



THE ECONOMIC AND COMMUNITY IMPACTS OF THE MEDICAL COLLEGE OF WISCONSIN

PREPARED BY TRIPP UMBACH



MCW ECONOMIC IMPACT FY23

TOTAL MCW AND HOSPITAL PARTNER IMPACT ON THE UNITED STATES ECONOMY DRIVEN BY MCW



\$5.82 billion

generated in economic impact



38,586 total jobs

supported and sustained statewide



\$246.1 million

generated in state and local taxes



MCW IMPACT ON THE UNITED STATES



\$3.20 billion

generated in economic impact



21,030 total jobs

supported and sustained statewide



\$167.5 million

generated in state and local taxes



HOSPITAL PARTNER IMPACT ON THE UNITED STATES DRIVEN BY MCW



\$2.62 billion

generated in economic impact



17,556 total jobs

supported and sustained



\$78.6 million

in additional state and local taxes

TOTAL MCW AND HOSPITAL PARTNER IMPACT ON WISCONSIN DRIVEN BY MCW



\$5.04 billion

generated statewide in economic impact



34,755 total jobs

supported and sustained statewide



\$212.8 million

generated in state and local taxes

MCW STATE OF WISCONSIN



\$2.74 billion

generated statewide in economic impact



19,354 total jobs

supported and sustained statewide



\$143.9 million

generated in state and local taxes

MCW MILWAUKEE REGION

\$2.60 billion

generated in economic impact

18,387 total jobs

supported and sustained

\$136.7 million

generated in state and local taxes

MCW GREEN BAY REGION

\$96.1 million

generated in economic impact

677 total jobs

supported and sustained

\$5.0 million

generated in state and local taxes

MCW CENTRAL WISCONSIN REGION

\$41.2 million

generated in economic impact

290 total jobs

supported and sustained

\$2.2 million

generated in state and local taxes

HOSPITAL PARTNER IMPACT ON THE STATE OF WISCONSIN DRIVEN BY MCW



\$2.30 billion

generated statewide in economic impact



15,400 total jobs

supported and sustained



\$69 million

generated in state and local taxes

THE TOTAL ECONOMIC IMPACT OF MCW'S ACADEMIC MEDICINE FOOTPRINT IN ADDITION TO THE \$5.04 BILLION GENERATED BY MCW ANNUALLY.¹



WORKFORCE IMPACT

Tripp Umbach estimates that the 394 graduates from FY23 will have an annual economic impact of **\$630 million** on the Wisconsin economy. MCW graduates from FY23 who remain in Wisconsin will generate **\$25.2 billion** over a lifetime of employment (40 years).

Tripp Umbach estimates that the total economic impact of the 175 residents who remain to practice in Wisconsin will add **\$350 million** to the Wisconsin economy annually.



ALUMNI IMPACT

MCW alumni living in Wisconsin collectively contribute **\$19.5 billion** in economic impact annually to the Wisconsin economy.



CHARITABLE GIVING AND VOLUNTEERISM

\$27.1 million in donated time and charitable giving by staff, faculty, and learners.

The **\$27.1 million** impact includes:

- \$11.9 million** donated to local charitable organizations.

- \$15.2 million** in value of volunteer time.

¹ In this report, Tripp Umbach refers to the total economic impact by MCW in FY23. The impact includes the total economic impact of MCW operations and the total impact of its hospital partner impact on the state of Wisconsin driven by MCW.



Table of Contents

MCW Economic Impact Highlights	2
Table of Contents	5
About Medical College of Wisconsin	6
Study Overview	13
Impact on the United States	15
Impact on the State of Wisconsin	16
Impact on the Milwaukee Region	17
Impact on the Green Bay Region	18
Impact on the Central Wisconsin Region	19
MCW Research Leading to Discovery	20
MCW Graduates Impact the Economy	23
MCW is Vital to the Community	25
Appendix A: Definition of Terms	29
Appendix B: Technical Appendix	30
Appendix C: FAQs Regarding Economic Impact Assessment	32
Appendix D: Tripp Umbach Qualifications	34



About the Medical College of Wisconsin

The Medical College of Wisconsin (MCW) is a private health sciences university comprising a medical school, pharmacy school, and school of graduate studies in Milwaukee, Wisconsin. MCW traces its lineage to the 1893 founding of the Wisconsin College of Physicians and Surgeons and the 1894 founding of the Milwaukee Medical College. In 1913, these two medical schools merged to become the Marquette University School of Medicine. In 1918, the medical school was incorporated as a private institution separate from Marquette University. In 1967, Marquette University terminated its sponsorship of the medical school, which became a private, freestanding institution called the Marquette School of Medicine.

In 1969, faced with the potential loss of its sole medical school, Milwaukee County and the Greater Milwaukee Committee established a commission tasked with exploring the community's alternatives. The commission, bearing the name of business leader Joseph Heil, urged the region's civic and elected leaders to preserve a top-tier medical school as an integral component of a new regional medical center. The report served as a catalyst for new partnerships and financial support, and in 1970 the institution became the Medical College of Wisconsin.

Over the past decades, MCW has evolved into the state's largest medical school and third-largest private medical school in the country. MCW is one of the top 100 research institutions, according to the National Science Foundation, in the United States out of 20,000 institutions. It boasts a student body exceeding 1,000 medical students and more than 1,000 other learners enrolled in health-related programs. MCW's regional campuses in Green Bay and Central Wisconsin matriculated students beginning in July 2015 and 2016, respectively. MCW's faculty oversees the training of more than 700 physicians in residency programs and 200 in fellowship programs through the Medical College of Wisconsin Affiliated Hospitals. Additionally, more than 450 students, including approximately 130 scientists involved in postdoctoral research fellowship training, are enrolled in 41 degree and certificate programs in the School of Graduate Studies.



MCW is the largest clinical provider in Wisconsin, with a significant impact on the state's healthcare landscape. Annually, more than 11,000 physicians and 4,800 other health professionals participate in continuing medical education-accredited activities facilitated by MCW. The MCW School of Medicine, offers an innovative, rigorous, and immersive curriculum. This curriculum aims to equip MCW's graduates with a profound understanding of the healthcare needs specific to these communities. MCW engages in initiatives to retain a higher proportion of graduates within Wisconsin for post-graduation practice, particularly in areas facing a shortage of doctors.

As part of its ongoing transition into a comprehensive health sciences university, MCW established a School of Pharmacy in Milwaukee in 2015 with the aim of nurturing the next generation of pharmacists to serve as healthcare providers. It is among a few pharmacy schools in the country offering a three-year Doctor of Pharmacy (PharmD) degree and provides students with the experience they need to be innovators and advocates for providing greater access to primary and preventative care for patients. Students gain early and extensive exposure to clinical settings and world-class research across a range of specialties and are prepared to deliver patient-centered care across diverse practice settings, including primary care. The first class of pharmacy students matriculated in August 2017 and graduated in May 2020.

MCW's scientists lead biomedical and population health advancements through laboratory research, clinical trials, and community-engaged research. These studies are conducted in collaboration with local, national, and global thought leaders and innovators. Research drives discovery and generates new knowledge that can change everything, including how disease is defined, diagnosed, treated, and prevented, as well as how MCW trains the next generation to push beyond the boundaries of what is possible. MCW is among the top 5% worldwide in publishing new knowledge in clinical medicine.

MCW believes the only way to build a healthier world is to build it together. The institution is committed to keeping people healthy in southeastern Wisconsin, as well as in communities across the state and around the globe. MCW teams work in collaboration with hundreds of organizations to engage community members and address the most pressing issues affecting health in the state and beyond. MCW assists communities in advancing health and equity by developing collaborative research and patient care partnerships. In the past two years, nearly 1,100 MCW faculty and staff worked with 616 community partners, groups and organizations to improve health across the state.

MCW's commitment to the community is codified as one of four elements in its mission, which is unique among medical schools in the United States. Through this mission, MCW contributes to the community through engagement, research, and support activities throughout the Southeast Region. In the summer of 2024, MCW along with the Greater Milwaukee Foundation (GMF) will open the ThriveOn Collaboration, a generational investment in the Milwaukee community designed to promote health, equity, and economic well-being in the community. Among ThriveOn's features:

- Nearly 400,000 square feet
- Offices for anchor tenants (GMF, MCW)
- First-floor community space
- Approximately 90 residential units
- Early childhood education space

Economic Engine for Wisconsin

This report highlights MCW's significant impact on the state's academic, research, healthcare, and community health landscape. As a private institution firmly committed to its public mission, MCW generates substantial economic and social impact throughout Wisconsin. MCW is a workforce magnet for the entire state, recruiting and retaining 3,535 faculty, staff, and students from outside the region over the past 10 years.

According to Tripp Umbach's analysis, MCW generated **\$2.74 billion** in total economic impact on Wisconsin in FY23 and supported **19,354 jobs** statewide. Direct spending by MCW on capital and operations, as well as by students, faculty, and staff, generated **\$143.9 million** in state and local taxes. MCW's economic impact drives the **\$8 billion** Southeast Wisconsin academic medicine ecosystem.² MCW's impact is nearly twice as high as the average economic impact of all 157 M.D.-granting medical schools across the United States. According to the Association of American Medical Colleges (AAMC), the average medical school had a total impact of \$1.5 billion in 2022.

Along with its clinical affiliates, MCW's impact in FY23 equaled \$5.04 billion, 34,755 jobs, and \$212.8 million in state and local taxes.

² Association of American Medical Colleges, 2022.





In July 2023, the MCW School of Medicine launched the MCWfusion™ Curriculum – a new, phased curriculum integrating foundational science and clinical medicine. This curriculum features clinically applicable, fully integrated basic science teaching; active, small group and inquiry-based learning methods; patient care and healthcare team experiences; and individualized, differentiated training.

The goal of the curriculum is to: 1) produce competent, well-rounded physicians who will be excellent clinicians in any specialty and are prepared to practice in the rapidly evolving future healthcare environment and become life-long learners; and 2) provide students with opportunities to develop skills for specific career goals. The Fusion curriculum is aligned with core competencies and incorporates competency-based assessments and assessments that drive learning. This curriculum redesign is based on the five principles developed by groups of faculty, staff, and students at the onset of the planning process.

The Discovery Curriculum, which launched in 2012, is being phased out as the new Fusion Curriculum began in the 2023-2024 academic year with the incoming class. This curriculum blended the latest technology and active learning with rich medical education traditions and was designed to cultivate students' skills and interests while transforming them into a passion for lifelong learning. The MCW experience provides enriching opportunities that will prepare students to discover their calling and become leaders in patient care, research, and community leadership.

MCW-Green Bay and MCW-Central Wisconsin, located in Wausau, feature a three-year calendar-efficient schedule, allowing students to complete their medical school experience in one community and in only three years. This is achieved by reducing the number of electives and the length of traditional medical school breaks, allowing students to graduate sooner and begin practicing medicine one year earlier.

MCW generates impacts by providing high-quality educational opportunities to students who remain in Wisconsin to practice medicine and provide other healthcare services. MCW is a factory for new ideas and initiatives in the classroom, the laboratory, and the clinic. MCW offers diverse students a world-class, socially conscious education to prepare the next generation of citizens and leaders. MCW empowers innovative research, scholarship, and creative activities focused on improving society.

With more than 900 residents and fellows in MCW-affiliated residency programs, MCW is in the top 5% nationally among all medical schools producing physicians. Residents and fellows, along with other MCW health science students, partner with attending physicians in providing care to more than 5 million patients annually in clinical settings.

Regional Medical Education Campuses – These campuses play a crucial role in the economic and social development of their regions. By educating physicians who choose to stay in the area, they contribute to job creation and attract bioscience businesses, thereby fostering a more diversified and robust economy.

Early Clinical Experience – Medical students at MCW begin learning the essential clinical competencies required for working in the clinics from their first day. During the clinical apprenticeships in the second and third sections, preceptors provide feedback and mentorship. The fourth section emphasizes clinical skills practice, allowing students to hone the skills they have absorbed in the clinic. Third and fourth years feature increased exposure to the clinical experience through clerkships and sub-internships and continued exposure to the basic sciences.

Interprofessional Education (IPE) – All MCW students participate in robust IPE sessions throughout the curriculum. They are introduced to IPE early and have an opportunity to work in student interdisciplinary teams within the many health science programs within MCW and with partner institutions in the region, including Alverno College, Concordia University, Marquette University, Milwaukee Area Technical College, Milwaukee School of Engineering, and Mount Mary University.

Research, Innovation, and Economic Development – MCW is the largest private research institution in Wisconsin, a top 100 research institution according to the National Science Foundation and the second-largest NIH funding recipient in the state.³ Approximately **\$400 million** was invested in research, teaching, training, and related purposes in FY23. More than **3,500 research studies**, including clinical trials, were conducted in FY23. MCW supports research through direct research with faculty and students and collaborative partnerships with Milwaukee, Green Bay, and Central Wisconsin hospitals. MCW also connects with the community by providing incubator space and fostering relationships between the community and the university to develop and sustain new business start-ups in the region.

Clinical Impact – With approximately **\$1 billion** in clinical services revenue, MCW is Wisconsin's most prominent medical care provider, with **1,815 physicians and 1,860 advanced practice providers** in southeast Wisconsin, Green Bay, and Central Wisconsin. These clinicians work with teams of MCW scientists to pioneer new treatments while they educate the next generation of healthcare providers.

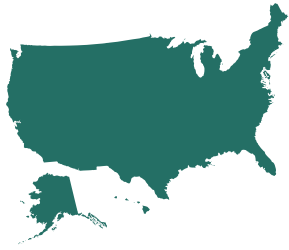
³ In comparison nationally, according to the Association of American Medical Colleges (AAMC) 2022 economic impact report, the average US medical school received \$165.2 million in research funding.





MCW has integrated education, research, and clinical partnerships with Froedtert Health System, Children's Wisconsin, and the Clement J. Zablocki VA Medical Center, which operate as separate entities. The Froedtert & the Medical College of Wisconsin regional health network is a partnership between Froedtert Health and MCW supporting a shared mission of patient care, innovation, medical research, and education. The health network operates eastern Wisconsin's only academic medical center and adult Level I Trauma Center at Froedtert Hospital in Milwaukee, an internationally recognized training and research center engaged in thousands of clinical trials and studies. The Froedtert & MCW regional health network includes 10 hospital locations, more than 2,300 physicians, and more than 45 health centers and clinics, drawing patients from across the Midwest and the nation. MCW operates an extensive pediatric practice and is closely affiliated with Wisconsin Children's Hospital. Children's Hospital is involved in research, education, and graduate medical education programs, contributing to the overall mission of MCW. MCW physicians comprise 98% of medical and surgical specialists caring for veterans. The Zablocki VA delivers primary, secondary, and tertiary medical care in 196 acute care hospital beds and provides more than **857,000 visits** annually through an extensive outpatient program.

- **\$2.62 billion** in statewide economic impact.
- **17,556 total jobs** supported and sustained.
- **\$78.6 million** in additional state and local taxes.



MCW's relationships with Froedtert, Children's, and the Zablocki VA generate more substantial economic and social impact nationally. Tripp Umbach estimates that **\$2.16 billion** of Froedtert's total impact, **\$273.6 million** of Children's total impact, and **\$182.4 million** of the Zablocki VA's total impact are directly attributable to MCW.⁴ Therefore, **\$2.62 billion** in additional economic impact on the national economy was generated in FY23 by MCW's partnership with its principal clinical partners.

It is important to note that the **\$2.62 billion** in economic impact generated nationally through MCW's relationship with Froedtert, Children's, and the VA is in addition to the **\$3.20 billion** in the overall operational impact of MCW in FY23, bringing the total economic impact of MCW and clinical partners to **\$5.82 billion** on the U.S. economy in FY23.⁵



MCW's relationships with Froedtert, Children's, and the Zablocki VA generate substantial economic and social impact on the community. MCW's total value to the community is embedded in such collaborations. Tripp Umbach estimates that **\$1.90 billion** of Froedtert's total impact, **\$240 million** of Children's total impact, and **\$160 million** of the Zablocki VA's total impact are directly attributable to MCW.⁶ Therefore, **\$2.30 billion** in additional economic impact on the Milwaukee regional economy was generated in FY23 by MCW's partnership with its principal clinical partners.

It is important to note that the **\$2.30 billion** in economic impact generated through MCW's relationship with Froedtert, Children's, and the VA is in addition to the **\$2.74 billion** in the operational impact of MCW in FY23, bringing the total economic impact of MCW and clinical partners to **\$5.04 billion** in FY23.⁷

Community Health Improvement – MCW is committed to keeping people healthy in communities throughout Wisconsin, the nation, and the world. In FY23, **1,062 faculty and staff members** from MCW collaborated with **600 community partners, groups and organizations** to improve health across Wisconsin. MCW invested more than **\$338 million** in more than 600 projects to improve health and reduce disparities statewide through the Advancing a Healthier Wisconsin Endowment. This includes **\$20 million** to improve behavioral health outcomes.

⁴ Tripp Umbach estimates from studies completed for the Association of American Medical Colleges (AAMC) that 20% of the economic impact of major teaching hospitals is related to a closely aligned medical college.

⁵ Tripp Umbach estimated the total economic impact of the VA medical center based on standard economic impact metrics based on bed size.

⁶ Tripp Umbach estimates from studies completed for the Association of American Medical Colleges (AAMC) that 20% of the economic impact of major teaching hospitals is related to a closely aligned medical college.

⁷ Tripp Umbach estimated the total economic impact of the VA medical center based on standard economic impact metrics based on bed size.

Study Overview

To assess and communicate the economic impacts and community benefits generated by MCW within Wisconsin and its operations in the Milwaukee region, MCW hired Tripp Umbach.⁸ This economic impact study measures the effect of direct, indirect, and induced economic, employment, and state and local tax impacts for MCW operations throughout Wisconsin. This study not only quantifies the impacts in quantitative and qualitative terms but also highlights the societal contributions made by MCW at local, regional, and state levels.

This report measures the direct and indirect economic impact of MCW's operations for the Fiscal Year 2023 (FY23). These impacts fall within the following categories:

- Business volume impacts (capital expenditures, operational expenditures, and payroll).
- Direct, indirect, and induced employment impacts.
- State and local tax impacts.
- Impact of employee and student spending on goods and services (retail/merchandise, hospitality, etc.).
- Impact of alumni on the economy (including wage premiums and job creation).
- Impact of visitor spending on the economy (including wage premiums and job creation).
- The impact of the attraction of external research dollars on economic development throughout the region and state.
- The impact that employees and students have on the community through donations and volunteer work.

⁸ Tripp Umbach is the nation's most experienced provider of economic impact studies for academic health organizations, having completed similar studies over the past 30 years for more than 100 medical schools and more than 800 hospitals.





Economic Impact Methodology

The calculation of these impacts is grounded in the IMPLAN analysis methodology. Primary data for the analysis was directly gathered from each institution under consideration. This data encompassed capital expenditures (five-year average), operational expenditures, employment headcounts, payroll and benefits, taxes, and FY23 event details. The multipliers employed in this study were obtained from the IMPLAN software. Tripp Umbach follows a conservative approach in economic impact analysis, utilizing IMPLAN for the analysis and employing conservative assumptions for individual spending patterns based on federal per diem rates.

Economic impact initiates when organizations such as MCW allocate funds. Studies gauging economic impact not only account for the direct economic impact of an organization's spending but also consider additional indirect and induced spending in the economy resulting from this direct spending.

In this study, the total economic impact assessed the dollars generated within the region because of the presence of MCW's academic, research, and clinical enterprises. This includes expenditures on goods and services within the target regions and state, involving its faculty, staff, students, and visitors, as well as the economic impact on businesses benefiting from MCW's spending. It is crucial to acknowledge that not all dollars an organization spends stay within its home state. Dollars spent by MCW outside target regions and the state are not included in MCW's economic impact. The multipliers utilized in this study were derived from IMPLAN.

In this impact analysis, MCW represents the combined impacts of MCW's academic, research, and clinical missions, excluding all operations of principal clinical partners Froedtert Health and Children's Wisconsin. It is important to note that all impact values of MCW reported in this study pertain to FY23 unless stated otherwise.

Impact on the United States

Since its inception as part of Marquette University in 1967, the Medical College of Wisconsin has evolved into a globally recognized doctoral research and academic medical center. Boasting an enrollment of nearly 1,600 students, contributing to the employment of 7,523 full-time and part-time individuals, and with a network of more than 20,000 alumni worldwide, MCW's influence extends from local communities across the United States.



\$3.20 billion
generated in economic impact



21,030 total jobs
supported and sustained



\$167.5 million
generated in state and local taxes



Impact on the State of Wisconsin

As a major private employer in Wisconsin, MCW, along with its clinical partner hospitals, generates substantial and enduring economic impacts for the state and the regions where MCW has campuses. It stands as one of Wisconsin's primary contributors to economic activity, employment, and tax revenue. MCW's spending within its communities and across the state contributes to job creation across economic sectors. Moreover, MCW's presence plays a crucial role in establishing a diverse and stable tax base for municipalities and school districts locally and statewide.



\$2.74 billion

generated statewide in economic impact



19,354 total jobs

supported and sustained statewide



\$143.9 million

generated in state and local taxes

Economic Impact

MCW's economic impact stems from organizational spending and money attracted to the specific geographies served by MCW. Direct spending by MCW to vendors and employees generates additional spending throughout the state, known as indirect and induced impact. MCW affects economic growth in Wisconsin in two ways:

1. Direct expenditures for goods and services by MCW, its faculty, staff, students, and visitors. This spending supports local businesses, which employ local individuals to sell the goods and provide the services that MCW constituencies need.
2. Indirect or induced spending within Wisconsin. The businesses and individuals that receive direct payments re-spend this money within the state, thus creating the need for even more jobs.

In FY23, the direct spending of MCW, combined with the indirect and induced impacts of dollars being re-spent throughout the state economy, generated \$2.74 billion overall economic impact (\$1.2 billion in direct impact and \$1.54 billion in indirect and induced impacts).

MCW's presence also affects Wisconsin through community events and benefits, visitor attraction, student spending, research activity, and economic development initiatives.

Employment Impact

MCW supports jobs in virtually every sector of the Wisconsin economy, including construction, business and professional services, restaurants and hotels, information technology, security, and healthcare services. In FY23, MCW supported 19,354 jobs in Wisconsin. These jobs (both full-time and part-time) include not only direct employment by MCW (7,292 jobs) but also indirect and induced jobs (12,062 jobs) that are supported because of MCW, employee, student, and visitor spending.

State and Local Tax Impact

State and local tax impacts attributable to MCW's presence in FY23 totaled \$143.9 million to state and local municipalities. MCW's presence stabilizes and strengthens the local and statewide tax base through its local spending and direct and indirect support of jobs. MCW is integral to the state's economy, generating tax revenue, jobs, and spending.

Impact on the Milwaukee Region



\$2.60 billion
generated in economic impact



18,387 jobs
supported and sustained



\$136.7 million
generated in state and local taxes

Economic Impact

In FY23, the direct expenditures made by MCW, along with the subsequent indirect and induced effects of dollars circulating throughout the Milwaukee economy, resulted in a total economic impact of **\$2.60 billion**. This includes \$1.45 billion in direct impact and an additional \$1.15 billion in indirect and induced impacts.

Employment Impact

In FY23, MCW played a direct role in supporting **18,387 jobs** in Milwaukee, solidifying its position as one of the region's largest private employers. Beyond the jobs directly supported by MCW, the organization's spending, along with expenditures by its employees, visitors, and patients, indirectly supports thousands of additional jobs. This indirect and induced employment is generated through the flow of money into the economy.

The comprehensive impact extends beyond the 6,907 direct jobs, encompassing an additional 11,480 indirect and induced jobs supported by MCW, its employees, students, and visitor spending. MCW's influence extends across various sectors of the Milwaukee regional economy, contributing to job creation in construction, business and professional services, restaurants and hotels, information technology, security, and temporary employment companies.

State and Local Tax Impact

State and local tax impacts attributable to MCW's presence in FY23 totaled **\$136.7 million** in the Milwaukee region. MCW's presence stabilizes and strengthens the local and statewide tax base through its local spending and direct and indirect support of jobs. MCW is integral to the state's economy, generating tax revenue, jobs, and spending.



Impact on the Green Bay Region



\$96.1 million

generated in economic impact



677 jobs

supported and sustained



\$5.0 million

generated in state and local taxes

Economic Impact

In FY23, the direct spending of MCW, in combination with the indirect and induced impacts of dollars being re-spent throughout the Green Bay region, generated **\$96.1 million** in overall economic impact (\$12.4 million in direct impact and \$83.7 million in indirect and induced impacts).

Employment Impact

During FY23, MCW played a direct role in sustaining **677 jobs** in the Green Bay region. The overall number of jobs supported by MCW in this region encompasses 73 direct jobs and an additional 604 indirect and induced jobs, which are supported through spending by MCW employees, students, and visitors.

State and Local Tax Impact

State and local tax impacts attributable to MCW's presence in FY23 totaled **\$5.0 million** in the Green Bay region.



Impact on the Central Wisconsin Region



\$41.2 million

generated in economic impact



290 jobs

supported and sustained



\$2.2 million

generated in state and local taxes

Economic Impact

In FY23, the expenditures directly made by MCW, along with the subsequent indirect and induced effects of dollars circulating throughout the Central Wisconsin region, resulted in a total economic impact of **\$41.2 million**. This comprises \$4.1 million in direct impact and \$37.1 million in indirect and induced impacts.

Employment Impact

During FY23, MCW played a direct role in sustaining **290 jobs** in Central Wisconsin. This overall figure encompasses 75 direct jobs and an additional 215 indirect and induced jobs, which are supported through spending by MCW employees, students, and visitors in the region.

State and Local Tax Impact

State and local tax impacts attributable to MCW's presence in FY23 totaled **\$2.2 million** in the Central Wisconsin region.



MCW Research Leading to Innovative Discovery

Research stands at the core of MCW's mission and serves as the cornerstone of its statewide and national economic impact. As the largest private research institution in Wisconsin and the state's second-largest recipient of National Institutes of Health (NIH) funding, MCW invested approximately **\$400 million** in research, teaching, training, and related purposes during FY23. The institution conducted more than **3,500 research studies, including clinical trials**, in the same fiscal year. MCW supports research through direct collaboration with faculty and students, fostering a robust environment for exploration. Additionally, collaborative partnerships with affiliated hospitals further contribute to advancing research initiatives.

Research at MCW generates local and national impacts through MCW's spending and the employment of research faculty, staff, and students.⁹ MCW's research expenditures — an important driver of activity and growth — and indirect and induced economic activity resulting from those expenditures totaled **\$826.3 million** during FY23.

⁹ The following impact values for MCW research are a subset of the impact values presented in the MCW impacts of this report. MCW research impacts are included in the overall MCW economic, employment, and state and local tax impacts.





Research Commercialization

MCW also connects with the community by providing incubator space and fostering relationships between the community and the university to develop and sustain new business start-ups in the region. The benefits of research and innovation extend beyond the economic and employment implications of MCW's operations. It's important to note that the economic impact study doesn't encompass the effects of commercialization activities such as patents, licensing, and the establishment of spin-off companies.

MCW's investment in research funds is just the tip of the iceberg within a growing ecosystem. **MCW's research activities have a significant economic impact, generating about \$8 in economic output for every \$1 spent on research when spending and spin-off development are included in the total impact.** This ecosystem involves companies in the biomedical, advanced manufacturing, information technology, and bioscience sectors, generating substantial additional economic impact annually across the state, thanks to MCW's contributions. The institution is dedicated to cultivating collaboration with other institutions and offering direct support to emerging bioscience companies. This commitment is exemplified through initiatives such as the Clinical & Translational Institute and Catalyst BioConsulting (listed below).

Clinical & Translational Science Institute – MCW is a founding member of the Clinical & Translational Science Institute (CTSI), an innovative infrastructure dedicated to fostering education, collaboration, and research in clinical and translational science. The CTSI operates on the fundamental principle that the successful and swift translation of foundational discoveries into improved health for communities necessitates a robust, multidisciplinary, and nationally scoped clinical and translational science network.

Functioning as a borderless, complementary, and synergistic research collaborative in southeast Wisconsin, the CTSI strives to translate discoveries into enhanced health outcomes for citizens. Simultaneously, it offers comprehensive educational and training programs aimed at nurturing the next generation of clinical and translational researchers. Beyond MCW, the CTSI boasts a membership that includes the University of Wisconsin at Milwaukee, Milwaukee School of Engineering, Marquette University, three hospitals (Froedtert Hospital, Children's Wisconsin, Zablocki VA Medical Center), and the Versiti Blood Center of Wisconsin.

Start-Up Company Highlights

Protein Foundry's employs production methods that maintain the native N-terminal amino acid sequence. The quality control process of this West Allis company rigorously confirms the accurate pattern of disulfide bond formation and the 3-D folded structure, guaranteeing the preservation of full biological activity.

XLock Biosciences, a biotechnology company in the pre-clinical stage, addresses the hurdles in chemokine-targeted drug development through protein engineering. The company secured more than **\$3 million in federal grants**.

With a scientific team boasting more than 20 years of genomics research and breakthroughs, **RPRD Diagnostics** specializes in the development and provision of comprehensive PGx testing. This facilitates personalized therapies, enhancing clinical outcomes for every patient, regardless of race or ethnicity. The company operates in Wauwatosa, Wisconsin, with a team of at least five full-time equivalents (FTEs).

The goal of **Transformational Imaging Innovations** is to empower translational researchers in developing improved diagnostics and therapies with more predictable benefits – achieving results faster, at a reduced cost, and with less frustration. Although based in North Carolina, the company is actively developing MCW IP. It has successfully secured **\$1 million in investment capital and more than \$1 million in federal grants**.

Prism Clinical Imaging® equips physicians with innovative imaging tools for the planning and treatment of brain tumors and other neurological disorders. The integration of anatomical, functional, and physiological images by Prism ensures practical application within the general clinical workflow.

With a successful fundraising effort of **\$2 million in investment capital**, **Nephraegis Therapeutics** is addressing Acute Kidney Disease (AKI) through the development of a family of proprietary drug candidates that hold significant promise in preventing AKI.

N-Zyme aims to enhance the quality of life for millions worldwide by pioneering the development of the first safe, effective, and efficient treatments for laryngopharyngeal reflux. The company has secured **\$1 million in investment capital**.



MCW Graduates Impact the Economy

MCW is a nationally recognized private institution that contributes significantly to advancing economic development and quality of life. MCW graduates work throughout the United States and worldwide, allowing the university's reach to be felt globally. MCW is shaping a skilled workforce to transform and lead an emerging global economy by educating the next generation of highly skilled and compassionate healthcare providers.

MCW has an alumni network of more than 20,000 physicians and other healthcare providers. This community of providers significantly influences the medical profession in Wisconsin, as half of the state's doctors have received training at MCW. These physicians and other healthcare providers are essential in training the next generation of providers through adjunct faculty positions and research partners. Alumni are also crucial in fundraising, allowing MCW to invest in teaching, clinical care, research, and community outreach.

Nearly 60% of all MCW graduates remain in Wisconsin to practice in a wide range of healthcare and health science positions. The 12,000 MCW alumni living in Wisconsin collectively contribute **\$19.5 billion** in economic impact annually to the Wisconsin economy. These impacts are in addition to the **\$2.74 billion** economic impact of MCW in FY23.

In addition, Tripp Umbach estimates that the 394 graduates from FY23 will have an annual economic impact of **\$630 million** on the Wisconsin economy. MCW graduates from FY23 who remain in Wisconsin will generate **\$25.2 billion** over a lifetime of employment (40 years). These impacts are in addition to the **\$2.74 billion** economic impact of MCW in FY23.



Graduate Medical Education

MCW is on the forefront of these advances and is dedicated to educating and training physicians to help them face tomorrow's challenges. Those who choose residencies and fellowships at the MCW will find an educational philosophy of a learning continuum. The MCW anticipates lifelong learning by providing a strong foundation of clinical experience in its residency programs while raising an awareness of the need for continuous education.

State-of-the-art medical technology, a wide scope of patient populations, and the opportunity to pursue research, coupled with the expertise of the MCW faculty, provide a solid foundation for a career as a physician in any medical specialty or subspecialty. The Medical College of Wisconsin Affiliated Hospitals Inc. (MCWAH), MCW, and its affiliated institutions have combined their extensive and varied resources to provide the elements necessary for a broad spectrum of graduate medical education programs. MCWAH offers 99 Accreditation Council for Graduate Medical Education-accredited (ACGME) accredited (residency and fellowship) programs. Each program is supervised by a dedicated program director. Most of the residents and fellows rotate through two or three of the Medical College's 10 affiliated institutions. All receive comprehensive training that prepares them for board certification in the specialty or subspecialty of their choice.

MCWAH has more than **900 residents** and fellows in its graduate training programs. It offers approximately **200 first-year residency positions in 22 disciplines**. The residency positions are filled through the National Residency Matching Program and other specialty matching programs with graduates from medical schools accredited by the Liaison Committee on Medical Education, osteopathic medical schools, or graduates who are certified by the Educational Commission for Foreign Medical Graduates. All MCWAH residency programs are fully accredited by the ACGME. All MCWAH fellowships are accredited by the ACGME with many other non-MCWAH fellowships accredited by the appropriate specialty society. Fellowship positions are available in 73 subspecialties.

Of the 292 residents and fellows who graduated from affiliated residency training programs in 2022, nearly 60% remained to practice in Wisconsin. Tripp Umbach estimates that the total economic impact of the 175 residents who remain to practice in Wisconsin will add **\$350 million** to the state's economy annually.



MCWAH affiliates include:

- Ascension SE Wisconsin Hospital
- Aurora Health Care
- Children's Wisconsin
- Ascension Columbia St. Mary's Hospital
- Froedtert Hospital
- Medical College of Wisconsin
- Milwaukee County Behavioral Health Division
- Milwaukee Health Services Inc.
- Versiti Blood Center of Wisconsin
- Clement J. Zablocki VA Medical Center



MCW is Vital to the Community

Caring, responsive service and community involvement stand as core values at MCW. The institution participates in meaningful collaborations with the community, contributing to the public good. The Office of Community Engagement at MCW is committed to leadership and excellence in community engagement, forming partnerships with public and private organizations to enhance learning, research, patient care, and community health. MCW provides opportunities for faculty, staff, and students to engage with the community through institutional partnerships, programs, and service-learning projects, creating a substantial impact. The institution particularly focuses on health equity, follow-up care, trauma, and violence prevention.

Assigning an exact dollar amount to MCW's outreach and community activities is challenging. Still, the lives of those in the surrounding communities are significantly enhanced daily by its presence in many ways.

Charitable Contributions

Tripp Umbach estimates that MCW faculty, staff, and students generated \$27.1 million annually in charitable donations and volunteer services. These community impacts are in addition to the economic impact of MCW and include:

- **\$11.9 million** donated to local charitable organizations by MCW faculty, staff, and students.
- **\$15.2 million** in value of volunteer time provided to area communities by MCW faculty, staff, and students.

Community Service Activities

The following are among the community activities in which MCW engages:

- **The Center for Healthy Communities and Research** is dedicated to cultivating community-academic partnerships aimed at enhancing health. The center places a strong emphasis on health promotion and education within communities, conducting research and evaluation based on community-identified needs, and providing community-responsive education for medical students and residents. The center's role as researchers involves integrating study design skills and research training with partnership initiatives to positively impact the health of Wisconsin communities. Situated within the Department of Family and Community Medicine, the center plays an integral role, closely aligning with affiliated family medicine residency programs and statewide MCW campuses in Milwaukee, Green Bay, and Central Wisconsin.
- **The Institute for Health & Equity** is dedicated to investigating the underlying factors contributing to health disparities in MCW communities and promoting best practices to advance global health equity. Through collaboration with community health partners residing and working closely with affected populations and engaging with the public, the institute works toward diminishing these disparities and promoting the overall health of communities.
- **The Advancing a Healthier Wisconsin Endowment (AHW)** stands as Wisconsin's foremost health improvement philanthropy and holds the distinction of being the only health philanthropy in the nation managing public funds within a private medical school. Originally established as a health conversion foundation through a generous contribution from Blue Cross & Blue Shield United of Wisconsin, AHW channels its investments into promising biomedical and population health research, community health initiatives, and the development of the healthcare and public health workforce. AHW was founded within the Medical College of Wisconsin in 2004, thanks to a generous financial gift from Blue Cross & Blue Shield United of Wisconsin, with the aim of benefiting state residents.

AHW's recently released annual report shows that the endowment invested more than \$26 million in 101 new projects devoted to improving health and achieving health equity throughout Wisconsin in FY23. The new project count for FY23 represents the largest number of grants issued by AHW in a single year since its founding. Previously, AHW had averaged approximately 30 awards per year. **AHW funding supported 166 active projects, representing \$110 million in funding in FY23.**



- **The ThriveOn Collaboration** was founded by the Greater Milwaukee Foundation (GMF), the Medical College of Wisconsin (MCW), and Royal Capital with a joint vision for a Milwaukee that is equitable, healthy, and thriving for all. ThriveOn is the first collaboration of its kind in the nation – a partnership with a private medical college, a community foundation, and a leading innovator in urban development – all sharing a vision and mission.

The \$100 million Health and Equity Campus on King Drive in Milwaukee, in partnership with MCW and the Greater Milwaukee Foundation, is creating a cutting-edge, place-based investment that will include the following:

- **Affordable Housing:** The campus aims to address the significant housing displacement experienced by disadvantaged members of the community near downtown by introducing affordable housing options for seniors and families.
- **Early Childhood Education:** Recognizing Early Childhood Education (birth to age 3) as a critical factor on the Social Determinants of Health (SDH) spectrum, the partnership plans to invest in an Early Childhood Education Center directed by Black leaders and partners in the community. Additionally, ongoing substantial investments will be made in existing early childhood education providers to enhance capacity and improve service quality for the community.
- **Food Hall:** Addressing the crucial role of food access and education in mitigating poor health outcomes in disadvantaged communities, the partnership will establish a food demonstration kitchen influenced by dietitians and other leaders. It will also feature an onsite healthy food and commerce food hall, promoting healthy living and commerce among disadvantaged businesses.
- **Health and Wellness:** The campus will house a comprehensive health and wellness facility, providing state-of-the-art services in strength and conditioning, sports, and active individual and group pursuits. The facility will incorporate high-quality education and programming for youth, adults, and seniors.
- **Neighborhood Business Center:** In response to the evolving gig economy, the Business Center on campus will offer training and development opportunities, access to technology convening spaces, materials, and more. It aims to add value by fostering innovation and grassroots advancements.
- **Makerspace:** Recognizing the importance of hands-on learning for both youth and adults in economic and education development, the on-campus Makerspace will be an active part of the campus. Equipped with tools inspiring creativity, such as a woodshop, 3-D printing, audio-visual equipment, and more, it will provide universal benefits to stakeholders.
- **The Physician in the Community Scholarly Pathway** program provides students from MCW-Central Wisconsin with the opportunity to align their medical education with the resources of clinical partners and address the health needs of the local community.

Student projects cover areas including:

- Adaptive educational programs
- Community approaches to substance abuse
- Early childhood development
- Healthy aging
- Legal environment and criminal justice environment
- Life skills and workforce development
- Mental health
- Teen health and communication
- Women's health
- Youth mentoring

- **The Apprenticeship in Medicine (AIM)** program offers a meaningful experience to carefully selected high school students in the Milwaukee area, particularly those belonging to historically disadvantaged and underrepresented groups in the health science professions. AIM aims to stimulate interest and awareness in careers in medicine, biomedical research, and allied health, with a focus on academic preparation and achievement.
- **The Research Opportunity for Academic Development in Science (ROADS)** program provides a valuable experience for carefully selected high school students in the Milwaukee area, specifically those from historically disadvantaged and underrepresented groups in the health sciences professions. ROADS immerses students in a research laboratory setting to spark their interest in careers in medicine, biomedical research, and science.
- **The Diversity Summer Health-Related Research Education Program (DSHREP)** is a competitive initiative designed to offer research opportunities to undergraduate students from backgrounds historically underrepresented in biomedical science. This includes individuals from disadvantaged backgrounds, underrepresented cultural and ethnic groups, and individuals with disabilities.



Appendix A: Definition of Terms

Study Year	The fiscal year 2022-2023: July 1, 2022-June 30, 2023
Total Economic Impact	The total economic impact of an institution includes the direct and indirect impacts generated in the economy as a result of the institution.
Direct Economic Impact	The direct impact includes institutional, employee, and visitor spending on the institution.
Indirect Economic Impact	Indirect impact, also known as the multiplier effect, includes re-spending dollars within the local economy by vendors/suppliers and households.
Multiplier Effect	The multiplier effect is the additional economic impact created by the institution's direct economic impact. Local companies that provide goods and services to an institution increase their purchasing by creating a multiplier.
Direct Tax Payments	An institution makes direct tax payments to a unit of government.
Indirect Tax Payments	Governmental units collect government revenue in addition to those paid directly by an institution, including taxes paid directly by employees of the institution, visitors to the institution, and vendors who sell products to the institution.
Direct Employment	The total number of employees at the institution is based on total jobs.
Indirect Employment	Indirect employment is the additional jobs created by the institution's economic impact. Local companies that provide goods and services to an institution increase their employees as purchasing increases, thus creating an employment multiplier.

Appendix B: Technical Appendix

Methodology Definitions

IMPLAN Methodology – MCW's economic impact was estimated using IMPLAN (IMpact Analysis for PLANNING), an econometric modeling system developed by applied economists at the University of Minnesota and the U.S. Forest Service. The IMPLAN modeling system has been in use since 1979 and is used by more than 500 private consulting firms, university research centers, and government agencies. The IMPLAN modeling system combines the U.S. Bureau of Economic Analysis' input-output Benchmarks with other data to construct quantitative models of trade flow relationships between businesses and between businesses and final consumers. From this data, one can examine the effects of a change in one or several economic activities to predict its effect on a specific state, regional, or local economy (impact analysis). The IMPLAN input-output accounts capture all monetary market transactions for consumption in a given period. The IMPLAN input-output accounts are based on industry survey data collected periodically by the U.S. BEA and follow a balanced account format recommended by the United Nations.

IMPLAN's Regional Economic Accounts and the Social Accounting Matrices were used to construct state- and CSA-level multipliers, which describe the economy's response to a change in demand or production caused by MCW activities and expenditures. Each industry that produces goods or services generates demand for other goods and services, and this demand is multiplied through a particular economy until it dissipates through "leakage" to economies outside the specified area. IMPLAN models discern and calculate leakage from local, regional, and state economic areas based on workforce configuration, the inputs required by specific types of businesses, and the availability of both inputs in the economic area. Consequently, economic impacts that accrue to other regions or states because of a change in demand are not counted as impacts within the economic area.

The model accounts for substitution and displacement effects by deflating industry-specific multipliers to levels well below those recommended by the U.S. Bureau of Economic Analysis. In addition, multipliers are applied only to personal disposable income to obtain a more realistic estimate of the multiplier effects of increased demand. Importantly, IMPLAN's Regional Economic Accounts exclude imports to an economic area, so the calculation of economic impacts identifies only those impacts specific to the economic impact area. IMPLAN calculates this distinction by applying Regional Purchase Coefficients (RPC) to predict regional purchases based on an economic area's characteristics. The RPC represents the proportion of goods and services purchased regionally under normal circumstances based on the area's economic characteristics described in terms of actual trade flows.

Employment Definitions

IMPLAN analysis measures jobs/positions (part-time or full-time), not full-time equivalents (FTEs). Full-time and part-time employees impact the economy and support additional indirect and induced employment throughout the region. Employment data was provided as an output of all individuals who receive a paycheck from MCW. This includes all full-time, part-time, and employed faculty, staff, students, and independent contractors.

Tax Impact Definition

State and local tax impacts generated in the current FY23 study included all taxes paid by MCW to the state of Wisconsin (i.e., payroll, property, sales, unemployment, income, and any other taxes paid to the state and local government). Any federal taxes paid by MCW were not included in the state and local tax impacts (i.e., FICA payments).

Economic Impact Value Definition

The overall economic impact values provided in this report for MCW include the following impact values that were broken out as sub-analyses:

- Organizational spending – capital and operational.
- Student, faculty, and staff spending.
- Visitor spending.

The following impacts are in addition to the economic impact of the spending categories listed above:

- Community benefit impacts.
- Charitable donations and value of voluntary services.
- Alumni impacts.
- Commercialization of research and innovation.

Visitor Definitions

Impact analysis aims to quantify the impact of attracting “fresh” dollars to a region. Therefore, when including visitor spending in the impact analysis of a university, health system, or other organization, the analysis will include only those visitors coming to a region from outside of the region. Visitors to events who also live in the region would have spent their dollars in that region otherwise; therefore, this dollar was not attracted to the region because of the organization being analyzed. For MCW, the impact analysis looked at impacts on the state of Wisconsin as well as Milwaukee, Green Bay, and Central Wisconsin. Visitors to MCW were counted only if they were from outside the region being analyzed.

Visitor Spending

Tripp Umbach employs federal per diem rates to approximate the spending of visitors in a specific area. The use of per diem rates is considered a conservative measure, with visitors typically spending more than these rates in any given area.

The rates specifically applied for this analysis include:

- Milwaukee: \$128 for lodging; \$48.00 for meals and incidental expenses
- Standard Rate: \$96 for lodging, \$44.25 for meal and incidental expenses

Community Benefits

Community benefits in this report outline two forms of impact — monetary donations made by employees and students to local nonprofits and volunteer hours valued at a monetary value.

- Tripp Umbach conducted survey research to estimate the monetary donations an individual (student, staff, faculty, or physician) is likely to make in a year. While this amount varies per person, it generally falls in the range of \$500 to \$700. Adjustments were made to account for individuals who do not donate.
- Independent Sector has established the value of a volunteer hour at \$31.80 per individual per hour. Tripp Umbach applied this value, considering the average number of hours faculty, staff, and students spend on volunteer activities (estimated at 100 hours per year for 50% of employees and students).

Research Impact Definition

The impact of MCW research was measured as the yearly effect of its research expenditures in FY23. The analysis examines the expenditures made during FY23 to estimate the annual impact of MCW research on the state economy.

Appendix C: FAQs Regarding Economic Impact Assessment

What is the economic impact?

Economic impact initiates when an organization expends money. Economic impact studies gauge both the direct influence of an organization's spending and the additional indirect spending in the economy resulting from the initial expenditure. The economic impact is unrelated to the funds collected by institutions, their profitability, or their sustainability, as all operating organizations have a positive economic impact when they spend money and attract external spending.

Direct economic impact quantifies the dollars generated within a specific geographic region because of an institution's presence. This encompasses spending on goods and services with regional vendors, the expenditures of its employees and visitors, and the economic influence on local businesses benefiting from the institution's spending. It is crucial to note that not all dollars spent by an institution remain within the studied geographic region, as some may "leak" out through purchases from vendors outside the area.

The total economic impact incorporates the "multiplier" effect resulting from spending by companies engaged with an institution. Support businesses, including lodging establishments, restaurants, construction firms, vendors, and temporary agencies, contribute to spending multipliers, which attempt to estimate the cascading effect in the economy where the initial spending occurs. For instance, an institution's spending with local vendors provides these vendors with additional funds that they reinvest in the local economy, creating a "multiplier effect."

What is the multiplier effect?

Multipliers are numerical representations of the secondary impacts arising from an organization's operations. For instance, an employment multiplier of 1.8 indicates that for every 10 employees hired in a particular industry, an additional eight jobs would be created in other industries, resulting in a total addition of 18 jobs to the economic region. The multipliers employed in this study range from 1.8 to 2.0.

The Multiplier Model is mathematically derived using the input-output model and Social Accounting formats. The Social Accounting System provides the structure for the predictive Multiplier Model utilized in economic impact studies. The model is driven by purchases for final use. Industries producing goods and services for consumer consumption must procure products, raw materials, and services from other companies to create their products. These vendors, in turn, must also acquire goods and services. This cyclical process continues until all the money is leaked from the region's economy.

Three types of effects are measured with a multiplier: the direct effect, the indirect effect, and the induced effect. The direct effect represents the known or predicted change in the local economy under study. The indirect effect involves the business-to-business transactions needed to fulfill the direct effect. Lastly, the induced effect is a result of local spending on goods and services by individuals working to satisfy the direct and indirect effects.

- **Direct effects** take place only in the industry immediately being studied.
- **Indirect effects** concern inter-industry transactions: Because an institution is in business, it demands locally produced materials.
- **Induced effects** measure the effects of the changes in household income: Employees of an institution and suppliers purchase from local retailers and restaurants.
- **Total economic impacts** are the total changes to the original economy as the result of an institution's operations, i.e., Direct effects + Indirect effects + Induced effects = Total economic impacts.

What methodology was used in this study?

IMPLAN (IMpact analysis for PLANning) relies on data and software for impact analysis. By employing classic input-output analysis along with regional-specific social accounting matrix and multiplier models, IMPLAN offers users a highly accurate and adaptable modeling system. The IMPLAN database incorporates county, state, ZIP code, and federal economic statistics that are regionally specialized rather than estimated from national averages. This database is instrumental in measuring the impact on a regional or local economy resulting from a specific change or event in the economy's activity.

What is employment impact?

Employment impact measures the direct employment (employees, staff, faculty, administration) plus additional employment created in the economy caused by an institution's operations.

Indirect and induced employment impact pertains to other regional employees whose existence is a result of an institution's economic impact. These jobs are related to the local population, encompassing city services (police, fire, EMS, etc.), employees at hotels and restaurants, clerks at retail establishments, and residents employed by vendors used by the institution.

What is the difference between direct and indirect taxes?

Direct tax dollars comprise sales taxes and net corporate income taxes paid directly by the institution to the state. On the other hand, indirect taxes encompass taxes paid to the state by vendors conducting business with an institution and by individuals.

Is this a one-time impact, or does the impact repeat each year?

The findings outlined in this economic impact analysis are produced on an annual basis. The economic impact in subsequent years may vary, influenced by factors such as changes in the number of employees and students, capital expansion, growth in external research, and state appropriations.



Appendix D: Tripp Umbach Qualifications

Established in 1990 in Pittsburgh, PA, Tripp Umbach stands as one of the well-established and highly regarded private consulting firms in the United States. Renowned for its expertise in economic and community development, the firm collaborates with healthcare, education, government, and corporate clients to enhance the economic, social, and physical well-being of communities globally. With a history spanning over 30 years, Tripp Umbach has partnered with more than 1,000 organizations, delivering services such as community assessment, economic impact assessment, and economic development strategies. The firm has successfully completed more than 500 economic impact studies in the past three and a half decades.



