



**Board of Regents
Committee on Economic Development and Technology Commercialization**

April 13, 2022

Virtual (public listen only access at 443-353-0686, Conference ID: 484 088 395)
Committee Members will be sent Zoom information

Public Session Agenda

- (1) [Featured Startup: EnGen](#) – Katie Nielson, Founder and Chief Education Officer (Information Item)
- (2) [Early-Stage Support Feasibility Study Recommendations](#) – Lindsay Ryan, Interim Executive Director of Economic Development, USM (Discussion Item)
- (3) [Office of Economic Development Updates](#) – Lindsay Ryan, Interim Executive Director of Economic Development, USM
 - a. Economic Development and State Legislative Activity
 - b. Other State and USM Activity & Good News
 - c. Economic Impact Benchmarking Follow-up
 - d. Momentum Fund Portfolio Update and Venture Development Report



BOARD OF REGENTS

SUMMARY OF ITEM FOR INFORMATION

TOPIC: Featured Startup: EnGen

COMMITTEE: Economic Development and Technology Commercialization

DATE OF COMMITTEE MEETING: Wednesday, April 13, 2022

SUMMARY:

Katie Nielson, Founder and Chief Education Officer of EnGen, will present the company and its progress. EnGen (formerly Voxy EnGen) is a virtual English language instruction platform for immigrants, refugees, and workers with limited English proficiency who deserve self-sufficiency, economic mobility, civic participation, and a better quality of life. EnGen received Momentum Fund investment in January of 2021. Katie Nielson is a graduate of the University of Maryland, College Park. Additionally, the University of Maryland, College Park was a pilot partner, where 40 residential facilities learners were given access to the platform. The pilot was successful, and they are now expanding to other staff groups through the Terrapin Strong initiative.

FISCAL IMPACT: This item is for information purposes.

CHANCELLOR’S RECOMMENDATION: n/a

COMMITTEE RECOMMENDATION:

DATE:

BOARD ACTION:

DATE:

SUBMITTED BY: Lindsay Ryan 410-409-2236
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Empowering new Americans with career pathways and educational opportunities

EN GEN

Introduction



Katie Brown, PhD

Founder & Chief Education Officer
EnGen

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There is a national focus on **reskilling** and **upskilling** incumbent workers; however, **immigrants and refugees** are often kept out of training programs **because they do not have English skills.**

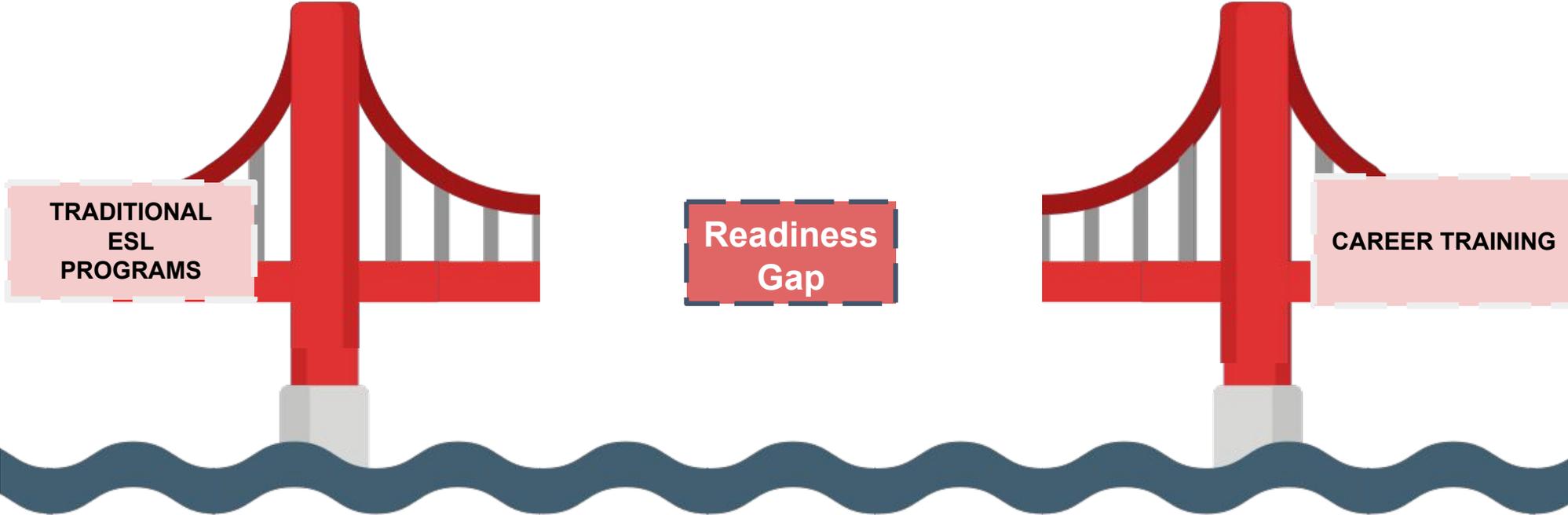


- 74,000 Afghan refugees are here or on their way
- Workers without English skills earn 15 - 25% less than those who do speak English, even with bachelor's degrees and credentials from their home countries
- By 2030, 97% of net workforce growth will be immigrants and their children



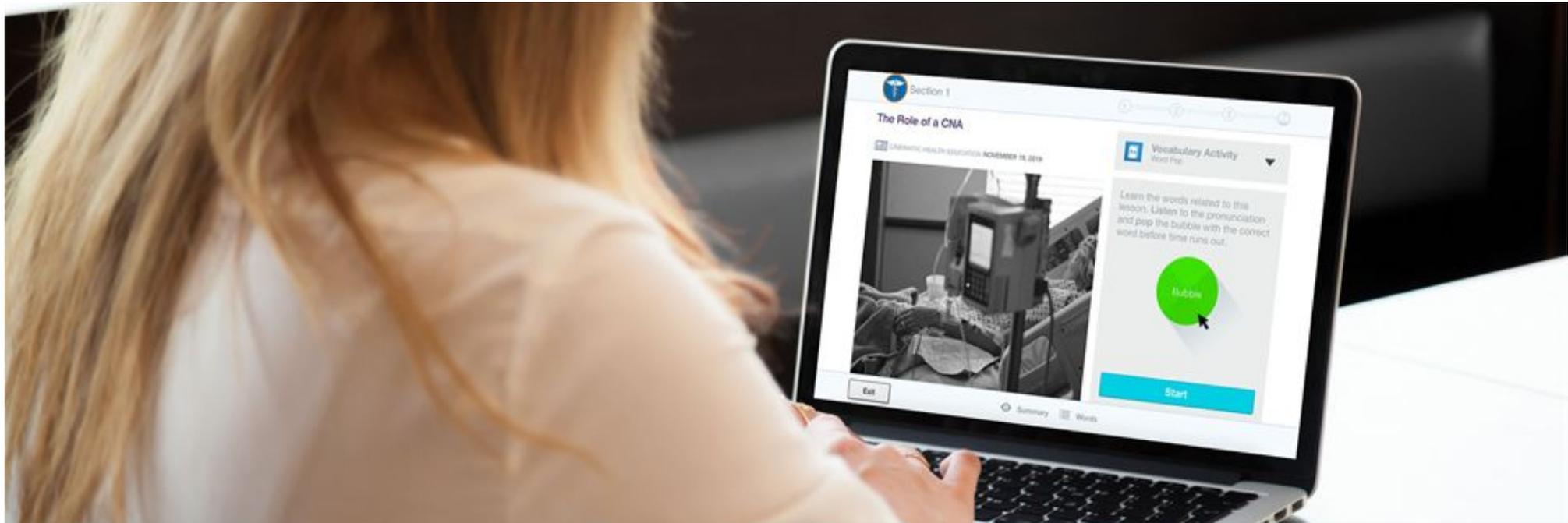
ENGLISH IS *THE* ENABLING SKILL FOR INTEGRATION AND OPPORTUNITY, BUT...the U.S. only reaches 4% of adult learners

There is a readiness gap between language learning programs and workforce development programs



English training
is **acquiring**
a **skill**, not
studying a
content area.





TASK-BASED LANGUAGE TEACHING (TBLT)

EnGen uniquely harnesses the most effective approach to adult language learning by using **relevant, contextualized task-based content** from the real world that is **updated daily**.

EnGen offers on-ramps to career pathways in multiple sectors, including Allied Healthcare, Manufacturing, Retail, Customer Service, and IT Helpdesk Support



Manufacturing

In this course, you will learn about various aspects of manufacturing, from safety and maintenance to equipment and industry new



Certified Nursing Assistants (Beginner)

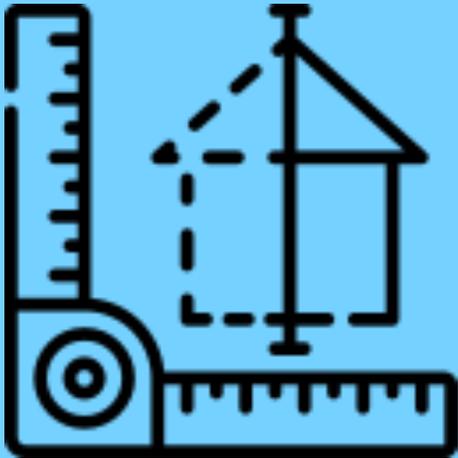
The introduction to English for Certified Nursing Assistants pathway (CNA) is developed in partnership with leading healthcare training provider, Cinematic Health Education (CHE).



General Industry Safety (OSHA)

Learn basic concepts in general industry safety and explore how OSHA requirements help protect you on the job.

Use a Research-Based Framework for Measuring Success



- **Time-on-Task**
 - Overall engagement
 - Spaced practice
- **Demonstrated Mastery of language and content**
 - Proficiency improvement
 - Achievement tests
- **Stakeholder feedback**
 - Learners
 - Teachers
 - Employers
- **Evidence of Real-world Success**
 - Continued education
 - Pay raise, promotion, new job offer
 - Community engagement and confidence

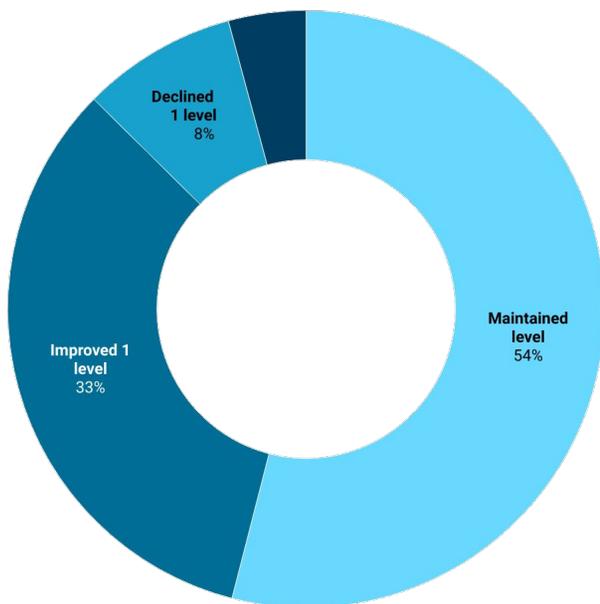


Proficiency improvement and achievement drive impact

92% of learners improve avg proficiency score

Results from 2nd level tests

■ Maintained level
 ■ Improved 1 level
 ■ Declined 1 level
 ■ Improved 2+ levels



On average, learners improve their scores by 16%

Avg achievement test score of 80%

Learners (N)	Tests completed	Unique pathways	Average test score
3833	27,620	581	80%



Store Info and Policies

10 Lecciones | 1 Examen de desempeño

Learn how to describe a retail establishment and help customers by telling them its hours and store policies, such as returns and warranties.

Lecciones ▾



Introductions

18 Lecciones | 1 Examen de desempeño

Learn how to greet people, in professions.

Lecciones ▾



World News

24 Lecciones | 1 Examen de desempeño

What's going on in the world today? Read and at the moment.

Al final de esta unidad, podrás:

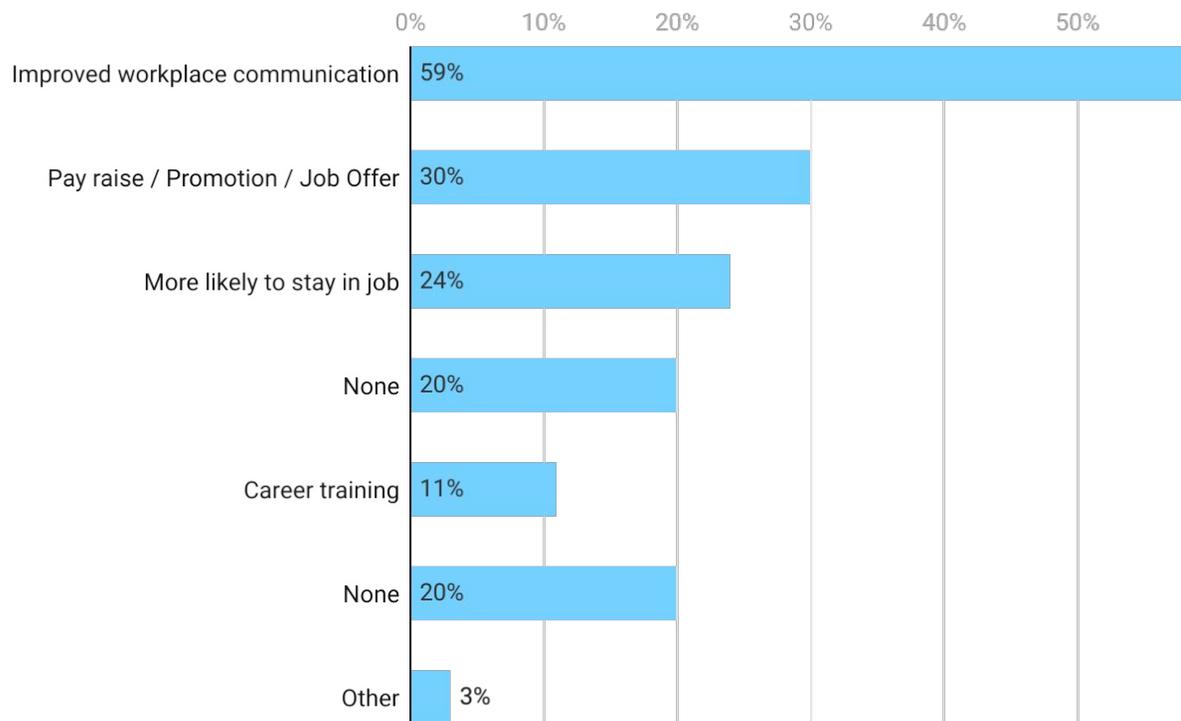
- Use everyday expressions related to international hear
- Discuss topics related to international news stories.
- Read and listen to passages about a variety of topics.

Employers and learners publicly report socio-economic effects of English Instruction



Clients and learners offer strong, significant indicators of success

80% of learners reported EnGen helped them achieve their career goals



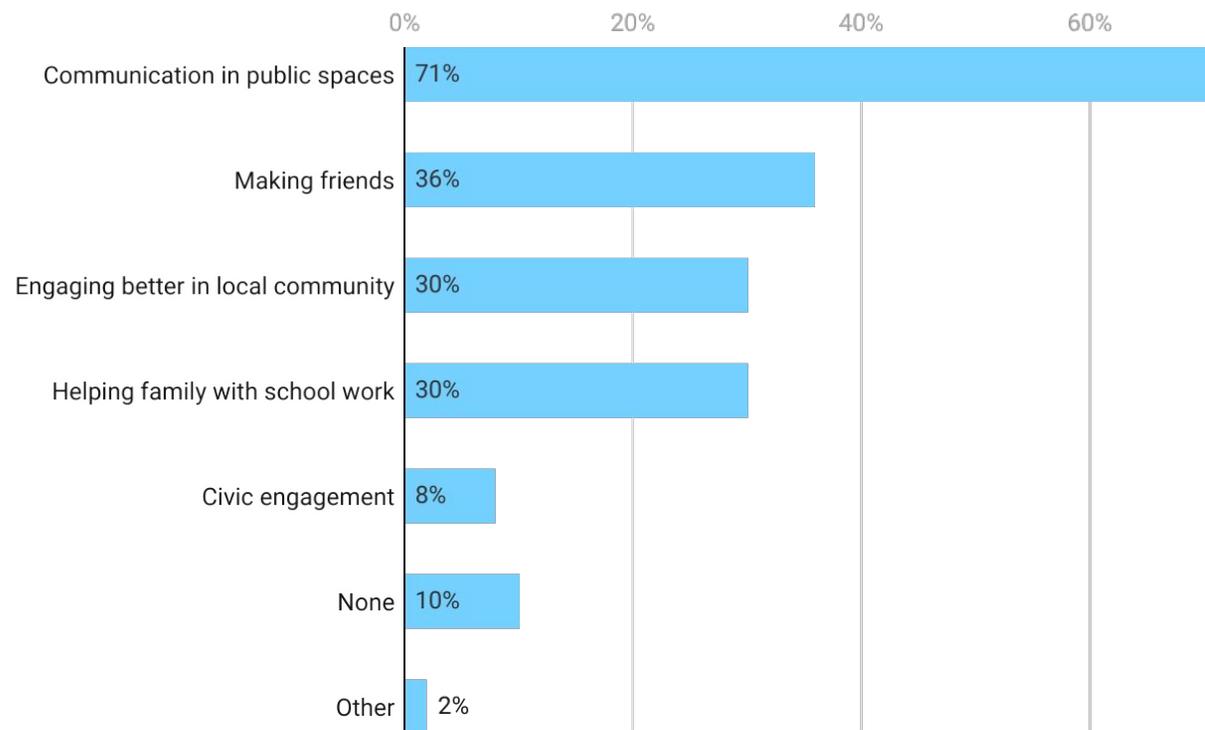
“It's been helping me a lot since moved to the US. It's giving me confidence to do my daily tasks.”

“I have greatly improved my communication in my community to understand native speakers and communicate better.”

“I even take my parents to the doctor. I can speak with the doctor now.”

Learners report successful integration outcomes

90% of learners report EnGen helped them achieve social goals



Workplace ESL: Enabling Employees with Opportunity & Access

University of Maryland upskills residential facilities workers with English skills



40 Learners given access in workplace learning pilot program

- 22 hours time-on-task per learner
- 155 unique units completed, with 84% average achievement test score
- Improved English allows employees to participate more fully in the workplace community and take advantage of other benefits, such as tuition remission programs for college credits
- Program renewed, and expanding to other staff groups through the Terrapin Strong initiative

“EnGen is easy to use and has lots of up-to-date academic, workplace, professional, and current events content. EnGen’s flexibility and portability allow users to learn whenever, wherever, and how long they want to. Motivated users have taken the opportunity to continue studying on their own time, with almost 20% logging more than 30 hours in the first 6 months. We’ve had great results in learning.”

- *University of Maryland Training Manager, Department of Residential Facilities*



Investing in English

“Dayanna Vasquez leads the kitchen at Taziki’s Mediterranean Cafe on Stone Village Way in Chesterfield County. The Chesterfield mother was hired at the Midlothian eatery four years ago as a prep cook but has since been promoted to kitchen manager. However, a few years ago, simply talking to her customers and coworkers was challenging.”



Workplace English improves productivity and satisfaction

80%

EnGen learners who save time at work as a result of improving their English

65%

EnGen learners who report job skill improvement at a 4 or 5 on a 0-5 scale.

30%

EnGen learners who have received job offers or promotions

“How has EnGen helped you in your current job role?”

Magaly S., TX.



“I’m really happy with having enrolled in this course... I hope to continue with this training until I take my GED.”

173 Hours Studied

Norma G., AZ.



“It has helped me understand what customers are looking for, and give them better customer service.”

51 Hours Studied

Stephanie R., FL.



“I can communicate better with customers, coworkers and supervisors.”

7 Hours Studied

Questions?



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BOARD OF REGENTS

SUMMARY OF ITEM FOR DISCUSSION

TOPIC: Early-Stage Support Feasibility Study Recommendations

COMMITTEE: Economic Development and Technology Commercialization

DATE OF COMMITTEE MEETING: Wednesday, April 13, 2022

SUMMARY:

USM provides a portfolio of resources to promote and support entrepreneurship among its student, faculty, and community. However, gaps remain, and some potential is untapped. On September 2, the Economic Development and Technology Commercialization Committee encouraged USM to study the feasibility of developing a multi-institution resource(s) that: 1) promotes and supports entrepreneurial success, generally at an earlier stage than the Momentum Fund; and 2) equitably supports a diversity of entrepreneurs and ventures, with broad engagement across USM as a primary goal.

Lindsay Ryan, USM Interim Executive Director of Economic Development, will present recommendations resulting from a multi-stakeholder analysis and process addressing the topic. The recommendations include to establish: 1) More efficient and effective coordination, interoperability, and communication of existing entrepreneurial resources within and outside of USM; 2) Collaborative efforts to enhance several specific existing entrepreneurial resources within and outside of USM; and 3) In the context of the other recommendations, flexible, non-prescriptive non-dilutive capital to be deployed alongside resources and accountability. Additional information about a pilot for the early capital resource is also provided.

FISCAL IMPACT: This item is for information purposes.

CHANCELLOR’S RECOMMENDATION: n/a

COMMITTEE RECOMMENDATION:

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SUBMITTED BY: Lindsay Ryan 410-409-2236
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USM Support for Early-Stage Entrepreneurship

Briefing for the Regents Committee on Economic Development and Technology Commercialization

April 13, 2022



New Early-stage Resource(s) Feasibility

- On September 2, the Economic Development and Technology Commercialization Committee encouraged USM to study how to:
 - Support entrepreneurial success, earlier than the Momentum Fund; and
 - Equitably support a diversity of entrepreneurs and ventures broadly across USM
- The study spurred ***action!***
 - **Internal** - Discussion and gap analysis as a USM community
 - 34 individuals from 14 institutions/programs; >8 Zoom hours
 - **External** - Outreach to partners, entrepreneurs, industry members
 - 73 individuals; feedback from 38; over 200 views
 - Beginning to activate some recommendations

***Overarching recommendations:
Work collaboratively with non-USM partners.
Leverage existing resources, when possible, instead of creating new ones.***



USM's Existing Venture Support

USM adds >100 ventures annually to the broader USM portfolio, 30% student-led

- **Physical location, programs, and mentorship** – Almost all universities do or will
- **Licenses for university-owned technology** – UMCP, UMB, UMBC, more to come

USM deploys ~\$4M (capital, in-kind) annually in almost 100 ventures, 40% student-led

- **Maryland Momentum Fund** (Open, USM provides)
- **Maryland Industrial Partnerships - MIPS** (Open, [UMCP](#) provides; funds university)
- **TEDCO MD Innovation Initiative/[MII](#)** (UMCP, UMB, UMBC; soon FSU, BSU)
- **Competitions/Grants/Awards** (~\$500k)
 - Shore Hatchery (Open, [SU](#) provides; \$200k)
 - StarTUp Accelerator (Open, [TU](#) provides)
 - Baltimore Fund (Open within Baltimore, [UMB](#) provides)
 - Various Institution Competitions/Grants/Awards (Most institutions)

USM already significantly invests in many student, faculty, and community ventures!

Common Challenges Remain for Entrepreneurs

- **Information barriers** – which resource(s) to utilize, when, and how
- **Availability barriers** – the right resource doesn't have capacity or has other access limitations (e.g. wet labs/commercial kitchens/equipment, programs)
- **Financial barriers** – for the business or even in accessing resources
- **Mismatches** – between institutional resources and entrepreneur needs

- And more...

Strategic alignment and augmentation of existing resources can go a long way and can even mitigate some financial barriers!

Early-stage Resource Recommendations

- 1. Connect** – More effectively coordinate and communicate existing entrepreneurial (human and other) resources.
- 2. Enhance** – Enhance selected existing entrepreneurial resources.
 1. Greater access to angel investment
 2. Greater access to professional services e.g., accounting, legal, regulatory
 3. Greater facilities and equipment availability; e.g, wet labs, commercial kitchens, testing
 4. Greater MIPS program capacity; emphasis on non-major research institutions
- 3. Capitalize** – In the context of the other recommendations, enable flexible, non-prescriptive early capital to be deployed alongside resources and accountability.
 - Grants and other forms of early capital, typically <\$75k
 - Maximize impact: quick to obtain, smartly deployed
 - Address access barriers (e.g., students, smaller institutions) head-on, not reactively
 - USM must seek funding and a sustainable business model



Looking Forward

Defining success

- “Generate economic development outcomes” – Simple, right?

HOW matters as much as WHAT

- The most thriving ecosystems haven’t gained success through carefully orchestrated maneuvers but through commitment and a culture that supports the flourishing of entrepreneurship.

We go further together

- Will continue institutional engagement and create structures to incorporate institutions in sustainable leadership of these efforts!

This ecosystem is dynamic; we must continually adjust

Early Capital Recommendation



Design Recommendations/Guidelines *Specific to Early Capital*

Optimize Impact and Accessibility

- Investigate existing slowdowns in transfer of capital.
- Max \$ must be high enough to make an impact, but smaller amounts quickly can be valuable.
- Submission process can have multiple routes (e.g., written, pitch) and/or submission prep.
- Stage-gating and standardizing terms for upfront/milestone payment will likely be helpful.
- The process itself should add value even for entrepreneurs who do not receive the funding.
- Leveraging diligence via other programs

Funding Vehicles - Ideally, a mix of options below

- *Grants* - Conventional. Best for lower amounts. Optimize for progress, not serial grant obtainers.
- *Loans* - Not preferred, but provide connections to local banks when appropriate.
- *Reimbursable Grants/Revenue Share* - Lots of options.
- *Convertible Notes* – And SAFE notes when appropriate.

Potential Capital Pilot Design

Values: Diversity, Equity, and Inclusion | Valuable to All Applicants | Value to Institutions | Transparency

Track	Goal/Use	Key Preferences	Award Range	Decisions & Oversight	Demand Information
Groundwork and Gas Money <i>Students, Faculty, Employees ONLY</i>	<ul style="list-style-type: none"> Exposure-to-idea opportunities Addressing access issues 	<ul style="list-style-type: none"> Those with no prior funding Those aiming to make use of another Maryland resource 	Up to \$1k grants	Institution decisions and budget Cross-USM best practices sharing, USMO oversight	Demand will far outstrip supply, but a small amount at each institution can go a long way.
Liftoff <i>Students, Faculty, Employees, Alum, Community</i>	<ul style="list-style-type: none"> Get started in the right direction Proof of concept funding 	<ul style="list-style-type: none"> Those with no prior funding (except Ground and Gas Money) Those vetted through another resource 	Up to \$25k total in grants; default is tranches, max \$5k first tranche	MMF model incorporating all institutions USMO signoff on collaborative deals	USM invests \$500k in similar capital already, with demand outstripping supply (\$300k to spinouts from 7 institutions; \$120k to UMCP spinouts; and \$200k to community ventures). 3 institutions not currently accessing significant capital.
Boost <i>Students, Faculty, Employees, Alum, Community</i>	Continue in the right direction	<ul style="list-style-type: none"> Those facing capital access challenges Those vetted through "Liftoff" or another resource If over \$50k, non-grant vehicles 	Up to \$75k, potential for tranches; grants and other financing	MMF model incorporating all institutions USMO signoff on collaborative deals	Not much of this type of capital "Following on" with 2-3x the capital for 1 of every 2 or 3 ventures means a similar amount for just <i>current</i> pipeline.

Tracks build on each other but are NOT prerequisites



Potential Capital Pilot Notes and Discussion

Fundraising strategy still being developed

Demand estimates are difficult and underestimate

- Entrepreneurial activity is growing
- At institutions with lower on-campus funding sources and/or programming yet, demand is particularly difficult to predict

Institutional Balance

- Demand and quality will surpass needs for any pilot, and even at full scale. Therefore, portfolio balance across institutions will be required, with several approaches possible, ranging from dedicated budgets to evaluation weighting factors to simple monitoring and adjustment.
- The “gas money and groundwork” track aims to prime the pump at institutions without as much entrepreneurial support capacity. However, support at some institutions may be required in order to enable maximum participation.

APPENDIX



Early-Stage Resources Goals & Scope

Each USM institution has their own goals for entrepreneurship, with the balance between economic and institutional impacts varying. For this Early-stage Resource(s) Feasibility study, the following is the proposed focus, as determined by the USM entrepreneur supporters:

Generate economic development outcomes while being...

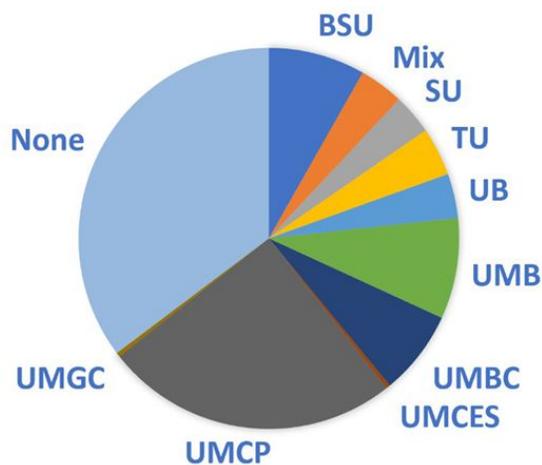
- **Open** - being open beyond USM students and faculty, including alumni, ventures physically located near campus, and ventures with some other collaborative tie to USM
- **Equitable** - proactively addressing diversity, equity, and inclusion across venture types, founders, industries, entity types, communities, and universities
- **Early** - focusing on entrepreneurs pursuing ideas but before they have attracted significant capital or are earning significant revenue

The goals and scope are ambitious; and so are the people who are recommending them!

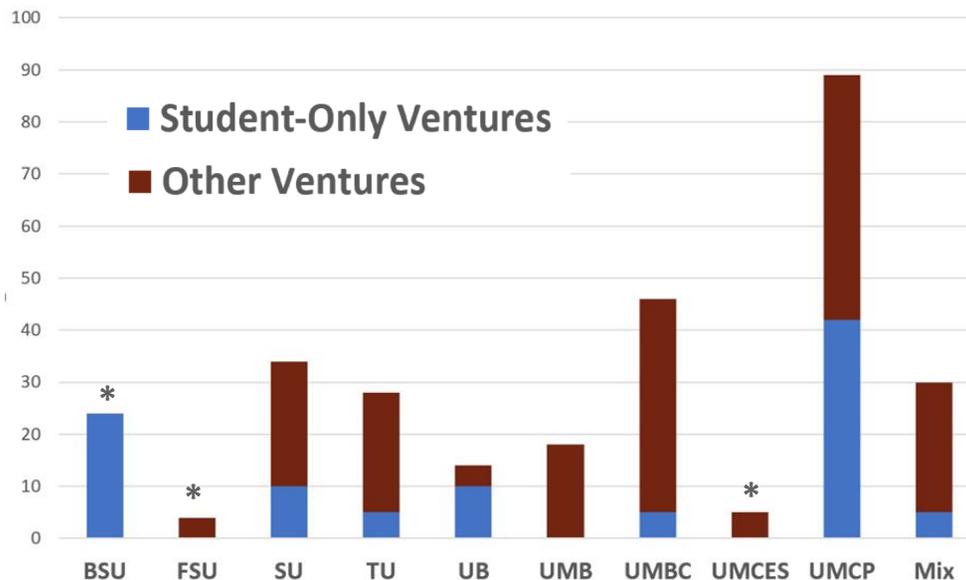


Existing Venture Support Ventures Newly Supported with Space, Programs and/or Intellectual Property

By Founder or IP Affiliation



By Institution Providing Support, FY '19-21

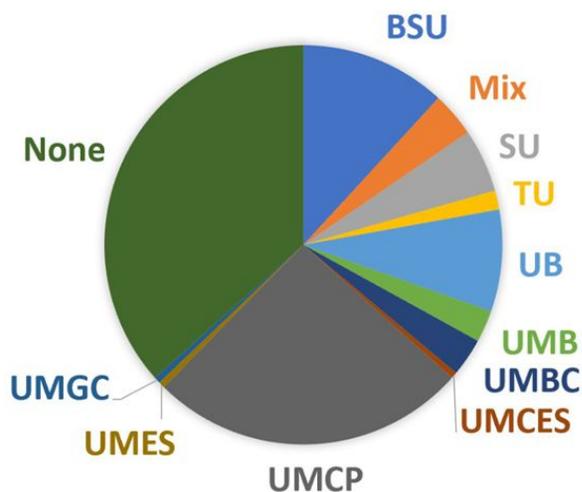


* = Began reporting in the last 3 years



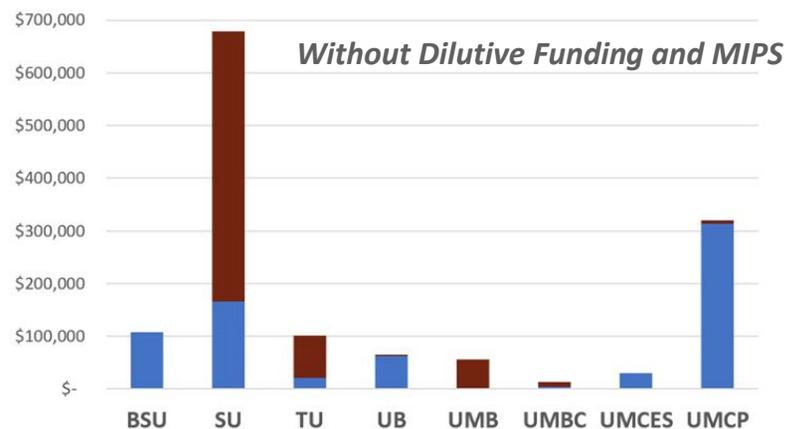
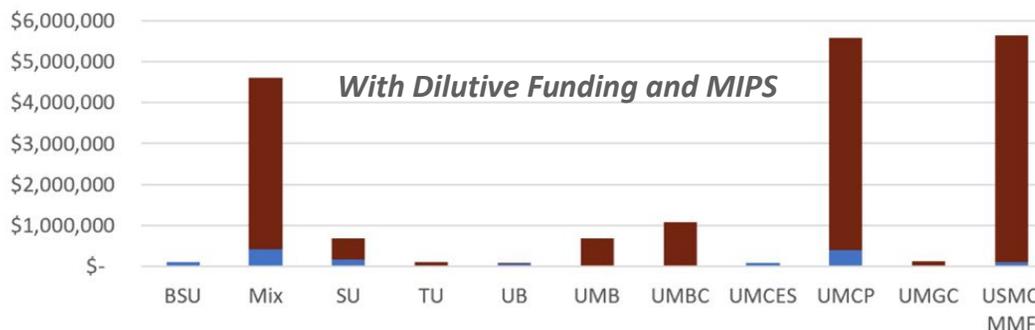
Existing Venture Support Ventures Newly Supported With Capital

By Founder or IP Affiliation



By Institution Providing Capital, FY '19-21

■ Other Ventures ■ Student-Only Ventures



Existing Venture Support Notes and Future Support

Data caveats and considerations:

- Captures only ventures significantly assisted by USM
- Shows where an institution has been, not necessarily where it is going
- Reporting is robust, but there is room to improve

Looking forward to future growth!

- **UMES** – Participate in MIPS; recently named their first [Endowed Chair in Entrepreneurship and Innovation](#)
- **CSU** – Recently established the Center for Strategic Entrepreneurship and active partner in the new [Maryland Innovation Extension](#)
- **FSU** – Frostburg State University has been ramping up [placemaking initiatives](#)
- **USG** – The Universities at Shady Grove recently established the [Lab for Entrepreneurship and Transformative Leadership](#)

Identified Gaps in Venture Support

The following are examples of some of the gaps identified through the process, some of which are better poised to address collectively and as USM than others:

- Better awareness and coordination of access of existing resources
- Evaluating the feasibility of a business beyond customer discovery, including market size, unit economics/financial model, regulatory processes, manufacturing, etc.
- More robust networks of individuals (entrepreneurs, corporates, and service providers) who can inclusively support early-stage innovators. Near-peer and peer connections and mentorship (team-building); more systematic, pinpointed, and reliably helpful network leveraging
- Personally assisted navigation, including understanding “prerequisites for programs” for those not in an incubator or dedicated program
- Increase space capacity -- flexible, affordable lab space in some locations; commercial kitchen space in others; general space in others, being solved through repurposing
- Appropriate personal housing for entrepreneurs, which impacts their business
- Pilots and early manufacturing help
- Funding for proof of concept work
- Angel funding, pre-seed investment, non-dilutive funding across a variety of scenarios

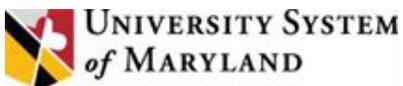
Overall Design Recommendations/Guidelines

- Consider and proactively address any systemic and/or institutional barriers to access.
- Involve entrepreneurs, investors, and other stakeholders in design and implementation.
- Aim for flexibility and inclusion, sometimes clustering by industry, venture type, etc. to help ensure proper coverage, access, and navigation; and potentially attract non-USM support.
- Systematizing milestones can help entrepreneurs and those who help them better understand benchmarks generally for success and in terms of what resources when.
- Emphasize resources for finding and acquiring customers (including sandboxes and pilots) and business planning; help ventures define who their customer will be and if it could be viable before they go after resources to execute.
- Although not primary goals, don't miss opportunities to: 1) create exposure and raise the spirit of entrepreneurship; 2) promote student and faculty development; 3) bolster and enhance the capability of those who help entrepreneurs; and 4) help later-stage ventures
- Build in mechanisms for continued collaborative needs assessment, action, and storytelling, in addition to impact evaluation, in line with USM's commitment to innovation and continuous improvement.



Recommendations – *Next Steps*

Recommendation	Next Step
<p>Connect – More efficient and effective coordination, interoperability, and communication of existing entrepreneurial resources within and outside of USM</p>	<p>Better connect USM resources through pilots, coordinating outside USM as well</p> <ul style="list-style-type: none"> - Human resources - Physical resources - Overall navigation
<p>Enhance – Participate in collaborative efforts to enhance existing entrepreneurial resources within and outside of USM</p>	<ul style="list-style-type: none"> - Continue to seek MIPS enhancement - Convene others regarding angel investment - Professional services pilot; e.g. iStart - Join collaborative efforts to call for resources to create wet lab space; advocate for RISE Zone program; identify funding sources for infrastructure; collaborate with others such as federal labs on access to equipment
<p>Capitalize – In the context of the other recommendations, enable flexible, non-prescriptive non-dilutive capital to be deployed alongside resources and accountability.</p>	<ul style="list-style-type: none"> - Further define pilot size and fundraising strategy



BOARD OF REGENTS

SUMMARY OF ITEM FOR INFORMATION

TOPIC: Office of Economic Development Update

COMMITTEE: Economic Development and Technology Commercialization

DATE OF COMMITTEE MEETING: Wednesday, April 13, 2022

SUMMARY:

Lindsay Ryan, USM Interim Executive Director of Economic Development, will provide a briefing on economic development and state legislative activity and other State and USM activity and good news. She will provide information about economic impact benchmarking as a follow-up to questions from the full Board of Regents educational topic presentation in December of 2021. Last, there will be a brief update on the Momentum Fund portfolio and a presentation of the biannual Venture Development Report.

FISCAL IMPACT: This item is for information purposes.

CHANCELLOR’S RECOMMENDATION: n/a

COMMITTEE RECOMMENDATION:

DATE:

BOARD ACTION:

DATE:

SUBMITTED BY: Lindsay Ryan 410-409-2236
lryan@usmd.edu

Office of Economic Development Updates

*Briefing for the Regents Committee on Economic
Development and Technology Commercialization*

April 13, 2022





Economic Development Legislative Activity

To the Governor:

- [HB1446](#) Universities at Shady Grove Workforce Development Funding
- [HB730](#) / [SB473](#) Maryland E-Innovation Program - Qualifying Donations
- [HB838](#) / [SB474](#) Western Maryland Economic Future Investment Board & Fund
- [SB453](#) Maryland Makerspace Initiative Program
- [HB478](#) Enterprise Zone Program – Alterations

Not to the Governor:

- [HB1334](#) / [SB753](#) Cyber Warrior Diversity Program/Cyber Workforce Dev. (crossed over)
- [HB255](#) Maryland Internship Opportunities Program
- [HB1095](#) / [SB845](#) TEDCO Rural Business Innovation Initiative Fund (but supplemental \$)
- [HB1094](#) / [SB846](#) Maryland Technology Infrastructure Pilot Program
- [HB929](#) Opportunity Zone Fund

General Economic Development Legislative Activity

- **To the Governor**
 - Maryland New Start Act of 2022
 - TEDCO - Maryland Equity Investment Fund
 - Small Business and Nonprofit Health Insurance Subsidies Program
- **Crossed Over**
 - Maryland Manufacturing Innovation Act of 2022
 - Workgroup on the Post-COVID-19 Crisis Economic Transition
 - State Procurement – Certification of LGBTQ Businesses
 - Project Restore Program and Fund
 - Several climate and transit bills



Additional State Support

- \$50 million Rural Maryland Economic Development Fund. Funding from the State of Maryland to rural councils for economic development. The announcement was made at Salisbury University's new downtown hub, the Rommel Center for Entrepreneurship. [See more information here.](#)
- \$1.2 million to operate the Maryland CyberRange for Elevating Workforce and Education (MD-CREWE) at UMBC to prepare students with hands-on training in cybersecurity and additional funding to the Maryland Institute for Innovative Computing for interns at state agencies and cyber response teams.
- \$1 million for childhood cancer research at UMB.
- \$5 million for FSU to construct a Regional Recreational Complex & renovate the Cordts Center.
- \$750,000 for the RISE Zone program, providing rental assistance to qualified businesses.
- \$2.5 million for the BioHub Maryland Initiative to bolster the State's life sciences industry talent pipeline. This initiative has also received federal funding.
- Several other economic development projects throughout the state with potential direct or indirect impacts on USM collectively, such as the Maryland Marketing Partnership, or individually, such as the West North Ave Development Authority (CSU).



Other USM Activity & Good News

- **Congratulations to UMGC on federal economic development funding.** They are a higher education partner in Maryland's only successful bid to Phase I of the US Economic Development Administration's unprecedented Build Back Better opportunity. A cybersecurity growth cluster was proposed, with the opportunity to compete for up to \$75M more in funding. [See more information here.](#)
- **Congratulations to UMBC on their R1 status!** UMBC's research enterprise has grown steadily for decades, with even more growth in recent years. It reflects UMBC's commitment to excellence across disciplines and a culture of nurturing research. [See more information here.](#)



Economic Impact Benchmarking Follow-up

- Graduate earnings are a key factor in determining ROI to the state for investments in USM. In a [recent study](#) by Georgetown University that examined earnings of college graduates in different states (accounting for regional price differences), Maryland tied at number 3 with Virginia at \$3.1 million in lifetime earnings. DC has the highest with \$3.3 million. The region again topped the list for master's degree earnings. The study did not examine PhD earners.
- The Maryland Economic Development Commission tracks the state's economic development with a [scorecard](#), on which Education & Innovation and Workforce & Wages rankings are bright spots.
- Looking into suggestion of more geographically-specific analysis

Momentum Fund Portfolio Companies

NAWEC
THE NORTH AMERICAN WAVE ENGINE CORPORATION
UMCP IP, Alum
Advanced pulse jet engine



UMCP IP and Alum
Advanced wood burning stove



UMB IP, Towson, UMGC Alum
Exoskeleton robot to reverse foot drop for stroke victims.



UMB Alum
Anticoagulant drug, therapeutics for rare blood disorders



UMCP Alum
High caffeine tea, energy drink product



UMCP IP
Advanced semipermeable pavement system



UMCP Alum
Agile software development management product



UMBC and UMCP Alums
Tissue regeneration via stem cells



UMCP Alum
Software platform to manage energy across buildings



UMB IP and Faculty
Cell-based therapy for cardiovascular disease



UMCES Alum
Sonar to measure shrimp biomass



UM BioPark Tenant
Next-gen tourniquet



Towson Alum, TU Incubator startup
Ed-tech vocabulary app



UMCP IP and Faculty
Spatial and personalized audio solutions



UMCP IP and Faculty
Food safety testing technology



UMB/UMBC Faculty, UM BioPark Affiliate
Dried artificial red blood cell



UMCP Alum
RNA Therapeutics



UMCP IP and Faculty
Semiconductor sensor technology



UMCP Employee
Fireproof, lightweight insulation



UMCP Alum and Faculty
Language upskilling platform



UBalt Professor
climate change modeling and action platform



UMBC BwTech
Data integrity



UMCP Alum
Data platform for construction industry



UMCP Professor
More efficient lithium ion batteries



UMCP/UMB Alum
Financial products for small commercial solar installations



UMCP Alum
Platform to boost employee wellness programs

Venture Development Report





USM Venture Development Report

Background and Takeaways

- Since 2012, USM has gathered information about startups and small businesses that USM has meaningfully assisted. Most (~90%) are startups.
- In 2018 and continually since then, the report has broadened the types of support, including tracking capital deployed. The report shows two types of ventures: “New to USM” = encountering USM support for the first time. “Re-Engaged” = returning to receive a different type of support from USM.
- The report does NOT include USM-affiliated startups that don’t receive support.
- Consistently, resources like incubators, business competitions, the I-Corps program, accelerators, and more extend support beyond USM students, faculty, and alum – usually about 50% of ventures supported don’t have a USM tie!

Takeaways: Venture support remains strong and diverse in types of ventures supported, support provided, and institutions involved.

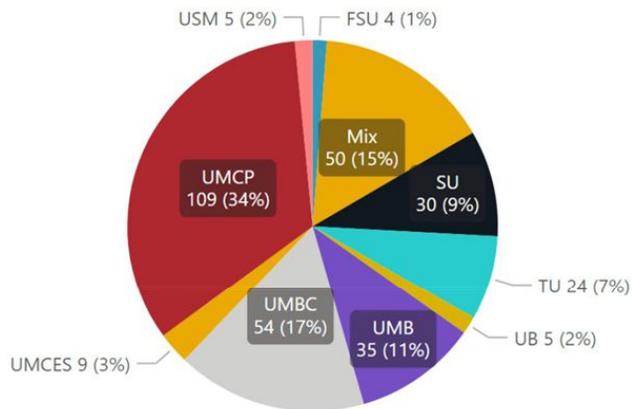


Ventures *Newly* Supported

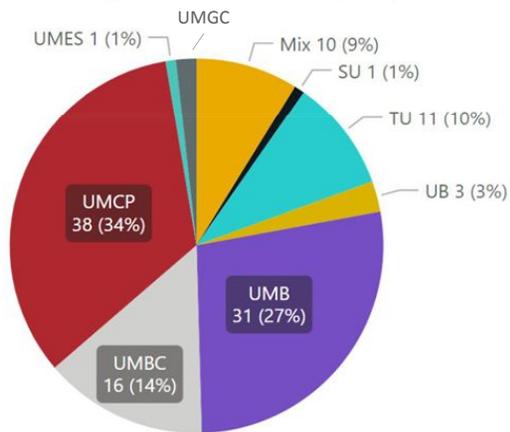
June 2018 through December 2021

296
Distinct Ventures

Ventures Newly Assisted - By Supporting Institution



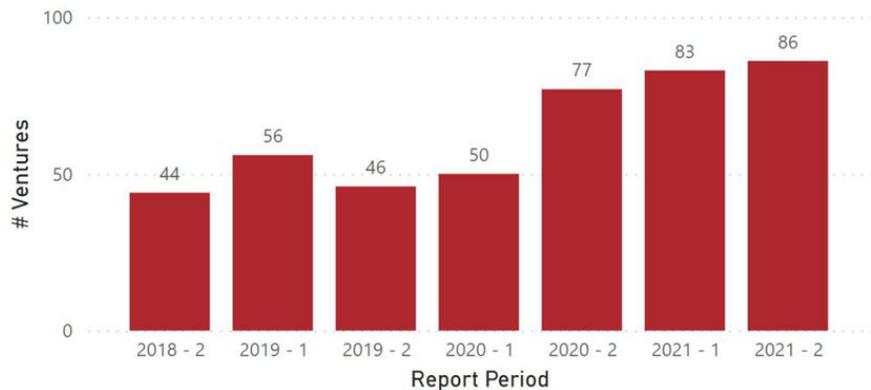
"Spinout" Ventures Newly Assisted - By Spinout Institution





Ventures New to USM Support - Longitudinal

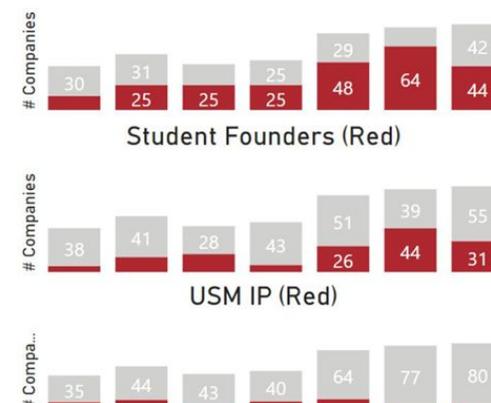
USM Status ● NEW TO USM



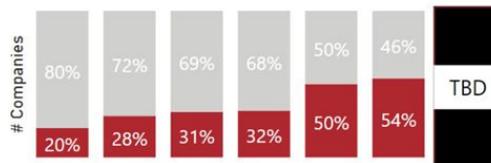
% Minority Owned (Red)



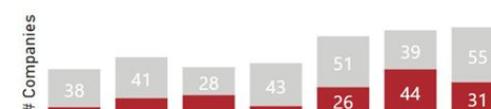
USM Founders (Red)



% Woman Owned (Red)



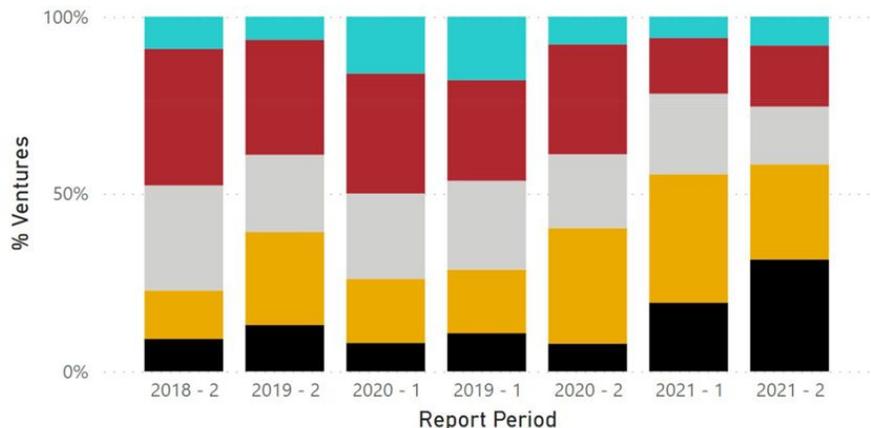
Student Founders (Red)



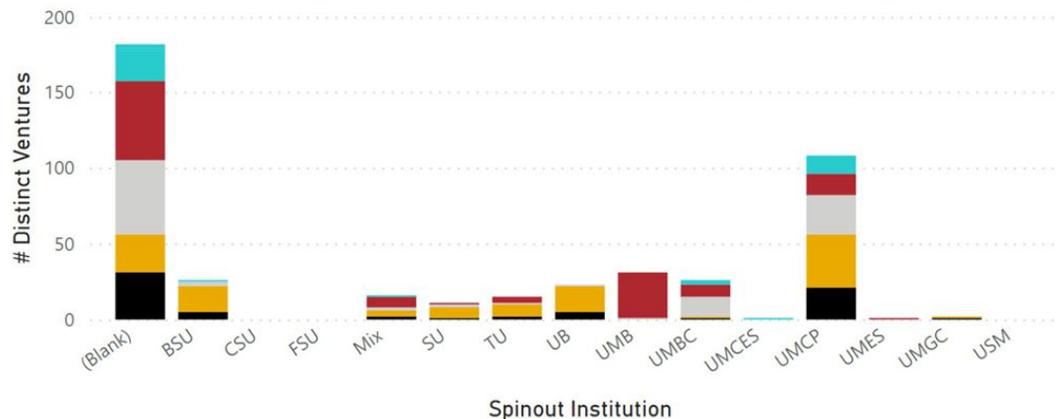
USM IP (Red)



Industry ● Consulting & ... ● Consumer ... ● Information ... ● Life Science ● Sustainabili...



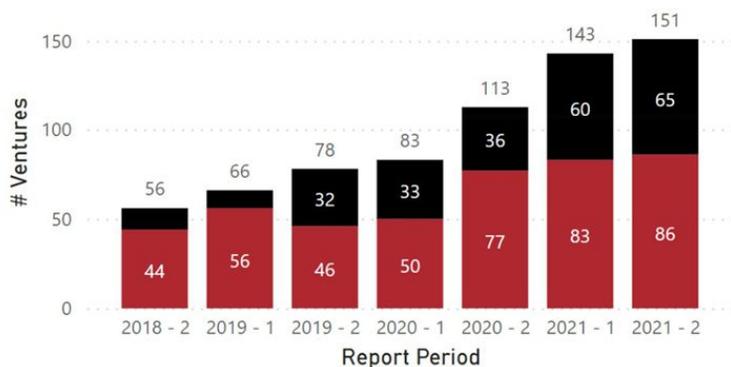
Industry ● Consulting & Other ● Consumer & Food ● Information Technol... ● Life Science ● Sustainability & ...





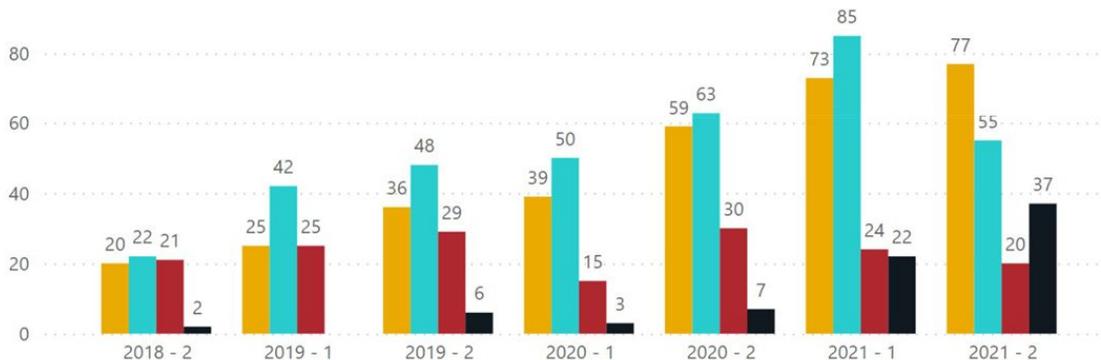
Venture Support from USM - Longitudinal

USM Status ● NEW TO USM ● RE-ENGAGED



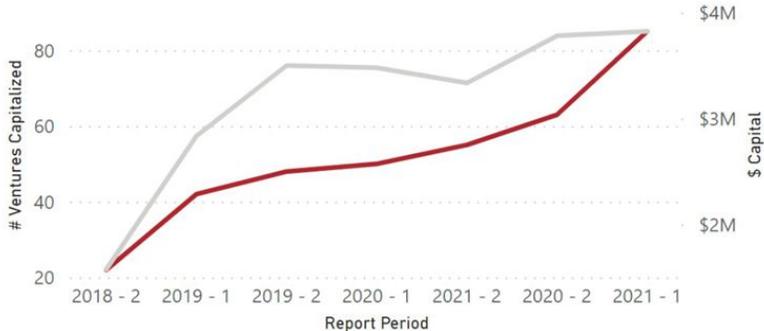
Support by Type

● Programming & Mentoring ● Capital (In-Kind and Cash) ● Incubator and/or Physical Space ● Talent Assistance



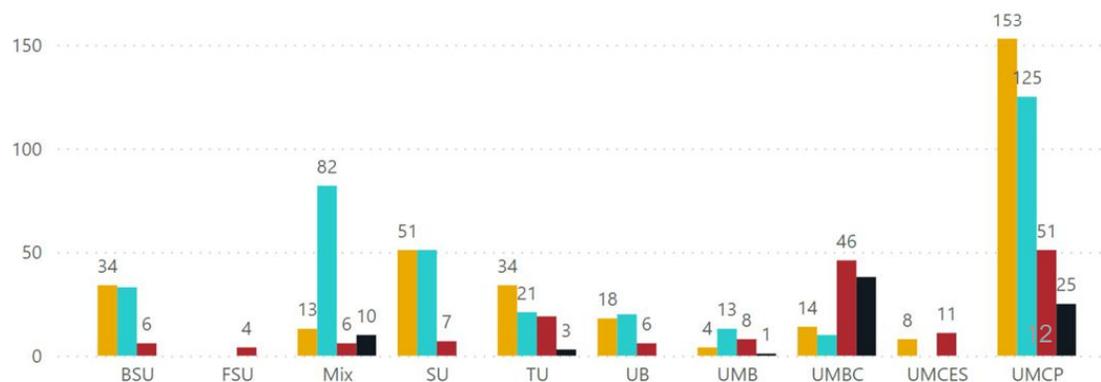
Capital Support

● # Ventures Capitalized ● \$ Capital



Support by Type and Institution

● Programming & Mentoring ● Capital (In-Kind and Cash) ● Incubator and/or Physical Space ● Talent Assistance





Small Business Development Centers: Intensive Mentoring Support



The Maryland Small Business Development Center (SBDC) is a public-private partnership between the U.S. Small Business Administration, the State of Maryland and UMCP. The Maryland network hosts entrepreneurial assistance programs at a number of USM institutions. In FY2020, the SBDC network supported over 53,000 Maryland jobs, provided direct assistance to more than 9,000 businesses, helped entrepreneurs start 270 business ventures statewide, and helped small businesses secure \$148 million in investments and loans.

Companies Assisted Through USM Small Business Development Centers

