

ALTERNATIVE REVENUE GENERATION STRATEGIES

June 2020

In the following report, Hanover Research presents the results of a benchmarking study and best practices analysis of alternative revenue generation strategies among U.S. institutions.

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EXECUTIVE SUMMARY

RECOMMENDATIONS

Based on a national benchmarking study and best practices analysis, Hanover recommends that institutions:

EXPLORE A MIX OF ALTERNATIVE REVENUE GENERATION STRATEGIES TO SUPPORT THE INSTITUTIONAL MISSION.

Uncertain student numbers combined with irregular government funding due to COVID-19 and longer-term shifts necessitate alternatives to traditional revenue streams. Academic leadership should select alternative revenue strategies based on financial return, resource and operational needs, and alignment with the institution's mission. Final selections should reflect a 'portfolio' approach, with a mix of larger and smaller, conservative and risker initiatives.

SAMPLE ALTERNATIVE REVENUE STRATEGIES



KEY FINDINGS

Uncertain tertiary enrollments, upheaval in global enrollment patterns due to COVID-19, and other shifting trends in the higher education space mean that institutions are increasingly seeking alternative modes of generating revenue. Traditionally, most institutions have relied on tuition and related fees as a primary revenue stream. However, uncertainty related to student numbers, made particularly acute by the COVID-19 pandemic, necessitates alternative ideas to financially support institutions' missions.

Strategic partnerships with community members, other educational institutions, and private entities are common in the higher education landscape and can drive revenue. According to the American Association of State Colleges and Universities (AASCU), higher education partnerships typically fall into one of three categories: lower-risk and less prominent community partnerships, medium-risk and medium-profile partnerships between educational institutions, and high-risk/high-profile public-private partnerships. Partnerships carry significant benefits as well as potential risks based on partnership type, legal obligations, and policy considerations.

Many institutions are attracting non-traditional students and bringing in new forms of revenue through workforce training and enrichment opportunities. Though universities and colleges have traditionally focused on for-credit academic programs, educational leaders are expanding their entrepreneurial mindset to continuing education (CE), lifelong learning, corporate training, and other not-for-academic credit programs, seminars, workshops, and courses. Delivery mode, subject/skill of focus, and other considerations should respond to workforce skills gaps, labor market indicators, and other factors that contribute to demand.



KEY FINDINGS

Institutions can also sell products and services to enhance and diversity their revenue streams. Products and services may be targeted to current students, the broader community, and other populations. Examples include dining options on campus (e.g., fine dining, coffee shops), convenience services (e.g., laundry, textbook rentals), retailer partnerships (e.g., Amazon, Barnes & Nobles), and memberships and subscriptions (e.g., athletic events).

Institutions of all types have opened or explored establishing innovation and entrepreneurial labs, hubs, and centers. This trend began with elite private institutions such as the Massachusetts Institute of Technology (MIT), Stanford University, the University of Pennsylvania, and Rice University. Potential strengths include supporting research discoveries and grants, institutional recognition, and expanded partnership opportunities, while potential pitfalls include high start-up costs and the possibility that expenditures may outweigh revenue.

Institutions can generate revenue through grants and other external funding mechanisms. Federal and non-federal grants are typically granted to operations- and research-related projects. Other revenue streams from a national search include: boot and summer camps, real estate transactions and agreements, film and creative arts collaborations, and political polling.

Institutions should select alternative revenue strategies based on financial return, resource and operational needs, and fit with the mission. Shown right, practical considerations include developing a mix of larger and smaller, conservative and risker initiatives - a 'portfolio' approach.

PRACTICAL CONSIDERATIONS FOR DEVELOPING ALTERNATIVE REVENUE **STRATEGIES**





BACKGROUND

In light of uncertain tertiary enrollments globally due to COVID-19 and other shifting trends in the higher education space, institutions are seeking alternative modes of generating revenue.

Traditionally, most institutions have relied on tuition and related fees as well as government appropriations for revenue. However, uncertain student numbers combined with irregular government funding due to COVID-19 and longer-term shifts necessitate alternative ideas to financially support institutions' missions.

To assist institutions in developing new and innovative sources of revenue, Hanover conducted a benchmarking study and best practices analysis to identify alternative revenue generation strategies among U.S. institutions. Hanover defines "innovative" as strategies that are rare, uncommon, notable, or unique. The benchmarking analysis incorporates a review information drawn from institutional websites as well as publicly available data sources. Best practices drawn from secondary sources provide insight into interrelated research questions about the highest leverage and most cost-effective practices in generating new revenue.

cost-effective practices in generating new revenue.

AVERAGE FUNDING MIX AMONG U.S. INSTITUTIONS (FY 18)

- Revenue from alternative sources
- Revenue from Federal, State, and Local Appropriations
- Revenue from Tuition and Fees

Source: <u>IPEDS</u>; Note: Reflects tuition/fees and government appropriations ("traditional streams") as a percentage of total revenues and investment return in fiscal year (FY) 2018. See IPEDS <u>glossary</u> for additional details on institution categories. Sector represents not-for-profit only.

RESEARCH QUESTION

In a world where the revenue generated by degree programs is likely to decline , what are some alternative ideas that institutions can turn to diversify their revenue streams?

Institutions have had to be more strategic and entrepreneurial and really creative in identifying new funding streams to really shore up their budgets.

-Tom Harnisch, former director of state relations and policy analysis at the American Association of State Colleges and Universities (AASCU)





ALTERNATIVE REVENUE STREAMS: BEST PRACTICES

STRATEGIC PARTNERSHIPS

GENERATING REVENUE THROUGH: STRATEGIC PARTNERSHIPS

Strategic partnerships with community members, other educational institutions, and private entities are common in the higher education landscape and can drive revenue. According to the American Association of State Colleges and Universities (AASCU), higher education partnerships typically fall into one of three categories:





University of Central Florida

In 2013, UCF President John C. Hitt called the institution "<u>America's partnership university</u>," encouraging leadership "to never say no to a partnership without exploring the possibilities," states Daniel Holsenbeck, senior vice president for university relations at UCF. In line with that thinking, UCF selected a partnership with Hospital Corporation of America (HCA), the nation's largest <u>hospital company</u>, "as its partner to build a proposed teaching hospital next door to the College of Medicine." The partnership supports training for future healthcare workers relevant to HCA and the UCF medical school as well as attributes 20 percent of any profits directly to UCF.

Other partnership details and opportunities are described <u>here</u>.

Partnerships carry significant benefits as well as potential risks based on partnership type, legal obligations, and policy considerations. <u>AASCU</u> asserts that community partnerships, such as those with local organizations to fill workforce training gaps or improve health outcomes, are typically lower risk from a legal and policy standpoint, but also less prominent compared to public-private partnerships (P3s). P3s range from land development agreements to online program management and may require significant legal and ethical demands from the university or college. All three types of partnerships can drive revenue growth through student recruitment pipelines, resource distribution, and external funding mechanisms, such as grants.

PRINCIPLES FOR SUCCESSFUL PARTNERSHIPS IN HIGHER EDUCATION

- Develop a clear understanding of goals for the partnership
- Involve stakeholders early and often
- Ensure the partnership aligns with the institution's mission
- Plan for and adequately allocate resources

- Understand partner motivations/optics and conduct due diligence
- Develop a monitoring and evaluation plan
- Remain flexible
- Have an exit strategy

Source: <u>AASCU</u> (adapted)



STRATEGIC PARTNERSHIPS

SAMPLE PARTNERSHIPS FROM A NATIONAL SEARCH INCLUDE THE FOLLOWING:

Partnership Category	Example
Community Partnerships	Johns Hopkins University's Center for Social Concern "partners with numerous nonprofit, government, and community-based organizations across Baltimore City" to provide Hopkins students, faculty, and staff learning experiences outside of the classroom as well as "connect our neighbors to the breadth of capital—financial, human, and social—available at the University."
	University of California, Berkeley's Office of the Chancellor offers a Community Partnership Fund to support "innovative campus-community partnerships designed to improve the quality of life for Berkeley residents." Proposed projects may focus on areas such as the arts and culture, public health, and economic development and must include at least one university and one Berkeley community partner.
Partnerships with K12 or higher education institutions	University of Michigan at Flint partners with K12 schools across Southeastern Michigan to provide dual enrolment programs, events like Super Science Friday, summer camps, workshops, and other opportunities: "The results of these rich partnerships are students who are academically prepared for the rigor of higher education." UM Flint dual enrollment programs represent a range of "Early Colleges" wherein high school students can earn college credits.
	Loraine County Community College "partners with 14 colleges and universities delivering more than 100 bachelor's and master's degrees." Partnerships with universities like Ohio State University, Kent State University, and University of Cincinnati include the first two years of the bachelor's (i.e., an associate's) at Loraine, after which students may transfer to a full bachelor's degree at the university partner.
Public-Private partnerships (P3s)	Arizona State University's partnership with Starbucks enables Starbucks employees to receive a 42 percent tuition scholarship each semester of their undergraduate studies at ASU Online. After other scholarship and federal aid, students can be reimbursed by Starbucks for the remaining tuition. This ASU-Starbucks College Achievement Plan also includes student support services, such as online tutoring, access to career services, and disability support.
	Concordia University at St. Paul's relationship with Learning House, an academic program management company, includes the latter performing "branding, marketing, recruitment, and retention for the university's adult undergraduate programs and many master's programs, both on the ground and online." Services extend to identifying education and training gaps that Concordia can fill through new programs.

Source: Institutional websites (see embedded links)



GENERATING REVENUE THROUGH: CORPORATE TRAINING

Many institutions are attracting non-traditional students and bringing in new forms of revenue through workforce training and enrichment opportunities. Though universities and colleges have traditionally focused on for-credit academic programs, educational leaders are expanding their entrepreneurial mindset to continuing education (CE), lifelong learning, corporate training, and other not-for-academic credit programs, seminars, workshops, and courses.

NATIONAL SKILLS GAPS

44%	Of respondents think Americans lack soft skills
22%	Of respondents think Americans lack technical skills
14%	Of respondents think Americans lack leadership skills
12%	Of respondents think Americans lack software skills
	ASONS CITED FOR REATING TRAINING AMS Not a priori

Source: <u>Adecco</u> (above and right) Note: From Adecco's 2018 survey of more than 500 senior executives



Maricopa Corporate College (MCOR), in Arizona, "contracts with companies, such as Amazon, Marriott and Nissan, and with nonprofit organizations and government agencies, to deliver a wide range of noncredit training programs," according to <u>Education Dive</u>. Topics range from leadership training and time management to hard skills, such as Excel or Outlook. "After expenses, the funds generated are used to support the entire Maricopa County Community College District, and often, companies later seek credit-bearing programs for their employees at one of the colleges in the district," says Patricia O'Brien, the director of business development for MCOR.

Industry <u>experts</u> note that executive and professional education in coming years will need to adapt to rapid changes in business processes across changing employee needs, evolving technologies and digital tools, different in-demand skills, automated processes, and globalization; each will all affect format, delivery, and areas of study offered through executive and professional education units. In addition to established training opportunities, many employers will be looking for **customized programs** that can directly address company needs and provide learning pathways that can be adapted to accommodate professionals at all levels.





GENERATING REVENUE THROUGH: PRODUCTS AND SERVICES

Institutions can also sell products and services to enhance and diversity their revenue streams. <u>Ernst and Young (EY)</u> asserts that higher education products and services may include (adapted):

Potential Customers by Product/Service	Current Students	Broader Community	Other Populations
Dining options on campus (e.g., fine dining, coffee shops)			
Convenience services (e.g., laundry, textbook rentals)			
Retailer partnerships (e.g., Amazon, Barnes & Nobles)			
Memberships and subscriptions (e.g., athletic events)			

We aren't just 'selling' our product and services to other states, we are partnering with them toward achieving their goals.

-Chris Swanson, senior director of quality early care and education at Johns Hopkins University (<u>Hechinger Report</u>)

EXAMPLE PRODUCTS AND SERVICES FROM INSTITUTIONS OF HIGHER EDUCATION

- University of Texas-Austin sports fans may purchase an annual <u>subscription</u> to view games, highlights, as well as press conferences. In partnership with a cable company, UT Austin collects revenue from these subscriptions.
- Unity College in Maine sells <u>produce</u> from its greenhouses, as well as gardening tools, outdoor decorations, and crafts. Community members may also take related workshops at the College for a fee and rent space in the greenhouses.
- Johns Hopkins University is selling <u>a childcare ratings system</u> to other states and countries. According to the <u>Hechinger Report</u>, JHU equates the system "to a *Consumer Reports* for parents seeking childcare and education programs."
- Per the Chronicle of Higher Education (CHE), Texas-based Austin College "realized nearly a decade ago that it was missing out on a big chunk of <u>student-housing</u> income because it had too few on-campus beds to accommodate all of its students." Accordingly, the College expanded its student housing and managed "to collect about \$500,000 more annually in room revenue than it had previously."
- Berea College students sell <u>crafts</u>, such as student-made brooms, blankets, and ceramics, aligned with the College's mission to enhance students' business skills <u>without paying tuition</u>.
- Hechinger Report also suggests that institutions <u>rent out athletic</u> <u>facilities</u> to local clubs and teams when not in use by students.



INNOVATION CENTERS, HUBS, AND INSTITUTES

GENERATING REVENUE THROUGH: INNOVATION AND RESEARCH

Institutions of all types have opened or explored establishing innovation and entrepreneurial labs, hubs, and centers. This trend <u>began</u> with elite private institutions such as the Massachusetts Institute of Technology (MIT), Stanford University, the University of Pennsylvania, and Rice University. Public institutions such as Wayne State University and Purdue University have also established or are looking to establish such initiatives.

However, the success of these programs is mixed. While Purdue University generated \$454 million in sponsored research, and top-15

schools such as Stanford and MIT have experienced notable success with their innovation hubs, these may be <u>exceptions</u>. A commonly <u>cited</u> 2009 <u>study</u> by Marc Levine at the University of Wisconsin-Milwaukee found that tech transfers by institutions were netmoney losers.

Additionally, the start-up costs to creating these hubs (e.g., new buildings, finding tenants, etc.), often outweigh the revenue.

Strengths	Pitfalls	
Partnership opportunities	Expenditures may outweigh revenue	
Institutional recognition	High start-up costs	
Supports research discoveries and grants	Mixed indicators of success	

PURDUE UNIVERSITY DISCOVERY PARK

Fast	\$18.1 million	Awards by Sponsor for Big Idea Challenge
Mid-Year Report 2019 Facts	37.1 percent	Percent increase in campus award amounts for Discover Park, 2018-2019
	23 discoveries	Number of Purdue University-discovered drugs that have entered clinical trials
	>\$1 million	Grant money received by the Center for Education and Research in Information Assurance and Security (CERIAS) faculty

<u>Purdue University's Discovery Park</u> is comprised of over 15 centers and institutes located on 40 acres of land on the institution's West Lafayette campus. These centers conduct research in a variety of fields, including nanotechnology, bioscience, entrepreneurship, global health, and sustainability. Discovery Park also has affiliations with project centers and institutes across campus and has six major research initiatives.

PURDUE STRENGTHS CONVERGE AT DISCOVERY PARK

Strategic Themes Drive the Areas of Focus (adapted):

STEM Advanced Instrumentation Nanotechnology Social & Behavioral Sciences Big Data/Simulation/Cybersecurity Entrepreneurship Complex Systems

For example, Virginia Tech's research expenditures <u>increased</u> from \$496 million to \$522 million from 2013 to 2016, while the amount of money from licensing deals decreased from \$2.37 million to \$1.84 million over the same period. Additionally, the number of patent applications filed by Virginia Tech over that time fell from 124 to 97.



GENERATING REVENUE THROUGH: EXTERNAL FUNDING AND GRANTS

Institutions can generate revenue through grants and other external funding mechanisms. Overseen by U.S. Department of Health and Human Services, <u>Grants.gov</u>, "an E-Government initiative operating under the governance of the Office of Management and Budget." provides the following overview of external funding opportunities (verbatim right):



For additional grant opportunities see our <u>Grant Alerts</u> and <u>sign up</u> for our weekly updates. <u>Contact us</u> about how Hanover can assist in your grant identification, proposal development, and other grantsrelated needs.

Federal and non-federal grants are typically granted to operations- and research-related projects. Sample federal funding opportunities include:

- Science, Technology, Engineering, and Mathematics (STEM) related:
 - National Science Foundation's (NSF) Advanced Technological Education (especially for community colleges)
 - **Improving Undergraduate STEM Education** (aimed at promoting minority participation)
- For student support or general capacity development
 - Department of Education's **TRIO Programs**, (such as for student support services) and the **Strengthening Institutions Program**
- The CARES Act (Coronavirus Aid, Relief, and Economic Security Act)
 - See Hanover's syndicated <u>report</u> on **best practices for CARES allocation** as well as our complete <u>breakdown</u> of the stimulus package, by agency and, where applicable, funding outlets.

Federal Grants, Funding, and Benefit Programs

- •To sort through the federal grant programs, the authoritative source is the <u>Catalog of Federal</u> <u>Domestic Assistance</u> (CFDA). This catalog lists all of the available funding programs to all levels of government, nonprofit organizations, for-profit businesses, and other eligible entities.
- •<u>Search Grants</u> within Grants.gov allows you to search, filter, and apply for specific opportunities to receive funding from one of these programs.



Non-Federal Grant Programs

- The Foundation <u>Center</u> maintains a comprehensive database on U.S. and global grantmakers and their funding opportunities. It also operates research, education, and training programs designed to advance knowledge of philanthropy at every level.
- •The Funding Information Network facilitates access to grant resources and publications to underresourced entities and populations.
- •State and regional directories can also be found with some research. Try using the <u>Community</u> <u>Foundation Locator</u> to find a grant-making foundation in your region



SAMPLE NON-FEDERAL FUNDING OPPORTUNITY PROFILES

ECMC Foundation

Funder Website (adapted)

Purpose: The ECMC Foundation is a national funder working to improve postsecondary outcomes for students from underserved backgrounds. The Foundation makes investments in two focus areas: College Success and Career Readiness. ECMC uses a spectrum of funding structures, including strategic grantmaking and program-related investments.

Notable Recent Grants:

- \$70,000 to the University of North Carolina at Chapel Hill for "plans to increase the graduation rate amongst lowincome black males at their university by helping them transition to college and connect with faculty, staff, and peer mentors" (2018); and
- \$300,000 to the University of Southern California for "to bring a multidisciplinary perspective to complex social, political, and economic issues in higher education to address the challenge of decreasing summer melt and increasing freshmen year retention through an innovative, research-based program piloted at California State University" (2017).

Lumina Foundation

Foundation Website (adapted)

Purpose: Lumina believes that education provides the basis for individual opportunity, economic vitality and social stability. With its partners, Lumina strives to close gaps in attainment for groups not historically well-served by higher education. Lumina's overarching goal is to increase the higher education attainment rate of the United States to 60 percent by 2025.

Notable Recent Grants:

- \$1.5 million to California State University at Long Beach to support the California State University Graduation Initiative, designed to create fundamental change within the system to significantly improve student outcomes and high-quality credential attainment (2017-2020);
- \$350,000 to Virginia Commonwealth University to support the capacity and ability to significantly increase the numbers of residents with college degrees, certificates, or other credentials beyond a high school diploma (2017-2020); and
- \$200,000 to MDC, Inc. to support equityminded postsecondary education reform throughout North Carolina (2017-2019).

Hearst Foundation Foundation Website (adapted)

Purpose: The Hearst Foundations fund educational institutions demonstrating

uncommon success in preparing students to thrive in a global society. In recent years, 30 percent of total funding has been allocated to education. Organizations with budgets over \$10 million have received 80 percent of the funding in education.

Notable Recent Grants:

- \$215,000 to Rice University for student success programming (2018);
- \$150,000 to Trinity University for a STEM summer bridge program (2017); and
- \$100,000 to Boston College to support community-university partnerships that support the education and reintegration of incarcerated students (2017);
- \$100,000 to Washington College toward George's Brigade, a cohort of high-ability, low-income, first-generation students who are awarded full financial aid and receive an array of support services (2016); and
- \$75,000 to Manhattan College to support its "Engaging, Educating, and Empowering Means Change" program (2016).



OTHER UNIQUE REVENUE STREAMS

OTHER REVENUE STREAMS FROM A NATIONAL SEARCH INCLUDE THE FOLLOWING:

	Boot and Summer Camps	 According to <u>Career Karma</u>, there are 46 coding boot camps at higher education institutions nationally with over 20,000 graduates. See <u>Case Western Reserve University</u> and <u>KSU</u> for examples Per <u>EY</u>, "many institutions rent out space in the summer to third-party providers such as iD Tech, which offers a variety of camps targeting kids and teens ages 6–18. Many of these camps are in STEM-related areas such as programming, game design and robotics."
	Real Estate	 In 2000, Emmanuel College <u>received \$50 million</u> for a 75-year land-lease to Merck for a research facility. California State University, Dominguez Hills hosts the LA Galaxy's stadium on campus land in exchange for a share of the revenue. Lasell College <u>owns and operates</u> a senior living community <u>Bryn Mawr College</u> rents its classrooms to local organizations after academic hours.
⊗_⊗	Film	In 2003, California State University, Northridge (CSUN) established a formal program offering the use of its campus for TV, commercial, and film shoots. Depending on the type of production and facility, CSUN charges <u>\$3,375-\$20,900</u> per 14-hour day for filming, prepping, and striking. As of 2017, the institution brought in <u>over</u> \$1.25 million annually from this endeavor.
<u>ا</u>	Political Polling	In 2016, <u>Franklin Pierce University</u> (FPU) revived its political polling center by partnering with political analyst R. Kelly Myers and the Boston Herald to carry out private political polling. In addition to the revenue generated from the partnership, the school received free publicity and name recognition. The next year, FPU received almost <u>double</u> the number of applications.
ЦD	HIGHER EDUCATION	



INNOVATIVE REVENUE GENERATING PORTFOLIOS: INSTITUTION PROFILES

INSTITUTION PROFILES

GENERATING REVENUE THROUGH: STRATEGY SELECTION

Institutions should select alternative revenue strategies based on financial return, resource and operational needs, and fit with the mission. According to \underline{EY} , practical considerations for developing alternative revenue strategies include (adapted):

- **Defining and communicating goals** for alternative revenue generation
- Leveraging existing resources
- Developing a mix of larger and smaller, conservative and risker initiatives (see the following institution profiles for examples)
- **Engaging stakeholders** throughout the planning and implementation process
- Enabling **autonomy** of alternative revenue streams, outside of academic leadership lanes





University of Dayton

Partnerships, Innovation, and Real Estate Highlights

GE Aviation: In 2010, GE Aviation and Dayton combined to build a \$51 million research center on-campus. It is owned by the institution and leased to GE Aviation. The center also generates R&D funding to pay for graduate students' work on design modeling and testing of aviation electrical systems.

Emerson: Dayton and Emerson partnered to build the 40,000-squarefoot Helix Innovation Center. The facility provides a space for researchers, academia, and industry professionals to develop solutions to industry challenges.

Center for Leadership: The center offers customized leadership and development training for businesses, non-profits, and other organizations at a variety of <u>prices</u>. Partners include Cox Media Group Ohio, Cargill, the City of Dayton, and Scotts Miracle-Gro.

Premier Health: Dayton and Premier Health have partnered to create <u>onMain</u>, a 38-acre, mixed-use development that will take 10-15 years to complete. The neighborhood will be built to attract businesses and entrepreneurs, and land will be leased to real-estate developers for building housing.

The Arcade Innovation Hub LLC: In 2019, Dayton and The Entrepreneurs Center Committed to a 10-year lease for the downtown Dayton Arcade. The hub is meant to bring students, faculty, and entrepreneurs together to collaborate on business and entrepreneurship ideas. Dayton will lease space to small businesses, startups, and entrepreneurial thinkers through co-share memberships to offset its initial investment and potentially generate revenue.



INSTITUTION PROFILES



Purdue University Global

Partnerships, corporate training, and recruitment highlights

Partnership structure: "From personal development programs to specialized course bundles and entirely customized degree plans, our full-scale solutions make education accessible for your employees, helping you improve performance, productivity, retention, and employee satisfaction." Industry partnerships enables employees to receive credit for prior learning and a reduced tuition at Purdue Global.

Workforce Development Solutions: Purdue Global offers tailored talent development and training solutions in cybersecurity, financial services, medical assisting, nursing, operations, restaurants, and retail.

Marketing to non-traditional student audiences: Purdue Global offers reduced tuition rates for "active-duty <u>military</u>, Guard and Reserve, veterans, and spouses." This includes a 55 percent tuition reduction per undergraduate credit hour and 17-30 percent for graduate credit hour for active service members; as well as 38 percent at the undergraduate level and 14 percent at the graduate level for veterans.

Cybersecurity Center: In addition to academic programs, the <u>Center</u> is "active in both campus-based (Midwest Regional Collegiate Cyber Defense Competition) and virtual cybersecurity competitions (National Cyber League - NCL) throughout the year." It also offers community outreach and conducts innovative research. Finally, "The Center also provides resources for government and private sector employers seeking to train or hire employees and offers cybersecurity information for the public in general.



MIT

Innovation and partnership highlights

Research and Innovation Centers: MIT supports "dozens of <u>centers</u>, <u>labs</u>, <u>and programs</u> that convene experts across disciplines to explore new intellectual frontiers and attack important societal problems." Oncampus labs include <u>Lincoln Laboratory</u> and the <u>Woods Hole</u> <u>Oceanographic Institution</u>.

Global collaborations: MIT conducts education, research, service, and community engagement around the <u>world</u>, bringing in revenue and supporting global recognition.

Industry relationships: <u>MIT Corporate Relations</u> "is instrumental in providing connections to MIT faculty, departments, labs, and centers. It serves companies across the globe and is organized both geographically and by industry. In addition to corporate partners, MIT Corporate Relations also helps regional governmental organizations who look to the unique, entrepreneurial MIT/Cambridge environment as they begin to develop their own regional innovation eco-systems."

Start-up support: <u>MIT Startup Exchange</u> represents "integrated programs of MIT Corporate Relations. MIT Startup Exchange actively promotes collaboration and partnerships between MIT-connected startups and industry, principally ILP members."





INSTITUTION PROFILES



Ohio University Innovation Ecosystem Highlights

Service Programs: Edison Biotechnology Institute, Procurement Technical Assistance Center, Innovation Center, TechGROWTH Ohio, Small Business Development Center, Lights Regional Innovation Network, Social Enterprise Ecosystem

Technology Transfer Office: Identifies innovations that should be patented and licensed to established and startup companies.

Industry Partnerships Office: Builds and strengthens ties with the private sector in the areas of research, industry analysis, fundraising, and student opportunities.

Edison Biotechnology Institute: Provides business coaching for pharmaceutical and medical device startups.

TechGROWTH Ohio: A \$52 million (as of 2018) public-private partnership with Ohio Third Frontier, Ohio University, and private investors.

Innovation Center: Provides business coaching, education, and leased and shared spaces to its clients.

Small Business Development Center: Works with nearly 400 clients in southeastern and eastern Ohio.

LIGHTS Regional Innovation Network: Works with 90 startups and small business clients in a 28-county region of Ohio, West Virginia, and Kentucky.

Social Enterprise Ecosystem (SEE Appalachia): Created with a \$300,000 grant in fall 2017 and has worked with more than 50 clients.

Q

Tuition-Free Colleges Without tuition, how do some colleges drive their revenue?

Alice Lloyd College (KY): Free tuition eligible to students who live in the Central Appalachian Service Area. All students must participate in the student work program, which includes tasks such as maintenance and community service.

The Apprentice School (VA): Focused on ship-building trades, the School provides students with classes and employment simultaneously.

College of the Ozarks (MO): Though full-time students pay no tuition, part-time students pay \$310 per credit hours. Those in full-time status must work 15 hours per week plus two 40-hour weeks per academic year at the college. Both student groups must pay fees, such as health and technology fees.

Curtis Institute of Music (PA): Similar to the College of the Ozarks, students are not charged tuition but must pay annual fees, including \$1,700 comprehensive fee and other charges, such as for health services and internet.

United States Air Force Academy (CO): Though no tuition is charged, students are required to serve in the military after graduating.

Warren Wilson College (NC): In-state students receive a tuition waiver and must attend full-time at the undergraduate level. They are required to work at least 10 hours a week and develop crafts for sale.

Webb Institute (NY): This small engineering school gives full-tuition scholarships to U.S. citizens and permanent residents, while international students must pay tuition and fees.





