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The Economic Impact of Cleveland State University

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College of Urban Affairs
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October 2014

**THE ECONOMIC IMPACT
OF CLEVELAND STATE
UNIVERSITY**

**CENTER FOR
ECONOMIC
DEVELOPMENT**

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TABLE OF CONTENTS

Acknowledgements..... 5

Executive Summary..... 7

 An Overview of Cleveland State University..... 7

 Economic Impact of Cleveland State University..... 8

History of Cleveland State University 10

Cleveland State University Trends 12

 Enrollment Trends 12

 Enrollment by Academic Unit, Level, and Course Load..... 12

 Enrollment by Race and Gender 14

 Enrollment by Age Category..... 15

 Enrollment by Level and Residency Status..... 15

 High School and Undergraduate GPA..... 16

 Retention Rates 19

 Scholarships and Financial Aid 20

 Undergraduate Cost of Attendance 21

 Cleveland State University Alumni 22

Financial Picture..... 23

 Operations 23

 Employment 27

Economic Impact..... 28

 Introduction..... 28

 Methodology 28

 Economic Impact of Operations 30

 Economic Impact of University Spending..... 30

 Economic Impact of Student Spending 33

 Economic Impact of Visitor Spending..... 35

 Summary of the Economic Impact Based on Cleveland State University Operations in FY 2013..... 37

 Economic Impact of Capital Investments 39

Conclusion..... 43

Appendix 44

LIST OF TABLES & FIGURES

Figure 1. Total Fall Semester Enrollment by Academic Level, 2009-2013 13

Figure 2. CSU’s Total Enrollment by Ethnicity, Fall 2013 14

Figure 3. CSU’s Enrollment by Age Category, Fall 2013 15

Figure 4. Average High School GPA for IPEDS Cohort Students, 5 Year Trend 16

Figure 5. Average High School GPA by College for IPEDS Cohort Students, Fall 2013 17

Figure 6. Undergraduate Cumulative GPA by Academic Unit, Fall 2013 18

Figure 7. Fall to Fall Retention Rates for IPEDS Cohort by Race 19

Table 1. Financial Aid Awards to Undergraduate Students by Full-Time/Part-Time Status,
5-Year Trend 20

Figure 8. Undergraduate Tuition and Fees, 2008-09 to 2013-14 21

Figure 9. Components of Undergraduate Cost of Attendance 21

Figure 10. CSU’s Operating Expenses, 2013 23

Figure 11. CSU’s Operating Revenues, 2013 24

Figure 12. CSU’s Non-Operating Items Budget 25

Figure 13. CSU’s End of Year Net Assets, 2013 26

Table 2. Total Employees by SOC Category - Fall 2013 27

Table 3: Total Economic Impact of University Spending, FY 2013 30

Table 4: Total Economic Impact of Student Spending, FY 2013 33

Table 5: Total Economic Impact of Visitor Spending, FY 2013 35

Table 6: Total Economic Impact of CSU Operations by Type of Effect, FY 2013 37

Table 7: Total Economic Impact of CSU Operations by Type of Spending, FY 2013 37

Table 8: Total Tax Impact of CSU by Type of Spending, FY 2013 38

Figure 14: CSU Capital Spending, FY2009-2013 39

LIST OF APPENDIX TABLES & FIGURES

Table A.1: Employment Impact of University Spending by Major Industry, FY 2013 45
Figure A.1: Employment Impact of University Spending by Major Industry, FY 2013..... 46
Table A.2: Labor Income Impact of University Spending by Major Industry, FY 2013 47
Table A.3: Value-Added Impact of University Spending by Major Industry, FY 2013..... 48
Table A.4: Output Impact of University Spending by Major Industry, FY 2013 49
Table A.5: Employment Impact of Student Spending by Major Industry, FY 2013 50
Figure A.2: Employment Impact of Student Spending by Major Industry, FY 2013 51
Table A.6: Labor Income Impact of Student Spending by Major Industry, FY 2013 52
Table A.7: Value-Added Impact of Student Spending by Major Industry, FY 2013 53
Table A.8: Output Impact of Student Spending by Major Industry, FY 2013..... 54
Table A.9: Employment Impact of Visitor Spending by Major Industry, FY 2013 55
Figure A.3: Employment Impact of Visitor Spending by Major Industry, FY 2013..... 56
Table A.10: Labor Income Impact of Visitor Spending by Major Industry, FY 2013 57
Table A.11: Value-Added Impact of Visitor Spending by Major Industry, FY 2013 58
Table A.12: Output Impact of Visitor Spending by Major Industry, FY 2013 59
Table A.13: Employment Impact of CSU Capital Expenditures Spending by Major Industry,
FY 2009-2013 60
Figure A.4: Employment Impact of CSU Capital Expenditures by Major Sector,
FY 2009-2013 61
Table A.14: Labor Income Impact of CSU Capital Expenditures Spending by Major Industry,
FY 2009-2013 62
Table A.15: Value-Added Impact of CSU Capital Expenditures Spending by Major Industry,
FY 2009-2013 63
Table A.16: Output Impact of CSU Capital Expenditures Spending by Major Industry, FY 2009-2013 64

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EXECUTIVE SUMMARY

This report assesses the economic impact of Cleveland State University on the five-county Cleveland metropolitan area¹. The study was conducted by the Center for Economic Development at Cleveland State University's Maxine Goodman Levin College of Urban Affairs. The economic impact of the university operations is based on FY2013 data (July 1, 2012-June 30, 2013), which was the most recent completed fiscal year for which data was available at the start of this study. The economic impacts of the capital expenditures are based on FY2009-2013 spending.

AN OVERVIEW OF CLEVELAND STATE UNIVERSITY

Cleveland State University (CSU) was established in 1964 to provide public higher education primarily to residents of greater Cleveland and Northeast Ohio; it was established as Ohio's 7th state university. In 2014, CSU celebrates its 50th anniversary as "Green turns Gold."

CSU students are enrolled across eight colleges and over 200 academic programs. In the fall of 2013, the total number of students was 17,730; more than half of the students (9,000 or 51%) were full-time undergraduates; about one fifth of the students (3,359 or 19%) were part-time undergraduates; another 20% (2,544) were part-time graduate or law students; and 10% (1,827 students) were full-time graduate or law students.

CSU had a total of 2,224 employees, of which 1,518 were full-time and 706 were part-time in 2013, and faculty represented the largest share of both full-time and part-time employees. Of the 1,070 faculty members, 559 were full-time and 511 were part-time.

CSU's total operating revenues grew by 34% in the past five years from a total of \$154.8 million in 2009 to a total of \$207.5 million in 2013. Nearly three quarters of CSU's total operating revenues in the FY 2013 came from student tuition and fees (\$153.9 or 74.1%). The second largest source of revenues was auxiliary enterprises. Total operating expenses grew by 10% in the past 5 years from \$269.9 million in 2009 to \$296.7 million in 2013. CSU's non-operating income, which includes items such as state appropriations and state and federal grants and contracts was \$99,957,337 in 2013. Also, Cleveland State University has embarked on many large-scale construction projects over the past few years. In fact, over the past 5 years, CSU has spent almost \$150 million on capital projects.

Cleveland State is led by the philosophy of "Engaged Learning." The university notes "It's the mantra that gives purpose to Cleveland State's mission of providing a contemporary and accessible education in the arts, sciences, humanities and professions, and conducting research, scholarship and creative activity across these branches of knowledge. We pride ourselves on the many ways that we engage our students — inside the classroom, throughout the community and around the globe."² CSU promises that engaged learning is much more than a marketing promise as this mantra permeates the campus.

¹ The Cleveland metropolitan area includes the counties of Cuyahoga, Geauga, Lake, Lorain, and Medina.

² About CSU, <http://www.csuohio.edu/about-csu/about-csu>, accessed 9/15/14.

ECONOMIC IMPACT OF CLEVELAND STATE UNIVERSITY

The economic impact of CSU on the Cleveland metropolitan area is measured in terms of employment, labor income, value added, output, and taxes. Economic impact analysis takes into account inter-industry relationships within an economy; that is, the buy-sell relationships among industries, households, and government, which estimate how an economy responds to changes in economic activity. Input-output models, like the one used in this study, estimate inter-industry relationships in a county, region, state, or country by measuring the industrial distribution of inputs purchased and outputs sold by each industry and the household sector.

The study measures the economic impact of three spending streams tied to university operations: university expenditures, student spending, and spending by visitors to the campus.

The total annual economic impact of CSU is based on the combined effect of university, student, and visitor spending in FY 2013. With operating revenue of \$207.5 million, CSU’s total economic impact was as follows:

• Total Employment Impact:	6,739 jobs
• Labor Income Impact:	\$308 million
• Value-added Impact:	\$463 million
• Output Impact:	\$679 million
• Tax Impact:	\$67 million

The impact derived from university spending in FY 2013 was as follows:

- Employment Impact: 3,667 jobs
- Labor Income Impact: \$211 million
- Value-added Impact: \$267 million
- Output Impact: \$398 million
- Tax Impact: \$21 million

The impact derived from student spending in FY 2013 was as follows:

- Employment Impact: 2,977 jobs
- Labor Income Impact: \$94 million
- Value-added Impact: \$192 million
- Output Impact: \$274 million
- Tax Impact: \$44 million³

³ The tax impact from student spending is higher than that of the university due to the nonprofit status of CSU and the high sales tax associated with student spending.

The impact derived from visitor spending in FY 2013 was as follows:

- Employment Impact: 95 jobs
- Labor Income Impact: \$3 million
- Value-added Impact: \$5 million
- Output Impact: \$7 million
- Tax Impact: \$1 million

Additionally, this study measures the economic impact of 5 years of university capital spending. The impact derived from capital spending between FY2009 and 2013 was as follows:

• Employment Impact:	1,945 jobs
• Labor Income Impact:	\$113 million
• Value-added Impact:	\$152 million
• Output Impact:	\$286 million
• Tax Impact:	\$31 million

HISTORY OF CLEVELAND STATE UNIVERSITY

Cleveland State University (CSU) was established as a state-assisted urban university in 1964 to provide public higher education primarily to residents of greater Cleveland and Northeast Ohio. Its establishment as Ohio's 7th state university was after James Rhodes became the governor of the state—who as a candidate had proposed that every citizen should have access to a state university within 30 miles of their residence. In its first year of establishment, CSU acquired the buildings, faculty, staff and programs of Fenn College, a private institution of 2,500 students that became the nucleus of the new university. With several prestigious private universities in the area, Fenn had long focused on cooperative education linking classroom assignments to on-the-job work and individuals for whom college otherwise would be economically unreachable. These two qualities were well-suited for the mission of CSU to encourage diversity by providing accessible quality education.

After the state took control of Fenn College, its facilities, and personnel, CSU underwent tremendous growth during the tenure of Dr. Harold Enarson, CSU's first president. During Dr. Enarson's tenure CSU's enrollment tripled from 5,000 to 15,000 students, the number of faculty grew from 90 to 450, and the campus expanded from nine to over 27 acres with four new classroom and office buildings. The academic program added the college of education in 1966 and offered its first graduate degree programs in 1967. The Cleveland-Marshall College of Law merged with the University in 1969 and CSU introduced its first doctoral degree programs. Another major development was the creation of an Institute of Urban Studies in 1968, a time when higher education generally viewed urban studies as a single course rather than a field of academic study. The Institute of Urban Studies marked a new era as CSU recognized its urban context and sought to involve itself with the City of Cleveland and its surrounding communities to identify problems and work in cooperation on innovated solutions. The Institute became the College of Urban Affairs in 1977.⁴

Between 1973 and 1988, and during Dr. Walter Waetjen's administration, CSU became more involved in the city by adding significant research and public-service programs. Several buildings were also added to the campus in this period, including Physical Education Building (1973), University Center (1974), the Law Building (1977), and the Science and Research Building (1981).

During Dr. John Flower's tenure as president, CSU went through a major period of organization, reflecting the importance of positive racial and community relations as well as a change in labor relations with faculty and staff. Other major events during this period were the opening of the Music and Communications building and the Convocation Center (now known as the Wolstein Center), in 1990 and 1991 respectively.

Dr. Claire Van Ummersen's administration, 1993 to 2001, marked a period of improvements in student services and retention by conversion to the semester system in 1998 and the application of a modern information technology infrastructure. In the second half of the 1990s, the campus continued to expand. Major capital projects included the opening of the new Health Sciences Center in 1997, the business school in 1998, and the new building for the Levin College of Urban Affairs in 2001.

In 2002, Dr. Michael Schwartz became CSU's fifth President. During his administration, CSU underwent enormous changes while preserving and reinforcing its primary purposes of teaching, research,

⁴ Simon, Mary Ellen. 2003. *The Maxine Goodman Levin College of Urban Affairs: Celebrating 25 Years*.

scholarship, and service. Improvements to CSU's academic program involved the improving the institution's admissions standards beyond a secondary school degree, an honors program, a scholars program, an undergraduate research program, as well as revamped general education requirements. Other programs that were added during Dr. Schwartz's tenure were the Arabic language and Middle Eastern studies program, the Confucius Institute, the Center for School Leadership, the International Business Program, the Center for Gene Regulation in Health and Disease, collaborations with the Cleveland Clinic's Lerner Research Institute, and programs to improve the bar passage rate for law students.

In addition to the immense changes in the university's programs during Dr. Schwartz's presidency, CSU revised its campus master plan, Building Blocks for the Future. The plan included a \$350 million investment in new construction and renovations, aimed at modifying the once isolated campus architecture to make it become more inviting. Major projects included construction of the Administration Center, the College of Education and Human Services Building, the demolition of the original University Center, and the construction of a new student center.

The current President, Dr. Ronald Berkman, was installed as CSU's 6th president, following Dr. Schwartz's retirement in 2009. The University currently consists of eight academic colleges including Liberal Arts and Social Sciences, Business Administration, Education and Human Services, Engineering, Science, Law, Urban Affairs, and Graduate Studies offering 200 major fields of study at the undergraduate and graduate levels, as well as professional certificate and continuing education programs. Additionally, the university is currently adding an Honor's College. CSU has also established a partnership with Cleveland Metropolitan School District to open the Campus International School in 2010 and provide MC²STEM High School students with an opportunity to work with CSU students and high-tech equipment. The Campus International School currently consists of 7 grades (kindergarten through 6th grade) and will add a grade each year until it becomes a K-12 school.

The Cleveland State campus is now the largest landowner in Cleveland—covering 85 acres with over 40 buildings for teaching, research, housing, administration, and recreation. In the past few years, additional student housing has been built and a new building is under construction for the Center for Innovation in Health Professions. CSU is also in the process of updating its master plan which will focus on walkability by proposing signs, directions, and improvements to the landscape as well as energy conservation. The plan will also include an analysis of space for future academic needs along with an assessment of bicycle, pedestrian, and vehicle circulation around the campus.

CLEVELAND STATE UNIVERSITY TRENDS

ENROLLMENT TRENDS

Since its establishment in 1965, the university's highest student enrollment was in 1980 with 19,250 students signing up for classes in the fall quarter.⁵ After 1980, student enrollment declined for 5 consecutive years, reaching 16,766 in the fall quarter of 1985. The declining trend ended in 1985, and CSU underwent a period of increasing enrollment to reach 19,220 students in fall 1990—the second highest number since CSU's establishment. Another period of enrollment decline began in 1990, followed by a period from 1995 to 2006 in which student enrollment was flat. Since 2006, student enrollment grew each year to the 2013 level of 17,730.

Enrollment by Academic Unit, Level, and Course Load

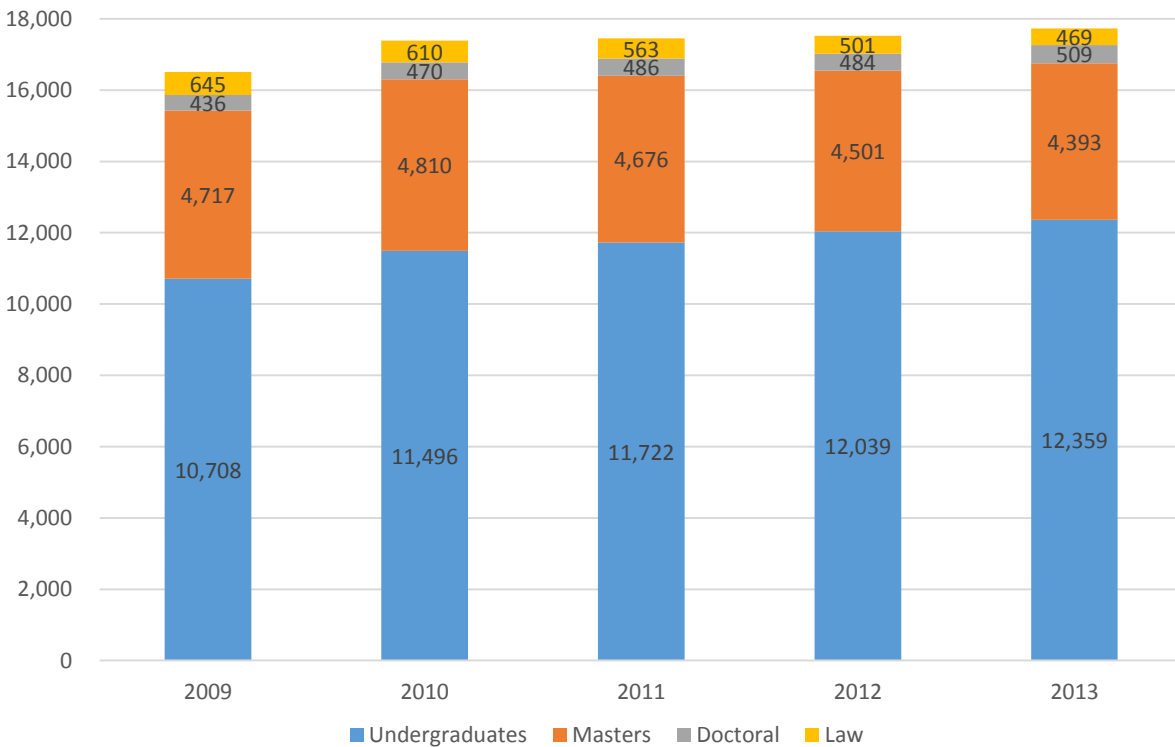
In FY 2013, more than half of the students (9,000 or 51%) were full-time undergraduates; about one fifth of the students (3,359 or 19%) were part-time undergraduates; another 20% (2,544) were part-time graduate or law students; and 10% (1,827 students) were full-time graduate or law students.⁶

⁵ Cleveland State University converted to the semester system in 1998.

⁶ The most recent detailed data is from FY2013.

Overall, student enrollment has increased by 7% in the past 5 years. Figure 1 shows the 5-year trend of total fall semester enrollment by academic level. In the past 5 academic years (2009 to 2013), enrollment of undergraduates and doctoral level students has grown (15% and 17%, respectively), whereas the enrollment of graduate and law students has declined (7% and 27%, respectively). The number of undergraduates has grown from 10,708 students in the fall semester of 2009 to 12,359 students in 2013. At the same time, the number of master’s degree level students has declined slightly from 4,717 to 4,393. Doctoral level enrollment has increased from 436 students in the fall semester of 2009 to 509 students in the fall of 2013. Law students have declined from 645 to 469 in the period from fall semester 2009 to 2013.

Figure 1. Total Fall Semester Enrollment by Academic Level, 2009-2013



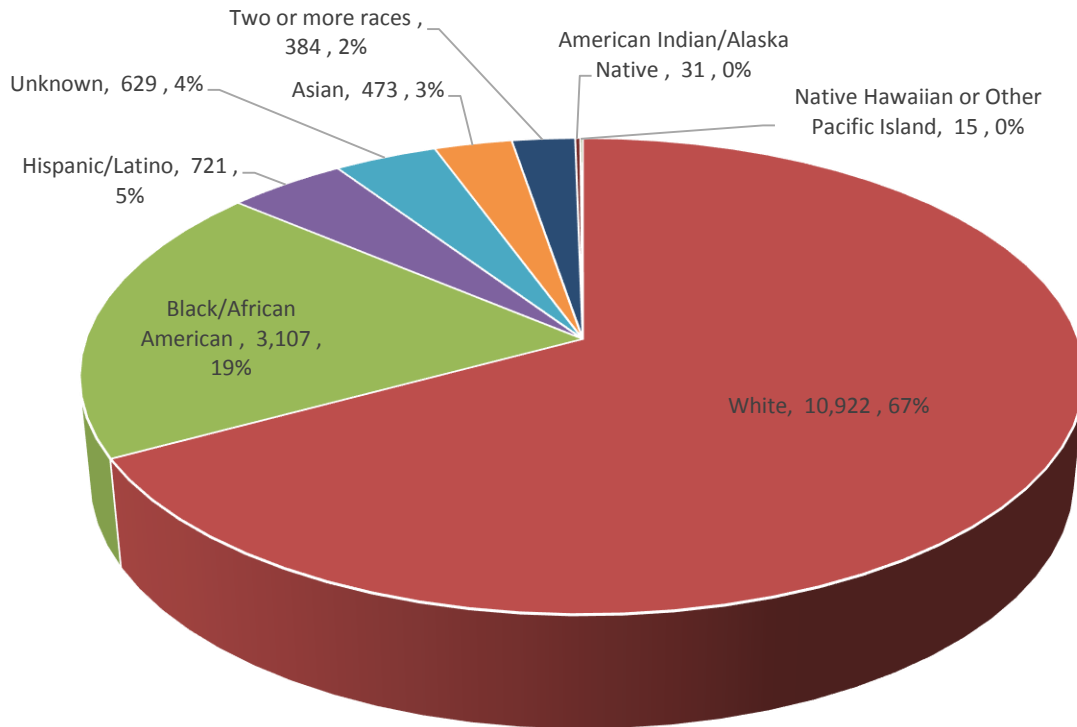
The College of Liberal Arts and Social Sciences (CLASS) had the largest number of undergraduates in the fall of 2013. About one quarter of all undergraduates (or 3,142 students) were from CLASS in the fall of 2013. The College of Science was the second largest in terms of undergraduate student enrollment, 2,994, or 24% of all undergraduates. The College of Business and the College of Engineering accounted for 16% (1,941) and 11% (1,315) of total undergraduates, respectively. The College of Education & Human Services and the Office of Undergraduate Studies both had approximately 7% of undergraduates (904 and 863, respectively). The School of Nursing and the College of Urban Affairs were the two smallest entities in terms of undergraduate enrollment—comprising 5% (573) and 3% (324) of total undergraduates respectively.

The College of Business and the College of Education and Human Services each included approximately one quarter of all graduate students (1,360 and 1,355 students respectively) in the fall semester of 2013. The College of Science accounted for 16% of total graduate students (847). The College of Liberal Arts and Social Sciences, Law and Engineering comprised 10% (549), 9% (469), and 8% (456) of total graduate students respectively. The College of Urban Affairs had 5% (252) of graduate students, and the School of Nursing was the smallest in terms of graduate student enrollment with 55 graduate students (1% of total graduate students) in fall 2013.

Enrollment by Race and Gender

CSU students come from diverse ethnic backgrounds, and more than half of the students (55% or 9,815) are female. Close to one third of the students are non-white (Figure 2). African Americans make up the majority of non-white students; accounting for 19.1% (3,107) of the total student enrollment. The majority of African American students are female (69% or 2,150). Hispanics or Latinos comprise 4.4% of total students (721), and Asians make up 2.9% of the total students (473). Over 2% of total students (384) have a background of two or more races, and only a very small number of students are American Indian/Alaska Native (0.2% or 31), and Native Hawaiian or Other Pacific Island (0.1% or 15).

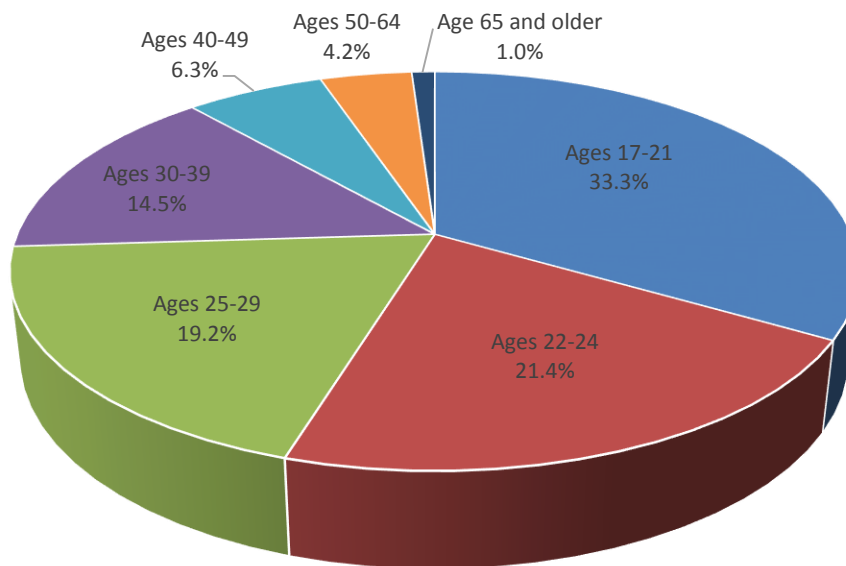
Figure 2. CSU’s Total Enrollment by Ethnicity, Fall 2013



Enrollment by Age Category

The average student age in fall semester 2013 was 27.2, and the median age was 24. Overall, the largest age category in academic year 2013-14 was that of students between 17 and 21 years of age with 5,910 students belonging to this age group (33.3%) (Figure 3). The second-largest age category was 22 to 24 years of age with 3,800 students in this age group (21.4%). Students between 25 and 29 years of age and students between 30 and 39 were the third and fourth largest age categories with 3,411 and 2,566 students, respectively (19.2% and 14.5%). In the same semester, there were 1,646 students between the ages of 30 to 34 (9.3%), 920 students between the ages of 35 to 39 (5.2%), 1,117 students in the age category of 40 to 49 (6.3%), 739 students in the age group of 50 to 64 (4.2%), and 739 students in the age group of 50 to 64 (4.2%). As expected, the smallest age group was students over age 65 (186 students or 1%).

Figure 3. CSU's Enrollment by Age Category, Fall 2013



Among academic units, the average age was highest in the College of Graduate Studies (34.6) followed by the College of Urban Affairs (33.3) and the Office of Undergraduate Studies (32.5). The average age was lowest in the College of Engineering (24.1), followed by the School of Nursing (24.5) and the College of Science (24.7). Overall, the average age for female students was higher than that of male students (27.5 versus 26.7); the number of female students in their 40s, 50s, and 60s is considerably higher than male students in these age categories.

Enrollment by Level and Residency Status

The majority of CSU students are residents of the state of Ohio. In fall semester 2013, there were 15,695 Ohio resident students enrolled: 11,288 of the undergraduate students (91%), 3,971 of the graduate students (84%), and 436 of Law students (92%) were Ohio residents. Overall, CSU had 1,448 non-resident alien students⁷ and 587 non-Ohio-resident students in the same semester. Of the non-resident aliens, 56% were graduate students, 43% were undergraduates, and 1% were law students.

⁷ Non-resident aliens are those with a citizenship status of "Alien Temporary."

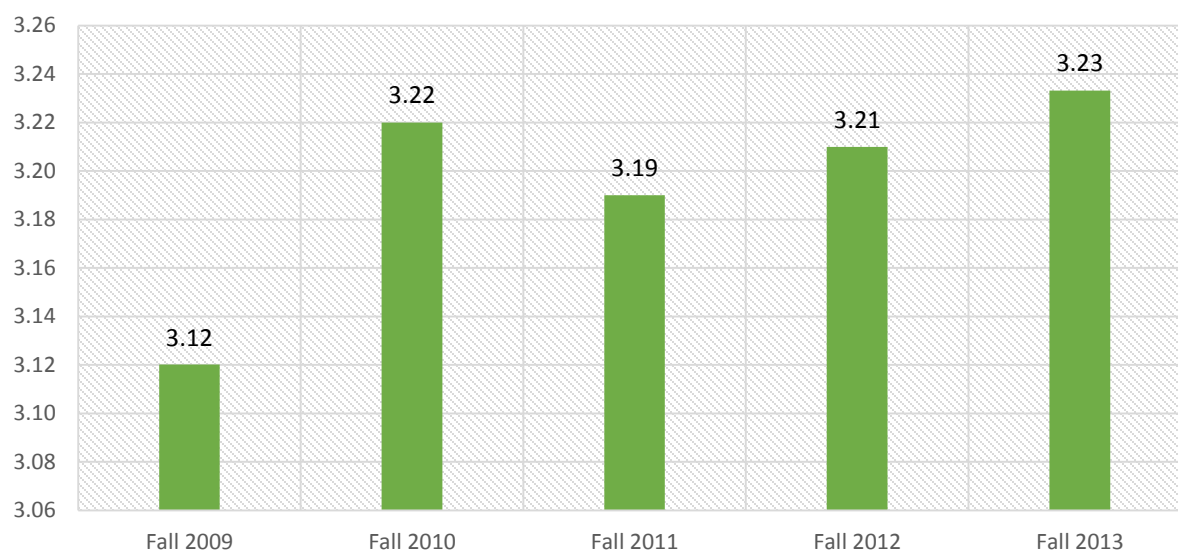
Among students who were residents of other states, the majority were undergraduates (74%). In fall 2013, there were 22% of the total graduate student enrollment and 4% of law school enrollment was from other states. Among the states other than Ohio sending students to CSU, Pennsylvania sent the largest number (81) followed by the states of New York (37) and Michigan (29).

In fall semester 2013, there were 11,557 students enrolled at CSU who came from Cuyahoga County.⁸ Lake County with 1,323 students ranked second in terms of the number of students enrolled in that semester. Lorain, Summit, and Medina were ranked third, fourth, and fifth with 961, 467, and 450 students, respectively.

HIGH SCHOOL AND UNDERGRADUATE GPA

The academic quality of CSU undergraduate students has been increasing. The average high school GPA for the Integrated Postsecondary Education Data System (IPEDS)⁹ cohort students was 3.23 in the fall semester 2013—the highest in the past 5 academic years (Figure 4).

Figure 4. Average High School GPA for IPEDS Cohort Students, 5 Year Trend

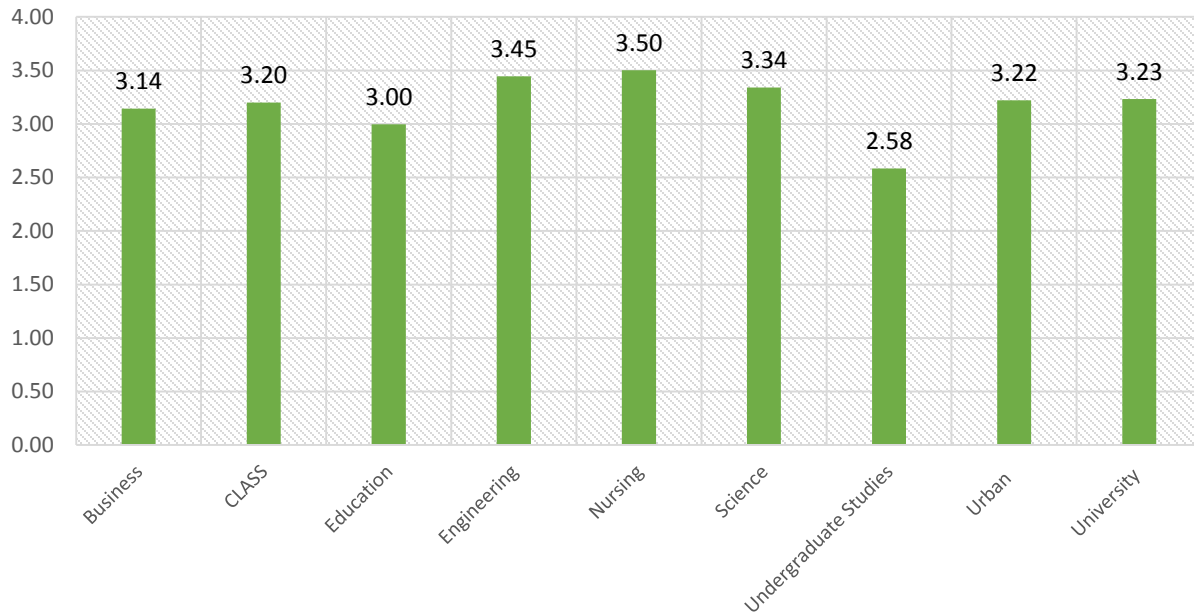


⁸ Excluding non-resident aliens, and based on mailing addresses on file.

⁹ IPEDS provides basic data needed to describe postsecondary education in terms of the numbers of students enrolled, staff employed, dollars expended, and degrees earned. IPEDS collects institutional pricing data from institutions for first-time, full-time, degree- or certificate-seeking undergraduate students (<http://nces.ed.gov/ipeds/about/>).

Among academic units, the average high school GPA of the School of Nursing was the highest in fall 2013 (3.5), followed by the College of Engineering (3.45) and Science (3.34) (Figure 5). The Office of Undergraduate Studies had the lowest average high school GPA (2.58).

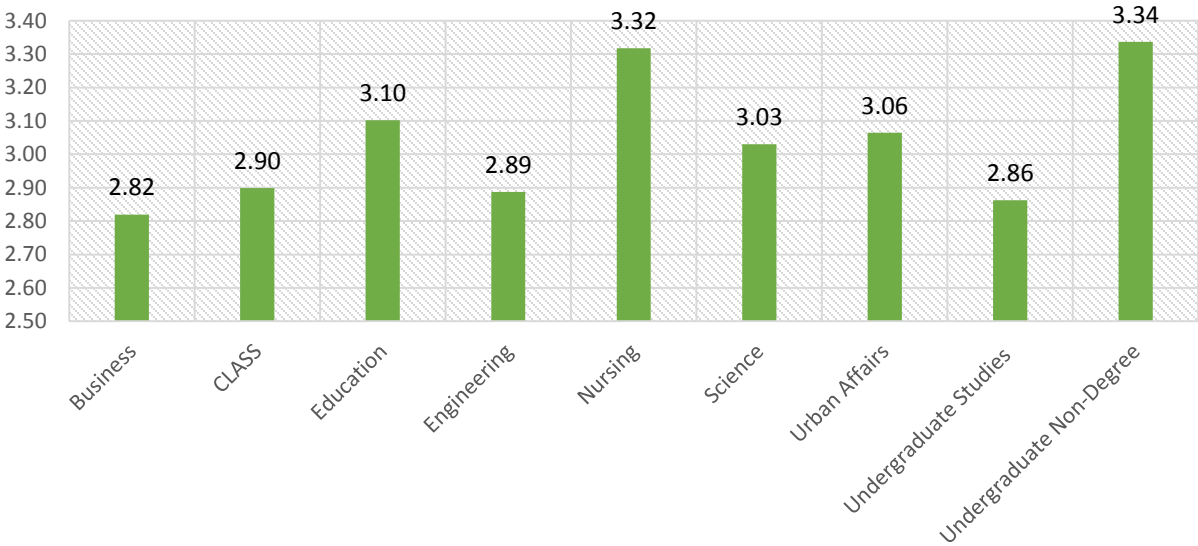
Figure 5. Average High School GPA by College for IPEDS Cohort Students, Fall 2013¹⁰



¹⁰ Undergraduate studies refers to undecided, post-secondary students, and those in pre-programs.

In the past 5 years, cumulative GPA of CSU undergraduate students has increased slightly from 2.90 in fall 2009 to 2.96 in fall 2013 (Figure 6). On average, undergraduate non-degree students had the highest cumulative GPA in fall 2013 (3.34). The School of Nursing ranked second with an average undergraduate cumulative GPA of 3.32, followed by the College of Education (3.10). The Colleges of Urban Affairs and Science also had average cumulative undergraduate GPAs of higher than 3.0 (3.06 and 3.03, respectively). In fall 2013, the College of Business had the lowest average cumulative undergraduate GPA (2.82).

Figure 6. Undergraduate Cumulative GPA by Academic Unit, Fall 2013



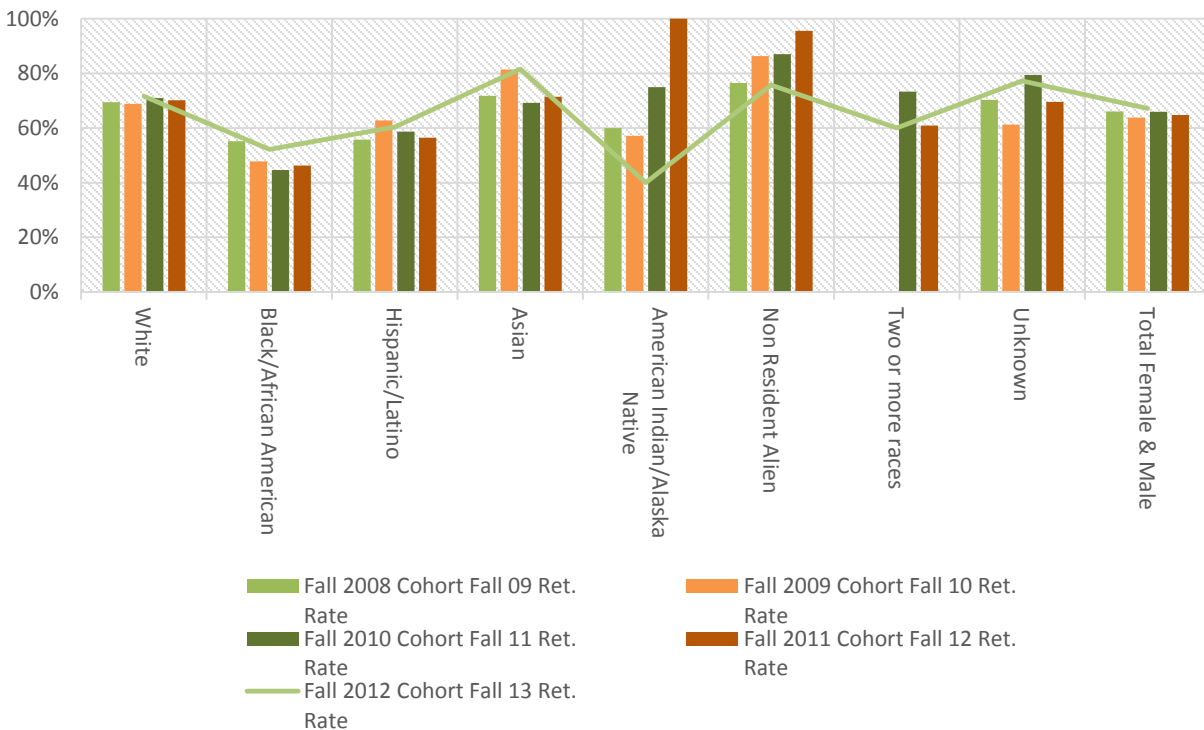
RETENTION RATES

While the number of newly enrolled IPEDS cohort students has increased over the past 5 years, fall to fall retention rates for these students has not increased steadily. In fall semester 2012, there were a total of 1,531 newly enrolled students, of which 1,029 returned in fall 2013 (67%). The retention rate of the fall 2012 cohort (67%) has been the highest among the past 5 academic years. Fall 2008 and 2010 cohorts had a retention rate of 66%, and the fall 2011 cohort had a retention rate of 65%. The fall 2009 cohort had the lowest retention rate in the past 5 academic years (64%) (Figure 7).

Generally, male students have had a higher retention rate in the past 5 academic years. In fall 2013, the retention rate of female cohort students was 65% percent compared to 69% of male students. The gender gap of retention rates has been somewhat different every year, and there is no observable trend in this gap. However, compared to fall 2008 and 2009 cohorts, the fall 2012 cohort had a wider gender gap (4% gap compared to 1% and 2% respectively).

In addition to the persistent gender gap, there is also a racial gap in retention rates. Blacks or African Americans have the lowest retention rates followed by Hispanics or Latinos. On average, non-resident aliens followed by Asians have the two highest retention rates. Yet, the total number of IPEDS Cohort students is much smaller for these populations compared to Whites or Blacks.

Figure 7. Fall to Fall Retention Rates for IPEDS Cohort by Race



SCHOLARSHIPS AND FINANCIAL AID

In the past 5 academic years, the number of full-time undergraduates receiving financial aid grew by 22%. In the 2013-14 academic year, the number reached 6,892, a 7% rise from the previous academic year (Table 1).¹¹ The average aid package of these students increased 2% within the past 5 years (from \$8,565 to \$8,707). The average aid package includes a combination of grants, scholarships and subsidized loans.

Table 1. Financial Aid Awards to Undergraduate Students by Full-Time/Part-Time Status, 5-Year Trend

	Academic Year					Percent Change	
	2009-10	2010-11	2011-12	2012-13	2013-14	1-year	5-year
Full-time Students with Financial Aid:							
Enrollment	5,666	6,580	6,647	6,434	6,892	7%	22%
Average Aid Package	\$8,565	\$8,950	\$8,755	\$8,821	\$8,707	-1%	2%
Part-time Students with Financial Aid:							
Enrollment	1,017	1,111	1,292	1,631	1,259	-23%	24%
Average Aid Package	\$6,528	\$6,955	\$6,652	\$5,896	\$6,566	11%	1%

CSU also offers several types of grants and scholarships to qualified students. Students can receive need-based and merit-based tuition awards, which are departmental awards and scholarships, book purchase assistance, and financial aid for on-campus housing.

Over the past three academic years, the number of undergraduate students receiving grants and scholarships from CSU has increased 35%. The university awarded over \$14,000,000 in institutional grants and scholarships to undergraduate students in the 2013-2014 academic year. Most CSU undergraduates must both work and borrow in addition to the aid package they receive to cover the cost of attending the university.

¹¹ Financial aid reported reflects awards to undergraduates enrolled in the fall term of the academic year. Although the university awards a substantial amount of financial aid to additional students, this data reflects a particular point in time by using standard figures as defined by IPEDS (<http://nces.ed.gov/ipeds/>) and the Common Data Set (www.commondataset.org).

UNDERGRADUATE COST OF ATTENDANCE

As with all other public universities in Ohio and many universities across the United States, undergraduate tuition and fees at CSU have been rising. Figure 8 presents the rising trend of undergraduate tuition and fees at CSU in the past 5 years. CSU’s undergraduate students’ cost of attendance, which includes all costs associated with university attendance, has increased by 16% in the academic year 2013-14 compared to the academic year 2008-09. In the past 5 academic years, tuition and fees have risen from \$7,970 in 2008-09 to \$9,498 in 2013-14.

Figure 4. Undergraduate Tuition and Fees, 2008-09 to 2013-14

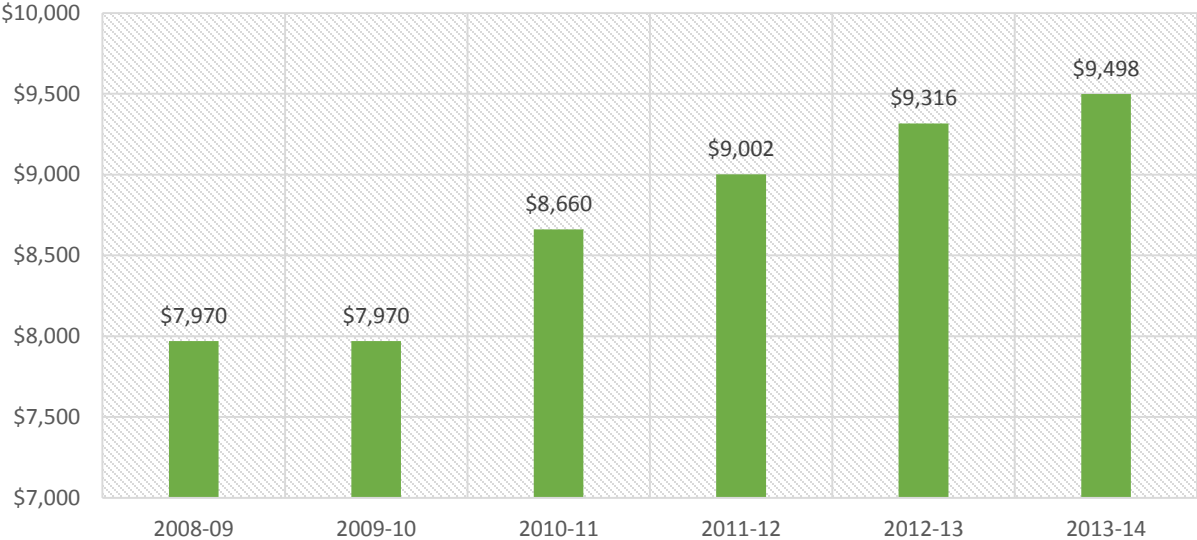
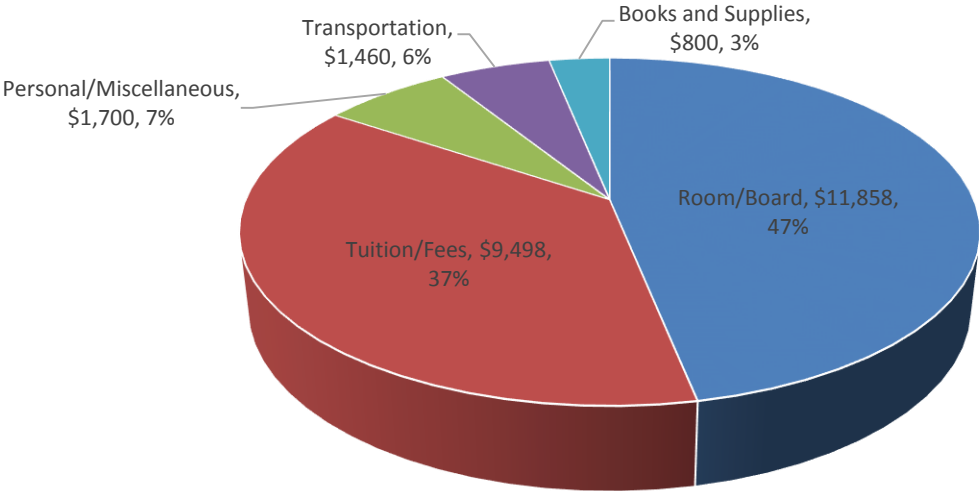


Figure 9 shows the components of costs for undergraduates to attend CSU and to live on campus. Room and board expenses have increased from \$8,700 in 2008-09 to \$11,858 in 2013-14. As shown, room and board, and tuition and fees are the largest components of undergraduate cost of attendance.

Figure 5. Components of Undergraduate Cost of Attendance



CLEVELAND STATE UNIVERSITY ALUMNI

Cleveland State University currently has 112,807 living alumni. Of these, 68,969 or 61% self-reported that they live in the 5-county Cleveland-Elyria Metropolitan area consisting of Cuyahoga, Geauga, Lake, Lorain, and Medina Counties. Of all living alumni, 22,006 (approximately 20%) have an active employment record with a company in the 5-county area.

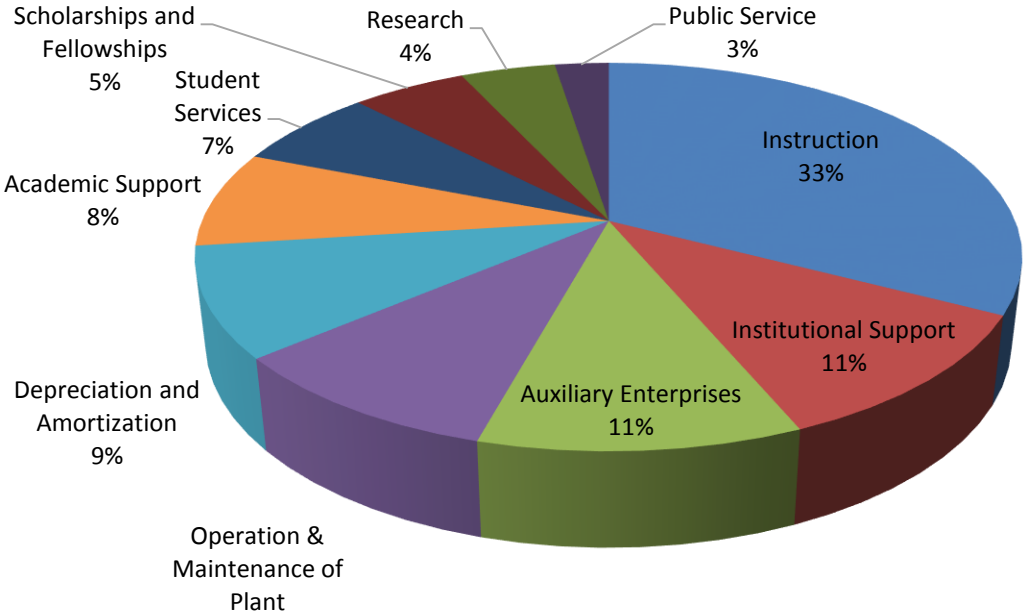
FINANCIAL PICTURE

This section describes operating expenses, operating revenues, and non-operating revenues. All of the information is presented in nominal dollars.

OPERATIONS

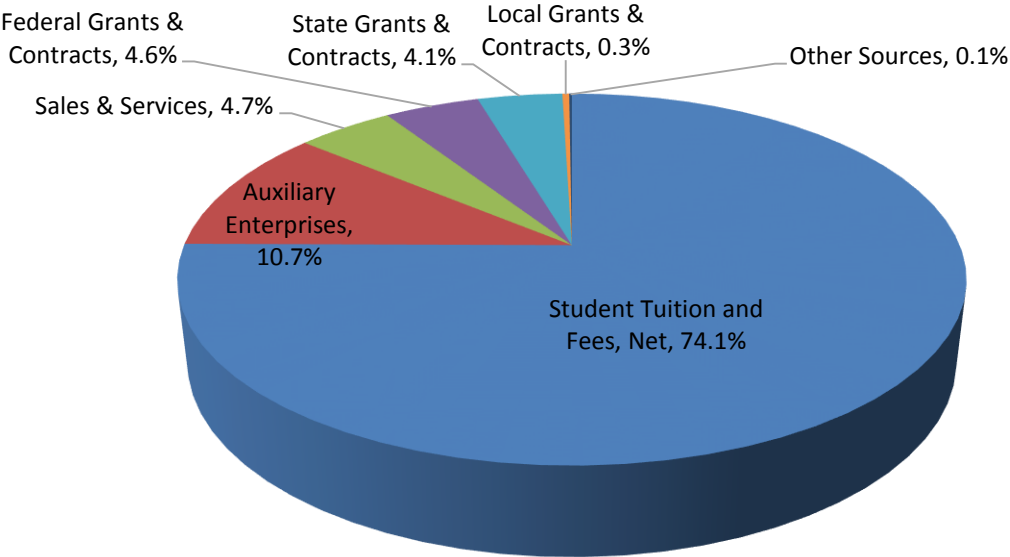
Total operating expenses grew by 10% in the 5 years between 2009 and 2013, from \$269.9 million in 2009 to \$296.7 million in 2013. Between 2012 and 2013, there was a 6% increase in CSU’s operating expenses. As illustrated in Figure 10, instruction was the largest expense, accounting for 32.6% (\$96.8 million) of the university’s total operating budget in 2013. The second largest expense was institutional support constituting 11% (\$32.6 million) of the total operating cost which includes central executive activities. Auxiliary enterprises, those entities that furnish goods or services to the university, (10.6%), operation and maintenance (9.5%), and depreciation and amortization of debt (9.2%) were third, fourth, and fifth largest expense categories. Academic support accounted for 8% of total operating expenses, and student services represented 6.7% of CSU’s total operating expenses in 2013. CSU allocated 5.4% of its total operating expenses for scholarships and fellowships and 4.4% for research. Over 2% of operating expenses was spent on public service in 2013. There were no major changes in the makeup of CSU’s operating expenses in the past 5 years with instruction representing 32% to 35% of total operating expenses.

Figure 10. CSU’s Operating Expenses, 2013



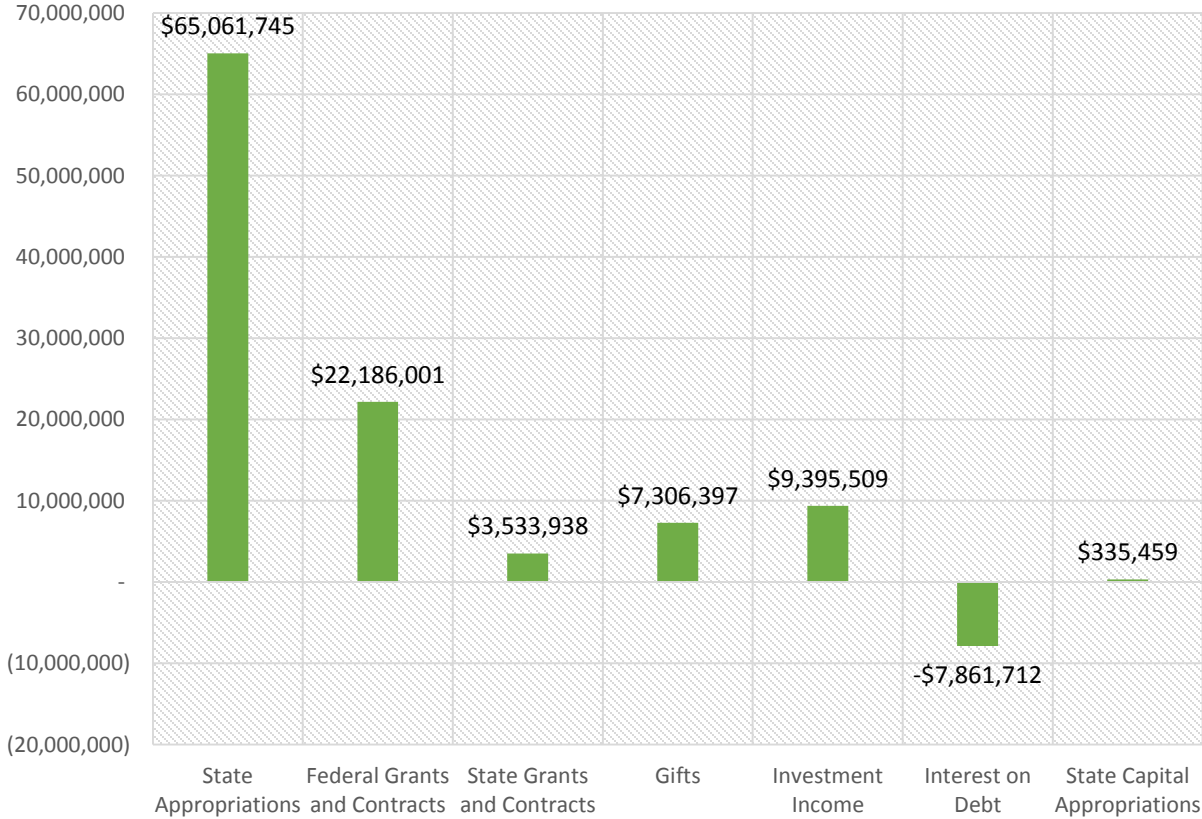
CSU’s total operating revenues grew by 34% in the past 5 years from a total of \$154.8 million in 2009 to a total of \$207.5 million in 2013—a 4% increase from the previous year (\$198.7 million in 2012). Figure 11 illustrates the components of CSU’s operating revenues in 2013. Nearly three quarters of CSU’s total income in FY 2013 came from student tuition and fees (\$153.9 or 74.1%). The second largest source of revenues was auxiliary enterprises, comprising 10.7% of total operating revenues (\$22.2 million). Sales and services, federal grants and contracts, and state grants and contracts each contributed over 4% of the total. The makeup of operating revenue sources has been almost consistent in the past 5 years with student tuition and fees covering 74% to 76% of total operating revenues in each year.

Figure 11. CSU’s Operating Revenues, 2013



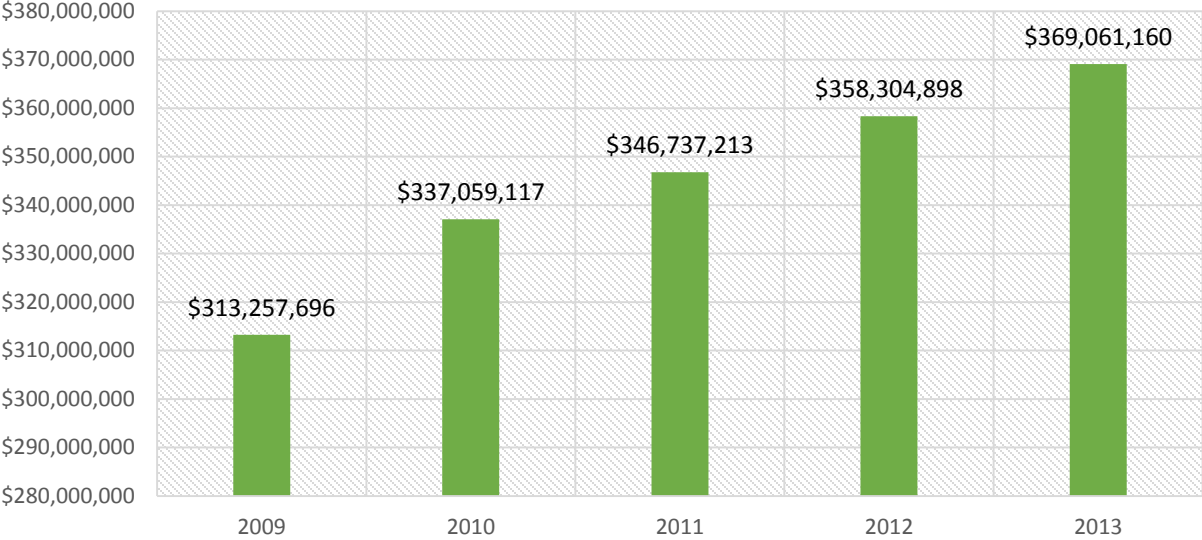
CSU’s non-operating income, which includes items such as state appropriations and state and federal grants and contracts, decreased by 6% in the past 5 years from \$106,802,518 in 2009 to \$99,957,337 in 2013. Figure 12 shows the dollar amounts of various categories of CSU’s non-operating items in 2013, with all categories describing non-operating revenues except for the interest on debt which is categorized as a non-operating expense. State appropriations, money set aside in the state budget for university instruction, was the largest category in non-operating items (\$65.1 million) followed by federal grants and contracts (\$22.2 million). In 2013, CSU earned \$9.4 million in investment income, and received \$7.3 million in gifts, as well as \$3.5 million in state grants and contracts. The university paid \$7.9 million interest on debt and earned \$335,459 through state capital appropriations.

Figure 12. CSU’s Non-Operating Items Budget



In the past 5 years, CSU’s end-of-year net assets increased by 18% from \$313,257,696 in 2009 to \$369,061,160 in 2013 (Figure 13). From 2012 to 2013, the university’s end-of-year net assets grew by 3%.

Figure 13. CSU’s End of Year Net Assets, 2013



EMPLOYMENT

One of the largest costs in the operation of CSU, as in every university, lies with its employees, the faculty and staff. In fall 2013, CSU had a total of 2,224 employees, of which 1,518 were full-time and 706 were part-time (Table 2). Faculty represented the largest share of both full-time and part-time employees. Of the 1,070 faculty members, 559 were full-time and 511 were part-time. Office and administrative support were the second-largest category with 238 full-time and 33 part-time employees. Management was the third largest category with 243 full-time and 21 part-time employees. Computer, engineering, and science occupations were filled by 144 total employees and service occupations numbered 134.

Table 2. Total Employees by SOC Category - Fall 2013

Standard Occupational Classification Categories	Full Time	Part Time	Total
Faculty	511	559	1,070
Office and Administrative Support Occupations	238	33	271
Management	243	21	264
Computer, Engineering, and Science Occupations	135	9	144
Service Occupations	98	36	134
Business and Financial Operations Occupations	92	7	99
Community Service/Legal/Arts/Media	60	34	94
Non-postsecondary Teachers	77	5	82
Natural Resources, Construction, and Maintenance Occupations	22	0	22
Librarians, Curators, and Archivists	18	0	18
Healthcare Practitioners and Technical Occupations	13	1	14
Production, Transportation, and Material Moving Occupations	8	0	8
Sales and Related Occupations	3	1	4
Total Employees	1,518	706	2,224

ECONOMIC IMPACT

INTRODUCTION

This section of the report outlines the annual economic impact of the operations of Cleveland State University (CSU) during FY 2013 and the economic impact of capital expenditures that occurred between 2009 and 2013. All economic impacts are estimated for the 5-county Cleveland-Elyria-Mentor Metropolitan Statistical Area.¹² CSU plays an important role in Northeast Ohio beyond the educational opportunities it offers, having spent \$240 million on goods and services and employing 2,224 people with a payroll of \$148 million in FY 2013. These purchases and employment affect the local economy – a concept that is referred to as *economic impact*.

METHODOLOGY

Cleveland State University, as all universities, has expenditures that link the university to several industries through buy-sell relationships. To operate the university, CSU buys intermediary goods and services from other companies in order to operate. The buy-sell relationships that occur in the region contribute to the economic impact of the university.

In addition, the report estimates the economic impact from construction at CSU through 5 years of capital expenditures that occurred between FY 2009 and 2013. The operations impact is based on three aspects of spending: university, students, and visitors. The methodology for each aspect of university spending differs.

To estimate the economic impact of CSU's spending, only the total purchases in FY 2013 that were made in the five county Cleveland-Elyria-Mentor metropolitan statistical area (MSA) are included in the model. This analysis looks only at the impact on the Cleveland metropolitan area, so any purchases outside of the region were excluded from the model (31.4% or \$75.3 million of purchases were made in the metropolitan area).

In this study a concept known as the substitution effect was considered. The objective of impact analysis is to estimate the effect of money coming from outside the studied economy, rather than the redistribution of money that already exists in that economy. Because there are many colleges in Northeast Ohio, the entire amount of local expenditures cannot be considered because some CSU students might attend another school in the region if CSU did not exist. This analysis assumes that all graduate, law, undergraduate students from outside the MSA, and undergraduate students from within the MSA that come from a census tract where the median income is below poverty would only come to CSU.¹³ This represents 69.0% of the total student body at CSU. Therefore, the total expenditures in the Cleveland metro area were further discounted by 31.0%, to \$51.9 million; these are CSU purchases that we used in the model. We estimated another substitution factor to use with payroll since there is a linear relationship between the number of students and the number of faculty and staff. As a result,

¹² The Cleveland-Elyria-Mentor MSA is comprised of the following counties: Cuyahoga, Geauga, Lake, Lorain, and Medina.

¹³ For this study, the team evaluated all census tracts in the MSA and identified which ones fall below the poverty level defined as a census tract with median household income below the Cleveland MSA median household income of \$48,952. Then, all student addresses were geocoded and those students that fell into one of these census tracts were included in the analysis.

total payroll was discounted to reflect the correlation rate of students to staff and faculty between 2011 and 2013, or 24.6% to account for the substitution effect.

Student spending was also discounted by the estimated percentage of students who would have attended another university in Northeast Ohio if CSU did not exist, or 31.0%. Therefore, the same discount rate as was used for the total university expenditures was applied to the student spending.

Cleveland State welcomes many visitors to campus throughout the year, however, only spending from visitors coming from outside the region are included in the impact analysis. The estimates for guests from outside the Cleveland metro area were obtained for orientation, open houses, athletic department events, and large events held at the Wolstein Center. These estimates include potential students, competing athletes, and visitors. We estimated different spending patterns for each event based on whether it was a one-day trip to Cleveland or involved an overnight stay. For overnight stays, we assumed double occupancy.¹⁴

This report shows five measures of economic impact of CSU: employment, labor income, value added, output, and taxes. *Employment* measures the number of jobs created in the Cleveland metropolitan area because of CSU spending. *Labor income* is payroll paid to employees plus proprietary income. *Value added* measures the value of goods and services less the intermediary goods and represents a portion of output – often referred to as Gross Domestic Product (GDP). *Output* measures the total value of goods and services produced in the region as a result of CSU's existence. *Taxes* include federal as well as state and local tax revenues.

Each of the impacts noted above is a summation of direct impact, indirect impact, and induced impact. *Direct impact* includes the initial value of goods and services the university purchases in the study region. *Indirect impact* measures the jobs and production needed to manufacture goods and services required by the university. *Induced impact* is the increase in spending of local households because of income received through their work at CSU and its suppliers.

¹⁴ Average spending for visiting athletes was gathered from the CSU Athletic Department. Average spending for daily and overnight visitors for the other events was taken from "The Economic Impact of Tourism in Ohio" study: <http://industry.discoverohio.com/wp-content/uploads/2012/06/Ohio-Tourism-Economic-Impact-4-2012-client.pdf>.

ECONOMIC IMPACT OF OPERATIONS

There are three types of spending that reflect the operations of Cleveland State University: university spending, student spending, and visitor spending. The first and largest section of the economic impact is the effect of CSU spending on Northeast Ohio.

Economic Impact of University Spending

Table 3 shows the total economic impact of university spending broken down by employment, labor income, value added, output, and tax effects.

Table 3: Total Economic Impact of University Spending, FY 2013¹⁵

Impact Type	Employment	Labor Income	Value Added	Output	Taxes
Direct Effect	2,224	\$147,545,500	\$166,746,277	\$240,009,712	\$6,763,414
Indirect Effect	746	\$31,380,863	\$42,922,685	\$70,024,295	\$1,987,444
Induced Effect	697	\$32,479,479	\$57,335,347	\$88,006,577	\$12,357,213
Total Effect	3,667	\$211,405,842	\$267,004,309	\$398,040,584	\$21,108,071

Employment Impact

Beyond the employees of CSU, the spending of the university affects job creation in the Cleveland metropolitan area through the goods and services that it purchases. The total employment impact equals the sum of the direct CSU employment, the indirect impact (employment in industries that provide input for the goods and services), and the induced impact (jobs created through the purchases made by employees of CSU and its suppliers).¹⁶

The existence of CSU has led to the creation of 3,667 total jobs in Northeast Ohio. This study showed that 2,224 of these were employees at the university and over 1,400 were in the indirect and induced effects. The largest direct effect was in Educational Services. The largest indirect effect was in Administrative and Waste Services which includes office services, janitors, landscapers, security, and other business support jobs (242 employees) and the largest induced effect was in Health & Social Services (162 employees).¹⁷

Labor Income Impact

Labor income impact, or earnings impact, is the estimated total change in money paid to local households due to CSU's spending on goods and services from businesses in the Cleveland metropolitan area. Payroll and benefits paid to CSU employees constitutes the direct earnings impact. Indirect impact is estimated by summing the money paid to employees of companies who supply goods and

¹⁵ All monetary statistics have been inflated to 2014 dollars.

¹⁶ *Direct impact* includes the initial value of goods and services the university purchases in the study region. *Indirect impact* measures the jobs and production needed to manufacture goods and services required by the university. *Induced impact* is the increase in spending of local households because of income received through their work at CSU and its suppliers.

¹⁷ Additional details are located in Appendix Table A.1 and Appendix Figure A.1.

services to the university and employees of other suppliers. Induced impact represents money paid to workers in all industries who are employed as a result of purchases by households whose income is affected by the demand for products and services created by CSU.

Over \$211 million was expended in labor income (household earnings) associated with the operation of CSU. The labor income paid to CSU employees, was \$147.5 million, the indirect effect was \$31.4 million, and the induced effect was \$32.5 million.

The largest industry in terms of indirect labor income effect was Professional - Scientific & Technical Services (\$8.2 million) which includes lawyers, accountants, architects, designers, and advertising services. The largest industry in terms of induced impact was Health & Social Services (\$9.6 million).¹⁸

Value-Added Impact

Value added measures the value of goods and services less the intermediary goods (an input used in final production) and represents a portion of output (the total value of goods and services). The direct effect was \$166.7 million, the indirect effect was \$42.9 million, and the induced effect was \$57.3 million. Combined, these effects yield a total value-added impact of \$267.0 million.

The industry most affected by the indirect effect was Professional - Scientific & Technical Services (\$11.7 million). Real Estate & Rental, which includes real estate agents, property managers, and equipment rental companies, had the highest induced effect with \$13.5 million.¹⁹

Output Impact

The local spending of CSU represented the direct effect of \$240.0 million in output. Of this original \$240.0 million in spending, only the spending in the Cleveland metropolitan area was included in the model (\$75.3 million) and this was further discounted to account for the substitution effect by 31% so that only \$51.9 million was entered into the model. The indirect effect, estimated at \$70.0 million, is the summation of local purchases by individual industries that provide inputs to the producers of the goods and services ultimately consumed by CSU. Induced effect is the value of goods and services produced to meet the demand of employees working for CSU and their suppliers. The induced effect was \$88.0 million. The total output impact was \$398.0 million.²⁰

As with value added impact, the largest indirect effect in terms of output was in the Professional – Scientific & Technical Services sector (\$15.8 million). The largest induced effect was in Real Estate & Rental (\$17.8 million).

¹⁸ Additional details are located in Appendix Table A.2.

¹⁹ Additional details are located in Appendix Table A.3.

²⁰ Additional details are located in Appendix Table A.4.

Tax Impact

Based on the model, there was \$21.1 million in tax revenue associated with the spending of Cleveland State University. Of this, \$12.6 million was federal tax revenue (59%) and \$8.6 million was state and local tax revenue (41%).

Economic Impact of Student Spending

This section outlines the economic impact that the students of Cleveland State University had on Northeast Ohio as a result of their spending while they attend the university. Students create additional demand for products and services in the region, and their spending patterns are categorized into spending on housing, food, travel, books, and entertainment. Estimates for these spending patterns were based on the “Cost of Attendance” figures provided by CSU.²¹ Table 4 outlines the overall economic impact of student spending in FY 2013.

Table 4: Total Economic Impact of Student Spending, FY 2013

Impact Type	Employment	Labor Income	Value Added	Output	Taxes
Direct Effect	2,283	\$59,652,715	\$130,713,953	\$180,581,071	\$31,770,618
Indirect Effect	277	\$14,825,449	\$26,635,365	\$40,711,664	\$5,266,786
Induced Effect	417	\$19,427,160	\$34,281,447	\$52,629,976	\$7,388,328
Total Effect	2,977	\$93,905,324	\$191,630,765	\$273,922,711	\$44,425,732

Employment Impact

Students spend money on goods and services just as any other household does, and this spending leads to the creation of jobs in the region. A total of 2,977 jobs were created as a result of spending by CSU students which has been discounted to account for substitution. The direct effect of the employment impact was 2,283 jobs, the indirect effect was 277 jobs, and the induced effect was 417 jobs. The largest industry impacted by the direct effect was Accommodation & Food Services (918 employees). The largest indirect effect was in Administrative & Waste Services (68 employees) and the largest induced effect was in Health & Social Services (97 employees).²²

Labor Income Impact

Almost \$94 million was expended on labor income, or household earnings, associated with the spending of CSU students. The direct effect was \$59.7 million, the indirect effect was \$14.8 million, and the induced effect was \$19.4 million.

The largest direct impact is seen in the Retail Trade sector followed by Accommodation and Food Services. Professional, Scientific, and Technical Services sector benefited the most from the indirect impact of student spending, while Health and Social Services benefit the most from the induced impact.²³

²¹ Tuition and Fees. Cleveland State University. <http://www.csuohio.edu/treasury-services/tuition-and-fees>. Accessed 9/23/14.

²² Additional details are located in Appendix Table A.5 and Appendix Figure A.2.

²³ Additional details are located in Appendix Table A.6.

Value-Added Impact

The total value-added effect (output less intermediary goods) was \$191.6 million. The direct effect was \$130.7 million, the indirect effect was \$26.6 million, and the induced effect was \$34.3 million. The Real Estate and Rental sector has the largest impact among all sector in terms of the direct, indirect, and induced impacts.²⁴

Output Impact

The total output impact based on student spending was \$273.9 million. Real Estate & Rental was the largest industry in terms of the direct (\$71.5 million), indirect (\$7.6 million), and induced effects (\$10.6 million), showing what a large impact the students at CSU have on the housing market.²⁵

Tax Impact

Because of the spending of students, \$44.4 million in tax revenue was generated. Of this, \$21.6 million was federal tax revenue (49%) and \$22.8 million was state and local tax revenue (51%).

²⁴ Additional details are located in Appendix Table A.7.

²⁵ Additional details are located in Appendix Table A.8.

Economic Impact of Visitor Spending

This final subsection of estimating the economic impact of CSU operations calculates the economic impact of the spending of visitors to Cleveland State University. The impact measures the spending of those that come from outside Northeast Ohio to attend events, conferences, and other activities at CSU. Visitors include those that come for orientation and open house visits, events at the Wolstein Center, and athletic events. While visiting, these guests spend money on lodging, food, travel, and entertainment. This spending creates an additional impact in the region. Table 5 outlines the total economic impact of visitor spending.

Table 5: Total Economic Impact of Visitor Spending, FY 2013

Impact Type	Employment	Labor Income	Value Added	Output	Taxes
Direct Effect	74	\$1,889,037	\$2,796,987	\$4,414,837	\$701,125
Indirect Effect	8	\$449,477	\$750,313	\$1,172,852	\$150,558
Induced Effect	13	\$610,477	\$1,077,370	\$1,653,926	\$232,196
Total Effect	95	\$2,948,991	\$4,624,670	\$7,241,615	\$1,083,879

Employment Impact

Based on estimates of visitors to CSU, an estimated \$4.3 million was spent in FY 2013. This spending created a total employment impact of 95 jobs. The largest industry in terms of the direct effect was Accommodation & Food Services industry (32 employees). The largest industry in terms of the indirect effect was Administrative & Waste Services (2 employees), and the largest industry in terms of the induced effect was Health & Social Services (3 employees).²⁶

Labor Income Impact

The total labor income impact of visitor spending was \$2.95 million in FY 2013. The largest industry in terms of the direct effect was also Accommodation & Food Services (\$761,923), the largest industry in terms of the indirect effect was Professional - Scientific & Technical Services (\$88,670), and largest industry in terms of the induced effect was Health & Social Services (\$180,672).²⁷

Value-Added Impact

The total value-added impact (output less intermediary goods) based on visitor spending was \$4.6 million in FY 2013. As with the other effects of visitors' spending, the largest industry in terms of the direct effect was Accommodation & Food Services (\$1.1 million), and the largest industry in terms of the both indirect and induced effects was Real Estate & Rental (\$135,033 and \$252,962, respectively).²⁸

²⁶ Additional details are located in Appendix Table A.9 and Appendix Figure A.3.

²⁷ Additional details are located in Appendix Table A.10.

²⁸ Additional details are located in Appendix Table A.11.

Output Impact

The total output impact based on visitor spending was \$7.2 million. The largest direct effect was in Accommodation & Food Services (\$2.0 million). Real Estate & Rental was responsible for the largest indirect and induced impacts (\$170,747 and \$334,582, respectively), as was the case with value added effect.

Tax Impact

Based on the spending of visitors to Cleveland State University, there was an additional \$1.1 million in tax revenues. Of this, \$581,426 was federal tax revenue (54%) and \$502,453 was state and local tax revenue (46%).

Summary of the Economic Impact Based on Cleveland State University Operations in FY 2013

The total economic activity generated by Cleveland State University during FY 2013 (due to the combined university, student, and visitor spending) produced the following impacts on Northeast Ohio:

Total Employment Impact:	6,739 jobs
Total Labor Income Impact:	\$308 million
Total Value-Added Impact:	\$463 million
Total Output Impact:	\$679 million
Total Tax Impact:	\$67 million

Table 6 shows the total economic impact of CSU operations in FY 2013, broken down into its base components of direct, indirect, and induced impacts. The employment and labor income multipliers were 1.47, the value added multiplier was 1.54, the output multiplier was 1.60 and the tax multiplier was 1.70.

Table 6: Total Economic Impact of CSU Operations by Type of Effect, FY 2013

Impact Type	Employment	Labor Income	Value Added	Output	Taxes
Direct Effect	4,580	\$209,087,252	\$300,257,217	\$425,005,620	\$39,235,157
Indirect Effect	1,031	\$46,655,789	\$70,308,363	\$111,908,811	\$7,404,788
Induced Effect	1,128	\$52,517,116	\$92,694,164	\$142,290,479	\$19,977,737
Total Effect	6,739	\$308,260,157	\$463,259,744	\$679,204,910	\$66,617,682

Table 7 shows the total economic impact of CSU operations in FY2013 by source of spending. University spending accounted for over 50% of the employment effect, almost 70% of the labor income effect, 58% of the value added effect, 59% of the output effect, and 32% of the total tax effect. Student spending accounted for 44% of the employment effect, 30% of the labor income effect, 41% of the value added effect, 40% of the output effect, and 67% of the tax impact. Visitor spending accounted for less than 2% of each effect.

Table 7: Total Economic Impact of CSU Operations by Type of Spending, FY 2013

Impact Type	Employment	Labor Income	Value Added	Output	Taxes
University	3,667	\$211,405,842	\$267,004,309	\$398,040,584	\$21,108,071
Student	2,977	\$93,905,324	\$191,630,765	\$273,922,711	\$44,425,732
Visitor	95	\$2,948,991	\$4,624,670	\$7,241,615	\$1,083,879
Total Effect	6,739	\$308,260,157	\$463,259,744	\$679,204,910	\$66,617,682

The total tax impact of CSU operations was almost \$66.6 million in FY2013 (Table 8). The majority of the impact came from student spending (67% or \$44.4 million). Thirty-two percent of the total tax impact came from university spending (\$21.1 million which includes taxes paid by employees) and only 2% came from the spending of visitors to campus (\$1.1 million). The tax impact on student spending is higher than that of the university operations for two reasons: the first is that the university is a nonprofit organization and does not pay most taxes and second, student spending includes a high percentage of taxable items through sales tax.

Table 8: Total Tax Impact of CSU by Type of Spending, FY 2013

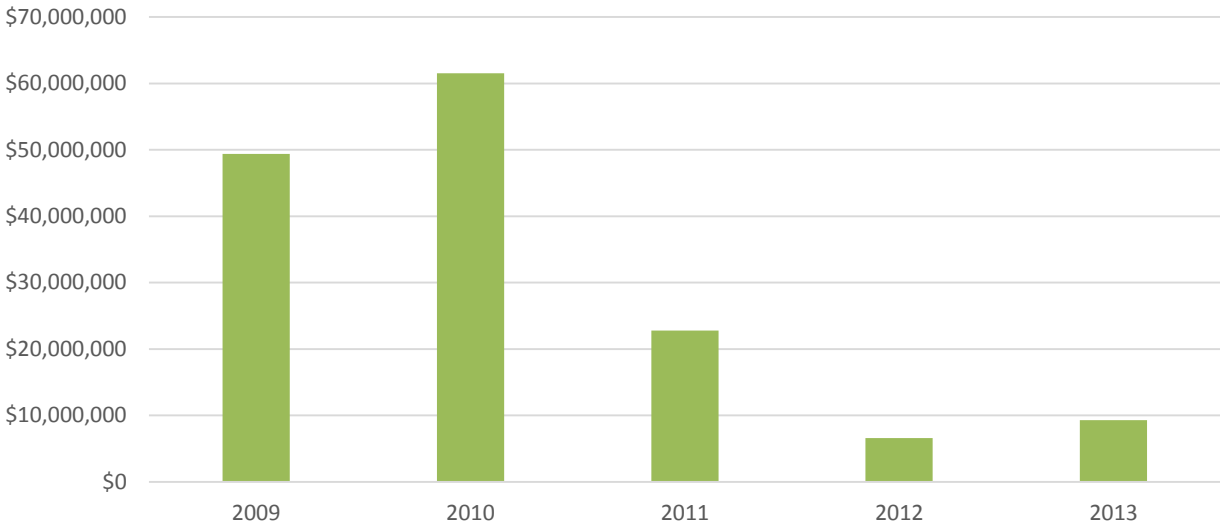
Type of Spending	State & Local	Federal	Total
University	\$8,561,817	\$12,546,254	\$21,108,071
Student	\$22,843,788	\$21,581,944	\$44,425,732
Visitor	\$502,453	\$581,426	\$1,083,879
Total	\$31,908,058	\$34,709,624	\$66,617,682

In terms of the total impact, certain industries derived great benefits from CSU operations in Northeast Ohio. Educational Services was ranked first in terms of economic impact for all measures (employment, labor income, value added, and output effects) due to the large operation of the university itself. Retail Trade was ranked second in terms of employment and labor income and third in value added and output effects. Real Estate & Rental (housing) was ranked second in terms of value added and output effects. Accommodation & Food Services was ranked third for employment and labor income.

ECONOMIC IMPACT OF CAPITAL INVESTMENTS

Cleveland State University has embarked on many large-scale construction projects over the past few years transforming much of the Campus District into a neighborhood. In fact, over the past 5 years, CSU has spent almost \$150 million on capital projects. Figure 14 below outlines the spending, by year, showing that the largest investment in the past 5 years was made in 2010 (\$61 million). As President Berkman notes, “As an urban public university, Cleveland State has a special obligation not only to serve the community in a traditional sense, but also to contribute to the city's redevelopment in ways that many institutions cannot. We're bringing a level of engagement to our education that is shaping Cleveland State into one of the best urban universities in the nation.”²⁹ This commitment includes approximately \$500 million in total capital improvements over the past few years and into the future.

Figure 14: CSU Capital Spending, FY2009-2013³⁰



As with the operating expenses of CSU, the capital expenditures that the university spends to expand the campus and produce educational services generates economic impact. This section details that impact of this capital spending on the 5-county Cleveland Metropolitan Statistical area. Following the same framework as the previous section, the economic impact is measured in terms of employment, labor income, value added, output, and taxes, all of which can be disaggregated into direct, indirect, and induced impacts. Explanations of these concepts are included in the methodology section.

²⁹ About CSU, <http://www.csuohio.edu/about-csu/about-csu>, 9/3/14

³⁰ This does not include the development of the Langston as it was the work of a private developer.

Table 9 summarizes the total economic impact of Cleveland State’s capital expenditures over the last 5 years. As a result of the capital projects in which CSU invested between FY2009 and 2013, 1,945 jobs were created in Northeast Ohio over the five years, labor income (household earnings) increased by \$113.2 million, value added (GDP) increased by \$152.5 million, and output (the total value of all goods and services) increased by \$285.8 million. Total federal taxes are estimated to be approximately \$20.2 million, and total state and local taxes are estimated to be almost \$11.0 million. Together, they will produce a total tax impact of over \$31.2 million. The employment multiplier was 1.88, the labor income multiplier was 1.75, the value added multiplier was 2.08, the output multiplier was 1.78 and the tax multiplier was 2.11.

Table 9: Economic Impact of CSU Capital Expenditures, FY2009-2013³¹

Impact Type	Employment	Labor Income	Value Added	Output	Taxes
Direct Effect	1,036	\$64,506,330	\$73,207,764	\$160,701,818	\$14,773,018
Indirect Effect	406	\$25,270,161	\$37,915,801	\$61,658,379	\$7,485,615
Induced Effect	503	\$23,423,829	\$41,337,480	\$63,459,973	\$8,909,089
Total Effect	1,945	\$113,200,320	\$152,461,045	\$285,820,170	\$31,167,722

Employment Impact

Based on the capital expenditures of CSU, an estimated 1,945 jobs were created over the 5-year period.³² As expected from spending on capital projects, the largest industry in terms of the direct effect was Construction (673 employees). The largest industry in terms of the indirect effect was Professional - Scientific & Technical Services (123 employees), and the largest industry in terms of the induced effect was Health & Social Services (117 employees).³³

Labor Income Impact

Total labor income impact from capital spending was \$113.2 million. The largest industry in terms of the direct effect was, as with employment, was the Construction industry (\$41.5 million). Professional - Scientific & Technical Services (\$10.2 million) had the largest impact on the indirect effect and Health & Social Services had the largest impact on the induced effect (\$6.9 million).³⁴

Value-Added Impact

The total value-added impact (output less intermediary goods) based on CSU 5-year capital expenditures was \$152.5 million. The industry with the largest direct effect was again Construction (\$42.0 million). In terms of the indirect effect, Professional - Scientific & Technical Services had the largest impact (\$11.7 million), while Real Estate & Rental had the largest induced effect (\$9.7 million).³⁵

³¹ All monetary economic impact data have been inflated to 2014 dollars.

³² These jobs are temporary as they are associated with construction.

³³ Additional details are located in Appendix Table A.13 and Appendix Figure A.4.

³⁴ Additional details are located in Appendix Table A.14.

³⁵ Additional details are located in Appendix Table A.15.

Output Impact

The total output impact based on capital spending was \$285.8 million. As with all other measures, the largest direct effect was in the Construction industry (\$106.4 million). Again, Professional - Scientific & Technical Services had the largest indirect impact (\$16.9 million), while Real Estate & Rental had the largest induced effect (\$12.8 million).³⁶

Tax Impact

Based on the 5-year capital spending of CSU, there was an additional \$31.2 million in tax revenues generated. Of this, \$20.2 million was federal tax revenue (65%) and \$11.0 million was state and local tax revenue (35%).

³⁶ Additional details are located in Appendix Table A.16.

CONCLUSION

This study reports the findings of a comprehensive analysis of the economic impact of Cleveland State University on the Cleveland Metropolitan Statistical Area. Cleveland State University has spurred the regional economy by creating additional demand for goods and services and this analysis reports a conservative measure of the economic impact of the university accounting for substitution effects. Specifically, in FY 2013, the operation of CSU through university spending, student spending, and visitor spending was responsible for the following:

Employment Impact:	6,739 jobs
Labor Income Impact:	\$308 million
Value-added Impact:	\$463 million
Output Impact:	\$679 million
Tax Impact:	\$67 million

Cleveland State’s mission of *Engaged Learning* is ingrained in every aspect of the university. CSU is committed not only to its educational goals, but also to creating a sense of place by “building an urban university ready to meet the challenges of a new millennium.”³⁷ Based on the university’s commitment to improving the campus, the capital spending of CSU between FY2009 and 2013 also created an economic impact:

Employment Impact:	1,945 jobs
Labor Income Impact:	\$113 million
Value-added Impact:	\$152 million
Output Impact:	\$286 million
Tax Impact:	\$31 million

In 1964, Amended House Bill No. 2 was passed creating Cleveland State University. After 50 years, over 120,000 students have graduated from CSU and the campus has grown significantly from the original Fenn College.³⁸ Cleveland State is proud of its past – and open to its unlimited future.³⁹

³⁷ About CSU. <http://www.csuohio.edu/about-csu/about-csu>. 9/5/2014.
³⁸ CSU 50 Yearbook. <http://www.csuohio.edu/50/yearbook.html>. 9/5/2014.
³⁹ CSU 50. <http://www.csuohio.edu/50/>. 9/5/2014.

APPENDIX

Table A.1: Employment Impact of University Spending by Major Industry, FY 2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting		0	1	1
Mining		2	2	3
Utilities		11	2	13
Construction		5	4	9
Manufacturing		1	4	5
Wholesale Trade		25	22	47
Retail Trade		4	127	131
Transportation & Warehousing		6	13	19
Information		7	9	16
Finance & Insurance		68	42	110
Real Estate & Rental		33	43	75
Professional - Scientific & Technical Services		107	26	133
Management of Companies		2	3	5
Administrative & Waste Services		242	36	278
Educational Services	2,224	4	29	2,257
Health & Social Services		0	162	163
Arts - Entertainment & Recreation		18	24	42
Accommodation & Food Services		11	85	96
Other Services		161	57	218
Government & Non-NAICs		39	9	48
Total	2,224	746	697	3,667

Figure A.1: Employment Impact of University Spending by Major Industry, FY 2013

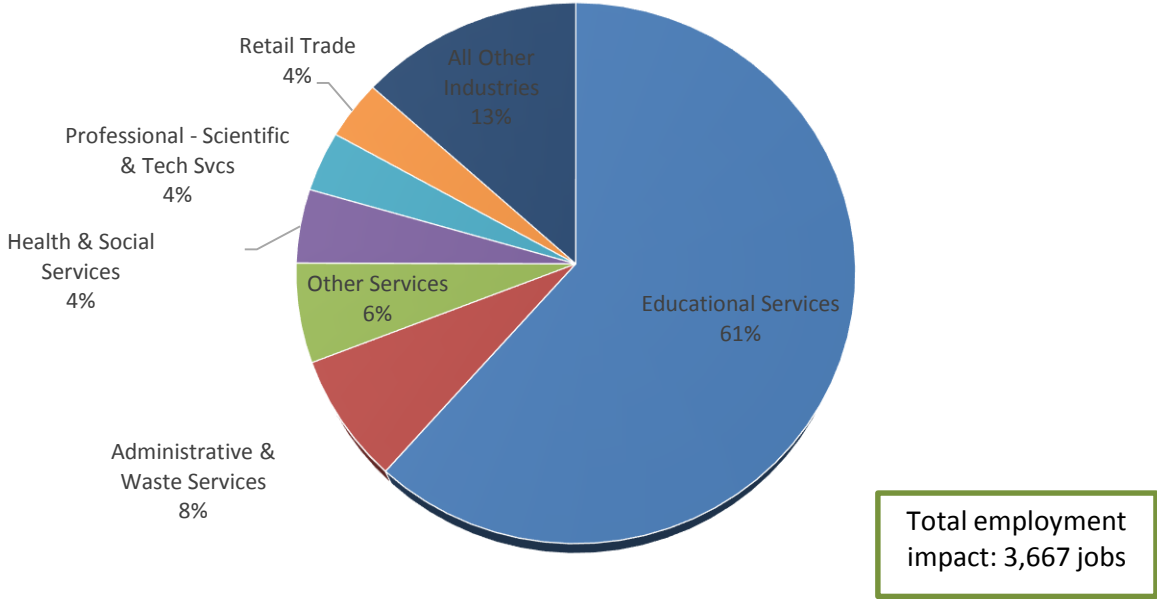


Table A.2: Labor Income Impact of University Spending by Major Industry, FY 2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting		\$2,762	\$35,488	\$38,250
Mining		\$77,802	\$72,779	\$150,581
Utilities		\$1,198,532	\$264,747	\$1,463,279
Construction		\$310,199	\$259,732	\$569,931
Manufacturing		\$91,737	\$270,126	\$361,863
Wholesale Trade		\$2,333,636	\$1,995,029	\$4,328,665
Retail Trade		\$103,731	\$4,236,220	\$4,339,951
Transportation & Warehousing		\$352,557	\$722,274	\$1,074,831
Information		\$461,217	\$634,468	\$1,095,685
Finance & Insurance		\$3,844,158	\$2,807,498	\$6,651,656
Real Estate & Rental		\$1,060,862	\$1,125,997	\$2,186,859
Professional - Scientific & Technical Services		\$8,184,133	\$2,160,156	\$10,344,289
Management of Companies		\$272,503	\$383,068	\$655,571
Administrative & Waste Services		\$8,081,379	\$1,348,963	\$9,430,342
Educational Services	\$147,545,500	\$112,380	\$1,039,275	\$148,697,155
Health & Social Services		\$32,399	\$9,636,683	\$9,669,082
Arts - Entertainment & Recreation		\$322,304	\$649,008	\$971,312
Accommodation & Food Services		\$257,476	\$1,947,906	\$2,205,382
Other Services		\$1,663,242	\$2,184,189	\$3,847,431
Government & Non-NAICs		\$2,617,855	\$705,872	\$3,323,727
Total	\$147,545,500	\$31,380,864	\$32,479,478	\$211,405,842

Table A.3: Value-Added Impact of University Spending by Major Industry, FY 2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting		\$1,992	\$28,610	\$30,602
Mining		\$51,690	\$48,521	\$100,211
Utilities		\$3,650,049	\$1,053,816	\$4,703,865
Construction		\$315,118	\$285,063	\$600,181
Manufacturing		\$151,159	\$516,206	\$667,365
Wholesale Trade		\$3,764,284	\$3,218,092	\$6,982,376
Retail Trade		\$159,787	\$6,667,534	\$6,827,321
Transportation & Warehousing		\$509,733	\$996,398	\$1,506,131
Information		\$1,100,642	\$1,501,077	\$2,601,719
Finance & Insurance		\$4,890,521	\$6,219,917	\$11,110,438
Real Estate & Rental		\$3,307,118	\$13,485,006	\$16,792,124
Professional - Scientific & Technical Services		\$11,670,370	\$2,868,649	\$14,539,019
Management of Companies		\$321,074	\$451,348	\$772,422
Administrative & Waste Services		\$10,181,556	\$1,637,574	\$11,819,130
Educational Services	\$166,746,277	\$134,493	\$1,189,309	\$168,070,079
Health & Social Services		\$39,406	\$10,695,249	\$10,734,655
Arts - Entertainment & Recreation		\$409,681	\$860,481	\$1,270,162
Accommodation & Food Services		\$355,700	\$2,697,667	\$3,053,367
Other Services		\$1,662,767	\$2,231,014	\$3,893,781
Government & Non-NAICs		\$245,545	\$683,816	\$929,361
Total	\$166,746,277	\$42,922,685	\$57,335,347	\$267,004,309

Table A.4: Output Impact of University Spending by Major Industry, FY 2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting		\$3,663	\$53,618	\$57,281
Mining		\$304,043	\$284,505	\$588,548
Utilities		\$5,428,056	\$1,768,520	\$7,196,576
Construction		\$705,836	\$627,208	\$1,333,044
Manufacturing		\$428,118	\$1,755,993	\$2,184,111
Wholesale Trade		\$5,519,951	\$4,719,016	\$10,238,967
Retail Trade		\$213,822	\$8,976,617	\$9,190,439
Transportation & Warehousing		\$792,740	\$1,795,073	\$2,587,813
Information		\$2,233,235	\$3,110,829	\$5,344,064
Finance & Insurance		\$11,828,749	\$10,463,586	\$22,292,335
Real Estate & Rental		\$4,374,996	\$17,831,821	\$22,206,817
Professional - Scientific & Technical Services		\$15,837,598	\$3,747,599	\$19,585,197
Management of Companies		\$492,977	\$692,999	\$1,185,976
Administrative & Waste Services		\$14,736,140	\$2,369,278	\$17,105,418
Educational Services	\$240,009,712	\$206,590	\$1,856,993	\$242,073,295
Health & Social Services		\$63,713	\$16,708,439	\$16,772,152
Arts - Entertainment & Recreation		\$790,291	\$1,446,581	\$2,236,872
Accommodation & Food Services		\$648,788	\$4,927,711	\$5,576,499
Other Services		\$1,897,015	\$3,526,369	\$5,423,384
Government & Non-NAICs		\$3,517,974	\$1,343,822	\$4,861,796
Total	\$240,009,712	\$70,024,295	\$88,006,577	\$398,040,584

Table A.5: Employment Impact of Student Spending by Major Industry, FY 2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting	0	1	1	2
Mining	0	1	1	2
Utilities	0	2	1	3
Construction	0	10	3	13
Manufacturing	0	5	2	7
Wholesale Trade	0	9	13	21
Retail Trade	908	5	76	989
Transportation & Warehousing	0	12	8	20
Information	0	10	6	16
Finance & Insurance	0	21	25	46
Real Estate & Rental	457	46	25	528
Professional - Scientific & Technical Services	0	35	16	50
Management of Companies	0	7	2	9
Administrative & Waste Services	0	68	22	89
Educational Services	0	1	18	19
Health & Social Services	0	0	97	97
Arts - Entertainment & Recreation	0	8	14	22
Accommodation & Food Services	918	16	51	985
Other Services	0	11	34	45
Government & Non-NAICs	0	8	6	14
Total	2,283	277	417	2,977

Figure A.2: Employment Impact of Student Spending by Major Industry, FY 2013

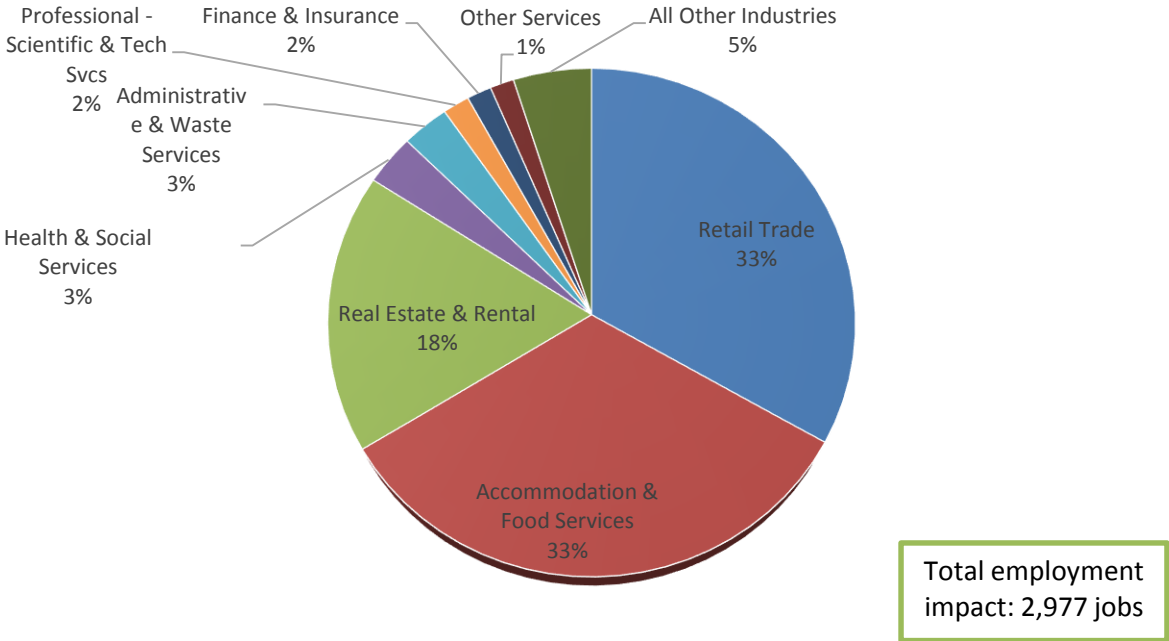


Table A.6: Labor Income Impact of Student Spending by Major Industry, FY 2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting	\$0	\$22,307	\$21,271	\$43,579
Mining	\$0	\$54,978	\$43,338	\$98,315
Utilities	\$0	\$320,522	\$157,403	\$477,925
Construction	\$0	\$637,360	\$155,178	\$792,537
Manufacturing	\$0	\$320,974	\$161,612	\$482,586
Wholesale Trade	\$0	\$778,978	\$1,184,989	\$1,963,966
Retail Trade	\$27,460,002	\$151,082	\$2,540,629	\$30,151,712
Transportation & Warehousing	\$0	\$705,388	\$434,400	\$1,139,788
Information	\$0	\$721,803	\$378,951	\$1,100,755
Finance & Insurance	\$0	\$1,590,567	\$1,685,161	\$3,275,728
Real Estate & Rental	\$11,125,388	\$1,169,561	\$665,635	\$12,960,583
Professional - Scientific & Technical Services	\$0	\$2,881,387	\$1,293,846	\$4,175,232
Management of Companies	\$0	\$939,627	\$228,724	\$1,168,351
Administrative & Waste Services	\$0	\$2,607,119	\$806,314	\$3,413,433
Educational Services	\$0	\$48,121	\$635,521	\$683,642
Health & Social Services	\$0	\$242	\$5,744,002	\$5,744,244
Arts - Entertainment & Recreation	\$0	\$237,461	\$390,293	\$627,754
Accommodation & Food Services	\$21,067,325	\$378,848	\$1,166,917	\$22,613,091
Other Services	\$0	\$575,974	\$1,310,475	\$1,886,449
Government & Non-NAICs	\$0	\$683,150	\$422,501	\$1,105,654
Total	\$59,652,715	\$14,825,449	\$19,427,160	\$93,905,324

Table A.7: Value-Added Impact of Student Spending by Major Industry, FY 2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting	\$0	\$22,619	\$17,149	\$39,768
Mining	\$0	\$38,193	\$28,900	\$67,093
Utilities	\$0	\$1,340,657	\$626,353	\$1,967,010
Construction	\$0	\$660,153	\$170,363	\$830,516
Manufacturing	\$0	\$539,487	\$308,591	\$848,078
Wholesale Trade	\$0	\$1,256,534	\$1,911,452	\$3,167,986
Retail Trade	\$44,318,684	\$231,305	\$3,998,791	\$48,548,779
Transportation & Warehousing	\$0	\$1,009,241	\$599,097	\$1,608,338
Information	\$0	\$1,378,784	\$895,410	\$2,274,193
Finance & Insurance	\$0	\$3,677,474	\$3,732,985	\$7,410,459
Real Estate & Rental	\$57,251,111	\$6,052,907	\$8,043,713	\$71,347,732
Professional - Scientific & Technical Services	\$0	\$3,895,610	\$1,718,168	\$5,613,779
Management of Companies	\$0	\$1,107,110	\$269,492	\$1,376,602
Administrative & Waste Services	\$0	\$3,284,054	\$978,784	\$4,262,838
Educational Services	\$0	\$54,245	\$727,056	\$781,301
Health & Social Services	\$0	\$370	\$6,375,303	\$6,375,673
Arts - Entertainment & Recreation	\$0	\$253,870	\$517,515	\$771,385
Accommodation & Food Services	\$29,144,158	\$527,089	\$1,616,054	\$31,287,301
Other Services	\$0	\$617,194	\$1,338,140	\$1,955,334
Government & Non-NAICs	\$0	\$688,469	\$408,131	\$1,096,600
Total	\$130,713,953	\$26,635,365	\$34,281,447	\$191,630,765

Table A.8: Output Impact of Student Spending by Major Industry, FY 2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting	\$0	\$54,407	\$32,118	\$86,525
Mining	\$0	\$215,656	\$169,411	\$385,067
Utilities	\$0	\$2,098,423	\$1,051,616	\$3,150,039
Construction	\$0	\$1,467,921	\$374,820	\$1,842,741
Manufacturing	\$0	\$1,822,982	\$1,049,491	\$2,872,473
Wholesale Trade	\$0	\$1,842,583	\$2,802,956	\$4,645,539
Retail Trade	\$55,837,159	\$308,528	\$5,383,640	\$61,529,327
Transportation & Warehousing	\$0	\$1,564,574	\$1,080,074	\$2,644,648
Information	\$0	\$3,025,745	\$1,856,067	\$4,881,812
Finance & Insurance	\$0	\$5,533,875	\$6,279,689	\$11,813,564
Real Estate & Rental	\$71,516,023	\$7,566,775	\$10,640,096	\$89,722,894
Professional - Scientific & Technical Services	\$0	\$5,119,367	\$2,244,887	\$7,364,254
Management of Companies	\$0	\$1,699,855	\$413,778	\$2,113,633
Administrative & Waste Services	\$0	\$4,945,377	\$1,416,105	\$6,361,482
Educational Services	\$0	\$87,241	\$1,135,578	\$1,222,819
Health & Social Services	\$0	\$503	\$9,959,153	\$9,959,656
Arts - Entertainment & Recreation	\$0	\$452,730	\$869,976	\$1,322,706
Accommodation & Food Services	\$53,227,889	\$963,514	\$2,951,970	\$57,143,373
Other Services	\$0	\$898,689	\$2,115,352	\$3,014,041
Government & Non-NAICs	\$0	\$1,042,919	\$803,199	\$1,846,118
Total	\$180,581,071	\$40,711,664	\$52,629,976	\$273,922,711

Table A.9: Employment Impact of Visitor Spending by Major Industry, FY 2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting	0	0	0	0
Mining	0	0	0	0
Utilities	0	0	0	0
Construction	0	0	0	0
Manufacturing	0	0	0	0
Wholesale Trade	0	0	0	1
Retail Trade	19	0	2	22
Transportation & Warehousing	7	0	0	8
Information	0	0	0	1
Finance & Insurance	0	1	1	1
Real Estate & Rental	0	1	1	2
Professional - Scientific & Technical Services	0	1	1	2
Management of Companies	0	0	0	0
Administrative & Waste Services	0	2	1	2
Educational Services	0	0	1	1
Health & Social Services	0	0	3	3
Arts - Entertainment & Recreation	15	0	0	16
Accommodation & Food Services	32	1	2	34
Other Services	0	0	1	2
Government & Non-NAICs	0	0	0	1
Total	74	8	13	95

Figure A.3: Employment Impact of Visitor Spending by Major Industry, FY 2013

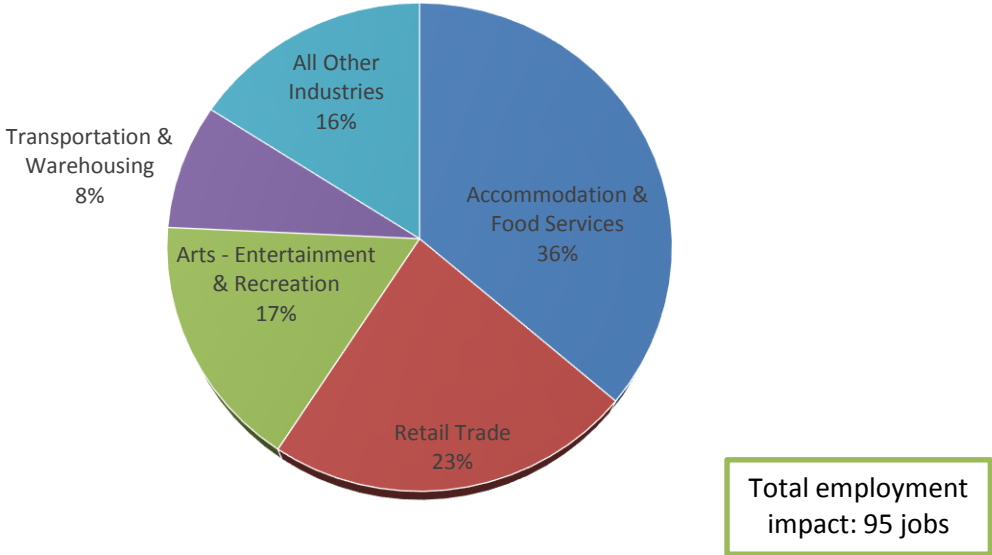


Table A.10: Labor Income Impact of Visitor Spending by Major Industry, FY 2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting	\$0	\$664	\$668	\$1,332
Mining	\$0	\$2,333	\$1,364	\$3,697
Utilities	\$0	\$8,638	\$4,955	\$13,593
Construction	\$0	\$12,619	\$4,878	\$17,497
Manufacturing	\$0	\$12,178	\$5,078	\$17,256
Wholesale Trade	\$0	\$27,247	\$37,305	\$64,552
Retail Trade	\$557,791	\$4,643	\$79,780	\$642,214
Transportation & Warehousing	\$266,784	\$24,654	\$13,630	\$305,068
Information	\$0	\$25,800	\$11,913	\$37,713
Finance & Insurance	\$0	\$38,717	\$52,903	\$91,620
Real Estate & Rental	\$0	\$27,540	\$20,987	\$48,527
Professional - Scientific & Technical Services	\$0	\$88,670	\$40,643	\$129,313
Management of Companies	\$0	\$37,265	\$7,191	\$44,456
Administrative & Waste Services	\$0	\$65,208	\$25,342	\$90,550
Educational Services	\$0	\$2,411	\$19,851	\$22,262
Health & Social Services	\$0	\$8	\$180,672	\$180,680
Arts - Entertainment & Recreation	\$302,539	\$9,276	\$12,246	\$324,061
Accommodation & Food Services	\$761,923	\$15,485	\$36,652	\$814,060
Other Services	\$0	\$21,924	\$41,145	\$63,069
Government & Non-NAICs	\$0	\$24,197	\$13,274	\$37,471
Total	\$1,889,037	\$449,477	\$610,477	\$2,948,991

Table A.11: Value-Added Impact of Visitor Spending by Major Industry, FY 2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting	\$0	\$774	\$539	\$1,313
Mining	\$0	\$1,547	\$909	\$2,456
Utilities	\$0	\$35,589	\$19,718	\$55,307
Construction	\$0	\$12,795	\$5,355	\$18,150
Manufacturing	\$0	\$20,070	\$9,698	\$29,768
Wholesale Trade	\$0	\$43,951	\$60,175	\$104,126
Retail Trade	\$911,243	\$7,085	\$125,569	\$1,043,897
Transportation & Warehousing	\$352,539	\$33,808	\$18,799	\$405,146
Information	\$0	\$47,729	\$28,158	\$75,887
Finance & Insurance	\$0	\$84,963	\$117,196	\$202,159
Real Estate & Rental	\$0	\$135,033	\$252,962	\$387,995
Professional - Scientific & Technical Services	\$0	\$121,326	\$53,972	\$175,298
Management of Companies	\$0	\$43,907	\$8,472	\$52,379
Administrative & Waste Services	\$0	\$79,641	\$30,763	\$110,404
Educational Services	\$0	\$2,821	\$22,712	\$25,533
Health & Social Services	\$0	\$13	\$200,526	\$200,539
Arts - Entertainment & Recreation	\$428,424	\$9,975	\$16,238	\$454,637
Accommodation & Food Services	\$1,104,781	\$21,487	\$50,760	\$1,177,028
Other Services	\$0	\$23,374	\$42,018	\$65,392
Government & Non-NAICs	\$0	\$24,425	\$12,831	\$37,256
Total	\$2,796,987	\$750,313	\$1,077,370	\$4,624,670

Table A.12: Output Impact of Visitor Spending by Major Industry, FY 2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting	\$0	\$1,790	\$1,009	\$2,799
Mining	\$0	\$9,138	\$5,330	\$14,468
Utilities	\$0	\$57,121	\$33,101	\$90,222
Construction	\$0	\$28,566	\$11,781	\$40,347
Manufacturing	\$0	\$67,455	\$32,986	\$100,441
Wholesale Trade	\$0	\$64,449	\$88,241	\$152,690
Retail Trade	\$1,138,458	\$9,497	\$169,055	\$1,317,010
Transportation & Warehousing	\$555,100	\$53,487	\$33,885	\$642,472
Information	\$0	\$105,601	\$58,364	\$163,965
Finance & Insurance	\$0	\$131,235	\$197,151	\$328,386
Real Estate & Rental	\$0	\$170,747	\$334,582	\$505,329
Professional - Scientific & Technical Services	\$0	\$158,570	\$70,515	\$229,085
Management of Companies	\$0	\$67,415	\$13,009	\$80,424
Administrative & Waste Services	\$0	\$115,834	\$44,509	\$160,343
Educational Services	\$0	\$4,409	\$35,471	\$39,880
Health & Social Services	\$0	\$17	\$313,256	\$313,273
Arts - Entertainment & Recreation	\$688,590	\$18,092	\$27,297	\$733,979
Accommodation & Food Services	\$2,032,689	\$39,261	\$92,720	\$2,164,670
Other Services	\$0	\$33,516	\$66,420	\$99,936
Government & Non-NAICs	\$0	\$36,652	\$25,244	\$61,896
Total	\$4,414,837	\$1,172,852	\$1,653,926	\$7,241,615

Table A.13: Employment Impact of CSU Capital Expenditures Spending by Major Industry, FY 2009-2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting	0	0	1	1
Mining	0	5	1	6
Utilities	7	2	1	10
Construction	673	7	3	683
Manufacturing	37	17	3	57
Wholesale Trade	2	18	16	36
Retail Trade	2	24	92	117
Transportation & Warehousing	0	15	9	24
Information	7	9	7	22
Finance & Insurance	0	22	30	52
Real Estate & Rental	1	27	31	58
Professional - Scientific & Technical Services	139	123	19	281
Management of Companies	0	5	2	8
Administrative & Waste Services	26	70	26	122
Educational Services	129	2	21	152
Health & Social Services	0	0	117	117
Arts - Entertainment & Recreation	8	5	17	30
Accommodation & Food Services	0	20	61	81
Other Services	4	31	41	76
Government & Non-NAICs	0	6	7	12
Total	1,036	407	503	1,945

Figure A.4: Employment Impact of CSU Capital Expenditures by Major Sector, FY 2009-2013

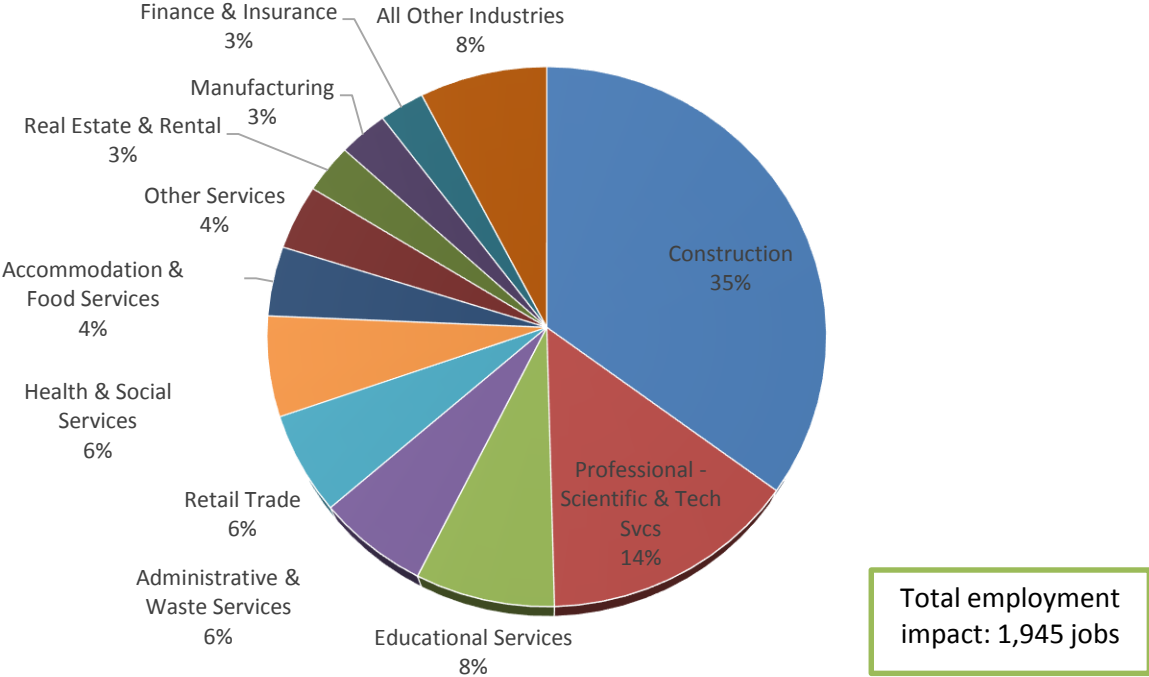


Table A.14: Labor Income Impact of CSU Capital Expenditures Spending by Major Industry, FY 2009-2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting	\$0	\$10,864	\$25,635	\$36,499
Mining	\$0	\$255,756	\$52,305	\$308,061
Utilities	\$1,047,846	\$212,712	\$190,040	\$1,450,598
Construction	\$41,474,935	\$423,260	\$187,149	\$42,085,344
Manufacturing	\$2,645,315	\$1,361,909	\$194,849	\$4,202,073
Wholesale Trade	\$195,578	\$1,656,095	\$1,430,908	\$3,282,581
Retail Trade	\$51,530	\$819,289	\$3,061,541	\$3,932,360
Transportation & Warehousing	\$4,163	\$895,995	\$523,134	\$1,423,292
Information	\$541,476	\$629,992	\$457,054	\$1,628,522
Finance & Insurance	\$0	\$1,559,650	\$2,030,281	\$3,589,931
Real Estate & Rental	\$13,937	\$1,099,944	\$804,688	\$1,918,569
Professional - Scientific & Technical Services	\$10,807,308	\$10,155,379	\$1,559,557	\$22,522,244
Management of Companies	\$0	\$710,402	\$275,883	\$986,285
Administrative & Waste Services	\$996,217	\$2,705,698	\$972,340	\$4,674,255
Educational Services	\$6,336,838	\$56,906	\$762,599	\$7,156,343
Health & Social Services	\$9,499	\$503	\$6,930,998	\$6,941,000
Arts - Entertainment & Recreation	\$138,270	\$131,342	\$470,028	\$739,640
Accommodation & Food Services	\$0	\$464,527	\$1,406,485	\$1,871,012
Other Services	\$237,247	\$1,677,363	\$1,579,008	\$3,493,618
Government & Non-NAICs	\$6,171	\$442,575	\$509,347	\$958,093
Total	\$64,506,330	\$25,270,161	\$23,423,829	\$113,200,320

Table A.15: Value-Added Impact of CSU Capital Expenditures Spending by Major Industry, FY 2009-2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting	\$0	\$8,609	\$20,667	\$29,276
Mining	\$0	\$262,836	\$34,878	\$297,714
Utilities	\$4,574,208	\$810,530	\$756,274	\$6,141,012
Construction	\$41,964,043	\$428,805	\$205,449	\$42,598,297
Manufacturing	\$4,477,485	\$3,187,109	\$372,119	\$8,036,713
Wholesale Trade	\$315,478	\$2,671,372	\$2,308,134	\$5,294,984
Retail Trade	\$75,119	\$1,236,482	\$4,818,673	\$6,130,274
Transportation & Warehousing	\$5,072	\$1,223,989	\$721,519	\$1,950,580
Information	\$1,708,043	\$1,534,902	\$1,080,257	\$4,323,202
Finance & Insurance	\$0	\$3,923,710	\$4,497,620	\$8,421,330
Real Estate & Rental	\$71,639	\$3,663,957	\$9,704,463	\$13,440,059
Professional - Scientific & Technical Services	\$11,495,205	\$11,714,498	\$2,071,030	\$25,280,733
Management of Companies	\$0	\$837,027	\$325,057	\$1,162,084
Administrative & Waste Services	\$1,451,233	\$3,233,135	\$1,180,334	\$5,864,702
Educational Services	\$6,698,752	\$67,042	\$872,492	\$7,638,286
Health & Social Services	\$9,755	\$774	\$7,692,667	\$7,703,196
Arts - Entertainment & Recreation	\$151,463	\$146,191	\$623,228	\$920,882
Accommodation & Food Services	\$0	\$644,168	\$1,947,834	\$2,592,002
Other Services	\$202,885	\$1,869,595	\$1,612,454	\$3,684,934
Government & Non-NAICs	\$7,384	\$451,070	\$492,331	\$950,785
Total	\$73,207,764	\$37,915,801	\$41,337,480	\$152,461,045

Table A.16: Output Impact of CSU Capital Expenditures Spending by Major Industry, FY 2009-2013

Industry	Direct	Indirect	Induced	Total
Agriculture, Forestry, Fish & Hunting	\$0	\$24,034	\$38,713	\$62,747
Mining	\$0	\$1,006,892	\$204,465	\$1,211,357
Utilities	\$6,673,128	\$1,469,131	\$1,269,621	\$9,411,880
Construction	\$106,413,018	\$957,476	\$452,020	\$107,822,514
Manufacturing	\$11,251,567	\$8,089,639	\$1,265,613	\$20,606,819
Wholesale Trade	\$462,618	\$3,917,304	\$3,384,651	\$7,764,573
Retail Trade	\$103,168	\$1,680,128	\$6,487,462	\$8,270,758
Transportation & Warehousing	\$10,244	\$2,253,204	\$1,300,580	\$3,564,028
Information	\$3,488,656	\$3,232,313	\$2,239,122	\$8,960,091
Finance & Insurance	\$0	\$6,046,169	\$7,566,030	\$13,612,199
Real Estate & Rental	\$89,498	\$5,077,280	\$12,835,955	\$18,002,733
Professional - Scientific & Technical Services	\$17,765,192	\$16,900,139	\$2,705,849	\$37,371,180
Management of Companies	\$0	\$1,285,170	\$499,092	\$1,784,262
Administrative & Waste Services	\$2,473,221	\$4,557,987	\$1,707,713	\$8,738,921
Educational Services	\$11,306,530	\$104,225	\$1,362,642	\$12,773,397
Health & Social Services	\$14,458	\$1,052	\$12,017,210	\$12,032,720
Arts - Entertainment & Recreation	\$282,777	\$269,422	\$1,047,695	\$1,599,894
Accommodation & Food Services	\$0	\$1,176,932	\$3,558,020	\$4,734,952
Other Services	\$352,219	\$2,786,582	\$2,548,921	\$5,687,722
Government & Non-NAICs	\$15,524	\$823,300	\$968,599	\$1,807,423
Total	\$160,701,818	\$61,658,379	\$63,459,973	\$285,820,170