

2014 Study on Higher Education in the Loop and South Loop

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I. Executive Summary

Chicago's Loop is the city's central business district. It contains the city's greatest concentration of commercial offices, museums, and tourist attractions, in addition to City Hall and the central offices for Cook County. Alongside these important institutions, the Loop is home to a large number of colleges and universities, ranging from two-year community colleges to professional schools to large, four-year universities. In all, there are 22 for-profit and not-for-profit higher education institutions in the Loop that collectively enroll 58,000 students at their Loop campuses.

These colleges and universities enhance the quality of life for students, alumni, and residents in many ways. While the total historical, cultural, social, and economic benefits that these universities provide to the Loop are in some ways immeasurable, in this report we present a broad array of data and research that demonstrate the importance of these institutions to the Loop.

REPORT PURPOSE

Chicago Loop Alliance (CLA) is an organization whose mission is to create, promote, and manage a high-performing urban experience that attracts visitors and investment to Chicago's Loop. The organization's membership consists of over 250 businesses, organizations, and individuals located within the Loop and downtown Chicago.

CLA commissioned Anderson Economic Group (AEG) to perform a comprehensive analysis of the economic footprint of colleges and universities located in the Loop. In this report, we quantify the total economic footprint of the 22 colleges and universities, estimating the total spending, earnings, and employment that they support in the Loop. We also provide aggregate information about the universities' students and alumni.

This 2014 study is the third in an ongoing series of studies. Given the dense concentration of colleges and universities in the Loop, CLA tracks metrics that demonstrate the sector's importance, such as the number of students and the scale of college and university operations. While this report contains some new analysis, it provides an update on the figures from the previous reports in the series, published in 2004 and 2009, respectively.

Further, the results in this report are a complement to a broader, recently-released study performed by America's Urban Campus, a coalition of 17 colleges and universities across the City of Chicago. While the America's Urban Campus report presents information on the economic, social, and cultural contributions of Chicago's colleges and universities to the city as a whole, the following report focuses particularly on the colleges and universities located in the Loop and economic contributions in the Loop region.

OVERVIEW OF APPROACH

Data on colleges, universities, students, and alumni were provided by the colleges and universities in the Loop. This data was corroborated by the Integrated Postsecondary Education Data System (IPEDS), a federal data source on higher education institutions.

In order to estimate the economic footprint of colleges and universities, we consider all of the spending by the universities and their students and estimate what proportion of it occurs in the Loop. We then estimate the total direct and indirect spending, employment, and earnings supported by these colleges and universities in the Loop using industry-specific and regional multipliers. The economic footprint presented in this report is based on activity during the 2013 fiscal year (FY 2013) for each university. For most universities, this covers spending from July 1, 2012 through June 30, 2013, but some fiscal years differ. See “Appendix A. Methodology” on page A-1 for more details on our methods and important assumptions.

OVERVIEW OF FINDINGS

We found that Loop colleges and universities make a significant contribution to the local economy. Our main findings are as follows:

1. Enrollment at colleges in the Loop was 58,025 in fall 2013, down from 65,499 in 2009 but up from 52,230 in 2004. About one in every four college students in Chicago attends classes in the Loop.

Colleges and universities enrolled 58,025 students in fall 2013 at Loop campuses. This represents 24% of total higher education enrollment in the city.¹ Enrollment has grown over the past nine years, in all, but has dropped over the past four years. Our research shows that enrollment moves anti-cyclically with the economy at higher education institutions, in general, but especially in the Loop, explaining the trajectory of enrollment over the last decade.

These students came from every state in the country and from 120 different countries all over the world. See “Students and Degrees at Colleges and Universities in the Loop” on page 15 for more information.

2. There were 14,028 college and university employees working in the Loop in 2013, compared to 15,087 in 2008 and 12,170 in 2004.

In fiscal year 2013, over 14,000 college and university employees worked at Loop locations. This number is approximately 7% lower than the employment number from five years earlier, perhaps due to the decline in enrollment over the same period. This employment number is equivalent to just over a quarter (27%) of total employment at America’s Urban Campus institutions in the city.

1. Our estimate for total enrollment at Chicago higher education institutions is from fall 2012 and includes for-profit and not-for-profit colleges and universities. Based on data from IPEDS.

These employees received \$590 million in salaries and wages during fiscal year 2013, up considerably from \$467 million in fiscal year 2009. See “College and University Operations” on page 8 for more information.

3. Students of Loop colleges and universities spent a total of \$853 million on non-tuition goods and services in 2013. Approximately \$57 million of that spending went to Loop vendors.

We estimate that, in addition to \$680 million spent on off-campus rent and food, students of Loop colleges and universities spent approximately \$100 million on apparel, books, and supplies, and \$70 million on off-campus restaurant meals and entertainment. Of this spending, \$57 million went to a variety of businesses located in the Loop, such as restaurants, theaters, bookstores, and pharmacies.

4. The 22 colleges and universities in the Loop supported \$174 million in spending at businesses in the Loop in 2013.

The 22 colleges and universities in the Loop spent \$33 million on payroll for employees that are Loop residents and \$79 million at Loop companies for goods and services in 2013. In addition, students that attended these universities spent \$57 million in the Loop, for a total of nearly \$169 million in direct spending in the Loop. This activity had an indirect effect of over \$4 million, as it supported spending by vendors of Chicago colleges and universities, as well as vendors that serve students.

TABLE 1. Economic Footprint of Loop Colleges and Universities, Spending in the Loop, FY 2013 (millions)

	Total Spending	Spending in the Loop		
		Direct	Indirect	Total
Payroll Spending	\$745.9	\$33.4	\$0.4	\$33.9
Non-payroll Spending	\$524.5	\$78.8	\$2.6	\$81.5
Student Spending	<u>\$852.8</u>	<u>\$57.0</u>	<u>\$1.3</u>	<u>\$58.3</u>
TOTAL	\$2,123.2	\$169.3	\$4.4	\$173.6

Source: AEG estimates and analysis, using base data from Loop colleges and universities, Bureau of Economic Analysis

Note: Students spending excludes tuition and on-campus housing, to avoid duplicating spending by universities.

The result is a combined \$174 million in spending in the Loop in the year 2013. Besides spurring spending at Loop vendors, Loop colleges and universities collectively supported 557 jobs and \$34 million in earnings for residents of the Loop. See “Total Economic Footprint in the Loop” on page 12 for more information.

5. The Loop colleges and universities had an even bigger regional impact, supporting \$3.3 billion in spending, \$1.3 billion in earnings, and 23,300 jobs in the seven-county region around Chicago.

We also estimated the total economic footprint that these colleges have in the seven-county region surrounding Chicago, including Cook, Will, DuPage, McHenry, Lake, Kendall, and Kane counties. See Table 2 below for a summary of our findings.

TABLE 2. Total Economic Footprint of Loop Colleges and Universities in a Seven-County Region, FY 2013

	Direct	Indirect	Total
Spending (millions)	\$1,793	\$1,460	\$3,253
Earnings (millions)	\$715	\$594	\$1,309
Jobs (head count)	12,783	10,519	23,303

Source: AEG estimates and analysis, based on source data from: Colleges and universities in the Loop, College InSight, BEA RIMS II Multipliers

Note: Numbers do not sum to totals due to rounding.

6. The 83,000 known alumni of Loop colleges and universities residing in Chicago represent 11% of the college-educated population in the city.

Of the 300,000 alumni of Loop colleges and universities worldwide, over a quarter (28%) of them continue to live in the City of Chicago. This does not include the alumni that live in the suburbs of Chicago and commute into the city on a daily basis. In addition, over one in ten Chicago residents with an associate's degree or higher attained that degree at a Loop college or university.

See "Alumni of Colleges and Universities in the Loop" on page 21 for more information.

ABOUT ANDERSON ECONOMIC GROUP

Anderson Economic Group, LLC is a research and consulting firm specializing in economics, public policy, finance and business valuation, and market and industry analysis. The firm has offices in Chicago, Illinois, and East Lansing, Michigan. AEG has conducted economic and fiscal impact studies for private, public, and non-profit clients across the United States. For more information, please see "Appendix B. About the Author" on page B-1 or visit www.AndersonEconomicGroup.com.

II. Higher Education in Chicago's Loop: An Overview

Chicago's Loop is the city's central business district. It contains large amounts of commercial offices, museums, tourist attractions, as well as City Hall and the central offices for Cook County. In addition to these important institutions, the Loop is home to a large number of higher education institutions. These range from two-year community colleges to professional schools to large, four-year universities.

The 22 for-profit and non-profit higher education institutions with locations in Chicago's Loop include:

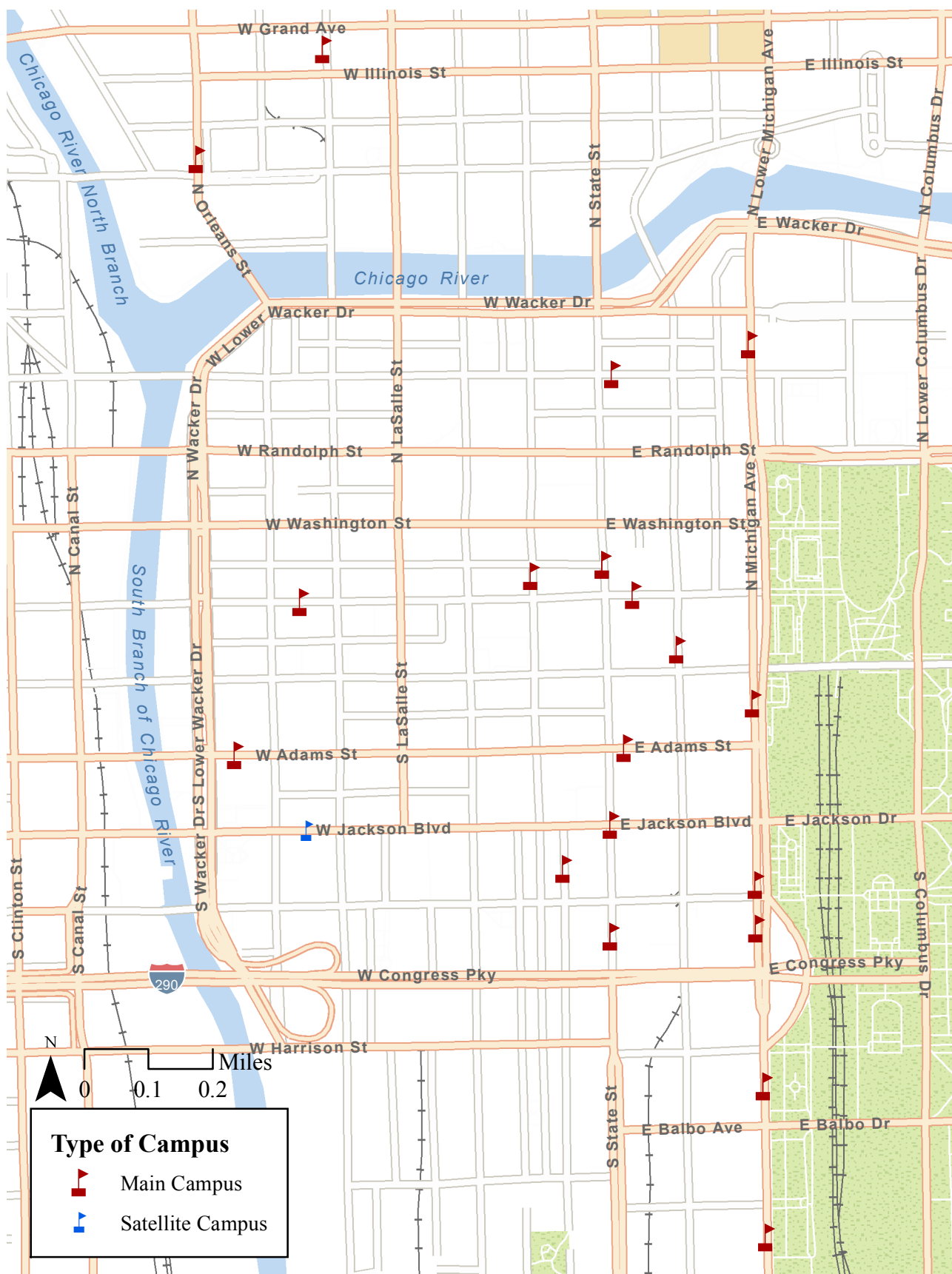
1. Adler School of Professional Psychology
2. American Academy of Art
3. Argosy University
4. The Chicago School of Professional Psychology
5. City Colleges of Chicago-Harold Washington College
6. Columbia College Chicago
7. DePaul University
8. East-West University
9. Harrington College of Design
10. Illinois Institute of Art
11. Illinois School of Health Careers
12. Institute for Clinical Social Work
13. International Academy of Design and Technology
14. John Marshall Law School
15. MacCormac College
16. National-Louis University
17. Robert Morris University
18. Roosevelt University
19. School of the Art Institute of Chicago
20. Spertus Institute
21. Taylor Business Institute
22. Westwood College

In 2012, these colleges and universities enrolled more than 76,000 students, 60,000 at campuses in the Loop, and awarded nearly 24,000 degrees and certificates to students from every state in the country and at least 120 countries across the world. Map 1 on page 7 shows the campus locations of colleges and universities in the Loop.²

Due to a paucity of data, several schools have not been included in our estimates for economic footprint, alumni data, or student origin data. However, they have been included in our numbers on students and degrees that we present in “Students and Degrees at Colleges and Universities in the Loop” on page 15.³

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2. This map includes all main campuses and satellite campuses. It excludes extension centers. We define a satellite campus as an additional campus that offers full degree programs and has full time students on-site. We consider an additional campus to be an extension center if it is affiliated with a community college, high school, community center or a partnership between multiple universities; or if it does not offer full degree programs on-site.
 3. The schools not included in our estimates for economic footprint are: American Academy of Art, City Colleges of Chicago-Harold Washington College, East-West University, Harrington College of Design, Illinois Institute of Art, Illinois School of Health Careers, Institute for Clinical Social Work, International Academy of Design and Technology, MacCormac College, Robert Morris University, Taylor Business Institute, and Westwood College.

Map 1. College and University Campus Locations in the Loop



Source: AEG estimates and analysis, based on data from colleges and universities in the Loop

III. Operations of Loop Colleges and Universities

In this section, we discuss total spending by the colleges and universities on payroll and non-payroll goods and services, as well as student spending. Later in the report, we discuss how these expenditures result in a large economic footprint in the Loop, specifically.

College and University Operations

Year-round, colleges and universities make significant expenditures for the following purposes:

- Payroll, which includes spending on faculty and staff salaries, wages, and benefits;
- Non-payroll, which includes goods and services provided by third-party vendors.

The majority of expenditures in fiscal year (FY) 2013 were for payroll (59%). The largest non-payroll expenditures were for construction and other services (public service, student services, and institutional support). Figure 1 on page 9 shows the proportion of spending by function for colleges and universities in the Loop in FY 2013. See “Appendix A. Methodology” on page A-1 for how we estimated spending in each category.

University Employees and Payroll.

In fall 2013, Loop colleges and universities collectively employed 14,028 faculty and staff. These employees earned over \$590 million in salaries and wages and received an additional \$155 million in employee benefits.

University Non-payroll Spending.

In total, colleges and universities in the Loop spent \$523 million on

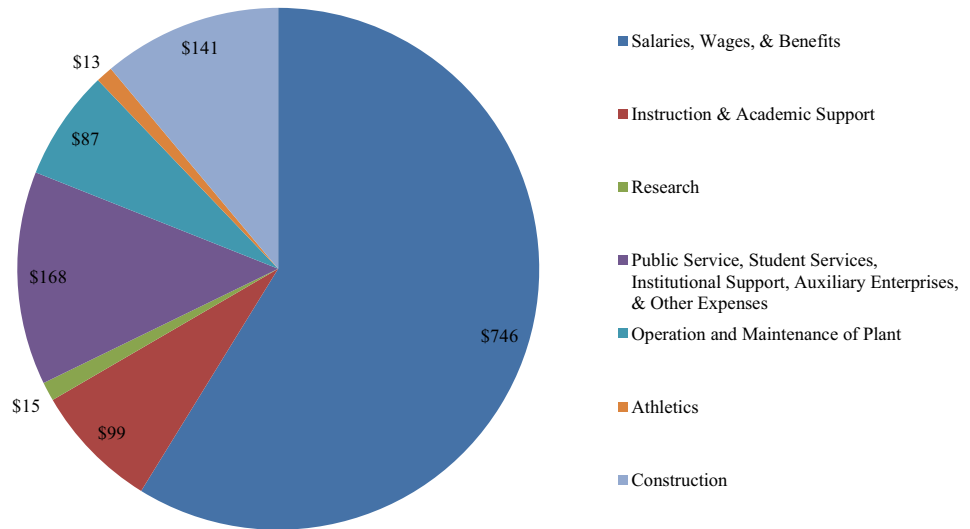
In our analysis, we divide non-payroll expenditures into the following categories:⁴

- Instruction, which includes expenses on materials for the classroom and for teachers;
- Research, which includes expenses on laboratory equipment or for specialized research institutes;
- Public Service, which includes expenses for community services, cooperative extension services, and public broadcasting services;
- Academic Support, which includes some educational materials, academic administration including offices of deans, and course and curriculum development;
- Student Services, which includes expenses associated with admissions, registrar activities, cultural events, student organization, career guidance, and other social development outside of formal instruction;
- Institutional Support, which includes general administrative services, legal and fiscal operations, and other operating expenses for operational support for institutions;
- Auxiliary Enterprises, which include self-supporting operations such as residence halls, student services, and unions;
- Operation and Maintenance (O&M) of Plant;
- Athletics; and
- Construction.

4. See the National Center for Education Statistics IPEDS glossary for further details, <<http://nces.ed.gov/ipeds/glossary>>.

goods and services in FY 2013. The largest amount was spent on public service, student services, and institutional support, at a total of 32% of non-payroll spending. The vendor payments that go to businesses in the Loop contribute to the colleges' and universities' economic footprint in the Loop, which we discuss in "Economic Footprint of Higher Education in the Loop" on page 11.

FIGURE 1. Total Spending by Loop Colleges and Universities, FY 2013 (millions)



Source: AEG estimates and analysis, based on source data from colleges and universities in the Loop

STUDENT SPENDING

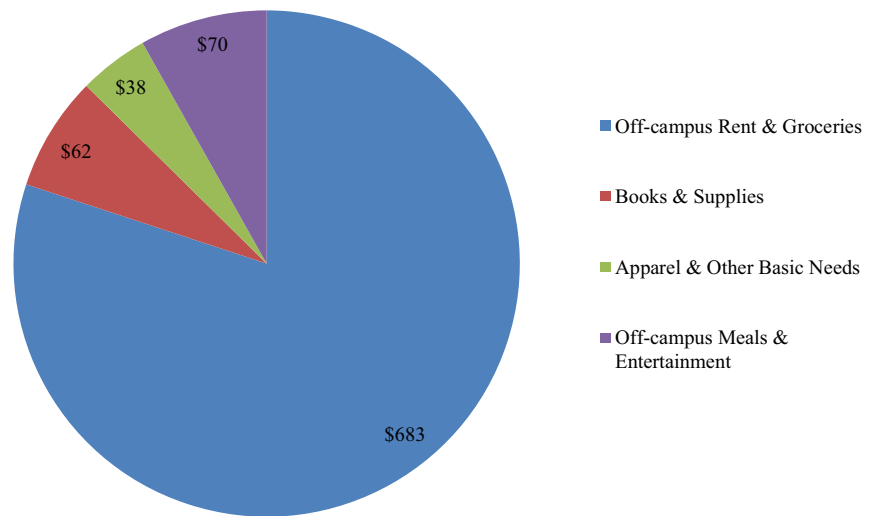
As we discuss in "Student Enrollment" on page 15, colleges and universities in Chicago's Loop educate students from across the state, the country, and the world. While tuition is a significant portion of the cost of attending these colleges and universities, students also spend money on goods and services in the following categories:

- Off-campus rent and food;
- Books and supplies;
- Apparel and other basic needs; and
- Meals and entertainment off campus.

We estimate that students spent over \$850 million in 2013 on non-tuition goods and services while attending colleges and universities in the Loop. The majority of student spending (80%) was on off-campus rent and groceries, followed by spending on off-campus meals and entertainment, and books and supplies, which accounted for 8% and 7% of student spending, respectively. Figure 2 on page 10 shows total spending by students attending colleges and universities in

the Loop. See “Appendix A. Methodology” on page A-1 for how we estimated spending in each category.

FIGURE 2. Spending by Students at Colleges and Universities in the Loop, FY 2013 (millions)



Source: AEG estimates and analysis, based on source data from colleges and universities in the Loop, College Insight, 2012-13 midyear Consumer Expenditure Survey.

Much of this spending goes to businesses in the Loop, contributing to economic activity in the Loop. The economic footprint of student spending is discussed in “Economic Footprint of Higher Education in the Loop” on page 11.

IV. Economic Footprint of Higher Education in the Loop

In the previous section, we discussed the total operations and spending of colleges and universities in the Loop and their students. In this section, we will discuss how college and university operations translate into a large economic footprint in the Loop. The activities of colleges and universities in the Loop, along with that of their students, stimulate a significant amount of spending, jobs, and earnings right in the heart of Chicago. We aggregate the spending, jobs, and earnings associated with the following sources of economic activity to estimate the economic footprint of higher education in the Loop:

- Payroll spending;
- Non-payroll spending; and
- Student spending.

DEFINITION OF ECONOMIC FOOTPRINT

The economic footprint described in this section includes all spending, employment, and earnings in the Loop associated with college and university operations and student spending. The colleges and universities and their students contribute to the Loop's economy in two ways:

1. The *direct* effect of the colleges' and universities' economic activity includes spending, employment, and earnings that are directly attributable to the colleges' and universities' operations in the neighborhood, including hiring residents in the Loop and paying companies in the Loop for goods and services.
2. The *indirect* effect of the colleges' and universities' economic activity occurs as dollars recirculate in the neighborhood. Suppliers for the colleges and universities are part of a supply chain and have vendors of their own who benefit indirectly from college and university spending. In addition, employees use their wages to buy groceries from the local grocery store, and contractors may use their revenues from the colleges and universities to buy new equipment or expand their office space. Even then, dollars continue to circulate as grocery store owners and equipment providers now have more money to purchase goods and services in the Loop.

We estimate the total spending, earnings, and jobs supported by higher education in the Loop by adding the direct and indirect effects. See "Appendix A. Methodology" on page A-1 for details of our estimation methods.

COLLEGE, UNIVERSITY, AND STUDENT SPENDING IN THE LOOP

To estimate the economic footprint of higher education in the Loop, we include only spending and employment that occurs *in the Loop*. Our estimates for spending in the Loop are presented below. Further details on specific categories of expenditures can be found in "Appendix A. Methodology" on page A-1.

College and University Payroll Spending

As discussed in “Operations of Loop Colleges and Universities” on page 8, in 2013, institutions in the Loop employed 13,800 faculty and staff, and spent \$779 million on payroll expenses. Over 4% of these employees reside in the Loop. Specifically, we estimate that 553 faculty and staff are residents of the Loop, and \$33 million in payroll expenditures go to residents of the Loop.

College and University Non-Payroll Spending

Earlier in the report, we discussed the magnitude of the college and university expenditures on non-payroll goods and services, estimating total expenditures in FY 2013 to be \$520 million. We estimate that 15%, or \$79 million, of that spending goes to vendors in the Loop. The proportion of spending that stays in the Loop is higher for non-payroll spending than for payroll spending because many vendors are based in the Loop, but there are relatively few residents there. We do not include spending that occurs outside of the Loop in our economic footprint estimates.

Spending by Students

As described in “Student Spending” on page 9, the students at colleges and universities in the Loop spend over \$850 million annually. We estimate that \$57 million of that is spent at businesses in the Loop.

TOTAL ECONOMIC FOOTPRINT IN THE LOOP

Direct spending—spending by colleges and universities and students in the Loop—further spurs additional, indirect economic activity, as described in “Definition of Economic Footprint” on page 11.

Difference Between Economic Footprint and Net Economic Impact

In this report, we present the *economic footprint* of Loop colleges and universities in the Loop. In other studies, we estimate the *net economic impact* of institutions in a defined region.⁴ A university’s *economic footprint* is defined as the employment, earnings, and spending in a region that are related to *all* economic activity by that university. A university’s *net economic impact* is defined as the employment, earnings, and spending in a region *caused* by the university, and excludes all employment, earnings, and spending that would have occurred in a region even without the university’s presence.

For example, in the absence of a given university, operations at other nearby universities in the Loop might expand to receive more students; the land that university occupies would instead contain a park or an office building; and some of the employees that work at that university would have a job elsewhere in the Loop. That university’s net economic impact captures the extent to which the economic activity related to a university *exceeds* the economic activity that would have occurred in its absence.

Since we estimate economic footprint instead of net economic impact, we cannot say with confidence whether the spending we attribute to the universities would have happened even in the universities’ absence, as we can with a net economic impact estimate. We can, however, say that the economic footprint describes the scope of economic activity by the universities and their students in the Loop, as well as the indirect effects of that spending on local vendors and households.

4. Erin Grover, Colby Spencer, and Alex Rosaen, “Empowering Michigan: Sixth Annual Economic Impact Report of Michigan’s University Research Corridor,” Anderson Economic Group, January 4, 2013.

Spending

College and university payroll and non-payroll spending, along with student spending, total \$169 million in the Loop. When we add indirect spending in the Loop's economy to direct spending, total spending comes to \$174 million for FY 2013. Table 3 below shows the total footprint by source for higher education in the Loop.

TABLE 3. Total Spending Supported by Higher Education in the Loop, FY 2013 (millions)

	Direct	Indirect	Total
Payroll Spending	\$33.4	\$0.4	\$33.9
Non-payroll Spending	\$78.8	\$2.6	\$81.5
Student Spending	<u>\$57.0</u>	<u>\$1.3</u>	<u>\$58.3</u>
Total	\$169.3	\$4.4	\$173.6

Source: AEG estimates and analysis, based on source data from: Colleges and universities in the Loop, College InSight, BEA RIMS II Multipliers

Note: Numbers do not sum to totals due to rounding.

As shown above, each spending source contributes significantly to the economic footprint of higher education in the Loop. Direct non-payroll spending accounts for the greatest proportion of the footprint, followed by student spending.

For a more detailed summary, see Table A-3 on page A-9.

Earnings and Jobs

As the colleges and universities, their employees, and their students spend money on goods and services in the Loop, they support jobs and earnings for Loop residents. The combined footprint for colleges and universities in the Loop is 557 jobs and \$34 million in earnings for Loop residents. Table 4 below shows the direct and indirect effects these institutions have on jobs and earnings in the Loop.

TABLE 4. Total Earnings and Employment for Loop Residents Supported by Higher Education in the Loop, FY 2013

	Direct	Indirect	Total
Earnings (millions)	\$33.4	\$0.4	\$33.8
Employment	553	4	557

Source: AEG estimates and analysis, based on source data from: Colleges and universities in the Loop, BEA RIMS II Multipliers

Note: Only employment from universities who provided payroll data are included.

ECONOMIC FOOTPRINT IN CHICAGOLAND REGION

We also estimated the total economic footprint that these colleges have in the seven-county region surrounding Chicago, including Cook, Will, DuPage, McHenry, Lake, Kendall, and Kane counties. For this estimate, we considered the same categories of spending as in our economic footprint analysis for the Loop, but included all spending that went to businesses and employees located in the seven-county region.

We found that, in FY 2013, the colleges and universities in the Loop supported \$3.3 billion in spending, \$1.3 billion in earnings, and 23,300 jobs in the seven-county region around Chicago.⁴ See Table 5 below for a summary and Table A-4 on page A-10 for more details.

TABLE 5. Total Economic Footprint for Loop Colleges and Universities in the Seven-County Region, FY 2013

	Direct	Indirect	Total
Spending (millions)	\$1,793	\$1,460	\$3,253
Earnings (millions)	\$715	\$594	\$1,309
Jobs (head count)	12,783	10,519	23,303

Source: AEG estimates and analysis, based on source data from: Colleges and universities in the Loop, College InSight, BEA RIMS II Multipliers

Note: Numbers do not sum to totals due to rounding. Only jobs from universities who provided payroll data are included.

4. These totals compare to totals of \$4.8 billion in spending, \$2.3 billion in earnings, and 43,710 jobs from a 2009 report. It appears that our numbers are lower for two reasons. The main reason is that we only included spending at businesses located in the seven-county region—just over half of all non-payroll spending—and wages and salaries for employees living in the seven-county region—96% of payroll. Also, it appears that, on average, the multipliers we used, which are BEA RIMS II Type 2 multipliers specific to the region and industry, are slightly lower than those used in 2009.

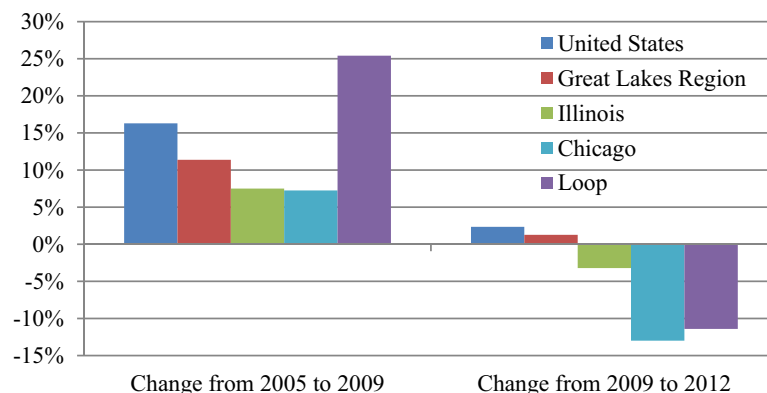
V. Students and Degrees at Colleges and Universities in the Loop

In fall 2013, colleges and universities in the Loop had enrollment of 58,025 students. Over the course of the previous year, they awarded nearly 24,000 degrees and certificates. In this section, we discuss the student body of the 22 colleges and universities in Chicago's Loop.

STUDENT ENROLLMENT

In fall 2013, there were 58,025 students enrolled at campuses in the Loop. This represents approximately 24% of the total enrollment at higher education institutions in the city.⁵ Of the students in the Loop, 65% were undergraduate students. Enrollment at Loop schools increased by 11% between 2005 and 2013, though it has gone down considerably since its peak in fall 2009. To put this in context, national enrollment in higher education grew by 19% between 2005 and 2012, but enrollment in higher education in the Great Lakes region increased by 13%.⁶

FIGURE 3. Enrollment Growth at Loop Colleges and Universities, Relative to the Nation and Region



Source: IPEDS, Loop colleges and universities

Analysis: Anderson Economic Group, LLC

Note: Includes for-profit and not-for-profit enrollment in fall of corresponding year. Loop change actually shown is that for 2009 to 2013, not 2009 to 2012.

These changes in enrollment are the result of a combination of two overlapping trends. Firstly, enrollment in higher education is *anti-cyclical* with the economy. During a recession, when fewer job opportunities are available, people are more

5. Our estimate for total enrollment at Chicago higher education institutions is from fall 2012 and includes for-profit and not-for-profit colleges and universities. Based on data from IPEDS.

6. We define the Great Lakes region as Illinois, Indiana, Michigan, Ohio, and Wisconsin.

likely to pursue a degree and enrollment increases. Thus, enrollment increased considerably across the nation in 2009, but has increased slowly since then as we have undergone a recovery.

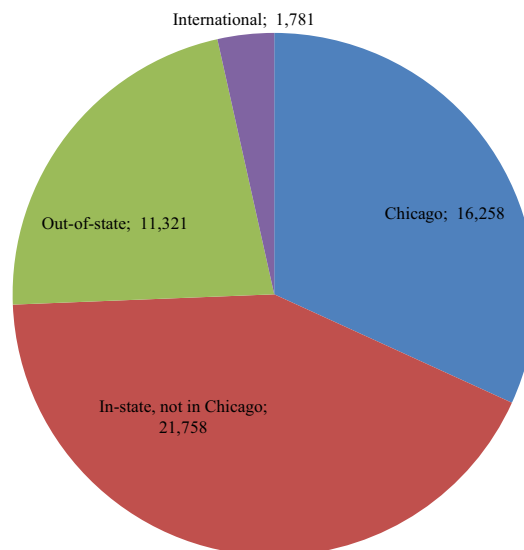
As Figure 3 on page 15 shows, this anti-cyclical trend is particularly strong in the Loop, where enrollment increased by 25% from 2005 to 2009 and decreased by 11% from 2009 to 2013.

Secondly, the population in Chicago and throughout the Great Lakes region has declined over the past twenty years. This has resulted in slower increases in higher education enrollment in the Great Lakes region, on average, relative to the rest of the nation.

Student Origins

As shown in Map 2 on page 19 and Map 3 on page 20, the students at these colleges and universities represent every state in the U.S. and about 120 countries across the world.

FIGURE 4. Student Origins at Colleges and Universities in the Loop, Fall 2013



Source: Colleges and universities in the Loop.

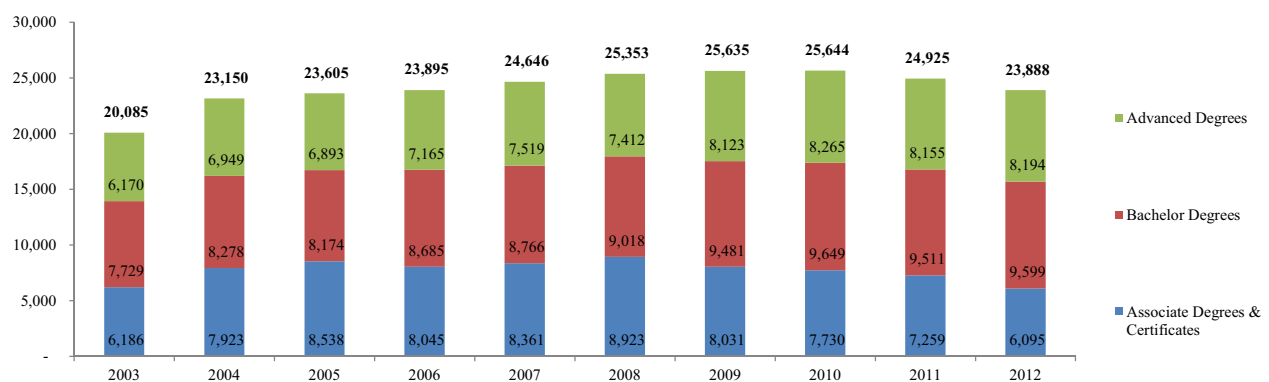
Note: This figure only includes students from institutions that provided student origin information. See footnote 7.

Of the students enrolled in fall 2013 for which we have prior residence data, 32% were from Chicago, 43% were from elsewhere in Illinois, 22% were from other states in the U.S., and 3% were international.⁷

DEGREES

In 2012, Loop colleges and universities awarded nearly 24,000 degrees and certificates, a 19% increase over 2003 levels.⁸ The largest growth during this time period was in the number of advanced degrees awarded, which grew by nearly 33% between 2003 and 2012. Figure 5 on page 17 shows the growth in completions by level. Despite the overall increase since 2003, associate degrees and certificates have declined since 2008, while bachelor degrees and advanced degrees reached their peaks in 2009 and 2010, respectively. Again, this is likely due to population trends and to the anti-cyclical nature of higher education enrollment.

FIGURE 5. Completions by Level of Degree at Loop Colleges and Universities, 2003-2012



Source: AEG estimates and analysis, based on source data from IPEDS

Colleges and universities in the Loop offer degrees and certificates in nearly every subject. We categorize degrees and certificates in the following categories:

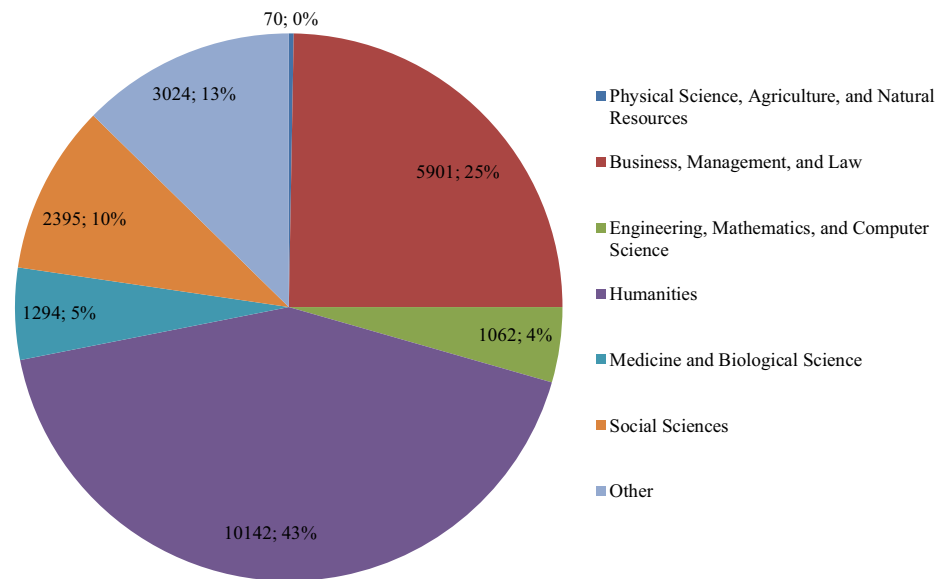
- Physical Science, Agriculture, and Natural Resources;
- Business, Management, and Law;
- Engineering, Mathematics, and Computer Science;
- Humanities;
- Medicine and Biological Science;
- Social Sciences; and,
- Other.⁹

7. We have prior residence data for students that attend Adler School of Professional Psychology, Argosy University Chicago, the Chicago School of Professional Psychology, Columbia College Chicago, DePaul University, John Marshall Law School, National Louis University, Roosevelt University, Spertus Institute for Jewish Studies, School of the Art Institute of Chicago, and Taylor Business Institute.

8. Data on degrees reflects total degrees granted across all Chicago campuses for the higher education institutions with a presence in the Loop.

Of the 23,888 degrees and certificates awarded to 2012 graduates, 43% were in the humanities fields, which include degrees and certificates in literature, education, theology, performing arts, and history, among others. The second largest degree category was business, management, and law. Figure 6 below shows the proportion of degrees and certificates for each degree category.

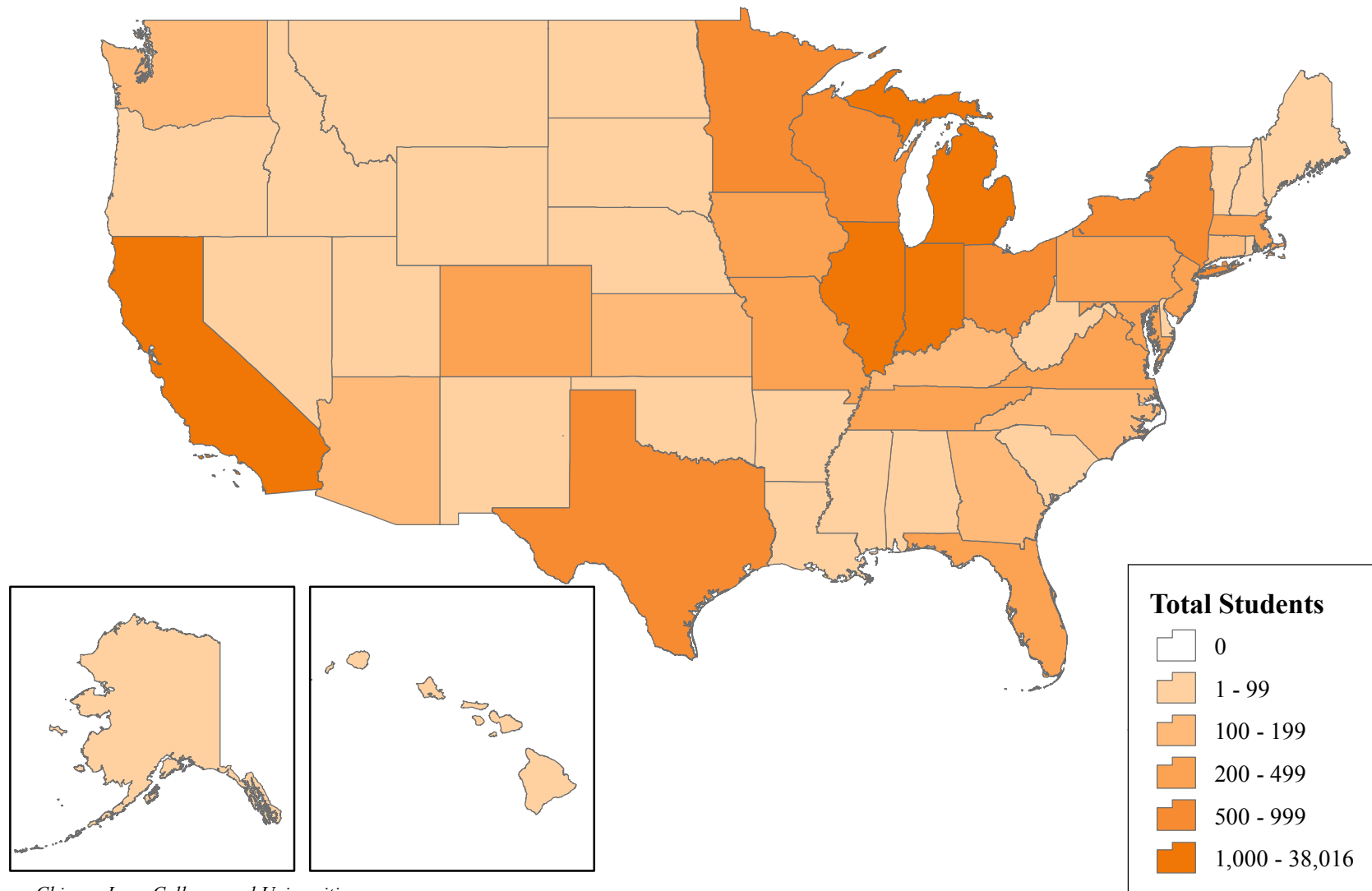
FIGURE 6. Degrees and Certificates by Field of Study at Colleges and Universities in the Loop, 2012



Source: AEG estimates and analysis, based on source data from IPEDS

As one might expect, the proportion of degrees by field of study differs between bachelor and advanced degrees. Humanities degrees make up nearly 60% of bachelor degrees and nearly 40% of advanced degrees. Business, law, and management degrees and social science degrees represent a higher share of advanced degrees than bachelor degrees.

9. See “Academic Program Definitions” on page A-1 for a list of the degrees included in each field of study.

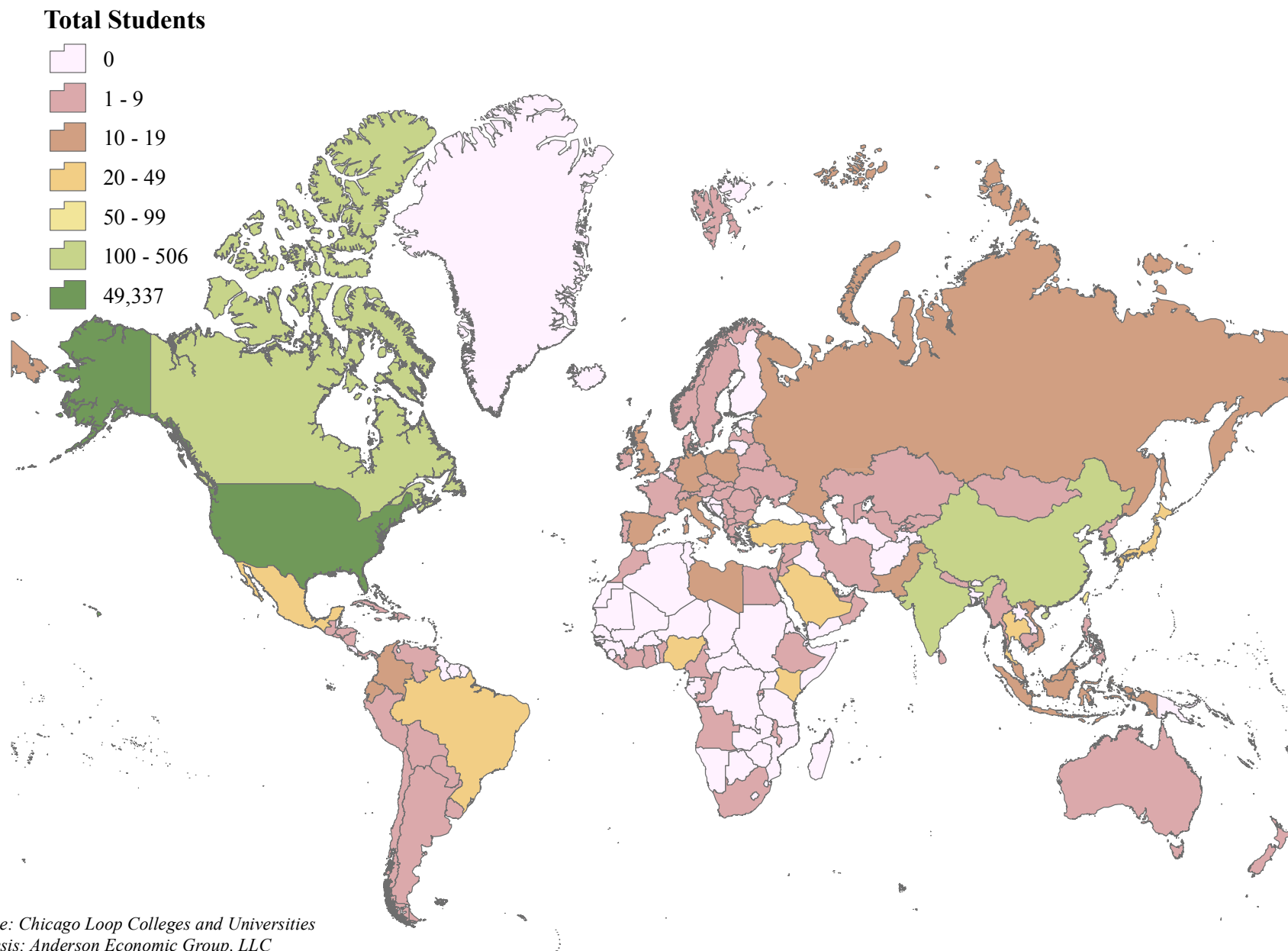


Source: Chicago Loop Colleges and Universities

Analysis: Anderson Economic Group, LLC

Note: The following schools are included in the Students by State totals: Adler School of Professional Psychology, The Chicago School of Professional Psychology, Columbia College Chicago, DePaul University, The John Marshall School of Law, Roosevelt University, School of the Art Institute of Chicago, Argosy University, National Louis University, Spetis Institute for Jewish Learning and Leadership, and the Taylor Business Institute.

Map 3. Students by Country, Fall 2013



Source: Chicago Loop Colleges and Universities

Analysis: Anderson Economic Group, LLC

Note: The following schools are included in the Students by Country totals: Adler School of Professional Psychology, The Chicago School of Professional Psychology, Columbia College Chicago, DePaul University, The John Marshall School of Law, Roosevelt University, School of the Art Institute of Chicago, Spetus Institute for Jewish Learning and Leadership, and the Taylor Business Institute. U.S. totals for Argosy University and National Louis University are also included.

VI. Alumni of Colleges and Universities in the Loop

In “Students and Degrees at Colleges and Universities in the Loop” on page 15, we discussed the student body of colleges and universities in the Loop. Many of these students graduate and continue to live and work in Chicago after graduation, contributing to the city’s economy and making Chicago the vibrant city that it is today. In this section, we discuss the size and scope of the alumni of these schools in Chicago and around the world.

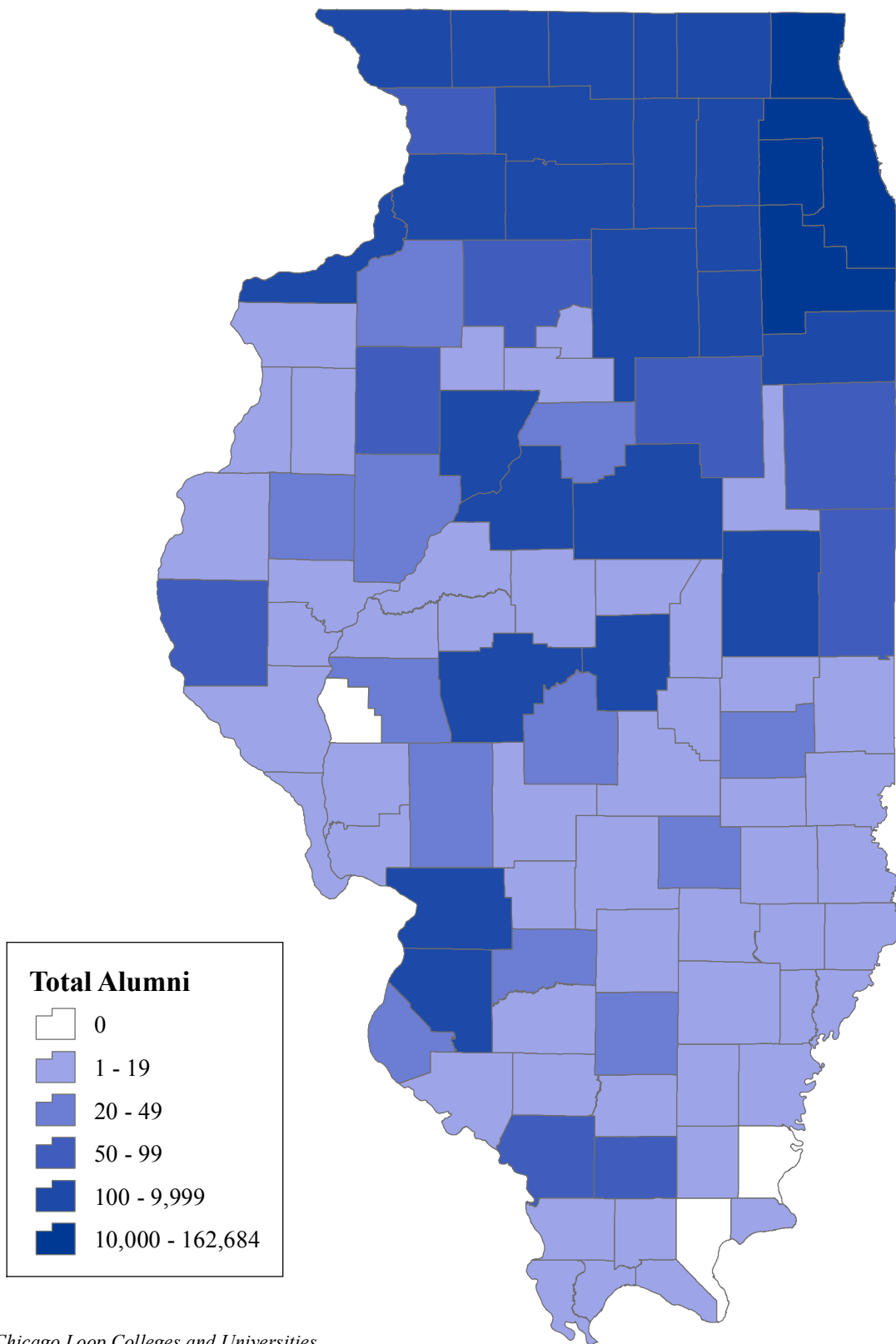
ALUMNI OF LOOP COLLEGES AND UNIVERSITIES

We obtained data on more than 300,000 alumni worldwide that attended a college or university in Chicago’s Loop. These alumni live in each state in the U.S. and in 120 countries across the world. Of the 300,000 alumni with a known address, over 83,000 (28%) live in Chicago, representing 5% of Chicago’s population aged 25 and older.¹⁰ In addition, the alumni living in Chicago account for 11% of all residents in the city with an associate’s degree or higher.¹¹

See “Map 4. Alumni by Illinois County” on page 22, “Map 5. Alumni by U.S. State” on page 23, and “Map 6. Alumni by Country” on page 24 to see where alumni of Loop colleges and universities currently reside.

10. According to the U.S. Census Bureau, 2008-2012 American Community Survey 5-Year Estimates, Chicago had 1,782,005 residents aged 25 and older.

11. According to the U.S. Census Bureau, 2008-2012 American Community Survey 5-Year Estimates, Chicago had 758,234 residents with an associate’s degree or higher.

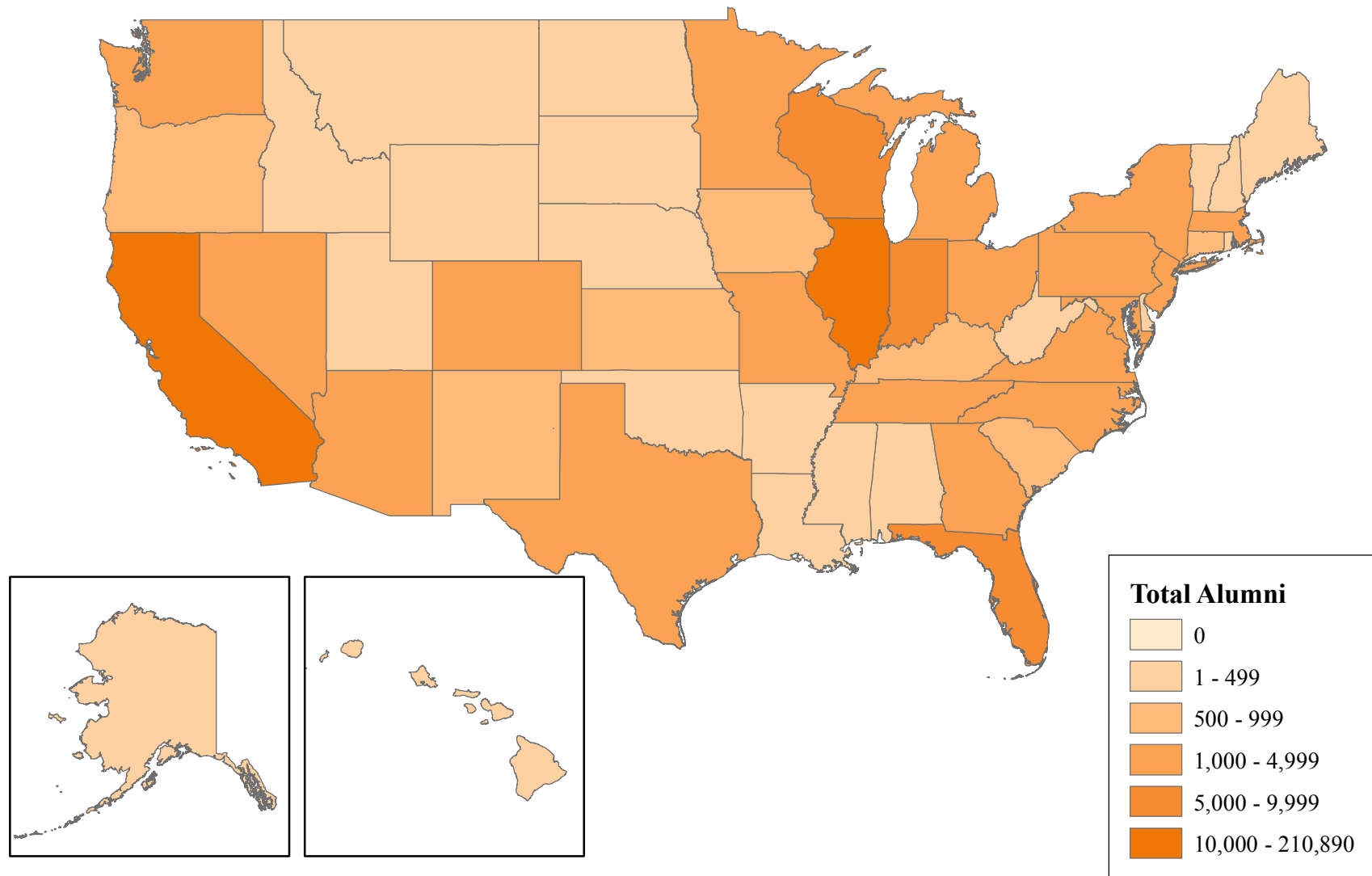


Source: Chicago Loop Colleges and Universities

Analysis: Anderson Economic Group, LLC

Note: The following schools are included in the Alumni by Illinois County totals: Adler School of Professional Psychology, The Chicago School of Professional Psychology, Columbia College Chicago, DePaul University, The John Marshall School of Law, Roosevelt University, School of the Art Institute of Chicago, Argosy University and National Louis University.

Map 5. Alumni by U.S. State

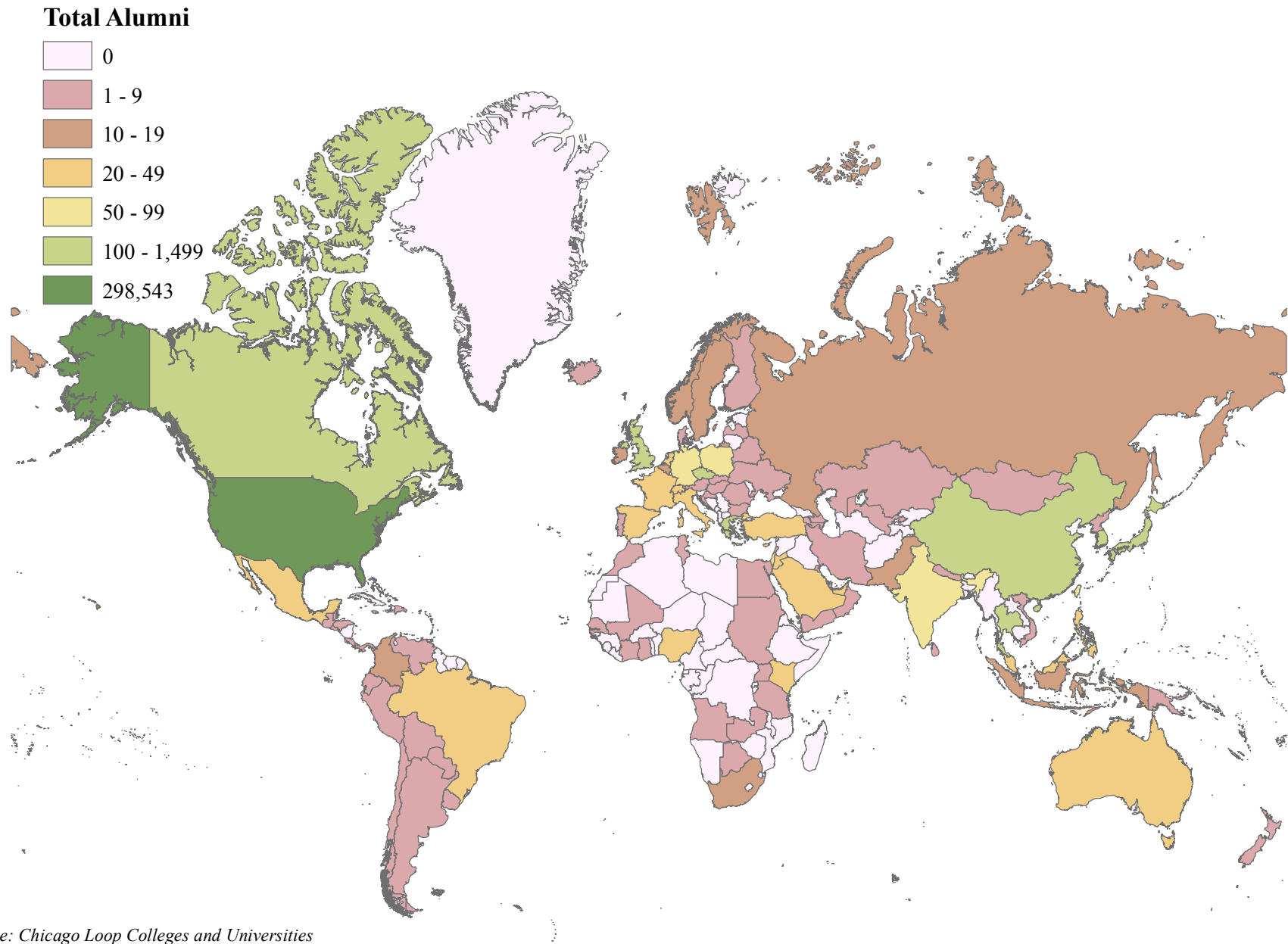


Source: Chicago Loop Colleges and Universities

Analysis: Anderson Economic Group, LLC

Note: The following schools are included in the Alumni by State totals: Adler School of Professional Psychology, The Chicago School of Professional Psychology, Columbia College Chicago, DePaul University, The John Marshall School of Law, Roosevelt University, School of the Art Institute of Chicago, and Argosy University.

Map 6. Alumni by Country



Source: Chicago Loop Colleges and Universities

Analysis: Anderson Economic Group, LLC

Note: The following schools are included in the Alumni by Country totals: Adler School of Professional Psychology, The Chicago School of Professional Psychology, Columbia College Chicago, DePaul University, The John Marshall School of Law, Roosevelt University, School of the Art Institute of Chicago, and Argosy University.

Appendix A. Methodology

This appendix describes how data sources were used to create the maps included in this report and the methodology used to complete our economic footprint analysis.

GEOGRAPHICAL ANALYSIS

All of the maps in this report were created using Geographic Information Software (GIS), using data provided by the state universities.

Map 2, “Students by U.S. State, Fall 2013,” on page 19 and Map 3, “Students by Country, Fall 2013,” on page 20 were created using data provided by the colleges and universities. Schools provided the data for the residence of students enrolled in Fall 2012. These maps do not include students from schools that were unable to provide student origin data.¹²

We also received data from colleges and universities on their alumni with a known location by Illinois Zip Code, U.S. state, and country. Map 4, “Alumni by Illinois County,” on page 22; Map 5, “Alumni by U.S. State,” on page 23; and Map 6, “Alumni by Country,” on page 24 were made following the same methodology as the maps showing students by location. These maps do not include alumni from schools that were unable to provide alumni by location data.¹³

ACADEMIC PROGRAM DEFINITIONS

The academic program areas used in “Degrees” on page 19 are based on the National Center for Education Statistics’ Classification of Instructional Programs (CIP) codes that they use in their Integrated Postsecondary Education Data System (IPEDS). The composition of each program area is as follows:

The *Physical Science, Agriculture, and Natural Resources* academic program area includes the following fields of study: agriculture, agriculture operations, and related sciences; natural resources and conservation; and physical sciences.

The *Business, Management, and Law* academic program area includes the following fields of study: legal professions and studies; business, management, marketing, and related support services; and public administration.

12. Schools with students represented in these maps include: the Adler School of Professional Psychology, Argosy University Chicago, the Chicago School of Professional Psychology, Columbia College, DePaul University, the John Marshall School of Law, Roosevelt University, School of the Art Institute of Chicago, Spertus Institute for Jewish Learning and Leadership, and Taylor Business Institute.

13. Schools with alumni represented in these maps include: Adler School of Professional Psychology, The Chicago School of Professional Psychology, Columbia College Chicago, DePaul University, The John Marshall School of Law, Roosevelt University, School of the Art Institute of Chicago, and Argosy University.

The *Engineering, Mathematics, and Computer Science* academic program area includes the following fields of study: architecture and related services; computer and information sciences and support services; engineering; and mathematics and statistics.

The *Humanities* academic program area includes the following fields of study: area, ethnic, cultural, and gender studies; communication, journalism, and related programs; education; foreign languages, literatures, and linguistics; family and consumer sciences/human sciences; English language and literature/letters; liberal arts and sciences, general studies and humanities; library science; multi/interdisciplinary studies; philosophy and religious studies; theology and religious vocations; human services, general; visual and performing arts; and history.

The *Medicine and Biological Science* academic program area includes the following fields of study: biological and biomedical sciences; and health professions and related clinical sciences.

The *Social Sciences* academic program area includes the following fields of study: social sciences; psychology; public policy analysis; and social work.

The *Other* academic program area includes the following fields of study: personal and culinary services; parks, recreation, leisure, and fitness studies; Homeland security, law enforcement, firefighting, and related protective services; construction trades; mechanic and repair technologies/technicians; precision production; transportation and materials moving; communications technologies/technicians and support services; engineering technologies/technicians; military technologies and applied sciences; community organization and advocacy; public administration and social service professions, other; and science technologies/technicians.

ESTIMATING ECONOMIC FOOTPRINT

We define *economic footprint* as the aggregate spending at businesses in the Loop, and jobs and earnings for residents of the Loop, that are associated with the activity of the colleges and universities located in the Loop. Economic footprint includes both direct effects and indirect effects, as described below:

1. The *direct* effect of the universities' economic activity includes spending, employment, and earnings that are directly attributable to the colleges' and universities' operations in the Loop, including hiring Loop residents and paying Loop companies for goods and services.
2. The *indirect* effect of the colleges' and universities' economic activity occurs as dollars re-circulate throughout the neighborhood's economy. Suppliers for the colleges and universities are part of a supply chain and have vendors of their own who benefit indirectly from university spending. In addition, employees use their wages to buy groceries from the local grocery store, and contractors may use their revenues from the universities to buy new equipment or expand their office space. Even then, dollars continue to circulate as grocery store owners and equipment providers now have more money to purchase goods and services in the Loop.

RIMS II Multipliers

To estimate indirect spending, we multiplied direct spending by final demand output multipliers released by the U.S. Department of Commerce's Regional Input-Output Modeling System (RIMS II). We estimated the indirect jobs and earnings using RIMS II direct-effect multipliers. These multipliers are only available for Cook County, so we made adjustments to estimate what they should be for the Loop alone.

We adjusted the output multipliers using a ratio of estimated sales in the Loop to estimated sales in Cook County.¹⁴ Estimated sales in Chicago and Cook County, respectively, were derived by dividing sales tax revenue in 2013 by the effective sales tax rate in that year. We then estimated consumption in Chicago and the Loop, respectively, using ESRI data. We adjusted this combined ratio slightly, assuming that Loop-based companies are 20% more likely to use a Loop company as the average Cook County company. We then adjusted the corresponding multipliers for each industry in Cook County by multiplying this ratio by the portion of the multiplier greater than one. We only adjusted the portion of the multiplier greater than one so as to only adjust the *indirect* portion of the impact, leaving the direct portion unchanged.

We took a similar approach to estimate the jobs and earnings multipliers for the Loop. For employment, we used a ratio of total Chicago employment to total Cook County employment, and then further adjusted this using a ratio of Loop employment to Chicago employment, from ESRI data.¹⁵ We adjusted this ratio by assuming that Loop companies are 20% more likely to use another Loop company as the average Cook County company. For earnings, we assumed that the average earnings for Loop employment were 50% higher than that for non-Loop Cook County employees, and adjusted the employee ratio accordingly. We applied each of the resulting ratios to the employee and earnings fixed-effects multipliers for Cook County, respectively. Like with the final-demand output multiplier we derived, we only applied the derived ratios to the portion of the multiplier that exceeded one.

Spending

We estimate the direct and indirect spending for the following sources of economic activity:

- University payroll spending;
- University non-payroll spending; and

14. FY 2013 Comprehensive Annual Financial Reports for Chicago and Cook County, respectively.

15. Bureau of Labor Statistics, Local Area Unemployment Statistics.

-
- Student spending.

Our economic footprint analysis is shown in detail in Table A-3 on page A-9.

Payroll Spending. In order to estimate the amount of payroll spending (wages, salaries, and employee fringe benefits) in the City of Chicago, we relied on data from Loop colleges and universities, who provided us with the data they submit to IPEDS for FY 2013. We then used the data they provided for wages by zip code to estimate the proportion of payroll going to Loop residents.¹⁶ We multiplied this proportion by total payroll reported to IPEDS to estimate the wages and benefits going to Loop residents.

Non-payroll Spending. In order to estimate the non-payroll spending at vendors in the Loop, we used data provided by the Loop colleges and universities. Schools provided non-payroll expenditure payments by zip code. We applied the proportion of payments to vendors in the Loop, according to spending by zip code data, to the amount of non-payroll spending reported in IPEDS for FY 2013. We used school data and professional judgment to determine any differences in the percentage of spending in the Loop by function.¹⁷

Student Spending. To calculate student spending in the Loop, we used data provided by the colleges and universities on the number of students that lived on- and off-campus at their schools. We then estimated the student spending for several categories of living expenses:

- Off-campus rent and food;
- Books and supplies;
- Apparel, food & grocery, and other basic needs; and
- Meals & entertainment off-campus.¹⁸

For each category, we estimated total spending for the total number of students, with the exception of books and supplies, which we calculated on an FTE-basis. All values are in 2013 U.S. dollars.

16. We define the Loop as the area covered by zip codes 60601, 60602, 60603, 60604, 60605, and 60606.

17. For example, public service expenditures, which include community services, extension services, and broadcasting, are more likely to occur in the Loop. For athletics, many of the recruiting expenses may actually take place outside of the Loop. Research may involve purchasing specialized equipment outside of the Loop. These are the considerations we kept in mind while determining the proportion of in-state spending by function.

18. In order to avoid double counting in our economic footprint, we do not include on-campus room and board in our analysis.

Off-Campus Rent and Food

We obtained room and board costs for on-campus undergraduate and graduate students from Loop colleges and universities. We used these costs as a baseline to estimate the costs of rent and food for students living off-campus. In order to avoid double counting, we do not include on-campus room and board in our economic footprint analysis. We assumed that undergraduate students living off-campus spend 10% more on housing and food than undergraduates students living on-campus. We assumed that graduate students pay, on average, 10% more on housing and food than off-campus graduate students.

Several institutions do not offer on-campus housing. For these schools, we estimated the cost of off-campus rent and food by using the average of all schools' on-campus housing costs as a baseline. We then applied the same assumptions outlined above.

Many schools provided us with estimates of the percentage of students living in the Loop. For the remainder, we estimated the number of students residing in the Loop considering a number of factors, including the location of the school and the type of school. We then applied these percentages to our estimates for total spending on rent and food to obtain the amount of spending on housing and food that occurs *in* the Loop.

Books and Supplies

We obtained data for books and supplies from College InSight.¹⁹ We assumed that graduate students paid, on average, 10% more for books and supplies than undergraduate students.

Data on the cost of books and supplies was unavailable for several schools. We researched the costs of books and supplies for similar programs, and took the average. We also assumed that 70% of books and supplies were purchased online or in other parts of the city, resulting in spending outside the Loop.

Apparel, Meals, and Entertainment

Students at Loop schools also spend money on clothes, food at restaurants, and entertainment, all of which contributes to the economic footprint of colleges and universities in the Loop. We obtained data on spending on apparel and needs, as well as food away from home and entertainment from the midyear 2012-13 Consumer Expenditure Survey (CES) on annual expenditures by age.²⁰ This survey provides data on the average annual expenditures per household on many different categories of spending.

19. College InSight is an initiative of the Institute for College Access & Success, and provides data sourcing from IPEDS, Pell Grant files, Fiscal Operations Report and Application to Participate files, and Common Data Set files. Data can be found at college-insight.org.

We used the CES age category “under 25” for undergraduate students. We assumed that the majority of off-campus undergraduate students do not have partners or children, and live as individuals with roommates. We divided the spending in the categories of spending used by the average number of people in the household to obtain average annual expenditures for an individual. For the “under 25” category, the average size of a household in the midyear 2012-13 CES survey was 1.9 persons.

We multiplied each of the spending category values by 75% to account for time that the students spend on campus during the year. To estimate the amount spent by undergraduates living on campus, we used the CES data calculated for an individual for apparel and needs, as well as meals off-campus and entertainment. For students living off-campus, we assumed that spending was 10% higher for apparel and needs, and 20% higher for off-campus meals and entertainment.

We used the CES age category “25-34 years” for graduate students. Unlike undergraduate students, many graduate students have a partner or children. We assumed that 50% of graduate students live with a partner and/or children and 50% of graduate students live as individuals. We applied these assumptions to the data in the CES survey. We took 50% of the spending on each category and divided it by the average number of people in the household to obtain average annual expenditures for an individual. For the “25-34 years” category, the average size of a household in the midyear 2012-13 CES survey was 2.8 persons. We then added the calculated individual average to 50% of the spending of each category’s household average to obtain the average spending for each category.

Similar to undergraduate students, we multiplied each of the spending category values by 75% to account for time that the students spend on campus during the year. To estimate the amount spent by graduates living on campus, we used the CES data calculated for the individual-household mix for apparel and needs, as well as meals off-campus and entertainment. We assumed that expenses for graduate students living off-campus were 10% higher for apparel and needs, and 20% higher for meals off-campus and entertainment than for graduate students living on-campus.

Similar to our assumptions for rent and food, we assumed that a portion of apparel, meals, and entertainment spending occurs outside of Loop. We used the same percentage of spending in the Loop for apparel, meals, and entertainment as we did for spending on rent and food. We recognize that even if a student lives outside the Loop, he or she is likely to spend money at Loop restaurants, stores, and entertainment venues. Thus, our student spending total represents a

20. Bureau of Labor Statistics, Consumer Expenditure Survey, “Age of reference person: Annual expenditure means, shares, standard errors, and coefficient of variation, Consumer Expenditure Survey, 3rd quarter 2012 through 2nd quarter 2013.”

conservative estimate of the actual impact student spending has in the neighborhood.

Employment

To estimate employment in the Loop supported by Loop colleges and universities, we used data from the schools showing employee residence by zip code.

We then applied the BEA RIMS II direct-effect employment multipliers to estimate the additional indirect employment for Loop residents in industries supported by Loop colleges and universities. For school faculty and staff, we used the multiplier for the “junior colleges, colleges, universities, and professional schools” industry. These multipliers were adjusted so we could apply them to the Loop, as described in “RIMS II Multipliers” on page A-3. Table A-1 below shows the calculations for direct and indirect employment.

TABLE A-1. Employment for Loop Residents Supported by Colleges and Universities, FY 2013

	Total	% in Loop	Total in Loop	Direct-effect multiplier	Direct and Indirect Jobs in Loop
Faculty	7,798	4.4%	346	1.01	348
Staff	<u>5,758</u>	3.6%	<u>207</u>	1.01	<u>209</u>
Total Jobs	13,556	4.1%	553		557

Source: AEG analysis and estimates, based on source data from colleges and universities, BEA RIMS II Multipliers

Earnings

To estimate the earnings impact of Loop colleges universities, we used the wages, salaries, and benefits paid to college and university employees. We also used data from the schools showing where those employees lived by zip code.

We then applied the BEA RIMS II direct-effect employment multipliers to estimate the additional indirect earnings in Chicago generated by AUC activity. For school faculty and staff, we used the multipliers for the “junior colleges, colleges, universities, and professional schools” industry. These multipliers were adjusted so we could apply them to the Loop, as described in “RIMS II Multi-

pliers” on page A-3. Table A-2 below shows the calculations for direct and indirect earnings.

TABLE A-2. Earnings for Loop Residents Supported by Colleges and Universities, FY 2013 (millions)

	Total	% in Loop	Total in Loop	Direct-effect multiplier	Direct and Indirect Earnings in Loop
Earnings	\$744.3	4.5%	\$33.4	1.01	\$33.8

Source: AEG analysis and estimates, based on source data from colleges and universities, BEA RIMS II Multipliers

TABLE A-3. Economic Footprint of Loop Colleges and Universities

Spending					
	2012 Spending	% in the Loop	2012 Spending in the Loop	Spending Multiplier	Total Spending
Salaries and Wages	\$ 590,569,718	4.5%	\$ 26,464,349	1.01	\$ 26,638,917
Employee Benefits	\$ 155,299,804	4.5%	\$ 6,971,151	1.04	\$ 7,219,683
<i>Total Payroll Spending</i>	<i>\$ 745,869,522</i>		<i>\$ 33,435,500</i>		<i>\$ 33,858,600</i>
Instruction & Academic Support	\$ 99,287,661	29.5%	\$ 29,256,700	1.03	\$ 30,243,872
Research	\$ 14,783,461	2.0%	\$ 301,207	1.03	\$ 310,779
Public Service, Student Services, Institutional Support, Auxiliary Enterprises, & Other Expenses	\$ 167,871,421	15.6%	\$ 26,113,510	1.03	\$ 27,007,347
Operation and Maintenance of Plant	\$ 86,762,970	13.7%	\$ 11,866,566	1.03	\$ 12,252,628
Athletics	\$ 13,391,291	0.0%	\$ 1,045	1.04	\$ 1,083
Construction	\$ 142,384,880	7.9%	\$ 11,290,366	1.03	\$ 11,640,080
<i>Total Non-Payroll Spending</i>	<i>\$ 524,481,686</i>		<i>\$ 78,829,393</i>		<i>\$ 81,455,790</i>
Off-campus Rent & Food	\$ 682,775,075	4.5%	\$ 30,419,221	1.02	\$ 30,983,290
Books & Supplies	\$ 62,387,560	29.9%	\$ 18,681,417	1.03	\$ 19,191,262
Apparel & Other Basic Needs	\$ 38,060,805	4.6%	\$ 1,736,836	1.03	\$ 1,784,237
Off-campus Meals & Entertainment	\$ 69,582,416	8.9%	\$ 6,167,441	1.03	\$ 6,365,646
<i>Total Student Spending</i>	<i>\$ 852,805,856</i>		<i>\$ 57,004,915</i>		<i>\$ 58,324,436</i>
Earnings					
	Total	% in the Loop	Total Earnings in the Loop	Multiplier	Total Earnings
Total Earnings	\$ 744,291,766	4.5%	\$ 33,435,500	1.01	\$ 33,797,503
Jobs					
	Total	% in the Loop	Total Jobs in the Loop	Multiplier	Total Jobs
Faculty	7,798	4.4%	346	1.01	348
Staff	5,758	3.6%	207	1.01	209
Total	13,556	4.1%	553		557
Total Economic Footprint					
	Spending	Earnings	Jobs		
Direct	\$ 169,269,809	\$ 33,435,500	553		
Indirect	\$ 4,369,017	\$ 362,003	4		
Total	\$ 173,638,826	\$ 33,797,503	557		

Source: AEG estimates and analysis, using base data from Loop colleges and universities, College InSight, BEA RIMS II Multipliers, 2012 Consumer Expenditure Survey

TABLE A-4. Economic Footprint of Loop Colleges and Universities, 7-County Region

Spending					
	2013 Spending	% in the 7-County Region	2013 Spending in the 7-County Region	Spending Multiplier	Total Spending
Salaries and Wages	\$ 589,109,718	95.8%	\$ 564,466,166	1.44	\$ 813,790,871
Employee Benefits	\$ 155,182,048	96.9%	\$ 150,297,112	2.41	\$ 361,945,506
<i>Total Payroll Spending</i>	<i>\$ 744,291,766</i>	<i>96.0%</i>	<i>\$ 714,763,278</i>		<i>\$ 1,175,736,377</i>
Instruction & Academic Support	\$ 97,524,102	68.0%	\$ 66,318,197	2.31	\$ 153,314,408
Research	\$ 14,783,461	9.0%	\$ 1,323,901	2.38	\$ 3,153,797
Public Service, Student Services, Institutional Support, Auxiliary Enterprises, & Other Expenses	\$ 167,871,421	60.8%	\$ 102,111,067	2.35	\$ 239,981,429
Operation and Maintenance of Plant	\$ 86,762,970	57.0%	\$ 49,495,302	2.30	\$ 113,863,942
Athletics	\$ 13,391,291	0.2%	\$ 20,894	2.45	\$ 51,245
Construction	\$ 140,621,321	37.2%	\$ 52,370,579	2.34	\$ 122,416,227
<i>Total Non-Payroll Spending</i>	<i>\$ 520,954,568</i>	<i>52.1%</i>	<i>\$ 271,639,940</i>		<i>\$ 632,781,049</i>
Off-campus Rent & Food	\$ 682,677,288	100.0%	\$ 682,677,288	1.72	\$ 1,177,092,660
Books & Supplies	\$ 62,252,311	65.0%	\$ 40,464,002	2.11	\$ 85,265,745
Apparel & Other Basic Needs	\$ 37,812,584	80.0%	\$ 30,250,067	2.11	\$ 63,742,941
Off-campus Meals & Entertainment	\$ 66,074,117	80.0%	\$ 52,859,294	2.24	\$ 118,452,391
<i>Total Student Spending</i>	<i>\$ 848,816,299</i>	<i>95.0%</i>	<i>\$ 806,250,650</i>		<i>\$ 1,444,553,737</i>
Earnings					
	Total	% in the 7-County Region	Total Earnings in the 7-County Region	Multiplier	Total Earnings
Total Earnings	\$ 744,291,766	96.0%	\$ 714,763,278	1.83	\$ 1,309,088,944
Jobs					
	Total	% in the 7-County Region	Total Jobs in the 7-County Region	Multiplier	Total Jobs
Faculty	7,798	93.8%	7,316	1.82	13,336
Staff	5,758	95.0%	5,467	1.82	9,967
Total	13,556	94.3%	12,783		23,303
Total Economic Footprint					
	Spending	Earnings	Jobs		
Direct	\$ 1,792,653,868	\$ 714,763,278	12,783		
Indirect	\$ 1,460,417,295	\$ 594,325,666	10,519		
Total	\$ 3,253,071,163	\$ 1,309,088,944	23,303		

Source: AEG estimates and analysis, using base data from Loop colleges and universities, College InSight, BEA RIMS II Multipliers, 2012 Consumer Expenditure Survey

TABLE A-5. Enrollment and Employment at Colleges and Universities in the Loop, Fall 2013

Institution	Enrollment	Employment
Adler School of Professional Psychology	990	275
American Academy of Art*	432	95
Argosy University	1,016	211
The Chicago School of Professional Psychology	1,593	448
Columbia College Chicago	10,783	3,409
DePaul University	14,727	3,980
East-West University*	776	122
Harold Washington College*	8,947	679
Harrington College of Design*	635	143
The Illinois Institute of Art	2,558	346
Illinois School of Health Careers*	551	53
Institute for Clinical Social Work*	94	83
International Academy of Design and Technology*	491	123
The John Marshall Law School	1,466	455
MacCormac College*	194	33
National Louis University+	2,129	318
Robert Morris University+	2,004	268
Roosevelt University	4,350	1,619
School of the Art Institute of Chicago	3,329	1,065
Spertus Institute for Jewish Learning	219	123
Taylor Business Institute	257	51
Westwood College	484	129
TOTAL	58,025	14,028

* Due to limited data availability, numbers shown are for 2012.

+ Share of employment at Loop campus not provided. Estimated based on enrollment share.

Source: Loop colleges and universities, IPEDS

Analysis: Anderson Economic Group, LLC

Appendix B. About the Author

ANDERSON ECONOMIC GROUP

Anderson Economic Group, LLC was founded in 1996 and today has offices in East Lansing, Michigan and Chicago, Illinois. AEG is a research and consulting firm that specializes in economics, public policy, financial valuation, and market research. AEG's past clients include:

- *Governments* such as the states of Michigan, North Carolina, Kentucky, and Wisconsin; the cities of Detroit, Cincinnati, Norfolk, and Fort Wayne; counties such as Oakland County, Michigan, and Collier County, Florida; and authorities such as the Detroit-Wayne County Port Authority.
- *Corporations* such as GM, Ford, Delphi, Honda, Taubman Centers, The Detroit Lions, PG&E Generating; SBC, Gambrinus, Labatt USA, and InBev USA; Spartan Stores, Nestle, automobile dealers and dealership groups representing Toyota, Honda, Chrysler, Mercedes-Benz, and other brands.
- *Nonprofit organizations* such as Michigan State University, Wayne State University, University of Michigan, Van Andel Institute, the Michigan Manufacturers Association, United Ways of Michigan, Service Employees International Union, Automation Alley, and the Michigan Chamber of Commerce.

Please visit www.AndersonEconomicGroup.com for more information.

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