

The Economic and Fiscal Benefits of the University of Denver

2016

Prepared for:



Prepared By:



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Founded in 1864, the University of Denver (DU) is a mainstay in the metro Denver region. DU is the oldest independent university in the Rocky Mountain region, offering students a quality education for over 150 years. DU's 125-acre campus is home to more than 11,500 students from throughout the U.S. and over 80 other countries.

DU is a vital part of the region's economy, providing revenue for area businesses and university suppliers, paying wages and benefits to thousands of employees, serving as the temporary home for its students, and attracting a host of annual visitors and their dollars. The purpose of this report is to highlight and quantify the importance of DU to the metro Denver region, based on its activities during the fiscal year ended June 30, 2015 (FY 2015).

In addition to the economic benefits of the university, DU is an important asset in the metro Denver region for a number of reasons:

- With 3,830 faculty and non-student staff in 2015, DU ranked as the second largest non-retail private employer in the City and County of Denver and ranked among the top 20 major employers in the metro Denver region.
- DU provided students with about \$127.5 million in institutional scholarships in FY 2015.
- DU provides the region with an available, educated workforce as 70 percent of its graduates stay in Colorado.
- DU has spent about \$640 million on campus construction activity over the past 20 years. During this time, about half of DU's campus was newly constructed and an additional one-fourth of the campus was renovated.

DIRECT ECONOMIC AND FISCAL BENEFITS

- DU and its private campus enterprises spend money on a whole array of goods and services to support daily operations. Similar to many universities and educational institutions, the majority of DU's expenditures were for employee compensation. Ninety-six percent of DU's employees call the metro Denver region home and strong local spending contributed to DU's regional impact. The estimated direct economic benefit of university operations was \$362.3 million including \$222.7 million in compensation for 3,848 DU and campus enterprises employees.
- Local spending by the 11,500 undergraduate and graduate students enrolled at DU represents an additional economic benefit that the university has in the region. Student spending contributed a direct economic benefit in metro Denver of \$63.2 million in FY 2015, directly supporting an estimated 661 local workers earning \$13.2 million.
- DU attracted about 32,700 visitors to the metro Denver region during the year for parent weekends, prospective student visits, graduation ceremonies, and visiting athletic teams. DU also hosted many other private, social events. Visitors benefited the regional economy when they made lodging and non-lodging purchases. Overall, the total direct economic benefit of DU visitor spending in FY 2015 was an estimated \$4.3 million that supported 55 local workers earning \$1.3 million.
- Spending by the university to expand and construct new physical structures provides an additional, but temporary, economic benefit to the Denver region. Construction impacts include expenditures on labor, construction materials, and project soft costs such as construction management, design, and engineering. Construction spending varies by year so this analysis was based on the typical average annual construction expenditures. Over the past 20 years, DU has spent \$640 million on construction projects, or an average of \$32 million each year. The total direct economic benefit of DU construction activity in metro Denver averaged an estimated \$20.1 million each year, supporting 207 workers with local earnings of \$12.8 million.

- The university and its private campus enterprises, their employees, the students, and campus visitors generated sales tax, lodging tax, and property tax from their spending and housing costs. **A total of \$13.1 million in tax revenue for state and local taxing entities and jurisdictions throughout the metro Denver region was directly associated with DU in FY 2015.**

SUMMARY OF TOTAL ECONOMIC BENEFIT

The direct economic benefit of DU in FY 2015 including all university operations, student spending, visitor spending, and average construction activity, was an estimated \$449.9 million produced by 4,771 workers (3,830 university employees + 941 other direct workers) earning \$229 million. Through the multiplier effects of this direct spending, DU likely supported an additional \$508.3 million of output in all industries in the metro Denver region, produced by 2,890 indirect workers earning \$170 million.

The University of Denver provided a total economic benefit of \$958.2 million in the metro Denver region in FY 2015, which was produced by 7,661 workers earning \$399 million.

Total Economic Benefit of University of Denver in Metro Denver, FY 2015

| | Direct Impact | Indirect & Induced Impact | Total Impact |
|--------------------------------------|----------------|---------------------------|----------------|
| University Operations | | | |
| Value of Output (\$M) | \$362.3 | \$431.1 | \$793.4 |
| Earnings (\$M) | \$201.7 | \$145.8 | \$347.5 |
| Employment | 3,848 | 2,281 | 6,129 |
| Student Spending | | | |
| Value of Output (\$M) | \$63.2 | \$52.4 | \$115.6 |
| Earnings (\$M) | \$13.2 | \$14.8 | \$28.0 |
| Employment | 661 | 405 | 1,066 |
| Visitor Spending | | | |
| Value of Output (\$M) | \$4.3 | \$4.2 | \$8.5 |
| Earnings (\$M) | \$1.3 | \$1.2 | \$2.5 |
| Employment | 55 | 32 | 87 |
| Construction (Annual Average) | | | |
| Value of Output (\$M) | \$20.1 | \$20.6 | \$40.7 |
| Earnings (\$M) | \$12.8 | \$8.2 | \$21.0 |
| Employment | 207 | 173 | 380 |
| Total | | | |
| Value of Output (\$M) | \$449.9 | \$508.3 | \$958.2 |
| Earnings (\$M) | \$229.0 | \$170.0 | \$399.0 |
| Employment | 4,771 | 2,890 | 7,661 |

Source: Development Research Partners, based on multipliers for metro Denver region from the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II), 2007 U.S. Benchmark I-O Data and 2013 Regional Data.

Founded in 1864, the University of Denver (DU) is a mainstay in the metro Denver region. DU is the oldest independent university in the Rocky Mountain region, offering students a quality education for over 150 years. DU currently ranks among the nation's top 100 universities according to *U.S. News & World Report*, "Best Colleges, 2016." DU's 125-acre campus is home to more than 11,500 students from throughout the U.S. and over 80 other countries. Close to 70 percent of DU's traditional undergraduate students come from out-of-state and a significant percentage of graduate students maintain residency outside of Colorado. DU offers more than 100 undergraduate programs of study and more than 120 graduate and professional programs.



DU is a vital part of the region's economy, providing revenue for area businesses and university suppliers, paying wages and benefits to thousands of employees, serving as the temporary home for its students, and attracting a host of annual visitors and their dollars. The purpose of this report is to highlight and quantify the importance of DU to the metro Denver region.

ECONOMIC AND FISCAL BENEFITS DEFINED

Economic Benefits

Economic impact analysis is the analytical approach used to assess the measurable direct and indirect benefits resulting from a project over a specific period. Only those benefits that can be measured or quantified are included. Intangible benefits, such as enhancement of community character or diversification of the job base, are not included. Further, economic impact analysis highlights that activity which occurs within a specified geographic area. This analysis estimates the benefits of DU in the metro Denver region, defined as six counties including Adams, Arapahoe, Broomfield, Denver, Douglas, and Jefferson.

The spending patterns associated with investment and business operations have spin-off effects or multiplicative impacts in the county, region, and state. Therefore, multiplier analysis is used to trace the impacts on businesses, organizations, and individuals affected by the construction activity and on-going operations.

The multiplicative impacts are discussed in terms of "indirect" and "induced" economic benefits (often collectively referred to as simply indirect benefits). For example, when the university purchases supplies from a local vendor, that local vendor provides payroll to its employees and makes purchases from other vendors. These other vendors in turn provide payroll to their employees and make purchases from other vendors and so on, providing the indirect benefit of the initial dollar spent. On a separate but similar spending track, when employees of the university spend their paychecks at local businesses, these local businesses provide payroll to their employees, make purchases from other vendors, and so on, creating the induced benefit.

As a result, the initial dollars spent by the university for construction, capital investment, business purchases, and employee compensation will be circulated throughout the local economy a number of times. The number of times that the initial dollars are circulated throughout the local economy may be estimated using economic multipliers. An economic multiplier summarizes the total impact that can be expected within a specific geographic area due to a given industry's level of business activity. Generally, larger multipliers are associated with industries that (1) spend more dollars locally, (2) pay high salaries, and/or (3) sell their goods and services outside of the local area.

The indirect and induced jobs and income flows generated by the direct local spending patterns are estimated using the Regional Input-Output Modeling System II (RIMS II) multipliers developed by the Bureau of Economic Analysis of the U.S. Department of Commerce. The RIMS II multipliers are the most widely used and respected for

economic impact analysis. These multipliers are geographic and industry specific, and are used to estimate the total benefits of a project.

Three types of economic benefits are derived from the RIMS II multipliers. First, the direct and indirect impact of the university on the gross output of the region is estimated. This is the total value produced by local firms and residents resulting from the value of the output produced by an industry directly. Gross output consists of the value of both intermediate goods and final products, so this is a larger value than gross domestic product (GDP). Second, the total direct and indirect employment needed in the region to produce this level of output is determined. These employees may be full-time or part-time, local or non-local workers. Further, the indirect employment supported might represent fractions of jobs, added to reflect whole positions. Third, the analysis presents an estimate for the typical direct and indirect earnings associated with this level of production.

Fiscal Benefits

Fiscal impact analysis estimates the direct public revenues and public costs resulting from a project over a specific time period. A project may generate a broad array of public revenues ranging from sales tax, use tax, property tax, franchise fees, licenses and permits, other charges for services, and governmental transfers. In turn, state and local governments and special districts provide a variety of public services such as police and fire protection, public works, community social and recreational programs, education, and water and sanitation services, to name a few.

A comprehensive fiscal impact analysis includes estimates for all sources of public revenues and all governmental service costs for all governmental taxing entities serving the area or project being analyzed. A comprehensive fiscal impact analysis is beyond the scope of this project. Rather, this report includes estimates of direct public revenue generated from sales tax, lodging tax, and property tax only as these are the main sources of governmental revenue given the nature of the university and its related activities. The analysis demonstrates that even "tax exempt" institutions may generate significant amounts of revenue to support the community in which they operate. The sales tax revenue estimates are based on current sales and use tax rates and tax policies in the metro Denver region. Property tax estimates are based on the value of real and personal property and current tax policies.

METHODOLOGY

Geographic Selection

This analysis estimates the benefits of DU in the metro Denver region. Nearly all of DU's employees and a large portion of its students reside in metro Denver. The region captures many of DU's business transactions and contracts. In addition, the region benefits from the spending activities of DU visitors. Therefore, benefits estimated for the metro Denver region offer an accurate representation of the benefits of the university. The total output, employment, and earnings attributed to the university are estimated using the RIMS II multipliers for the metro Denver region.

The fiscal benefits reported in this study are narrower in concept. Tax estimates are discrete to the level of government or tax district specified. For instance, property tax revenues benefit several taxing entities that provide services to the university, employees, and students. While any property tax received by a city benefits its residents who are also residents of a county and of the greater metro Denver region, city tax revenue is only counted as a direct fiscal benefit to the city, not the county or region as a whole. Thus, the fiscal benefits estimated in this study should specify the particular governmental entity when reported.

Project Parameters and Study Variables

Development Research Partners estimated the economic and fiscal benefits described in this report based on primary data provided by the university and when necessary, data from a variety of secondary sources including data from the U.S. Census Bureau, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and state and local governments. Development Research Partners made every attempt to collect necessary additional or missing information and believe the information used in this report is from sources deemed reliable but is not guaranteed.

Some numbers in the study may not add exactly due to rounding. In general, numbers reported in the text of the report are rounded to the nearest hundred thousand if over \$1 million. Figures that are less than \$1 million are rounded to the nearest thousand. This analysis estimates the economic and fiscal benefits of the university for the 2015 fiscal year (FY 2015), or the year ended June 30, 2015.

REPORT ORGANIZATION

Following the Introduction, Chapters II – V describe the economic benefits of DU by spending category. The second chapter describes the economic benefits of the university's operations and of private campus enterprises associated with the university. Chapter III details the benefits of student spending. When a student chooses to attend DU, metro Denver captures dollars the student spends on housing, food, books and supplies, and other expenses while they attend school. The fourth chapter of the report details the benefits of visitor spending in the region, or the visitors that come to metro Denver because DU is located in the region. Chapter V describes the average annual benefit to metro Denver of DU construction spending. The university spends a significant amount of money each year maintaining, expanding, and upgrading its campus facilities and infrastructure.

Chapter VI describes the fiscal benefits of DU, consisting of the sales, property, and lodging tax revenue generated by the different categories of spending associated with DU. The economic and fiscal benefits described throughout the report are combined to establish the overall economic and fiscal benefits of the university. These final total values are included in the Summary chapter of the report.

II. UNIVERSITY OPERATIONS

The University of Denver's operating expenditures totaled more than \$360.7 million in FY 2015. Similar to many universities and educational institutions, the majority of DU's expenditures were for faculty and staff. DU is one of the largest private employers in the City and County of Denver, with 3,830 non-student employees. In 2015, DU ranked as the second largest non-retail private employer in Denver and ranked among the top 20 in metro Denver.

**Table 1: Largest Private Non-Retail Employers
City and County of Denver, 2015-2016**

| Rank | Company | Product/Service | Employment |
|----------|-------------------------------|--------------------|--------------|
| 1 | United Airlines | Airline | 4,900 |
| 2 | University of Denver* | University | 3,830 |
| 3 | Frontier Airlines | Airline | 3,000 |
| 4 | CenturyLink | Telecommunications | 2,890 |
| 5 | Saint Joseph Hospital | Healthcare | 2,460 |
| 6 | Kaiser Permanente | Healthcare | 2,370 |
| 7 | Southwest Airlines | Airline | 2,360 |
| 8 | Anthem Blue Cross Blue Shield | Insurance | 2,000 |
| 9 | TIAA-CREF | Financial Services | 2,000 |
| 9 | Wells Fargo | Financial Services | 1,900 |

Sources: Metro Denver EDC, Largest Employers 2015-2016; University of Denver.

*Excludes student employees.

Ninety-six percent of DU's employees called the metro Denver region home. Employee spending generated income for many businesses and industries in the region, and significant amounts of tax revenue for state and local governments.

DU's economic impact was driven in part by strong local spending. An estimated 35 percent of DU's operating expenditures, excluding employee earnings, were transacted with Colorado-based vendors and suppliers. This spending contributed to the university's multiplier benefits, supporting regional output, earnings, and employment.

DU ranked as the second largest non-retail private employer in Denver in 2015

DU attracted a significant amount of money into the metro Denver economy, as close to 70 percent of DU's traditional undergraduate students came from out-of-state and a significant percentage of graduate students maintained residency outside of Colorado. DU attracted a large amount of research dollars into the state as well. In 2015, DU funded \$22.2 million of research with more than 83 percent coming from sources outside of Colorado.

The presence of DU also supports private enterprises that serve students on campus. This includes the Follett Bookstore and Sodexo, a company that provides food services for on-campus students and caters DU events. These private campus enterprises contract with the university and have additional employees and operations that boost the local economy.

DU attracted more than \$22 million in research and sponsored programs in FY 2015

The direct economic and fiscal benefits of the University of Denver were estimated based on the university's operating expenditures and those of the private campus enterprises.

ANNUAL DIRECT ECONOMIC BENEFITS

University of Denver

- In FY 2015, DU's operating expenditures, excluding employee compensation, totaled \$138.7 million. These operating expenditures supported industries including utilities, wholesale and retail trade, professional and technical services, building support services, educational services, and maintenance. The value excludes DU expenditures to the Follett Bookstore whose economic benefit was estimated separately.
- Employee compensation comprised the majority of DU's operating expenditures. Compensation includes wages and salaries for DU's employees plus employee benefits such as paid leave, supplemental pay, insurance benefits, retirement, and legally required benefits such as social security and unemployment insurance. Employee compensation in FY 2015 was \$222 million. This estimate excluded student employee compensation, the benefit of which was accounted for in the student spending section of the report to avoid double counting. The benefits of employee compensation also exclude the value of employee tuition waivers.
- DU employed 3,830 faculty and staff for FY 2015. These employees represent the direct employment benefit of the university. The direct employment benefit excludes the 840 student employees of the university whose economic benefit was estimated in the student spending section of the report.

Private Campus Enterprises

- DU contracts with Follett Bookstore to provide students with a location to buy books and school supplies. The presence of the bookstore on campus is dependent on DU and represents an additional economic benefit of the university. Operating expenditures, excluding employee compensation, for the bookstore totaled \$949,000 in FY 2015. This estimate excludes the cost of goods sold, dollars that generally exit the region.
- Compensation for employees at the Follett Bookstore is an estimated \$688,000. Compensation includes wages and salaries and employee benefits.
- Based on the wages and salaries paid by the bookstore, and the average annual wage for retail establishments in the City and County of Denver from Colorado Labor Market Information data, the bookstore employs an estimated 18 workers.

Total Direct Economic Benefit

- The estimated direct economic benefit of DU and the Follett Bookstore in FY 2015 was \$362.3 million including \$222.7 million in compensation for 3,848 employees.

II. UNIVERSITY OPERATIONS

Table 2: Direct Economic Benefit of University of Denver Operations in Metro Denver, FY 2015

| | |
|---|---------------|
| Operating Expenditures (except employee compensation) | |
| University Operations | \$138,698,000 |
| Private Campus Enterprise* | \$949,000 |
| Employee Compensation | |
| University Operations | \$222,013,000 |
| Private Campus Enterprise | \$688,000 |
| Employment | |
| University Operations | 3,830 |
| Private Campus Enterprise | 18 |
| Total | |
| University Operations | \$360,711,000 |
| Private Campus Enterprise | \$1,637,000 |
| Total | \$362,348,000 |
| Employment | 3,848 |

**Reflects benefit of operating expenditures excluding the cost of goods sold.*

ANNUAL DIRECT, INDIRECT, AND INDUCED BENEFITS

- Value of Output:** DU and the Follett Bookstore utilized \$362.3 million of inputs such as labor, supplies, and equipment to generate its output in FY 2015, mainly in the form of services to students. This impact analysis assumed that the value of the university's output was equal to its known expenditures, and it was this value that was used to determine the multiplier benefits of the university. Based on the RIMS II multipliers for the colleges, universities, and junior colleges industry, and retail industry categories, the university likely supported \$431.1 million in additional output in all industries throughout metro Denver. This consisted of the value of the local spending of the employees (the induced benefit) and regional-based supplier companies and their employees (the indirect benefit). Therefore, the total direct and indirect benefit of university operations was \$793.4 million in total output (\$362.3 million direct output + \$431.1 million indirect and induced output), as shown in Table 4.
- Employment:** The University and the bookstore provided employment for 3,848 direct workers in FY 2015. Based on the RIMS II multipliers, the production of the \$431.1 million in indirect and induced output in all industries throughout metro Denver required about 2,281 employees. Therefore, the university and Follett Bookstore supported employment of 6,129 workers (3,848 direct employees and 2,281 indirect and induced employees).
- Earnings:** DU and Follett Bookstore employee compensation was an estimated \$222.7 million in FY 2015. However, not all of the employee benefits represent a direct economic benefit to metro Denver. Employee benefits were adjusted to include only that spending that benefits the local economy directly. Employee benefits that affect Metro Denver included such items as paid leave and supplemental pay, and a portion of health insurance. Benefits excluded from metro Denver are Social Security, Medicare, unemployment

II. UNIVERSITY OPERATIONS

insurance, and retirement, among other things. Based on data from the U.S. Bureau of Labor Statistics, National Compensation Survey, an estimated 46.6 percent of employee benefit spending was considered a direct economic benefit to metro Denver.

Adjusting compensation to reflect those earnings that will likely benefit the local economy, the direct economic benefit of employee compensation in metro Denver is an estimated \$201.7 million. Based on the relationships revealed through the RIMS II multipliers, the 2,281 indirect employees that produced the \$431.1 million in indirect and induced output had associated earnings of about \$145.8 million. In total, the direct and indirect employees had estimated earnings of \$347.5 million (\$201.7 million direct earnings + \$145.8 million indirect and induced earnings). All earnings values are included in the total value of output; earnings are not in addition to the value of output.

Table 3: Total Economic Benefit of University of Denver Operations in Metro Denver, FY 2015

| | Direct Impact | Multiplier | Indirect & Induced Impact | Total Impact |
|----------------------------------|---------------|------------|---------------------------|--------------|
| University Operations | | | | |
| Value of Output (\$M) | \$360.7 | 2.1905 | \$429.4 | \$790.1 |
| Earnings (\$M) | \$201.1 | 1.7219 | \$145.2 | \$346.3 |
| Employment | 3,830 | 1.5914 | 2,270 | 6,100 |
| Private Campus Enterprise | | | | |
| Value of Output (\$M) | \$1.6 | 2.035 | \$1.7 | \$3.3 |
| Earnings (\$M) | \$0.6 | 1.8902 | \$0.6 | \$1.2 |
| Employment | 18 | 1.5944 | 11 | 29 |
| Total | | | | |
| Value of Output (\$M) | \$362.3 | | \$431.1 | \$793.4 |
| Earnings (\$M) | \$201.7 | | \$145.8 | \$347.5 |
| Employment | 3,848 | | 2,281 | 6,129 |

Source: Development Research Partners, based on multipliers for metro Denver region from the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II), 2007 U.S. Benchmark I-O Data and 2013 Regional Data.

*Calculation Note: Direct x Multiplier = Total Impact
Total Impact - Direct Impact = Indirect & Induced Impact
Numbers may not add exactly due to rounding.*

DU is the largest private 4-year university in the metro Denver region with an average of about 11,500 undergraduate and graduate students during the fall, winter, and spring terms. In addition, the university had nearly 4,600 students attend during the 2015 summer term. The university also has nearly 700 students who participate in early childhood education, gifted learning programs, and English language programs.

DU is the largest private 4-year university in the metro Denver region with about 11,500 undergraduate and graduate students

Undergraduate and graduate students enrolled in the university come to Denver, or stay in the metro area, to attend DU instead of other public or private universities. The spending of these students while attending DU represents an additional economic benefit the university has in the region. While students spend money on tuition, fees, or other products and services of DU, these benefits were accounted for through university expenditures. Rather, this section estimates the benefit of student spending on housing, transportation, books and supplies, personal expenses, and other similar expenditures.

Close to 70 percent of DU's traditional undergraduate students come from out-of-state and over 40 percent of its graduate students maintain residency outside of Colorado. When combining these students with DU's University College, or college of professional and continuing studies, an estimated 50 percent of DU's total students are from out-of-state. These students bring money into the state and region. In the case of local students who stay in metro Denver to attend DU, their spending was retained locally rather than spent at competing universities across the country.

This section details the economic and fiscal benefits of DU's student spending in the metro Denver region.

ANNUAL DIRECT ECONOMIC BENEFITS

- Total DU tuition and fees revenue was about \$433.5 million in FY 2015. Of total tuition and fees, DU provided students with about \$127.5 million in institutional scholarships in FY 2015. Tuition and fees is the key revenue source supporting the university operations expenditures discussed in the prior section and is not included as a student benefit to avoid double counting.
- DU students spent an estimated \$109.8 million in FY 2015 for housing, utilities, transportation, retail, and other services. For on-campus DU students, this estimate includes spending on books and supplies, local transportation, and personal expenses. For off-campus students, spending includes all categories. Benefits were excluded in total or in part for students traveling abroad, students living with parents, part-time graduate students, and online/distance students living outside of Colorado.
- Student spending was estimated using student budget estimates from the Colorado Department of Higher Education and other secondary data sources. Specifically, the average expenditure per student estimate included about \$530 per month for housing, \$100 per month for utilities, \$370 per month for food, \$140 per month for transportation, \$150 per month for personal expenses, and \$600 per semester for books and supplies.
- Student spending estimates exclude spending at the Follett Bookstore to avoid double counting benefits. The economic benefit of the Follett Bookstore was accounted for in the University Operations section of the report.

DU provided students with \$127.5 million of institutional scholarships in FY 2015

- The largest student spending category, about \$49 million in FY 2015, was for retail purchases. Retail purchases included spending on books and supplies, personal expenses, part of the transportation costs, and food. However, the majority of the spending is not a direct economic benefit to the region. Retail spending was adjusted to account for the retail margin, or the percent of spending that actually goes towards local wages and indirect business purchases. The remaining dollars received by the businesses represent the cost of goods sold, dollars that generally exit the region as retailers pay for their inventory. Based on the regional capture of retail purchases (generally estimated at 80 percent) and an overall retail margin of about 28 percent, the direct economic benefit of retail spending is an estimated \$7.9 million.
- Several categories of student spending were assumed to represent direct economic benefits to the metro Denver region in their entirety including housing, utilities, and public transportation. However, the \$15.8 million of estimated spending on food and drinking services, personal expenses, and other services was adjusted to represent leakage from the local economy. Metro Denver was assumed to capture about 80 percent of student spending on these services, with an even larger leakage on financial services products. Overall, the direct economic benefit to metro Denver of other services was an estimated \$10.3 million.
- The total direct economic benefit of student spending in metro Denver in FY 2015 was an estimated \$63.2 million.

Table 4: Direct Economic Benefit of University of Denver Student Spending in Metro Denver, FY 2015

| | Total | Benefit* |
|----------------|----------------------|---------------------|
| Housing | \$36,126,000 | \$36,126,000 |
| Utilities | \$7,148,000 | \$7,148,000 |
| Transportation | \$1,745,000 | \$1,745,000 |
| Retail | \$48,952,000 | \$7,908,000 |
| Other Services | \$15,814,000 | \$10,320,000 |
| Total | \$109,785,000 | \$63,247,000 |

**Direct benefits account for local capture and retail margins after subtracting the cost of goods sold and freight.*

ANNUAL DIRECT, INDIRECT, AND INDUCED BENEFITS

- **Value of Output:** Student spending contributed a direct economic benefit in metro Denver of \$63.2 million in FY 2015. Based on the RIMS II multipliers for industries directly benefiting from student spending, student spending likely supported \$52.4 million in additional output in all industries throughout metro Denver. This consisted of the value of the local spending of the employees (the induced benefit) and regional-based supplier companies and their employees (the indirect benefit). Therefore, the total direct and indirect benefit of student spending was \$115.6 million in total output (\$63.2 million direct output + \$52.4 million indirect and induced output), as shown in Table 8.
- **Employment:** Student spending provided employment for 661 direct workers in FY 2015. Based on the RIMS II multipliers, the production of the \$52.4 million in indirect and induced output in all industries throughout metro Denver required about 405 employees. Therefore, student spending supported estimated employment of 1,066 workers (661 direct employees and 405 indirect and induced employees).

III. STUDENT SPENDING

- Earnings:** The 661 employees directly supported by student spending had estimated earnings of \$13.2 million in FY 2015. This included the value of wages and salaries for the employees as well as a portion of employee benefits. Based on the relationships revealed through the RIMS II multipliers, the 405 indirect employees that produced the \$52.4 million in indirect and induced output had associated earnings of about \$14.8 million. In total, the direct and indirect employees had estimated earnings of \$28 million (\$13.2 million direct earnings + \$14.8 million indirect and induced earnings). All earnings values are included in the total value of output; earnings are not in addition to the value of output.

**Table 5: Total Economic Benefit of University of Denver
Student Spending in Metro Denver, FY 2015**

| | Direct Impact | Multiplier | Indirect & Induced Impact | Total Impact |
|-----------------------|---------------|------------|---------------------------|--------------|
| Housing | | | | |
| Value of Output (\$M) | \$36.1 | 1.7024 | \$25.4 | \$61.5 |
| Earnings (\$M) | \$5.3 | 2.3749 | \$7.3 | \$12.6 |
| Employment | 357 | 1.5806 | 207 | 564 |
| Utilities | | | | |
| Value of Output (\$M) | \$7.2 | 1.7822 | \$5.6 | \$12.8 |
| Earnings (\$M) | \$1.0 | 2.5395 | \$1.5 | \$2.5 |
| Employment | 9 | 4.8326 | 36 | 46 |
| Transportation | | | | |
| Value of Output (\$M) | \$1.7 | 2.2848 | \$2.2 | \$3.9 |
| Earnings (\$M) | \$0.7 | 1.9137 | \$0.6 | \$1.3 |
| Employment | 25 | 1.6347 | 16 | 41 |
| Retail | | | | |
| Value of Output (\$M) | \$7.9 | 2.035 | \$8.2 | \$16.1 |
| Earnings (\$M) | \$2.6 | 1.8902 | \$2.3 | \$4.9 |
| Employment | 109 | 1.5944 | 65 | 173 |
| Other Services | | | | |
| Value of Output (\$M) | \$10.3 | 2.0636 | \$11.0 | \$21.3 |
| Earnings (\$M) | \$3.6 | 1.8670 | \$3.1 | \$6.7 |
| Employment | 161 | 1.5053 | 81 | 242 |
| Total | | | | |
| Value of Output (\$M) | \$63.2 | | \$52.4 | \$115.6 |
| Earnings (\$M) | \$13.2 | | \$14.8 | \$28.0 |
| Employment | 661 | | 405 | 1,066 |

Source: Development Research Partners, based on multipliers for metro Denver region from the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II), 2007 U.S. Benchmark I-O Data and 2013 Regional Data.

Calculation Note: $Direct \times Multiplier = Total\ Impact$
 $Total\ Impact - Direct\ Impact = Indirect\ \&\ Induced\ Impact$
 Numbers may not add exactly due to rounding.

IV. VISITOR SPENDING

Visitor spending is another facet of the economic benefit of DU. DU attracts visitors to the metro Denver region for many events. These include parent weekends, prospective student visits, graduation ceremonies, and visiting athletic teams. DU also hosts many other private, social events such as Bar and Bat Mitzvahs, weddings, corporate events, and professional sporting events. DU hosts regional youth competitions including swim meets, club sports, youth hockey, gymnastics, and lacrosse. DU also hosts the Destination Colorado Trade Show each year that highlights travel and tourism oriented businesses and entities from across the state.

Visitors benefit the regional economy when they make purchases and utilize accommodations for overnight lodging. This analysis focuses on the benefit of visitors to the metro Denver region that would likely require overnight lodging, whether from distant parts of the state or from outside of Colorado. The spending of these visitors is attributable to the event they are attending at DU. Local residents who attend events at DU likely spend little money at local businesses while attending a DU event that would not have been spent otherwise.

An estimated 32,700 visitors attended events at DU in FY 2015

ANNUAL DIRECT ECONOMIC BENEFITS

- In total, an estimated 32,700 visitors attended events at DU in FY 2015. Based on the type of event visitors were attending, and primary data for visitors from DU, an estimated 16,600 of these visitors required overnight lodging in metro Denver.
- The estimated average length of stay for overnight visitors was two days, based on events DU hosted in FY 2015. Total non-lodging expenditures were based on the \$69 per diem reimbursement rate for meals and incidental expenses for travelers in the Denver region from U.S. General Services Administration data. After adjusting estimated retail spending for the retail margin, the direct economic benefit of non-lodging expenditures in metro Denver was an estimated \$2.1 million.
- Overnight visitors demanded an estimated 16,600 room-nights at regional hotels and motels in FY 2015. The estimated average room rate in 2015 in the south metro Denver area was about \$129 according to the Colorado Hotel and Lodging Association's *Rocky Mountain Lodging Report*. Therefore, the estimated direct economic benefit of visitor spending on lodging in FY 2015 was \$2.1 million.
- Combined, the total direct economic benefit of DU visitor spending in FY 2015 was an estimated \$4.3 million.

Table 6: Direct Economic Benefit of University of Denver Visitor Spending in Metro Denver, FY 2015

| | |
|--------------------------------------|--------------------|
| Estimated Annual Visitors | 32,700 |
| Estimated Visitors Requiring Lodging | 16,600 |
| Non-Lodging Expenditures | |
| Average Length of Stay (Days) | 2.0 |
| Total Non-Lodging Expenditures* | \$2,122,000 |
| Lodging Expenditures | |
| Room-Nights of Demand | 16,600 |
| Total Lodging Expenditures | \$2,149,000 |
| Total Direct Economic Benefit | \$4,271,000 |

**Estimates of retail spending adjusted to reflect retail margin after subtracting the cost of goods sold and freight. Also includes spending on food and drinking services.*

ANNUAL DIRECT, INDIRECT, AND INDUCED BENEFITS

- Value of Output:** Visitor spending contributed a direct economic benefit in metro Denver of \$4.3 million in FY 2015. Based on the RIMS II multipliers for industries directly benefiting from visitor spending, visitor spending likely supported \$4.2 million in additional output in all industries throughout metro Denver. This consisted of the value of the local spending of the employees (the induced benefit) and regional-based supplier companies and their employees (the indirect benefit). Therefore, the total direct and indirect benefit of visitor spending was \$8.5 million in total output (\$4.3 million direct output + \$4.2 million indirect and induced output), as shown in Table 11.
- Employment:** Visitor spending provided employment for 55 direct workers in FY 2015. Based on the RIMS II multipliers, the production of the \$4.2 million in indirect and induced output in all industries throughout metro Denver required about 32 employees. Therefore, visitor spending supported estimated employment of 87 workers (55 direct employees and 32 indirect and induced employees).
- Earnings:** The 55 employees directly supported by visitor spending had estimated earnings of \$1.3 million in FY 2015. This included the value of wages and salaries for the employees as well as a portion of employee benefits. Based on the relationships revealed through the RIMS II multipliers, the 32 indirect employees that produced the \$4.2 million in indirect and induced output had associated earnings of about \$1.2 million. In total, the direct and indirect employees had estimated earnings of \$2.5 million (\$1.3 million direct earnings + \$1.2 million indirect and induced earnings). All earnings values are included in the total value of output; earnings are not in addition to the value of output.

**Table 7: Total Economic Benefit of University of Denver
Visitor Spending in Metro Denver, FY 2015**

| | Direct Impact | Multiplier | Indirect & Induced Impact | Total Impact |
|---------------------------------|---------------|------------|---------------------------|--------------|
| Non-Lodging Expenditures | | | | |
| Value of Output (\$M) | \$2.1 | 2.0735 | \$2.3 | \$4.4 |
| Earnings (\$M) | \$0.7 | 1.9278 | \$0.6 | \$1.3 |
| Employment | 35 | 1.4782 | 17 | 52 |
| Lodging Expenditures | | | | |
| Value of Output (\$M) | \$2.2 | 1.9064 | \$1.9 | \$4.1 |
| Earnings (\$M) | \$0.6 | 1.9675 | \$0.6 | \$1.2 |
| Employment | 20 | 1.7309 | 15 | 35 |
| Total | | | | |
| Value of Output (\$M) | \$4.3 | | \$4.2 | \$8.5 |
| Earnings (\$M) | \$1.3 | | \$1.2 | \$2.5 |
| Employment | 55 | | 32 | 87 |

Source: Development Research Partners, based on multipliers for metro Denver region from the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II), 2007 U.S. Benchmark I-O Data and 2013 Regional Data.

*Calculation Note: Direct x Multiplier = Total Impact
Total Impact - Direct Impact = Indirect & Induced Impact
Numbers may not add exactly due to rounding.*

V. CONSTRUCTION ACTIVITY

The University of Denver campus consists of a number of instructional, student housing, athletic, and administrative buildings. Dollars spent by the university to expand and construct new physical structures provide an additional, but temporary, economic benefit to the Denver region. Construction impacts include expenditures on construction labor, construction materials, and project soft costs such as construction management, design, and engineering.

Over the past 20 years, about half of DU's campus was newly constructed and one-fourth of the campus was substantially renovated

Construction spending varies by year so this analysis was based on the typical average annual construction expenditures. Over the past 20 years, DU has spent \$640 million on construction projects, or an average of \$32 million each year. This spending resulted in the new construction of about half of today's campus and the renovation of about one-fourth of the campus. DU often employs

local architects, project management, contractors, materials, and labor for these projects. The local spending has multiplicative impacts in the metro Denver region.

AVERAGE ANNUAL DIRECT ECONOMIC BENEFITS

- Construction materials comprised roughly 40 percent of DU's average annual construction spending. Construction spending for materials averaged about \$12.8 million each year. However, not all of this spending was transacted with metro Denver based suppliers. University data indicated that about \$5.1 million of the materials were sourced in Colorado. The metro Denver region captured about 80 percent of this spending. Therefore, the direct economic benefit in metro Denver of construction materials was an estimated \$4.1 million.
- Soft costs, such as project management, building design, and engineering, comprised about 10 percent of average annual construction spending, or about \$3.2 million. DU estimated that all of the average spending on project soft costs was likely contracted with Colorado-based companies. Further, the metro Denver region captured most of the state's spending on soft cost services. This analysis assumed metro Denver captured 100 percent of project spending on soft costs.
- DU estimated compensation for construction workers represented about 50 percent of the average annual DU construction activity, or about \$16 million. Metro Denver has a large supply of construction firms and contractors and this analysis assumed the region captured 100 percent of the construction labor. However, not all of the employee benefits represent a direct economic benefit. Employee benefits were adjusted to identify only that spending that benefits the local economy directly. Data from the U.S. Bureau of Labor Statistics, National Compensation Survey indicate employee benefits represent about 30 percent of compensation for construction labor. An estimated 65 percent of employee benefits were paid to organizations outside of the area, so those dollars did not benefit the metro Denver economy. Overall, the direct benefit of earnings in metro Denver is an estimated \$12.8 million.
- Based on estimated wages and salaries for construction workers involved in DU projects and the average annual wage of construction workers from the Colorado Department of Labor and Employment, DU construction supported an average of 207 full-time equivalent construction workers each year.
- The total direct economic benefit of DU construction activity in metro Denver averaged an estimated \$20.1 million each year, supporting 207 workers with local earnings of \$12.8 million.

Table 8: Direct Economic Benefit of Average Annual University of Denver Construction Activity in Metro Denver

| | Total | Direct Benefit |
|------------------------|--------------|----------------|
| Construction Materials | \$12,800,000 | \$4,096,000 |
| Soft Costs | \$3,200,000 | \$3,200,000 |
| Employee Compensation | | |
| Wages and Salaries | \$11,072,000 | \$11,072,000 |
| Employee Benefits | \$4,928,000 | \$1,725,000 |
| Total | \$32,000,000 | \$20,093,000 |
| Employment | 207 | 207 |

AVERAGE ANNUAL DIRECT, INDIRECT, AND INDUCED BENEFITS

- Value of Output:** Average annual construction activity at DU contributed a direct economic benefit in metro Denver of \$20.1 million per year. Based on the RIMS II multipliers for the construction industry in the region, construction activity likely supported \$20.6 million in additional output in all industries throughout metro Denver. This consisted of the value of the local spending of the employees (the induced benefit) and regional-based supplier companies and their employees (the indirect benefit). Therefore, the average annual total direct and indirect benefit of construction was \$40.7 million in total output (\$20.1 million direct output + \$20.6 million indirect and induced output), as shown in Table 13.
- Employment:** DU's construction spending supported an estimated 207 full-time equivalent workers on average each year. Based on the RIMS II multipliers, the production of the \$20.6 million in indirect and induced output in all industries throughout metro Denver required about 173 employees. Therefore, average annual construction activity supported estimated employment of 380 workers (207 direct employees and 173 indirect and induced employees).
- Earnings:** The direct construction workers had estimated average annual earnings of \$12.8 million. This included the value of wages and salaries for the employees as well as a portion of employee benefits. Based on the relationships revealed through the RIMS II multipliers, the 173 indirect employees that produced the \$20.6 million in indirect and induced output had associated earnings of about \$8.2 million. In total, the direct and indirect employees supported by construction activity had estimated annual earnings of \$21 million (\$12.8 million direct earnings + \$8.2 million indirect and induced earnings). All earnings values are included in the total value of output; earnings are not in addition to the value of output.

V. CONSTRUCTION ACTIVITY

**Table 9: Average Annual Economic Benefit of University of Denver
Construction Activity in Metro Denver**

| | Direct Impact | Multiplier | Indirect & Induced Impact | Total Impact |
|-----------------------|---------------|------------|------------------------------|--------------|
| Value of Output (\$M) | \$20.1 | 2.0238 | \$20.6 | \$40.7 |
| Earnings (\$M) | \$12.8 | 1.6376 | \$8.2 | \$21.0 |
| Employment | 207 | 1.8351 | 173 | 380 |

Source: Development Research Partners, based on multipliers for metro Denver region from the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II), 2007 U.S. Benchmark I-O Data and 2013 Regional Data.

*Calculation Note: Direct x Multiplier = Total Impact
Total Impact - Direct Impact = Indirect & Induced Impact
Numbers may not add exactly due to rounding.*

DIRECT FISCAL BENEFITS BY CATEGORY

Spending activity generates fiscal benefits, or local government tax revenue, in the metro Denver region. University spending and operations generate sales tax revenue and property tax revenue for state and local jurisdictions. As the DU employees spend their earnings on taxable retail purchases and housing, they generate sales and property tax revenue for regional jurisdictions. In addition, as students make retail purchases and pay for housing in metro Denver, they generate sales tax and property tax. Lastly, visitors associated with the university generate sales tax and lodging tax in the metro Denver region.

A total of \$13.1 million in sales, property, and lodging tax revenue was directly associated with DU

University Operations

- Purchases of items at retail and food services provided on campus generate sales tax revenue. Sales taxes from the university totaled \$265,000 in FY 2015. Follett Bookstore sales also generated sales tax, an estimated \$458,000. Based on the state sales tax rate of 2.9 percent, the City and County of Denver rate of 3.65 percent, the Regional Transportation District (RTD) rate of 1 percent, and the Scientific and Cultural Facilities District (SCFD) rate of 0.1 percent, the fiscal benefit for state and local districts was an estimated \$722,900 in FY 2015.
- The university is exempt from property tax. However, business personal property tax was imposed on the private campus enterprises at DU. Based on property tax records from the City and County of Denver Assessor's office, property tax paid to city, school, and special districts totaled \$9,300 in FY 2015.
- University operations generated a total of \$732,200 in tax revenue for state and local jurisdictions in FY 2015. Of this total, the direct fiscal benefit of DU to the state was \$274,000. The benefit to the City and County of Denver was \$348,600. Other district benefits included Denver Public Schools (\$5,600), RTD (\$94,500), SCFD (\$9,400), and other special property tax districts (\$100).

DU Employee Spending

- An estimated 96 percent of DU's employees call the metro Denver region home. Employee spending generates income for many businesses and industries in the region. Wage and salary income for DU employees, excluding student employees and the value of employee benefits, totaled \$182.9 million in FY 2015. This translates to an estimated \$175.6 million in wage and salary income for employee residents of the metro Denver region.
- Based on data from the U.S. Bureau of Labor Statistics, Consumer Expenditure Survey, the average household spends between 26.5 percent and 34.7 percent of their income on sales taxable purchases in state and local tax districts. Based on retail sales data from the Colorado Department of Revenue, retail capture rates were estimated for state taxable purchases, local county and municipal based purchases, and for the RTD and SCFD districts. Retail capture rates ranged from 80 percent for state sales taxable purchases, to as low as 30 percent for some small municipalities with limited retail options.
- Based on employee locations provided by DU and sales tax rates and structure for communities throughout the metro Denver region, employees likely paid nearly \$2.9 million in sales tax to the various taxing entities. The state benefited from an estimated \$1.1 million in sales tax from employee spending. Local city and county sales tax districts in the metro Denver region benefited from an estimated \$1.3 million. In addition, the fiscal benefit to RTD was an estimated \$367,000 and \$37,000 for the SCFD.

- Employees generate property tax revenue for local districts directly through home ownership, or indirectly through renting. Property tax was determined by the value of housing occupied by DU employees. Based on the average annual wage for employees of the university, a home affordability analysis was conducted for each location in the metro Denver region with DU employees. Home affordability was determined using factors such as average percent of income spent on housing, average interest rates, local mill levies, and insurance premiums.¹
- Based on employee locations, local mill levies, and data from the Colorado Division of Property Taxation, employees likely paid a total of \$3 million in property tax to the various taxing entities. Property tax paid to counties in the metro Denver region was an estimated \$334,000 in FY 2015. The fiscal benefit to municipalities in the metro Denver region was an estimated \$705,000. School districts in the region received an estimated \$1.9 million and other special districts received \$109,000.
- In total, DU employee spending generated nearly \$5.9 million in tax revenue for state and local jurisdictions in FY 2015.

Student Spending

- Purchases of items at retail and food services generated sales tax revenue for state and local governments in the metro Denver region totaling about \$1.4 million. Sales tax estimates were based on retail capture rates and the state sales tax rate, an average city and county sales tax rate of about 3.2 percent in the metro Denver region, RTD, and SCFD tax rates. The estimated fiscal benefit of sales tax to the state was \$592,000, an estimated \$654,000 for county and city governments in metro Denver, \$204,000 for RTD, and \$20,000 for SCFD. It should be noted that other local improvement districts in the metro Denver region likely benefitted from student spending; however, this benefit was not estimated.
- Most students likely rent housing while attending DU. Property tax revenue is determined using the estimated value of the housing demanded by students in the metro Denver region. Valuation was determined using estimated rent, estimated net operating income of apartment management (40 percent operating expense ratio), and an estimated benchmark valuation rate of 10 percent (net operating income as a percent of value). Based on the estimated value of housing and the average mill levy in the metro Denver region, property tax revenue associated with student housing costs totaled \$4.6 million. Of this total, county governments received an estimated \$1.1 million, city governments received an estimated \$809,000, \$2.5 million went to school districts in the region, and \$168,000 went to all other special tax districts in metro Denver.
- Sales tax and property tax revenue generated by student spending for all taxing districts totaled about \$6 million.

Visitor Spending

- Visitor spending on lodging, meals, and incidental expenses generated about \$335,000 in sales tax revenue for state and local governments in FY 2015. Based on the visitor spending estimates, the fiscal benefit to the state was an estimated \$127,000, the benefit to local city and county jurisdictions was \$160,000, the benefit to RTD was an estimated \$44,000, and \$4,000 for the SCFD. It should be noted that other local improvement districts in the metro Denver region likely benefitted from visitor spending; however, this benefit was not estimated.

¹ Home affordability based on 33 percent of income spent on housing, a 5 percent down payment, a 30-year loan term, 5 percent annual interest rate, an annual insurance premium as a percent of home value of 0.5 percent, and total mill levy estimated for each employee location. The residential assessment rate is 7.96 percent.

- Visitor spending for accommodations generated lodging tax for local jurisdictions in the metro Denver region. The lodging tax rate in the City and County of Denver is 10.75 percent. Based on the City and County of Denver capturing about 51 percent of the room-nights of demand based on available lodging options in areas likely to attract DU visitors (Arapahoe County, Douglas County, and the City and County of Denver), lodging tax revenue totaled \$119,000. Arapahoe County and Douglas County do not have a lodging tax. Municipalities in these counties impose lodging taxes, but the probability of where visitors stayed was not estimated for this study.
- Total sales tax and lodging tax generated by DU visitors for all taxing districts totaled an estimated \$454,000.

TOTAL FISCAL BENEFITS

- The university and its private campus enterprises, their employees, the students, and campus visitors generated sales tax, lodging tax, and property tax from their spending and housing costs. A total of \$13.1 million in tax revenue for state and local taxing entities and jurisdictions throughout the metro Denver region was directly associated with DU in FY 2015.
- The estimated state sales tax benefit was \$2.1 million in FY 2015, while RTD received \$709,000 and the SCFD received \$70,400. Metro area school districts received \$4.4 million in property taxes and a variety of special districts received about \$277,100. The cities and counties in Metro Denver received about \$5.5 million in sales tax, property tax, and lodging tax.
- Fiscal benefits were estimated for direct spending only. The estimate does not include the tax revenue generated from indirect and induced business and employee spending.

**Table 10: Direct State and Local Fiscal Benefit of
University of Denver, FY 2015**

| | State | Local* | School | Other Special Districts | RTD | SCFD | Total |
|--------------|--------------------|--------------------|--------------------|----------------------------|------------------|-----------------|---------------------|
| Sales Tax | \$2,118,000 | \$2,503,000 | | | \$709,500 | \$70,400 | \$5,400,900 |
| Lodging Tax | | \$119,000 | | | | | \$119,000 |
| Property Tax | | \$2,901,600 | \$4,379,600 | \$277,100 | | | \$7,558,300 |
| Total | \$2,118,000 | \$5,523,600 | \$4,379,600 | \$277,100 | \$709,500 | \$70,400 | \$13,078,200 |

**Local includes city and county tax revenue for metro Denver communities.*

The University of Denver has been a vital part of the metro Denver region's economy for over 150 years, providing revenue for area businesses and university suppliers, paying wages and benefits to thousands of employees, serving as the temporary home for its students, and attracting a host of annual visitors and their dollars. The spending patterns associated with the direct or initial spending by these various groups have spin-off effects or multiplicative impacts throughout the region. Further, the spending patterns generate sales tax, property tax, and lodging tax throughout the region. The economic and fiscal benefits described throughout this report are combined now to estimate the overall annual economic and fiscal benefits of the university.

Economic Benefits

- The direct economic benefit of DU in FY 2015 including all university operations, student spending, visitor spending, and average construction activity, was an estimated \$449.9 million produced by 4,771 workers earning \$229 million. The 4,771 direct employees consist of 3,830 DU employees, 18 employees of the private campus enterprises, 661 workers supported by student spending, 55 workers supported by the visitor spending on retail and lodging, and 207 workers related to the average annual construction activity. Through the multiplier effects of this direct spending, DU likely supported an additional \$508.3 million of output in all industries in the metro Denver region, produced by 2,890 indirect workers earning \$170 million.

Table 11: Total Economic Benefit of University of Denver in Metro Denver, FY 2015

| | Direct Impact | Indirect & Induced Impact | Total Impact |
|--------------------------------------|----------------|---------------------------|----------------|
| University Operations | | | |
| Value of Output (\$M) | \$362.3 | \$431.1 | \$793.4 |
| Earnings (\$M) | \$201.7 | \$145.8 | \$347.5 |
| Employment | 3,848 | 2,281 | 6,129 |
| Student Spending | | | |
| Value of Output (\$M) | \$63.2 | \$52.4 | \$115.6 |
| Earnings (\$M) | \$13.2 | \$14.8 | \$28.0 |
| Employment | 661 | 405 | 1,066 |
| Visitor Spending | | | |
| Value of Output (\$M) | \$4.3 | \$4.2 | \$8.5 |
| Earnings (\$M) | \$1.3 | \$1.2 | \$2.5 |
| Employment | 55 | 32 | 87 |
| Construction (Annual Average) | | | |
| Value of Output (\$M) | \$20.1 | \$20.6 | \$40.7 |
| Earnings (\$M) | \$12.8 | \$8.2 | \$21.0 |
| Employment | 207 | 173 | 380 |
| Total | | | |
| Value of Output (\$M) | \$449.9 | \$508.3 | \$958.2 |
| Earnings (\$M) | \$229.0 | \$170.0 | \$399.0 |
| Employment | 4,771 | 2,890 | 7,661 |

Source: Development Research Partners, based on multipliers for metro Denver region from the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II), 2007 U.S. Benchmark I-O Data and 2013 Regional Data.

- **The total economic benefit of the University of Denver in the metro Denver region was an estimated \$958.2 million in total output produced by 7,661 workers** (4,771 direct employees + 2,890 indirect workers) earning \$399 million in FY 2015.

Fiscal Benefits

- The university and its private campus enterprises, their employees, the students, and campus visitors generated sales tax, lodging tax, and property tax from their spending and housing costs. **A total of \$13.1 million in tax revenue for state and local taxing entities and jurisdictions throughout the metro Denver region was directly associated with DU in FY 2015.**
- Fiscal benefits were estimated for direct spending only. The estimate does not include the tax revenue generated from indirect and induced business and employee spending.

Conclusion

The University of Denver is a \$958.2 million economic engine for metro Denver. Further, the activities associated with DU generate \$13.1 million in tax revenue for a variety of state, local, municipal, and special tax districts throughout the Denver region. DU also benefits the region beyond the dollars spent by the university, campus businesses, employees, students, and visitors. While these benefits are difficult to quantify in monetary terms, DU provides:

- An available, educated workforce as 70 percent of DU's graduates stay in Colorado
- Continuing education opportunities for existing residents.
- Alumni contributions to the Denver region.
- Community use of facilities and support for community events.
- A neighborhood "anchor" and contribution to neighborhood identity.

With students from across the U.S. and more than 90 countries, DU encourages students to be the best that they can be while improving the local and global communities.

DU provides the region with an available, educated workforce as 70 percent of its graduates stay in Colorado

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