Northern State University: Meeting South Dakota Students Where They Are

FY 2019

ECONOMIC IMPACT REPORT

2021
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NSU by the Numbers

$180.7 Million
Generated in Economic Impact

1,008 Jobs
Supported and Sustained

$6.8 Million
in State and Local Taxes Generated

$35.6 Billion
Direct Impact Generated by NSU Alumni throughout the Course of their Careers

3,427 Students

374 Graduates Annually

99% classes taught by faculty

78% undergraduate students from South Dakota

35% first-generation college students

55 Undergraduate Programs
9 Graduate Programs
23 Certificate Programs
52 Minors
Northern State University (NSU) is a promise to the students of South Dakota. Located in Aberdeen, the state’s third-largest city, Northern is known for its close connection with the Aberdeen community. This mutually beneficial relationship between the town and university has yielded a rich array of benefits for the residents of Aberdeen and the state. The relationship has grown even stronger over the past 10 years as the community has donated $150 million for new buildings, a football stadium, an updated fine arts center, scholarships and academic programming. This is an incredibly outsized gift for a town of about 28,000 people. And it speaks to the conviction among Aberdeen residents that the town’s success is tied to the success of the university that calls Aberdeen home.

Northern’s mission is to support students from the time they enter the university through graduation. The university’s relatively small size and devoted faculty facilitate the close connections and guidance that make students feel like they’re part of a community — and that their success is Northern’s success. Virtually all courses are taught by faculty, class size is small, and faculty spend significant time mentoring and advising students. As a result, students feel that personal dedication from the classroom through career guidance. This support is critical: 35% of Northern students are the first in their families to attend college. Northern gives them the tools to succeed.

“This is an incredibly outsized gift for a town of about 28,000 people. And it speaks to the conviction among Aberdeen residents that the town’s success is tied to the success of the university that calls Aberdeen home.”

Zach Flakus
NSU Foundation President and CEO
Northern State is proud to support the 35% of its students who are the first in their families to go to college. In fact, the university is home to many faculty and staff who were first-generation college students pursuing their own Dakota dream. They know well that college can be a confusing and scary place for the children of parents who didn’t go to college. These students — many of whom also rely on financial aid to attend college — are more likely to struggle academically and drop out if they lack encouragement and guidance.

In summer 2021, NSU launched its “First-Generation Strong” project to celebrate the powerful victories of the university’s first-generation students and faculty, and to ensure that these students feel understood and supported as they navigate their college experience. NSU faculty and staff provide the kind of close contact and strong relationships that can make the difference for students unfamiliar with college. Northern’s faculty members spend an average of 7 hours a week advising and mentoring students, totaling almost 9,500 hours a semester.

NSU welcomed first-generation students into its First-Generation Network with a special reception for first-generation faculty and staff as the academic year kicked off. No detail was left unattended — placards on the doors of first-generation faculty and staff invite these students to stop in and talk. And NSU brings this network together several times throughout the year to celebrate successes and cheer students on.

College can change the trajectory of a life. NSU knows this and is committed to ensuring that its first-generation students can spread their wings and fly.

“I am first generation and I appreciate knowing that some of my professors are too. They went on to get their doctorate and that is so inspiring to see. They take time to ask me what I want to do and how they can help me. They understand me.”

Emma Pulfrey
Northern State University Student
Founded in 1901 as the Northern Normal and Industrial School, Northern State was originally a teaching college for the growing population of South Dakota. After several name changes, Northern State University became official in 1989. Currently, NSU has five schools housing more than 60 programs. Students can hone their knowledge and passion with opportunities that range from student teaching at the South Dakota School for the Blind and Visually Impaired to interning with a local business.

The Northern Wolves have 15 NCAA Division II teams across men’s and women’s sports. The teams are quite popular with students and the community — especially the basketball teams that play to packed houses at Wachs Arena, where the NSU Wolves have set a record 13 years in a row for attendance at Division II games. Two-thirds of Northern graduates stay in the state — many stay in the Aberdeen area — and evolve into enthusiastic alumni. Interns also become employees, and many of the major companies in the area employ Northern graduates — including Dacotah Bank, which reports that 46% of its executives are Northern graduates. The community built by and around Northern knows how important the university is and how these graduates keep Aberdeen moving and competitive across South Dakota and beyond.

Northern State University Mission

Northern State University will provide diverse academic, civic, social, and cultural opportunities that prepare students through the liberal arts, professional education, and E-learning for their future endeavors, while also enriching the local and regional community.
In July 2021, the South Dakota Board of Regents (SDBOR) engaged Parker Philips, Inc. to measure the economic contribution of public higher education overall and of each of South Dakota’s six universities. The goal of this analysis is to tell NSU’s story from a numbers and narrative perspective. To develop this report Parker Philips, Inc. gathered student, financial, and employment data about NSU, visited and toured the campus, conducted interviews, and researched secondary data and information to inform the writing and key messages.

The primary tool used in the performance of this study is the input-output model and data set developed by IMPLAN Group LLC. Financial data used in this study was obtained from the South Dakota Board of Regents and included the following data points: operational expenditures, capital expenditures, and payroll and benefits for employees for FY 19. Secondary data was used to estimate spending by visitors (day and overnight) and students (undergraduate and graduate) exclusive of tuition and fees. Additional information on the methodology and assumptions used to complete this study can be found in Appendix B.

The impact presented in this analysis is broken down into three categories: direct impact, indirect impact, and induced impact. The indirect and induced impacts are commonly referred to as the “multiplier effect.” The graphic below provides an overview of the types of impact detailed in this report.
NSU contributes to the local and statewide economies through its expenditures on operations, capital projects, wages, the spending of students off campus, and the spending of visitors to campus. The direct, day-to-day expenditures of NSU, combined with the student and visitor spending, cause a ripple effect throughout the statewide economy.

The total economic impact of NSU in FY 19 totaled $180.7 million. This contribution to the local and statewide economies is a point-in-time snapshot depicting how the expenditures of NSU and its faculty, staff, students, and visitors make an impact.

**Operations and Spending Contribution**

NSU operations and capital spending in FY 19 contributed a total of $142.6 million. NSU’s operations generated $88.6 million in direct economic impact, $25.7 million in indirect economic impact, and $28.3 million in induced economic impact.

**Student Spending Contribution**

NSU students contributed a total of $33.7 million to the state’s economy in FY 19 as a result of their spending. They generated $22.7 million in direct economic impact, $5.9 million in indirect economic impact, and $5.1 million in induced economic impact.

**Visitor Spending Contribution**

Visitor spending contributed a total of $4.5 million. Visitors to NSU generated $2.7 million in direct economic impact, $936,505 in indirect economic impact, and $826,772 in induced economic impact.
### NSU’s Combined Economic Impact (FY 19)

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Direct Spending</th>
<th>Direct Spending</th>
<th>Indirect Spending</th>
<th>Induced Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Student Spending</td>
<td>$142,577,984</td>
<td>$33,678,579</td>
<td>$22,653,621</td>
<td>$5,108,678</td>
</tr>
<tr>
<td>Total Visitor Spending</td>
<td>$4,482,008</td>
<td>$2,718,731</td>
<td>$936,505</td>
<td>$826,772</td>
</tr>
<tr>
<td>Total Combined Impact</td>
<td>$180,738,571</td>
<td>$113,943,966</td>
<td>$32,569,400</td>
<td>$34,225,205</td>
</tr>
</tbody>
</table>

Source: Parker Philips using IMPLAN with data from SDBOR

“Northern serves Aberdeen and the region as a center for quality academics and lifelong education, fine arts and athletic events, and through innovation. Our community supports us in many different ways, and we collaborate to advance economic development while remaining focused on student success and serving the public good.”

Neal Schnoor
President, Northern State University
NSU supports a total of **1,008 full- and part-time jobs** throughout the state. Beyond the direct jobs at the University, indirect and induced jobs include construction for campus projects, retail, restaurants, daycare, real estate, and banking — to name a few.

**Jobs Generated by University Operations**
NSU operations supported and sustained a total of 694 jobs: 356 direct jobs, 151 indirect jobs, and 187 induced jobs.

**Jobs Generated by Student Spending**
Students from NSU supported and sustained a total of 272 jobs as a result of their spending: 206 direct jobs, 32 indirect jobs, and 34 induced jobs.

**Jobs Generated by Visitor Spending**
Visitors to NSU supported and sustained a total of 42 jobs as a result of their spending: 30 direct jobs, 6 indirect jobs, and 6 induced jobs.

Based on analysis by industry sectors, other jobs supported by the university’s economy outside of the higher-education and healthcare sectors include jobs in real estate, retail, and services (e.g., restaurants, child-care centers, and entertainment).
<table>
<thead>
<tr>
<th>Contribution</th>
<th>Direct Contribution</th>
<th>Indirect Contribution</th>
<th>Induced Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Combined (Jobs)</td>
<td>1,008</td>
<td>592</td>
<td>189</td>
</tr>
<tr>
<td>Total Operations (Jobs)</td>
<td>694</td>
<td>356</td>
<td>151</td>
</tr>
<tr>
<td>Total Student (Jobs)</td>
<td>272</td>
<td>206</td>
<td>32</td>
</tr>
<tr>
<td>Total Visitor (Jobs)</td>
<td>42</td>
<td>30</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: Parker Philips using IMPLAN with data from SDBOR and NSU
Generating Local and State Tax Revenues

NSU’s employees, suppliers, and related constituencies contribute to the local and statewide tax bases. In FY 19, the university contributed an estimated **$6.8 million** ($4.3 million direct and $2.5 million indirect and induced) through local spending (operational, capital, students, and visitors) as well as direct and indirect support of jobs. At the state and local levels, NSU contributes to the tax bases through its purchasing. Specific taxes include employee and employer contributions to state and local social-insurance funds, sales and use taxes, personal property taxes, taxes paid on motor-vehicle licenses, and payments of fines and fees.

**Northern State University State and Local Tax Impacts (FY 19)**

<table>
<thead>
<tr>
<th>SUB COUNTY GENERAL</th>
<th>SUB COUNTY SPECIAL DISTRICTS</th>
<th>COUNTY</th>
<th>STATE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIRECT</td>
<td>$826,751</td>
<td>$949,130</td>
<td>$378,325</td>
<td>$2,098,279</td>
</tr>
<tr>
<td>INDIRECT</td>
<td>$198,376</td>
<td>$227,853</td>
<td>$90,478</td>
<td>$501,862</td>
</tr>
<tr>
<td>INDUCED</td>
<td>$303,101</td>
<td>$348,208</td>
<td>$138,070</td>
<td>$759,060</td>
</tr>
<tr>
<td>TOTAL</td>
<td><strong>$1,328,228</strong></td>
<td><strong>$1,525,191</strong></td>
<td><strong>$606,873</strong></td>
<td><strong>$3,359,201</strong></td>
</tr>
</tbody>
</table>

Source: Parker Philips using IMPLAN with data from SDBOR and SDSU
Case Study:

COMMUNITY RESOURCES ARE A TANGIBLE VOTE OF CONFIDENCE IN NSU

Over the past 10 years, the Aberdeen community has contributed about $150 million to NSU. That’s a stunning amount of money from any city — particularly from one with a population of less than 30,000. It is tangible evidence that Aberdeen connects its future with the success of NSU.

State Senator Casey Crabtree attended NSU in the early 2000s and has first-hand knowledge of NSU’s uniquely important relationship with Aberdeen and the entire northern region of South Dakota. “Walking around the NSU campus, you can really see what private investment has done for the university. It all came from people who really cared enough to make a difference in their community,” said Senator Crabtree.

The $150 million NSU has received in local investments has gone a long way toward strengthening NSU’s educational offerings and expanding opportunities for local residents to take advantage of the University’s rich array of extracurricular offerings. From 2013 to 2021, local contributions have contributed to student scholarships, supported the construction of the Jewett Regional Science Education Center, and provided enhancements to the Regional Sports Complex and athletic fields and facilities. Local dollars also contributed to the renovation of the Johnson Fine Arts Center — a facility that annually hosts more than 65 concerts, theater performances, and community events and welcomes more than 7,600 guests per year.

“The university is incredibly important not only to the Aberdeen community but to the whole region. It’s our No. 1 tool to not only attract new workforce from other states, but to develop our own workforce right here in South Dakota. That’s why folks in Aberdeen are investing in NSU. When students have a great experience at NSU, they’ll stay and continue to be part of the workforce and carry on the legacy of Northern.”

Casey Crabtree, South Dakota State Senator
In 2019, 374 students graduated from NSU, and 13,453 alumni currently live and work in the State of South Dakota. Thanks to partnerships with local employers, an intentional pipeline to the jobs that exist, and a strong demand for talent and graduates at local businesses big and small, 65.7% of NSU graduates plant their roots in South Dakota. The direct impact of the total average wage earned by undergraduate and graduate alumni of NSU on the economy over a 40-year career totals $35.6 billion and supports 236,785 jobs.

The earnings of 13,453 alumni from NSU over the course of their 40-year careers will total $35.6 billion, support and sustain a cumulative total of 236,785 jobs, and generate $1.6 billion in fiscal impacts at the local and state level.
**NSU Athletics**

NSU has been a powerhouse in sports in the upper Midwest for over a century, with more than 130 state and conference championships in that time. NSU has also produced more than 220 All-American athletes and nine athletes drafted to major league sports.

The NSU Wolves — a member of the NCAA’s Division II — field 15 teams across men’s and women’s sports, including football, basketball, volleyball, and track and field. NSU belongs to the Northern Sun Intercollegiate Conference, where its men’s basketball team has won the NSIC title each of the past four years. NSU has led NCAA Division II in both men’s and women’s basketball game attendance for the past 13 years.

Community and campus support of NSU’s athletic teams is impressive with over 1,000 season ticket holders — and an extremely active Wolves Club. The alumni organization that fundraises for athletics boasts more than 1,500 members and has generated in excess of $2 million annually through income and donations. NSU student athletes are an impressive bunch — they have maintained a cumulative GPA above 3.0 for 22 consecutive semesters. And they know the value of showing up for the community that always shows up for them. NSU’s Annual Day of Champions partners with the United Way as NSU’s athletic teams support the community. In total, NSU student athletes have donated 16,000 hours of labor since the beginning of the program.

Northern’s homecoming celebration is a huge event for Wolves from all over. This beloved Gypsy Days tradition is a weeklong event that includes decorating Aberdeen businesses and a 5K run. Homecoming culminates with the biggest parade in South Dakota, winding through Main Street and ending back at the stadium for the afternoon football game. The parade represents not just clubs and activities at NSU, but local businesses, 4-H clubs, Boy and Girl Scouts, churches, and high school bands.
Aberdeen benefits from the engagement of faculty, staff, and students in the community. Based upon assumptions derived from the U.S. Census Bureau and the Points of Light Foundation regarding donation amounts and volunteerism rates by age, income level, and employment status, it is estimated that staff, faculty, and students give an estimated $310,365 annually in charitable donations and volunteer for nearly 52,841 hours, valued at over $1.2 million. In FY 19, the combined impact of charitable giving and volunteerism totaled more than $1.6 million. These benefits were in addition to Northern’s $180.7 million annual economic impact.
Northern State University is a cornerstone of the Aberdeen community. Supporting more than 1,000 direct employees, NSU is one of the top 10 employers in the community. Generating $180 million in economic impact in 2019 for the state, Northern is a leader not just locally but regionally. Its impact is felt both economically and culturally. NSU brings people together for musical performances and Wolves games — everyone from students to the local community shows up for NSU. Northern’s passion and spirit shines through in their mentorship of the students coming to campus to pursue their dreams. Attending Northern means becoming part of a broader community and many students settle in the miles surrounding it after graduation. Northern is an integral part of South Dakota’s system of public higher education, ensuring that students get the education and skills they need to succeed.

Over the course of 50 years, NSU has developed a strong relationship with the South Dakota School for the Blind and Visually Impaired (SDSBVI) and has become a strong advocate for students with vision loss in South Dakota and around the country by supporting educators as they teach the visually impaired. NSU students support the SDSBVI by assisting as student teachers and by volunteering to help in classes. SDSBVI students also use the NSU campus for mobility training. With the construction of a new building for SDSBVI, Northern continues to be a resource for the school. Through its work with SDSBVI to advance the education of visually impaired students as well as the training for teachers, NSU supports its local community and the state of South Dakota.

Pack Gives Back is a day for the students at Northern to give back to Aberdeen. In 2018, over 50 staff and students donated their time in the Aberdeen Senior Center, Aberdeen Family YMCA, and the Boys and Girls Club.

Northern’s sports camps hosted almost 3,600 local kids for sports tournaments and camps over the 2020–2021 year.

Average annual attendance at the Johnson Fine Arts Center is more than 7,600.

### Charitable Giving and Volunteer Impact of NSU

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff and Faculty Charitable Giving</strong></td>
<td>$182,709</td>
</tr>
<tr>
<td><strong>Student Charitable Giving</strong></td>
<td>$127,656</td>
</tr>
<tr>
<td><strong>Total Charitable Giving</strong></td>
<td>$310,365</td>
</tr>
<tr>
<td><strong>Staff and Faculty Volunteerism Hours</strong></td>
<td>4,932</td>
</tr>
<tr>
<td><strong>Student Volunteerism Hours</strong></td>
<td>47,909</td>
</tr>
<tr>
<td><strong>Total Volunteerism Hours</strong></td>
<td>52,841</td>
</tr>
<tr>
<td><strong>Value of Staff and Faculty Volunteerism Hours</strong></td>
<td>$116,189</td>
</tr>
<tr>
<td><strong>Value of Student Volunteerism Hours</strong></td>
<td>$1,128,747</td>
</tr>
<tr>
<td><strong>Total Value of Volunteerism</strong></td>
<td>$1,244,936</td>
</tr>
<tr>
<td><strong>Grand Total Charitable Giving and Volunteerism</strong></td>
<td>$1,555,301</td>
</tr>
</tbody>
</table>

### Conclusion

Northern State University is a cornerstone of the Aberdeen community. Supporting more than 1,000 direct employees, NSU is one of the top 10 employers in the community. Generating $180 million in economic impact in 2019 for the state, Northern is a leader not just locally but regionally. Its impact is felt both economically and culturally. NSU brings people together for musical performances and Wolves games — everyone from students to the local community shows up for NSU. Northern’s passion and spirit shines through in their mentorship of the students coming to campus to pursue their dreams. Attending Northern means becoming part of a broader community and many students settle in the miles surrounding it after graduation. Northern is an integral part of South Dakota’s system of public higher education, ensuring that students get the education and skills they need to succeed.
### Appendix A: Terms & Definitions

<table>
<thead>
<tr>
<th><strong>Study Year</strong></th>
<th>FY 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dollar Year</strong></td>
<td>Presented in 2019 dollars</td>
</tr>
<tr>
<td><strong>Total Economic Output/Economic Impact</strong></td>
<td>Includes organizational spending on operations, capital expenditures, labor income expenditures, and value added to the economy as a result of expenditures made by an organization. It is the combined impact of direct, indirect, and induced impacts.</td>
</tr>
<tr>
<td><strong>Direct Economic Impact</strong></td>
<td>All direct expenditures made by an organization due to its operating expenditures. These include operating expenditures, capital expenditures, and pay and benefits expenditures.</td>
</tr>
<tr>
<td><strong>Indirect Economic Impact</strong></td>
<td>The indirect impact includes the impact of local industries buying goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money is spent outside of the local economy, either through imports or by payments to value added (multiplier effect).</td>
</tr>
<tr>
<td><strong>Induced Economic Impact</strong></td>
<td>The response by an economy to an initial change (direct effect) that occurs through re-spending of income received by a component of value added. IMPLAN’s default multiplier recognizes that labor income (employee compensation and proprietor income components of value added) is not lost to the regional economy. This money is recirculated through household spending patterns causing further local economic activity (multiplier effect).</td>
</tr>
<tr>
<td><strong>Multiplier Effect</strong></td>
<td>The multiplier effect is the additional economic impact created as a result of the organization’s direct economic impact. Local companies that provide goods and services to an organization increase their purchasing by creating a multiplier (indirect/supply-chain impacts). Household spending generated by employees of the organization and the organization’s suppliers create a third wave of multiplier impact (induced/household-spending impacts).</td>
</tr>
<tr>
<td><strong>Government Revenue/State and Local Tax Impact</strong></td>
<td>Government revenue or tax revenue that is collected by governmental units at the state and local levels in addition to those paid directly by an organization. This impact includes taxes paid directly by the organization itself, employees of the organization, and vendors who sell products to the organization and at the household level.</td>
</tr>
<tr>
<td><strong>Direct Employment</strong></td>
<td>Total number of employees, both full-time and part-time, at the organization based on total jobs, not FTEs.</td>
</tr>
<tr>
<td><strong>Indirect Employment</strong></td>
<td>Additional jobs created as a result of an organization’s economic impact. Local companies or vendors that provide goods and services to an organization increase their number of employees as purchasing increases, thus creating an employment multiplier.</td>
</tr>
<tr>
<td><strong>Induced Employment</strong></td>
<td>Additional jobs created as a result of household spending by employees of an organization and the employees of vendors. This is another wave of the employment multiplier.</td>
</tr>
</tbody>
</table>
Appendix B: Data & Methods

Data used to complete the contribution analysis was provided by the South Dakota Board of Regents and the university. Data supplied included operating expenditures, capital spending, pay and benefits, and total employees. Primary and secondary data was used to complete the input-output models in IMPLAN. The study approach and economic-impact findings are a conservative estimate of impact and are based on actual financial information. The study is a snapshot of the economic impact of the university.

OVERVIEW AND THE IMPLAN MODEL

The most common and widely accepted methodology for measuring the economic impacts of economic sectors is input-output (I-O) analysis. At its core, an I-O analysis is a table that records the flow of resources to and from companies/organizations and individuals within a region at a given time. For a specified region such as a state of the nation, the input-output table accounts for all dollar flows among different sectors of the economy in a given period. With this information, a model can then follow how a dollar added into one sector is spent and re-spent in other sectors of the economy, generating outgoing ripples of subsequent economic activity. This chain of economic activity generated by one event is called the “economic multiplier” effect.

The primary tool used in the performance of this study is the I-O model and dataset developed and maintained by IMPLAN Group LLC (formerly Minnesota IMPLAN Group Inc.). IMPLAN is a widely accepted and used software model first developed by the U.S. Forest Service in 1972. Data used in the baseline IMPLAN model and data set come largely from federal-government databases. The input-output tables themselves come from the Bureau of Economic Analysis. Much of the annual data on labor, wages, final demand, and other market data comes from the Bureau of Labor Statistics, the U.S. Census Bureau, and other government sources.

Government agencies, companies, and researchers use IMPLAN to estimate the economic activities associated with spending in a particular industry or on a particular project. The IMPLAN model extends conventional I-O modeling to include the economic relationships among government, industry, and household sectors, allowing IMPLAN to model transfer payments such as taxes. Producers of goods and services must secure labor, raw materials, and other services to produce their product.

The resources transferred to the owners of that labor or those raw materials and services are then spent to secure additional goods and services or inputs to the products they sell. For example, an organization in a region may develop a company that produces tractors with a value of $1 million. However, to produce that product, they may be required to spend $500,000 in wages and benefits, $200,000 to suppliers of tractor parts, $100,000 for electricity, $50,000 for transportation of goods and raw materials to and from the plant, and $50,000 in various professional services associated with operating a business (e.g., attorneys and accountants). The suppliers will, in turn, spend those resources on labor and raw materials necessary to produce tractors. Workers and the owners of the company will buy goods and services from other firms in the area (e.g., restaurants and gas stations) and pay taxes. The suppliers, employees, and owners of this second tier will, in turn, spend those resources on other goods and services whether within the study region or elsewhere. The cycle continues until all of the money leaves the region.
IMPLAN METHODOLOGY

The model uses national production functions for over 536 industries to determine how an industry spends its operating receipts to produce its commodities. These production functions are derived from U.S. Census Bureau data. IMPLAN couples the national production functions with a variety of county-level economic data to determine the impacts at a state and congressional-district level. IMPLAN collects data from a variety of economic data sources to generate average output, employment, and productivity for each industry in a given county. IMPLAN combines this data to generate a series of economic multipliers for the study area. The multiplier measures the amount of total economic activity generated by a specific industry’s spending an additional dollar in the study area. Based on these multipliers, IMPLAN generates a series of tables to show the economic event’s direct, indirect, and induced impacts to gross receipts, or output, within each of the model’s more than 536 industries.

The model calculates three types of effects: direct, indirect, and induced. The economic impact of NSU is the sum of these three effects.

CONSIDERATIONS CONCERNING IMPLAN

There are three important points about the use of IMPLAN (or any other input-output model):

It is a fixed-price model. The model assumes that changes in consumption are not limited by capacity and do not affect prices. This assumption does not cause a problem for the analysis presented here because we are taking a snapshot of South Dakota in a specific year.

As in many studies using this type of model, the direct impacts are not calculated by the model; they are a reflection of actual spending levels and patterns created by South Dakota. Changing the level of direct spending allows us to calculate the magnitude of the indirect and induced effects associated with the initial level of spending.

Because the model continues to calculate additional spending until all of the money leaves the region (i.e., “leakage”), the larger and more economically diverse the region, the longer it will take for spending to leave the region and the larger the impact is likely to be. For example, employees of South Dakota may spend some amount of their income on buying a car. If there are no car manufacturers in their state or county, this spending will leave the region and the multiplier effect will stop. At the national level, some portion of that same spending by that same individual may go to a national auto producer. That spending would lead to more spending at the national level than would be captured by a more regional model. The national impact will be larger than the sum in the individual states, and the individual state impact will be larger than the sum of the impacts in its congressional districts.
WHAT IS AN ECONOMIC-CONTRIBUTION ANALYSIS?

Technically, this study is a contribution analysis. The study quantifies the economic contribution of the university in terms of economic impact, jobs, and local and state tax revenue. The study calculates how spending by employees, visitors, and students contributes to the economy of South Dakota and beyond. It examines how expenditures create additional impact in the economy directly and through the multiplier.

For the purposes of this study, an economic contribution is defined as the gross changes in South Dakota’s existing economy that can be attributed to the universities. Contribution analysis is a descriptive analysis that tracks gross economic activity: how spending by the university and its constituencies cycles dollars through the economy. The university’s economic-contribution analysis does not consider how spending at this university may crowd out spending at another college or university within the state. This type of analysis is one of the most common that is performed and is often mislabeled as an economic-impact study. Please note that while the terms used to express the contribution of South Dakota to the statewide economy are referred to as economic impact, this is a contribution analysis.

Spending by students, staff, and faculty who are explicitly participating in activities associated with South Dakota’s output represents a “stemming-from effect” and could also be considered a direct effect of the higher-education industry. For example, a student who attends classes and spends $10 on lunch at a local restaurant is a stemming-from effect of the university. This contribution analysis then follows the direct economic activity and associated stemming-from effects through the economy, with the output of each sector broken down and attributed to expenditures on intermediate inputs or to value-added components such as labor, taxes, and returns to capital. Output multipliers, which are sector- and region-specific, are derived from the appropriate model and relate an industry’s economic activity (or changes in the industry’s economic activity) to gross sales in the other sectors of the regional economy.

The contribution analysis does not account for the fact that if a student attending class were a local resident, then the $10 they spent on lunch potentially represents $10 they are not spending at another restaurant elsewhere in town. The direct effect in a contribution analysis includes purchases by students from in and out of state and is neither a measure of changes to the state’s economic base nor a measure of the value added to the region above what was paid to input suppliers.

WHAT SHOULD YOU REMEMBER ABOUT THE STUDY WHEN YOU READ IT?

• It is a point-in-time calculation of impact for FY 19.
• It quantifies the amount of impact that the universities produce each year.
• The economic numbers can fluctuate from year to year based on operational spending, capital spending, pay and benefits, number of employees, number of students, and state appropriation.
• This is an economic-contribution analysis that casts a broader net to calculate impact than an economic-impact study.
• These are conservative numbers and adhere to industry-respected protocols.
WHAT METHODOLOGY WAS USED TO COMPLETE THIS STUDY?

IMPLAN data and software were used to conduct this economic-contribution analysis. The IMPLAN database is built using county, state, ZIP code, and federal economic statistics that are specialized by region, not estimated from national averages, to measure the contribution or impact of an organization’s economic activity.

WHAT WERE THE MULTIPLIERS FOR THIS STUDY?

The multipliers used in this study range from 1.8 to 2.1. The multipliers are derived through the input-output models created using the IMPLAN software based upon industries selected during the modeling process.

WHAT DATA DOES THIS STUDY USE TO CALCULATE THE ECONOMIC IMPACT?

Primary data used in this analysis is for FY 19 and was obtained from the South Dakota Board of Regents and the university. Data addresses the following subjects:

- Operating expenditures.
- Capital expenditures.
- Pay and benefits by employee type.
- Number and types of students (all in-state and out-of-state students included).
- Athletics.
- Volunteerism.
- Charitable giving.
- Alumni data.

Secondary data was used to estimate the following:

- Student spending habits based on the universities’ budgets for spending (full- and part-time undergraduate and graduate students, excluding tuition and fees).
- Visitor numbers and visitor spending habits (day and overnight visitors).

WHAT ARE THE COMMUNITY-BENEFIT IMPACTS BASED UPON?

Charitable-giving impacts are based upon assumptions found in the U.S. Census donor data. These models do not assume a 100% participation rate for staff, faculty, and students and are not based on averages. Some colleges and universities had primary data available on volunteerism, and in those cases actual hours were used in the calculation. For the purposes of this study, it is assumed that 24.9% of staff and faculty donate an average of $2,064 annually and 14.9% of students donate an average of $250 each year.

Volunteer impacts are based upon assumptions found in the U.S. Census, and the value of a volunteer hour was obtained from the Points of Light Foundation and is estimated at $23.56 per hour.
WHY DID THE SDBOR COMMISSION A STUDY?

The SDBOR commissioned the analysis to quantify the impact of all six public higher education institutions in its system. SDBOR and the university have a number of helpful tools to explain the value proposition for supporting higher education; this independent study is one way to help explain its worth. In trying to explain the value of South Dakota public higher education to internal and external constituents, it is important to quantify the workforce and economic gains realized throughout the state. There are many ways to view the impact and value of a university and university system — economic impact is one.

WHY DOES THIS STUDY LOOK DIFFERENT FROM OTHERS WE HAVE SEEN PUBLISHED?

The veracity of the data and methodology are consistent with industry-standard protocols for conducting an effective economic-impact study that is conservative. The data is an independent assessment of the university’s contribution to the overall economy — the numbers drive the message, not the other way around. The report is designed to make the data analysis accessible to all readers.
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