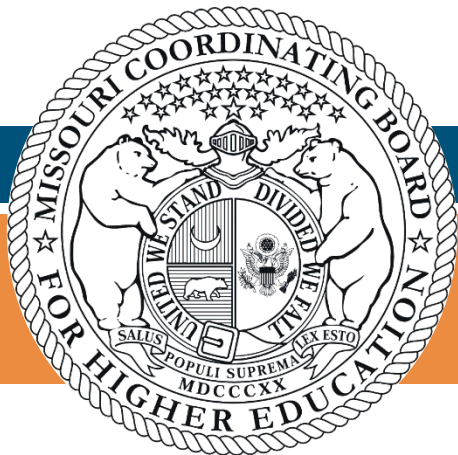


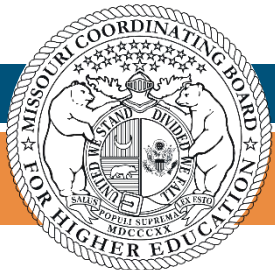
# Coordinating Board For Higher Education

Teleconference  
October 22, 2019



Coordinating Board for Higher Education  
October 22, 2019

# Call to Order



Coordinating Board for Higher Education  
October 22, 2019

# Roll Call of Members and Determination of Quorum



Coordinating Board for Higher Education  
October 22, 2019

# General Business

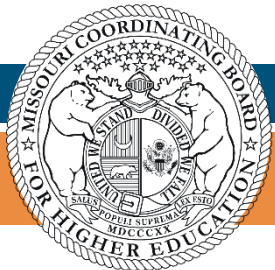
General Business

Coordinating Board for Higher Education

October 22, 2019



# Chair's Appointment of a Nominating Committee for CBHE Officers



General Business

Coordinating Board for Higher Education

October 22, 2019

# Nominating Committee



Mike Thomson



Joe Cornelison



Shawn Saale

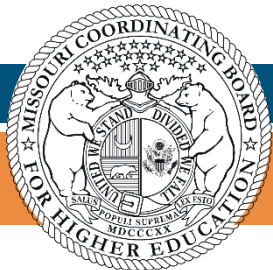


General Business

Coordinating Board for Higher Education

October 22, 2019

# Budget & Financial Aid Committee



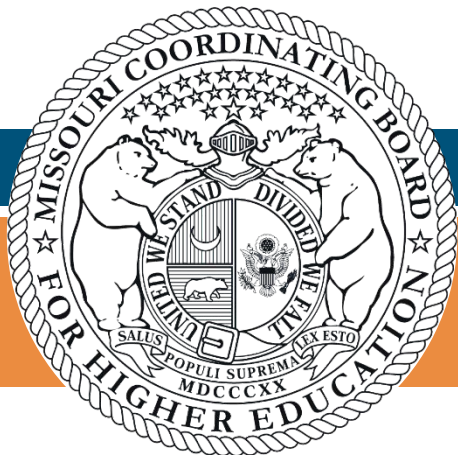
General Business

Coordinating Board for Higher Education

October 22, 2019

# MoExcels Funding Recommendations

Zora Mulligan  
Commissioner for Higher Education



Coordinating Board for Higher Education  
October 22, 2019



# Timeline

2019

- June 1: The department issued a RFP for workforce funding to all public institutions.
- August 1: Proposals were due to the department.
- September 11: The CBHE approved the FY 2020 budget request, including \$18.9 million for MoExcels workforce initiatives.

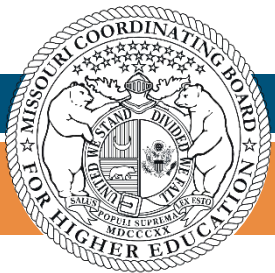
2020

- January: The Governor releases his budget recommendations.
- May 10: The General Assembly's deadline to pass all budget bills.
- July 1: Funding will be made available to the institutions to spend.



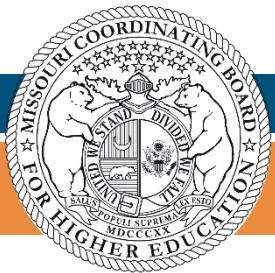
# Proposals

- Received: 26
  - Amount Requested: \$50 million
- 



# Factors Considered

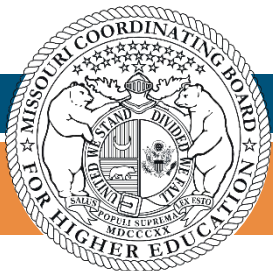
- Responsiveness to labor market needs
- Sustainability
- Likelihood that graduates will remain in Missouri
- Employer commitment
- Alignment with local, regional, and state strategic plans for economic development
- Creation of centers of excellence
- Quality of proposal
- Ratio of request to credentials
- Service of minority, Pell-eligible, and rural students



# Ranked List

1	Ozarks Technical Community College
2	Harris-Stowe State University
3	University of Central Missouri
4	Missouri Southern State University
5	State Fair Community College
6	University of Missouri-St. Louis
7	Missouri State University
8	Jefferson College
9	Truman State University
10	St. Charles Community College
11	Mineral Area College
12	Metropolitan Community College
13	University of Missouri-Columbia
14	Moberly Area Community College
15	Missouri University of Science & Technology

16	University of Missouri System
17	Southeast Missouri State University
18	University of Missouri System
19	State Technical College of Missouri
20	State Technical College of Missouri
21	St. Louis Community College
22	Missouri State University-West Plains
23	Northwest Missouri State University
24	Three Rivers College
25	East Central College
26	Crowder College
27	Northwest Missouri State University
28	Northwest Missouri State University



# HARRIS-STOWE STATE UNIVERSITY

## MoExcels STEM Entrepreneurship Proposal



**Dr. LaTonia Collins Smith**  
Interim Provost, HSSU

**CBHE**  
COORDINATING BOARD FOR HIGHER EDUCATION

**MDHE**  
Missouri Department of Higher Education  
*Building Missouri's future...  
by degrees®*

# Need for STEM Entrepreneurship Certificate

---

- The St. Louis Regional Chamber has identified entrepreneurship and innovation as a key element in its strategy to transform St. Louis as it works to expand the capacity of the St. Louis region.
- A recent Pew Research report (“Workforce of the Future”, 2016) indicates how quickly the job landscape is changing and that many jobs that will be prominent in the near future do not yet exist.



# Project Plan

---

- HSSU is proposing a 17 credit hour on-campus or online certification program to address the growing and urgent need to address the changing demands of STEM employers across the State of Missouri. This certification program will offer an opportunity for training 20 individuals who will be highly skilled and possess the knowledge, skills, and entrepreneurial mindset to be successful within the changing economy.



# *Measurable Objectives*

---

- **Recruitment:** By January 1, 2021, Harris-Stowe will have completed its recruitment for the first cohort of certification students.
- **Enrollment:** Harris-Stowe will enroll 20 certificate seekers in the first cohort of students.
- **Retention:** Harris-Stowe will retain 70% of students enrolled and 100% of those retained will complete the program in the specified time period.
- **Workforce Participation:** 100% of students earning their certificate will be gainfully employed six months after completing the program. Harris-Stowe will use its office of career engagement to track students' employment and the geographic area in which students are employed. Scholars will be asked to provide documentation of job placement within Missouri. Project staff will confirm this placement.





# Questions?

**Dr. LaTonia Collins Smith**

Interim Provost

Harris-Stowe State University

[collinsl@hssu.edu](mailto:collinsl@hssu.edu)

(314) 340-3610

# Jefferson College



Student  
Center



# Veterinary Technology Program Expansion

Jefferson College

MoExcels Proposal to CBHE



# Problem

- There is a clearly defined shortage of qualified veterinary technicians in St. Louis and Southeast MO regions.
- Several private training providers have closed, leaving us as one of very few providers in the state, one of two, and the only public provider, in the region.
- We do not have the facilities to expand to meet these needs
  - 2018-2020 Cohort
    - Admitted – 36
    - Completers – 21
  - Objective
    - Admitted – 48
    - Completers – 36



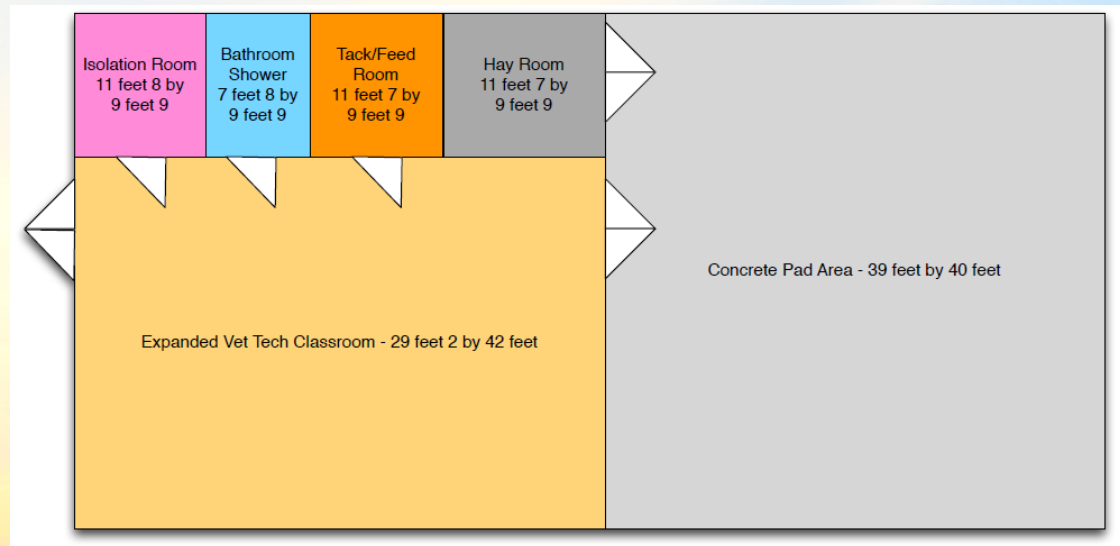
## Veterinary Technology Program Geographic Analysis

- Public Vet Tech School
- Proprietary Vet Tech School



# Proposed Solution

- Expand computer classroom to accommodate cohort of 48 students
- Expand dog kennel space from 8 to 14 units
- Expand barn to accommodate increased 2<sup>nd</sup> year class size



# Budget

- \$220K Total Project Cost
  - \$200K for renovation
  - \$20K for computer equipment
- \$110K Request from MoExcels (matching institutional funds)
- Additional \$30K Local Investment for furniture



# Additional Benefits

- Increased tuition revenue will cover sustained costs
  - Year 1 of expansion = \$30,240 of additional tuition
  - Year 2 of expansion = \$75,600 of additional tuition
- Aligns with Best in Midwest and Training for Tomorrow
- Possible expansion of agribusiness
- Possible cooperation with culinary program





# Jefferson College

College

Thank You For Your Time  
and Attention!!!



# **CURRENT AND FUTURE LABOR MARKET DEMAND**

## **Advanced Manufacturing Institute and MoExcels – A Credible Plan**

- **“Talent for Tomorrow Kansas City Regional Meeting”**: The Kansas City Region will have job openings created by new job growth and the need for replacement workers. [based on MERIC Occupational Projections 2014-2024]
- **By 2027**: 73% of jobs in Kansas City will require a credential or degree. [Education Asset Inventory for Greater Kansas City October 2017]
- **KC Industry Sectors**: Construction, Manufacturing, Utilities, and Logistics comprise industry sectors with 5-year forecast showing annual growth. JobsEQ Economic Overview Kansas City MSA September 15, 2019]

# **ALIGNMENT: LOCAL AND STATE STRATEGIC PLANS**

## **Advanced Manufacturing Institute and MoExcels – A Credible Plan**

- **Kansas City:** The proposal supports initiatives through Mid-America Regional Council and Kauffman Foundation to increase postsecondary attainment and build a skilled workforce ... to have a significant impact on the regional economy...”  
[Education Asset Inventory for Greater Kansas City October 2017]
- **State of Missouri:** Per “Talent for Tomorrow” materials, “A major goal will be to align secondary and postsecondary education with the public workforce system and the needs of the private sector.” This proposal aligns needs of secondary, public workforce, and the private sector, creating a pipeline for credentials and employment.

# THE INSTITUTE MODEL

## Advanced Manufacturing Institute and MoExcels – A Credible Plan

**The Institute Model:** Creates a cluster of programs; provides learning opportunities across disciplines; and optimizes learning pathways in real-world, contextualized environments (raw materials – production – shipping).

- **Advanced Manufacturing Institute:** Graduate 3,595 students with workforce credentials, certificates or Associate of Applied Science degrees over 5 years.
- **Advanced Manufacturing Institute Location:** Relocate select technical programs from Business & Technology campus to an existing vacant, well-maintained manufacturing facility which includes a freight elevator, loading docks, necessary electrical power, and high bays. Location provides educational access with direct access to public transportation. MCC has two options, with one option highly likely with significant progress toward purchase.



MINERAL AREA COLLEGE

Center for Excellence  
in Career and Technical Education

# Local Support for Project and Vision

## Center for Excellence in Career and Technical Education

A modern, up-to-date facility serving adults and high school students throughout the Mineral Area College service area.

MoExcels, first phase of the project:

- **Residential Plumbing, Wiring, and HVAC Training Facility**

Supported by local service companies, including letters from ProService and Brockmiller Construction. **ProService turns away business and wants to expand.** LaChance HVAC and **other local companies have scaled back businesses** due to lack of techs. MERIC documents need of 57 HVAC, 12 Plumbing, 32 Electrical Technicians in SEMO

- **Welding Training Facility**

**Supported by 18 manufacturing members** of the Mineral Area Training Consortium. Lee Mechanical and US Tool Group willing to provide substantial contingency funding. **Bulk Tank, Lee Mechanical, and Lafarge Holcim have 160 positions that require welding skills.**

- Lee Mechanical and Piramal Glass anticipate **retirement of 40 welders** over 5-10 years
- Lafarge Holcim **hiring an additional 12 skilled welders annually** over the next 5 years

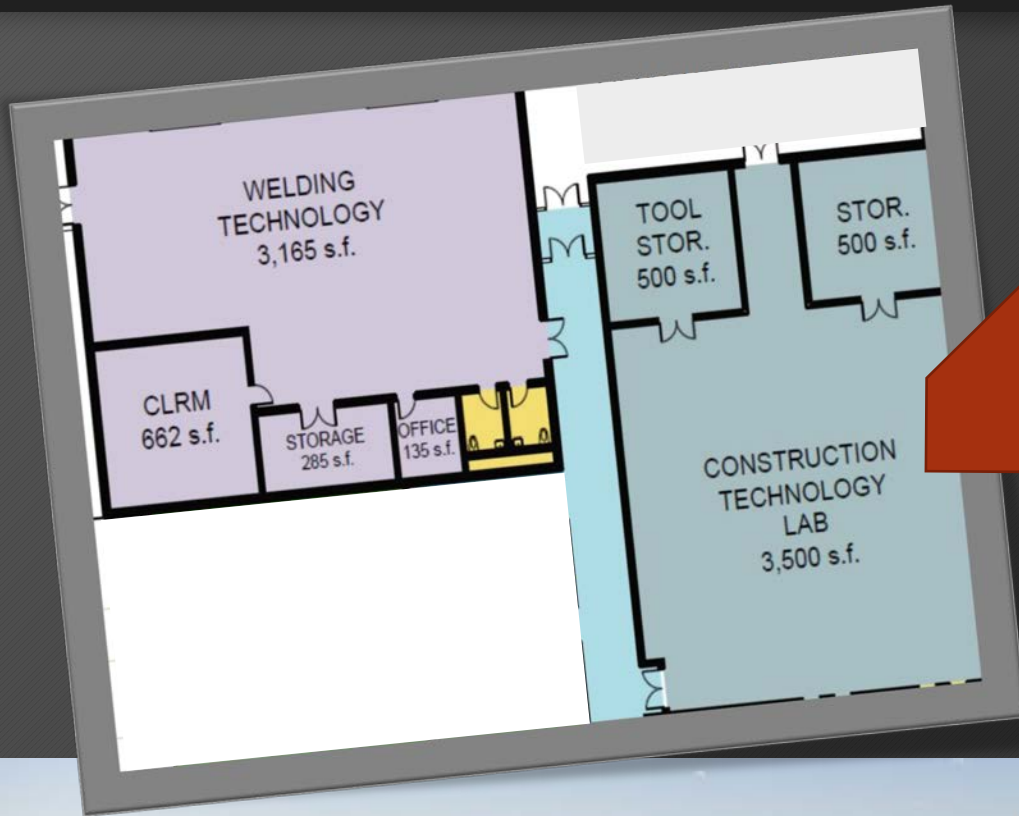
# Filling the Gap

Year 1: Construction of the two facilities

Year 2: Launch the Following Programs:

- American Welder Society Certified Welding Program
  - Certifications in GMAW Mig, SMAW Stick, GTAW Tig, plus basic technical mathematics
  - **Enrolling 24 participants** who will be trained in each area, with 17 to 24 successful completers annually
  - Employers are requesting adult recruitment into these programs.
- Residential Plumbing, Wiring and HVAC Program
  - **First year enrollment of 12 participants**, with 8 to 12 successful completers in the program's first year
  - **Enrolling 30 participants annually by year 4** of the project, with heavy high school recruitment

# MoExcels Phase of Construction



DRAFT





**“I’ve learned that people will forget what you *said*, people will forget what you did, but people will never forget how you made them feel.” Maya Angelou**

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- Provide equal opportunities for individuals with autism spectrum disorder.
  - Assist families and school districts by preparing credentialed support providers.
  - Alleviate labor shortages in high-demand occupational fields.
  - Equip community partners with additional labor, care and knowledge resources.
  - Grow the workforce of individuals credentialed to serve in educational settings.
  - Facilitate early detection and treatment during critical developmental years.
- 

**Southwest Missouri Center for  
Applied Behavior Analysis**

**\*68% OF INDIVIDUALS WITH  
AUTISM SPECTRUM DISORDER  
DO NOT RECEIVE COMPREHENSIVE SERVICES.**

**“I’ve learned that people will forget what you said, **people will forget what you *did***, but people will never forget how you made them feel.”**  
**Maya Angelou**

---

- Serve as a regional leader to foster collaboration among stakeholders.
  - Offer multiple credentialing options.
  - Build an educational clinic for provision of direct services.
  - Create a blueprint with stakeholders to facilitate seamless entry into the community.
  - Enhance the health, wellness, safety and security of clients.
  - Enrich developmental, social, academic and employment opportunities across the lifespan.
- 

## **Southwest Missouri Center for Applied Behavior Analysis**

**One credentialed  
graduate will literally  
impact the lives of 1000's.**



**“I’ve learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel.”** Maya Angelou

“It takes a village to raise a child. It takes a child with autism to raise the consciousness of the village.”

Elaine Hill,

Founder of the Miracle Project



# Southwest Missouri Center for Applied Behavior Analysis

“The Leffen Center appreciates MSSU’s recognition of the shortage [of qualified certified ABAs] in our local work force and the university’s willingness to offer curriculum to prepare students to pursue this certification. The Leffen Center looks forward to assisting in the implementation of the ABA clinic to ensure the highest quality treatments are offered to families and children.”

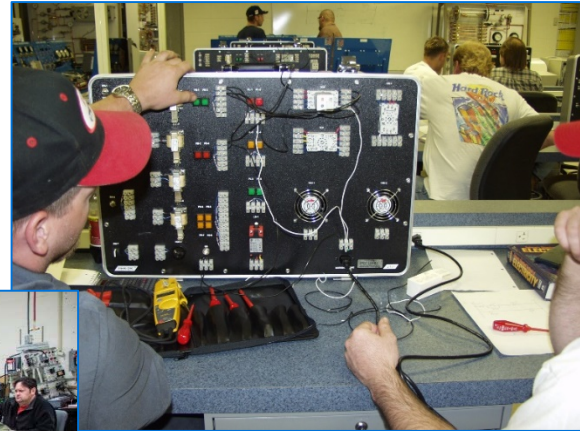
Kristy Parker, MEd, MA, BCBA LBA  
Bill and Virginia Leffen Center for Autism  
Ozark Center’s Leffen Center for Autism

*It's about community!*

# High Demand for Training

in advanced manufacturing and automation

- Increase in area manufacturing and employment
- Small talent pool (Missouri unemployment 3.3%)
- Internal training options limited
  - External training options limited

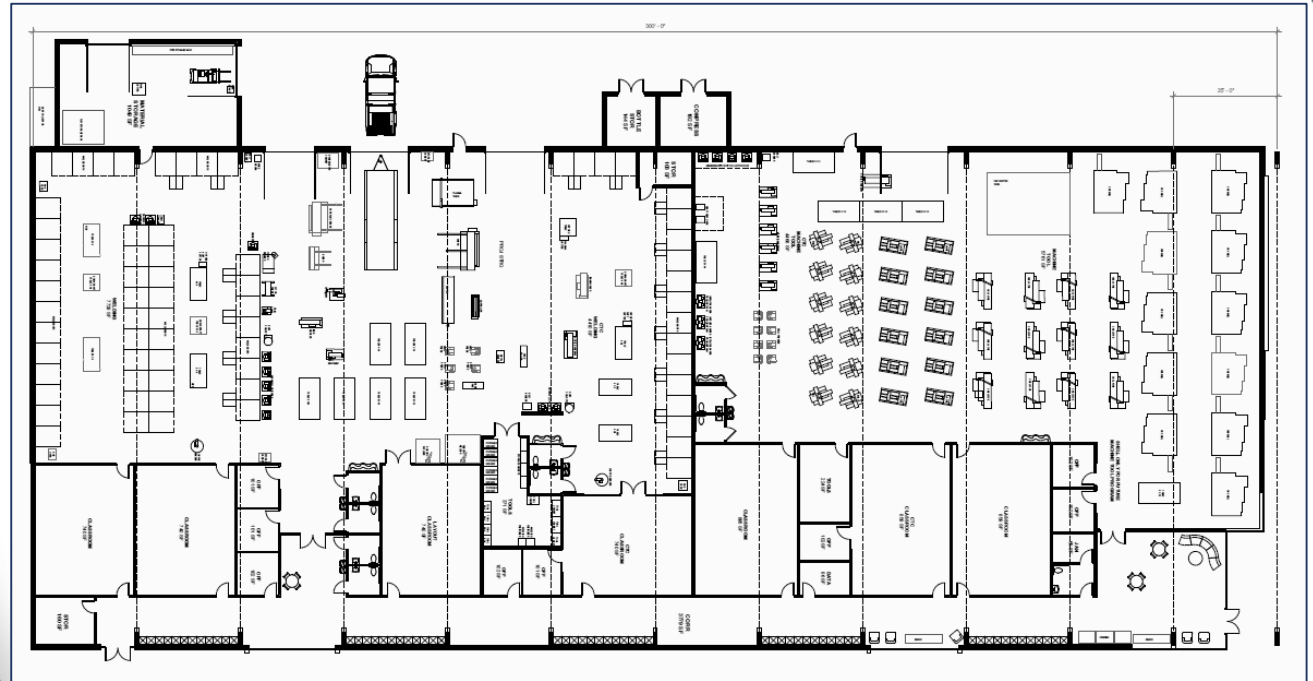


*It's about community!*

# Center for Excellence

in Advanced Manufacturing and Automation Training

- State Fair Community College (Sedalia)
- New training and certification opportunities
- State-of-the-art external training for manufacturing professionals



*It's about community!*

# Certification and Training

Industry Standards in:

- Welding
  - Robotics
  - Machine Tool
    - Industrial Tech
    - Certified Production Tech
    - Climate Control & Refrigeration



StanleyBlack&Decker





# **IDEA Commons Applied Learning Expansion**



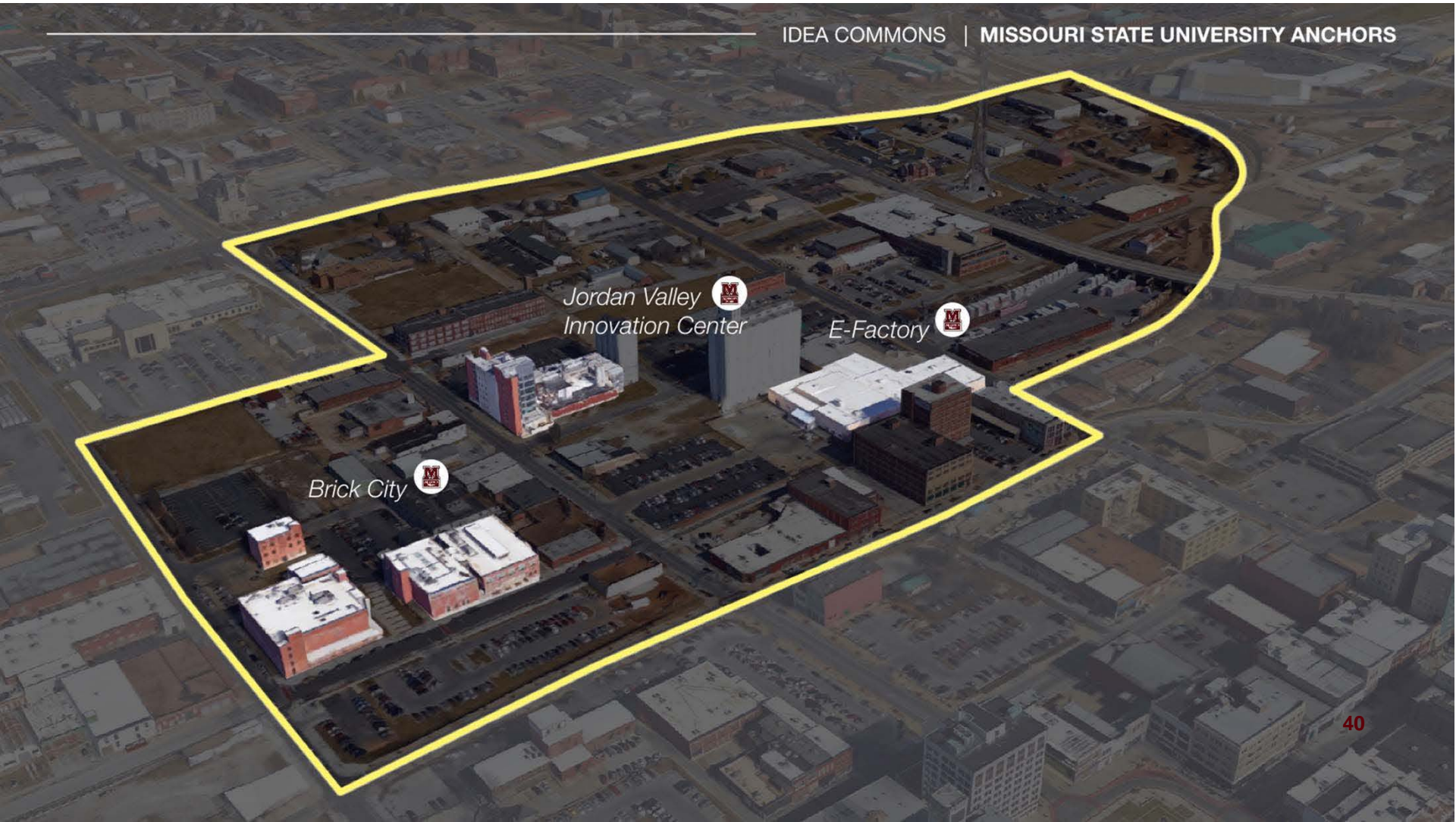
Clif Smart

October 22, 2019



# IDEA Commons

IDEA COMMONS | MISSOURI STATE UNIVERSITY ANCHORS







# IDEA Commons

## ECONOMIC IMPACT

- Experiential learning for 1,434 students
- Generated 1,629 jobs
- Served 973 business clients
- Facilitated \$65.2 million in capital and equity investment
- Generated \$18.9 million in grants

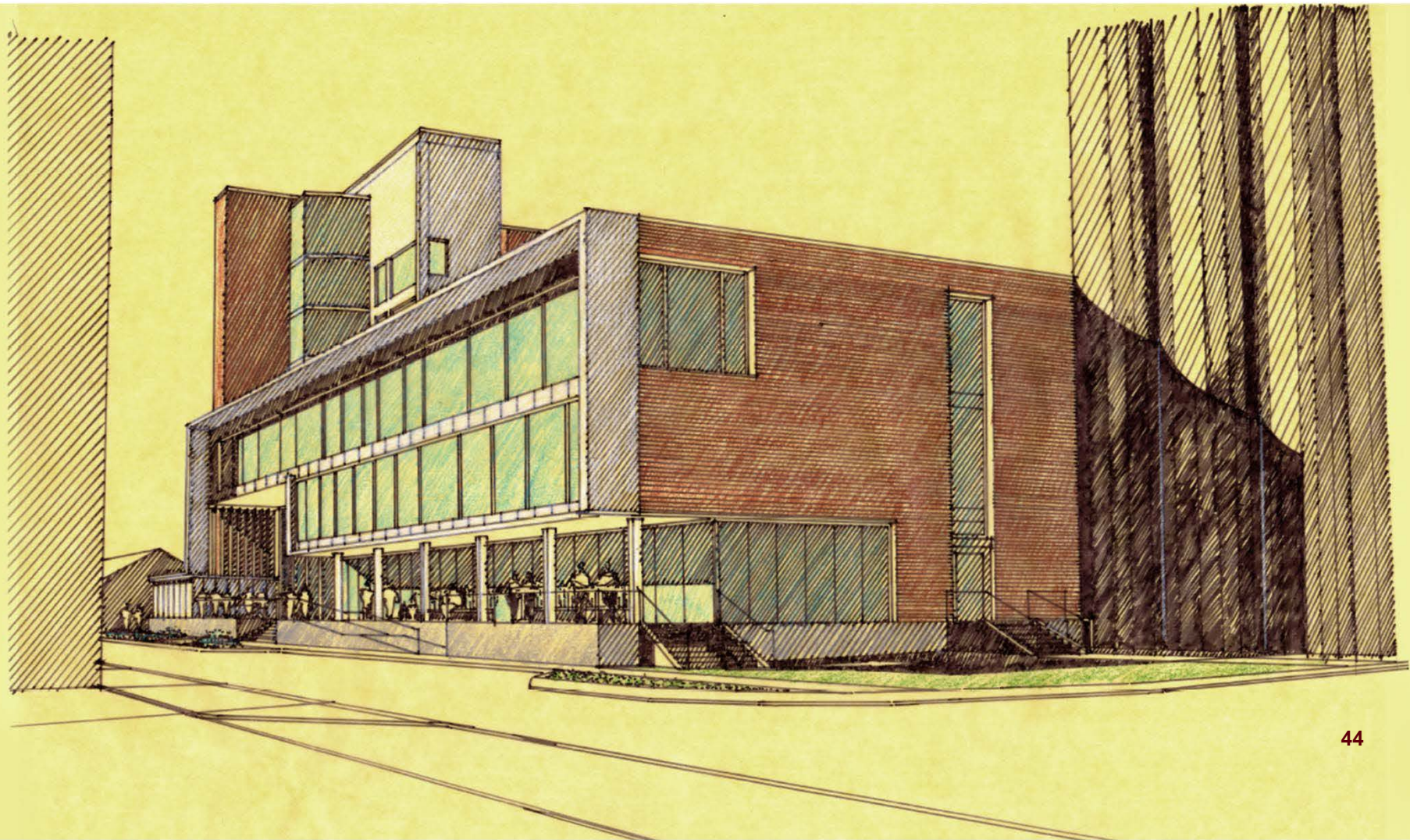


# IDEA Commons Expansion





# JVIC New Building 4





# Applied Learning Opportunity

## MISSOURI CYBERSECURITY CENTER OF EXCELLENCE

- Partnership with area employers and higher education institutions
- At full implementation, will generate 160 of the following industry-recognized credentials annually:
  - CompTIA Security+
  - ISACA CSX Cybersecurity Fundamentals
  - ISACA Cybersecurity for Auditors
  - Certified Ethical Hacker



# Budget

\$ 15,000,000

\$ 295,600

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\$ 15,295,600

JVIC Addition

MCCoE Equipment

TOTAL

Match

\$ 13,500,000

**MoExcels Proposal**

**\$ 1,795,600**



# MoExcels Scoring Rubric

- ✓ Evidence of labor market demand
- ✓ Credible plan to address labor market demand
- ✓ Completers likely to work in Missouri
- ✓ Statements of need from employers
- ✓ Aligns with strategic plan for economic development
- ✓ Develops a center of excellence
- ✓ Detailed, realistic timeline
- ✓ Funding match of at least 50%
- ✓ Sustained impact after funding
- ✓ Low cost per student served
- ✓ Well-written, thoughtful proposal



# MISSOURI STATE

U N I V E R S I T Y





Missouri University of Science  
& Technology:

Teacher Preparation  
Expansion and Center for  
Educational Excellence in  
STEM (CEESTEM)



# Teacher Preparation Expansion

- > Middle School STEM undergraduate programs
- > Master of Science in Teaching, post-baccalaureate certification in one year using cohort model
- > “Grow Your Own Teacher” partnerships with regional school districts

# Center for Educational Excellence in STEM

- > Mobile STEM Lab for rural school outreach
- > Model classroom with live stream video and recording capability
- > Focus for K-12 outreach for grants among STEM content professors to scale to rural areas
- > Seed money to purchase equipment and startup Center to seek federal and foundation grants
- > S&T to fund Director salary

# **EXPANSION OF VIRTUAL ACCELERATED ASSOCIATE DEGREE NURSING PROGRAM**

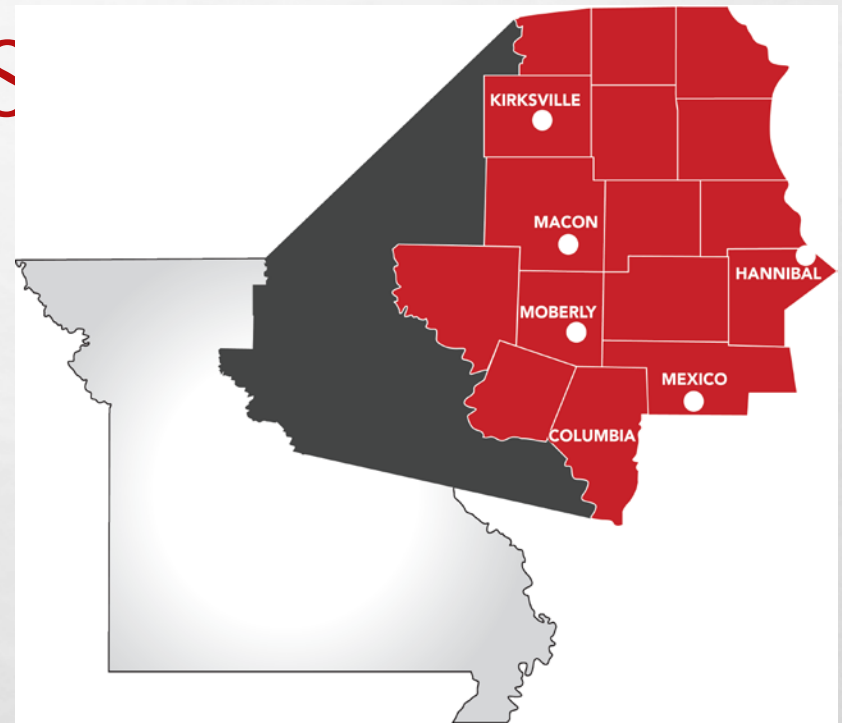
**COLUMBIA AND HANNIBAL**



**MACC**  
the college for you.

# CURRENT NURSING PROGRAM OFFERINGS

- KIRKSVILLE
  - ACCELERATED ASSOCIATE DEGREE NURSING
- MOBERLY
  - ACCELERATED ASSOCIATE DEGREE NURSING
  - TRADITIONAL ASSOCIATE DEGREE NURSING
  - PRACTICAL NURSING
- HANNIBAL
- MEXICO
  - ACCELERATED ASSOCIATE DEGREE NURSING
  - PRACTICAL NURSING
- COLUMBIA
  - PRACTICAL NURSING



**MACC**  
the college for you.

# PROBLEMS - SOLUTIONS

## Nursing Shortage

Nationally 14.8% increased need for RNs by 2026  
Hospitals in Columbia and Hannibal requesting increased enrollment and more nursing education options

## Nursing Shortage

Expand AADN program to Hannibal and Columbia communities

## Student Needs

Current LPNs in Columbia work mostly day shift in clinics and need an evening option to further their education  
No seamless pathway for LPNs in Hannibal to progress to RN

## Student Needs

Offer as an evening program

## Space Limitations

MACC space in Columbia is full  
MACC Space in Hannibal is limited

## Space Limitations

Partner with HRMC & ACE in Hannibal  
Boone & CACC in Columbia



**MACC**  
the college for you.

# PLAN

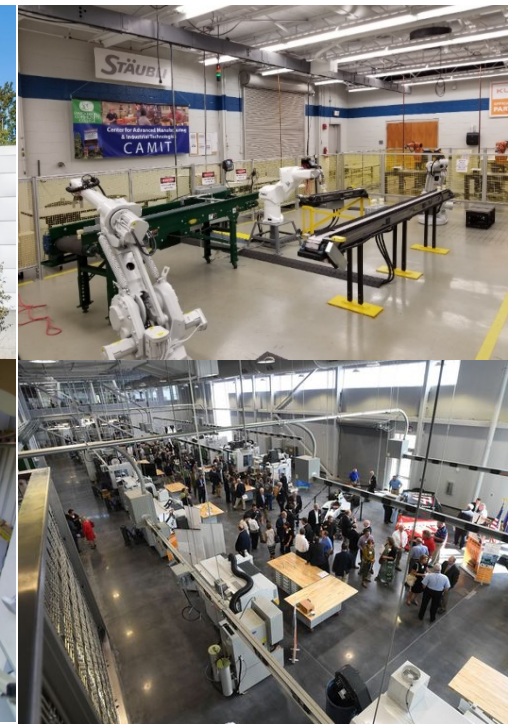
- MO EXCELS GRANT FUNDS
  - START UP COSTS - SIMULATION MANNEQUINS, VIDEO EQUIPMENT
- HANNIBAL REGIONAL HOSPITAL
  - DONATE SPACE FOR SIMULATION LAB - ASSIST WITH RENOVATION
- ACE
  - RAISE FUNDS FOR PYXIS
- CACC
  - DONATE SPACE FOR CLASSROOM, SIMULATION LAB
- BOONE HOSPITAL
  - ALLOWED SHARED USE OF PROPOSED NEW SIMULATION LAB
- MACC
  - PROVIDE TRAINING FOR FACULTY ON SIMULATION, RENOVATE AS NEEDED HANNIBAL AND COLUMBIA LOCATIONS
  - PURCHASE LABORATORY SUPPLIES
  - RENT SPACES AS NEEDED FOR INSTRUCTION OR LAB
  - MAINTAIN ONGOING EXPENSES TO ENSURE SUSTAINABILITY



**MACC**  
the college for you.

# OTC's Center of Excellence Model

- Five Principles:
  - National leadership in training provided
  - Best-in-class showcase facility
  - Range of training programs tailored to needs of regional employers
  - Support state business expansion and attraction efforts
  - Regional collaboration and development of strong K-12 pipeline
- OTC has conducted best practice site visits to more than 10 centers of excellence nationally





# Advanced Manufacturing



BEST IN  
MIDWEST



TALENT FOR  
TOMORROW



- Ozark Region Demand:
  - Identified as top priority by industry and community leaders in OTC's Your Dreams, Our Plan strategic plan community engagement
  - MERIC projects over 20% region job growth for related employment sectors.
- Missouri Demand:
  - Target sector for growth by Department of Economic Development
  - Key cross-sector cluster by the Best in Midwest labor needs analysis
  - Top area with significant skilled workforce shortage by the Missouri Chamber of Commerce's Workforce 2030 initiative

Annual Statewide Skills Gap of Over 2,000 Openings in Related Fields

Source: MERIC Employment Projections and IPEDS Graduates

# Center for Advanced Manufacturing (CAM) Project

- Funding:
  - Voters in OTC's taxing district approved a five-cent property tax increase in April 2018 (approximately \$3.4 million in annual revenue) to provide local funding for this project.
  - In the first round of MoExcels funding, OTC asked for a total of \$10 million spread across two years. As the top ranked project, OTC received the initial half of our ask (approximately \$4.75 million) last year.
  - OTC is actively working with private donors and grant funding agencies and anticipates receiving \$10 million from those sources.
- Project:
  - Facility and programming oversight provided by Corporate Advisory Board consisting of over 25 representative industry and community leaders.
  - Over 120,000 square foot facility on the OTC Springfield campus providing:
    - Range of short-term training and degree programs based on industry needs.
    - Flexible design to adapt and support a regionally diverse industry.
    - Incubation space, including process improvement for existing firms.
    - Innovation Discovery Lab for hands-on K-12 learning opportunities.
  - Already hired CAM Executive Director who is working with industry and on talent pipeline initiatives.

Technology & Logistics Regional Center of Excellence in Warren County

# Why . .

## Lack of qualified workforce in strategic career pathways.

### National

- 2015 Deloitte study 2 million jobs go unfilled because of the skills gap.

### State: Missouri's Economic Research and Information Center

- 7,000 openings for truck drivers (February 2019)
- 6,000 openings in automation and systems & 10,000 openings in production and maintenance (Burning Glass real time posting 9/17-8/18)

### Regional: 2018 Warren County Survey

- 10 of the largest industries indicate 20% of their jobs remain unfilled due to lack of trained workers and 40% identified shortage of skilled workers as a barrier

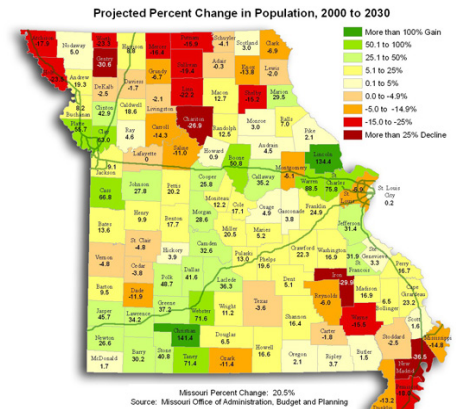
## Retain and attract new employers to the state and the region.

According to the National Association of Manufacturers, 2018 Third Quarter Outlook Survey

- 73.2% indicate an inability to attract a quality workforce as a top challenge.
- 45.5% cite inability to attract and retain workers as the biggest threat facing their business

## Provide increased access to education and training in our service delivery area – 3,239 square miles.

- Support projected population growth, with estimates of growth between 50% to even more than 100%
- No public transportation
- Broadband challenges
- Limited and/or no access to education and training facilities



Technology & Logistics Regional Center of Excellence in Warren County

# What . . .

Create a regional center which will delivery quality programs in high demand areas to support the region.

			
<p><b>Advanced Manufacturing</b></p> <p><i>To support regional industry clusters of automotive and aerospace manufacturing</i></p>	<p><b>Agriculture Technology</b></p> <p><i>To support the regional and state food production industry</i></p>	<p><b>Industrial Maintenance &amp; Controls</b></p> <p><i>To support the large presence of companies in the manufacturing sector</i></p>	<p><b>Transportation &amp; Logistics</b></p> <p><i>To support transportation needs of existing and future companies</i></p>

Technology & Logistics Regional Center of Excellence in Warren County

## Potential Impact . . .

Offers an accessible solution to address education and training needs to support economic sustainability and growth in the region.

### Examples of Recent Announcements

- Boeing announced \$70 million investment in the St. Charles Facility
- Amazon creating more than 1,500 jobs in a new fulfillment center
- FedEx opening a new distribution center creating more than 491 jobs

Implementation of programs which include industry credentials and stackable career pathway opportunities.

### Focus:

- *Automation & Systems Pathways* (ex: MSSC, NIMS, SACA, CISCO, COMPTIA, OSHA as well as other certificate & degree options)
- *Logistics Pathways* (ex: MSSC, CDL, DOT, NIMS, APICS, OSHA, FAA as well as other certificate & degree options)
- *Production & Maintenance Pathways* (ex: MSSC, NIMS, SACA, OSHA, AWS as well as other certificate & degree options)

Strategic alignment with community, employer and industry needs.





# Applied Behavior Analysis Certificate

Expanding Training and Services for  
Autism Spectrum Disorders



KIRKSVILLE, MISSOURI

# Background: Growing a Center for Excellence

- **Stage One**: Greenwood School Renovation Project – Ongoing effort to launch the “Greenwood Interprofessional Autism Center.” (*Currently Underway*)
- **Stage Two**: 2019 MoExcels appropriation for a Registered Behavior Technician (RBT) course and twin Counseling master’s degrees. (*Currently Underway*)
- **Stage Three**: 2020 proposal to support an Applied Behavior Analysis certificate leading to Board Certified Behavior Analyst (BCBA) certification.
- **Stage Four**: A full master’s degree in Applied Behavior Analysis.

# A Professional Hierarchy of Autism Services

## Allied Health Professions

- Audiologists
- Clinical Mental Health Counselors
- Family Physicians
- Occupational Therapists
- Physical Therapists
- School Counselors
- Speech-Language Pathologists

## BCBA

Graduate-level certified behavior analyst, supervises behavior analytic interventions for clients.

## RBT

A paraprofessional who practices under the supervision of a BCBA. They provide the direct implementation of behavioral services.





KIRKSVILLE, MISSOURI

# The Acute Need

- The nearest full-time services of a BCBA are in Columbia. RBTs cannot be supervised in the absence of BCBA's in the region. Only three part-time BCBA's work in the region.
- The anticipated job growth rate for Applied Behavior Analysts is 51% in Missouri and nationally. Competition for qualified practitioners is fierce.
- Autism spectrum support has a critical additive effect for workforce development by supporting those living with Autism who enter the workforce.
- The demand for Autism spectrum support services is only anticipated to grow.



# Our Request

- **From the State**: \$40,000 to build the online certificate courses.
- **Truman's Match**: \$40,000 will cover the infrastructure, training, licenses, and professional development costs required to support course development.



UNIVERSITY OF  
**CENTRAL**  
**MISSOURI**

LEARNING TO A GREATER DEGREE

## **MoExcels FY21**

**Dr. Scott Lankford Chair, School of Natural Sciences  
Employer Driven Critical Healthcare Needs**

# Issue

- Healthcare is 2nd-largest industry in region – 11.5 % of workers
- Healthcare has maintained steady employment growth
- Region's population expected to grow by 400,000 by 2030, increasing the need for healthcare providers
  - People over 65 account for around ½ of growth
- High-need areas include Medical Laboratory Scientists, BioMedical Technology Technicians, Sterile Processing Technicians, LPN and CNAs.

# Solution

- Partnerships with St. Luke's Healthcare and HCA Healthcare Midwest
- Through collaboration, UCM will develop new programs and strengthen current offerings
- Develop a talent pipeline for high-need areas

# Impact

- Develop a sustainable talent pipeline for various healthcare needs
- UCM will be delivering the following credentials:
  - Biomedical equipment tech certificate, sterile processing technician certificate, medical/clinical laboratory scientist, LPN and CNA
- Fills a critical need within the region
- Provides an upwardly mobile career path for many workers

# Questions and Answers





# Faculty Development for Teaching in a Digital Format

University of Missouri System



# Objectives



Serve new students including adult learners and traditional students through eLearning.



Design online programs and stackable certificates to meet the workforce needs of the state.



# Problem to be addressed

750k Missouri adults with some college but no degree

Missouri workforce development needs are continuing to grow

Adult learner-centric approach



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UMSYSTEM.EDU

# Proposed Solution

Target High Demand  
**Job Needs**

- Engage with Employers
- Workforce Advisory Board
- Labor Market Analysis



Robust catalog of  
micro-credentials



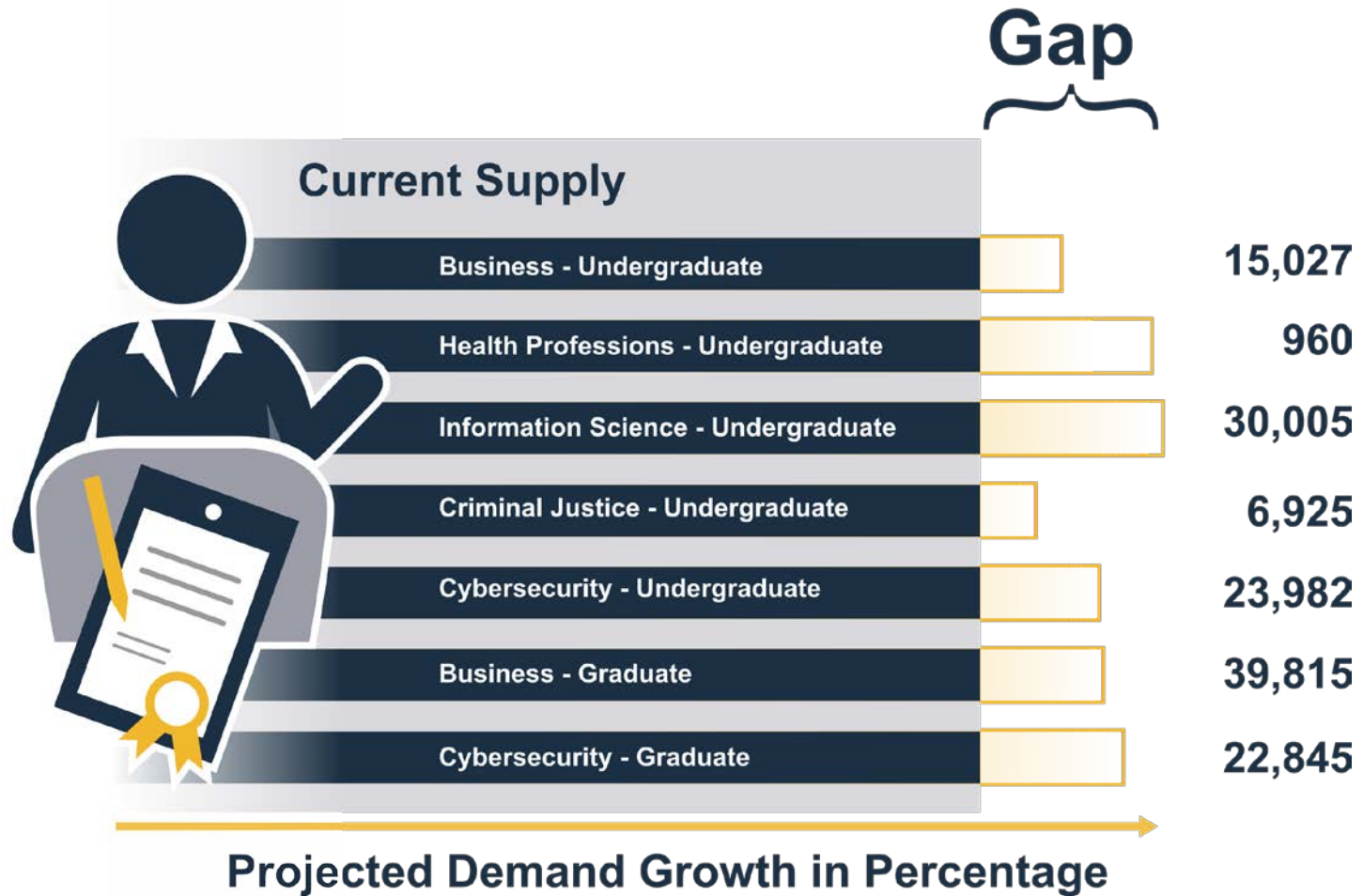
Increase capacity to  
create high quality  
multimedia



Enhance the education by  
working with faculty on active  
and engaging experiences



# Labor Market Analysis

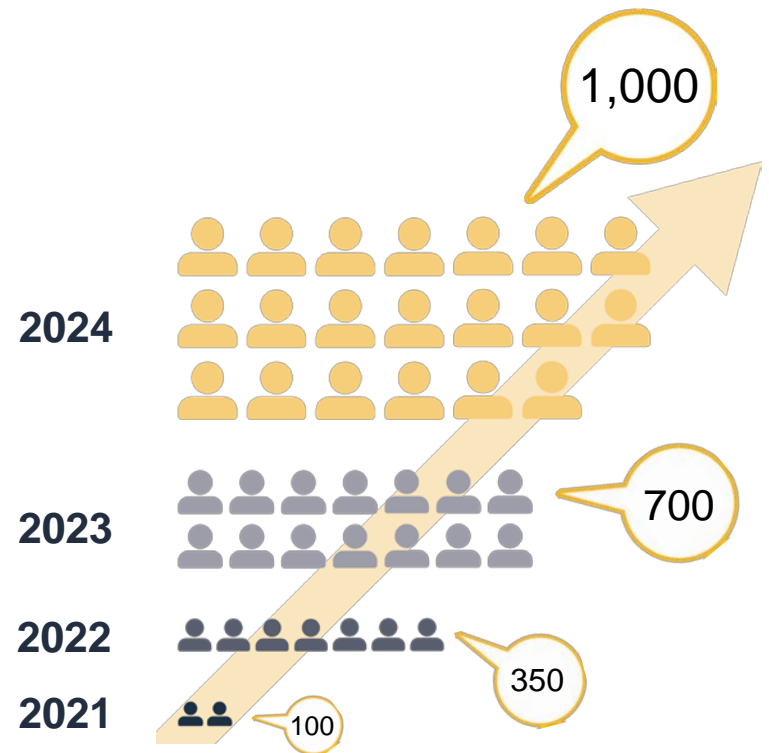


# Cybersecurity (Undergraduate)

High Demand  
**2,495**  
Job Postings  
Last 12 months

**+41.7%**  
Projected Growth  
10 Years

Similar to fill  
**39 Days**  
Time to Fill



# Stronger Together



We are working across our four universities to build processes that benefit all students, faculty, and staff.

We will create programs that can build on the expertise across the system and offer a more robust set of offerings to meet the needs of the individual.



# Workforce Partnerships

- Engagement with workforce leaders
- Business partnerships to ensure knowledge, skills, and abilities
- Create an agile and responsive framework to allow UM to reprioritize as needed

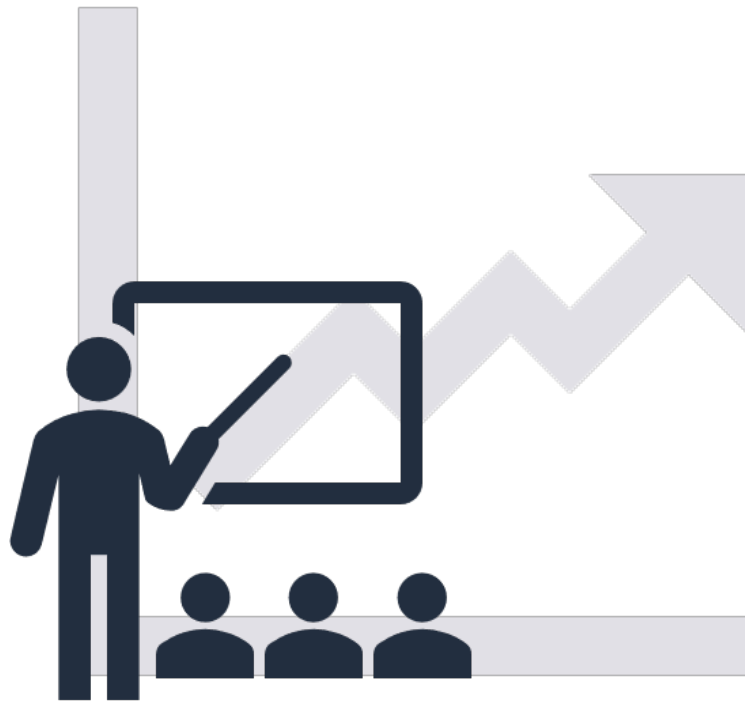


**Fall 2020**

5-10 programs launch and more in each year based on market demand in the state.



# Future



- Meeting Missouri's workforce needs is mission critical
- Creating workforce partnerships is essential in ensuring these needs are met
  - Focusing on the students and what they need to be successful
  - Collaborating in new ways to allow each of our four universities to excel while benefiting the larger community







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# IMAGING THE FUTURE

## Clinical Service Engineering for Missouri

**Elizabeth G. Loba**

*Vice Chancellor for Strategic Partnerships  
Dean and Ketcham Professor of the College of Engineering*

# PROBLEM STATEMENT



Medical imaging allows healthcare professionals to

**DETECT DISEASES EARLIER, MAKE TREATMENTS MORE EFFECTIVE & LOWER HEALTHCARE COSTS**



Clinical Service Engineers (CSEs)

**APPLY, IMPLEMENT & SERVICE MEDICAL TECHNOLOGY TO OPTIMIZE HEALTHCARE DELIVERY**



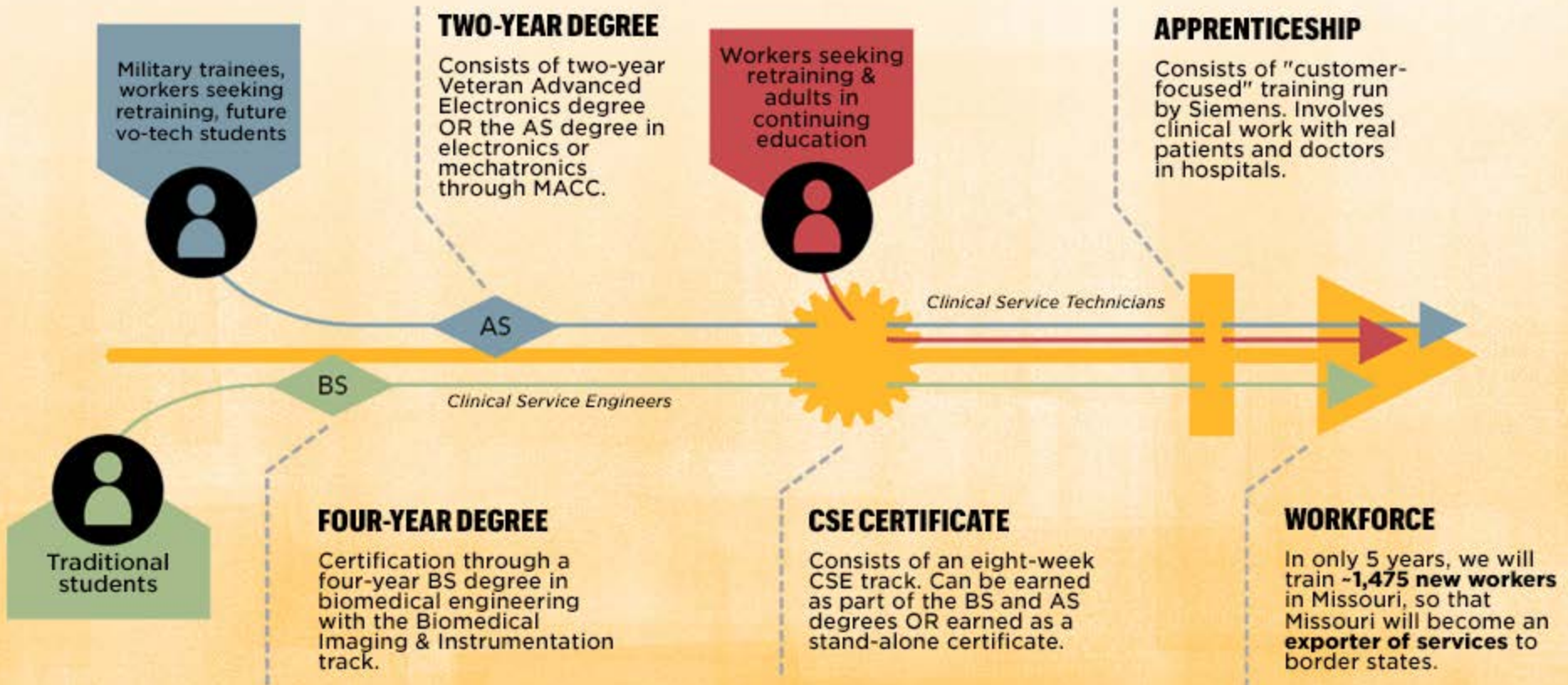
**NO FORMALIZED CREDENTIALING PROGRAMS**

exist in the U.S. for CSEs; this is a critical area of employer need for Siemens and other medical imaging providers.



# OUR SOLUTION

Create a **national Center of Excellence** that brings together industry, academia, veterans and under-served populations.



# OUR STUDENTS

**We will leverage our partners to recruit rural/minority students:**

- Missouri Military Preparedness and Enhancement Commission
- Missouri Land Grant/Honors programs for Pell-eligible students
- Office of Diversity and Outreach, supported by MIZZOU K-12 Online
- Harris Stowe State University/Lincoln University/Moberly Area Community College
- Missouri Louis Stokes Alliance for Minority Participation
- Missouri College Advising Corps
- MU Extension County Engagement Specialists in Youth Development



# LABOR MARKET NEEDS

Our CSE program is aligned with labor market needs and Missouri's **Talent for Tomorrow** framework in both the Life Sciences and Healthcare arenas

- We will train ~**1,475 new workers** in Missouri after 5 years
- Our program will develop a CSE workforce homed and trained in Missouri
- Missouri will become the CSE training ground for the United States



# OUTCOMES

**We will increase:**



Number of underserved minorities participating in CSE by **15%**

Number of Pell Grant eligible students in CSE by **20%**

Number of rural Missouri participants in CSE by **15%**

**We will build:**

A Center of Excellence in Medical Imaging/Clinical Service Engineering that will serve Missouri and the United States



**We will create:**



CSE credentialing option in the U.S.

**Missouri will become the “go-to” source for CSEs in the U.S.**



University of Missouri

**SIEMENS**  
**Healthineers**

# UMSL Nursing

University of Missouri–St. Louis

## Nursing Learning Resource and Simulation Center Renovation and Expansion

Susan Dean-Baar, PhD, RN, FAAN  
Dean and Professor



# Workforce Development

- Increased current and projected RN vacancy rates due to increased demand and decreasing supply
- Largest RN workforce in Missouri
- UMSL College of Nursing graduates stay in Missouri and St. Louis area; only public university with BSN nursing program in area
- Strong partnerships with healthcare employers

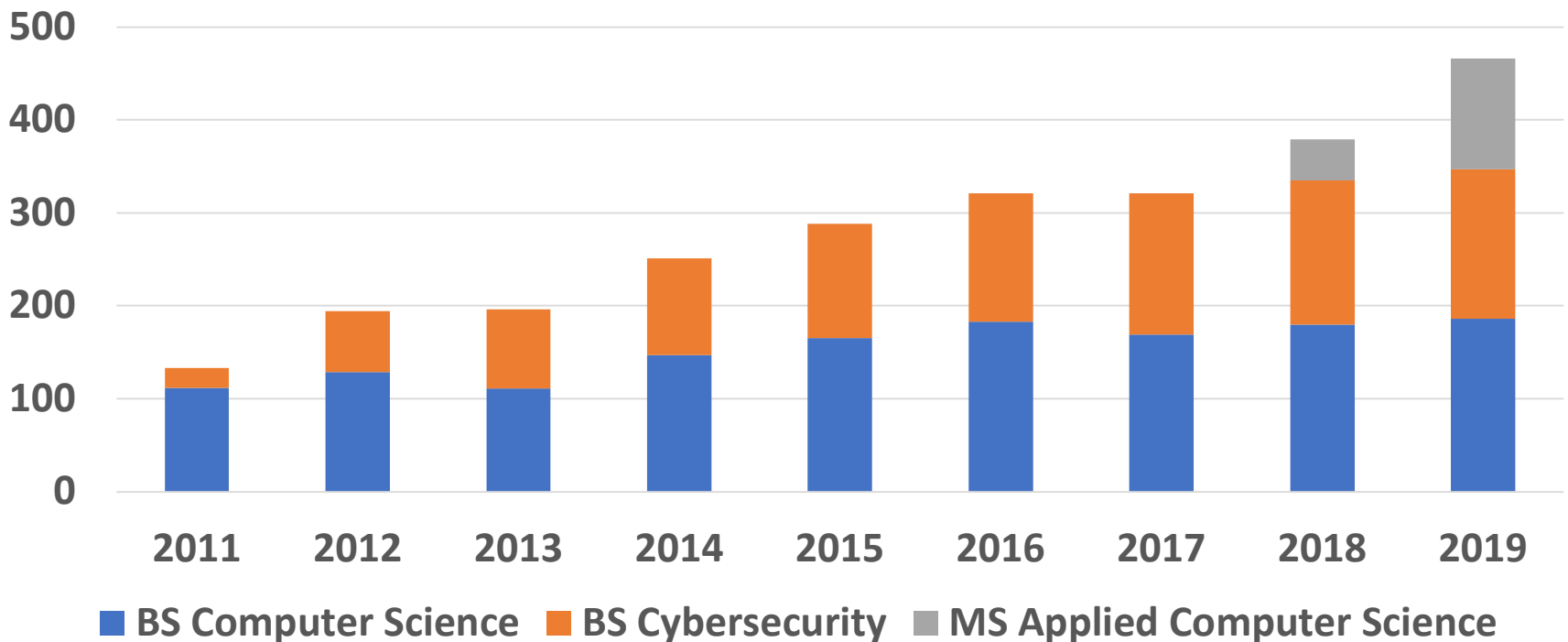
# Simulation: Innovative Approach to Address Challenges

- Focus on workforce readiness
- Patient safety and quality
- Shift 33% of clinical learning to simulation
- Address changes in healthcare delivery
- ROI extends well into the future for workforce growth and improved health care for Missouri

# MoExcells – FY21

*Southeast's proposal responds to increased student demand:*

## Fall Enrollment 2011-2019



# MoExceLS – FY21

*Southeast's proposal responds to several statewide calls to action:*

## Missouri Blueprint for Higher Education

- Increase degree attainment
- Produce degrees and certificates that are valuable and relevant
- Foster research and innovation
- Facilitate public-private partnership

## Missouri Cybersecurity Task Force Action Plan

- Develop an Institute for Cybersecurity
- Offer industry-recognized certifications
- Serve as a resource for training and education

## Talent for Tomorrow

- Increase number of people in Missouri's workforce
- Increase the productivity of Missouri's workforce
- Opportunity for increased attainment in rural Missouri
- Establish Centers of Excellence



# MoExcells – FY21

*Funding = projected 230% increase in completers over first 5 yrs.*

**Computer Science & Cybersecurity Expansion**

**Art Building Renovation**

**\$3.9 Million (42% of \$9.3 Million Project)**

Phase I – FY21

**\$2 Million**

Phase II – FY22

**\$1.9 Million**

**Average Wage Statewide: \$82,610 / Southeast Region: \$54,700\***

*Source: MERIC, 2018 Occupational Employment & Wage Estimates  
(all computer occupations)*



**SOUTHEAST MISSOURI**  
STATE UNIVERSITY · 1873

# Recommendation

Staff recommend that the Coordinating Board approve the MoExcels funding recommendations as listed in Attachment C.



Budget and Financial Aid Committee

Coordinating Board for Higher Education

October 22, 2019

# Adjourn Public Session of the Coordinating Board for Higher Education

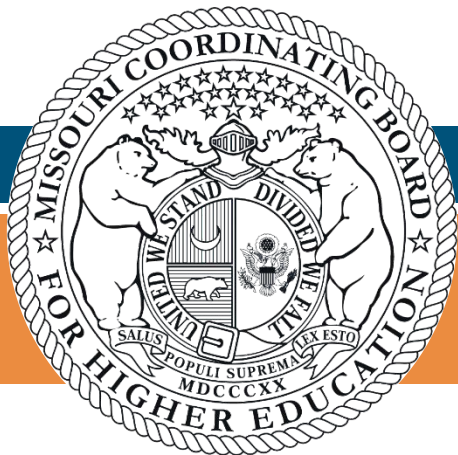


Coordinating Board for Higher Education  
October 22, 2019

# Coordinating Board For Higher Education

## Teleconference

To request a copy of this presentation,  
contact Alyssa McLeod at  
[alyssa.mcleod@dhewd.mo.gov](mailto:alyssa.mcleod@dhewd.mo.gov)



**Coordinating Board for Higher Education**  
October 22, 2019