Alabama, with African Americans ranked the highest with 82%. White students were the least likely to be interested comparatively.

**Figure 17: Percentage of Students with Interest in Learning About Career Opportunities in Alabama by Race/Ethnicity**

	AAPI	AA	Hisp	Other Min	White
Yes	74.4%	82%	77%	70.7%	69.5%
No	25.6%	18%	23%	29.3%	30.5%

## FINDINGS: Impressions of Alabama Versus Importance

### OVERALL

The survey presented 22 factors to gauge respondents’ impressions of Alabama and importance in determining future plans. The 22 impression factors can be roughly divided up into five areas as shown in the table below: overall, community, social and economic, career, and entertainment. Students were asked to rate both their impression of Alabama for each factor and then the importance of the factors. Students completed the ratings using a 5-point Likert Scale that ranged from “very negative” (1) to “very positive” (5) for impressions of Alabama and “not important at all” (1) to “very important” (5) for importance.<sup>1</sup> A numerical value was assigned to each response in order to support analysis.

**Table 2: Categories and Characteristics Used to Measure Impressions and Importance**

### Impression & Importance Items

OVERALL	Alabama as a place to live	CAREER	Job opportunities
	Alabama as a place to work		Salary
	Overall image or reputation		Employer-provided benefits
COMMUNITY	Friendliness of the people	ENTERTAINMENT	Potential for career advancement
	Acceptance towards people of diverse backgrounds		Opportunities to continue education
	Opportunities to practice my faith		Variety of dining options
	Proximity to family		Access to cultural events/concerts
SOCIAL & ECONOMIC	Public safety	ENTERTAINMENT	Access to sporting events (local/college/pro)
	Social awareness environment		Access to healthy/outdoor activities
	Political environment		The state's natural environment
	Cost of living		Weather/temperate climate

### IMPRESSIONS RATINGS

For the first two overall items (“Alabama as a place to live” and “Alabama as a place to work”), respondents were only asked to rate their impressions, not their importance. Interestingly, the majority of students gave positive impressions for both questions as shown in the figure below. Considered alongside findings related to plans to stay in Alabama and openness to career opportunities, these positive impressions suggest that many of those unsure of their plans would like to stay in Alabama after graduation.

<sup>1</sup> The Likert Scale is an ordinal psychometric measurement of attitudes, beliefs and opinions.

**Figure 18: Percentage of Student’s Impressions of Alabama as a Place to Live and Work**

	Positive/ Very Positive	Neutral	Negative/ Very Negative
Alabama as a place to live	62.4%	20.5%	17.1%
Alabama as a place to work	55.6%	27.2%	17.2%

The table below shows what percentage of students responded with a positive, neutral, or negative impression for each factor.

**Table 3: Likert Scale Impressions of Each Characteristic**

	Impressions (%)		
	Positive/ Very Positive	Neutral	Negative/ Very Negative
Alabama as a place to live	62.4%	20.5%	17.1%
Alabama as a place to work	55.6%	27.2%	17.2%
Overall image or reputation	45%	23.8%	31.2%
Friendliness of the people	74.6%	19%	6.3%
Acceptance towards people of diverse backgrounds	38%	24.7%	37.3%
Opportunities to practice my faith	67.7%	24.4%	7.9%
Proximity to family	69.8%	15.3%	14.9%
Public safety	51%	33.2%	15.8%
Social awareness environment	33.2%	33.3%	33.5%
Political environment	30.5%	31%	38.5%
Cost of living	76.3%	18.1%	5.6%
Job opportunities	48.3%	33.3%	18.4%
Salary	30.8%	37.6%	31.6%
Employer-provided benefits	36.2%	48%	15.8%
Potential for career advancement	43.3%	38.2%	18.5%
Opportunities to continue education	74.9%	18.6%	6.5%
Variety of dining options	64.7%	19.7%	15.6%
Access to cultural events/concerts	44.8%	29.3%	26%
Access to sporting events (local/college/pro)	67.3%	23.8%	9%
Access to healthy/outdoor activities	78.8%	15.7%	5.5%
The state's natural environment	80.8%	15.3%	3.9%
Weather/temperate climate	66.6%	21.4%	12%

**Impressions of Alabama Expressed as Mean Ratings**

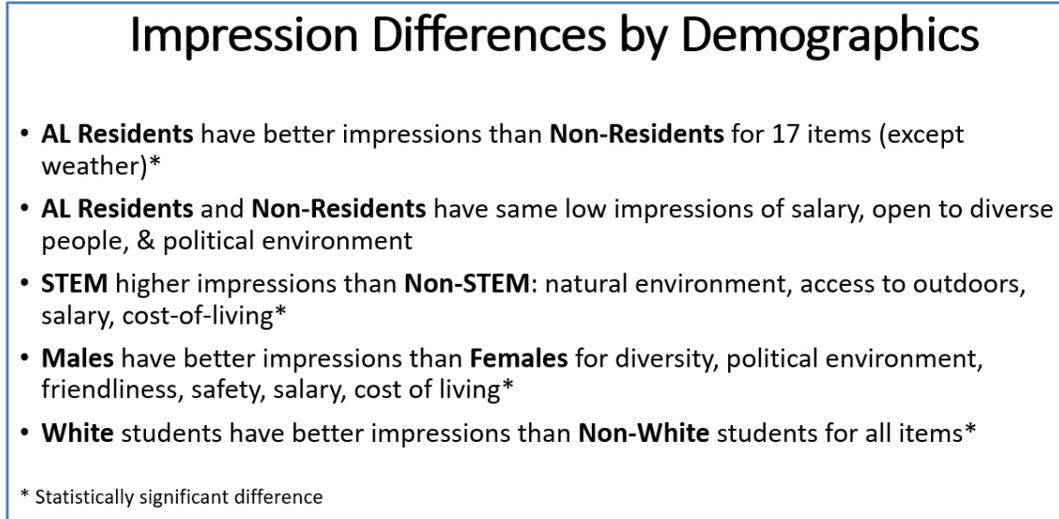
In order to aid in comparing across factors, student responses for each factor were assigned a numerical value and averaged to generate a composite score or mean rating ranging from 1 (lowest) to 5 (highest). Overall, the impressions of Alabama with the highest mean rating were the natural environment (4.13) and access to healthy/outdoor activities (4.04), both of which indicate an overall impression of between positive and very positive. Fourteen items had a mean impression rating between 3 and 4, indicating impressions between neutral/ no opinion and positive. The following four items had a mean impression rating below 3, indicating a neutral to negative impression: acceptance towards people of diverse backgrounds, salary, social awareness environment, and political environment.

**Table 5: Impression of Characteristics Listed from Highest to Lowest**

Item	Impressions Mean Rating (Max = 5)
Natural environment	4.13
Access to healthy/outdoor activities	4.04
Cost of Living	3.98
Friendliness of the people	3.98
Opportunities to practice my faith	3.92
Opportunities to continue education	3.91
Proximity to family	3.83
Access to sporting events (local/college/pro)	3.82
Weather/ climate	3.73
Variety of dining options	3.67
Public safety	3.45
Job opportunities	3.38
Potential for career advancement	3.31
Access to cultural events/concerts	3.25
Employer-provided benefits	3.25
Overall image or reputation	3.19
Acceptance towards people of diverse backgrounds	2.99
Salary	2.98
Social awareness environment	2.96
Political environment	2.84

When responses were analyzed by students’ self-identified demographic characteristics, a number of key differences emerged, as represented in the figure and discussions below.

Figure 24: Key *Impression* Mean Ratings Differences by Demographics



**Residency Status**

Of the 22 impression items, Alabama residents and non-residents had statistically significant differences in impressions of Alabama for 18 items, with Alabama residents providing higher impression ratings than non-residents (likelihood ratio chi-squared < 0.05). The one exception was weather, which non-residents rated higher. There were four items where Alabama residents and non-residents had the same low impressions of Alabama: acceptance of people from diverse backgrounds, the political environment, salary, and cost of living. A detailed data table for residency status can be found in *Appendix C*.

**Sex**

Females and males had similar impressions for 11 of the 22 items. For the remaining 11 impressions, there were statistically significant differences between females and males, with males rating their impressions higher than females (likelihood ratio chi-squared < 0.05). Examples of impression items where men have a statistically significant higher rating than females are acceptance of people with diverse backgrounds, political environment, friendliness, public safety, salary, and cost of living. Students who identified as other sex have more negative impressions for every item, all of which are statistically significant (likelihood ratio chi-squared = 0.000). A detailed data table for sex also appears in *Appendix C*.

**Race/Ethnicity**

Overall, students who identified as white gave higher impressions ratings for 21 of the 22 items than students who identified as non-white (likelihood ratio chi-square = 0.000 for 20 items and 0.018 for employer-provided benefits). The one item for which students identifying as white and non-white had a similar impression of Alabama was social awareness environment.

When the impressions are ranked for each race/ethnic group, important similarities and differences emerge. All groups showed natural environment and/or access to outdoors as among their top three impression categories, except for African American respondents. African American respondents were the only group to include educational opportunities, opportunities to practice my faith, or proximity to family among their most positive impressions. On the negative side, there was strong consistency, with political environment, salary, acceptance of diverse people, and social awareness coming up as frequent responses. A detailed data table for responses by race/ethnicity can be found in *Appendix C*.

**Table 8: Top Three Positive and Negative Mean Ratings Impressions of Alabama, by Race/Ethnicity Group**

Race/Ethnicity Group	Top 3 (Positive) AL Impressions	Bottom 3 (Negative) AL Impressions
Asian American/ Pacific Islander	Natural environment	Political environment
	Friendliness	Access to cultural events/ concerts
	Access to outdoors	Salary
African American	Educational opportunities	Political environment
	Opportunities to practice faith	Salary
	Proximity to family	Acceptance of diverse people
Hispanic	Natural environment	Political environment
	Cost of Living	Acceptance of diverse people
	Access to outdoors	Social awareness environment
Other Minority	Access to outdoors	Political environment
	Cost of Living	Social awareness environment
	Friendliness	Acceptance of diverse people
White	Natural environment	Political environment
	Access to outdoors	Social awareness environment
	Friendliness	Salary

**STEM Major Status**

In comparing the difference in impressions of Alabama between students with STEM and non-STEM related majors, there was a lot of variation and no clear trends. Students with non-STEM related majors had higher impressions for 10 items, while students with STEM-related majors had higher impressions for four items. On the remaining eight items, both STEM and non-STEM respondents had the same impressions (no statistically significant differences). The four items where students with a STEM-related major have statistically significant higher impressions of Alabama than students with non-STEM majors are natural environment, access to healthy/outdoor activities, salary, and cost of living (likelihood ratios chi-square = 0.039, 0.000, 0.000, 0.000, respectively). A detailed data table for STEM status can be found in *Appendix C*.

**IMPORTANCE RATINGS**

A Likert scale was also used to capture respondents’ ratings on how important each factor was to their future plans. The high majority of positive/very positive ratings reflects that most factors were considered important for decision-making. The only category that did not have a majority of positive ratings for importance was access to sporting events.

**Table 4: Likert Scale Importance of Each Characteristic**

	Importance (%)		
	Positive/ Very Positive	Neutral	Negative/ Very Negative
Alabama as a place to live	n/a	n/a	n/a
Alabama as a place to work	n/a	n/a	n/a
Overall image or reputation	67.7%	21.3%	11.1%
Friendliness of the people	85.2%	11.6%	3.2%
Acceptance towards people of diverse backgrounds	81.5%	13.9%	4.6%
Opportunities to practice my faith	66.4%	21.6%	12%
Proximity to family	65.7%	22.2%	12%
Public safety	87.1%	11.1%	1.8%
Social awareness environment	68.8%	24.2%	7%
Political environment	62.6%	29%	8.3%
Cost of living	90.3%	8.4%	1.3%
Job opportunities	92.5%	6.6%	0.9%
Salary	89.3%	9.2%	1.5%
Employer-provided benefits	85.6%	12.6%	1.8%
Potential for career advancement	89.1%	9.4%	1.4%
Opportunities to continue education	74.2%	19.7%	6.1%
Variety of dining options	63.5%	25.1%	11.4%
Access to cultural events/concerts	61.7%	26.2%	12.1%
Access to sporting events (local/college/pro)	47.6%	28.2%	24.2%
Access to healthy/outdoor activities	79.9%	16.7%	3.4%
The state's natural environment	81.5%	15.1%	3.5%
Weather/temperate climate	77.1%	18.4%	4.4%

As with impression factors, each importance factor was assigned a composite score on a scale of 1 (least important) to 5 (most important) based on the average ratings by respondents. The top four items for importance were job opportunities (4.53), cost of living (4.42), potential for career advancement (4.41), and salary (4.41). These factors reflect the importance of financial

considerations for students in selecting where to live and work after graduation. Along with these top four, another eight items had a mean rating between 4 and 5, meaning a rating between important and very important. The items with the lowest mean rating of importance are variety of dining options (3.74), access to cultural events/ concerts (3.70), and access to sporting events (3.32).

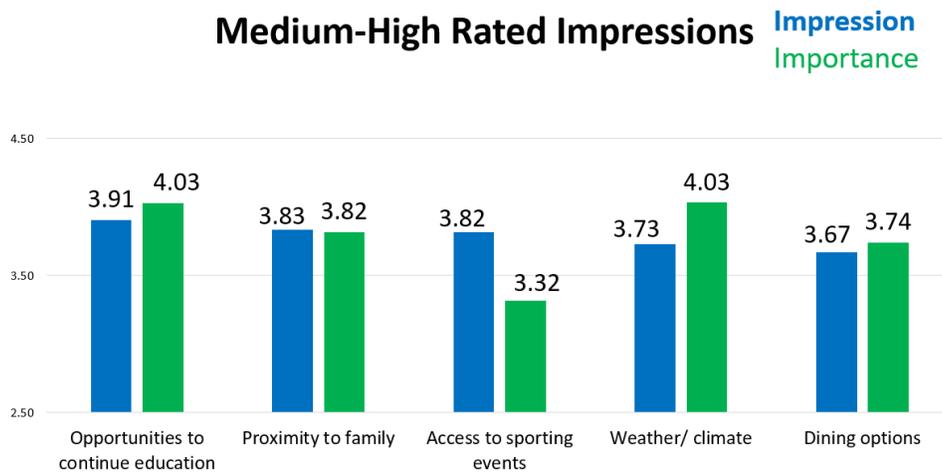
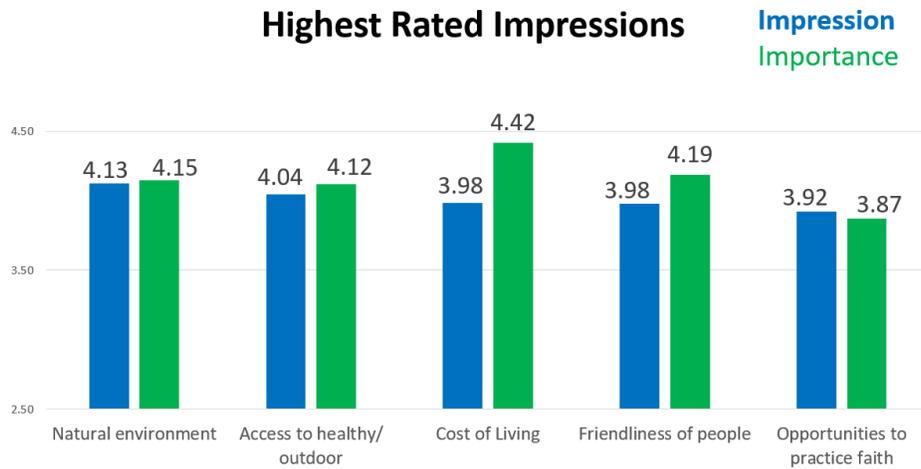
**Table 6: Importance of Characteristics Listed from Highest to Lowest**

Item	Importance Mean Rating (Max = 5)
Job opportunities	4.53
Cost of living	4.42
Potential for career advancement	4.41
Public safety	4.32
Salary	4.32
Employer-provided benefits	4.31
Acceptance towards people of diverse backgrounds	4.23
Friendliness of the people	4.19
The state's natural environment	4.15
Access to healthy/outdoor activities	4.12
Opportunities to continue education	4.03
Weather/temperate climate	4.03
Social awareness environment	3.92
Opportunities to practice my faith	3.87
Proximity to family	3.82
Political environment	3.8
Overall image or reputation	3.76
Variety of dining options	3.74
Access to cultural events/concerts	3.7
Access to sporting events (local/college/pro)	3.32

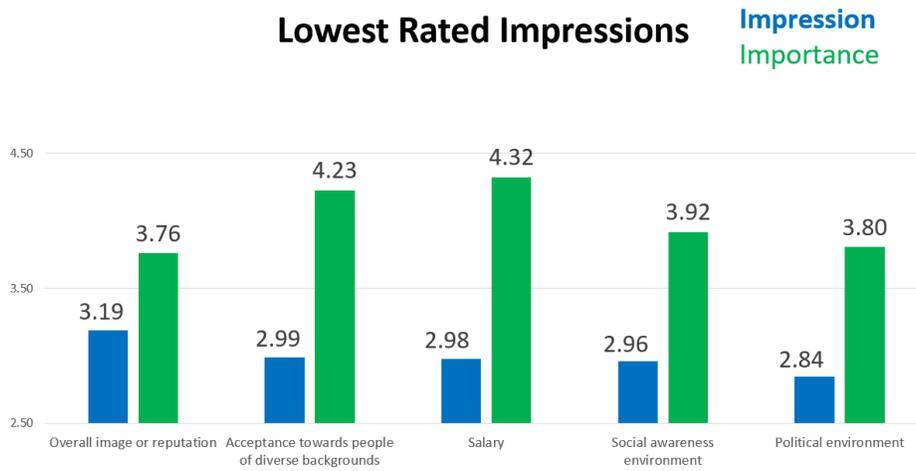
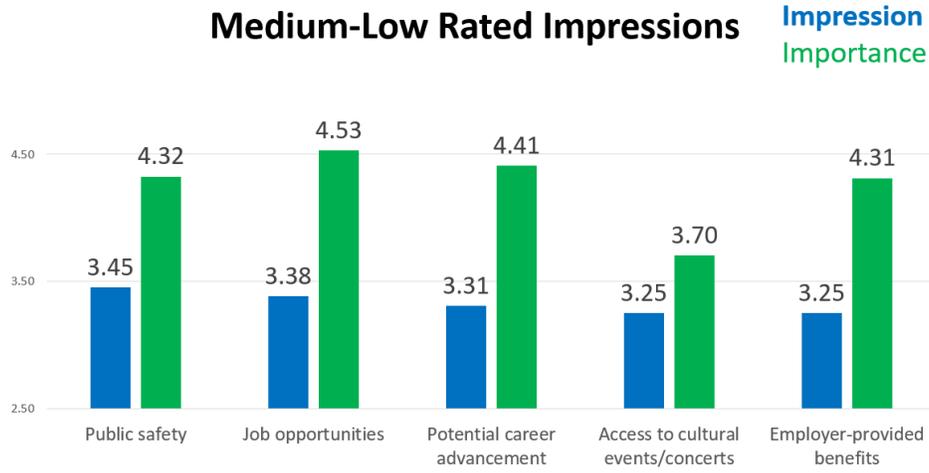
### IMPRESSIONS COMPARED WITH IMPORTANCE

To understand the difference between impressions of Alabama and their importance, a gap analysis was conducted. The gap was calculated by subtracting the mean importance rating from the mean impression rating to determine the difference between the two ratings for each item. A negative gap means that an item’s importance rating is higher than its impression rating. **The items with the most negative gaps are the items for which Alabama has the greatest opportunity to improve student impressions.**

Figures 19-22: Comparison of Mean Ratings: *Impressions of Alabama* and *Importance of Items*



Figures 19-22: Comparison of Mean Ratings: *Impressions of Alabama* and *Importance of Items*, Continued



**Table 7: Gap Between Mean Rating for *Impression* of Alabama and Mean Rating for *Importance* of Item**

Item	Impressions	Importance	Gap (Impression - Importance)
Salary	2.98	4.41	-1.43
Acceptance towards people of diverse backgrounds	2.99	4.23	-1.24
Job opportunities	3.38	4.53	-1.14
Potential for career advancement	3.31	4.41	-1.10
Employer-provided benefits	3.25	4.31	-1.06
Political environment	2.84	3.80	-0.96
Social awareness environment	2.96	3.92	-0.96
Public safety	3.45	4.32	-0.87
Overall image or reputation	3.19	3.76	-0.57
Access to cultural events/concerts	3.25	3.70	-0.45
Cost of Living	3.98	4.42	-0.43
Weather/ climate	3.73	4.03	-0.30
Friendliness of the people	3.98	4.19	-0.20
Opportunities to continue education	3.91	4.03	-0.12
Access to healthy/outdoor activities	4.04	4.12	-0.07
Variety of dining options	3.67	3.74	-0.07
Natural environment	4.13	4.15	-0.02
Proximity to family	3.83	3.82	0.01
Opportunities to practice my faith	3.92	3.87	0.05
Access to sporting events (local/college/pro)	3.82	3.32	0.50

The items with the most negative gaps can be grouped into two categories: career and social/economic. The items with the largest negative gaps related to career are salary (-1.43), job opportunities (-1.14), potential for career advancement (-1.10), and employer-provided benefits (-1.06). The items with the most negative gaps related to social/economic are acceptance towards people of diverse backgrounds (-1.24), political environment (-0.96), social awareness environment (-0.96), and public safety (-0.87). Three items have a positive gap, meaning the impressions of Alabama for these items are higher than the importance of these items. The items with positive gaps are proximity to family (0.01), opportunities to practice my faith (0.05), and access to sporting events (0.50).

## FINDINGS: Alabama Regions Visited

The survey included two questions designed to better understand students' experiences of various geographical regions throughout Alabama. The first question asked students about regions within Alabama they have visited. Overall, the mostly commonly visited regions were Birmingham & Surrounding Suburbs (79%), Huntsville/Madison/Athens/Decatur (55%), Gulf Shores/ Orange Beach (54%), Tuscaloosa /Northport (52%), Auburn/Opelika/Phenix City/Tuskegee (50%), and Montgomery/Prattville/Wetumpka/Pike Road (49%). When student responses were controlled to remove the region where the university they attend is located, the top six regions remained the same, though the order changed, with Tuscaloosa dropping to sixth.

**Table 9: Number and Percentage of Students Who Have Visited Each Alabama Region**

Alabama Region	# Students Responding	% Students Responding	% Students Responding (excluding students attending college in the region)
Birmingham & Surrounding Suburbs	6488	79%	76%
Huntsville/Madison/Athens/Decatur	4517	55%	50%
Gulf Shores/ Orange Beach	4420	54%	54%
Tuscaloosa/Northport	4257	52%	41%
Auburn/Opelika/Phenix City/Tuskegee	4114	50%	46%
Montgomery/Prattville/Wetumpka/Pike Road	4015	49%	48%
Mobile/Saraland	3321	40%	36%
Gadsden/Anniston/Oxford/Jacksonville	2749	33%	28%
Bay Minette/Fairhope/Foley	2353	29%	29%
Troy	2248	27%	22%
Dothan/Enterprise/Ozark	2045	25%	25%
Florence/Muscle Shoals/Tuscumbia	2042	25%	20%
Fort Payne/ Guntersville	1785	22%	22%
Selma	1251	15%	15%
Demopolis/Livingston	826	10%	8%

For the six regions most frequently visited by students, an analysis by demographic variables was conducted. The analysis by Alabama residency status shows a statistically significant difference in students visiting the six regions if the student was an Alabama resident versus non-resident, with a higher percentage of residents reporting visiting the six regions. For three regions, Birmingham area, Gulf Shores area, and Montgomery area, the percentage of males and females visiting the region was about the same. For the other three regions, Huntsville

area, Tuscaloosa area, and Auburn area, a higher percentage of males than female visited the region.

With the exception of the Montgomery area, a higher percentage of white students than non-white students visit the regions. For students with STEM and non-STEM related majors, there is a statistically significant difference in response for half of the top six regions. For the Birmingham area, Huntsville area, and Tuscaloosa area, there is not a significant difference in visits between students with STEM and non-STEM related majors. For the Gulf Shores area, Auburn area, and Montgomery area, there is a statistically significant difference with a higher percentage of students with non-STEM majors reporting visiting these areas.

**Table 10: Percentage of Students Who Have Visited Each Alabama Region, by Demographic Variable (excluding the region in which the university the student attends is located)**

Demographic Variable	Birmingham	Huntsville	Tuscaloosa	Gulf Shores	Auburn	Montgomery
Alabama Resident	82%*	59%*	48%*	63%*	57%*	58%*
Non-Alabama Resident	67%*	34%*	25%*	37%*	27%*	31%*
Female	76%	48%*	40%*	55%	45%**	49%
Male	77%	54%*	45%*	53%	49%**	48%
Non-White Students	71%*	46%*	37%*	38%*	43%*	49%
White Students	79%*	52%*	44%*	62%*	48%*	48%
STEM-related	77%	51%	40%	52%**	42%*	45%*
Non-STEM related	76%	50%	42%	55%**	48%*	50%*

\* Statistically significant difference (likelihood ratio chi-square = 0.000)

\*\* Statistically significant difference (likelihood ratio chi-square < 0.05)

***Positive Views of Alabama Regions***

In addition to identifying the regions of Alabama they have visited, students were also asked to rank the top three regions of Alabama for which they most positive views. Overall, the Birmingham and Huntsville areas were the two regions for which students had the most positive views.

**Table 11: Percentage of Students Selecting Each Alabama Region for the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> Most Positive Places to Live and Work in Alabama**

Alabama Region	% Students Choosing as #1	% Students Choosing as #2	% Students Choosing as #3
Birmingham and Surrounding Suburbs	32%	23%	14%
Huntsville/Madison/Athens/Decatur	25%	21%	13%
Auburn/Opelika/Phenix City/Tuskegee	9%	9%	10%
Gulf Shores/Orange Beach	5%	10%	12%
Tuscaloosa/Northport	5%	7%	11%
Mobile/Saraland	5%	6%	10%
Montgomery/Prattville/Wetumpka/Pike Road	2%	5%	8%
Bay Minette/Fairhope/Foley	4%	5%	4%
Florence/Muscle Shoals/Tuscumbia	3%	4%	4%
Gadsden/Anniston/Oxford/Jacksonville	3%	3%	4%
Dothan/Enterprise/Ozark	2%	2%	2%
Fort Payne/Guntersville	1%	2%	3%
Troy	1%	1%	2%
Demopolis/Livingston	0%	0%	1%
Selma	0%	0%	0%

Even when results were controlled to remove the region in which students were enrolled, the Birmingham and Huntsville areas remained the two regions with the most positive ratings from students. These findings suggest that within the state as a whole, Birmingham and Huntsville have strong appeal for students, and more could be done connect students with job opportunities in these regions.

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## CONCLUSIONS AND RECOMMENDATIONS

The Retain Alabama Survey was developed as tool to better understand what matters to Alabama’s undergraduate students as they decide where to live and work after graduation. Survey results showed that approximately three quarters of respondents were open to staying in Alabama and would like to learn more about job opportunities in the state. Previous research on employment outcomes showed that only half of bachelor’s degree holders actually remained in state five years after graduation. Taken together, these figures suggest that Alabama has the opportunity to retain a much greater proportion of its recent graduates.

Student responses to the survey offer some insight on how Alabama should proceed in its efforts to keep young talent in the state:

**1) Develop a coordinated outreach campaign focusing on Alabama’s strengths, and target those students most likely to stay in Alabama after graduation.**

Alabama received high marks on its natural environment and access to outdoor activities, both factors that were important to students. In addition, the Birmingham and Huntsville areas were identified as the two most desirable areas to live and work in state. These strengths lend themselves to being incorporated into broader outreach efforts.

In terms of students most likely to stay in Alabama, the survey showed important differences across demographic groups. In particular, Alabama residents were much more likely than non-residents to plan to stay in state after graduation. Likewise, first-generation students and non-traditional students were more likely to plan on staying. Outreach strategies should engage students from these groups, especially Alabama residents.

**2) Make it easier for students to find high-quality job opportunities in Alabama.**

Currently, institutions have different resources and capacities to support students in searching for jobs, which makes it difficult for Alabama-based employers to recruit graduates. Adopting a more coordinated, statewide approach will help students find job opportunities in state and also help employers connect with the talent they need.

**3) Work to improve impressions on those factors that are most important to students as they plan for life after graduation.**

Survey results showed that students overwhelmingly look to career and financial factors to inform their decision-making about staying in Alabama. Yet, students have low impressions of Alabama on most of these factors, perhaps making them more likely to seek job opportunities out-of-state.

In addition, students had low impressions of Alabama on several social factors, including acceptance of diversity, political environment, and social awareness environment. These factors were also important for students in making future plans and should be considered in outreach efforts.

### ***Going Forward***

For fiscal year 2022, Alabama lawmakers allocated \$800,000 for the “Retain Alabama” initiative. The initiative is designed around a public-private partnership between the Alabama Commission on Higher Education, Alabama’s 14 public universities, and the Economic Development Partnership of Alabama (EDPA), a non-profit organization based in Birmingham whose mission includes attracting and retaining world-class talent across a broad spectrum of interests and industries. The findings and recommendations in this report are intended to support the strategic vision of the Retain Alabama partners.

*Retain Alabama Survey Report*

*2021*

**APPENDICES**

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## Appendix A: Retain Alabama Survey



### Retain Alabama

This survey should take 5 minutes or less to complete.

The information you share will help guide the state's efforts to better connect graduates with career opportunities and communities and inform community and state leaders about what is important to students entering the workforce.

\* 1. Institution you currently attend:

\* 2. Expected graduation:

- Graduating during 2021
- Graduating during 2022
- Graduating during 2023 or later

\* 3. Enrollment status:

- Full-time On-Campus
- Full-time Distance Education
- Part-time On-Campus
- Part-time Distance Education

\* 4. Major (select the one that most closely matches your major):

\* 5. What inspired you to pursue this major? (select all that apply)

- Enjoyment of curriculum
- K-12 teacher influence
- Professor influence
- Family influence
- Peer/friend influence
- Media influence (TV shows, YouTube, social media, etc.)
- Extra-curricular enrichment activity or club
- Industry site visit or tour
- High-school work-based learning experience
- College work-based learning experience
- Employment prospects after graduation
- Prior full-time employment
- Other

\* 6. During your time attending college in Alabama have you had an opportunity to explore any areas of the state (outside of your college town)?

- Yes
- No
- I am an online/distance education student and reside outside of the state

\* 7. Please select all areas of the state you have visited from the list below (including your college town):

- Auburn/Opelika/Phenix City/Tuskegee
- Bay Minette/Fairhope/Foley
- Birmingham and Surrounding Suburbs
- Demopolis/Livingston
- Dothan/Enterprise/Ozark
- Florence/Muscle Shoals/Tuscumbia
- Fort Payne/Guntersville
- Gadsden/Anniston/Oxford/Jacksonville
- Gulf Shores/Orange Beach
- Huntsville/Madison/Athens/Decatur
- Mobile/Saraland
- Montgomery/Prattville/Wetumpka/Pike Road
- Selma
- Troy
- Tuscaloosa/Northport
- I am an online/distance education student and reside outside of the state

\* 8. Based on personal experience, word-of-mouth, or advertising, please select 3 Alabama communities you perceive the most positively as places to live and work:

1.	<input type="text"/>
2.	<input type="text"/>
3.	<input type="text"/>

\* 9. Are you interested in learning about career opportunities in Alabama?

Yes

No

\* 10. Using the following scale, please rate your **impressions** of the following aspects of life in Alabama:

	Very Negative	Negative	Neutral/ No Opinion	Positive	Very Positive
Alabama as a place to live	<input type="radio"/>				
Alabama as a place to work	<input type="radio"/>				

	Very Negative	Negative	Neutral/ No Opinion	Positive	Very Positive
Overall image or reputation	<input type="radio"/>				
Friendliness of the people	<input type="radio"/>				
Acceptance towards people of diverse backgrounds	<input type="radio"/>				
Opportunities to practice my faith	<input type="radio"/>				
The state's natural environment	<input type="radio"/>				
Weather/temperate climate	<input type="radio"/>				
Public safety	<input type="radio"/>				
Job opportunities	<input type="radio"/>				
Salary	<input type="radio"/>				
Employer-provided benefits	<input type="radio"/>				
Potential for career advancement	<input type="radio"/>				
Cost of living	<input type="radio"/>				
Opportunities to continue education	<input type="radio"/>				
Political environment	<input type="radio"/>				
Social awareness environment	<input type="radio"/>				
Proximity to family	<input type="radio"/>				
Variety of dining options	<input type="radio"/>				
Access to cultural events/concerts	<input type="radio"/>				
Access to sporting events (local/college/pro)	<input type="radio"/>				
Access to healthy/outdoor activities	<input type="radio"/>				

\* 11. Please rate the **importance** of these factors when considering Alabama as a place to live and work **compared to other states** you may have considered:

	Not Important at All	Not Important	Neutral/ No Opinion	Important	Very Important
Overall image or reputation	<input type="radio"/>				
Friendliness of the people	<input type="radio"/>				
Acceptance towards people of diverse backgrounds	<input type="radio"/>				
Opportunities to practice my faith	<input type="radio"/>				
The state's natural environment	<input type="radio"/>				
Weather/temperate climate	<input type="radio"/>				
Public safety	<input type="radio"/>				
Job opportunities	<input type="radio"/>				
Salary	<input type="radio"/>				
Employer-provided benefits	<input type="radio"/>				
Potential for career advancement	<input type="radio"/>				
Cost of living	<input type="radio"/>				
Opportunities to continue education	<input type="radio"/>				
Political environment	<input type="radio"/>				
Social awareness environment	<input type="radio"/>				
Proximity to family	<input type="radio"/>				
Variety of dining options	<input type="radio"/>				
Access to cultural events/concerts	<input type="radio"/>				
Access to sporting events (local/college/pro)	<input type="radio"/>				
Access to healthy/outdoor activities	<input type="radio"/>				

\* 12. Do you anticipate staying in Alabama after graduation?

Yes

No

Maybe

Don't know yet

13. Please explain your response to question #12 (optional):

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\* 14. In which state did you complete high school (or a GED)?

15. Select the area of the state where you completed high school (or a GED) (or the nearest city/metropolitan area from the list):

\* 16. Sex:

\* 17. Ethnicity:

\* 18. Age Range:

19. Do you require special accommodations for instruction and/or work?

Yes

No

20. Are you a first-generation college student (someone whose parent(s) did not complete a bachelor's degree)?

Yes

No

## Appendix B: Stay in Alabama After Graduation Comments

### Sample Open-Ended Responses by Resident and Non-Resident Status

The following categories were used to group student responses to question #12 “Do you anticipate staying in Alabama after graduation?”:

<b>Yes Responses</b>
1. Alabama is home; already working or looking for work; staying to make Alabama better
2. Already accepted a job offer; good career opportunities in the State
3. Pursuing graduate school or further study
4. Alabama feels like home; staying close to spouse/family; love the South
5. Like the social and political environment
6. Like the cost of living and growth of urban areas

<b>Maybe and No Responses</b>
1. Stay if offered a good job/competitive pay/upward mobility
2. Pursuing better opportunities outside of Alabama; no incentive to stay; follow the money
3. Pursuing graduate school or further study
4. Unacceptable environment: political/social/education
5. Moving with the military or closer to/with family
6. Unsure of plans
7. Distance education student

The following samples of open-ended responses are broken down by response (Yes, Maybe, and No); residency status (Resident versus Non-Resident); and response category (the top two response categories for each Yes, Maybe, and No group are provided).

<b>Stay in Alabama - YES</b>
<b>YES - RESIDENT #1 Response: (89%)</b> <b>Alabama is home; already working or looking for work; staying to make Alabama better</b>
Alabama has a very special place in my heart and my whole family lives here. I cannot imagine my life anywhere else than here in this great state of Alabama.
After graduation, I plan to stay in Alabama because there are multiple opportunities (job wise/education) where I can grow. There is a chance that I will do travel nursing for a bit but I believe that I will end back up in Alabama.
Alabama is beautiful and when tough times strike most of the people come together and help others out.
Alabama is my home, and my family is the most important aspect. So, I plan to stay here pretty much only because of my family.
Alabama is where I will always call home. This is where my family is, and I will never leave them! I live for Alabama's nature and landscape.
Alabama isn't perfect, staying to make changes for the better is crucial.
All my family and ancestors were born and reared in Alabama. I grew up there but moved to Tennessee after graduating from college because of the lack of job opportunities and advancement available within the state. I am hoping that after I complete my Master's degree, there will be better job opportunities to remain in Alabama close to family.
Alabama, specifically Madison, is where I grew up and I want to raise my family here. When I visit my family out of state I am not impressed with their state. When they come here, they love it... the people, the activities available, the weather and the opportunities for growth. I wouldn't want to live anywhere else.
As an education major, I will be certified to teach in Alabama, so I plan to stay in Alabama to pursue my career. However, other than my legal obligation to teach in Alabama, I have a sentimental attachment as well. I plan to start teaching in my hometown if the opportunity presents itself because I want to give back to the community that gave so much to me.
Being an Alabama native, I plan to stay in my home state close to family and continue to grow and progress the state. I want to be a part of change and progression in my own environment instead of seeking it elsewhere.
<b>YES - RESIDENT #2 Response: (6%)</b> <b>Already accepted a job offer; good career opportunities in the State</b>
I already have in state employment lined up for me after I receive my degree, and my family lives here.
I have a scholarship with the Alabama Board of Nurses that requires one year of work in Alabama following graduation
I am an adult professional. My life is in Birmingham and so is my family. My intention is not to leave the state, but to advance my opportunities within my current community.
I am an AL native and I can't imagine moving to another state except maybe Montana, but finding work as an aerospace engineer there would be quite difficult
I am currently a 4th semester nursing student who plans to precept at a local hospital and hopefully obtain a job there after graduation. I had planned on moving out of state for better hospital options that were located in a safer area but decided I would stay home to save money.
I am currently a Pre-K auxiliary teacher and live in Higdon, Alabama. I hope to stay in Alabama as a lead Pre-K teacher after graduation. I have lived here all my life, and this is where my family resides.
I am currently retired from the US Army in the state of North Carolina. However, I was born and raised in northwest Alabama and departed after graduating high school with a career field in the US Army. I am

attending Troy University with the intentions of returning to the state of Alabama sometime this year in 2021 to the northwest region.
I am from Alabama and already work in my field of study and wish to continue in my current job.
I am in the process of acquiring a degree to further my career with my current employer with whom I am extremely happy with.
I already live here and have an excellent job.
<b>YES - NON-RESIDENT #1 Response: (40%)</b> <b>Alabama feels like home; staying close to spouse/family; love the South</b>
I am originally not from Alabama, when people find out this is where I live there is a negative connotation. While I do find the majority of people in AL very kind and helpful, I also find that most are very conservative and unlikely to being accepting of any other type of party. The state seems to put an incredible amount of emphasis on sports (specifically football) over education. However, my city is an incredible place to raise a family... the county has A+ schools, the community is SAFE, and my kids have many opportunities to be involved in extra circulars. I do not foresee leaving AL anytime soon
I have come to make the state of Alabama my home. It isn't that far from my home back in New Orleans. The people are nice and the communities are welcoming. It's a cultural shock for sure, but it's home to me and my family now.
Currently, I anticipate staying in Alabama after graduation, due to the fact my nuclear family is here and are looking to build life here; except if things change suddenly, I'll be here.
Graduating then got a few years left in the military and coming back. Born in Las Vegas, but my family has fallen in love with Montgomery.
I am from Alabama. I would like to move to a big city for a few years, but plan on returning to the state (HSV, BHM, or AUB) in my late 20s/early 30s to settle down for the long haul.
I am not moving back to Florida. Family is here and we are living and thriving well in Alabama as a family.
I choose to live here because I love my friends, my home, proximity to family, and the weather. I live mid-state but I love visiting both the beaches and the mountains. I do not agree with Alabama's political or religious climate, so I live in a place where I am kind of an outsider in many ways, which doesn't usually bother me that much. My husband grew up here which is why we initially tried out living here, but decided to stay because we do love it and we see all the people working to make it a better, more accepting, diverse place. I know that there are places where I could have better job and salary opportunities but I believe I will find something that works for me here though it may be a little harder.
I enjoy this state due to its location, climate and friendliness of the people. Although I'm far from my home, (I'm from the Northwest) I consider Alabama a second home.
I have already moved here from out of state and my family and I love it, we plan on making it our permanent place of residence.
I have been to over 20 states in the United States yet I always come back to Alabama. It is my favorite state hands down!
<b>YES - NON-RESIDENT #2 Response: (38%)</b> <b>Already accepted a job offer; good career opportunities in the State</b>
Already purchased a home and I am vested at UAB as an employee. Attending college to increase my salary/career opportunities. There is a possibility if the political climate is not more inclusive that I will rent my home out and live part time in Birmingham.
Came to Alabama for the jobs in Huntsville that are very common for my major.
Have accepted a full-time position for an employer I worked with during undergrad.

<p>I actually have a very good job with the county I live in and plan on staying through retirement. My degree will give me more opportunity for advancement.</p>
<p>I already have a career as a software developer in north Alabama, and some close family is here. If I could get a good job elsewhere with a cost of living on-par with Huntsville's that is more open and less racist, I would go.</p>
<p>I am a nursing major hoping to get a job at UAB hospital.</p>
<p>I am currently employed with a company that offers advancement opportunities and have a retired parent who recently relocated to my area.</p>
<p>I got an internship with a company in Huntsville (really the only place in AL for an aerospace engineer) and they offered me a job when I graduate. I expect to live in the Huntsville area for a long time.</p>
<p>I have a scholarship that requires me to teach in Alabama for 3 years after I graduate.</p>
<p>I haven't had much luck in finding jobs in state, but would really like to be located in the Huntsville or Birmingham areas upon graduation.</p>

<b>Stay in Alabama - MAYBE</b>
<b>MAYBE – RESIDENT #1 Response: (52%)</b>
<b>Pursuing better opportunities outside of Alabama/ no incentive to stay/ follow the money</b>
Alabama will always be home, and I love it here. The issue is lack of competitive salaries. Other places just pay more, and offer more opportunities in my field.
Although Governor Ivey has suggested that Alabama is an "Aviation State" it has very little opportunities for people in the Aviation industry for those that are not engineers. At that, most non-engineering aviation jobs pay very poorly and the area is not attractive enough and does not have enough aviation growth to justify the poor paying jobs. There are very few jobs I could justify staying in the state for and I am more interested in being in an area where I can grow. I am ashamed that we have the oldest collegiate aviation program in the nation and I will have to leave the state I grew up in to find a job I can survive and make a living.
As an Alabama native, there is not too much attractiveness in the idea of remaining in the state to work and start a family. I am highly considering moving to other cities with an overall more positive and diverse lifestyle, along with ample opportunities for career growth. Even if it means settling in another state with a higher cost of living.
Because Alabama is ranked very low in the salary pay of my degree field, I'm probably going to be moving out of Alabama once I obtain enough work experience to be able to seek job opportunities elsewhere out of state.
Healthcare workers are underpaid in Alabama compared to other states.
I love Alabama. I love the nature and the hospitality. My family is here. But I don't think it has career advancement opportunities. If I stay here, I feel like I'm here forever because the job opportunities aren't impressive enough for a resume to later move elsewhere or get a higher paying job. I would love to find a job where I could climb the ladder and then make enough money and gain a reputation to where I could move back to Alabama. Alabama isn't a state that could boost my career; it's somewhere I'd come back after I have enough money to retire.
I am 30 years old and have lived in Alabama all of my life. After I finish my BS in English this year, I am pursuing my master's in Data Analytics. The job outlook is terrible in my area (Mobile/Baldwin counties) for STEM careers, and I anticipate that both I and my husband (BS Software Systems Engineering) will wind up moving out of state to pursue good jobs with great salaries and benefits. In my experience and that of my peers, it is very difficult to be upwardly mobile in Alabama. It also doesn't help that the national perception of people from our state is so unflattering, but I would be willing to overlook that if job opportunities existed.
I feel that most of the well-paying jobs in my chosen career field are in industries that are located outside of Alabama.
I have lived here my whole life. It's okay, but it could be a lot better, and there are so many opportunities elsewhere. Here, it feels like our state leaders are trying to take us backwards.
I might be left with no option but to get hired out of state due to the lack of company recruiting for in-state companies.
<b>MAYBE – RESIDENT #2 Response: (15%)</b>
<b>Stay in Alabama if offered a good job/ competitive pay/ upward mobility</b>
Alabama is a decent place full of natural environments and lots of friendly people. As long as I find work that pays sufficiently, I will most likely stay.
I am a native of Alabama and would like to explore new opportunities. If I were to be offered a position in the state I would consider staying.

I am from Alabama, and intend to move elsewhere unless a beneficial opportunity presents itself.
I am interested in staying in Alabama as long as I am able to find a suitable work place, and decent living in proximity. Alabama has a lot of empty space that would be great for IT or other industries, and the opportunity for STEM jobs is low, aside from cities like Mobile/ Birmingham/ Huntsville. The cost of living is great in comparison, making it suitable for all types of people.
I am weighing the options I might have in different states and cities, but at the moment staying in Alabama is attractive to me due to family proximity.
I don't want to stay in Alabama after I graduate, but if I have to for a good job or research opportunity then I would.
I have accepted a Summer 2021 internship in Gulf Shores and would be potentially interested in a full-time position after graduation if I enjoy the internship.
I have lived in Alabama my entire life, and while I love the state, I think I want to live elsewhere, at least for a little while. That being said, I would be happy to stay in Alabama if I get the right opportunity or something else keeps me here, or even return after living somewhere else.
I may just decide to buy myself a house in Alabama after graduation since I know the cost of living may be higher in other states.
I want to stay in Alabama and improve it because the state has a serious problem with keeping its talented and educated youth. The vast majority of young adults I talk to would be happy to leave the state if they are able to, even if they have great opportunities here.
<b>MAYBE - NON-RESIDENT #1 Response: (32%)</b> <b>Pursuing better opportunities outside of Alabama/ no incentive to stay/ follow the money</b>
Alabama has a good amount of job opportunities for my career path, but there are many opportunities in other states as well. I will go wherever my future employer tells me to go.
Being from the Northeast, if I stay in the south I was thinking about being in proximity to cities like Nashville or Atlanta. The Alabama cities and surrounding suburbs don't seem as interesting.
Depends on where I get a job. I could see myself moving to Huntsville, but if I don't land in Huntsville I may leave AL in the future.
I am not entirely sure what job opportunities are out there for me yet. I enjoy living in Alabama as a student, but I am not sure how I feel about living here long term. I do not want to limit myself to one state and am open to opportunities that are out there, regardless of the state. This is a time for growth in my life and I don't care to settle.
I am open to the idea of staying in Alabama, but in the end am planning on choosing a job opportunity over location so if I have a better job opportunity in a different state, I will most likely take this opportunity. However, I am more open to jobs in bigger cities than small towns.
My main priority is finding a high-paying job that I will enjoy. If that happens to be in Alabama then I would stay.
My plan is to apply to jobs across the country and will live wherever I can find employment.
My staying in Alabama depends on where I get job offers. I currently have an internship in Jacksonville, FL and if I get an offer there, I would consider staying there. As I said, it just depends on where my offers come from.
There are better job opportunities outside of the state for my major. But, Alabama's cost of living is very ideal.
Whether I stay in Alabama or not really depends on whether I get a good job offer in the state in comparison to my home state.

<b>MAYBE - NON-RESIDENT #2 Response: (30%) Stay if offered a good job/ competitive pay/ upward mobility</b>
Alabama is a place full of opportunities, I would be lucky to have a job in this state, I see the potential of this state.
Depending on the job opportunities post-graduation and the availability of increase.
Depends on available job opportunities within the field and realm of what I'd like to pursue.
Depends on job offers and availability. I'm definitely open to staying in Alabama if I get a competitive enough offer.
Depends on job offers. I am very open to staying in Alabama, but I am also open to other states.
Depends on the availability of jobs and local housing that is affordable based on my salary.
Depends on the job offers I receive. I'm applying to anything in multiple states, but about 30% of my job applications are to positions in Alabama.
I am seeking a job in the aerospace industry. At this time, I'll honestly take what I can get. That being said, Huntsville is a very nice place to live and work in the aerospace industry. The rest of the state? Not many job opportunities for me there...
I am a distance student, residing in Maine, and am looking into relocating for my Dietetic Internship and starting a career in Dietetics. Alabama is a place I would consider moving to.
I am looking for a place to relocate after obtaining my degree. I am considering Alabama because I attend school online and I believe there would be a network of alumni, students, and professors that would make job hunting and the move easier compared to moving somewhere where I have no connections at all.

<b>Stay in Alabama - NO</b>
<b>NO – RESIDENT #1 Response: (60%)</b>
<b>Pursuing better opportunities outside of Alabama/ no incentive to stay/ follow the money</b>
I feel like it is too hard to make a living in Alabama outside of state government, the university system, or the military. Nepotism is rampant and opportunities for new graduates without connections are few and far between. If I am going to have to start over as a new grad, I would rather do so somewhere that values diversity and inclusion, will allow me to make more than a few dollars above minimum wage, and have something to spend that additional discretionary income on. I do not want to have paid \$40,000 for a degree to go into a workforce that requires a Bachelor's degree just to begin pay negotiations at \$11-12/hr.
Alabama is a slow evolving state and there are better opportunities elsewhere.
Alabama does not offer competitive salaries nor do they offer advancement for African Americans.
Alabama is a difficult place for diverse and/or creative people to function and live. There are little resources and a very negative culture around those who are not considered the majority.
Because there are none/ few opportunities for my career.
Better job opportunities and pay outside of Alabama.
For my particular field, the salaries are very low despite level of education expected. Not worth living here at or below the poverty line with two degrees.
From living in Alabama for the time I have, and also traveling around the US, the overall livability and opportunity here is little to none compared to other places around the country. Frankly, Alabama is one of the last places I would consider living long-term.
I have lived in Alabama my entire life and there is nothing worth staying for besides my family. I can make better money with my career path in other states and there are a lot more opportunities out there other than the ones Alabama offers.
I do not plan to stay in Alabama but instead to move somewhere else in the southeast. Most surrounding states (excluding Mississippi) are better in almost every way imaginable.
<b>NO – RESIDENT #2 Response: (27%)</b>
<b>Unacceptable environment: political/ social/ education</b>
Alabama lacks cultural diversity and also the acceptance of people of different backgrounds.
Alabama does not foster diversity, lacks cultural awareness, and equality. Being an African American male that was born and raised in the state of Alabama, I have witnessed the lack of opportunities first hand. The historical perception of racism and classism still have a significant strong-hold on the trajectory of African Americans in my career field. Alabama may be home, but it will definitely not be a place where I'd raise my family.
48th worst state for Education, one of the lowest paying states for teachers, no importance placed on education in the state.
Alabama does not invest in their students: college nor k-12. They also do not invest in their educators. I cannot see myself pouring into a state that does not invest in the growth of its communities.
Alabama's constituents have the mentality to keep things the way they've always been, and that mentality hinders progress, innovation, diversity, and educated people.
I think Alabama is behind on everything from social issues to education. I think that a high majority of citizens in this state blindly support individuals in power only because of their political party instead of focusing on real issues. I hope to move out of this state as soon as I can.

Not progressive. And still heavily discriminatory in most areas. I would not want to raise my children in that kind of environment.
The culture of Alabama is not conducive to the success and inclusion of minorities/diverse individuals.
The people are friendly but judgmental. The political and religious beliefs here are over bearing on the verge of hateful if you're in opposition. The poverty rate is astounding, not statistically but from living here it's evident. The job field for my degree is practically none existent in this state. I have no intention of having my career or family in the state that is 48 in education, 2nd in obesity, 3 in religiousness, and despite a reasonable unemployment the poverty level is extremely high. This is my home state, I want to see it improve but most of these issues stem from the mentality of the people who live here and I don't see many of them changing their way of thinking or living in the next 2 decades.
There's nothing for me career-wise in Alabama, as well as the fact that it is not a very accepting or politically correct place. The politicians represent Alabama incredibly poorly and I don't want to be associated with the state.
<b>NO - NON-RESIDENT #1 Response: (43%)</b> <b>Pursuing better opportunities outside of Alabama/ no incentive to stay/ follow the money</b>
Alabama economy not strong enough, salaries too low.
I couldn't find the work that I qualify for at the salary that the market is paying.
I grew up in a larger city, and Alabama has been a bit of a step down. The number of opportunities other cities and states have to offer is much more enticing.
I live in the southern part of Alabama, and after living all over the world there is nothing to do here. Life is very mundane.
I plan on a job in the field of law and the starting salaries, benefits and incentives for Alabama and the surrounding states are minute compared to many other states in the country.
I want to live somewhere I don't have to own a car and can walk/bike most places I need to go. In Alabama there are not many places where this is possible as far as I know. Huntsville is the only city I know of with a bike lane network, and the public transportation systems are poor across the state.
It has been exceptionally difficult gaining well-paying, full-time employment. Seeking employment in my major outside of Alabama.
Job options are limited and average salaries are nowhere near enough to cover the cost of my student loans.
There are better job opportunities elsewhere that have a better political climate adjusted for me.
I prefer bigger cities as there are more tech jobs and it's easier to meet people. None of the cities here appeal to what I want.
<b>NO - NON-RESIDENT #2 Response: (21%)</b> <b>Unacceptable environment: political/ social/ education</b>
People are close minded and mostly uneducated.
The environment at my school is very positive and welcoming but I have not gotten the same impression from elsewhere in the state, people seem to have very closed minds here, even though they are very nice.
The people here are more closed minded and not inclusive of people from different diverse backgrounds.
Alabama can be a great state at times but I believe Alabama is very behind at times. There are not a lot of opportunities.
Alabama is consistently ranked in the bottom when compared to other states in the country. Why would I choose to live here? The state is painfully behind in many social programs such as paid family leave, paternity leave, sex education, welfare, education.

<p>Alabama is not an accepting environment. It is incredibly red, there are no major cultural events, the public education system is awful. Overall it is not a place I enjoy being.</p>
<p>I am choosing to move to a location that is more open to various forms of diversity (LGBTQIA community and neurodivergent communities), has a better political climate, and is more open to social and political awareness.</p>
<p>I do not feel that Alabama is a good place to live if you are not part of the religious and political majority. I don't generally see good economic/social development in the long-term future for the state. If I stay in Alabama, it will probably not be long-term.</p>
<p>It's boring. No events, not diverse, cost of living is awful, political influence is awful, the pushy religion aspect is awful, the horrible education, and the low wages are horrible.</p>
<p>I've lived in a variety of states (Texas, Utah, Ohio, Florida etc.) and countries outside of the U.S. (Germany and Italy) and can say with confidence that the lack of education and state funding of this area creates a very non-progressive socioeconomic environment. I intend to move somewhere with less poverty, greater health science opportunities, and with a more environmentally friendly and science driven state government. The inability of Alabama to promote and enforce safety precautions alone in the face of the COVID pandemic speaks volumes to how this state is run.</p>

## Appendix C: Impression and Importance Tables by Demographic Variables

The tables below provide the mean ratings for impressions of Alabama and importance of the items for students responding to the survey disaggregated by six demographic variables. For impressions of Alabama, the scale used was very negative (1), negative (2), neutral/ no opinion (3), positive (4), and very positive (5). For importance of the item, the scale used was not important at all (1), not important (2), neutral/ no opinion (3), important (4), and very important (5).

**Table 1: Mean Impressions and Importance Ratings by Residency Status**

Item	AL Resident (N=5274) Mean Ratings		AL Non-Resident (N=2934) Mean Ratings	
	Impressions	Importance	Impressions	Importance
Natural environment*	4.17	4.17	4.05	4.09
Access to healthy/outdoor*	4.08	4.12	3.98	4.11
Cost of Living	3.98	4.46	3.99	4.33
Friendliness of the people**	4.00	4.22	3.95	4.13
Opportunities to practice my faith*	3.99	4.01	3.79	3.63
Opportunities to continue education*	3.94	4.11	3.85	3.90
Proximity to family*	4.32	3.93	2.96	3.61
Access to sporting events (local/college/pro) *	3.86	3.30	3.75	3.34
Weather/ climate*	3.69	4.01	3.80	4.07
Variety of dining options*	3.78	3.77	3.46	3.69
Public safety*	3.50	4.37	3.36	4.25
Job opportunities**	3.40	4.56	3.34	4.48
Potential for career advancement*	3.34	4.44	3.25	4.36
Access to cultural events/concerts*	3.29	3.72	3.18	3.67
Employer-provided benefits*	3.29	4.37	3.18	4.22
Overall image or reputation**	3.22	3.79	3.13	3.70
Acceptance towards people of diverse backgrounds	2.98	4.27	2.99	4.15
Salary	2.99	4.44	2.96	4.36
Social awareness environment**	2.98	3.97	2.91	3.82
Political environment	2.85	3.83	2.83	3.76

\* Impressions – statistically significant difference (likelihood ratio chi-square = 0.000)

\*\* Impressions -- statistically significant difference (likelihood ratio chi-square < 0.05)

**Table 2: Mean Impressions and Importance Ratings by Sex**

Item	Female (N=5499) Mean Ratings		Male (N=2651) Mean Ratings		Other (N=58) Mean Ratings	
	Impressions	Importance	Impressions	Importance	Impressions	Importance
Natural environment*	4.09	4.15	4.20	4.14	3.67	3.95
Access to healthy/outdoor*	4.01	4.13	4.13	4.09	3.50	3.93
Cost of Living*	3.90	4.45	4.17	4.36	3.52	4.31
Friendliness of the people*	3.95	4.23	4.06	4.10	3.03	4.16
Opportunities to practice my faith*	3.91	3.95	3.98	3.72	2.45	3.29
Opportunities to continue education*	3.92	4.12	3.88	3.85	3.24	3.95
Proximity to family*	3.83	3.89	3.85	3.68	3.14	3.22
Access to sporting events (local/college/pro) *	3.83	3.29	3.80	3.39	3.16	2.41
Weather/ climate*	3.72	4.05	3.75	4.00	3.16	4.02
Variety of dining options*	3.68	3.79	3.67	3.64	2.78	3.45
Public safety*	3.42	4.41	3.53	4.14	2.66	4.21
Job opportunities*	3.38	4.55	3.39	4.49	2.66	4.36
Potential for career advancement*	3.29	4.42	3.35	4.39	2.59	4.31
Access to cultural events/concerts*	3.24	3.78	3.28	3.54	2.48	3.66
Employer-provided benefits*	3.24	4.36	3.28	4.22	2.55	4.22
Overall image or reputation*	3.19	3.83	3.20	3.61	2.12	3.64
Acceptance towards people of diverse backgrounds*	2.93	4.35	3.13	3.97	1.91	4.66
Salary*	2.95	4.44	3.05	4.36	2.45	4.34
Social awareness environment*	2.95	4.05	2.99	3.63	1.91	4.34
Political environment*	2.79	3.85	2.98	3.71	1.91	4.02

\* Impressions – statistically significant difference (likelihood ratio chi-square = 0.000)

\*\* Impressions -- statistically significant difference (likelihood ratio chi-square < 0.05)

**Table 3: Mean Impressions and Importance Ratings by Race**

Item	White (N=5438) Mean Ratings		Non-White (N=2770) Mean Ratings	
	Impressions	Importance	Impressions	Importance
Natural environment*	4.25	4.20	3.89	4.05
Access to healthy/outdoor*	4.16	4.15	3.82	4.06
Cost of Living*	4.07	4.41	3.82	4.44
Friendliness of the people*	4.12	4.21	3.70	4.15
Opportunities to practice my faith*	3.99	3.80	3.79	4.00
Opportunities to continue education*	3.93	3.94	3.86	4.22
Proximity to family*	3.89	3.81	3.73	3.83
Access to sporting events (local/college/pro) *	3.88	3.25	3.69	3.44
Weather/ climate*	3.77	4.05	3.65	4.00
Variety of dining options*	3.74	3.67	3.52	3.88
Public safety*	3.52	4.29	3.31	4.39
Job opportunities*	3.44	4.54	3.26	4.51
Potential for career advancement*	3.35	4.40	3.22	4.44
Access to cultural events/concerts*	3.30	3.65	3.14	3.82
Employer-provided benefits**	3.27	4.29	3.22	4.36
Overall image or reputation*	3.22	3.67	3.13	3.94
Acceptance towards people of diverse backgrounds*	3.02	4.15	2.92	4.38
Salary*	3.02	4.39	2.90	4.45
Social awareness environment	2.96	3.84	2.95	4.08
Political environment*	2.91	3.79	2.71	3.83

\* Impressions – statistically significant difference (likelihood ratio chi-square = 0.000)

\*\* Impressions -- statistically significant difference (likelihood ratio chi-square < 0.05)

**Table 4: Mean Impressions and Importance Ratings by Age Category**

Item	Traditional (N=5939) Mean Ratings		Non-Traditional (N=2269) Mean Ratings	
	Impressions	Importance	Impressions	Importance
Natural environment	4.14	4.15	4.10	4.13
Access to healthy/outdoor*	4.10	4.12	3.91	4.11
Cost of Living*	4.01	4.39	3.91	4.48
Friendliness of the people*	4.00	4.19	3.92	4.17
Opportunities to practice my faith**	3.94	3.83	3.87	3.97
Opportunities to continue education*	3.88	3.97	3.99	4.18
Proximity to family**	3.81	3.76	3.89	3.96
Access to sporting events (local/college/pro) *	3.89	3.29	3.64	3.39
Weather/ climate**	3.71	4.02	3.77	4.06
Variety of dining options**	3.65	3.73	3.71	3.78
Public safety	3.44	4.31	3.48	4.37
Job opportunities*	3.41	4.54	3.30	4.51
Potential for career advancement*	3.33	4.39	3.24	4.46
Access to cultural events/concerts**	3.22	3.68	3.31	3.76
Employer-provided benefits	3.24	4.28	3.26	4.40
Overall image or reputation*	3.15	3.73	3.29	3.83
Acceptance towards people of diverse backgrounds*	2.93	4.22	3.12	4.24
Salary*	3.02	4.38	2.87	4.48
Social awareness environment*	2.92	3.90	3.04	3.97
Political environment	2.83	3.79	2.88	3.84

\* Impressions – statistically significant difference (likelihood ratio chi-square = 0.000)

\*\* Impressions -- statistically significant difference (likelihood ratio chi-square < 0.05)

**Table 5: Mean Impressions and Importance Ratings by First Generation Status**

Item	1 <sup>st</sup> Gen (N=3137) Mean Ratings		Non-1 <sup>st</sup> Gen (N=5048) Mean Ratings	
	Impressions	Importance	Impressions	Importance
Natural environment**	4.10	4.15	4.14	4.14
Access to healthy/outdoor*	3.95	4.11	4.10	4.12
Cost of Living*	3.90	4.48	4.04	4.38
Friendliness of the people	3.89	4.21	4.03	4.17
Opportunities to practice my faith**	3.87	3.96	3.95	3.81
Opportunities to continue education*	3.92	4.18	3.90	3.94
Proximity to family*	3.95	3.89	3.76	3.78
Access to sporting events (local/college/pro) **	3.78	3.34	3.85	3.30
Weather/ climate	3.69	4.01	3.75	4.05
Variety of dining options*	3.67	3.79	3.67	3.71
Public safety	3.45	4.39	3.45	4.28
Job opportunities	3.33	4.55	3.41	4.52
Potential for career advancement	3.27	4.46	3.33	4.38
Access to cultural events/concerts**	3.22	3.76	3.27	3.67
Employer-provided benefits	3.24	4.40	3.26	4.26
Overall image or reputation*	3.24	3.86	3.15	3.70
Acceptance towards people of diverse backgrounds	3.01	4.30	2.97	4.18
Salary*	2.91	4.46	3.02	4.38
Social awareness environment*	3.00	4.00	2.93	3.87
Political environment	2.84	3.84	2.84	3.78

\* Impressions – statistically significant difference (likelihood ratio chi-square = 0.000)

\*\* Impressions -- statistically significant difference (likelihood ratio chi-square < 0.05)

**Table 6: Mean Impressions and Importance Ratings by STEM-Related Major**

Item	STEM-Related (N=2512) Mean Ratings		Non-Stem Related (N=5696) Mean Ratings	
	Impressions	Importance	Impressions	Importance
Natural environment**	4.15	4.18	4.11	4.13
Access to healthy/outdoor*	4.09	4.14	4.02	4.11
Cost of Living*	4.10	4.35	3.93	4.45
Friendliness of the people*	3.98	4.13	3.98	4.21
Opportunities to practice my faith*	3.88	3.70	3.94	3.95
Opportunities to continue education	3.83	3.88	3.94	4.10
Proximity to family*	3.69	3.65	3.90	3.89
Access to sporting events (local/college/pro) **	3.77	3.16	3.84	3.38
Weather/ climate**	3.75	4.04	3.72	4.03
Variety of dining options	3.60	3.59	3.70	3.81
Public safety	3.42	4.24	3.47	4.36
Job opportunities*	3.40	4.52	3.37	4.53
Potential for career advancement**	3.34	4.40	3.29	4.41
Access to cultural events/concerts	3.19	3.53	3.28	3.78
Employer-provided benefits	3.26	4.24	3.24	4.35
Overall image or reputation*	3.09	3.61	3.23	3.82
Acceptance towards people of diverse backgrounds	2.95	4.11	3.00	4.28
Salary*	3.09	4.37	2.93	4.43
Social awareness environment**	2.86	3.74	3.00	3.99
Political environment	2.82	3.72	2.85	3.84

\* Impressions – statistically significant difference (likelihood ratio chi-square = 0.000)

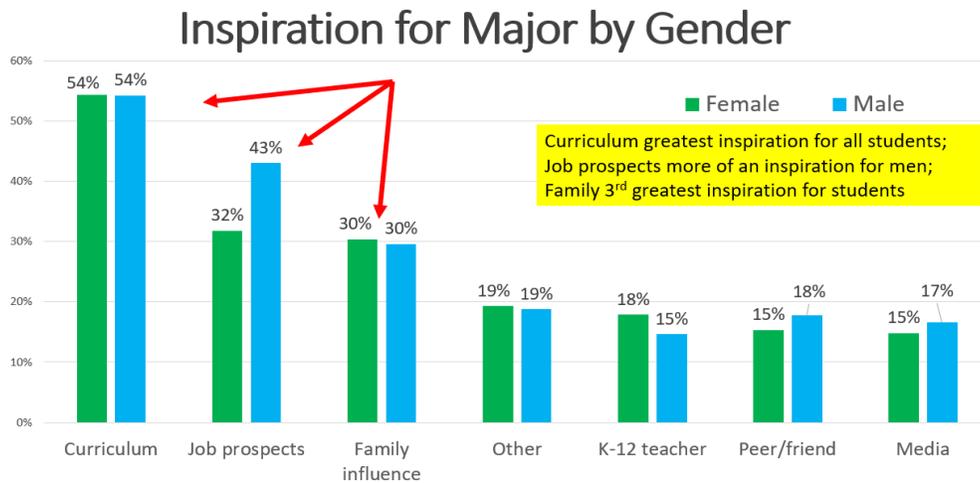
\*\* Impressions -- statistically significant difference (likelihood ratio chi-square < 0.05)

## Appendix D: Inspiration for Major

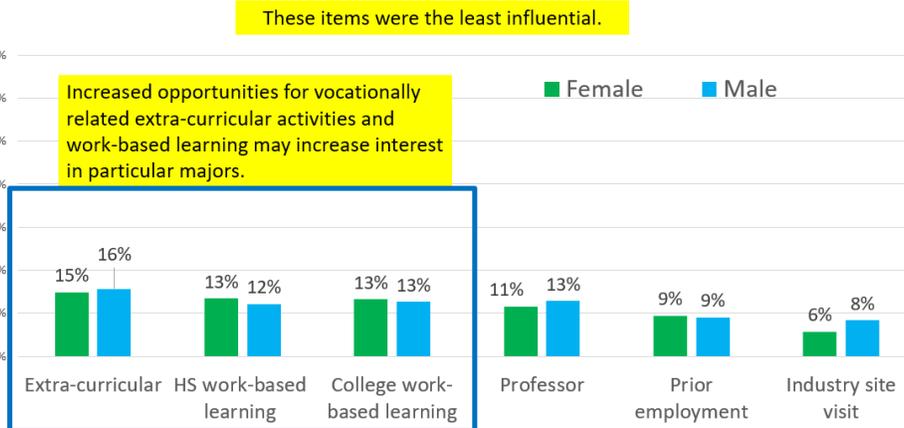
### Overall

Overall, students reported the greatest inspirations for their majors come from enjoyment of the curriculum (54%), employment prospects after graduation (35%), and family influence (30%). The next eight items had between 10 – 20% of students indicate the item as an inspiration. The two items with less than 10% of students identifying them as an inspiration are prior full-time employment (9%) and industry site visit or tour (7%).

**Figure 1: Inspiration for Major by Gender**



### Inspiration for Major by Gender (cont.)



**Table 1: Number and Percentage of Students Indicating Items that Inspired Them to Select Their Major**

Inspiration Item	# Students Responding	% Students Responding
Enjoyment of curriculum	4462	54%
Employment prospects after graduation	2907	35%
Family influence	2464	30%
Other	1575	19%
K-12 teacher influence	1384	17%
Peer/friend influence	1320	16%
Media influence (TV shows, YouTube, social media, etc.)	1262	15%
Extra-curricular enrichment activity or club	1247	15%
High-school work-based learning experience	1071	13%
College work-based learning experience	1068	13%
Professor influence	978	12%
Prior full-time employment	764	9%
Industry site visit or tour	543	7%

**Sex**

In disaggregating the inspirations for majors by sex, several differences emerge. While enjoyment of the curriculum, employment prospects, and family influence are still the most common inspirations, they are not represented equally for each sex. A larger percentage of males (43%) than females (32%) or other (33%) selected employment prospects as an inspiration for their major. While females are slightly more inspired by K-12 teachers, males are more inspired by peers and the media.

Though only 58 students identified as other, they have differences from males and females in terms of inspiration for their major. For enjoyment of curriculum and family influence, the same percentage of females and males (54% and 30%, respectively) selected these as inspirations; however, for students identifying as other, 60% selected curriculum and 17% selected family influence as inspirations. In addition, they gain more inspiration than females or males from other inspirations (28%), K-12 teacher influence (21%), extra-curricular activities (21%), high school work-based learning (19%), and professor influence (16%).

**Table 2: Percentage of Students, by Sex, Indicating Items that Inspired Them to Select Their Major**

Inspiration Item	Female	Male	Other
Enjoyment of curriculum	54%	54%	60%
Employment prospects after graduation	32%	43%	33%
Family influence	30%	30%	17%
Other	19%	19%	28%
K-12 teacher influence	18%	15%	21%
Peer/friend influence	15%	18%	10%
Media influence (TV shows, YouTube, social media, etc.)	15%	17%	16%
Extra-curricular enrichment activity or club	15%	16%	21%
High-school work-based learning experience	13%	12%	19%
College work-based learning experience	13%	13%	10%
Professor influence	11%	13%	16%
Prior full-time employment	9%	9%	9%
Industry site visit or tour	6%	8%	10%

**Race/ Ethnicity**

Enjoyment of the curriculum, employment prospects, and family influence remain the most selected major inspirations for all race/ethnicity groupings with one exception. Students identifying as Hispanic have other inspiration in the top three instead of family influence. Since the top three inspirations across majors are almost identical, it is beneficial to look at the next three inspirations. While peer/friend, media, and other inspiration are found for all race/ethnicity groups, there are some differences. African American students selected college work-based learning and Hispanic students selected high school work-based learning at higher percentages. Students identifying as white or other minority selected K-12 teacher at a higher percentage.

Figure 2: Inspiration for Major by Race/Ethnicity

## Inspiration for Major by Race/Ethnicity

Race/Ethnicity	Top 3 Inspirations
Asian American/ Pacific Islander	Curriculum Employment Prospects Family Influence
African-American	Curriculum Employment Prospects Family Influence
Hispanic	Curriculum Employment Prospects Other
Other Minority	Curriculum Employment Prospects Family Influence
White	Curriculum Employment Prospects Family Influence

The top three inspirations for major are common among all ethnic groups except Hispanic students (not include family).

**Table 3: Top Inspirations for Major by Race/Ethnicity Group**

Race/Ethnicity Group	Top 3 Inspirations	Next 3 Inspirations
Asian American/ Pacific Islander	Curriculum	Peer/friend
	Employment Prospects	Media
	Family Influence	Other
African American	Curriculum	Other
	Employment Prospects	Media
	Family Influence	College Work-Based Learning
Hispanic	Curriculum	Family Influence
	Employment Prospects	Media
	Other	HS Work-Based Learning & Peer/friend
Other Minority	Curriculum	Other
	Employment Prospects	K-12 Teacher
	Family Influence	Media
White	Curriculum	K-12 Teacher
	Employment Prospects	Other
	Family Influence	Peer/friend

**Table 4: Percentage of Students, by Race/Ethnicity, Indicating Items that Inspired Them to Select Their Major**

Inspiration Item	Asian American/ Pacific Is.	African American	Hispanic	Other Minority	White	Unknown
Enjoyment of curriculum	54%	41%	51%	52%	59%	41%
Employment prospects after graduation	38%	27%	33%	34%	38%	2%
Family influence	34%	26%	22%	29%	32%	24%
Other	15%	23%	25%	22%	18%	34%
K-12 teacher influence	9%	14%	14%	17%	19%	11%
Peer/friend influence	21%	12%	15%	14%	17%	22%
Media influence (TV shows, YouTube, social media, etc.)	16%	15%	17%	15%	15%	18%
Extra-curricular enrichment activity or club	14%	13%	14%	13%	16%	8%
High-school work-based learning experience	14%	14%	15%	13%	13%	1%
College work-based learning experience	13%	15%	12%	11%	13%	8%
Professor influence	15%	9%	14%	11%	12%	11%
Prior full-time employment	6%	11%	7%	9%	9%	12%
Industry site visit or tour	6%	5%	6%	6%	7%	6%

**STEM**

Students with STEM and non-STEM related majors selected enjoyment of the curriculum, job prospects, and family influence as the top inspirations for their major; however, there was variation in the percentage of students selecting these items. For students with STEM-related majors, a higher percentage of students selected these three inspirations than students with non-STEM related majors (likelihood ratio chi-squared for all three = 0.000). Of particular importance is that 46% of STEM-related graduates selected employment prospects as compared to 31% for non-STEM majors (likelihood ratio chi-squared = 0.000).

For students with a STEM-related major, there is a cluster of inspirations associated with K-12 experiences that they selected at a higher percentage than students with non-STEM related majors. These inspirations are K-12 teacher influences (19% versus 16%), extra-curricular enrichment activity (18% versus 14%), and high school work-based learning experience (17% versus 11%) (likelihood ratio chi-squared for all three = 0.000). In addition, students with STEM-related majors selected industry site visits or tour at twice the percentage as non-STEM related majors (10% versus 5%) (likelihood ratio chi-squared for all three = 0.000).

**Table 5: Percentage of STEM and Non-STEM Students Indicating Items that Inspired Them to Select Their Major**

Inspiration Item	STEM	Non-STEM
Enjoyment of curriculum*	57%	53%
Employment prospects after graduation*	46%	31%
Family influence*	33%	29%
K-12 teacher influence*	19%	16%
Extra-curricular enrichment activity or club*	18%	14%
High-school work-based learning experience*	17%	11%
Other*	16%	21%
Media influence (TV shows, YouTube, social media, etc.)	15%	16%
Peer/friend influence**	15%	17%
College work-based learning experience	13%	13%
Professor influence**	11%	13%
Industry site visit or tour*	10%	5%
Prior full-time employment*	5%	11%

\* Statistically significant difference (likelihood ratio chi-square = 0.000)

\*\* Statistically significant difference (likelihood ratio chi-square < 0.05)

## Appendix E: Career Clusters and CIP Codes

The table below depicts the 16 Career Clusters in the National Career Clusters Framework, and the second table depicts ACHE's classification of CIP codes within the designated career clusters.

<b>careertech.org Career Clusters</b>	<b>ACHE Cluster Consolidation</b>
Agriculture, Food and Natural Resources	Science, Technology, Engineering and Mathematics
Architecture and Construction	Arts, A/V Technology and Communications <b>or</b> Science, Technology, Engineering and Mathematics
Arts, A/V Technology and Communications	Arts, A/V Technology and Communications
Business Management and Administration	Business Management and Administration
Education and Training	Education and Training
Finance	Business Management and Administration
Government and Public Administration	Law, Public Safety, Public Administration
Health Sciences	Health Sciences
Hospitality and Tourism	Business Management and Administration
Human Services	Human Services
Information Technology	Science, Technology, Engineering and Mathematics
Law, Public Safety, Corrections and Security	Law, Public Safety, Public Administration
Manufacturing	Manufacturing
Marketing	Business Management and Administration
Science, Technology, Engineering and Mathematics	Science, Technology, Engineering and Mathematics or STEM
Transportation, Distribution and Logistics	Business Management and Administration <b>or</b> Law, Public Safety, Public Administration

ACHE Career Clusters	STEM	CIP Code	CIP Title
Arts, A/V Technology and Communications	NON-STEM	04.0000	Architecture, Community Planning and Design
Arts, A/V Technology and Communications	NON-STEM	09.0000	Communications, Journalism, Media
Arts, A/V Technology and Communications	NON-STEM	23.0000	English Literature, Writing
Arts, A/V Technology and Communications	NON-STEM	50.0000	Visual and Performing Arts
Business Management and Administration	NON-STEM	31.0504	Sport/Recreation, Hospitality and Tourism
Business Management and Administration	NON-STEM	45.0600	Social Sciences, Economics
Business Management and Administration	NON-STEM	52.0000	Business, Technology Management
Business Management and Administration	NON-STEM	52.0202	Business, Logistics/ Supply Chain
Business Management and Administration	NON-STEM	52.0300	Business, Accounting
Business Management and Administration	NON-STEM	52.0600	Business, Economics
Business Management and Administration	NON-STEM	52.0700	Business, Entrepreneurship
Business Management and Administration	NON-STEM	52.0800	Business, Finance/ Banking
Business Management and Administration	NON-STEM	52.1000	Business, Human Resources
Business Management and Administration	NON-STEM	52.1100	Business, International
Business Management and Administration	NON-STEM	52.1200	Business, Management Information Systems
Business Management and Administration	STEM	52.1300	Business, Management Science/ Analytics
Business Management and Administration	NON-STEM	52.1400	Business, Marketing
Business Management and Administration	NON-STEM	52.9900	Business, Other
Business Management and Administration	NON-STEM	31.0100, 31.0300	Sport/Recreation Management
Business Management and Administration	NON-STEM	52.0100, 52.0200	Business Administration/ Management
Education and Training	NON-STEM	13.0000	Education, Other
Education and Training	NON-STEM	13.0400	Education, Leadership/ Administration
Education and Training	NON-STEM	13.0500	Education, Instructional Technology/ Media
Education and Training	NON-STEM	13.1001	Education, Special Education
Education and Training	NON-STEM	13.1101	Education, Counseling
Education and Training	NON-STEM	13.1202	Education, Elementary
Education and Training	STEM	13.1205	Education, Grades 6-12 Mathematics
Education and Training	NON-STEM	13.1205	Education, Grades 6-12 English Language Arts
Education and Training	STEM	13.1205	Education, Grades 6-12 Science
Education and Training	NON-STEM	13.1205	Education, Grades 6-12 Social Science
Education and Training	NON-STEM	13.1205	Education, Grades 6-12 Foreign Language
Education and Training	NON-STEM	13.1210	Education, Early Childhood
Education and Training	NON-STEM	13.1302	Education, Art
Education and Training	NON-STEM	13.1307	Health Teacher Education
Education and Training	NON-STEM	13.1312	Education, Music
Education and Training	NON-STEM	13.1314	Physical Education Teaching and Coaching
Education and Training	NON-STEM	13.1319	Education, Career/ Technical
Education and Training	NON-STEM	16.0000	Foreign Languages and Literature
Education and Training	NON-STEM	24.0000	General Studies, Liberal Arts
Education and Training	NON-STEM	30.0000	Interdisciplinary Studies
Education and Training	STEM	30.0100	Interdisciplinary, General Science/ Natural Science

ACHE Career Clusters	STEM	CIP Code	CIP Title
Education and Training	NON-STEM	30.9990	Interdisciplinary, Individualized Major
Education and Training	NON-STEM	30.9999	Interdisciplinary, Professional Studies
Education and Training	NON-STEM	38.0000	Philosophy and Religious Studies
Education and Training	NON-STEM	45.0100	Social Sciences, General
Education and Training	NON-STEM	45.9900	Social Sciences, Other
Education and Training	NON-STEM	54.0000	History
Health Sciences	STEM	14.0500	Engineering, Biomedical/ Medical
Health Sciences	STEM	26.0102	Biomedical Sciences
Health Sciences	NON-STEM	31.0505	Sport/ Recreation, Kinesiology and Exercise Science
Health Sciences	NON-STEM	51.0000	Health Professions, General Health Sciences
Health Sciences	NON-STEM	51.0200	Health Professions, Speech-Language Pathology/ Audiology
Health Sciences	NON-STEM	51.0700	Health Professions, Healthcare Administration/ Leadership
Health Sciences	NON-STEM	51.0913	Health Professions, Athletic Training
Health Sciences	NON-STEM	51.1000	Health Professions, Medical/Laboratory Technology
Health Sciences	NON-STEM	51.2300	Health Professions, Physical/ Occupational Therapy
Health Sciences	NON-STEM	51.3800	Health Professions, Nursing
Health Sciences	NON-STEM	51.9999	Health Professions, Other
Human Services	NON-STEM	05.0000	Cultural Studies, African American Studies, Women's Studies
Human Services	NON-STEM	19.0000	Human/ Family Development, Nutrition, Consumer Sciences
Human Services	NON-STEM	42.0000	Psychology
Human Services	NON-STEM	44.0000	Social Work, Public Administration
Human Services	NON-STEM	45.0200	Social Sciences, Anthropology
Human Services	NON-STEM	45.1100	Social Sciences, Sociology
Human Services	NON-STEM	51.2200	Health Professions, Public/Community Health
Law, Public Safety, Public Administration	NON-STEM	22.0000	Law, Legal Studies
Law, Public Safety, Public Administration	NON-STEM	43.0000	Criminal Justice, Emergency Mgmt, Homeland Security
Law, Public Safety, Public Administration	NON-STEM	45.0900	Social Sciences, International Relations
Law, Public Safety, Public Administration	NON-STEM	45.1000	Social Sciences, Political Science/ Government
Law, Public Safety, Public Administration	NON-STEM	49.0000	Aviation Mgmt, Professional Flight
STEM	STEM	01.0000	Agricultural, Animal Sciences
STEM	STEM	03.0000	Forestry, Environmental Sciences
STEM	NON-STEM	11.0400	Information Systems/ Technology
STEM	NON-STEM	11.1000	Cybersecurity
STEM	STEM	14.0100	Engineering, General/ Management
STEM	STEM	14.0200	Engineering, Aerospace
STEM	STEM	14.0400	Engineering, Architectural/ Construction
STEM	STEM	14.0700	Engineering, Chemical
STEM	STEM	14.0800	Engineering, Civil

ACHE Career Clusters	STEM	CIP Code	CIP Title
STEM	STEM	14.0900	Engineering, Computer/ Software
STEM	STEM	14.1000	Engineering, Electrical/ Electronics/ Communications
STEM	STEM	14.1400	Engineering, Environmental
STEM	STEM	14.1900	Engineering, Mechanical
STEM	STEM	14.2700	Engineering, Systems
STEM	STEM	14.3500	Engineering, Industrial
STEM	STEM	14.9900	Engineering, Other
STEM	STEM	15.0000	Engineering Technology
STEM	STEM	26.0101	Biology/ Biological Sciences, General
STEM	STEM	26.0200	Biochemistry/ Molecular Biology
STEM	STEM	26.0500	Biology, Cell/ Microbiology/ Immunology
STEM	STEM	26.0800	Biology, Genetics/ Genomics
STEM	STEM	26.1300	Biology, Marine
STEM	STEM	26.1500	Biology, Neuroscience/ Neurobiology
STEM	STEM	26.9900	Biological Sciences, Other
STEM	STEM	27.0100	Mathematics, General
STEM	STEM	27.0300	Mathematics, Applied
STEM	STEM	27.0500	Mathematics, Statistics
STEM	STEM	27.9900	Mathematics, Other
STEM	STEM	30.1500	Science, Technology and Society (Interdisciplinary, Earth Systems)
STEM	STEM	30.3300	Sustainability Studies (Interdisciplinary, Earth Systems)
STEM	STEM	40.0100	Physical Sciences, General
STEM	STEM	40.0400	Physical Sciences, Meteorology and Atmospheric
STEM	STEM	40.0500	Physical Sciences, Chemistry
STEM	STEM	40.0600	Physical Sciences, Geology
STEM	STEM	40.0800	Physical Sciences, Physics
STEM	STEM	40.1000	Physical Sciences, Materials Science
STEM	STEM	40.9900	Physical Sciences, Space Science
STEM	STEM	40.9999	Physical Sciences, Other
STEM	STEM	45.0700	Social Sciences, Geographic Information Systems/ Geography
STEM	NON-STEM	11.0100, 11.0700	Computer Science
STEM	STEM	14.1800, 14.2000, 14.3200	Engineering, Materials/ Metallurgical/ Polymer
STEM	STEM	26.0900, 26.1000	Biology, Pathology/ Toxicology

## Appendix F: Alabama Regions

The Alabama map below depicts the state's seven Regional Workforce Council Regions and fourteen public universities.



**Populations of Alabama Cities Ranked by Population Size**  
**(Source: U.S. Census Bureau, Census 2010)**  
**Alabama - 4,779,736**

Birmingham city	212,237	Troy city	18,033	Russellville city	9,830
Montgomery city	205,764	Center Point city	16,921	Gulf Shores city	9,741
Mobile city	195,111	Helena city	16,793	Clay city	9,708
Huntsville city	180,105	Hueytown city	16,105	Rainbow City city	9,602
Tuscaloosa city	90,468	Talladega city	15,676	Boaz city	9,551
Hoover city	81,619	Fairhope city	15,326	Valley city	9,524
Dothan city	65,496	Ozark city	14,907	Sheffield city	9,039
Decatur city	55,683	Alexander City city	14,875	Andalusia city	9,015
Auburn city	53,380	Cullman city	14,775	Clanton city	8,619
Madison city	42,938	Scottsboro city	14,770	Tuscumbia city	8,423
Florence city	39,319	Millbrook city	14,640	Southside city	8,412
Gadsden city	36,856	Foley city	14,618	Fultondale city	8,380
Vestavia Hills city	34,033	Jasper city	14,352	Guntersville city	8,197
Prattville city	33,960	Hartselle city	14,255	Greenville city	8,135
Phenix City city	32,822	Fort Payne city	14,012	Arab city	8,050
Alabaster city	30,352	Gardendale city	13,893	Bay Minette city	8,044
Bessemer city	27,456	Saraland city	13,405	Demopolis city	7,483
Enterprise city	26,562	Muscle Shoals city	13,146	Pinson city	7,163
Opelika city	26,477	Eufaula city	13,137	Hamilton city	6,885
Homewood city	25,167	Sylacauga city	12,749	Spanish Fort city	6,798
Northport city	23,330	Pell City city	12,695	Opp city	6,659
Anniston city	23,106	Jacksonville city	12,548	Oneonta city	6,567
Prichard city	22,659	Irondale city	12,349	Wetumpka city	6,528
Athens city	21,897	Leeds city	11,773	Monroeville city	6,519
Daphne city	21,570	Moody city	11,726	Lanett city	6,468
Pelham City	21,352	Calera City	11,620	Tarrant City	6,397
Oxford city	21,348	Fairfield city	11,117	Montevallo city	6,323
Albertville city	21,160	Atmore city	10,194	Lincoln city	6,266
Selma city	20,756	Chelsea city	10,183	Satsuma city	6,168
Mountain Brook city	20,413	Pleasant Grove city	10,110	Chickasaw city	6,106
Trussville city	19,933	Tuskegee city	9,865	Roanoke city	6,074

**Populations of Alabama Cities Ranked by Population Size  
(Source: U.S. Census Bureau, Census 2010), Continued  
Alabama - 4,779,736**

Attalla city	6,048	Citronelle city	3,905
Orange Beach city	5,441	Marion city	3,686
Brewton city	5,408	Odenville town	3,585
Pike Road town	5,406	Centre city	3,489
Midfield city	5,365	Livingston city	3,485
Daleville city	5,295	Heflin city	3,480
Robertsdale city	5,276	Moulton city	3,471
Jackson city	5,228	Dadeville city	3,230
Childersburg city	5,175	Warrior city	3,176
Glencoe city	5,160	Red Bay city	3,158
Rainsville city	4,948	Weaver city	3,038
Brent city	4,947	Clayton town	3,008
Smiths Station city	4,926	La Fayette city	3,003
Piedmont city	4,878	Hanceville city	2,982
Tallassee city	4,819	Brighton city	2,945
Winfield city	4,717	Eutaw town	2,934
Fayette city	4,619	New Hope city	2,810
Adamsville city	4,522	Luverne city	2,800
Headland city	4,510	Centreville city	2,778
Geneva city	4,452	Kimberly town	2,711
Margaret town	4,428	Abbeville city	2,688
Hokes Bluff city	4,286	Priceville town	2,658
Thomasville city	4,209	Hartford city	2,624
Columbiana city	4,197	Jemison city	2,585
Haleyville city	4,173	Bayou La Batre city	2,558
Springville city	4,080	York city	2,538
Argo town	4,071	Sumiton city	2,520
Valley Grande city	4,020		
Union Springs city	3,980		
Evergreen city	3,944		
Elba city	3,940		