

MISSOURI S&T

ECONOMIC AND COMMUNITY IMPACTS OF MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY

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PREPARED BY:

**Tripp
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GENERATING IMPACT THROUGHOUT MISSOURI FY2021



MISSOURI S&T

\$487.2 million
generated in economic impact

6,540 jobs
supported and sustained

\$27.3 million
in state and local taxes

CHARITABLE GIVING AND VOLUNTEERISM

\$1.9 million
in donated time and charitable giving by staff, faculty and students

\$1.1 million
donated to local charitable organizations

\$862,500
in value of volunteer time

These benefits are in addition to the **\$487.2 million** annual impact that Missouri S&T generates for the state.

RESEARCH

generated
\$190.6 million
in economic impact

1,342 jobs
supported and sustained

produced
\$10.3 million
in state and local taxes

ACADEMIC MEDICINE

generated
\$18.7 million
in economic impact

197 jobs
supported and sustained

produced
\$748,000
in state and local tax revenues

ATHLETICS

generated
\$19.2 million
in economic impact

216 jobs
supported and sustained

\$955,000
generated in state and
local tax revenues

ALUMNI & WORKFORCE

25,417 Missouri S&T alumni
living and working in Missouri

\$4.5 billion
in overall economic impact
generated by alumni in Missouri

ABOUT MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY

Missouri University of Science and Technology (Missouri S&T) puts a strong emphasis on innovation and research. Founded in 1870 as one of the first technological institutions west of the Mississippi River, Missouri S&T continues to build on its heritage of discovery, creativity, and innovation to equip and inspire today's students to meet tomorrow's great global challenges.

Known as a STEM-focused research university of more than 7,200 students, Missouri S&T is located in the close-knit community of Rolla. Missouri S&T offers 101 degree programs in 40 areas of study and has a strong reputation for providing an outstanding return on investment (ROI). In 2020, S&T was one of the nation's top 10 universities for ROI, according to Business Insider, and in 2021, Princeton Review ranked S&T among the top five public universities in the U.S. for career placement. The university also is home to 19 nationally competitive student design teams, including the nationally No. 1-ranked Human Powered Vehicle Design Team¹, and to the Kummer Institute for Student Success, Research and Economic Development. The Kummer Institute was established through a \$300 million gift from the late Fred Kummer, a Missouri S&T graduate, and his wife June, and is the largest single gift ever to any public or private university in Missouri. Missouri S&T's graduate online engineering programs are ranked ninth in the nation and seventh among public universities nationwide, according to U.S. News & World Report's 2022 Best Online Master's in Engineering program rankings. Additionally, these programs are ranked seventh in the nation for military veterans.

Missouri S&T offers a personalized learning environment and an outstanding record of student success. The university serves as a vital knowledge center and the foremost contributor to the region's educational, social, cultural, and economic development.



¹ In 2020, the Missouri S&T team was ranked No. 1 by the American Society of Mechanical Engineers.

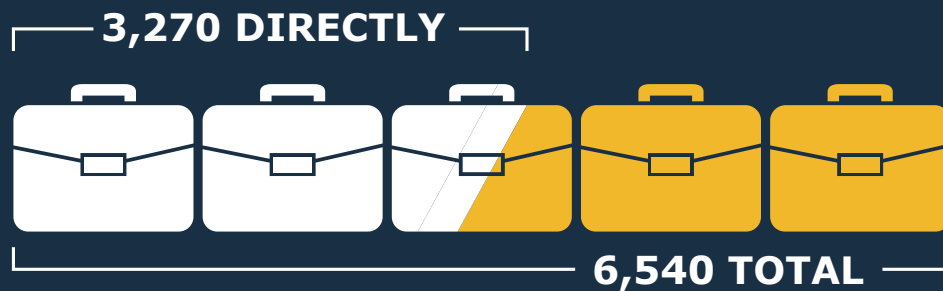
STRENGTHENING THE MISSOURI ECONOMY

ECONOMIC IMPACT



In FY21, Missouri S&T supported **\$487.2 million** in economic impact for the state. This total represents the direct impact of spending in the state (**\$140.5 million**) and the indirect spending that occurs as a result of the university's presence (**\$346.7 million**).

EMPLOYMENT IMPACT



In FY21, Missouri S&T supported **3,270** (full-time and part-time) jobs throughout the state. In total, the university's presence supports **6,540 jobs** in Missouri.

This employment makes a direct contribution to the region's overall workforce vitality and bolsters the economy. Those directly employed individuals spend dollars in the state and, therefore, support additional employment.

MISSOURI S&T STRENGTHENS STATE AND LOCAL GOVERNMENTS



State and local taxes generated by Missouri S&T totaled **\$27.3 million** in direct and indirect/induced tax payments in Missouri for state and local governments. Through its local spending and direct and indirect support of jobs, Missouri S&T's presence strengthens the local and statewide tax base.



COMMUNITY DRIVEN

Economic impact studies often capture only the impact that can be assigned a quantitative number, but the qualitative value and impact of Missouri S&T goes far beyond its annual multimillion-dollar economic impact. Missouri S&T provides countless opportunities for faculty, staff, and students to service the community through institutional partnerships, programs, and service-learning projects that deliver a significant impact to the community. Assigning a dollar amount to the outreach and community activities of Missouri S&T is challenging, but on a daily basis, the lives of those in the surrounding communities are significantly enhanced by its presence in a multitude of ways.

Tripp Umbach estimates that Missouri S&T employees and students in FY21 generated more than **\$1.9 million** in charitable donations and volunteer services across Missouri. These benefits are in addition to the **\$487.2 million** annual impact that Missouri S&T generates for the state. The **\$1.9 million** impact includes:



\$1.1 million donated to local charitable organizations by Missouri S&T employees and students.



\$862,500 in value of volunteer time provided to area communities by Missouri S&T employees and students.



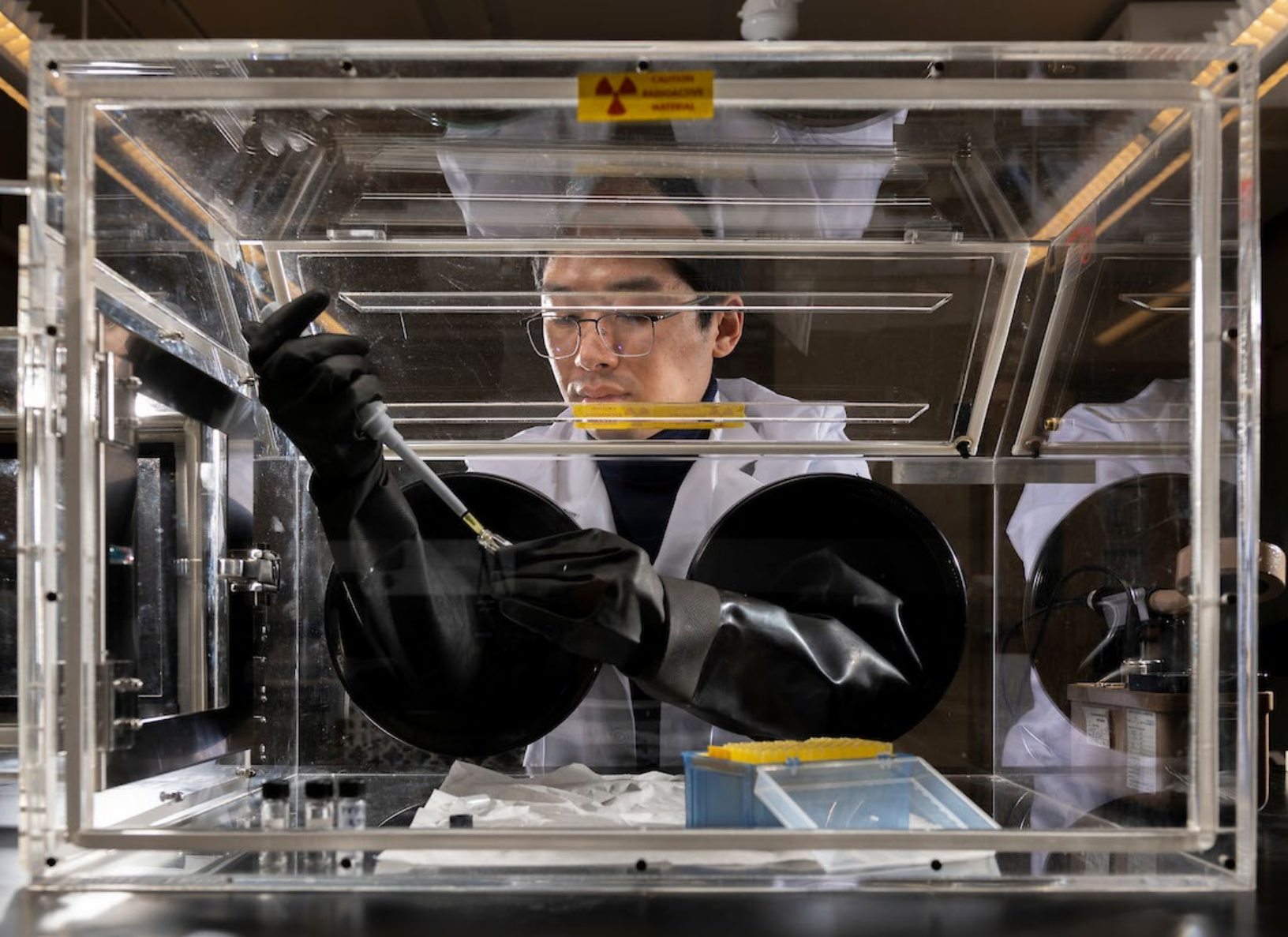
ALUMNI AND WORKFORCE

Missouri S&T educates and trains the future workforce of Missouri and beyond. Nearly 2,000 students graduate every year from Missouri S&T, and each graduating class provides essential contributions to the state's human capital and workforce needs. By producing highly educated, engaged, global citizens, Missouri S&T continues to shape a skilled workforce that Missouri needs to succeed in the 21st century. While operational impacts are impressive, the impact of Missouri S&T graduates is even greater.

ALUMNI IMPACT

There are **25,417 Missouri S&T alumni** living in Missouri. The total economic impact to the Missouri economy associated with the in-state spending by Missouri S&T alumni is estimated at **\$4.5 billion**.





RESEARCH

Research and medical innovation provide multiple benefits beyond the economic and employment impacts generated by Missouri S&T operations. Significant additional economic expansion and employment are created through the commercialization of research activities within Missouri executed by Missouri S&T and its collaborating partners, the employment of world-class researchers, and the attraction of additional federal research funding.

Missouri S&T research includes strengths in advanced manufacturing; resilient and smart civil infrastructure; critical minerals and materials; cyber-physical systems; electromagnetic compatibility; materials science and engineering; energy and resource sustainability; and artificial intelligence and autonomous systems. Research and innovation emanating from Missouri S&T's research, graduate studies, and economic development activities are continually advanced by faculty, staff, and student innovation and scholarship. As a result of research activity and spending by Missouri S&T, significant economic, employment, and government revenue is generated throughout the state. In FY21, Missouri S&T's research enterprise generated **\$190.6 million** in economic impact and supported and sustained **1,342 jobs** while producing **\$10.3 million** in state and local tax revenue

2021 HIGHLIGHTS:

Missouri S&T Researchers Among Top 2% in their Fields

Sixty-six current and former faculty of Missouri S&T are among the top researchers in their fields as measured by their career research records, and 15 other current or former Missouri S&T researchers were among the best in their fields in 2020, according to a recent analysis by Stanford University.

Missouri Protoplex®

The Missouri Protoplex®, an advanced manufacturing research and development facility, will serve as the anchor building for Missouri S&T's planned manufacturing technology and innovation campus. Missouri S&T envisions the Protoplex Facility as headquarters for a statewide ecosystem where experts, innovators, small and large businesses, entrepreneurs, educators, and policymakers develop and adopt the technologies needed to create and sustain manufacturing jobs in Missouri.

The Protoplex is scheduled to be completed by June 2023. This facility will be the anchor building for a future manufacturing technology and innovation campus. Both the Protoplex and the new innovation campus will support Missouri S&T's efforts to aid manufacturers in Missouri to be more innovative and competitive in the global marketplace.

The Kummer Institute

The Kummer Institute for Student Success, Research and Economic Development will transform Missouri S&T and the south-central Missouri region by cultivating leadership and technological innovation; promoting an entrepreneurial mindset; fostering expansion of academic-industry partnerships to address emerging needs of industry; and creating jobs and economic growth for the region. The late Fred Kummer, a St. Louis entrepreneur and a Missouri S&T graduate, and his wife, June, donated \$300 million to Missouri S&T in 2020 to establish the Kummer Institute. Their donation is the largest single gift ever to any public or private university in Missouri and one of the largest ever to any university. This gift will enable the university to establish a new college of innovation and entrepreneurship, develop new areas for research, provide numerous scholarships and fellowships for students, and bolster the Rolla region's economy. One element of the institute is the Kummer Center for STEM Education, which will serve K-12 students and teachers primarily in the rural schools of south-central Missouri, thereby furthering STEM-focused educational opportunities for these pre-college students.

ACADEMIC MEDICINE

Missouri S&T helps to improve the health and wellbeing of Missourians, particularly through its strengths in biochemical engineering and biomedical science (BCE/BMS). In FY21, the economic impact of the BCE/BMS programs offered by Missouri S&T totaled **\$18.7 million**.² The employment impacts of these activities supported **197 jobs** throughout the state, while **\$748,000** of in-state and local tax revenue generated in FY21 can be attributed to the operations of the university's biomedical engineering program.

In addition to operations, biomedical research conducted at Missouri S&T is directly responsible for new company startups and new product development at existing companies. For example, MO-SCI's most well-known product, marketed under the name TheraSphere™, are microscopic glass spheres that are used to treat liver cancer. One of the company's latest products, a glass-based wound-healing matrix called Mirragen, was first developed by Missouri S&T students and faculty.



² The economic impact includes all academic programs related to medicine.



ATHLETICS

Missouri S&T offers a wide range of NCAA Division II athletics programs that attract teams and fans from outside of Missouri, which generates significant economic and employment impacts. The Missouri S&T Miners provide fans within Rolla access to a multitude of sporting events.

Missouri S&T athletics rallies the community far and wide; in FY21, the economic impact of athletics totaled **\$19.2 million**. The employment impacts of these activities supported more than **216 jobs** throughout the state, while **\$955,000** of in-state and local tax revenue generated can be attributed to athletics activities across the university.

TRIPP UMBACH QUALIFICATIONS

Tripp Umbach is the national leader in providing economic impact analysis to leading organizations, universities, and academic medical centers. Since 1990, Tripp Umbach has completed more than 300 economic impact studies for such clients as Boston University, Indiana University, Michigan State University, Pennsylvania State University, Ohio State University, University of Connecticut, University at Buffalo, University of Arizona, University of Michigan, University of Minnesota, University of Pittsburgh, University of Vermont, University of Virginia, University of Washington, and University of Alabama at Birmingham.

