Gallup-SU Report

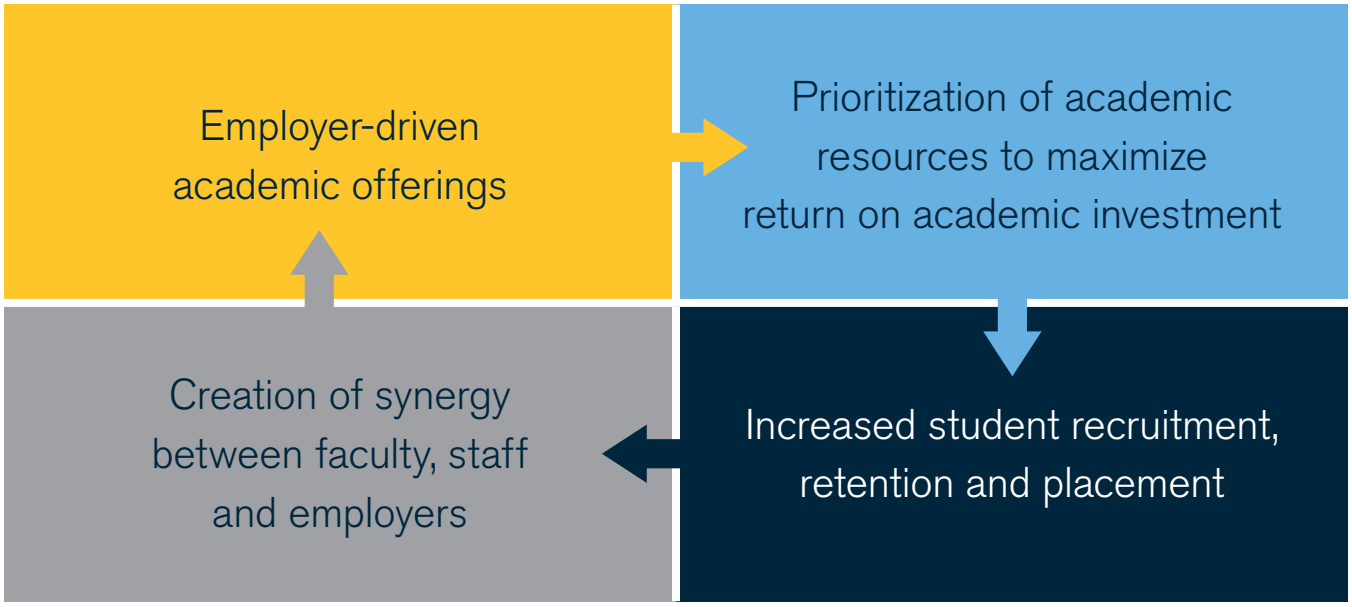
SOUTHERN UNIVERSITY AND AGRICULTURAL & MECHANICAL COLLEGE | GALLUP®

Introduction

Southern University and A&M College (SU) is strengthening the value it provides to students and graduates by working to maximize the alignment of its curriculum and programs with workforce demands. In doing so, SU will prepare graduates to leave the institution equipped with the skills and credentials they need to be competitive in the labor market.

SU has already taken steps to assess their alignment with workforce demands. For example, the university has partnered with the Louisiana Workforce Commission and Louisiana Economic Development via a unique partnership entitled the "Louisiana Interagency Alliance for Global Workforce Development" to help SU promote academic offerings that will prepare students to succeed in their transition from the classroom to the workforce.

The focus of this initiative is to respond to the changing workplace so that SU prepares graduates to be competitive in today's economic realities at the state level and nationally. To do this, the school is modernizing the organization of their academic progress to provide greater connections across SU departments. The goals of this effort include[1]:



To achieve these goals, SU is assessing their current offerings, the current labor market outcomes for their graduates and the current state of workforce demands. Understanding each of these components allows SU to identify programs that are already in alignment with the current economy, those that require realignment with workforce demands, and those that need to be justified based on other considerations — such as the advancement of public service that may accompany some low-paying career paths. Understanding and maximizing the congruence between labor market demand and program content will raise the likelihood that alumni will find their experience financially worthwhile.

1 http://www.subr.edu/index.cfm/page/2174/n/2148

In the fall of 2017, SU partnered with Gallup to evaluate the workforce outcomes for its graduates, assess the alignment between SU's curriculum and labor market demands both at the state and national level, and provide recommendations to SU about maximizing the value for its students and graduates.

To provide these insights, Gallup implemented two chief research methodologies:

1

Phone interviews with 184 employers in New Orleans and Baton Rouge to gauge their familiarity with and perception of SU compared with other four-year Louisiana colleges and universities and to determine the majors and skills that employers in those cities will be prioritizing in future job candidates.

2

A comprehensive program review of SU's academic offerings and the labor market outcomes for SU graduates to identify where the university is aligned or misaligned with state and national workforce demands. The analysis uses SU's own administrative data, publicly available data[2] and Burning Glass data on job postings.

Ultimately, the analysis presented in this report finds both alignment and misalignment between SU's academic offerings and workforce demands. SU boasts several majors — nursing and business administration, for example — which are well-represented at the university and have high labor market value in Louisiana and the U.S. However, there are also some popular majors at SU that are not supported by workforce demands, such as family and consumer sciences/human sciences. Other majors — especially those in engineering — represent a small share of SU's awards but provide high labor market value. After evaluating SU's current undergraduate offerings using a wide variety of metrics, the report concludes with recommendations for fields of study that SU might consider adding to their current degree programs based on many of the same criteria used to evaluate SU's current degree programs.

2 E.g., The Integrated Postsecondary Education Data System, U.S. Census and American Community Survey.

Southern University's Current Place in the Market

An initial step in aligning SU's offerings with workforce demands is to identify the institution's current state in the market. To do this, Gallup is using insights from interviews with employers in Baton Rouge and New Orleans as well as analysis of SU's current offerings and key outcomes for its students and graduates. This section addresses these questions:

- How do employers in two of the state's largest cities view SU relative to other Louisiana colleges and universities?
- Do these employers interview SU graduates for positions at their organizations? If so, do they deem SU's candidates to be qualified? How do they compare with other Louisiana colleges and universities?
- How do SU graduates fare in terms of graduation rates, earnings and loan default rates relative to graduates from other types of institutions?
- How does SU's distribution of awards — by field of study — compare with other types of institutions, and what is the labor market value for those degrees?

Employer Perceptions of Southern University

Gallup asked employers in Baton Rouge and New Orleans about their familiarity with six different four-year Louisiana colleges and universities, as well as their perceptions of the schools with which they were familiar (**Figure 1**). As might be expected, employers in Baton Rouge are more familiar (60% "familiar"/"very familiar") with SU than are employers in New Orleans (40% "familiar"/"very familiar"). Among Baton Rouge employers, familiarity with SU exceeds that of Tulane University and Xavier University of Louisiana, while trailing University of Louisiana Lafayette and Southeastern Louisiana University. However, familiarity with SU falls behind that of the other universities among New Orleans employers.

Employers in Baton Rouge were somewhat more likely than those in New Orleans to hold a "very positive" view of SU (49% vs. 39%). In both cities, employers were less likely to be positive about SU than they were to be positive about the other colleges included in the survey. With the exception of Louisiana Lafayette, which elicited similar responses, employers often rated other Louisiana universities more favorably, such as LSU, Xavier, Tulane and Southeastern Louisiana.

Overall, familiarity with a university corresponds strongly with a more positive view of that university. Across the six schools employers were asked about, employers who were "very familiar' with a school were 32 percentage points more likely than those who were somewhat familiar, on average, to hold a "very positive view" of that university. Employers who were "very familiar" with SU were 27 percentage points more likely than those who were only somewhat familiar with the school to have a "very positive" view of SU.

Characteristics of Interviewed Employers

103 New Orleans employers
81 Baton Rouge employers

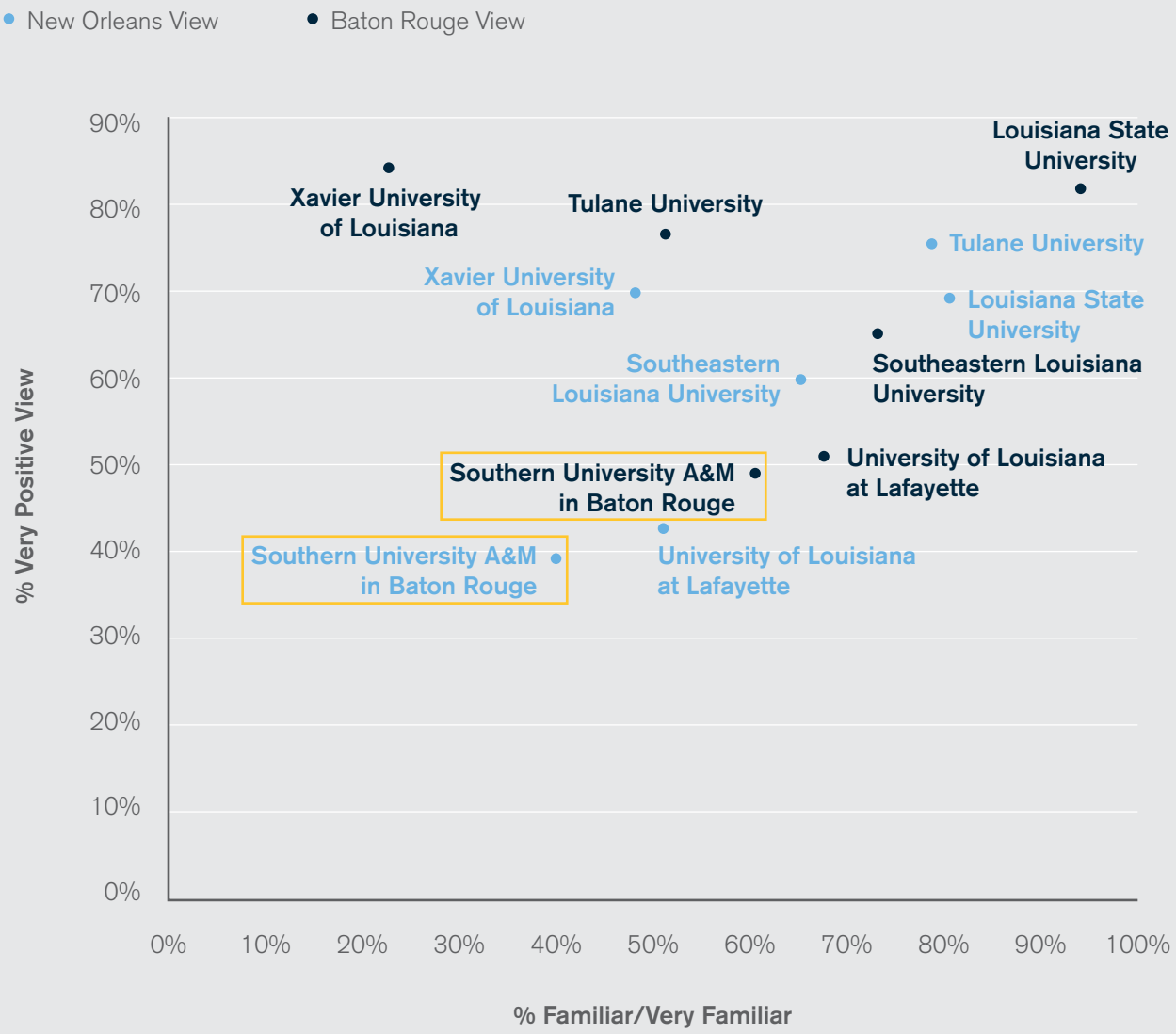
Broad range of employer types:
55% for profits
19% government entities
25% nonprofits

Broad range of employer sizes:
46% <100 employees
38% 100-1,000 employees
14% 1,000+ employees

Broad range of industries:
26 industries represented
(e.g., **26%** healthcare and social assistance
12% finance and insurance
10% educational services)

Figure 1.

Familiarity and Perception of Institutions, by City



Note: Data from Gallup employer survey

SU Graduates as Job Candidates

Gallup also asked employers in Baton Rouge and New Orleans if they have interviewed graduates from the same six institutions and, if so, if they perceived those candidates to be qualified for the position (**Figure 2**). While few employers in New Orleans have interviewed SU graduates in the past 12 months, those that did perceived SU's graduates to be competitively qualified. Of the New Orleans employers, 28% said they had interviewed SU graduates, ahead of only Xavier University of Louisiana among the six schools. However, 66% of the New Orleans employers who interviewed SU graduates said most or all were qualified for the position, which ranks on par with the other Louisiana institutions.

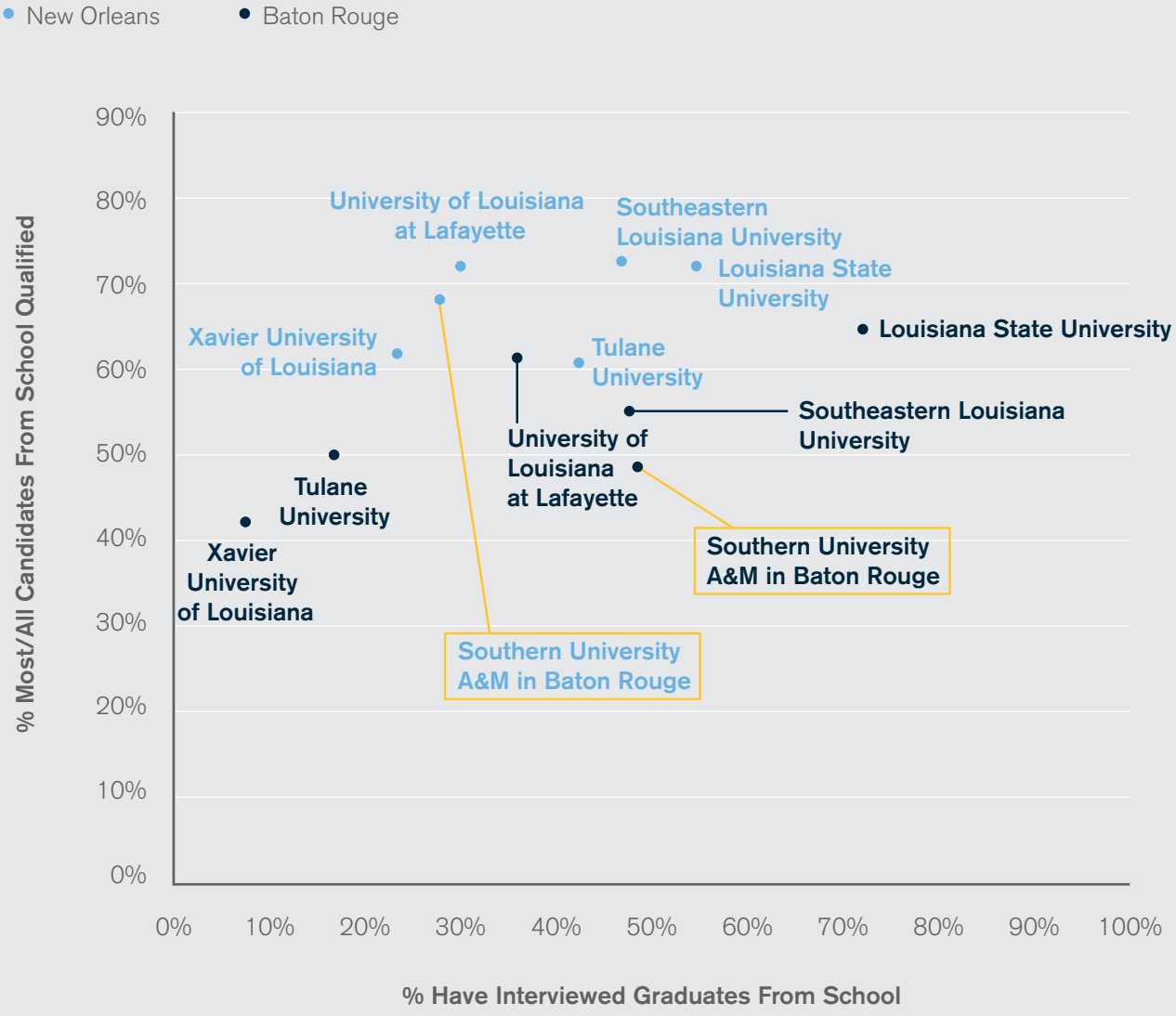
Significantly more Baton Rouge employers have interviewed SU graduates (49%) — trailing only Louisiana State University (72%). About half of Baton Rouge employers (48%) who have interviewed SU candidates in the past 12 months deemed most or all of them to be qualified, which ranks above Xavier University of Louisiana (43%), is on par with Tulane University (50%) and trails the remaining three Louisiana institutions.

Experience interviewing a school's graduates is related to an overall positive view of the institution. On average, employers who have interviewed a school's graduates are 15 percentage points more likely to hold a "very positive" view of the school than are employers who have not — including a difference of 10 points in "very positive" views of SU.

On average, employers who have interviewed a school's graduates are **15 percentage points** more likely to hold a "very positive" view of the school than are employers who have not — including a difference of **10 points** in "very positive" views of SU.

Figure 2.

Which Grads Get Interviews and Perceived Qualification, by City



Note: Data from Gallup employer survey

Key Outcomes for SU Graduates Compared With Other Institutions

To provide the appropriate framework for evaluating fundamental outcomes for SU graduates, it is important to understand that SU students tend to come from less socioeconomically advantaged families compared with students attending other types of institutions (**Figure 3**). Nearly two-thirds of SU students (63%) receive Pell grants, which is on par with other historically black colleges and universities (HBCUs) at 65%. By comparison, just over one-third of students at primarily bachelor's degree-granting colleges in the U.S. (36%) and four-year colleges in Louisiana (34%) receive Pell grants. Additionally, the 44% of SU attendees who are first-generation college students exceeds other institutions in the U.S. (35%) and other four-year colleges in Louisiana (45%) and is similar to other HBCUs (40%). Finally, SU students come from lower-income households relative to students at other U.S. colleges, including an approximate $12,000 disparity when compared with other four-year colleges in Louisiana.

Figure 3.

Context

Institution	Pell Aid, Percent	Percent First Generation, 2005	Median Family Income, 2005
Southern University A&M	**63%**	**44%**	**$40,295**
All HBCUs	**65%**	**40%**	**$50,196**
All primarily bachelor's degree colleges (U.S.)	**36%**	**35%**	**$79,297**
All four-year colleges in Louisiana, except for SU	**34%**	**45%**	**$62,844**

Note: Gallup analysis of the College Scorecard and value-added data from the Brookings Institution. See Jonathan Rothwell, "Using earnings data to rank colleges: A value-added approach updated with College Scorecard data" (Brookings Institution, 2015).

With this context in mind, it is not surprising that the median income of SU's alumni is relatively low compared with other schools, even those in Louisiana. Yet research from the Brookings Institution shows that SU generates relatively high value-added earnings; that is, alumni salaries exceed what would be predicted by institutional and student characteristics.[3] The median income for SU graduates 10 years after entry is $33,257, which is 15% higher than the predicted value using econometric analysis. On this score, SU surpasses the average HBCUs (7%), other Louisiana four-year colleges (12%) and U.S. four-year colleges overall (9%). (**Figure 4**). However, SU does have a low six-year graduation rate (32%), which is similar to other HBCUs (35%) but trails other Louisiana four-year schools (46%) and U.S. four-year colleges (56%). The low graduation rate is mostly but not fully explained by SU students' demographic characteristics and test scores.

Figure 4.

Outcomes

Institution	Median Alumni Earnings 2011, 10 Years After Entry	Predicted Earnings	Value-Added to Earnings	Graduation Rate in Six Years (150% Time)	Predicted Graduation Rate	Value-Added to Graduation Rate	Student Loan Default Rate, Three Years
Southern University A&M	**$33,257**	**$22,067**	**15%**	**32%**	**35%**	**-2.7%**	**12%**
All HBCUs	**$34,678**	**$24,562**	**7%**	**35%**	**39%**	**-3.8%**	**16%**
All primarily bachelor's degree colleges (U.S.)	**$47,000**	**$32,294**	**9%**	**56%**	**53%**	**2.8%**	**13%**
All four-year colleges in Louisiana, except for SU	**$40,934**	**$32,294**	**12%**	**46%**	**45%**	**0.8%**	**8%**

Note: Gallup analysis of the College Scorecard and value-added data from the Brookings Institution. Graduation rate is for the 2007-2008 entering classes.

3 See Jonathan Rothwell "Using earnings data to rank colleges: A value-added approach updated with College Scorecard data" (Brookings Institution, 2015) for more information about how value-added is calculated.

Distribution and Labor Market Value of SU Awards

Overall, SU ranks squarely in the middle of Louisiana four-year colleges and universities for the labor market value[4] of their bachelor's degree in 2016 ($56,760). In short, the mix of majors at SU is close to the middle of Louisiana colleges in terms of providing opportunities for high-paying careers.

Figure 5.

Louisiana Colleges Ranked by Average Labor Market Value of Bachelor's Degrees Awarded in 2016

Louisiana Four-Year Colleges and Universities	Average Labor Market Value of Bachelor's Degrees in 2016
Herzing University-Kenner	**$60,992**
Louisiana State University Health Sciences Center-Shreveport	**$60,000**
Louisiana State University Health Sciences Center-New Orleans	**$60,000**
Our Lady of the Lake College	**$59,868**
Xavier University of Louisiana	**$59,397**
Louisiana State University and Agricultural & Mechanical College	**$59,269**
Louisiana Tech University	**$59,156**
University of Phoenix-Louisiana	**$58,857**
University of New Orleans	**$58,839**
University of Louisiana at Lafayette	**$58,086**
University of Holy Cross	**$58,008**
Tulane University of Louisiana	**$57,756**
Dillard University	**$57,555**
McNeese State University	**$57,265**
Southern University and A&M College	**$56,760**
Centenary College of Louisiana	**$55,911**
University of Louisiana at Monroe	**$55,482**

4 Here and throughout, labor market value of degree is calculated by using median income for 30–50 year olds with a bachelor's degree, using data from the 2015 American Community Survey.

Louisiana Four-Year Colleges and Universities	Average Labor Market Value of Bachelor's Degrees in 2016
Louisiana State University-Shreveport	**$54,803**
Nicholls State University	**$54,530**
Grambling State University	**$53,913**
Northwestern State University of Louisiana	**$53,897**
Southeastern Louisiana University	**$53,832**
Southern University at New Orleans	**$53,053**
Louisiana College	**$52,857**
Louisiana State University-Alexandria	**$52,597**
Loyola University New Orleans	**$52,502**
Remington College-Shreveport Campus	**$52,200**
Notre Dame Seminary Graduate School of Theology	**$50,000**
Saint Joseph Seminary College	**$45,089**
New Orleans Baptist Theological Seminary	**$39,800**

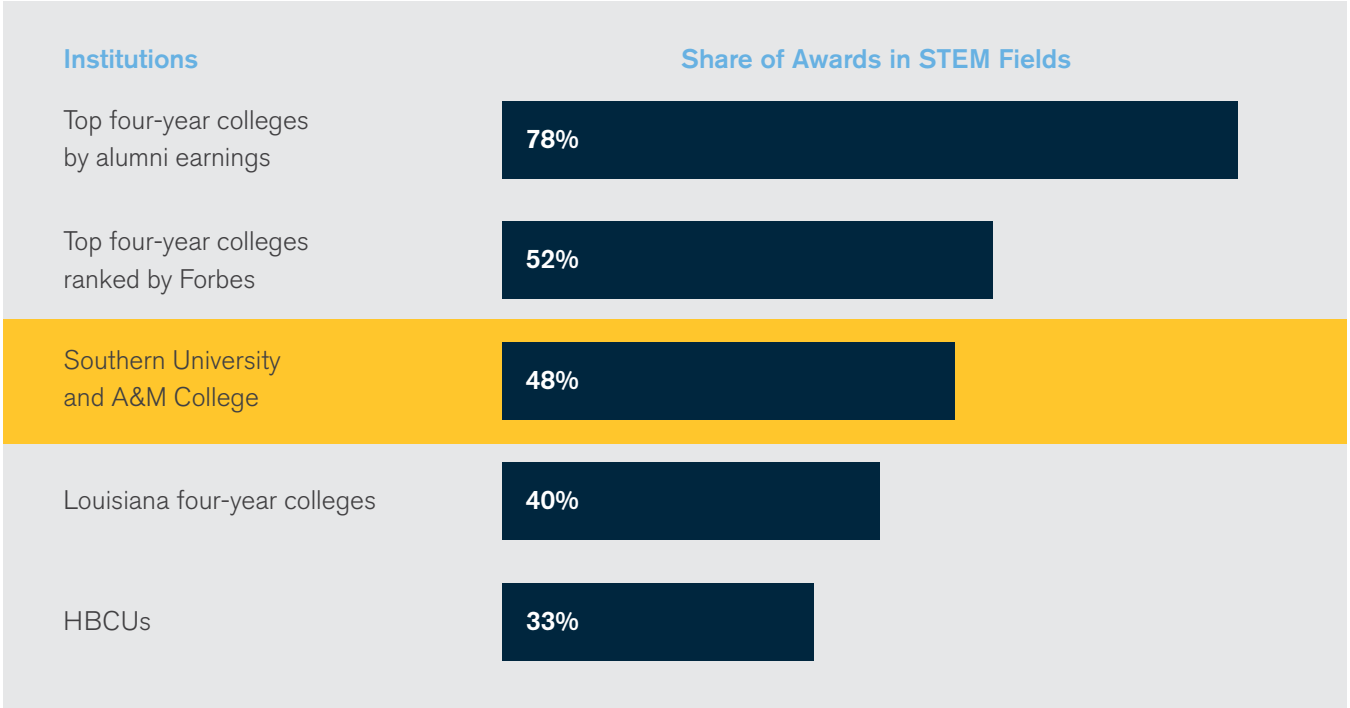
Note: Gallup analysis of 2015 American Community Survey.

Overall, SU ranks squarely in the middle of Louisiana four-year colleges and universities for the labor market value of their bachelor's degree in 2016 **($56,760)**.

While comparing the overall value of an SU degree with other Louisiana colleges and universities is informative, unpacking the curriculum and labor market differences at the field of study level is a particularly valuable way to assess the alignment between SU's academic offerings and workforce demands. One way to do this is by comparing the orientation of their curriculum with other types of institutions and evaluating the labor market value of popular SU awards. For example, a significant share of degrees at top-performing and top-ranked colleges and universities are in STEM fields — 78% of awards at colleges with the highest alumni earnings and 52% of awards at top-ranked *Forbes* colleges (**Figure 6**). By comparison, 48% of SU's awards are in STEM fields, which is higher than HBCUs (33%) and other four-year colleges in Louisiana (40%).

Figure 6.

STEM Orientation of Curriculum



Note: Any CIP field is considered STEM if it tends to place graduates in occupations that scores one standard deviation or higher on knowledge in one or more STEM fields (i.e., biology, chemistry, physics, computer science, engineering and math). STEM is defined using O*NET knowledge data in STEM fields and linking it to likely occupations from O*NET-SOC concordance. Top colleges by alumni earnings uses 10-year median earnings from the College Scorecard database.

Figure 7.

Field of Study Categories	Top Forbes Schools' Share of Awards	SU Share of Awards
Health professions and related programs	**5.03%**	**21.15%**
Homeland security, law enforcement, fire fighting and related protective services	**0.08%**	**10.82%**
Social sciences	**13.85%**	**5.74%**
Engineering	**13.27%**	**5.90%**
Biological and biomedical sciences	**9.73%**	**4.43%**
Family and consumer sciences/human sciences	**1.11%**	**5.90%**
Multi/interdisciplinary studies	**2.70%**	**7.38%**
Visual and performing arts	**4.33%**	**1.48%**
Foreign languages, literatures and linguistics	**2.70%**	**0.00%**
Mathematics and statistics	**3.22%**	**0.82%**
Computer and information sciences and support services	**3.90%**	**1.64%**
Physical sciences	**3.01%**	**0.82%**
Area, ethnic, cultural, gender and group studies	**1.83%**	**0.00%**
History	**2.22%**	**0.66%**
Psychology	**5.25%**	**6.72%**
Business, management, marketing and related support services	**10.92%**	**12.30%**
Public administration and social service professions	**0.83%**	**2.13%**
Liberal arts and sciences, general studies and humanities	**1.28%**	**0.00%**
Parks, recreation, leisure and fitness studies	**1.11%**	**0.00%**
Philosophy and religious studies	**1.02%**	**0.00%**
Agriculture, agriculture operations and related sciences	**1.12%**	**2.13%**
Education	**1.45%**	**0.49%**

Field of Study Categories	Top Forbes Schools' Share of Awards	SU Share of Awards
Engineering technologies and engineering-related fields	**0.13%**	**0.98%**
English language and literature/letters	**2.38%**	**1.80%**
Legal professions and studies	**0.34%**	**0.00%**
Communication, journalism and related programs	**4.76%**	**4.43%**
Architecture and related services	**0.98%**	**1.15%**
Natural resources and conservation	**1.27%**	**1.15%**
Theology and religious vocations	**0.06%**	**0.00%**
Military technologies and applied sciences	**0.05%**	**0.00%**
Communications technologies/technicians and support services	**0.05%**	**0.00%**

Note: Table ordered by largest differences between the Top Forbes and SU awards.

Looking as SU's share of awards in finer detail reveals significant differences compared with the share of awards at Forbes' top-ranked schools. A substantially larger share of SU's degrees are in health professions and related programs; homeland security, law enforcement, fire fighting and related protective services; family and consumer sciences/human sciences; and multi/interdisciplinary studies compared with Forbes' top-ranked schools. Conversely, when compared with SU, Forbes' top-ranked schools confer over twice as many degrees in social sciences, engineering, and biological and biomedical sciences. These fields in which SU's share of awards trails that of Forbes' top-ranked schools tend to have high labor market value. However, outside of health professions, the fields for which SU's share of degrees exceeds that of Forbes' top-ranked schools tend to have lower labor market values.

Evaluating the labor market value of popular fields of study at SU can also help identify places were SU's curriculum is best and least aligned with workforce demands (**Figures 8 and 9**). For example, nursing represents the highest share of SU's bachelor's degree awards (13.4%) and also generates high earnings with a median income of $60,000 for those aged 30–50 with a bachelor's degree. Other popular fields at SU, such as criminal justice/safety studies and multi-/interdisciplinary studies, have somewhat lower labor market values.

On the opposite end, several less-common fields of study at SU have relatively high labor market values. For example, only 2.6% of SU's awards are in mechanical engineering and only 1.5% are in civil engineering, but 30 to 50-year-olds with those degrees in the U.S. have a median income of $90,000. Less popular fields at SU with high labor market value exist across multiple disciplines. Many of these are STEM fields — such as several engineering majors, architecture, and mathematics and computer science — while others are non-STEM fields, such as marketing, sociology and political science.

Figure 8.

Most Popular Fields of Study for Bachelor's Degree Awards in 2016 at Southern University Compared to All U.S. Bachelor's Awards and Labor Market Value

(Highlighted values represent fields with median incomes >= $60,000)

Field of Study	SU Share of Awards	U.S. Share of Awards	Labor Market Value of Degree
Registered nursing / Registered nurse	**13.4%**	**6.5%**	**$60,000**
Criminal justice / Safety studies	**10.8%**	**1.6%**	**$52,200**
Multi-/Interdisciplinary studies, other	**7.4%**	**1.2%**	**$48,000**
Psychology, general	**6.7%**	**5.6%**	**$45,700**
Business administration and management, general	**5.9%**	**6.9%**	**$60,000**
Family and consumer sciences / Human sciences, general	**5.9%**	**0.2%**	**$35,900**
Biology / Biological sciences, general	**4.4%**	**3.7%**	**$64,800**
Mass communication / Media studies	**4.4%**	**0.5%**	**$50,100**
Accounting	**3.4%**	**2.6%**	**$60,000**
Sociology	**3.1%**	**1.5%**	**$60,000**
Therapeutic recreation / Recreational therapy	**2.8%**	**0.0%**	**$60,000**
Political science and government, general	**2.6%**	**1.8%**	**$60,000**
Mechanical engineering	**2.6%**	**1.5%**	**$90,000**
Audiology / Audiologist and speech-language pathology / Pathologist	**2.6%**	**0.2%**	**$60,000**
Vocational rehabilitation counseling / Counselor	**2.3%**	**0.0%**	**$60,000**
Social work	**2.1%**	**1.1%**	**$42,000**
Agriculture, general	**2.1%**	**0.1%**	**$53,000**

Note: IPEDS 2016; Gallup analysis of 2015 American Community Survey. Labor market value of degree is calculated by using median income for 30–50 year olds with that general bachelor's degree, using data from the 2015 American Community Survey.

Figure 9.

Least Popular Fields of Study for Bachelor's Degree Awards in 2016 at Southern University Compared to All U.S. Bachelor's Awards and Labor Market Value

Field of Study	SU Share of Awards	U.S. Share of Awards	Labor Market Value of Degree
English language and literature, general	1.8%	1.8%	$48,001
Marketing / Marketing management, general	1.8%	1.8%	$60,000
Electrical and electronics engineering	1.8%	0.8%	$90,000
Computer science	1.6%	1.0%	$78,000
Civil engineering, general	1.5%	0.6%	$90,000
Music performance, general	1.5%	0.2%	$40,000
Finance, general	1.1%	1.9%	$60,000
Architecture	1.1%	0.3%	$60,000
Urban forestry	1.1%	0.0%	$52,010
Electrical, electronic and communications engineering technology / Technician	1.0%	0.1%	$75,000
Chemistry, general	0.8%	0.7%	$66,000
Mathematics, other	0.8%	0.0%	$68,000
History, general	0.7%	1.4%	$57,000
Elementary education and teaching	0.5%	1.4%	$45,000

Note: IPEDS 2016; Gallup analysis of 2015 American Community Survey.

However, completion rates at SU are low for many majors with some of the highest labor market values. For example, business, engineering, and medical and health sciences and services are relatively popular majors at SU and have high labor market values, but their completion rates are below 20%. Boosting completion rates in these majors would be particularly valuable in growing the overall labor market value of an SU degree and in increasing the alignment of SU's awards with workforce demands.

Gallup's more detailed research shows a strong relationship between completion and college GPA and, to a lesser extent, high school GPA. Controlling for these factors, admission test scores are irrelevant when predicting completion. Unfortunately, SU students often struggle to earn high GPAs when majoring in fields that lead to high-paying careers, such as engineering, medical and health sciences, and computer sciences. On the other hand, SU students tend to earn relatively high GPAs in physical sciences and complete at high rates.

Figure 10.

Field of Study	Completion Rate, Five-Years	GPA at Southern	High School GPA	Share of SU Students
Agriculture	59%	2.7	3.15	2%
Psychology	50%	3.0	2.97	0%
English language, literature and composition	38%	2.3	3.22	2%
Social sciences	37%	2.7	3.03	2%
Physical sciences	36%	2.4	3.12	2%
Environment and natural resources	33%	2.3	3.05	1%
Family and consumer sciences	26%	2.4	2.70	2%
Criminal justice and fire protection	25%	2.3	2.92	12%
Public affairs, policy and social work	25%	2.3	2.97	4%
Biology and life sciences	20%	2.1	2.96	8%
Architecture	20%	2.2	2.84	1%
Business	19%	2.2	2.80	15%
Communications	18%	2.1	2.87	5%
Engineering technologies	16%	2.0	3.00	2%
Medical and health sciences and services	14%	2.3	2.97	23%
Engineering	13%	2.2	3.05	9%
Computer and information sciences	11%	1.9	2.74	2%
Education administration and teaching	9%	2.0	2.86	6%
History	0%	1.9	2.91	0%

Note: Gallup analysis of administrative data from SUBR. GPA is calculated at the student level using the average grade across the full transcript (excluding pass/fail classes and withdraws) weighted by the number of credit hours. The figures presented above are the average of the student level data. Test scores report score from either SAT or ACT, after first standardizing both.

A potential avenue for improving grades and completion rates in valued majors would be to bolster the effectiveness of teachers in those fields. Many of the most popular majors — and those with the highest labor market value — also have the lowest teacher evaluation scores. In fact, two of the most popular fields of study at SU — medical and health sciences and services (26% of SU's awards) and engineering (10% of SU's awards) — have the lowest teacher evaluations but generate high labor market returns. Overall, there is a strong negative correlation between the labor market value of a major and the teacher evaluations given out by students who declare that major.[5]

Figure 11.

Field of Study	Teacher Evaluations, Standardized	Labor Market Value of Major	Share of Enrolled SU Students, 2011–2016
Fine arts	**0.76**	**$40,000**	**1%**
Environment and natural resources	**0.58**	**$52,010**	**1%**
Education administration and teaching	**0.50**	**$45,000**	**4%**
English language, literature and composition	**0.46**	**$48,001**	**1%**
Interdisciplinary and multi-disciplinary studies, general	**0.45**	**$48,000**	**1%**
Communications	**0.42**	**$50,100**	**4%**
Criminal justice and fire protection	**0.37**	**$52,200**	**9%**
Family and consumer sciences	**0.37**	**$35,900**	**2%**
Social sciences	**0.26**	**$60,000**	**2%**
History	**0.26**	**$57,000**	**1%**
Agriculture	**0.25**	**$53,000**	**2%**
Computer and information sciences	**0.20**	**$78,000**	**3%**
Public affairs, policy and social work	**0.18**	**$42,000**	**2%**
Psychology	**0.13**	**$45,700**	**4%**
Business	**-0.08**	**$60,000**	**13%**

5 This relationship could be, in part, driven by students assigning poor teacher evaluation scores in more "difficult" majors — like engineering — that also have high labor market values. One check of this is that even within two-digit majors, students who experience higher ratings earn higher GPAs. Still, it cannot be definitively known whether poor evaluations truly reflect poor teacher quality, or reflect of the difficult content of the courses in these majors. The evaluation questions, however, are designed in a way to allow students to rate many different aspects of the teaching that are, in principle, unrelated to course difficulty or student performance, such as "the instructor meets classes punctually and regularly" and "the instructor was prepared and organized for teaching this class." The evaluation score used in this analysis takes the average of 19 items, of which this is an overall rating. Therefore, students who wanted to "punish" their teachers for bad grades through the overall rating would do little to effect the Gallup rating used here.

Field of Study	Teacher Evaluations, Standardized	Labor Market Value of Major	Share of Enrolled SU Students, 2011–2016
Biology and life sciences	**-0.11**	**$64,800**	**8%**
Architecture	**-0.12**	**$60,000**	**1%**
Mathematics and statistics	**-0.17**	**$68,000**	**1%**
Engineering technologies	**-0.19**	**$75,000**	**3%**
Physical sciences	**-0.20**	**$66,000**	**2%**
Medical and health sciences and services	**-0.23**	**$60,000**	**26%**
Engineering	**-0.34**	**$90,000**	**10%**

Note: Source: Gallup analysis of administrative data from SUBR. Teacher evaluation scores by major were calculated by first deriving the average for each teacher using 2009–2016 records. These were merged to student transcripts from 2011–2016 and then summary data for each student on their major at time of enrollment, for which is the variable shown here.

Two of the most popular fields of study at SU — medical and health sciences and services **(26% of SU's awards)** and engineering **(10% of SU's awards)** — have the lowest teacher evaluations but generate high labor market returns.

Identifying Opportunities in the Labor Market — in Louisiana and Nationally

Understanding how SU's curriculum and awards compare with other institutions and identifying fields of study at SU with high and low labor market value can help identify where SU is aligned and misaligned with the workforce. However, assessing changes in the labor market and having a broader understanding of the majors and occupations that have high value and are growing is also a critical component of the realignment process.

It is imperative to take both local and national trends into account when doing this analysis. The Louisiana Workforce Commission, for example, has gathered labor market information specific to the state of Louisiana and developed a tool to provide individuals looking for employment in the state with workforce information across occupations. The culmination of this work is their "Louisiana Star Jobs" portal[6] which ranks Louisiana occupations using a star system (1–5) based on the short-term and long-term growth outlook, the number of current openings and wages for each occupation.

Similar information about job growth and labor market value can also be tracked at the national level using the American Community Survey and Burning Glass data about current job openings. Using both resources, SU can develop a picture of the occupations with the greatest workforce potential at both the national and state level. With that information, SU can position its curriculum and offerings to prepare its graduates to succeed in the labor market in occupations with the highest potential for growth and earnings. As such, this section uses the information described above — in conjunction with other sources — to address the following questions:

In the U.S. and Louisiana, what are the fields of study with the highest labor market value?

What occupations, both nationally and in Louisiana, have the greatest workforce potential?

6 http://www.laworks.net/Stars/default.aspx

Fields of Study With Highest Labor Market and Employment Outcomes

Among adults aged 30–50 in Louisiana with a bachelor's degree, engineering degrees are the fields of study with the greatest labor market value and highest employment rates. Adults in Louisiana with electrical, mechanical or civil engineering degrees, for example, have median incomes of $88,000 or higher; however, together they represent less than 6% of SU's share of awards. Some of SU's more popular majors, such as nursing and business management and administration, have median incomes of just over $50,000 and make up about 19% of SU's share of awards.

Figure 12.

Top 20 Highest-Paying Majors in Louisiana for Adults Aged 30–50

Field of Study	Median Income, 2015	Employment to Population Ratio
Mechanical engineering	**$116,000**	**93%**
Chemical engineering	**$98,000**	**86%**
Civil engineering	**$95,000**	**97%**
Electrical engineering	**$88,000**	**100%**
Finance	**$70,000**	**87%**
Computer science	**$70,000**	**100%**
Chemistry	**$62,000**	**95%**
Accounting	**$58,000**	**89%**
Political science and government	**$58,000**	**92%**
Physical fitness, parks, recreation and leisure	**$58,000**	**92%**
Treatment therapy professions	**$55,000**	**83%**
General business	**$54,400**	**90%**
Business management and administration	**$54,000**	**90%**
Multi-disciplinary or general science	**$53,000**	**82%**
Nursing	**$52,000**	**97%**
Biology	**$52,000**	**88%**
Mathematics	**$52,000**	**88%**
Economics	**$52,000**	**94%**

Field of Study	Median Income, 2015	Employment to Population Ratio
English language and literature	**$50,000**	**84%**
Marketing and marketing research	**$50,000**	**100%**

Note: Sample is limited to observations with at least 20 responses to the 2015 American Community Survey. Fuller list included in the Appendix.

Engineering majors also dominate the fields of study with the highest labor market value in the U.S. for those aged 30–50, including 15 of the top 20 highest-paying majors. Among SU's 15 most common majors, only mechanical engineering — which represents 2.6% of SU's share of awards — appears in the top 20 highest-paying majors in the U.S.

Figure 13.

Top 20 Highest-Paying Majors in U.S. for Adults Aged 30–50

Field of Study	Median Income, 2015	Employment to Population Ratio
Petroleum engineering	**$169,000**	**100%**
Naval architecture and marine engineering	**$105,000**	**99%**
Pharmacy, pharmaceutical sciences and administration	**$100,000**	**98%**
Actuarial science	**$100,000**	**100%**
Mining and mineral engineering	**$100,000**	**97%**
Nuclear engineering	**$100,000**	**96%**
Aerospace engineering	**$100,000**	**99%**
Electrical engineering	**$98,000**	**98%**
Metallurgical engineering	**$98,000**	**100%**
Geological and geophysical engineering	**$96,200**	**99%**
Military technologies	**$96,000**	**96%**
Chemical engineering	**$96,000**	**98%**
Mechanical engineering	**$95,000**	**98%**
Engineering mechanics, physics and science	**$95,000**	**98%**
Materials engineering and materials science	**$92,000**	**99%**

Field of Study	Median Income, 2015	Employment to Population Ratio
Computer engineering	$90,000	98%
Health and medical preparatory programs	$90,000	98%
Materials science	$89,000	99%
Biomedical engineering	$85,000	98%
Engineering and industrial management	$85,000	100%

Note: Sample is limited to observations with at least 20 responses to the 2015 American Community Survey. Fuller list included in the Appendix.

Evaluating Occupations by Growth Rate and Earnings

According to a Louisiana Workforce Commission job vacancy study, healthcare-related fields, including healthcare practitioner and healthcare support, have the highest number of vacancies per employed worker in Louisiana. SU is well-positioned to prepare its graduates to fill these occupations with health-related fields such as nursing, psychology, recreational therapy, audiology/pathology and vocational rehabilitation/counseling representing 28% of its awards.

Figure 14.

The Louisiana Vacancy Rate for Occupations That Require More Than a High School Diploma

Occupation Field	Vacancies Per Employed Worker in 2015
Healthcare practitioner and technical	4.7%
Healthcare support	4.4%
Computer and mathematical science	4.4%
Management	4.3%
Community and social service	3.0%
Architecture and engineering	2.7%
Arts, design and entertainment	2.5%
Education, training and library	2.2%
Business and financial operations	1.7%

Occupation Field	Vacancies Per Employed Worker in 2015
Legal	1.0%
All occupations	3.2%

Note: Louisiana Workforce Commission, 2015 Louisiana Job Vacancy Study, http://www.laworks.net/Downloads/LMI/JVS_FinalReport_2015.pdf

Since 2000, some of the highest increases in the rate and number of jobs, nationally and in Louisiana, have been in management occupations. Over 40,000 of these jobs were added between 2000 and 2015 (58% growth rate) in Louisiana alone. The growth rate nationally for management occupations during that time was 85%. These jobs earn a median pay of approximately $50,000 in Louisiana and are considered a five-star job by the Louisiana Workforce Commission (LWC).

In terms of overall numbers, health diagnosing and treating practitioner occupations saw the second-highest number of jobs added between 2000 and 2015 in Louisiana (19,909). These occupations earn a relatively high median income in Louisiana ($63,450) and are also considered five-star occupations by the LWC. With a high share of awards in nursing and other health treatment-related majors, SU's curriculum orientation is well-suited to place graduates into these careers.

Figure 15.

Jobs That Typically Require Bachelor's Degrees With Highest Growth in Louisiana From 2000–2015

Occupation	Increase in Jobs, Louisiana	Growth Rate in Jobs, Louisiana	Growth Rate in Jobs, U.S.	Median Pay in 2015, in LA	Five-Star LA Jobs, LA Workforce Commission
Other management occupations	42,778	58%	85%	$51,155	Yes
Health diagnosing and treating practitioners	19,909	33%	64%	$63,450	Yes
Business operations specialists	9,124	32%	73%	$43,851	Yes
Counselors, social workers and other community and social service specialists	8,570	46%	71%	$38,070	Yes
Computer occupations	8,287	47%	51%	$54,990	Yes
Operations specialties managers	6,854	26%	40%	$56,400	Yes
Engineers	6,797	34%	28%	$84,600	Yes

Occupation	Increase in Jobs, Louisiana	Growth Rate in Jobs, Louisiana	Growth Rate in Jobs, U.S.	Median Pay in 2015, in LA	Five-Star LA Jobs, LA Workforce Commission
Financial specialists	**6,527**	**20%**	**42%**	**$46,530**	**Yes**
Preschool, primary, secondary and special education school teachers	**5,052**	**7%**	**44%**	**$38,775**	**Yes**
Art and design workers	**4,936**	**62%**	**42%**	**$33,840**	**No**
Religious workers	**4,904**	**77%**	**50%**	**$41,595**	**No**
Top executives	**4,516**	**21%**	**25%**	**$83,190**	**No**
Other sales and related workers	**3,016**	**25%**	**50%**	**$22,560**	**Yes**
Legal support workers	**2,810**	**35%**	**41%**	**$42,300**	**No**
Postsecondary teachers	**1,623**	**10%**	**71%**	**$50,760**	**Yes**
Entertainers and performers, sports and related workers	**1,463**	**22%**	**100%**	**$32,430**	**No**
Media and communication workers	**1,395**	**24%**	**47%**	**$35,250**	**No**
Sales representatives, wholesale and manufacturing	**1,362**	**7%**	**20%**	**$50,901**	**Yes**
Other teachers and instructors	**1,062**	**17%**	**127%**	**$17,766**	**Yes**
Media and communication equipment workers	**949**	**36%**	**90%**	**$29,328**	**No**

Note: IPUMS USA, using data from 2015 American Community Survey and 2000 Decennial Census. List of jobs are at three-digit SOC level and limited to those with a mode educational attainment of at least a bachelor's degree among employed job holders. Full listing of Louisiana Workforce Commission five-star jobs included in the Appendix.

Regarding income, lawyers/judges, engineers and executives earn the highest median incomes in Louisiana for occupations that require a bachelor's degree or higher. Of those three, engineers are considered a five-star job by the LWC and earn a median income of nearly $85,000. Between 2011 and 2016, 10% of SU's enrolled students were in engineering majors. Health diagnosing and treatment occupations rank in the top six highest-paying jobs that require at least a bachelor's degree, suggesting that SU — with nearly 30% of its awards in related majors — is well-positioned to place its graduates in occupations with high growth rates and high wages. Only 1.8% of SU's share of awards are in marketing and marketing management, but the LWC considers those occupations to be five-star jobs and they earn a median income of just over $60,000.

Figure 16.

Occupations With the Highest Median Income in Louisiana for Jobs That Require a Bachelor's or Higher, 2015		Five-Star LA Jobs, LA Workforce Commission
Lawyers, judges and related workers	$100,110	No
Engineers	$84,600	Yes
Top executives	$83,190	No
Air transportation workers	$77,550	No
Physical scientists	$63,732	No
Health diagnosing and treating practitioners	$63,450	Yes
Advertising, marketing, promotions, public relations and sales managers	$62,040	Yes
Architects, surveyors and cartographers	$57,810	No
Mathematical science occupations	$56,400	No
Operations specialties managers	$56,400	Yes
Military officer special and tactical operations leaders	$55,836	No
Computer occupations	$54,990	Yes
Life scientists	$53,580	No
Social scientists and related workers	$51,465	No
Other management occupations	$51,155	Yes
Sales representatives, wholesale and manufacturing	$50,901	Yes
Other healthcare practitioners and technical occupations	$50,760	Yes
Postsecondary teachers	$50,760	Yes
Life, physical and social science technicians	$49,350	No
Financial specialists	$46,530	Yes

Note: IPUMS USA, using data from 2015 American Community Survey and 2000 Decennial Census. List of jobs are at three-digit SOC level and limited to those with a mode educational attainment of at least a bachelor's degree among employed job holders.

Insights and Recommendations for SU

The process of assessing SU's curriculum and the value of its awards, as well as identifying occupations with high growth potential and high labor market value, introduces an abundance of data sources. While each separate source speaks to an important facet of the greater objective, what insights and recommendations do these results point to when taken as a whole?

The objective of this project is to assess the alignment between SU's academic offerings and workforce demands so that the university has the information it needs to maximize its value for SU students and graduates when they transition from classroom to career. Finally, recommendations are made about fields of study that SU could consider adding to their current undergraduate offerings using many of the same metrics used to assess SU's current degree programs.

So, given the information presented, where is SU aligned, and where is SU misaligned, with workforce demands?

To represent the myriad of information presented in this report, Gallup has constructed two measures that summarize the two key aspects needed to assess SU's alignment with the workforce:

1

SU Awards Quartile:
A quartile ranking of SU's share of awards (1–4), where 4 represents majors in the top quartile (largest share of SU awards) and 1 represents the bottom quartile (smallest share of SU awards).

2

Market Value Quartile:
A rating of SU majors based on their overall labor market value (1–4) where 4 represents labor market value in the top quartile and 1 represents the bottom quartile of labor market value. The components of the rating include:

- growth rate of jobs in occupations related to major (Louisiana and U.S.)
- change in the number of jobs in occupations related to major (Louisiana and U.S.)
- salary in occupations related to major (Louisiana and U.S.)
- number of job openings (Louisiana and U.S.)
- share of majors in labor force (U.S. only)

Defining alignment: SU academic offerings are considered aligned with workforce demands when the SU Awards Quartile is in the same *quartile* or *within one quartile* of the Market Value Quartile. Numbers that are separated by more than one quartile suggests that SU's academic offerings are misaligned with what is valued in the labor market.

Figure 16 shows which SU majors are aligned with workforce demands and which are misaligned, as well as contextual information such as median incomes in Louisiana and the U.S. and the share of awards at various types of institutions.

SU Majors Fully Aligned With Workforce Demand (Light Gray in Table 17)

Six of SU's majors are fully aligned with their labor market value. The nursing fields are in the top SU Awards Quartile — as the institution's most common award — and the top Market Value Quartile — as a field of study with high labor market value. In other words, nursing is a popular major at SU with positive labor market outcomes. SU's accounting, sociology and political science/government majors are also positively aligned with workforce demands. Those majors are in the third quartiles of both the SU Awards Quartile and the Market Value Quartile, suggesting they are moderately common majors at SU and have moderate labor market value.

At the other end of the spectrum, SU's elementary education and agricultural fields are uncommon at SU and also have low labor market values. Thus, SU is matching the low labor market value of these majors by granting relatively few awards in these fields.

SU Majors Semi-Aligned With Workforce Demand (Medium Gray in Table 17)

Some of SU's majors are somewhat aligned with workforce demands — having a difference of just one quartile between their SU Awards Quartile and their Market Value Quartile. Some of SU's majors — like criminal justice/safety studies and psychology — are more popular (fourth quartile of SU awards) than their labor market value (third quartile of market value).

Other majors in this group are slightly less common at SU than their labor market value would suggest. For example, mechanical engineering and biological sciences are in the third SU Awards Quartile but are in the highest Market Value Quartile. Boosting enrollment in these majors would increase the alignment between SU and workforce demands and result in better labor market outcomes for SU graduates.

SU Majors Misaligned With Workforce Demand (Dark Gray in Table 17)

Finally, some of SU's majors are misaligned with workforce demands. Family and consumer sciences/human sciences, for example, is in the top SU Awards Quartile but has considerably less labor market value (second Market Value Quartile). In short, this major is significantly more popular at SU than its labor market value demands.

There are several SU majors with high labor market value but represent a small share of awards at SU. Majors like electrical engineering, civil engineering, computer science, finance, mathematics, history and chemistry each represent a relatively small share of SU's awards (first or second quartile). However, these majors have high labor market value, occupying the third or fourth Market Value Quartile. By investing resources and efforts to increase the share of awards in these majors, SU could see a significant increase in the labor market outcomes for its graduates.

Figure 17.

SU Field of Study	SU Awards Quartile	Market Value Quartile	SU Share of Awards	Median Income, U.S.	Median Income, LA	Share of Awards, LA	Share of Awards, HBCUs	Share of Awards, Top Earning Schools	Share of Awards, Top Forbes Schools
Registered nursing / Registered nurse	4	4	13%	$60,000	$50,000	10%	5%	20%	2%
Accounting	3	3	3%	$60,000	$55,000	3%	2%	1%	2%
Sociology	3	3	3%	$60,000	$45,000	1%	3%	0%	1%
Political science and government, general	3	3	3%	$60,000	$45,000	1%	2%	0%	4%
Agriculture, general	2	2	2%	$53,000	$36,000	0%	1%	0%	0%
Elementary education and teaching	1	1	0%	$45,000	$42,000	2%	1%	0%	0%
Criminal justice / Safety studies	4	3	11%	$52,200	$45,000	2%	5%	0%	0%
Multi-/ Interdisciplinary studies, other	4	3	7%	$48,000	$36,000	2%	1%	0%	1%
Psychology, general	4	3	7%	$45,700	$40,000	6%	7%	1%	5%
Business administration and management, general	4	3	6%	$60,000	$55,000	6%	8%	6%	3%
Biology / Biological sciences, general	3	4	4%	$64,800	$58,100	6%	7%	0%	4%

SU Field of Study	SU Awards Quartile	Market Value Quartile	SU Share of Awards	Median Income, U.S.	Median Income, LA	Share of Awards, LA	Share of Awards, HBCUs	Share of Awards, Top Earning Schools	Share of Awards, Top Forbes Schools
Mass communication / Media studies	3	2	4%	$50,100	$40,000	2%	3%	0%	0%
Therapeutic recreation / Recreational therapy	3	4	3%	$60,000	$50,000	0%	0%	0%	0%
Mechanical engineering	3	4	3%	$90,000	$78,000	2%	1%	10%	3%
Audiology / Audiologist and speech-language pathology / Pathologist	3	4	3%	$60,000	$50,000	1%	0%	0%	0%
Vocational rehabilitation counseling / Counselor	3	4	2%	$60,000	$50,000	0%	0%	0%	0%
English language and literature, general	2	3	2%	$48,001	$48,000	2%	2%	0%	2%
Marketing / Marketing management, general	2	3	2%	$60,000	$55,000	2%	1%	2%	1%
Music performance, general	2	1	1%	$40,000	$36,000	0%	0%	0%	0%
Architecture	1	2	1%	$60,000	$50,000	0%	1%	1%	1%

SU Field of Study	SU Awards Quartile	Market Value Quartile	SU Share of Awards	Median Income, U.S.	Median Income, LA	Share of Awards, LA	Share of Awards, HBCUs	Share of Awards, Top Earning Schools	Share of Awards, Top Forbes Schools
Family and consumer sciences / Human sciences, general	4	2	6%	$35,900	$39,000	1%	1%	0%	0%
Social work	2	4	2%	$42,000	$43,000	1%	5%	0%	0%
Electrical and electronics engineering	2	4	2%	$90,000	$78,000	1%	1%	3%	2%
Computer science	2	4	2%	$78,000	$63,000	1%	1%	2%	2%
Civil engineering, general	2	4	1%	$90,000	$78,000	1%	0%	2%	1%
Finance, general	1	3	1%	$60,000	$55,000	2%	0%	2%	2%
Mathematics, other	1	3	1%	$68,000	$58,500	0%	0%	0%	0%
Chemistry, general	1	3	1%	$66,000	$53,000	1%	1%	0%	1%
History, general	1	3	1%	$57,000	$48,000	1%	1%	0%	2%
Urban forestry	1	4	1%	$52,010	$74,000	0%	0%	0%	0%
Electrical, electronic and communications engineering technology / Technician	1	4	1%	$75,000	$75,700	0%	0%	0%	0%

Fields for Southern University to Consider Adding

Many of the metrics employed to assess SU's degrees can also be used to identify fields of study that SU could consider adding to their program offerings. **Figure 18** provides a list of degree fields SU does not currently offer to undergraduate students that boast high labor market values in the U.S. and Louisiana — all of them being rated in the fourth Market Value Quartile used in the previous section. Many of these fields are related to engineering and other STEM fields such as biochemistry and pharmacy. Nearly all of these proposed fields are also related directly to Louisiana Workforce Commission LA five-star jobs and have high median incomes and growth rates in both the U.S., more broadly, and in Louisiana, specifically.

Figure 18.

Field of Study	Number of Job Openings	Share of Job Openings in U.S.	Market Value Quartile	Related to LA Five-Star Jobs	Share of Awards at Top Earning Schools	Median Income, U.S.	Occupation Growth Rate, U.S.	Median Income, LA	Occupation Growth Rate, LA
Biochemistry	**820724**	**3%**	**4**	**Yes**	**1%**	**$64,800**	**58%**	**$58,100**	**28%**
Chemical engineering	**913784**	**4%**	**4**	**Yes**	**3%**	**$90,000**	**48%**	**$78,000**	**36%**
Pharmacy	**n/a**	**0%**	**4**	**Yes**	**2%**	**$60,000**	**64%**	**$50,000**	**34%**
Industrial engineering	**504261**	**2%**	**4**	**Yes**	**1%**	**$90,000**	**48%**	**$78,000**	**36%**
Petroleum engineering	**262375**	**1%**	**4**	**No**	**1%**	**$90,000**	**48%**	**$78,000**	**36%**
Naval architecture and marine engineering	**148808**	**1%**	**4**	**Yes**	**2%**	**$90,000**	**48%**	**$78,000**	**36%**
Dental hygiene / Hygienist	**1138705**	**4%**	**4**	**No**	**1%**	**$60,000**	**64%**	**$50,000**	**34%**
Bioengineering and biomedical engineering	**504971**	**2%**	**4**	**No**	**3%**	**$90,000**	**48%**	**$78,000**	**36%**

Appendix

Highest-Paying Majors in Louisiana for Adults Aged 30–50

Field of Study	Median Income, 2015	Employment to Population Ratio
Mechanical engineering	$116,000	93%
Chemical engineering	$98,000	86%
Civil engineering	$95,000	97%
Electrical engineering	$88,000	100%
Finance	$70,000	87%
Computer science	$70,000	100%
Chemistry	$62,000	95%
Accounting	$58,000	89%
Political science and government	$58,000	92%
Physical fitness, parks, recreation and leisure	$58,000	92%
Treatment therapy professions	$55,000	83%
General business	$54,400	90%
Business management and administration	$54,000	90%
Multi-disciplinary or general science	$53,000	82%
Nursing	$52,000	97%
Biology	$52,000	88%
Mathematics	$52,000	88%
Economics	$52,000	94%
English language and literature	$50,000	84%
Marketing and marketing research	$50,000	100%
Computer and information systems	$50,000	79%
General engineering	$50,000	89%
Architecture	$50,000	90%

Field of Study	Median Income, 2015	Employment to Population Ratio
Communication disorders sciences and services	**$49,000**	**92%**
History	**$48,000**	**81%**
Philosophy and religious studies	**$48,000**	**84%**
Liberal arts	**$45,000**	**93%**
Elementary education	**$45,000**	**91%**
Criminal justice and fire protection	**$45,000**	**88%**
Theology and religious vocations	**$45,000**	**88%**
Mass media	**$44,000**	**91%**
Psychology	**$40,000**	**85%**
General education	**$40,000**	**89%**
Sociology	**$39,000**	**72%**
Family and consumer sciences	**$39,000**	**88%**
Social work	**$37,000**	**89%**
Fine arts	**$37,000**	**98%**
Music	**$35,900**	**83%**
Commercial art and graphic design	**$35,400**	**86%**
Communications	**$30,000**	**86%**
Journalism	**$30,000**	**84%**

Note: Sample is limited to observations with at least 20 responses to the 2015 American Community Survey.

Highest-Paying Majors in U.S. for Adults Aged 30–50

Field of Study	Median Income, 2015	Employment to Population Ratio
Petroleum engineering	**$169,000**	**100%**
Naval architecture and marine engineering	**$105,000**	**99%**
Pharmacy, pharmaceutical sciences and administration	**$100,000**	**98%**
Actuarial science	**$100,000**	**100%**
Mining and mineral engineering	**$100,000**	**97%**
Nuclear engineering	**$100,000**	**96%**
Aerospace engineering	**$100,000**	**99%**
Electrical engineering	**$98,000**	**98%**
Metallurgical engineering	**$98,000**	**100%**
Geological and geophysical engineering	**$96,200**	**99%**
Military technologies	**$96,000**	**96%**
Chemical engineering	**$96,000**	**98%**
Mechanical engineering	**$95,000**	**98%**
Engineering mechanics, physics and science	**$95,000**	**98%**
Materials engineering and materials science	**$92,000**	**99%**
Computer engineering	**$90,000**	**98%**
Health and medical preparatory programs	**$90,000**	**98%**
Materials science	**$89,000**	**99%**
Biomedical engineering	**$85,000**	**98%**
Engineering and industrial management	**$85,000**	**100%**
Mathematics and computer science	**$85,000**	**99%**
Computer science	**$84,000**	**97%**

Field of Study	Median Income, 2015	Employment to Population Ratio
Industrial and manufacturing engineering	**$83,000**	**97%**
Physics	**$82,240**	**98%**
Civil engineering	**$82,000**	**98%**
Applied mathematics	**$81,100**	**100%**
Pharmacology	**$80,000**	**99%**
Statistics and decision science	**$80,000**	**97%**
Information sciences	**$80,000**	**97%**
Miscellaneous engineering	**$80,000**	**97%**
General engineering	**$80,000**	**98%**
Mechanical engineering related technologies	**$79,100**	**98%**
Management information systems and statistics	**$79,000**	**98%**
Economics	**$77,000**	**97%**
Cognitive science and biopsychology	**$77,000**	**95%**
Environmental engineering	**$77,000**	**99%**
Finance	**$76,000**	**98%**
Architectural engineering	**$76,000**	**100%**
Electrical engineering technology	**$75,000**	**98%**
Transportation sciences and technologies	**$75,000**	**98%**
Industrial production technologies	**$75,000**	**96%**

Note: Sample is limited to observations with at least 20 responses to the 2015 American Community Survey.

Louisiana Workforce Commission Five-Star Jobs

Occupational Title	Entry-Level Wage	Star Rating
Accountants and auditors	**$39,806**	**5-Star**
Architectural and engineering managers	**$90,495**	**5-Star**
Captains, mates and pilots of water vessels	**$40,367**	**5-Star**
Chemical engineers	**$66,798**	**5-Star**
Civil engineers	**$54,853**	**5-Star**
Computer and information systems managers	**$54,951**	**5-Star**
Computer network architects	**$55,477**	**5-Star**
Computer programmers	**$41,134**	**5-Star**
Computer systems analysts	**$36,743**	**5-Star**
Construction managers	**$54,933**	**5-Star**
Cost estimators	**$36,941**	**5-Star**
Database administrators	**$47,834**	**5-Star**
Education administrators, elementary and secondary school	**$54,525**	**5-Star**
Education administrators, postsecondary	**$46,674**	**5-Star**
Educational, guidance, school and vocational counselors	**$37,905**	**5-Star**
Electrical engineers	**$57,840**	**5-Star**
Elementary school teachers, except special education	**$40,007**	**5-Star**
Environmental engineers	**$55,091**	**5-Star**
Financial analysts	**$42,668**	**5-Star**
Financial managers	**$53,987**	**5-Star**
General and operations managers	**$48,539**	**5-Star**
Healthcare social workers	**$32,621**	**5-Star**
Human resources managers	**$47,712**	**5-Star**

Occupational Title	Entry-Level Wage	Star Rating
Industrial engineers	**$57,736**	**5-Star**
Information security analysts	**$44,184**	**5-Star**
Management analysts	**$41,200**	**5-Star**
Market research analysts and marketing specialists	**$29,729**	**5-Star**
Marketing managers	**$45,370**	**5-Star**
Mechanical engineers	**$53,941**	**5-Star**
Medical and clinical laboratory technologists	**$31,591**	**5-Star**
Medical and health services managers	**$54,418**	**5-Star**
Network and computer systems administrators	**$35,750**	**5-Star**
Nurse anesthetists	**$70,111**	**5-Star**
Nurse practitioners	**$65,485**	**5-Star**
Occupational therapists	**$52,855**	**5-Star**
Operations research analysts	**$31,756**	**5-Star**
Personal financial advisors	**$38,096**	**5-Star**
Physician assistants	**$43,301**	**5-Star**
Sales managers	**$48,521**	**5-Star**
Sales representatives, wholesale and manufacturing, technical and scientific products	**$42,060**	**5-Star**
Secondary school teachers, except special and career / technical education	**$40,646**	**5-Star**
Securities, commodities and financial services sales agents	**$27,223**	**5-Star**
Software developers, applications	**$41,003**	**5-Star**
Software developers, systems software	**$40,738**	**5-Star**
Speech-language pathologists	**$42,861**	**5-Star**

Note: Statewide occupations that require at least a bachelor's degree.

GALLUP®

World Headquarters

The Gallup Building
901 F Street, NW
Washington, D.C. 20004

t +1.877.242.5587
f +1.202.715.3045

www.gallup.com