MINNESOTA STATE

# MINNESOTA STATE
# Driving Economic and Social Vitality across Minnesota

## FY 2017 Economic Contribution Analysis

November 2018

Prepared by Parker Philips
assess. analyze. assert!

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# Minnesota State Makes an Impact

**30** colleges
**7** universities
**54** campuses

**67,717** jobs supported and sustained throughout Minnesota

- 16,184 Minnesota State employees
- The number of jobs directly and indirectly supported by Minnesota State would fill U.S. Bank Stadium (seat capacity 66,655)
- One out of every 55 jobs in the state is supported or sustained by Minnesota State

**$8B** in economic impact

1 out of every $42 dollars in the Minnesota economy is supported by Minnesota State
2.4% of the Minnesota economy

charitable giving and volunteerism
**$116.2M**

**$458.5M** generated in state and local taxes

**$291.2B** in impact for those alumni living and working in the state

**375,000+** students attend annually

NEARLY **$12** is generated in the statewide economy by Minnesota State for every $1 in state appropriation

**$3.7B** in student spending annually

## Lowest tuition in Minnesota

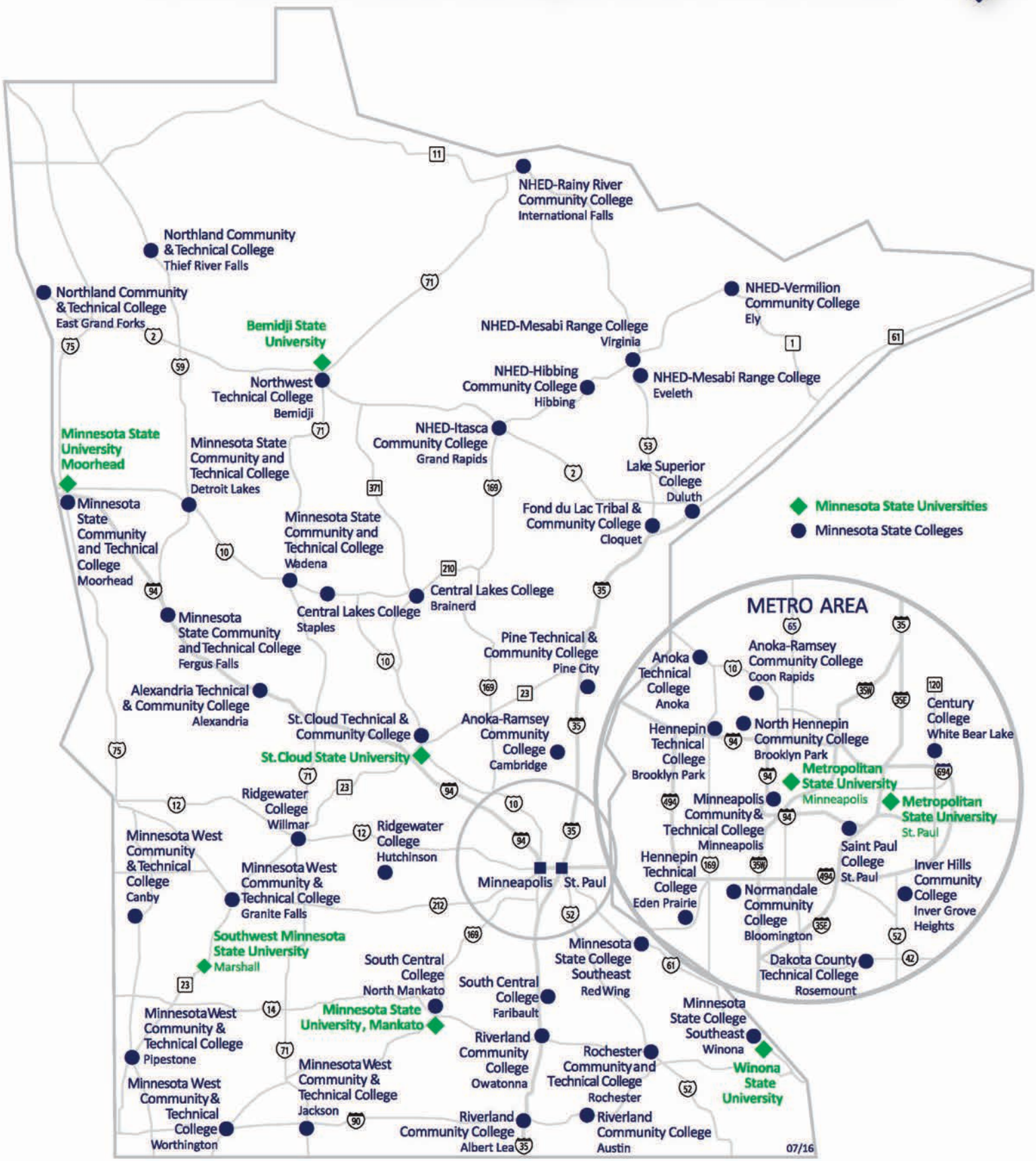
**3,800+** academic programs

**87%** of graduates find a job related to their field of study within one year of graduation

**15,403+** customized and specialized training, occupational, and professional classes

**39,000+** degrees, certificates, and diplomas awarded annually

# Minnesota State Colleges and Universities



## MINNESOTA STATE MISSION:

The core commitments of Minnesota State Colleges and Universities are to ensure access to an extraordinary education for all Minnesotans, be the partner of choice to meet Minnesota's workforce and community needs, and deliver to students, employers, communities and taxpayers the highest value/most affordable higher education option.

## MINNESOTA STATE VISION:

It is the core value of the Minnesota State Colleges and Universities to provide an opportunity for all Minnesotans to create a better future for themselves, for their families, and for their communities.

# ABOUT MINNESOTA STATE

**"Minnesota State is the most powerful and effective tool the state has to ensure opportunity and prosperity for its citizens and its communities."**

**—Michael Vekich, Minnesota State Board of Trustees Chair**

Minnesota State is an interdependent network of vibrant colleges and universities committed to collectively nurturing and enhancing a civically engaged, socially mobile, and economically productive Minnesota. As a system, they foster the success of all students, no matter where they are enrolled, and support the vitality of all Minnesota communities, no matter where they are located.

The diversity of their students is one of their greatest strengths. They are proud to serve more students of color and American Indian students and more low-income students than all other higher education providers in Minnesota — combined. This is especially critical now, at a time when meeting emerging workforce needs is only possible by effectively addressing the changing demographics of the state.

**"From a simple "hello" faculty and staff offer to students as they pass in the hallway, to our presidents who take personal pride in the quality and appearance of their campuses, to community partners who make it possible for our students to have real-world experience long before they graduate, there is something powerful here that's unlike anything that exists elsewhere. That's what makes Minnesota State and the work we do very special."**

**— Chancellor Devinder Malhotra, Minnesota State**

## Minnesota State serves more students of color, first-generation college students, and students of modest financial means than all of the other higher education providers in Minnesota combined.

**65,800**
**Students of Color and American Indian Students**

**43,900**
**First-Generation College Students**

**80,100**
**Students Aged 25 or Older**

**75,800**
**Low-Income Students**

**9,700** **Veterans and Service Members**

The success of its students is a top priority, so they meet students where they are in their lives and in their educational journey. They serve traditional students seeking a degree, diploma, or certificate; high school students looking to get a head start on their college experience; first generation college students; and non-traditional students seeking to change their career or add new career skills. They serve veterans and service members and offer opportunities to earn college credit for life and work experiences. As a sign of their commitment to student success, more than 87 percent of their graduates get jobs related to their field of study. In short, Minnesota State provides high quality and affordable education to all learners in their quest to achieve their dreams.

Minnesota State also plays an essential role delivering the talent employers need to grow and succeed. In addition to the 39,000 degrees they grant each year, Minnesota State is by far the state's largest provider of customized training and continuing education for business, serving over 118,000 employees and thousands of businesses and employers each year. They form partnerships with employers to be sure they understand their needs and develop the most cost-effective ways to meet them.

> **"Education, for many, is the only ticket to a better life. Minnesota State is there to give people hope."**
>
> **— Roger Moe, Minnesota State Board of Trustees**

# METHODOLOGY AND KEY ASSUMPTIONS

This economic impact study measures the contribution of Minnesota State to the Minnesota economy. The goal of this analysis is to provide a full and credible assessment of the total economic, employment, and state and local tax impact of Minnesota's largest provider of higher education and 11th largest employer in the state.

The primary tool used in the performance of this study is the I-O model and dataset developed and maintained by IMPLAN Group LLC.

Primary financial data used in this study was obtained from the colleges and universities of Minnesota State and included operating budget, payroll, and benefits for employees for fiscal year 2017 and a 10-year average of capital spending.

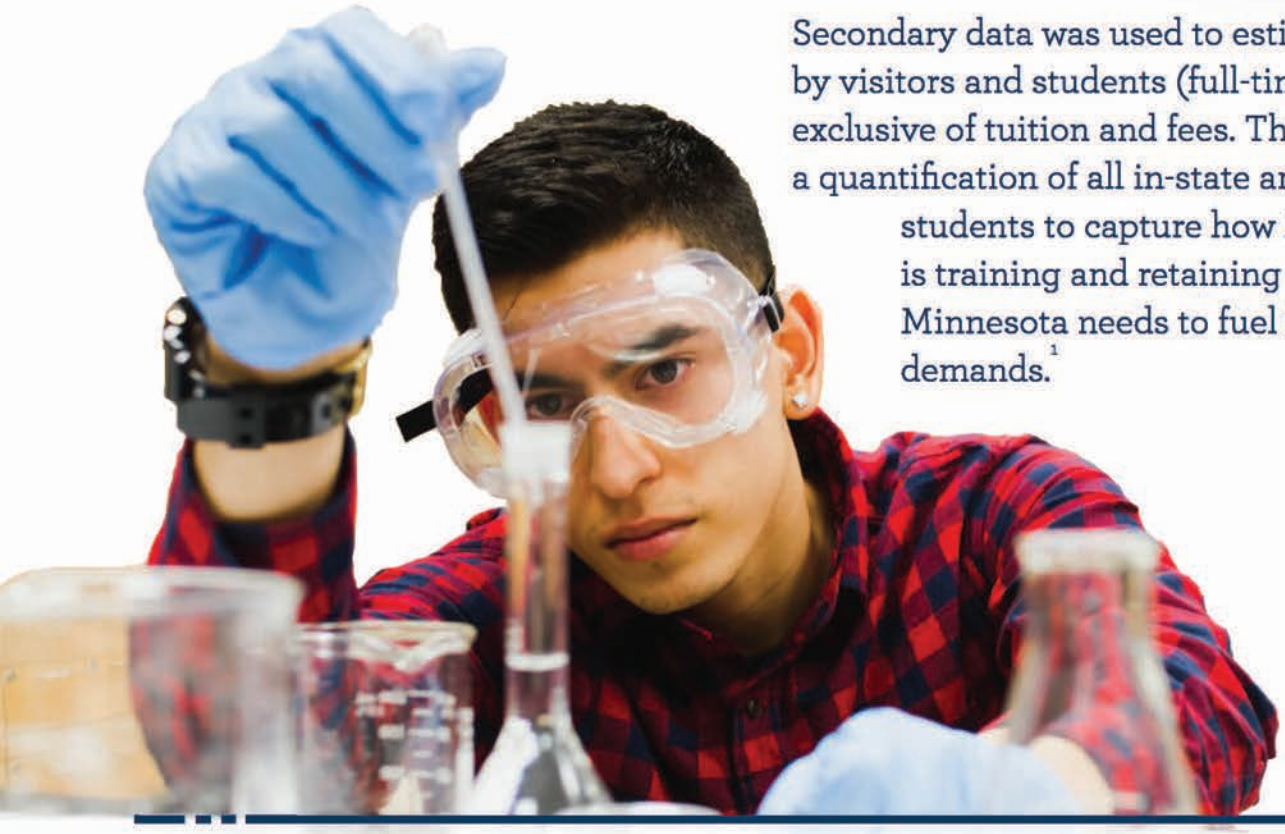
## MINNESOTA STATE STUDY PROFILE

**Data used in the study provided by:**
Minnesota State
Individual colleges and universities

**Study Type:**
Economic contribution analysis

**Geography**
State of Minnesota
Six Minnesota Department of Economic Development Regions (DEED)

**Study Year**
Fiscal Year 2017



Secondary data was used to estimate spending by visitors and students (full-time and part-time) exclusive of tuition and fees. This study includes a quantification of all in-state and out-of-state students to capture how Minnesota State is training and retaining the workforce Minnesota needs to fuel its workforce demands.[1]

Additional information about the IMPLAN methodology and its application in this study is available in appendix C.

[1] This study sought to build upon the analysis and methodology utilized by the Wilder Research in February 2013 for their report entitled "The economic impact of Minnesota State Colleges and Universities."

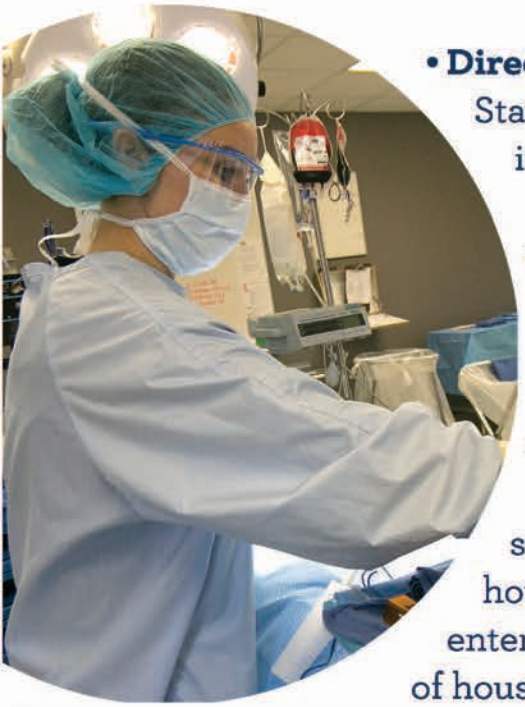
# ECONOMIC CONTRIBUTION: SPENDING

## What does the Minnesota State impact contribution analysis show?

In FY2017, the colleges and universities of Minnesota State generated an economic impact of **$8.0 billion** in the state: $4.1 billion direct and $3.9 billion indirect and induced. This impact is the result of operational spending, capital spending (10-year average), payroll and benefits paid to employees, student spending, and visitor spending.

**Based upon this impact, $1 out of every $42 in the Minnesota economy is supported by Minnesota State. In 2016, Minnesota Gross Domestic Product was $339,096,000,000.**

It is important to note that the economic contribution of the system extends throughout the entire state of Minnesota. Indeed, the colleges and universities of Minnesota State play an integral role and serve as economic development engines in the communities they serve, in both rural and urban areas of the state.



## Definitions:

- **Direct Effect:** Impacts generated as a result of spending by Minnesota State on capital projects, operations, and pay and benefits. Also included in this category is student and visitor spending.[2]

- **Indirect Effect:** The increase in demand for goods and services in industry sectors that supply or support the colleges or universities, their students, and visitors.

- **Induced Effect:** The third wave of impact created as a result of spending by Minnesota State, its employees, students, and suppliers. Induced impacts estimate the effect of increased household income including housing, household goods, entertainment, food, clothing, transportation, and other categories of household spending.

**"It's a place where you can belong... and believe in yourself!"**

**— Lauren Feiersinger, Minneapolis College, Student Senate President**

MINNEAPOLIS COMMUNITY & TECHNICAL COLLEGE

[2] Direct impacts include direct impacts from operational spending, student spending, and visitor spending. Based on operations alone, Minnesota State has a direct impact of 16,184 jobs and $1.8 billion.

# ECONOMIC CONTRIBUTION: SPENDING

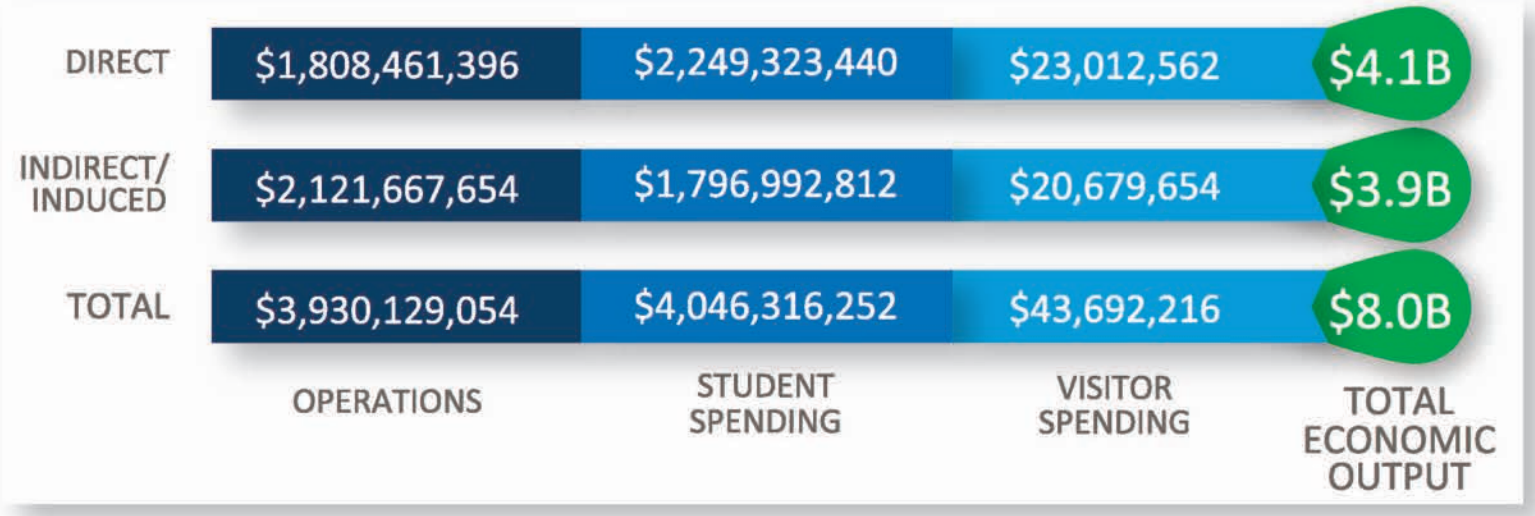

**Direct**
Operational Expenditures, Capital Expenditures, and Student Spending

**Indirect**
Supply Chain Spending (multiplier)

**Induced**
Household Spending (multiplier)

The combination of indirect and induced impact is commonly referred to as the multiplier effect. Minnesota State expands the local economy through both direct and indirect means. Income generated from direct employment at Minnesota State is subsequently used to purchase local goods and services, creating a ripple effect throughout the statewide economy.

## MINNESOTA STATE Economic Contribution



# ECONOMIC CONTRIBUTION: SPENDING

## Student Spending Impacts

Student spending, exclusive of tuition, fees, and on-campus housing, plays a significant role in the impact Minnesota State has on the economy, and for the purposes of this study, student spending has been included in the direct portion of the impact.

More than 375,000 students enrolled in credit and non-credit courses during FY2017, and their spending included off-campus housing, food, entertainment, retail purchases, and personal care. Whether pursuing continuing education credits or attending classes part-time or full-time, students spend money beyond their tuition and fees.

For FY2017, the state appropriation totaled $673,516,000. For every $1 in state appropriation, Minnesota State generated nearly $12 in the statewide economy.

Minnesota State is the catalyst for social and economic vibrancy and mobility across the state. The colleges and universities of Minnesota State are places of hope and opportunity for people who dream of becoming the state's next generation of professionals and leaders; its campuses are places where all Minnesotans can create better futures for themselves, their families, and their communities.

# ECONOMIC CONTRIBUTION: SPENDING

## The success of Minnesota State would not be possible without state support.

Since 2009, public higher education throughout the country has seen a reduction in state appropriations as a percentage of total per student cost. Even after increases in recent years, pre-recession levels of funding have not fully recovered. This means that students and their families are bearing an increased share of the cost of higher education.

# ECONOMIC CONTRIBUTION: JOBS

Minnesota State supports a total of **67,717 jobs** (full-time and part-time) in Minnesota. This includes employees of Minnesota State (16,184 full and part-time jobs) and the impact of capital spending, operational spending, student spending, supplier spending, and visitor spending for a direct job impact of 41,505.

With over 16,000 employees, Minnesota State is the 11th largest employer in the state.

As a result of these direct jobs, 26,212 indirect/induced jobs are supported in the statewide economy. These jobs are created by supply and equipment vendors, contractors, and laborers for the construction and renovation of college and university facilities, hotels, restaurants, and retail stores in support of the Minnesota State workforce as well as its students, suppliers, and visitors. Other jobs supported in the Minnesota economy include: real estate, retail, childcare, and services (restaurants, child care centers, and health care).

**One out of every 55 jobs in the state is attributable to Minnesota State colleges and universities.**

# ECONOMIC CONTRIBUTION: JOBS

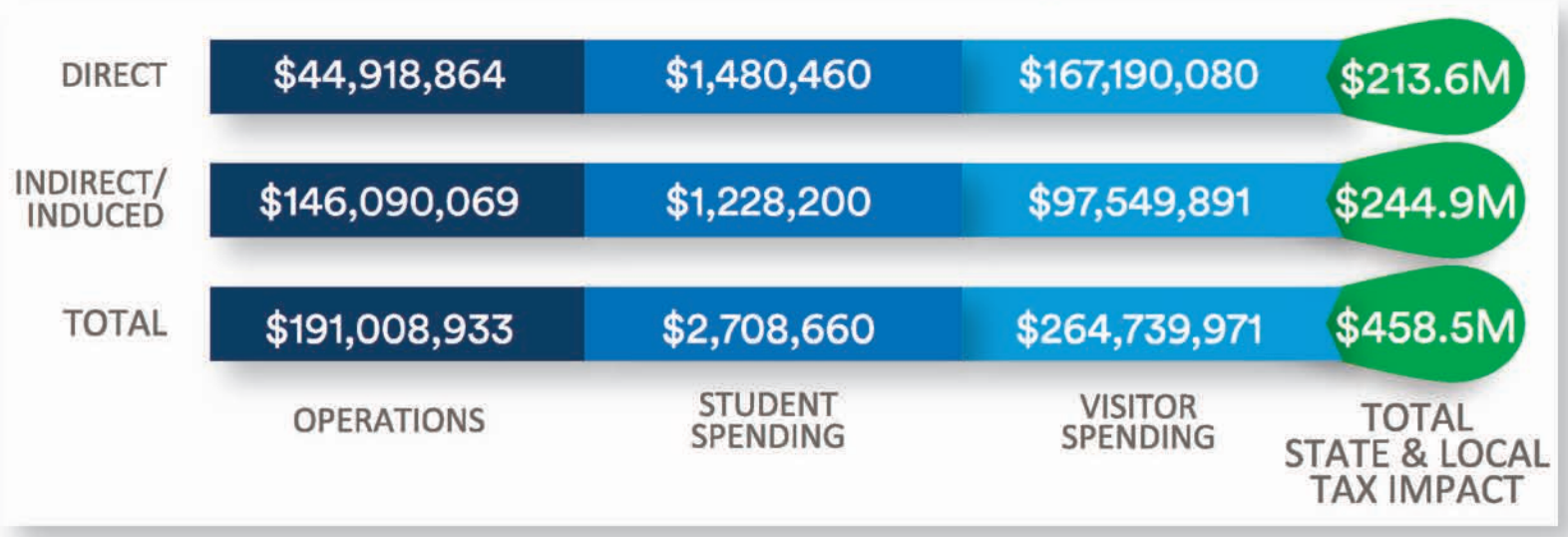
## MINNESOTA STATE Employment Impact

| | OPERATIONS | STUDENT SPENDING | VISITOR SPENDING | TOTAL EMPLOYMENT (JOBS) |
|---|---|---|---|---|
| DIRECT | 16,184 | 24,994 | 327 | 41,505 |
| INDIRECT/ INDUCED | 14,089 | 11,984 | 139 | 26,212 |
| TOTAL | 30,273 | 36,978 | 466 | 67,717 |

# ECONOMIC CONTRIBUTION: STATE AND LOCAL TAXES

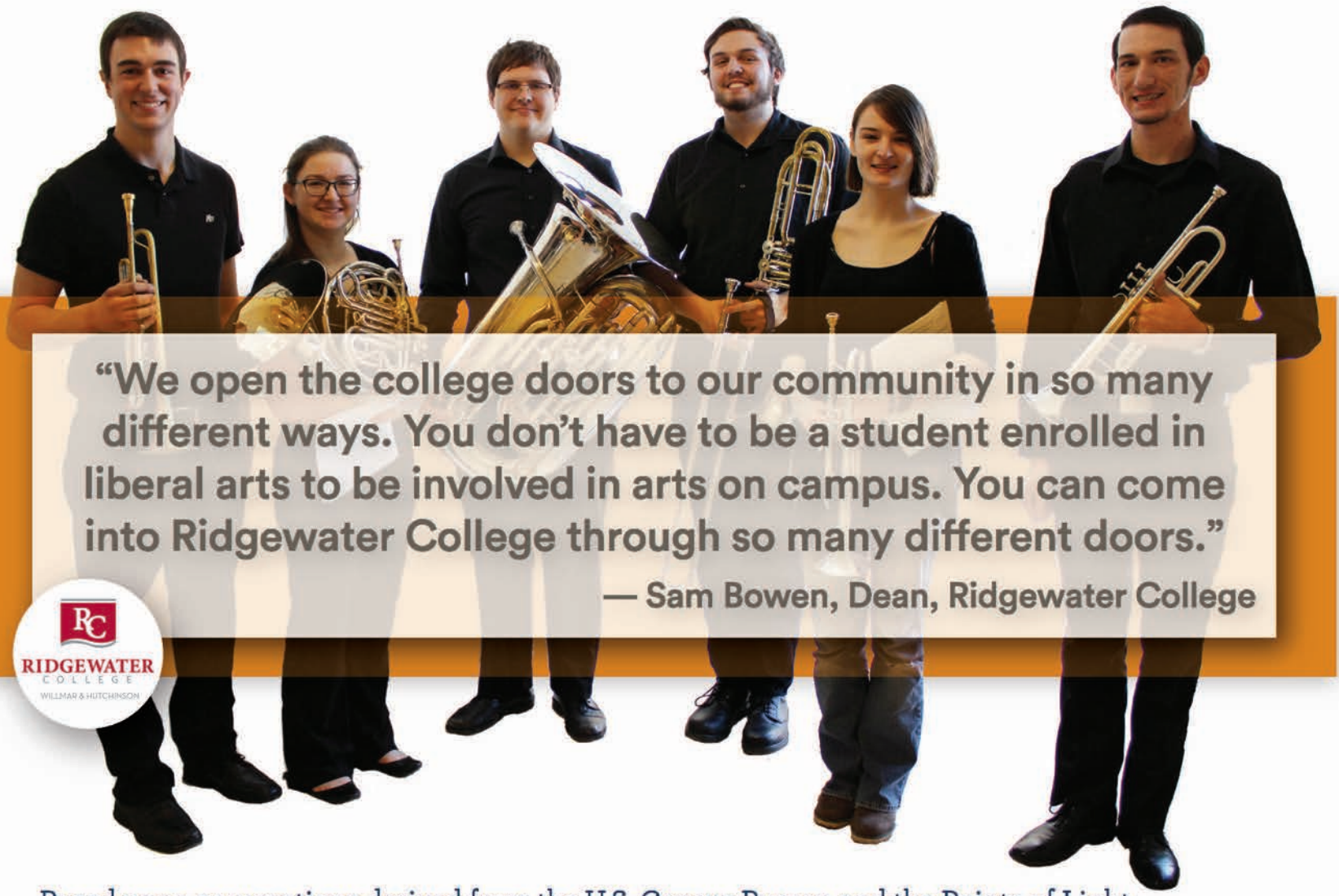
State and local government revenues attributable to the presence of Minnesota State totaled **$458.5 million** ($244.9 million direct and $213.6 million indirect/induced) in FY17. Through its local spending, as well as direct and indirect support of jobs, the presence of Minnesota State strengthens the local and statewide tax base. Minnesota State is an integral part of the state's economy – generating impact, supporting and sustaining jobs, and generating tax revenue. Specific taxes, generated at the state and local level, include employee and employer contributions to state and local social insurance funds, sales taxes, personal property tax, taxes paid on motor vehicle licenses, and payments of fines and fees.

## MINNESOTA STATE Annual State and Local Tax Impact




# GIVING BACK TO MINNESOTA: SERVICE AND CHARITABLE GIVING

On campuses across Minnesota, there is a commitment to community service and partnership. The colleges and universities of Minnesota State are active members and participants in their communities from providing access to arts and cultural events, sporting events, educational opportunities and camps for students, to hosting lectures or other community events. Minnesota State colleges and universities are a part of the community; staff and faculty serve on local boards, and their students volunteer throughout the community.



**"We open the college doors to our community in so many different ways. You don't have to be a student enrolled in liberal arts to be involved in arts on campus. You can come into Ridgewater College through so many different doors."**

**— Sam Bowen, Dean, Ridgewater College**

Based upon assumptions derived from the U.S. Census Bureau and the Points of Light Foundation[4] regarding donation amounts and volunteerism rates by age, income level, and employment status, it is estimated that Minnesota State employees and students give more than **$116.2 million** annually in charitable donations ($15.1 million) and volunteer services ($101.1 million). These benefits are in addition to the $8.0 billion annual impact.

[4] For the purposes of this study, it is assumed that 24.9 percent of staff and faculty donate $2,064 annually and 14.9 percent of students donate $250 each year. Volunteer impacts are based upon assumptions found in the U.S. Census survey of charitable giving and the value of a volunteer hour was obtained from the Points of Light Foundation, it is estimated at $23.56 per hour. For the purposes of this breakout analysis, it was assumed that 27.2 percent of staff and faculty volunteer and 23.3 percent of students volunteer.

# ALUMNI CONTRIBUTION TO THE ECONOMY

Minnesota State is educating the workforce that Minnesota needs to successfully compete on the national and global stage. Graduates from Minnesota State colleges and universities are essential to meeting the state's workforce needs. In FY2017, Minnesota State conferred more than 39,000 degrees and certificates.

The contributions of Minnesota State graduates are critically important to the economic vitality of the state. Alumni living and working in the state number more than 450,000 (undergraduate, graduate, and professional). The economic impact of these graduates' additional income being added into the economy as a result of obtaining post-secondary education is significant.

**Based upon the additional income earned post-high school, the addition to the Minnesota economy over a 40-year career totals $291.2 billion.**

# MINNESOTA STATE — PREMIER WORKFORCE TRAINING PROVIDER

For Minnesota State, partnerships to provide training and education to private industry are standard operating procedure. Excellent examples of these partnerships can be seen in the Minnesota Job Skills Partnership (MJSP) grants.

These grants are awarded through the Minnesota Department of Employment and Economic Development (DEED — Minnesota's principal economic development agency) to support partnerships between businesses and educational institutions to train or retrain workers, expand work opportunities, and keep high-quality jobs in the state.

**$62.8 million in DEED Competitive Grants**
**2,700+ contracts**

## 2018* MJSP Awardees

| | |
|---|---|
| Minnesota State College Southeast and Gemini Inc., Cannon Falls | $31,361 |
| Minnesota State College Southeast and St. Anne of Winona, Sauer Healthcare and St. Crispin Living Community | $49,182 |
| Century College and Trane, White Bear Lake | $49,891 |
| Anoka-Ramsey Community College and Alliance Machine, Elk River | $49,795 |
| South Central College and IMC Company | $49,857 |
| Dakota County Technical College and Shutterfly, Shakopee | $239,974 |
| St. Cloud State University and Park Industries, St. Cloud | $350,000 |
| St. Cloud State University and New Flyer of America, St. Cloud | $350,000 |
| Minnesota State University, Mankato and Nidec, North Mankato | $180,983 |
| Normandale Community College, ImmunoChemistry Technologies, LLC, Bloomington | $49,338 |
| Century College, TLC Electronics, Mahtomedi | $49,975 |
| Anoka-Ramsey Community College, DecoPac, Inc., Anoka | $49,886 |
| Anoka-Ramsey Community College, M&M Machining, Elk River | $49,814 |
| Anoka-Ramsey Community College; Toy-N-Around, Eden Prairie; and ATventure, Minneapolis | $44,834 |
| Anoka-Ramsey Community College, Kraus-Anderson Construction | $394,279 |
| Rochester Community and Technical College, Mayo Clinic, Rochester | $371,922 |
| South Central College, Daikin Applied, Faribault and Owatonna | $399,889 |
| Normandale Community College, Donaldson Company, Bloomington | $350,000 |
| Normandale Community College, Medtronic, Minneapolis | $397,557 |
| Minnesota State University, Mankato and Gentle Touch Health Initiative | $240,000 |

*totals reflect 2018 YTD

Since 2008, DEED has awarded $62.8 million in competitively awarded grants and over 2,700 contracts to Minnesota State colleges and universities. In the graph to the left, there are examples of grants awarded to Minnesota State colleges and universities in 2018.

# MINNESOTA STATE — PREMIER WORKFORCE TRAINING PROVIDER

Across Minnesota State, there are examples of partnerships with local and statewide employers to develop training protocols and coursework to curtail workforce shortages and meet local demand. On many campuses, this work is done through a local Advisory Council, which regularly gathers faculty, staff, local employers, alumni, and economic development professionals to ensure programming is tied to exactly what local employers need. The consistent focus among campus leaders is to ensure graduates have jobs that encourage them to stay in the region. These relationships are between colleges and universities and private industry in fields such as healthcare and manufacturing, and they have made an impact.

## YEARLY DEED MJSP GRANT AWARD

| | |
|---|---|
| 2008 | $8,051,613 |
| 2009 | $6,264,616 |
| 2010 | $4,388,522 |
| 2011 | $3,548,155 |
| 2012 | $4,449,455 |
| 2013 | $5,789,308 |
| 2014 | $8,021,400 |
| 2015 | $6,950,425 |
| 2016 | $5,448,904 |
| 2017 | $6,144,855 |
| 2018 (YTD) | $3,748,537 |
| GRAND TOTAL | $62,805,790 |

**"It's a point of pride to be nimble, and to work with our Advisory Board to help guide programming to be sure that employees are being trained for what employers need. Ten years ago, we didn't have an aviation program, and today we're training pilots and we have a contract with Delta to train aviation maintenance technicians from across the nation."**

**— Daniel Fanning, Director of Institutional Advancement, Lake Superior College**

Lake Superior College
A member of Minnesota State

# COMPARISON OF MINNESOTA TO POST-SECONDARY MARKETS

The State Higher Education Executive Officers' (SHEEO) SHEF report shows the relationship between educational appropriations from state/local sources and net tuition. In 2016, net tuition revenue[5] accounted for 47.3 percent of total revenue, up from 36 percent in pre-recession high point.

Minnesota's investment in post-secondary education is lagging. The following table provides data drawn from two sources: SHEEO's most recent State Higher Education Finance report (SHEF); and the table below shows the U.S. News and World Report's 2018 state rankings of higher education.

Notable takeaways about Minnesota's post-secondary performance from SHEEO's annual SHEF report, the most highly respected source of state post-secondary fiscal information in the country used by state policymakers and higher education researchers, include:

- Minnesota is below every national average on key indicators of investment in post-secondary education as reported by the SHEF report.
- When compared to states in the region[6], the student share[7] of total public higher education expenditures is slightly above average.
- Minnesota lags significantly on all of these metrics when compared to states with public post-secondary systems of similar size and complexity (New York and California).

[5] Net tuition revenue is the gross amount of tuition and fees, less state and institutional financial aid, tuition waivers or discounts, and medical student tuition and fees. This is a measure of the resources available from tuition and fees to support instruction and related operations at public higher education institutions and includes revenue from in-state and out-of-state students as well as undergraduate and graduate students. Net tuition revenue generally reflects the share of instructional support received from students and their families, although it is not the same as and does not take into account many factors that need to be considered in analyzing the "net price" students pay

[6] Note: All regional analyses are based on MHEC States, which include the following: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

[7] As defined by SHEEO in 2017 SHEF report, student share is defined as "net tuition as a percent of public higher education total education revenue." Specific data points are as follows for 2017: U.S. Average: 46 percent, Regional average: 54 percent, and Minnesota average: 56 percent.

## SHEEO REGIONAL AND NATIONAL COMPARISONS Tuition and Public Institutions

| | Educational appropriation per FTE | Percent total state revenues allocated to higher education | Higher education support per capita | Student share of total cost |
|---|---|---|---|---|
| U.S. Average | $7,642 | 5.7% | $289 | 46% |
| Regional Average | — | — | — | 54% |
| Minnesota | $7,182 | 4.4% | $254 | 56% |
| California | $8,447 | 6.6% | $428 | 20% |
| New York | $8,614 | 5.7% | $334 | 37% |
| Pennsylvania | $4,122 | 2.8% | $142 | 73% |

Source: SHEEO SHEF Report 2017
http://www.sheeo.org/projects/shef- percentE2 percent80 percent94-state-higher-education-finance

*U.S. News and World Report*, while less precise than the SHEF report, is the most commonly consulted source of comparative information about the quality of state public post-secondary information. In the following table, Minnesota is compared to California and New York because they have education systems of similar complexity and size, and also Pennsylvania because of their low ranking. Thus, it is highly influential to the business sector in determining overall quality of life and the quality of education and training in individual states.

- Minnesota is in the top half in terms of the overall ranking of the quality of its public post-secondary education system.
- Minnesota ranks very highly (4th) in terms of overall educational attainment. The two-year attainment ranking is more impressive than the four-year, 13th versus 21st, respectively.
- Yet there are several signs on the horizon that attainment could drop. Specifically, the cost of education is high, Minnesota ranks 38 out of 50 in terms of overall tuition and fees meaning that 37 other states have more reasonably priced tuition.
- In addition, debt for Minnesota graduates is high upon graduation. Minnesota ranks 5th from the bottom (45 out of 50) in terms of the amount of debt upon graduation.

# COMPARISON OF MINNESOTA TO POST-SECONDARY MARKETS

## COMPARISON of Minnesota's Higher Education Ranking to Select States

| | Higher Education RANK* | 2-year graduation RANK | 4-year graduation RANK | Attainment RANK | Low Debt RANK | Tuition and Fees RANK |
|---|---|---|---|---|---|---|
| Minnesota | 23 | 13 | 21 | 4 | 45 | 38 |
| California | 4 | 7 | 7 | 20 | 3 | 29 |
| New York | 14 | 24 | 16 | 11 | 36 | 17 |
| Pennsylvania | 50 | 39 | 12 | 27 | 48 | 48 |

*To interpret the table, 1 is the best and 50 is the worst.

Source: *U.S. News and World Report 2018*
https://www.usnews.com/news/best-states/rankings/education

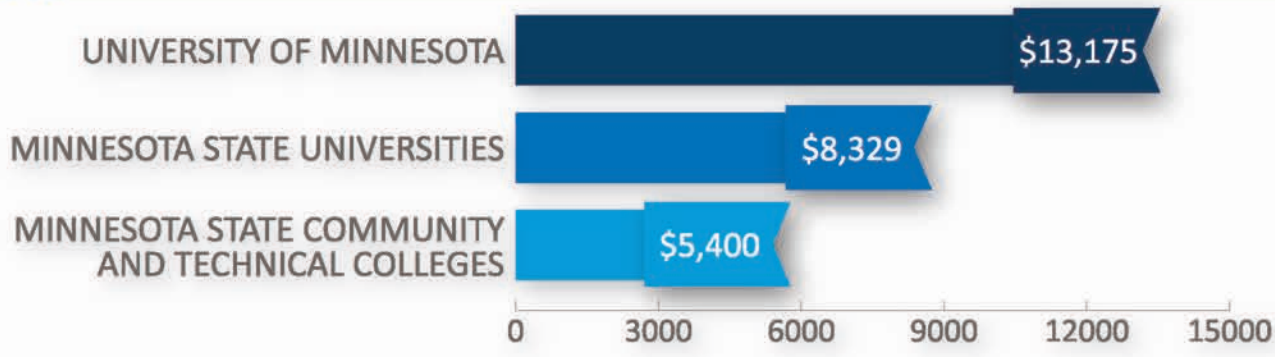
Overall, Minnesota's relatively low overall ranking, 23 out of 50 in the *U.S. News and World Report*, is not good news for anyone interested in attracting or retaining good jobs. Increasing Minnesota's ranking should be a high state priority, if only because perception fuels economic development action. Businesses typically compare per student cost and attainment levels when deciding where to locate or expand their operations.

Minnesota State has a unique opportunity to fuel the state's post-secondary attendance and educational attainment. It is important to note that the data presented in the table above averages data across all public post-secondary institutions and systems. In many states, this is not an issue, but, in Minnesota it is, because the differences between the University of Minnesota and Minnesota State are significant. For comparison purposes, the following states face a similar challenge due to the existence of two or more four-year systems of higher education: Pennsylvania, California, North Carolina, Ohio, North Carolina, Ohio, and Florida.

When compared to the University of Minnesota and private institutions, Minnesota State provides the most affordable public education in the state. Minnesota State provides an extraordinary education paired with the most affordable tuition rate in the state – it is an exceptional value. In 2017, the state appropriation to Minnesota State totaled $673,516,000 which is 34 percent of the all funds budget ($1.959B) and 42 percent of the general fund budget ($1.577B). The state's support of public higher education is vital to the future of Minnesota.

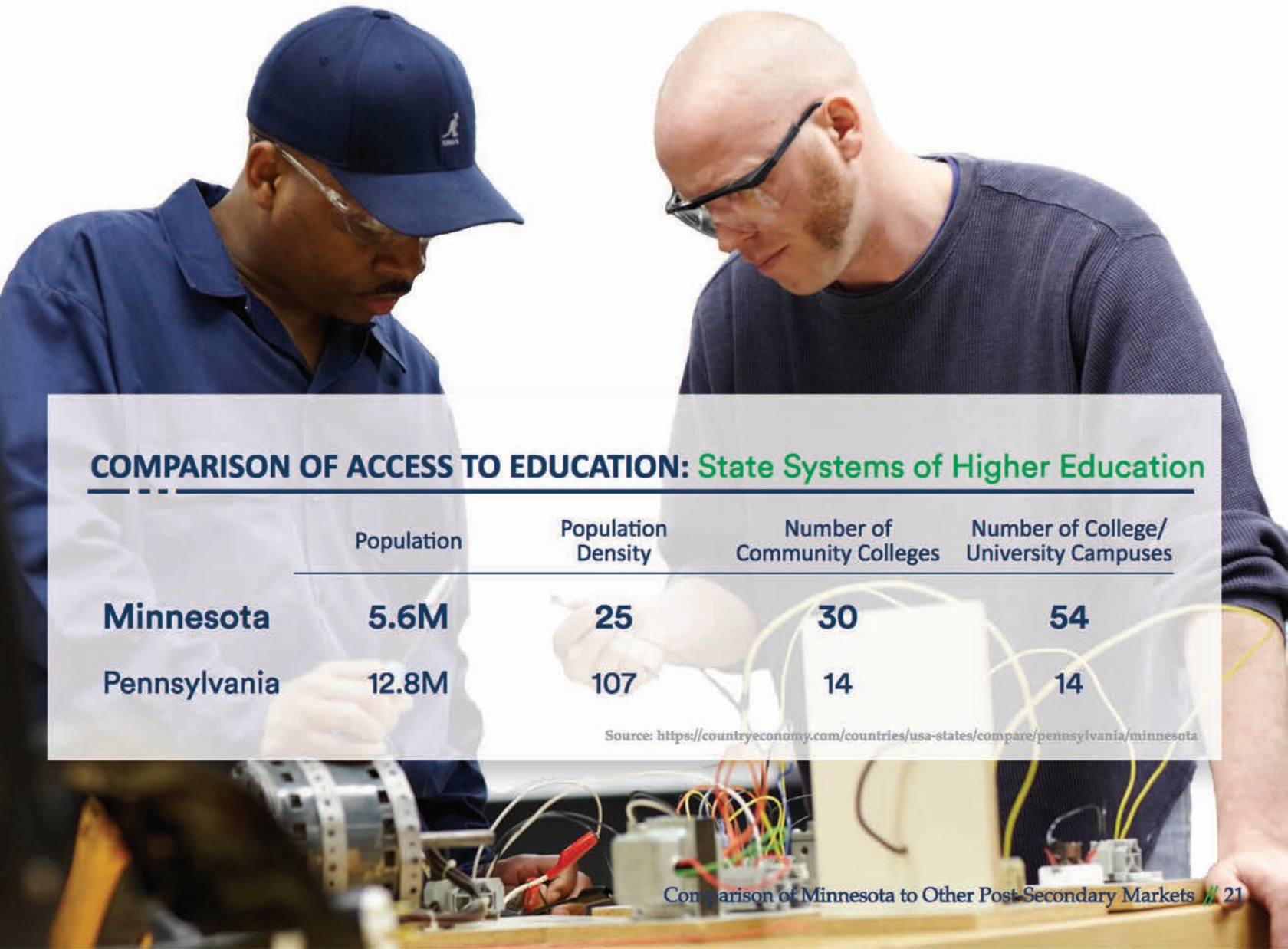
# COMPARISON OF MINNESOTA TO POST-SECONDARY MARKETS

## AVERAGE TUITION AND FEES




Source: http://www.minnstate.edu/admissions/collegecostcomparison.html

The 54 campuses of Minnesota State are distributed broadly across the state, and therefore provide a relatively high level of access. Compared to Pennsylvania, a state with twice the population, Minnesota provides significantly more access to post-secondary education for its citizens.



## COMPARISON OF ACCESS TO EDUCATION: State Systems of Higher Education

| | Population | Population Density | Number of Community Colleges | Number of College/ University Campuses |
|---|---|---|---|---|
| **Minnesota** | **5.6M** | **25** | **30** | **54** |
| Pennsylvania | 12.8M | 107 | 14 | 14 |

Source: https://countryeconomy.com/countries/usa-states/compare/pennsylvania/minnesota

# CONCLUSION

The Minnesota State single governance system for both two-year colleges and four-year universities is a significant strength for the state. In states without such a strong system, competition among institutions can prevail, and may manifest in the form of institution and/or sector-specific lobbying for state funds. In contrast, the governance structure of Minnesota State creates opportunities for collaboration and development of a cross-sector strategic plan that:

- Ensures a high level of coordination in such critical areas as curriculum pathways, transfer, and articulation across the colleges and universities.
- Creates multiple pathways to four-year degrees that are the most affordable in the state.
- Meets needs and challenges on a macro-level that would be impossible for individual colleges and universities acting on their own.
- Strengthens networks of professional development/peer support across institutions.
- Economically uses state resources.
- Efficiently coordinates the work of the system with state and regional economic and workforce development entities.

Throughout Minnesota, the colleges and universities of Minnesota State are heavily woven into the fabric of the communities they serve and are perhaps best known as places of hope and opportunity for those who strive to create a better future for themselves, for their families, and for their communities.

But it is also important to remember that these colleges and universities are significant contributors to their regional economies and play an integral role as partners with industry in workforce training and economic development. Minnesota State is the Minnesota imperative – its colleges and universities are the single best investment the state can make in Minnesota's economic vitality – both now and in the future.

# APPENDIX A: ECONOMIC CONTRIBUTION BY COLLEGE AND UNIVERSITY

| College/University or Reporting Group | Economic Contribution | | |
|---|---|---|---|
| | DIRECT | INDIRECT/INDUCED | TOTAL |
| Alexandria Technical and Community College | $58,217,684 | $56,250,917 | $114,468,601 |
| Anoka Technical College and Anoka-Ramsey Community College | $189,978,629 | $181,770,953 | $371,749,582 |
| Bemidji State University and Northwest Technical College | $162,264,477 | $159,478,238 | $321,742,715 |
| Central Lakes College | $68,171,176 | $67,647,636 | $135,818,812 |
| Century College | $188,703,879 | $179,803,263 | $368,507,142 |
| Dakota County Technical College and Inver Hills Community College | $171,845,357 | $162,718,270 | $334,563,627 |
| Fond du Lac Tribal and Community College | $24,813,447 | $24,677,386 | $49,490,833 |
| Hennepin Technical College | $121,053,982 | $116,615,355 | $237,669,337 |
| Lake Superior College | $102,723,472 | $93,198,609 | $195,922,081 |
| Metropolitan State University | $201,238,960 | $192,735,316 | $393,974,276 |
| Minneapolis Community and Technical College | $170,584,897 | $162,842,008 | $333,426,905 |
| Minnesota State College Southeast | $41,360,196 | $38,986,206 | $80,346,402 |
| Minnesota State Community and Technical College | $110,537,793 | $104,628,461 | $215,166,254 |
| Minnesota State University, Mankato | $393,630,445 | $387,860,629 | $781,491,074 |
| Minnesota State University Moorhead | $149,588,794 | $135,898,771 | $285,487,565 |
| Minnesota West Community and Technical College | $66,142,298 | $62,434,087 | $128,576,385 |
| Normandale Community College | $207,584,105 | $193,624,561 | $401,208,666 |
| North Hennepin Community College | $140,897,698 | $131,598,277 | $272,495,975 |
| *Northeast Higher Education District (NHED) | $105,491,054 | $105,768,751 | $211,259,805 |
| Northland Community and Technical College | $69,777,664 | $63,846,180 | $133,623,844 |
| Pine Technical and Community College | $24,245,094 | $24,404,417 | $48,649,511 |
| Ridgewater College | $85,786,410 | $84,413,921 | $170,200,331 |
| Riverland Community College | $61,035,366 | $60,345,941 | $121,381,307 |
| Rochester Community and Technical College | $117,899,741 | $113,988,965 | $231,888,706 |
| Saint Paul College | $146,853,981 | $134,598,308 | $281,452,289 |
| South Central College | $81,615,418 | $79,377,501 | $160,992,919 |
| Southwest Minnesota State University | $86,316,191 | $86,811,494 | $173,127,685 |
| St. Cloud State University | $340,644,097 | $345,838,273 | $686,482,370 |
| St. Cloud Technical and Community College | $96,019,158 | $92,638,717 | $188,657,875 |
| Winona State University | $228,336,805 | $219,560,321 | $447,897,126 |

*Hibbing Community College · Itasca Community College · Mesabi Range College · Rainy River Community College · Vermilion Community College

# APPENDIX A: ECONOMIC CONTRIBUTION BY COLLEGE AND UNIVERSITY

| College/University or Reporting Group | Employment Impact (Jobs) | | |
|---|---|---|---|
| | DIRECT | INDIRECT/INDUCED | TOTAL |
| Alexandria Technical and Community College | 576 | 374 | 950 |
| Anoka Technical College and Anoka-Ramsey Community College | 1,987 | 1,211 | 3,198 |
| Bemidji State University and Northwest Technical College | 1,688 | 1,061 | 2,749 |
| Central Lakes College | 657 | 450 | 1,107 |
| Century College | 2,070 | 1,199 | 3,269 |
| Dakota County Technical College and Inver Hills Community College | 1,797 | 1,084 | 2,881 |
| Fond du Lac Tribal and Community College | 284 | 164 | 448 |
| Hennepin Technical College | 1,303 | 777 | 2,080 |
| Lake Superior College | 1,224 | 619 | 1,843 |
| Metropolitan State University | 2,316 | 1,284 | 3,600 |
| Minneapolis Community and Technical College | 1,887 | 1,085 | 2,972 |
| Minnesota State College Southeast | 434 | 260 | 694 |
| Minnesota State Community and Technical College | 1,143 | 697 | 1,840 |
| Minnesota State University, Mankato | 3,662 | 2,577 | 6,239 |
| Minnesota State University Moorhead | 1,342 | 900 | 2,242 |
| Minnesota West Community and Technical College | 724 | 416 | 1,140 |
| Normandale Community College | 2,184 | 1,290 | 3,474 |
| North Hennepin Community College | 1,483 | 877 | 2,360 |
| *Northeast Higher Education District (NHED) | 1,106 | 703 | 1,809 |
| Northland Community and Technical College | 712 | 425 | 1,137 |
| Pine Technical and Community College | 241 | 163 | 404 |
| Ridgewater College | 894 | 562 | 1,456 |
| Riverland Community College | 699 | 402 | 1,101 |
| Rochester Community and Technical College | 1,250 | 759 | 2,009 |
| Saint Paul College | 1,537 | 895 | 2,432 |
| South Central College | 881 | 529 | 1,410 |
| Southwest Minnesota State University | 844 | 577 | 1,421 |
| St. Cloud State University | 3,213 | 2,302 | 5,515 |
| St. Cloud Technical and Community College | 1,032 | 618 | 1,650 |
| Winona State University | 2,009 | 1,456 | 3,465 |

*Hibbing Community College - Itasca Community College - Mesabi Range College - Rainy River Community College - Vermilion Community College

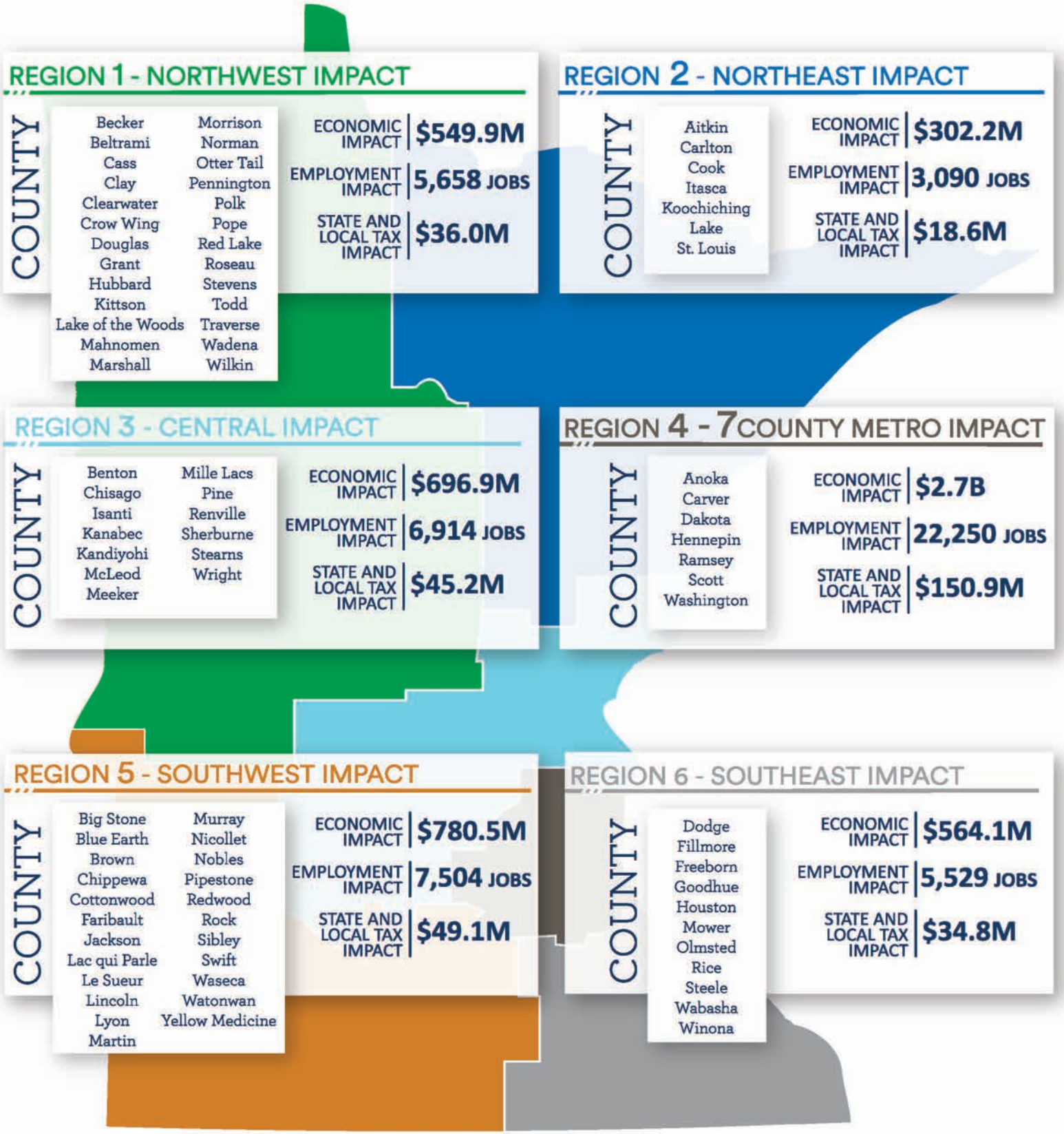
# APPENDIX A: ECONOMIC CONTRIBUTION BY COLLEGE AND UNIVERSITY

| College/University or Reporting Group | State and Local Tax Impact | | |
|---|---|---|---|
| | DIRECT | INDIRECT/INDUCED | TOTAL |
| Alexandria Technical and Community College | $3,542,065 | $3,067,540 | $6,609,605 |
| Anoka Technical College and Anoka-Ramsey Community College | $11,843,370 | $8,866,306 | $20,709,676 |
| Bemidji State University and Northwest Technical College | $9,581,642 | $8,696,278 | $18,277,920 |
| Central Lakes College | $3,969,406 | $3,689,790 | $7,659,196 |
| Century College | $12,073,834 | $9,817,604 | $21,891,438 |
| Dakota County Technical College and Inver Hills Community College | $10,784,515 | $8,871,077 | $19,655,592 |
| Fond du Lac Tribal and Community College | $1,422,027 | $1,345,394 | $2,767,421 |
| Hennepin Technical College | $7,575,565 | $6,366,504 | $13,942,069 |
| Lake Superior College | $6,420,273 | $5,059,753 | $11,480,026 |
| Metropolitan State University | $12,530,616 | $10,511,589 | $23,042,205 |
| Minneapolis Community and Technical College | $10,864,026 | $8,890,822 | $19,754,848 |
| Minnesota State College Southeast | $2,568,432 | $2,123,412 | $4,691,844 |
| Minnesota State Community and Technical College | $6,755,563 | $5,696,229 | $12,451,792 |
| Minnesota State University, Mankato | $22,230,406 | $21,113,398 | $43,343,804 |
| Minnesota State University Moorhead | $8,436,627 | $7,339,796 | $15,776,423 |
| Minnesota West Community and Technical College | $4,088,411 | $3,400,088 | $7,488,499 |
| Normandale Community College | $13,252,068 | $10,542,214 | $23,794,282 |
| North Hennepin Community College | $9,064,171 | $7,174,508 | $16,238,679 |
| *Northeast Higher Education District (NHED) | $5,958,633 | $5,767,656 | $11,726,289 |
| Northland Community and Technical College | $4,384,359 | $3,469,954 | $7,854,313 |
| Pine Technical and Community College | $1,418,409 | $1,333,085 | $2,751,494 |
| Ridgewater College | $5,154,880 | $4,608,175 | $9,763,055 |
| Riverland Community College | $3,772,766 | $3,299,929 | $7,072,695 |
| Rochester Community and Technical College | $7,237,351 | $6,219,224 | $13,456,575 |
| Saint Paul College | $9,323,682 | $7,320,440 | $16,644,122 |
| South Central College | $5,067,226 | $4,335,146 | $9,402,372 |
| Southwest Minnesota State University | $4,907,981 | $4,733,861 | $9,641,842 |
| St. Cloud State University | $19,602,227 | $18,890,755 | $38,492,982 |
| St. Cloud Technical and Community College | $6,072,803 | $5,060,831 | $11,133,634 |
| Winona State University | $12,321,262 | $11,901,422 | $24,222,684 |

*Hibbing Community College · Itasca Community College · Mesabi Range College · Rainy River Community College · Vermilion Community College

# APPENDIX B: ECONOMIC CONTRIBUTION BY DEED GEOGRAPHY

The economic contribution analysis completed in this section is based on the counties included within each region and is based on the combined county multipliers. For this reason, the numbers presented in this analysis will not total the statewide contribution numbers.



## REGION 1 - NORTHWEST IMPACT

COUNTY

Becker, Beltrami, Cass, Clay, Clearwater, Crow Wing, Douglas, Grant, Hubbard, Kittson, Lake of the Woods, Mahnomen, Marshall, Morrison, Norman, Otter Tail, Pennington, Polk, Pope, Red Lake, Roseau, Stevens, Todd, Traverse, Wadena, Wilkin

ECONOMIC IMPACT | $549.9M

EMPLOYMENT IMPACT | 5,658 JOBS

STATE AND LOCAL TAX IMPACT | $36.0M

## REGION 2 - NORTHEAST IMPACT

COUNTY

Aitkin, Carlton, Cook, Itasca, Koochiching, Lake, St. Louis

ECONOMIC IMPACT | $302.2M

EMPLOYMENT IMPACT | 3,090 JOBS

STATE AND LOCAL TAX IMPACT | $18.6M

## REGION 3 - CENTRAL IMPACT

COUNTY

Benton, Chisago, Isanti, Kanabec, Kandiyohi, McLeod, Meeker, Mille Lacs, Pine, Renville, Sherburne, Stearns, Wright

ECONOMIC IMPACT | $696.9M

EMPLOYMENT IMPACT | 6,914 JOBS

STATE AND LOCAL TAX IMPACT | $45.2M

## REGION 4 - 7COUNTY METRO IMPACT

COUNTY

Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, Washington

ECONOMIC IMPACT | $2.7B

EMPLOYMENT IMPACT | 22,250 JOBS

STATE AND LOCAL TAX IMPACT | $150.9M

## REGION 5 - SOUTHWEST IMPACT

COUNTY

Big Stone, Blue Earth, Brown, Chippewa, Cottonwood, Faribault, Jackson, Lac qui Parle, Le Sueur, Lincoln, Lyon, Martin, Murray, Nicollet, Nobles, Pipestone, Redwood, Rock, Sibley, Swift, Waseca, Watonwan, Yellow Medicine

ECONOMIC IMPACT | $780.5M

EMPLOYMENT IMPACT | 7,504 JOBS

STATE AND LOCAL TAX IMPACT | $49.1M

## REGION 6 - SOUTHEAST IMPACT

COUNTY

Dodge, Fillmore, Freeborn, Goodhue, Houston, Mower, Olmsted, Rice, Steele, Wabasha, Winona

ECONOMIC IMPACT | $564.1M

EMPLOYMENT IMPACT | 5,529 JOBS

STATE AND LOCAL TAX IMPACT | $34.8M

## 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 like a state or the nation, the input-output table accounts for all dollar flows between different sectors of the economy in a given time 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.). IMpact analysis for PLANning (IMPLAN) is a widely accepted and used software model first developed by the U.S. Forest Service in 1972. The data used in the baseline IMPLAN model and dataset 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, seasonal demand, and other market data comes from the Bureau of Labor Statistics, the 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 between government, industry, and household sectors, allowing IMPLAN to model transfer payments such as taxes.

The model works by tracking the flow of resources to and from companies/organizations and individuals within a region. 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 cars with a value of $1 million. However, to produce that product, they may be required to spend $500,000 on wages and benefits, $200,000 on parts, $100,000 on electricity, $50,000 on transportation of goods and raw materials to and from the plant, and $50,000 on 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 the cars. Workers and the owners of the company will spend money on goods and services (and the associated taxes) from other companies in the area (e.g., restaurants, gas stations). The suppliers, employees, and owners of this second tier will, in turn, spend those resources on other goods and services either 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 more than 536 industries to determine how an industry spends its operating receipts to produce its commodities. These production functions are derived from U.S. Census Department data. IMPLAN couples the national production functions with 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 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.

## MINNESOTA STATE QUESTIONS AND ANSWERS

**What is an economic contribution analysis?**

This study is a contribution analysis and builds upon the methodology and measurement previously utilized by Minnesota State in its 2013 analysis. The study quantifies the economic contribution of all colleges and universities of Minnesota State in terms of economic impact, jobs, and local and state tax revenue. The study calculates how spending by Minnesota State colleges and universities, employees, visitors, and students contribute to the vitality of Minnesota. It examines how expenditures create additional impact in the economy.

# APPENDIX C: ABOUT THE STUDY

An economic contribution analysis quantifies the broader and more general case of the how economic activity cycles through an existing economy. For the purposes of this study, an economic contribution is defined as the gross changes in Minnesota's existing economy that can be attributed to Minnesota State colleges and universities. Contribution analysis is a descriptive analysis that tracks the gross economic activity of how the spending by Minnesota State and its constituencies as the dollars cycle through the economy. The Minnesota State economic contribution analysis does not consider how spending at one college or university may crowd out spending at another college or university. This type of analysis is one of the most common analysis that is performed and is very often mislabeled as an economic impact study. Please note while the terms used to express the contribution of Minnesota State to the statewide economy are referred to as impact, this is a contribution analysis.

Spending by students, staff, and faculty who are explicitly participating in activities associated with Minnesota State's output represents a "stemming from effect" and could also be considered a direct effect of the industry.

For example, students who attend classes and spend $10 on lunch at a local restaurant are a stemming from effect of the college or university. This contribution analysis then follows the direct economic activity and associated stemming from effects through the economy. The economic model is built to represent the structure and degree of interconnectedness in 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 at a Minnesota State college or university was a local, then the $10 they spent on lunch potentially represents $10 they are not spending at another restaurant elsewhere in their town. The direct effect in a contribution analysis includes purchases by local students and non-local students 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.

# APPENDIX C: ABOUT THE STUDY

**What should you remember about the study when you read it?**

- It is a point-in-time calculation of impact for FY17.
- It quantifies the amount of impact that Minnesota State produces each year.
- The economic numbers can fluctuate year to year based on operational spending, capital spending, pay and benefits, number of employees, and number of students, and state appropriation.
- Beyond the data, a team of researchers interviewed leadership teams at all colleges and universities participating in the study and consulted with higher education experts to inform the analysis.
- This is an economic contribution analysis which casts a broader net to calculate impact than an economic impact study.

**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 utilizing 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 utilize to calculate the economic impact?**

Primary data utilized in this analysis was obtained from Minnesota State and includes:

- Operating expenditures (FY17)
- Capital expenditures (10-year average)
- Pay and benefits by employee type
- Number and types of students (all in-state and out-of-state students are counted)
- Visitor numbers for individual colleges and universities
- Alumni data from individual colleges and universities
- Volunteerism
- Charitable giving

Secondary data was utilized to estimate the following:

- Student spending habits (full-time students and part-time students, excluding tuition and fees)
- Visitor spending habits

**What are the community benefits impacts based upon?**

Charitable giving impacts are based upon assumptions found in the U.S. Census donor data. These models do not assume 100 percent participation rate for staff, faculty, and students and are 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 percent of staff and faculty donate $2,064 annually and 14.9 percent of students donate $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. For the purposes of this breakout analysis, it was assumed that 27.2 percent of staff and faculty volunteer and 23.3 percent of students volunteer.

**Why did Minnesota State commission a study?**

Minnesota State commissioned the analysis to quantify the impact of its statewide operations. Minnesota State has a number of tools helpful in explaining 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 Minnesota State to both internal and external constituents, it is important to quantify the financial and societal gains realized throughout the state.

**Why does this economic contribution study look and sound different than others we have seen published?**

The veracity of the data and methodology is consistent with the 2013 Wilder Research analysis and other college and university systems that want to capture the impact of colleges and universities. The data is an independent assessment of Minnesota State's contribution to the overall economy – the numbers drive the message not the other way around. Additional assumptions and information can be found in the Appendices. The report is designed to make the data analysis accessible to all readers.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TECHNICAL COLLEGE
ANOKA-RAMSEY
COMMUNITY COLLEGE
BEMIDJI
STATE UNIVERSITY
CLC
CENTRAL LAKES
COLLEGE
CENTURY
COLLEGE
DAKOTA COUNTY
TECHNICAL COLLEGE
Fond du Lac
Tribal & Community
College
Hennepin Technical College
HIBBING
COMMUNITY COLLEGE
Inver Hills
Community College
ITASCA
COMMUNITY COLLEGE
Lake
Superior
COLLEGE
MESABI
Range College
Metropolitan
State University
MINNEAPOLIS
COMMUNITY & TECHNICAL
COLLEGE
MINNESOTA STATE COLLEGE
SOUTHEAST
A TECHNICAL & COMMUNITY COLLEGE
Minnesota State
Community and Technical College
MINNESOTA STATE UNIVERSITY
MOORHEAD
MINNESOTA STATE
UNIVERSITY
MANKATO
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Minnesota West
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COMMUNITY COLLEGE
North Hennepin
Community College
NORTHLAND
COMMUNITY & TECHNICAL COLLEGE
NTC
Northwest
Technical College
Pine Technical &
Community College
RAINY RIVER
COMMUNITY COLLEGE
RIDGEWATER
COLLEGE
WILLMAR & HUTCHINSON
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ROCHESTER
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South Central
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