

# Measuring the Impact of New Facilities

HASTINGS + CHIVETTA

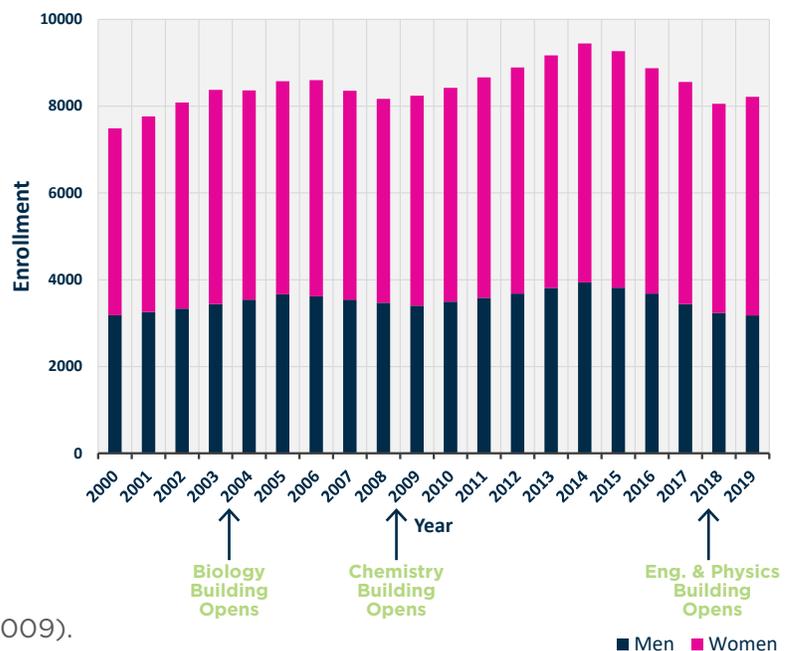


Hastings+Chivetta is privileged to have assisted Murray State University (MSU) with the development of a new and transformative Science Quad over the past 15 years. The complex of buildings was completed in three phases: Biology (2004), Chemistry (2009), and Engineering and Physics (2018). These buildings support academic programs for core requirements, the Sciences, Engineering & Technology, and Nursing and Health Professions; they also significantly expand the University’s research capacity. To prospective students and parents, the new Science Quad clearly conveys MSU’s commitment to its educational mission. As architects, we are confident that projects of this magnitude will have a positive impact on recruitment, retention and productivity. To test our confidence, we undertook a review of statistical data from the National Center for Education Statistics (NCES) and the National Science Foundation (NSF). Our findings suggest that while there are several factors that contribute to student matriculation and retention, new and renovated academic facilities clearly play an important role in motivating students to complete degrees in those disciplines. We have found this to be true at other campuses across the country as well.

### Recruitment: If You Build It, Will They Come?

The U.S. Department of Education reports that total fall undergraduate enrollment at degree-granting institutions peaked in 2010 at 18.1M. Between 2010 and 2018, enrollment fell 8% to 16.6M. The projection for 2029 enrollment is 17.0M; only a 2% increase from the low of 16.6M in 2018.<sup>1</sup> While the nationwide decline began in 2011, at Murray State undergraduate enrollment continued to rise until fall of 2015. With the opening of each new science building, MSU experienced an increase in enrollment the following fall. Other improvements occurring at Murray State during this time period were the Recreation Center (2005) and new Housing (2009).

**MSU Undergraduate Historic Enrollments**



### Retention: If You Build It, Will They Stay?

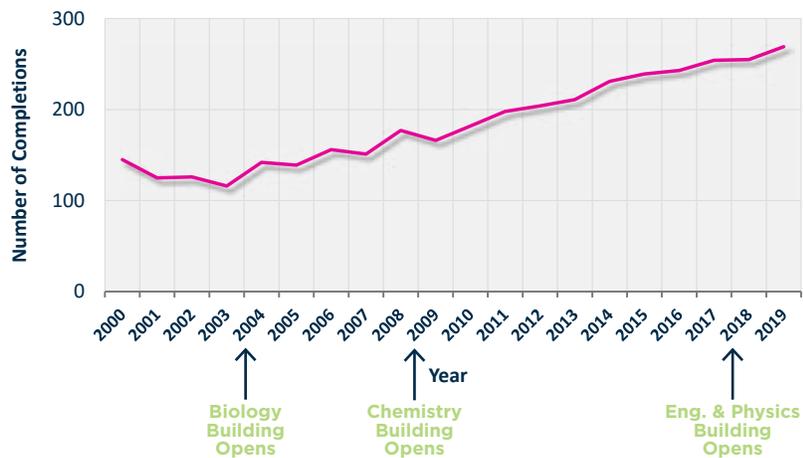
One of the best ways to measure program success and retention is through examining certificate or degree completions. At Murray State University, since the construction of the Biology Building in 2004, the largest area of growth has been in Nursing and Health Professions. Between 2000 and 2019, the attainment of a Bachelor’s Degree in the category of Health Professions has become the top major, increasing from 11% of undergraduates to 21%. The increase in degrees rose steadily following completion of the Biology and Chemistry

<sup>1</sup> [https://nces.ed.gov/programs/coe/indicator\\_cha.asp#:~:text=In%20fall%202018%2C%20total%20undergraduate.enrollment%20was%2013.2%20million%20students](https://nces.ed.gov/programs/coe/indicator_cha.asp#:~:text=In%20fall%202018%2C%20total%20undergraduate.enrollment%20was%2013.2%20million%20students)



buildings. Throughout this time period, the School of Nursing and Health Professions remained in their existing facility, Mason Hall. In this case, we observe that the presence of an updated, state-of-the-art facility attracted students to those particular majors, and likely served as a convincing recruiting tool for prospective students.

**MSU Completions in Health Professions (2000-2019)**



### Productivity: If You Build It, Will They Thrive?

**MSU Biological Science & Biomed Research Expenditures**



The most recent data available from NSF shows that between 2008 and 2017, Annual Research Expenditures in Biological and Biomedical Sciences at MSU have risen from \$1.0M to \$1.94M. To support ongoing research for Biology, the new Engineering and Physics Building included additional Biology Research Laboratories. The significant increase in research-related expenditures brought about by

the new buildings indicates that the sciences are a rapidly growing and improving area of the MSU education offerings.

### Our Takeaway

As campus architects, we have found that new and renovated facilities are paramount in recruiting, retaining, and supporting students in many disciplines, though other factors certainly can impact these functions. To prospective students and their families, new and renovated buildings can serve as an outward symbol of the strength and quality of your institution’s educational offerings. Updated facilities provide modern, adaptive spaces in which faculty, staff, and students can interact and collaborate effectively, thereby empowering students to not only pursue, but also complete their respective certificate or degree. Undoubtedly, new and renovated academic facilities can be leveraged as powerful recruitment and retention tools, which ultimately can help your institution provide the best possible educational opportunities for students.

Contact **Erik Kocher** at [ekocher@hcarchitects.com](mailto:ekocher@hcarchitects.com) or **(314) 529-4004** to talk about how our Campus Architects can help you create or enhance your campus facilities.