

OFFICE OF THE VICE CHANCELLOR FOR RESEARCH AND ECONOMIC DEVELOPMENT

USM Board of Regents
Committee on Economic Development & Technology Commercialization
January 25th, 2024
Zoom

AGENDA FOR OPEN SESSION**12:30 p.m.****Call to Order****Isiah Legget**

1. [Renewing Committee Charge](#) – Change of Committee Name
2. [Research and Economic Development Review](#) – Vice Chancellor of Research and Economic Development Michele Masucci
 - [New awards of distinction](#)
 - [Outreach activities](#)
 - [Huron Update on USM and System Research Administration Needs](#)
3. [The AI Economy Emergence in the U.S. and Maryland](#) – Daraius Irani, Towson University
4. [Momentum Fund Update](#) – Venture Fellows Update
 - Focus on Irazu Oncology – Marco Chacón
5. [Launch Fund and Venture Development Update](#) – Executive Director of Economic Development Lindsay Ryan

Q and A



UNIVERSITY SYSTEM
of MARYLAND

Board of Regents
Committee on Research and Economic Development
January 25, 2024

Charge:

The Committee on Research and Economic Development shall provide strategic leadership for the USM's research, economic development, technology commercialization, innovation, and entrepreneurial initiatives, programs, and policies.

Role and Responsibilities:

The Committee on Research and Economic Development shall consider and report or recommend to the Board of Regents on matters concerning economic development and technology commercialization, innovation and entrepreneurial initiatives, and research, including translational research and technology transfer.

Members of the Committee on Research and Economic Development are appointed annually by the Chairperson of the Board. The Committee shall meet as needed, but no fewer than four times during the fiscal year.

Created in July 2011 in recognition of the increasing importance of translational research, entrepreneurship and innovation, and the supply of skilled workers in STEM fields for the State of Maryland, the Committee, working with the Vice Chancellor for Research and Economic Development, may expect to receive information for review in order to consider, and/or act on any of the following matters:

- A. Aligning resources with market demand
- B. Leveraging USM resources through collaborations
- C. Enhancing partnerships with industry, state, and federal entities
- D. Strengthening the USM Research and Innovation ecosystem, including engaging with research funding and commercialization partners, enhancing research administration and compliance infrastructure, and fostering excellence in scholarship, research, creative, and innovation
- E. Strengthening the USM entrepreneurial ecosystem, including engaging the investment community and enhance access to capital for USM affiliated startups and innovators

Office of the Vice Chancellor for Research and Economic Development

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

Michele Masucci, Ph.D.

Vice Chancellor for Research and Economic
Development

January 25, 2024



Agenda

1. Renewing Committee Charge – Change of Committee Name
 2. Research and Economic Development Review
 - New awards of distinction
 - Outreach activities
 - Huron Update on USM and System Research Administration Needs
 3. The AI Economy Emergence in the U.S. and Maryland
 - Darius Irani, Towson University
 4. Momentum Fund Update – Venture Fellows Update
 - Focus on Irazu Oncology – Marco Chacón
 5. Launch Fund and Venture Development Update
- Q and A

1. Renewal of Committee Charge

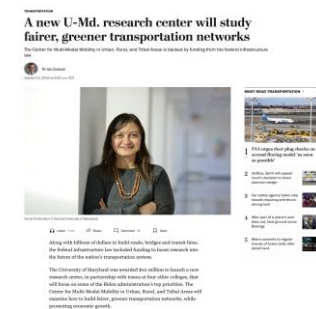
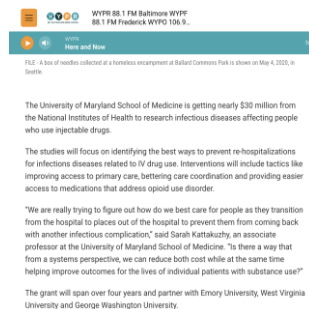
Committee on Economic Development and Technology

Commercialization Charge update:

- Change of name from “Economic Development and Technology Commercialization” to **Research and Economic Development**
- The name change reflects the development of new Office of Vice Chancellor for Research and Economic Development, with an added focus of research
- The name change reflects the charge that includes a focus to include research and related initiatives, programs, and policies

New Awards of Distinction

- USM - \$4 M U.S Department of Education to foster Student Success
- UMD School of Medicine – \$30 M to study infectious disease among IV drug users
- UMES - \$ 26 M in state and federal funds to begin construction on new Agricultural Research and Education Center
- UMD - \$10 M Tier 1 Center for Multi-Modal Mobility in Urban, Rural and Tribal Areas funded by USDOT



Outreach and technical resources

- NSF Granted Award to UMBC to support **Grants Made** Conference in April 2024
- National Academies - On Leading a Lab: Strengthening Scientific Leadership in Responsible Research, A Workshop held in December 2023
- UMBC and UMB \$4 M Reach Award from NIH for biomedical and life science accelerator program



GRANTS MaDE Conference

GRANTS MaDE: Grants and Research Administration, Networking and Training for Students across Maryland and Delaware's 7 Minority Serving Institutions (MSIs)

Friday, April 26, 2024
10 am - 3 pm

Hosted by UMBC, in collaboration with Morgan State University and Delaware State University.

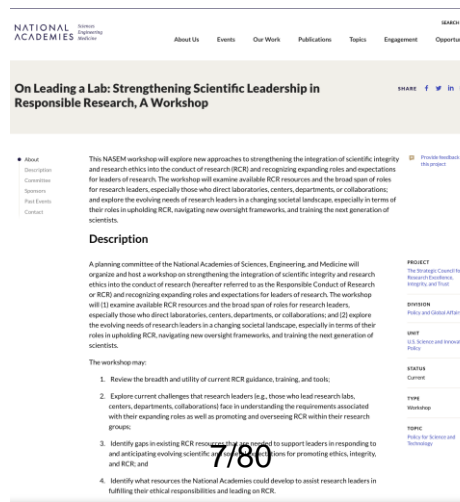
#GrantsMaDE
LinkedIn

Register by **April 1st!**
In person with hybrid option

REGISTER

For more information, please visit our website: socialscience.umbc.edu/grantsmadeconf

Logos for UMBC, Morgan State University, and Delaware State University.



NATIONAL ACADEMIES

About Us Events Our Work Publications Topics Engagement Opportunities

On Leading a Lab: Strengthening Scientific Leadership in Responsible Research, A Workshop

SHARE

Description

This NAEM workshop will explore new approaches to strengthening the integration of scientific integrity and research ethics into the conduct of research (RCR) and recognizing expanding roles and expectations for leaders of research. The workshop will examine available RCR resources and the broad span of roles for research leaders, especially those who direct laboratories, centers, departments, or collaborations; and explore the evolving needs of research leaders in a changing societal landscape, especially in terms of their roles in updating RCR, navigating new oversight frameworks, and training the next generation of scientists.

Description

A planning committee of the National Academies of Sciences, Engineering, and Medicine will organize and host a workshop on strengthening the integration of scientific integrity and research ethics into the conduct of research (hereafter referred to as the Responsible Conduct of Research or RCR) and recognizing expanding roles and expectations for leaders of research. The workshop will (1) examine available RCR resources and the broad span of roles for research leaders, especially those who direct laboratories, centers, departments, or collaborations; and (2) explore the evolving needs of research leaders in a changing societal landscape, especially in terms of their roles in updating RCR, navigating new oversight frameworks, and training the next generation of scientists.

The workshop may:

1. Review the breadth and utility of current RCR guidance, training, and tools;
2. Explore current challenges that research leaders (e.g., those who lead research labs, centers, departments, collaborations) face in understanding the requirements associated with their expanding roles as well as promoting and overseeing RCR within their research groups;
3. Identify gaps in existing RCR resources and explore ways to support leaders in responding to and anticipating evolving scientific, societal, and policy needs for promoting ethics, integrity, and RCR; and
4. Identify what resources the National Academies could develop to assist research leaders in fulfilling their ethical responsibilities and leading on RCR.



UMBC

NEWS

UMBC, UMB receive \$4 million NIH REACH grant to create new biomedical and life sciences accelerator program

March 26, 2024



UMBC is continuing its commitment to diversifying Maryland's biomedical and life sciences ecosystem through its latest collaboration effort with the University of Maryland, Baltimore (UMB) to develop a new life sciences accelerator program focused on faculty development and research-commercialization efforts.

UMBC and UMB were jointly awarded a four-year, \$4 million Research Accelerator and Commercialization (REACH) grant from the National Institutes of Health (NIH) to advance the biomedical and entrepreneurship and innovation ecosystem in the Baltimore region. The grant will be used to build on the work that began when UMBC and the University of Maryland School of Medicine (UMSOM) received a \$10 million NIH Center for Biomedical Innovation Research and Training (CBIRT) award in 2019 to enhance recruitment and hiring of junior faculty from groups underrepresented in biomedical science.

UMBC has a long-term commitment to enhance the diversity of the faculty in our life sciences in the biomedical and life sciences," says Karli Steiner, UMBC's vice president of research and

Huron Update

Jenna Lee
Education & Research Consulting Director
Huron

1-25-2024



3. THE AI ECONOMY EMERGENCE OUTLOOK

Darius Irani, Ph.D.

Vice President for Strategic Partnerships and Applied
Research

Towson University

1-25-2024



4. MOMENTUM FUND

Spotlight on Irazu Oncology

Marco Chacón, Ph.D.

Founder and President

1-25-2024



5. LAUNCH FUND

Lindsay Ryan

Executive Director for Economic Development

University System of Maryland

1-25-2024



Q and A

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UNIVERSITY SYSTEM
of MARYLAND

University System of Maryland

Board of Regents

Committee on Economic Development &
Technology Commercialization

January 25th, 2024



Contents

1. Project Workstreams
2. Future State Vision
3. Recommendations

Introduction

In Fall 2023, University System of Maryland (USM) engaged Huron to evaluate the research administrative needs at the system level and across the system institutions.

OVERVIEW | Huron was asked to review the research administrative infrastructure across the UM institutions to ensure an efficient and compliant research infrastructure is in place across the system. Key goals included identifying opportunities and providing recommendations on how to build the necessary infrastructure to support externally sponsored research funding.



Project Workstreams

USM has partnered with Huron Consulting Group to provide assessment and strategic planning support within the research administration infrastructure at USM.



Workstream 1: Internal

Our first step is to look within the infrastructure of USM's research operations to evaluate what is needed to sustain and grow research at the system level.

Workstream 2: External

Our second step is to look at the system more broadly and recommend ways the system office can support smaller institutions that do not have the infrastructure needed to support a larger research portfolio.

Workstream 1: Internal

As part of the review of USM's internal research administration infrastructure, Huron spoke with key stakeholders and crafted recommendations to address the key concerns expressed by participants.

1

Conducted a **project kick-off** meeting with Research Administration leadership to confirm project objectives.

2

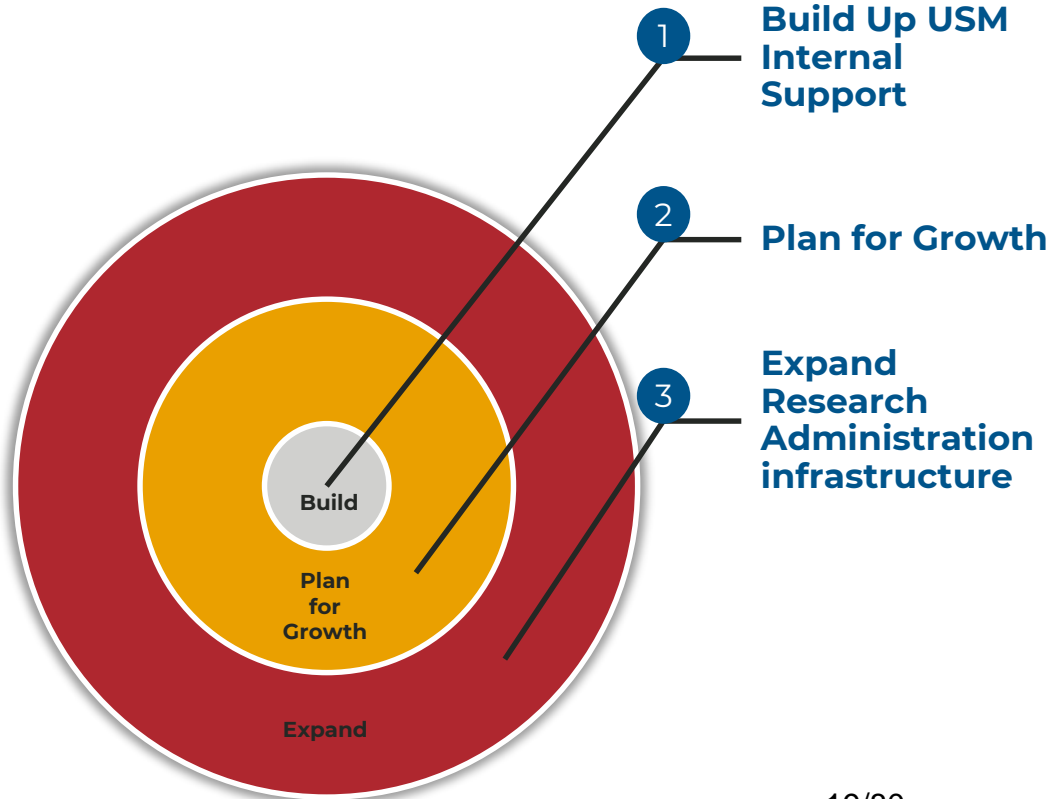
Conducted targeted **interview sessions** with key stakeholders within USM's Research and Economic Development office as well as Academic and Student Affairs and Administration and Finance.

Themes Expressed by Interview Participants:

- **People:** It would be nice to have **system level support for administrative tasks** related to proposal development (especially budget help) and award management.
- **Processes:** The current infrastructure within USM is not conducive to growing/expanding extramural research funding. **More consistent processes need to be in place** to foster growth and ensure compliance.
- **Policy:** It is hard to know where to go to do standard things for our awards. *For example, what is the easiest, most compliant way to pay our collaborators at other institutions?*

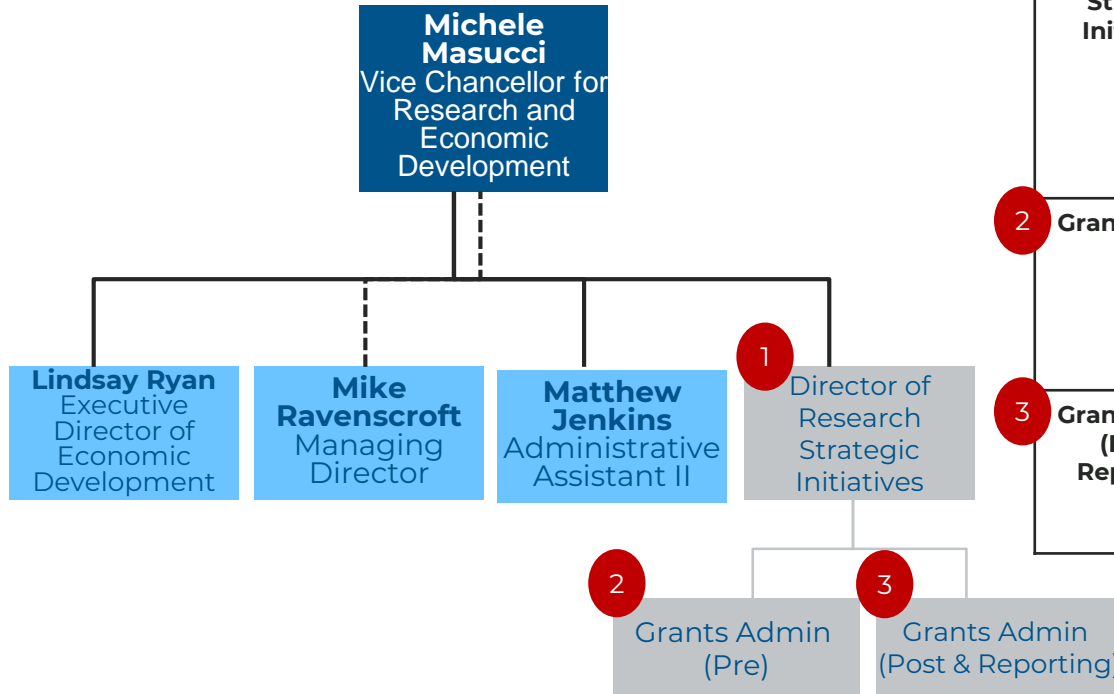
Based on these core themes, Huron has made initial high-level recommendations related to USM's internal research administration operations.

Future State Vision



- 1 Build a Foundation:** Focus on staffing USM's Research and Economic Development infrastructure to support USM researchers in core pre- and post-award activities.
- 2 Plan for Growth:** Create a position to carry out the Vice Chancellor's strategic vision for how the system office **can** and **should** support research-related functions across the system institutions.
- 3 Expand:** Grow USM's core research admin team to support/or to become the research infrastructure at smaller institutions.

Build A Foundation

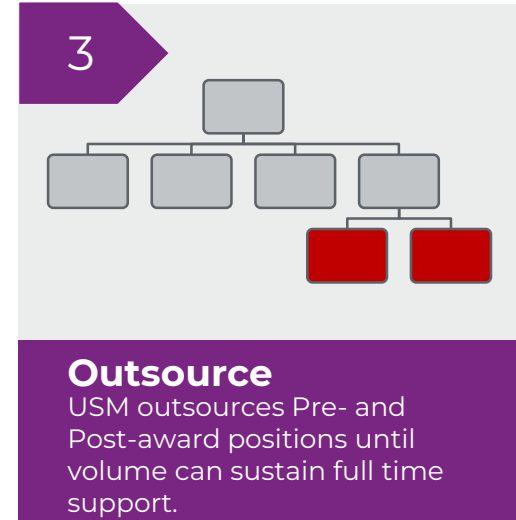
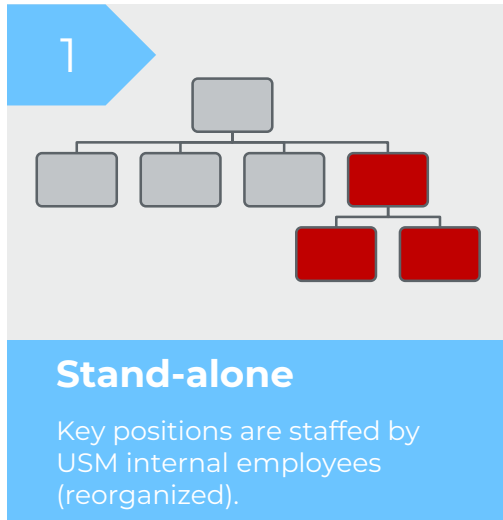


Role	Primary Responsibilities
1 Director of Research Strategic Initiatives	<ul style="list-style-type: none"> - Identify and assess a path forward for the Vice Chancellor's strategic vision. - Develop and refine the organization's research strategic plan, in collaboration with senior leadership. - Create and prioritize foundational needs of new grants team (e.g., drive policy creation, appropriate grants tracking, roles & responsibilities matrix, etc.)
2 Grants Admin (Pre)	<ul style="list-style-type: none"> - Assist in the development, preparation, and submission of all proposals at the system level, including budget development. - Advise on adjustments and revisions necessary to meet sponsor and university guidelines (focused on compliance).
3 Grants Admin (Post & Reporting)	<ul style="list-style-type: none"> - Manage budget, reporting and compliance timelines through the lifecycle of the grant or contract. - Review all prior approval requests (NCEs, Key Personnel change, etc.)

Indicates New Positions

Build a Foundation

The following recruitment options should be considered as USM prepares to move forward.



Plan for Growth

1. **Establish clear roles and responsibilities** for the new research administration team.
2. **Establish standard operating procedures** for the USM research portfolio for common research administration processes. Financial processes should be prioritized (e.g., F&A disbursement, payment of other system institutional collaborators on grant funds).
3. **Update website** to include helpful resources for USM researchers, including a central repository for commonly needed forms.
4. **Establish research administration “rapid response team”** for researchers and administrators needing help in navigating the internal USM infrastructure or the system infrastructure as a whole.
5. **Standardize reporting and audit standards** on behalf of the system, including standardizing completion of the HERD survey.
 - a) Reporting – establish need for high priority reports, standardize methodology for completion, convene completion clinics
 - b) Audit – establish need for high priority areas (FFATA reporting, procurement, effort reporting) based on past audit findings, establish standards at the system level for best practices, work with campuses to implement or complete centrally for smaller campuses



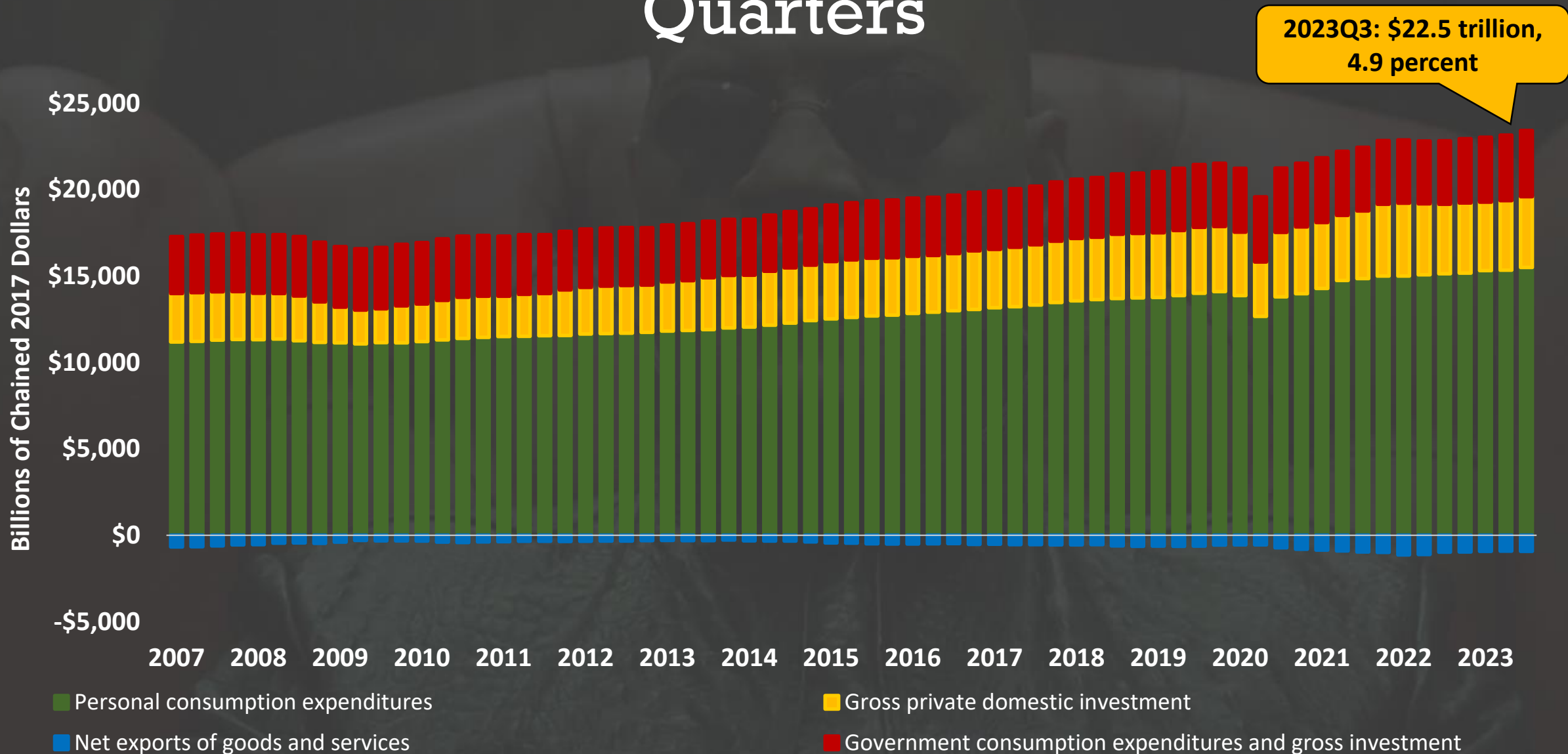
THE A.I. ECONOMY

EMERGENGE

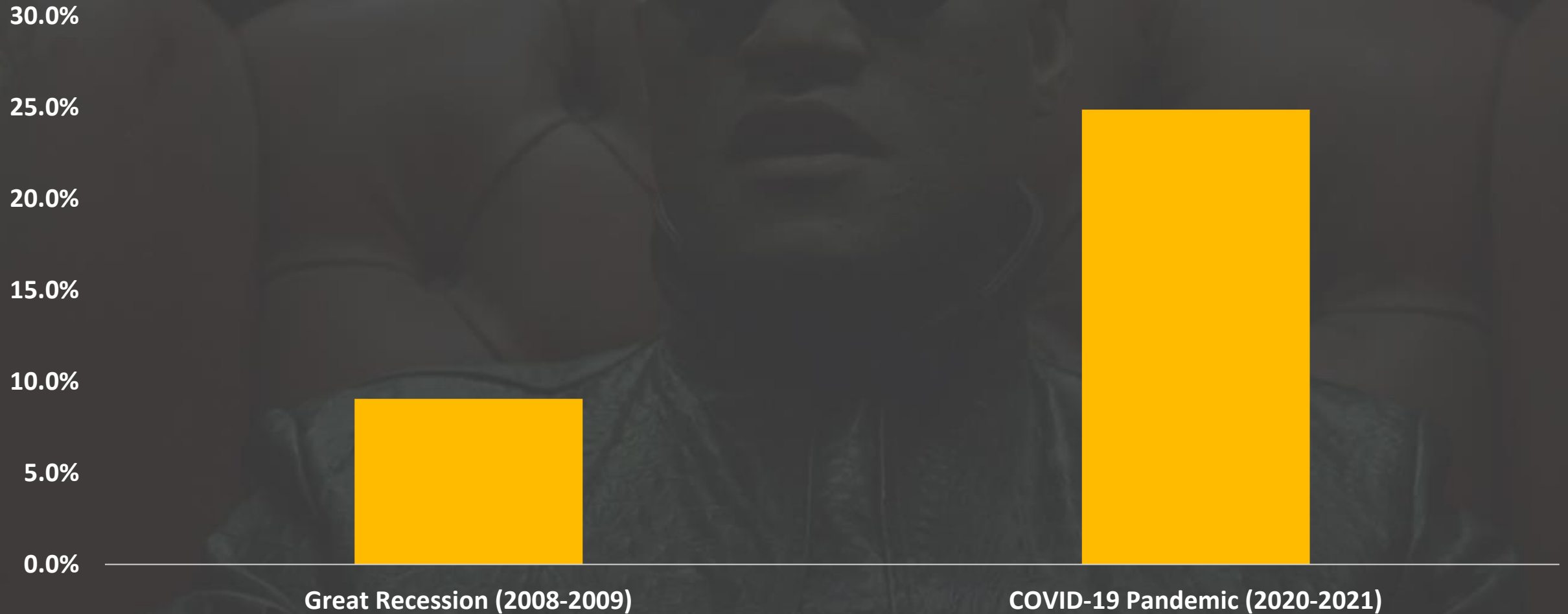
A close-up shot of Morpheus from the movie The Matrix. He is a bald Black man wearing dark sunglasses and a black high-collared jacket. He is sitting in a red leather tufted chair. The background is dark and out of focus. The lighting is dramatic, highlighting his face and the texture of the chair.

“Remember, all I’m offering is the truth. Nothing more.”

GDP Has Increased for Five Straight Quarters



COVID-19 Stimulus Was Nearly 3x the Size of the Great Recession Stimulus as a Percentage of Annual GDP

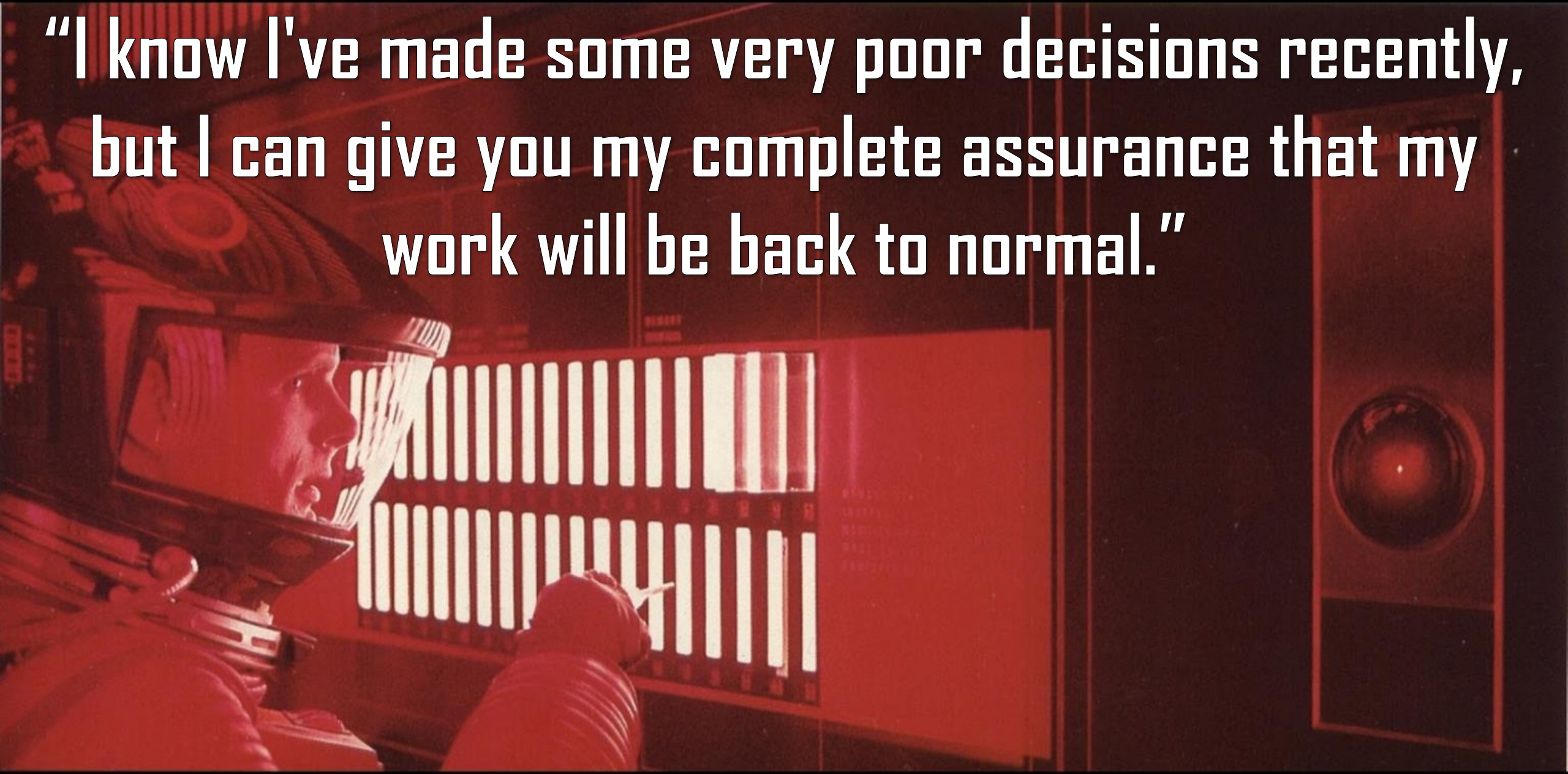


The War in Ukraine Continues to Affect the World Economy

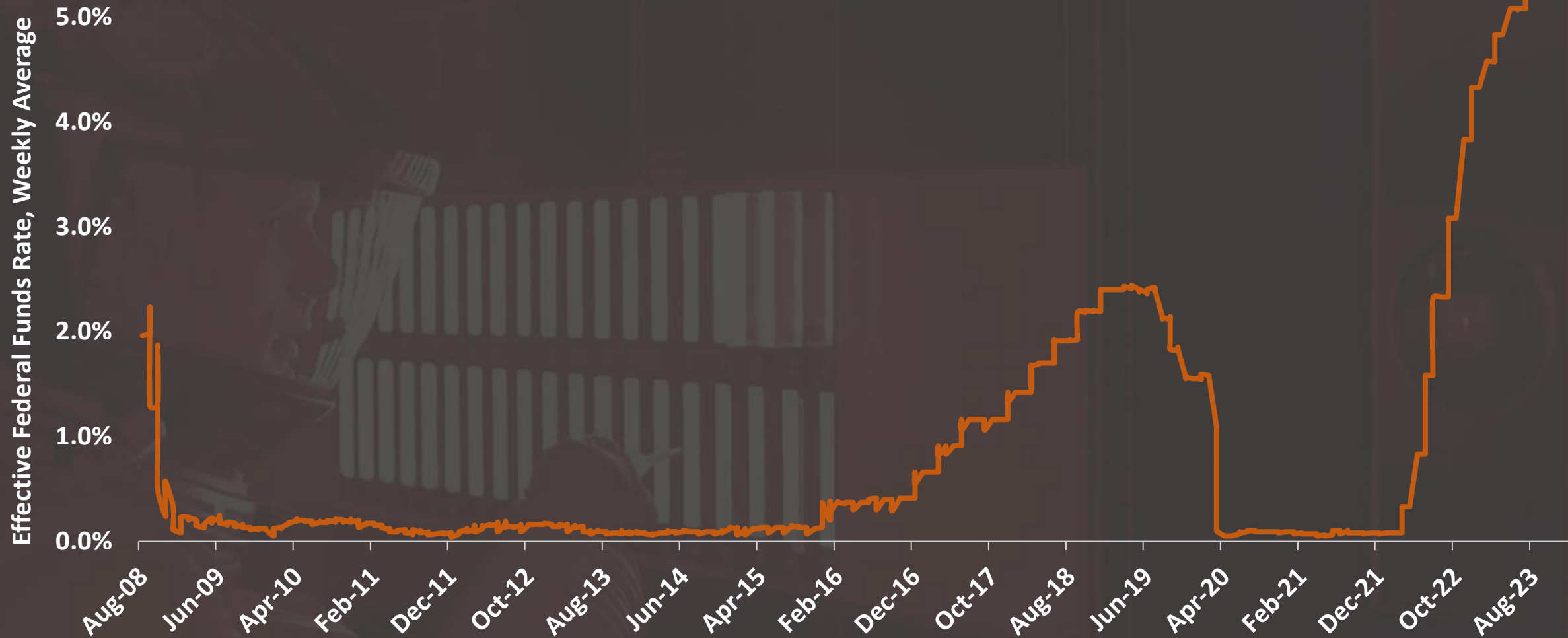
- Production and shipping of major Ukrainian exports are disrupted, and economic sanctions against Russian remain in place.
- World economic growth was projected at 5.0% in 2022 prior to the invasion, fell to 3.1% by the end of the year.
- Growth was 2.2% worldwide in 2023, but only 0.3% across Europe.



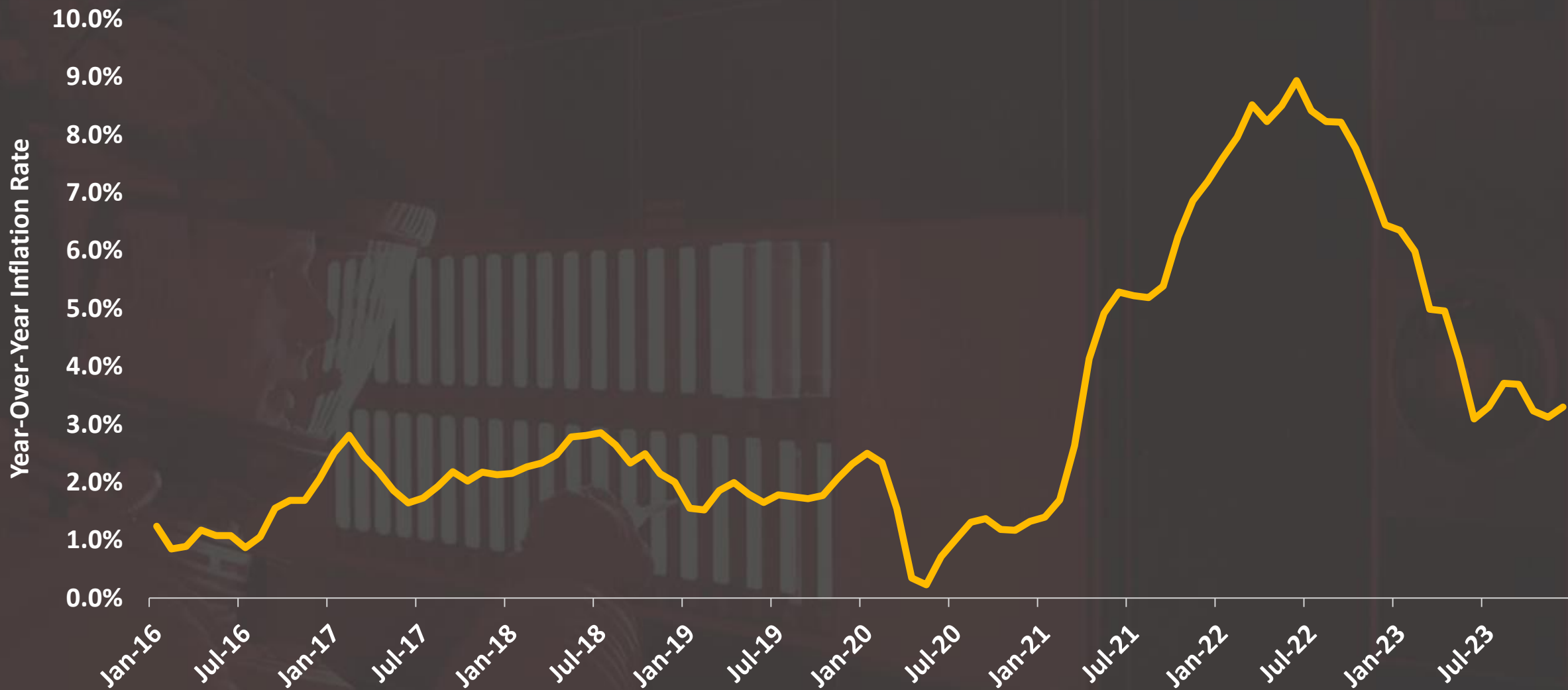
**“I know I've made some very poor decisions recently,
but I can give you my complete assurance that my
work will be back to normal.”**



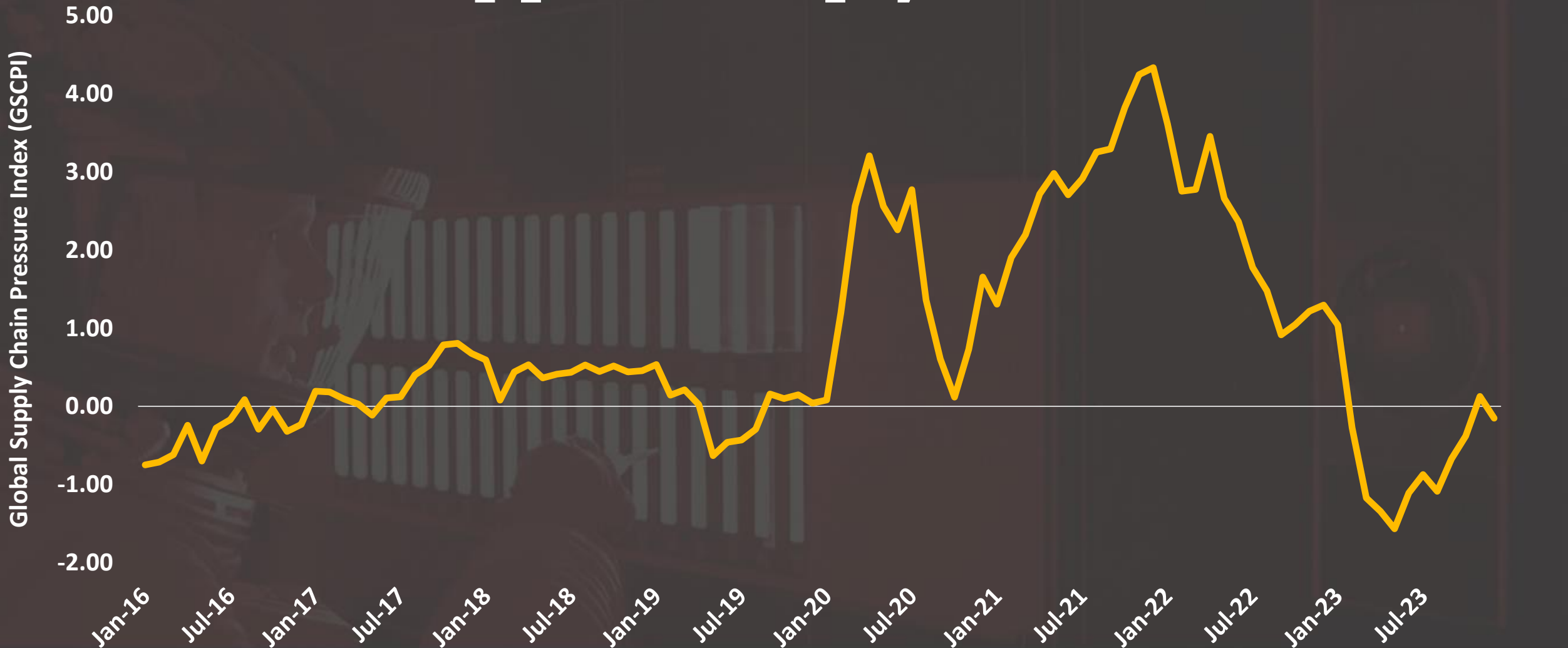
The Fed May Finally Be Done with Raising Interest Rates



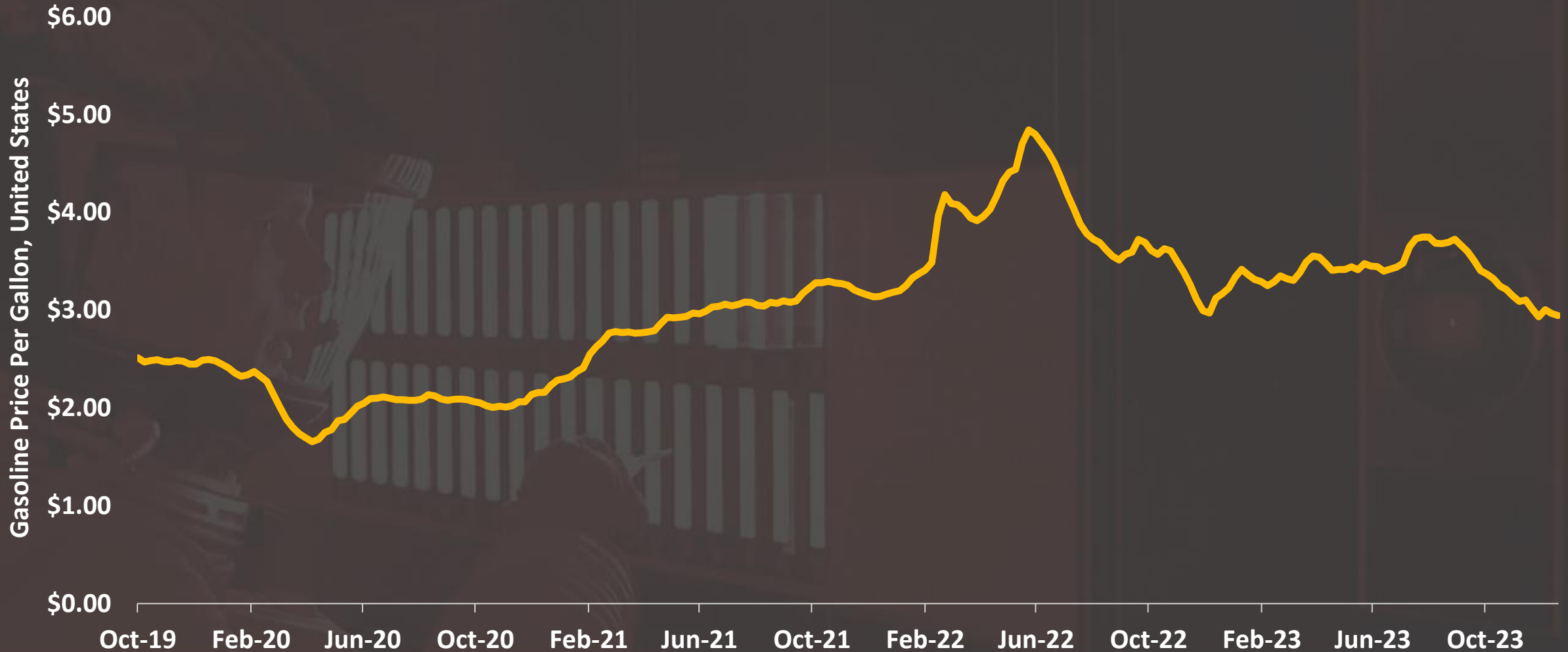
Year-Over-Year Inflation Has Come Down, but Not Completely



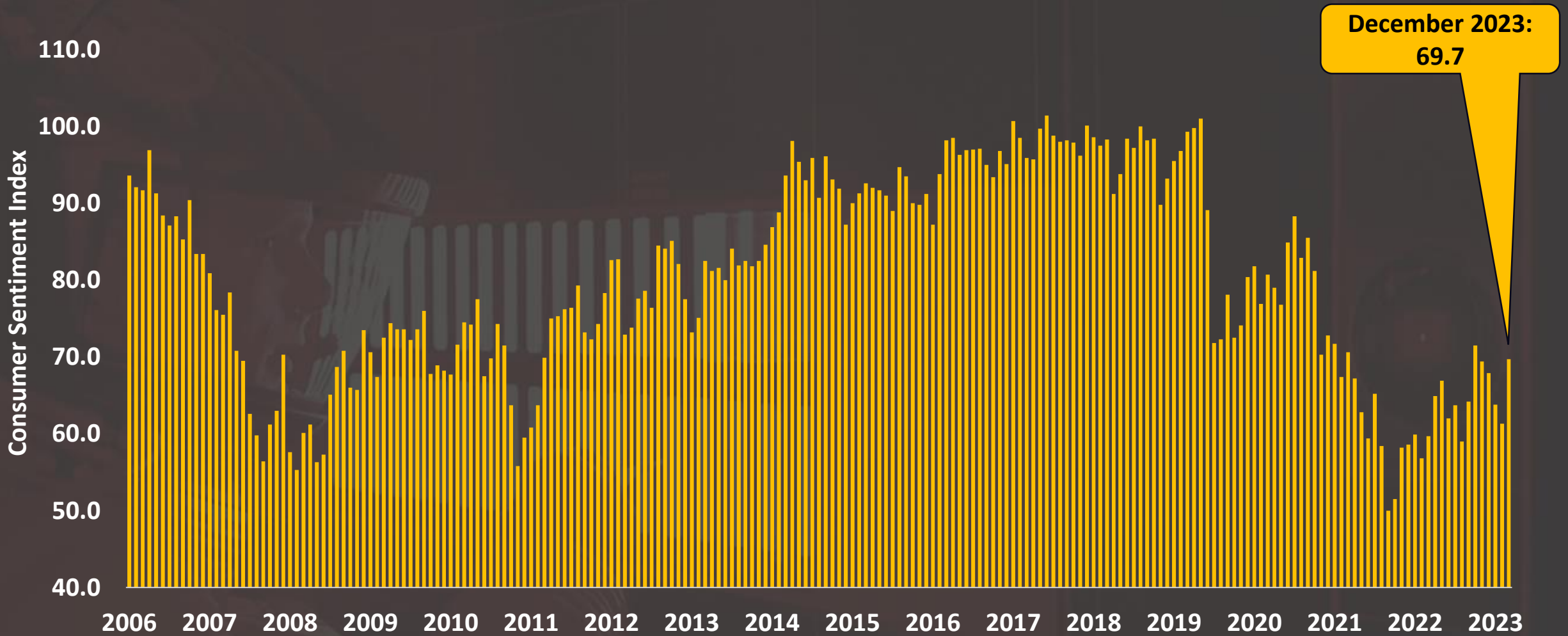
Global Supply Chain Pressures Have Dropped Sharply in 2023



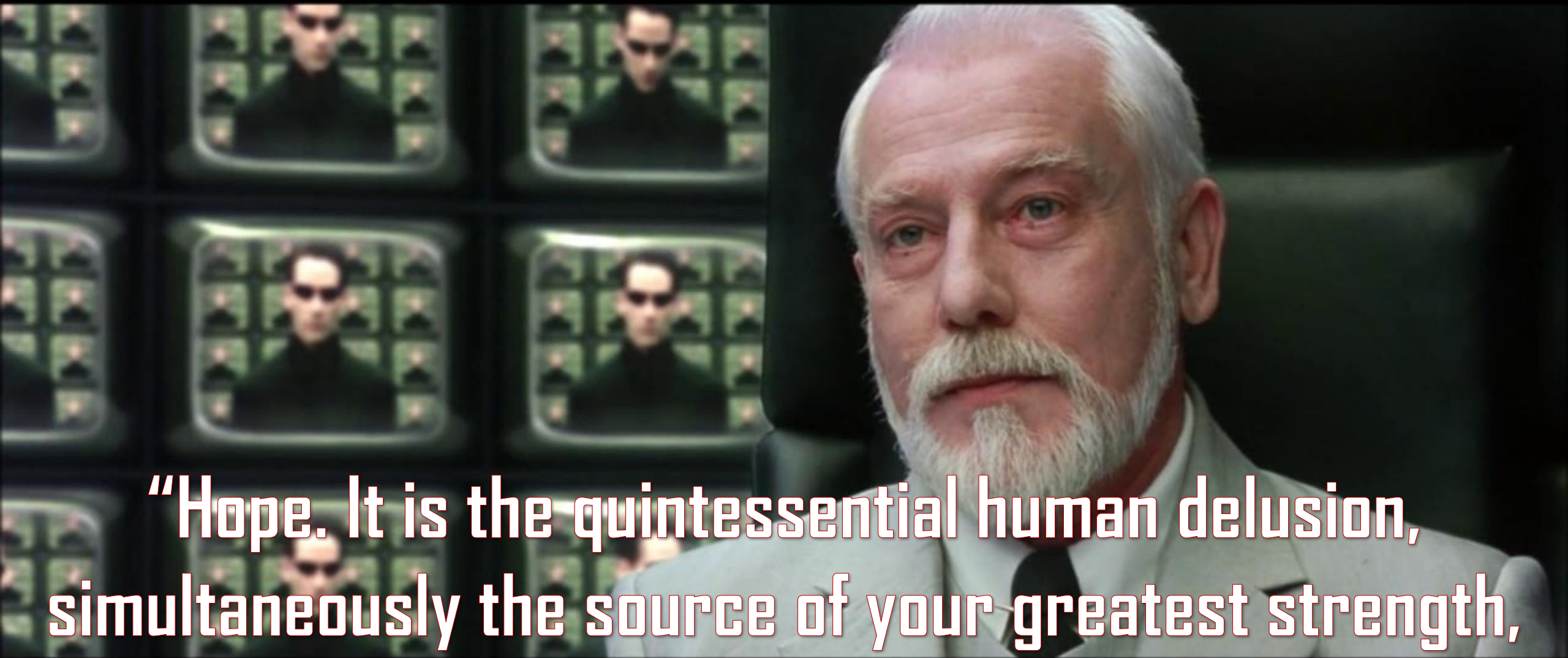
Gasoline Prices Declined After Peaking in 2022



Consumer Sentiment is Low but Rebounded in December



December 2023:
69.7



**“Hope. It is the quintessential human delusion,
simultaneously the source of your greatest strength,
and your greatest weakness.”**

The U.S. is Currently Short up to 6 Million Homes

- According to various estimates, the United States is short anywhere between 2 and 6 million homes.
- This not only drives up home prices and rental rates – it can exacerbate inequality and contribute to climate change through increased use of cars.

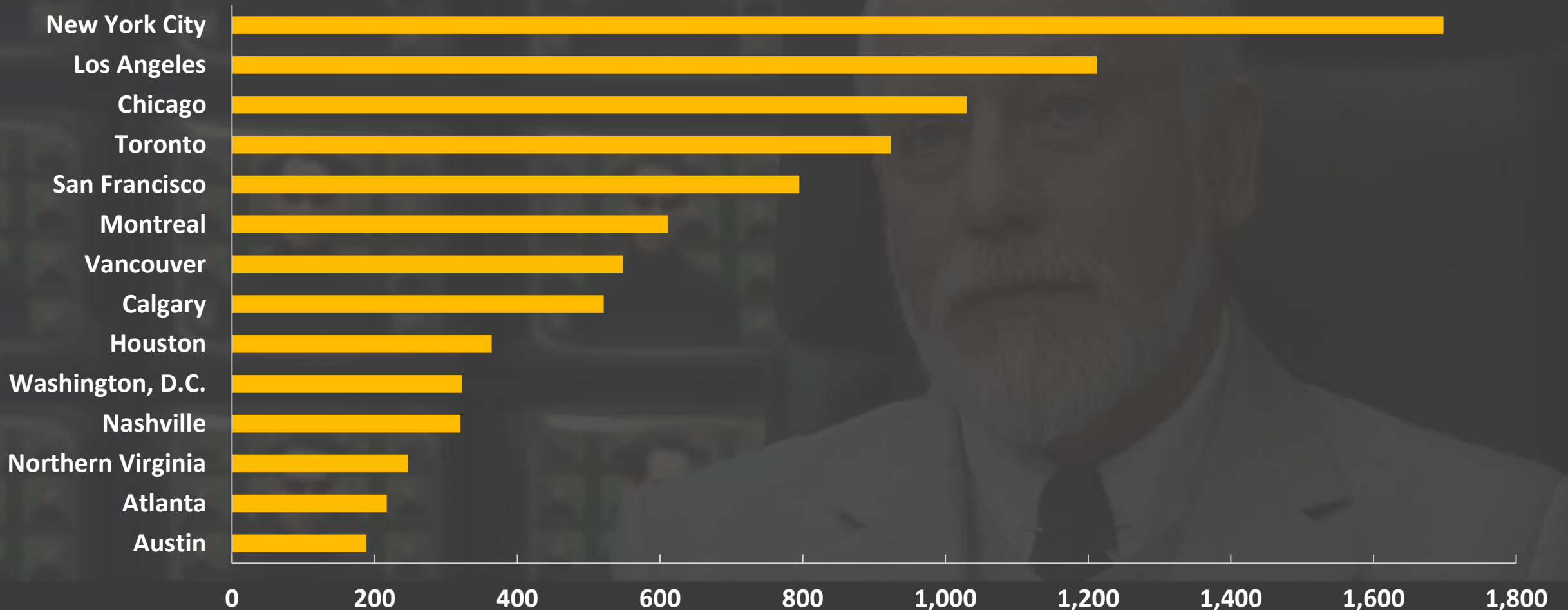


Office Vacancy Rates Continue to Increase



Q4 2023: 19.6
Highest since 1979

Offices Across North American Could be Repurposed into Residential Housing



Estimated Number of Conversion Candidates

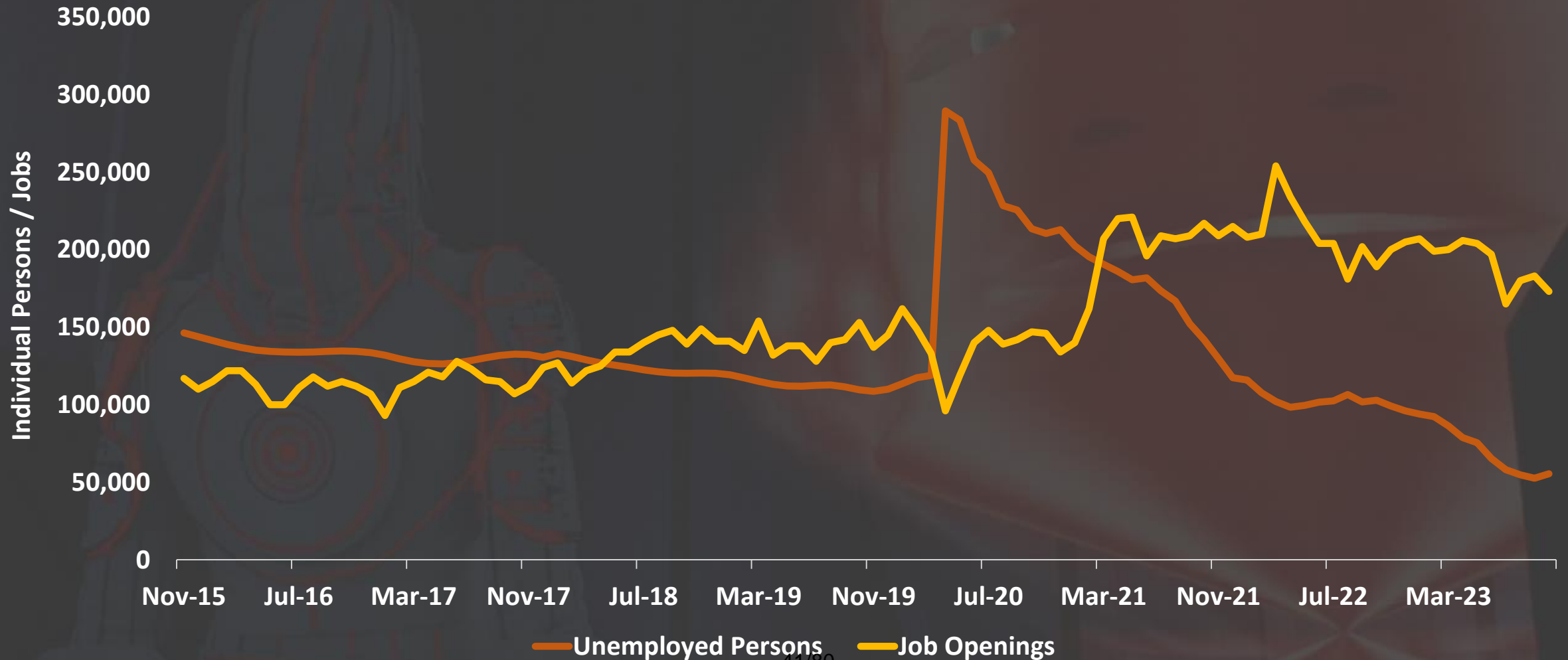


“With the information I can access, I can run things 900 to 1,200 times better than any human.”

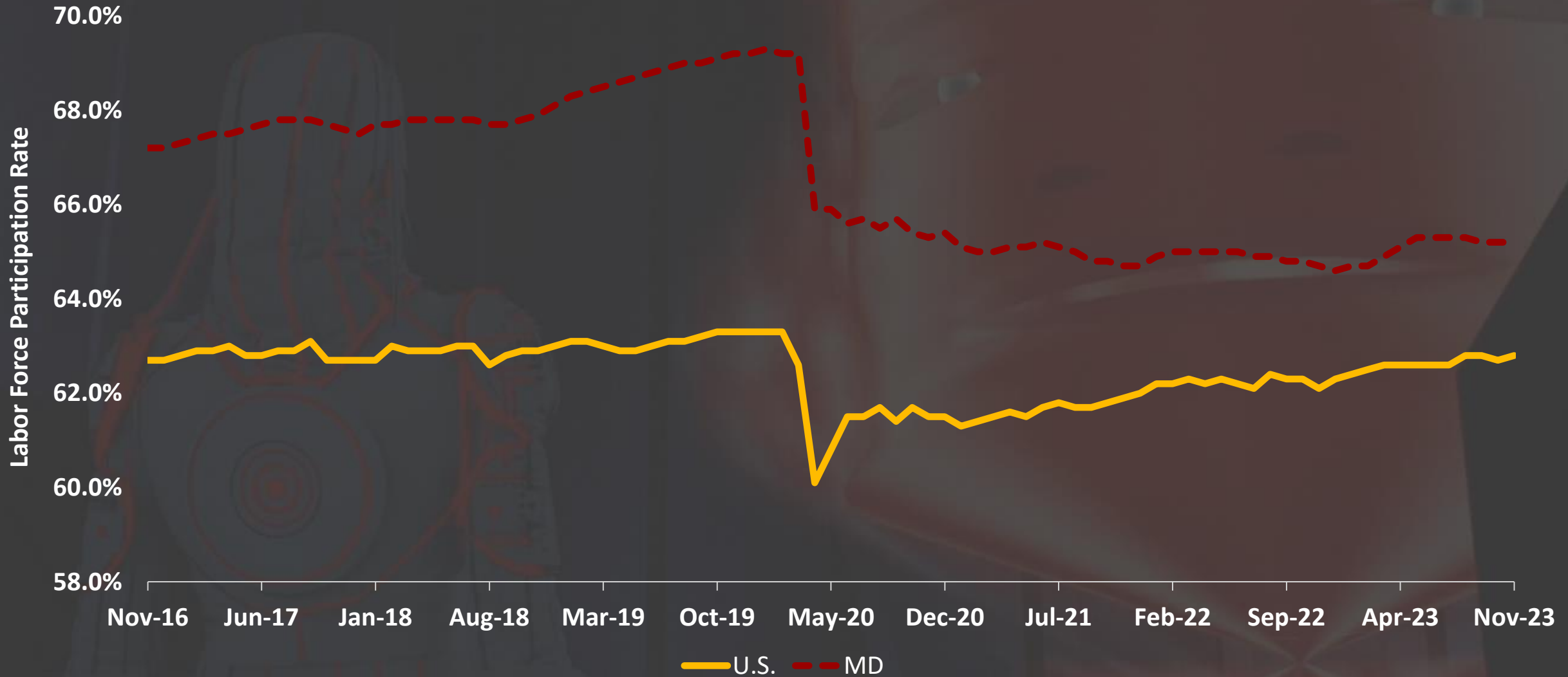
Job Openings Still Outnumber Persons Looking for Work in the U.S.



The Same is True for Jobs in Maryland



Labor Force Participation Overall is Lower Than Pre-Pandemic

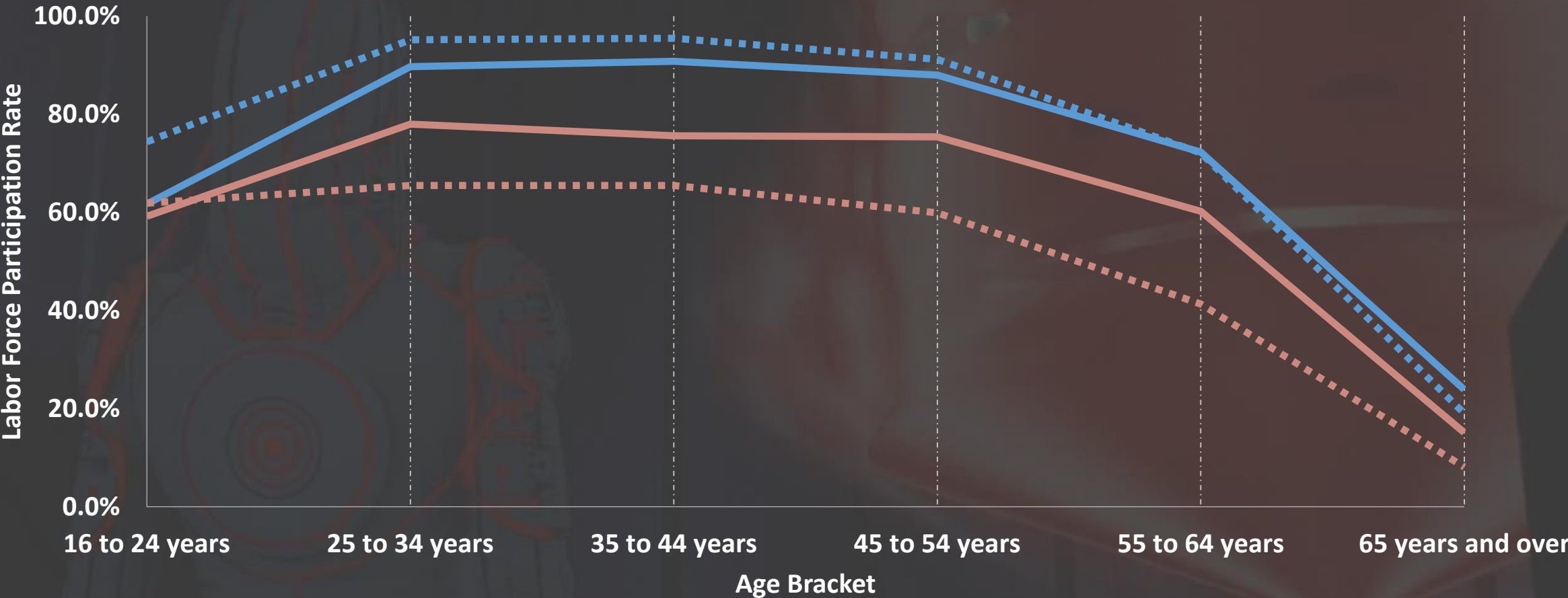


— U.S. — MD

42/80

Source: U.S. Bureau of Labor Statistics

Women Have Increased and Men Have Decreased Labor Force Participation Since 1980



Men 2022 Women 2022 Men 1980 Women 1980

Source: U.S. Bureau of Labor Statistics

A dramatic scene with a figure in flames and a chain. The background is a warm, golden-brown color. On the left, a dark, winged figure is engulfed in bright orange and yellow flames. On the right, a thick, dark metal chain hangs vertically. The overall atmosphere is intense and symbolic.

**“The future has not been written. There is no fate
but what we make for ourselves.”**

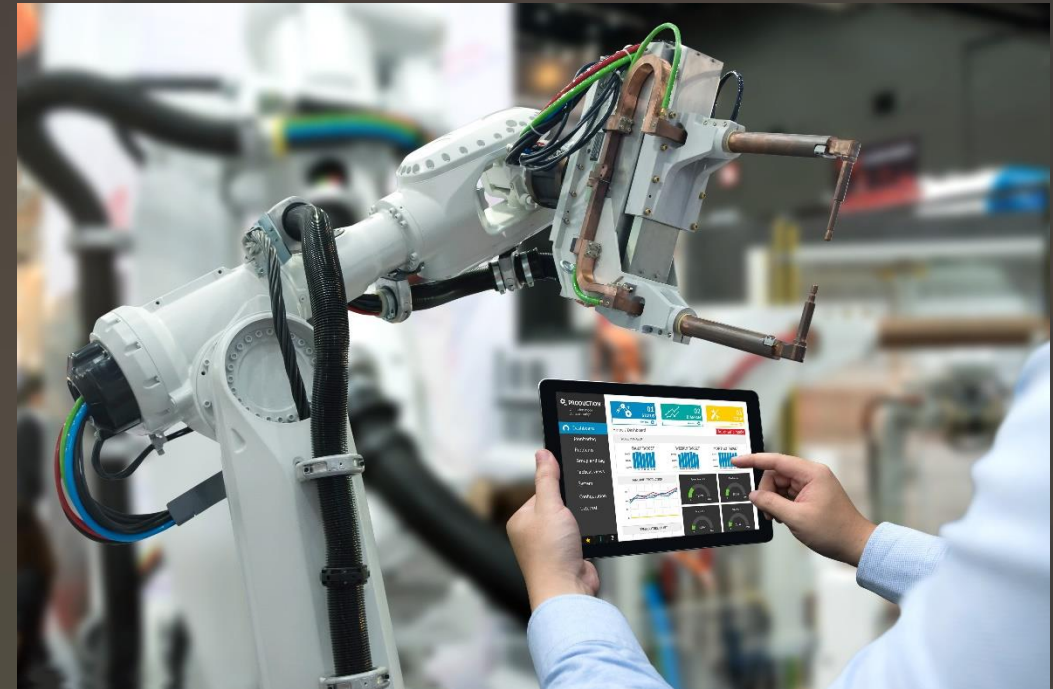
The Potential Effects of A.I. on GDP

- A report from McKinsey Global Institute estimates that generative A.I. could add \$4.4 trillion to the global economy annually.
- Up to 60 to 70 percent of workers' time could be saved through automation, improving productivity

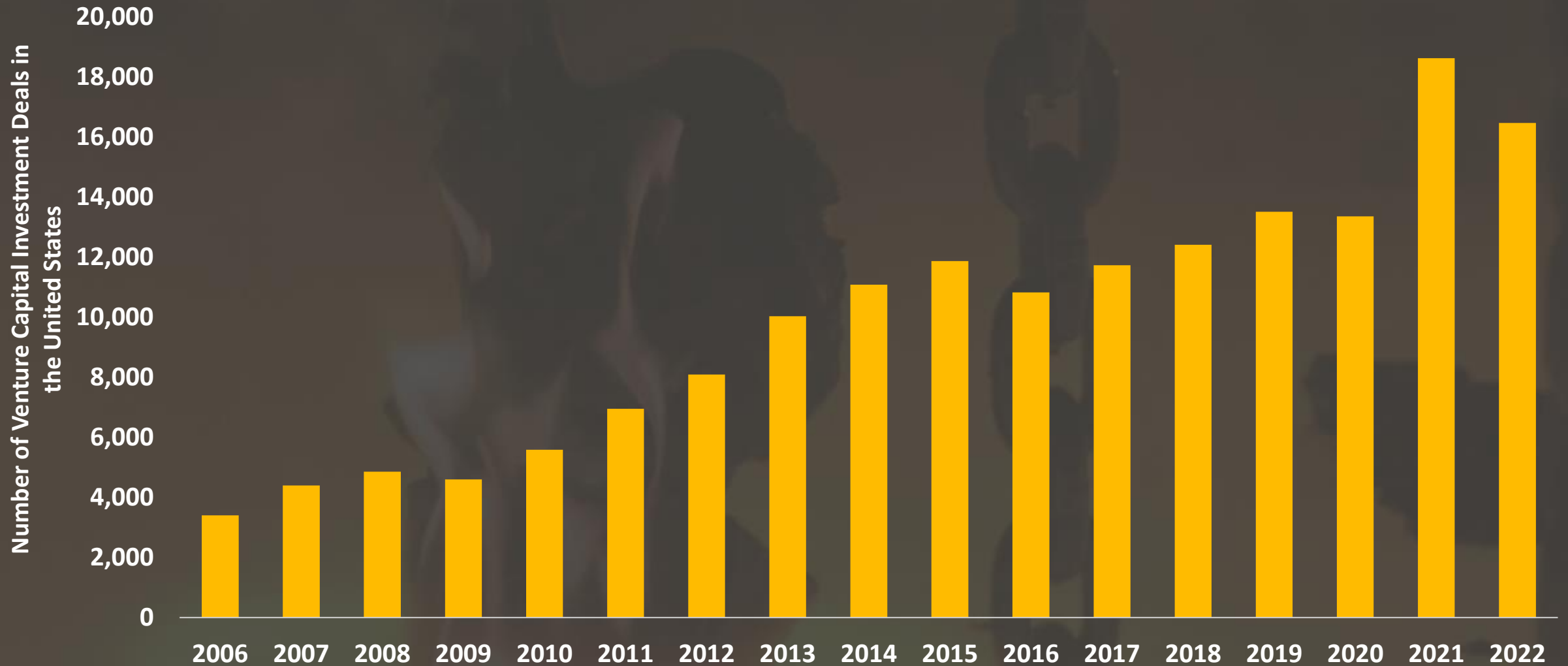


A.I. and Automation Will Displace Jobs but New Jobs Will Take Their Place

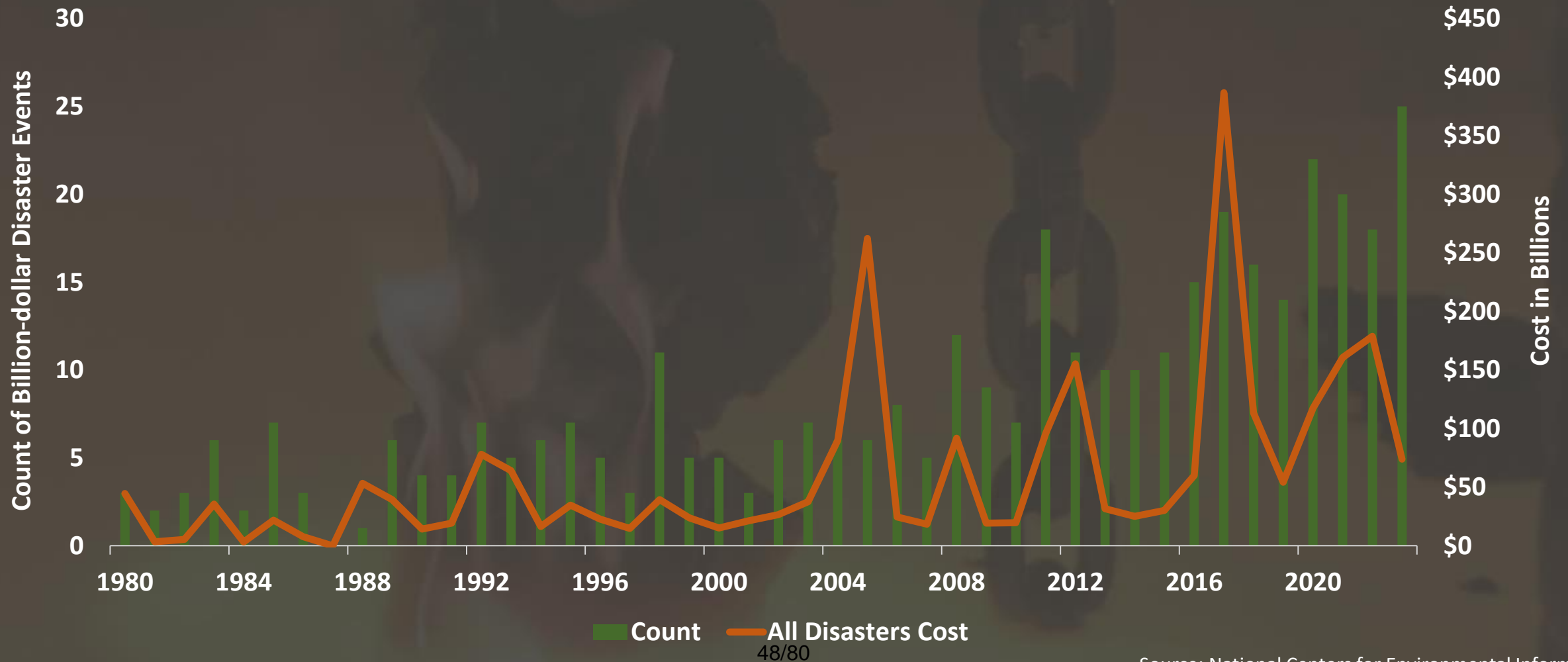
- The World Economic Forum's "Future of Jobs Report 2023" estimated that 83 million jobs are projected to be lost over the next 5 years.
- Over the same period, 69 million jobs are expected to be created.



Venture Capital Deals Decreased in 2022

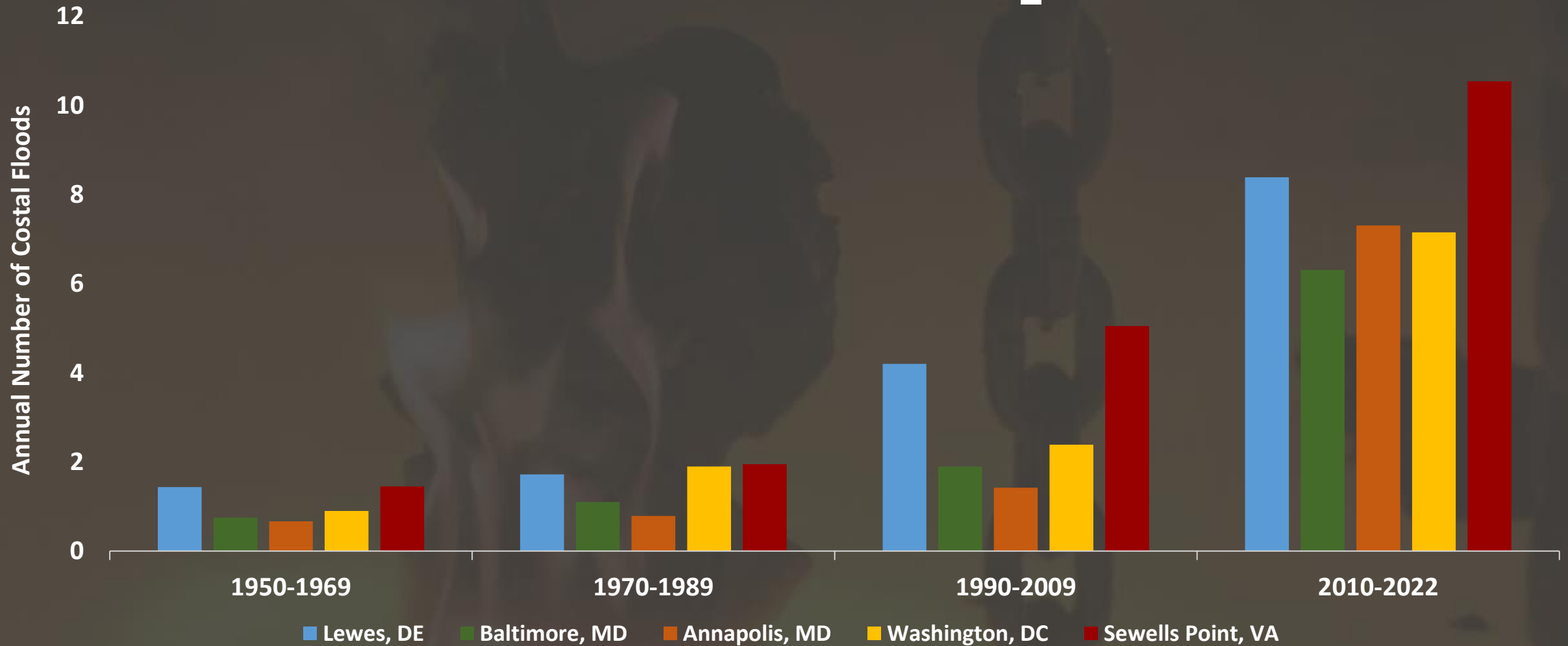


Billion-Dollar Disaster Events are Increasing in Frequency in the U.S.



Source: National Centers for Environmental Information

Coastal Flooding in our Region Has Become More Frequent



What the Future Holds

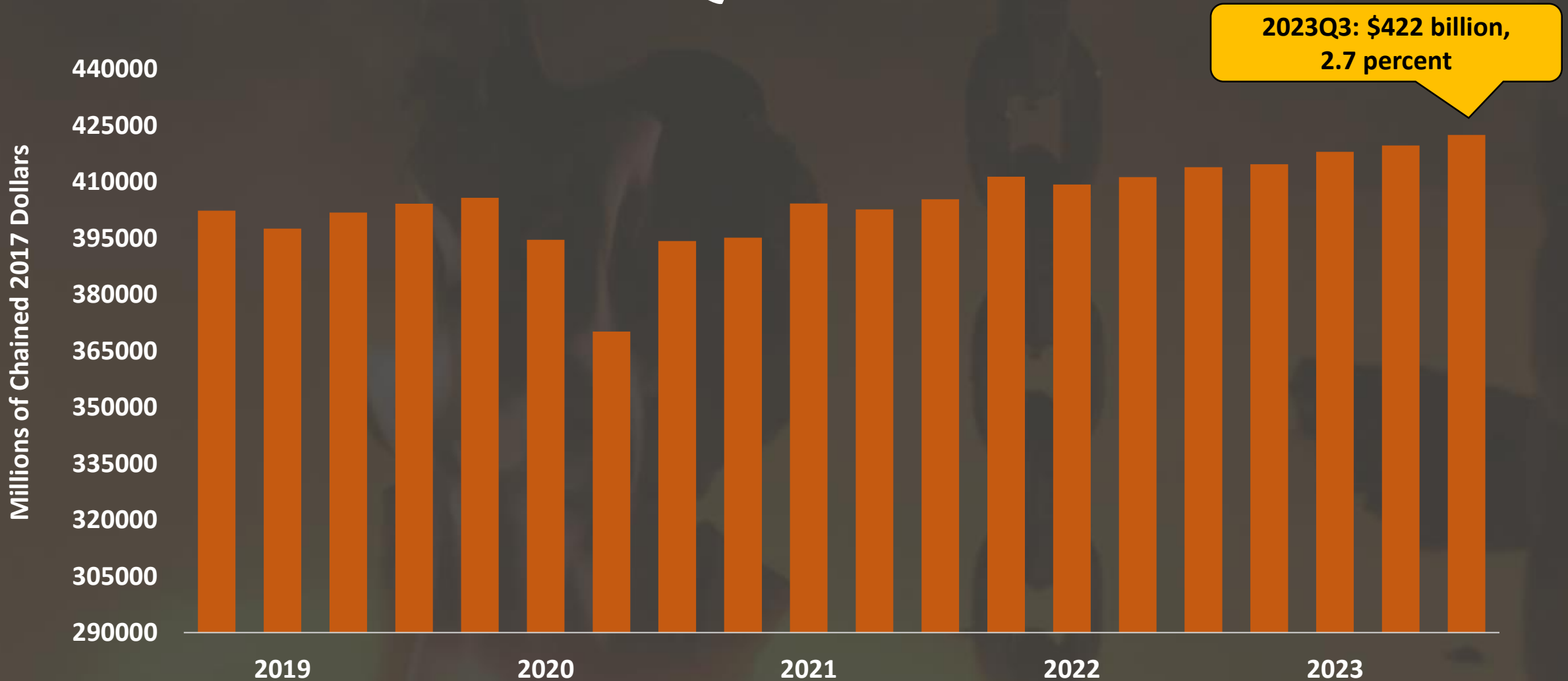
Headwinds

- Continuing War in Ukraine
- Terrorist Attack/Expanding regional conflict Mideast
- Slowing of World Economy
- Rising Interest Rates
- Inflation
- Volatility in Energy Markets
- Banking system
- Divided Congress
- Supply Chain Challenges
- Climate Change impacts-more frequent, more severe

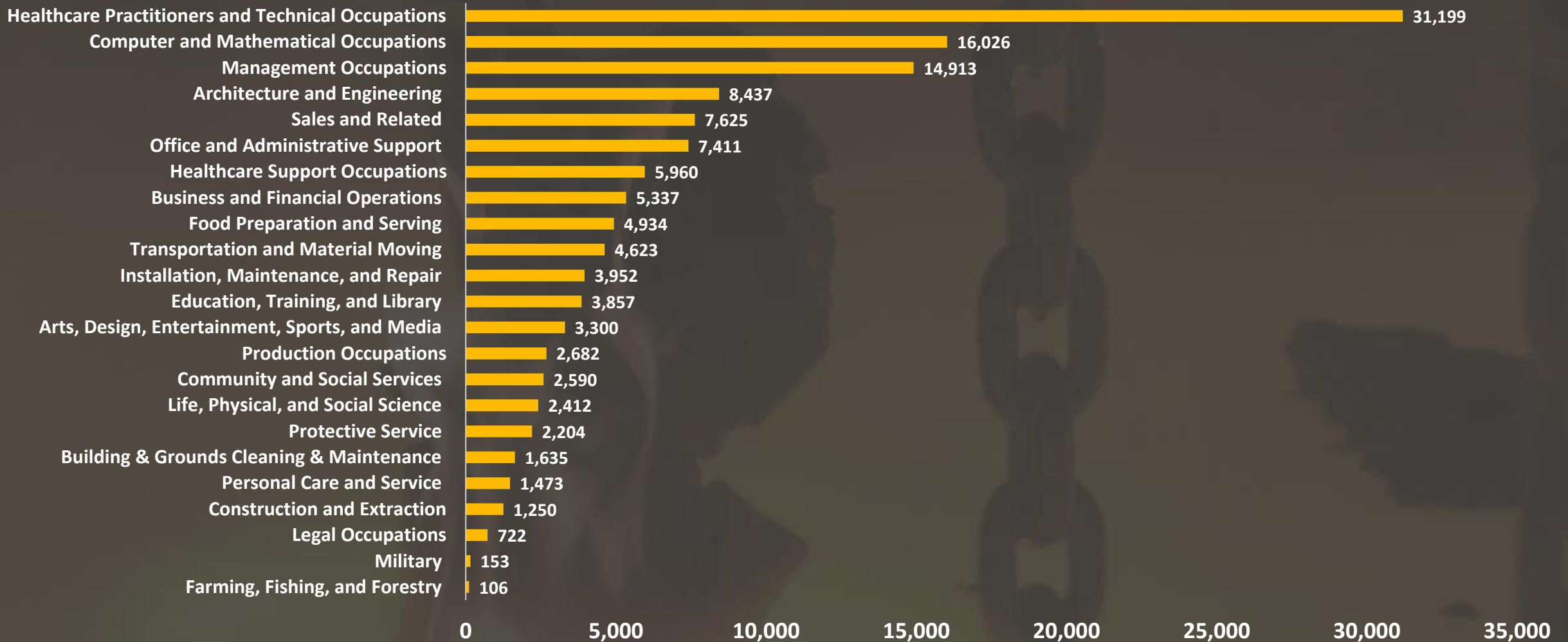
Tailwinds

- Strong Labor Markets
- Softening Home Prices

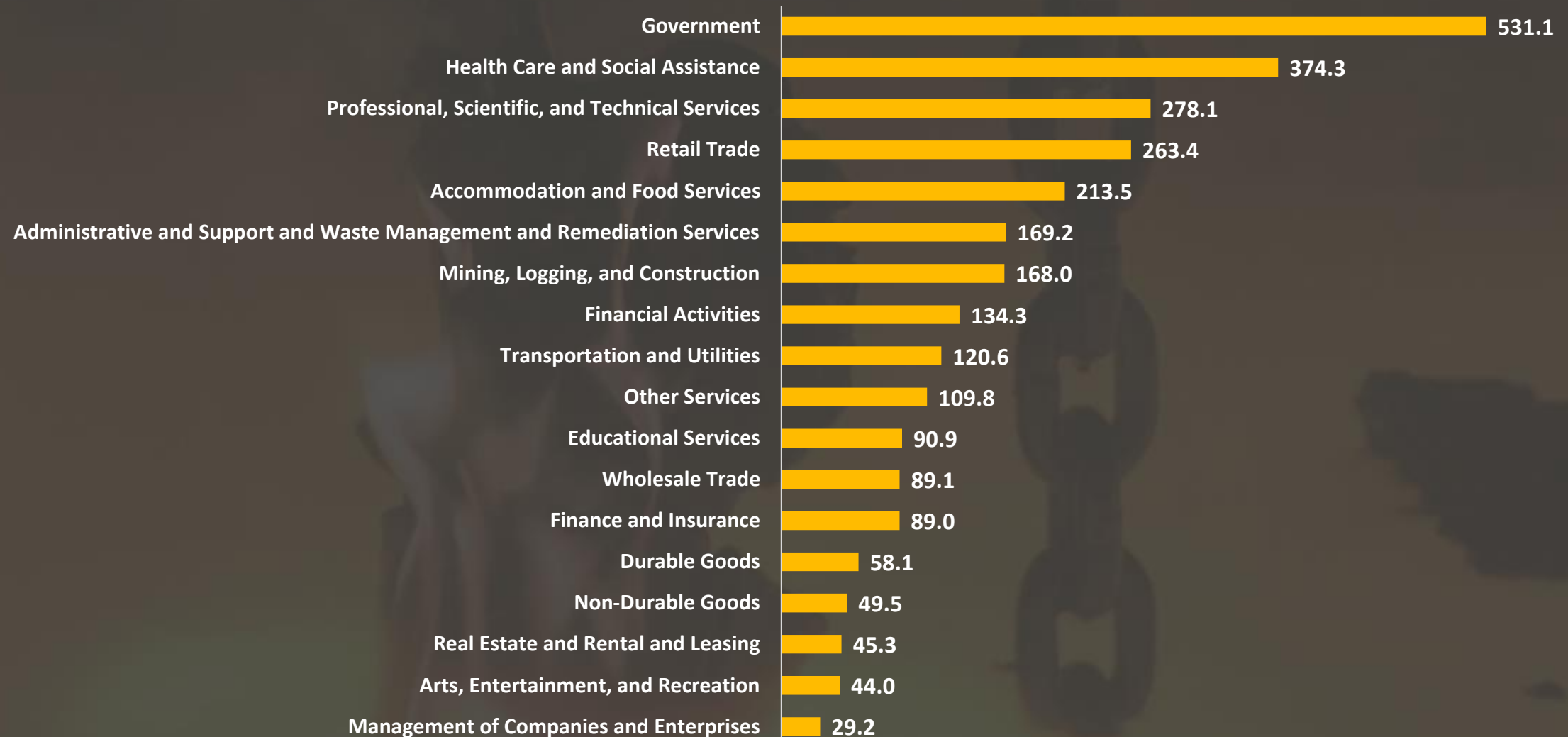
Maryland GDP Grew Consistently in the First Three Quarters of 2023



Healthcare, Computer, and Management Occupations Dominate Openings in Maryland



Government and Healthcare Jobs Have the Largest Current Maryland Employment



Maryland's Economy

- Strong possibility of slowing down as world and national economies impact MD's economy
- Uncertainty around Federal budget
- MD Structural Deficit
- Population decline
- Affordability
- Banking
- Labor shortages continue to plague hospitality and eating establishments in addition to IT, health and transportation

Q&A

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Towson.edu/RESI

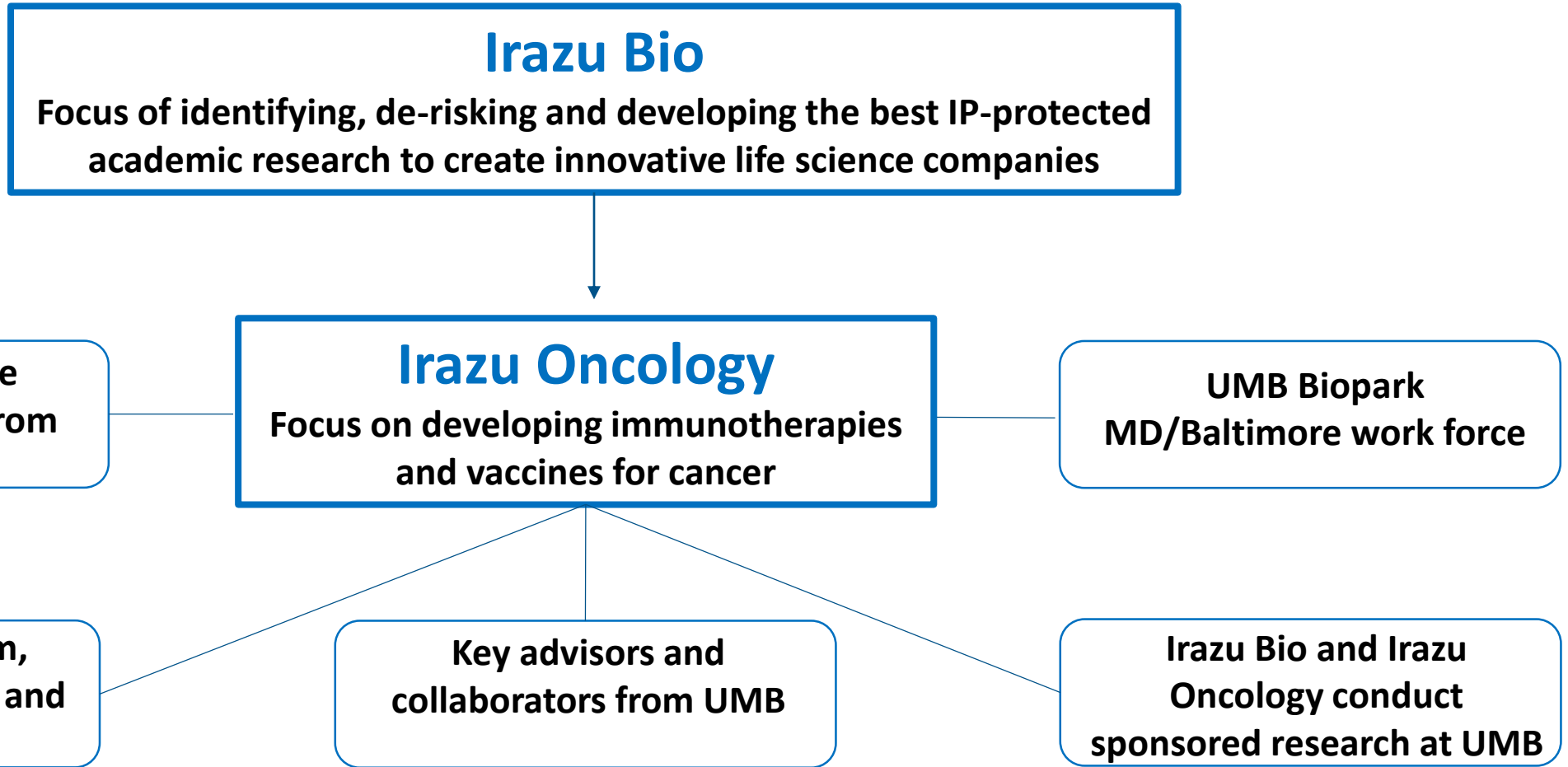


Regional Economic
Studies Institute

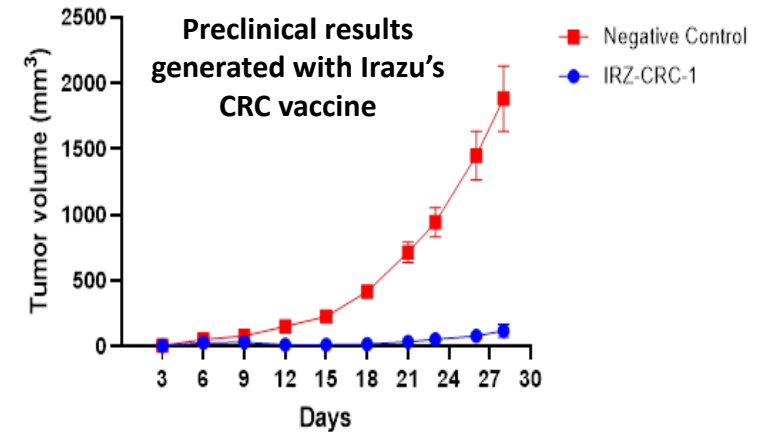
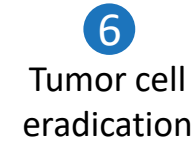
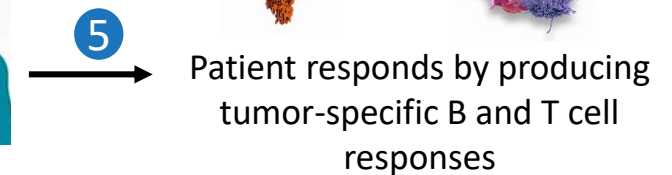
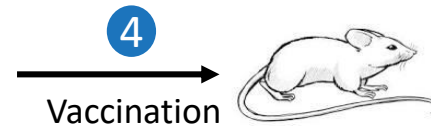
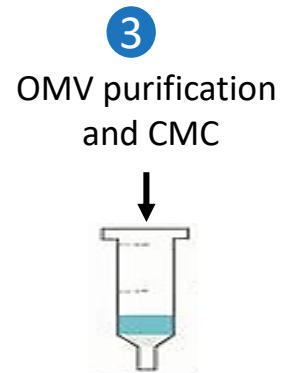
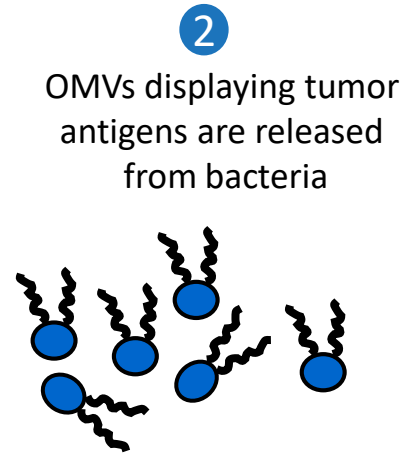
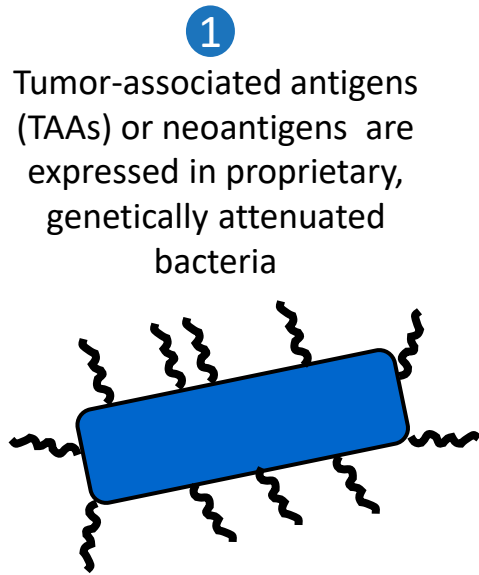
IRAZÚ ONCOLOGY

Developing The Next Generation Of Cancer Vaccines





How Irazu's OMV vaccines work First Vaccine Candidate Targets CRC

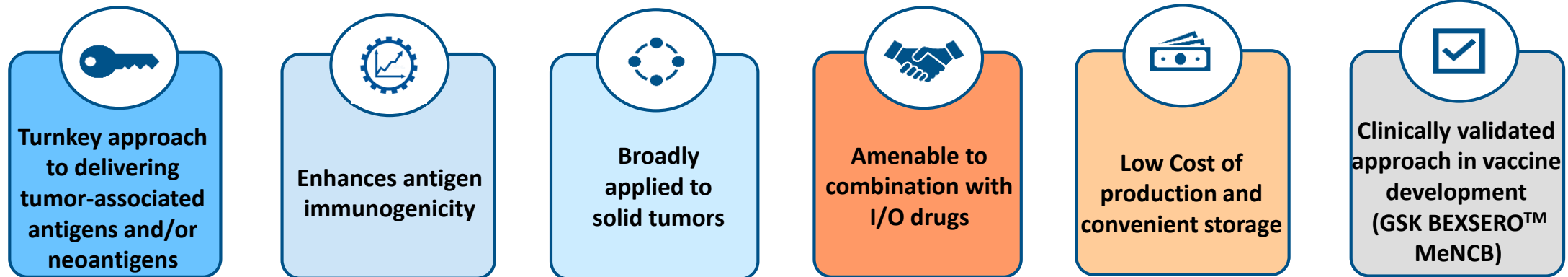


Irazu's proprietary vaccine platform involves commonly-used lab methods and Irazu has extensive experience in scale-up and GMP manufacturing



Highlights of the MVP Technology

Irazu's MVP technology is being developed with the goal of simplifying cancer vaccine development and achieving greater efficacy and clinical success



Versatility – Scalability – Value

Our Partners:



Irazu Oncology – Experienced Board of Directors and Leadership Team - Accomplished Advisors

Board of Directors



Marco Chacon, PhD
Founder, President, Chairman
 Former CEO and Chairman of
 Paragon Biosciences, Inc



Rick Kohr
 Chief Executive Officer of
 Evergreen Advisors, LLC.



Jim Berens
 Chairman and President of
 Wexford Science and Technology

Leadership



Jeff Strovel, PhD
Chief Executive Officer
 Former CEO of VERALOX Therapeutics;
 former CEO and President of ConverGene



Marcio Chedid, PhD
Chief Scientific Officer
 Former Executive Director of Biotechnology
 Discovery at Eli Lilly

Partners /Advisory Board

- **James Galen, PhD** - Professor UMB
- **Robert Ernst, PhD** - Professor and Chair Department of Microbial Pathogenesis in the UMBSOD
- **Caroline Popper, MD, MPH** - CEO of Infinity Bio
- **Aaron Rapoport, MD** - Gary Jobson Professor of Clinical Oncology, Director of the Blood and Marrow Transplant Program at UMMC
- **Nilo Azad, MD** - Director of Developmental Therapeutics Clinical Trials Program at Johns Hopkins University Sidney Kimmel Cancer Center
- **Roman Macaya, PhD, MBA** - Menschel Senior Leadership Fellow at Harvard School of Public Health
- **Paul Boyce, MS** – Sr. Director National Services and Support at Illumina



USM LAUNCH FUND UPDATE



USM LAUNCH FUND UPDATE

- Next round of microgrants for students/faculty will be awarded in February
- Upcoming round of funding for ventures; information coming via Launch Fund website: <https://www.usmd.edu/launch/>
- Early reporting impacts of ~\$250k funding to 16 ventures:
 - 5 awardees reporting a total of > \$400k in additional funding
 - Enabling critical launch milestones, leveraging the USM network and the power of a USM funding process:

“This funding was our lifeline, it enabled essential engineering work and design. Also, it's a vote of confidence in our vision and a springboard for transformative progress.”

“Not only did it help us finalize a critical portion of our strategy, it also freed up capital that has gone to our newest hire!”

“The Launch Fund single handedly provided ... the opportunity to actually pursue our complex and ambitious business model. Their help and network has provided facilitation for a great launch, and provided access we could not have expected otherwise.”

USM LAUNCH FUND

AWARDEE SPOTLIGHT – TRILLEST DOLLHOUSE

- Trillest Dollhouse makes natural hair education available to HBCU students by providing natural haircare products and services.
- **Founding Team:** Led by Lauren Kelly, an undergraduate student at Bowie State University
- **Location:** Baltimore City
- **Use of Funds:** Securing the business' first vehicle and equipment, along with marketing funds for launch.
- **Results:** They had a successful grand opening on December 16!
- **Next Steps:** continue to grow the business



Photo Credit: @cwphotophactory

USM LAUNCH FUND

AWARDEE SPOTLIGHT – TICKER MARKETS

- Ticker Markets is building the next generation of private investments. It allows investors to connect with a community of secondary investors. Investors can create liquidity, and secondary investors have access to opportunities that they otherwise may have missed.
- **Founding Team:** Led by Max Harris and Max Kaufmann, who are undergraduate students at UMCP.
- **Location:** Baltimore City
- **Use of Funds:** Setting up legal back end to fully launch, onboard funds and investors, and facilitate transactions.
- **Results:** They just launched at <https://www.ticker.fund/>
- **Next Steps:** Onboard funds and continue creating marketing partnerships



USM VENTURE DEVELOPMENT AND IMPACTS



USM GENERATES ECONOMIC GROWTH



Top Employer
Attracting & Developing Students, Faculty
Regional Workforce Development



Research & Creative Works
Innovations & Intellectual Property
Venture Formation & Venture Development



Purchasing Power
Community Development
Physical Infrastructure & Equipment

USM GENERATES ECONOMIC GROWTH

Via Venture Formation and Development



Top Employer
Attracting & Developing Students, Faculty
Regional Workforce Development
Internships & Clinics
USM Founders



Research & Creative Works
Innovations & Intellectual Property
Venture Formation & Venture Development
Research & Creative Works
Innovations & Intellectual Property



Purchasing Power
Community Development
Physical Infrastructure & Equipment
Incubators & Parks
Contracts

Venture Formation & Venture Development



The **USM Venture Development Report** tracks the ventures that USM institutions significantly support and how.

Ventures

- For-profit and non-profit startups and some small businesses
- Generally based in Maryland
- “*Spin-outs*” based on university intellectual property and/or with USM founders AND “*Spin-ins*” utilizing university resources without prior ties

Significantly Supported = More than occasional advising, etc.

How Supported = Intellectual Property, Programs, Places, Capital

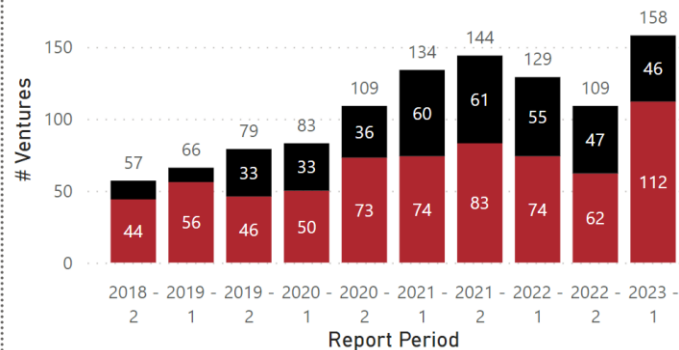
Key Takeaways

- **Growth!** Sources of support for ventures and the scale at which they operate are growing
- Support for **student ventures** (not classroom ventures) is growing
- Support from USM serves the broader Maryland community, with about 40% of ventures supported “**spinning in**”, without a USM Founder or Intellectual Property
- Support for **University Intellectual Property-Based Ventures** is holding steady and receives a great proportion of USM capital

VENTURES SUPPORTED OVER TIME

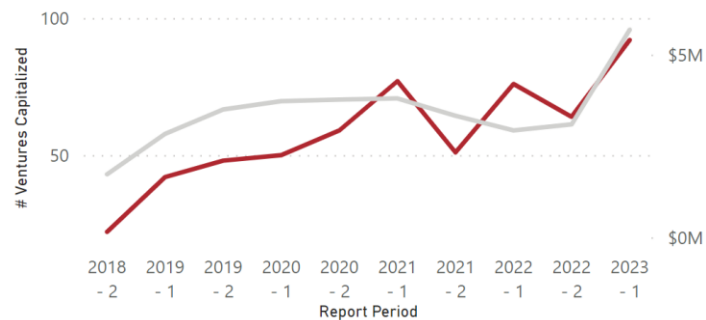
All Ventures

USM Status ● NEW TO USM ● RE-ENGAGED

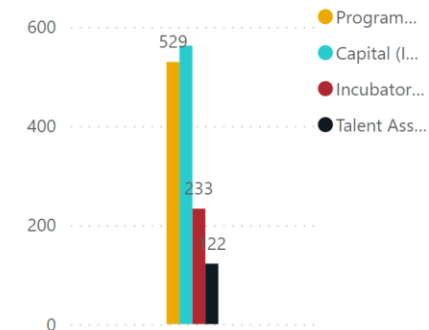


Capital Support

● # Ventures Capitalized ● \$ Capital

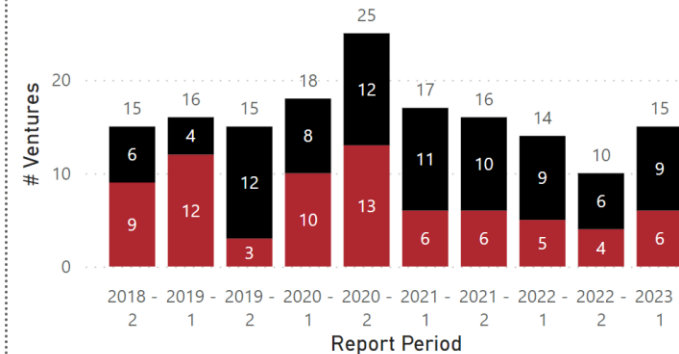


Support by Type and Institution (All-Time)



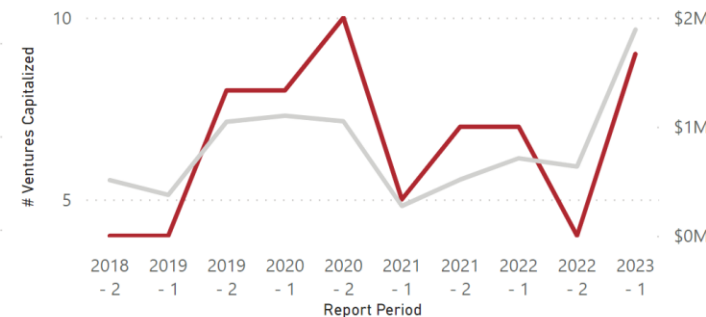
Ventures Based On University Intellectual Property

USM Status ● NEW TO USM ● RE-ENGAGED

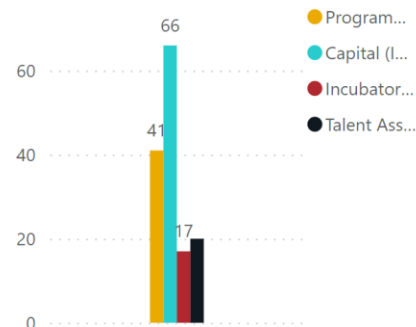


Capital Support

● # Ventures Capitalized ● \$ Capital



Support by Type and Institution (All-Time)



USM SUPPORT FOR VENTURES:



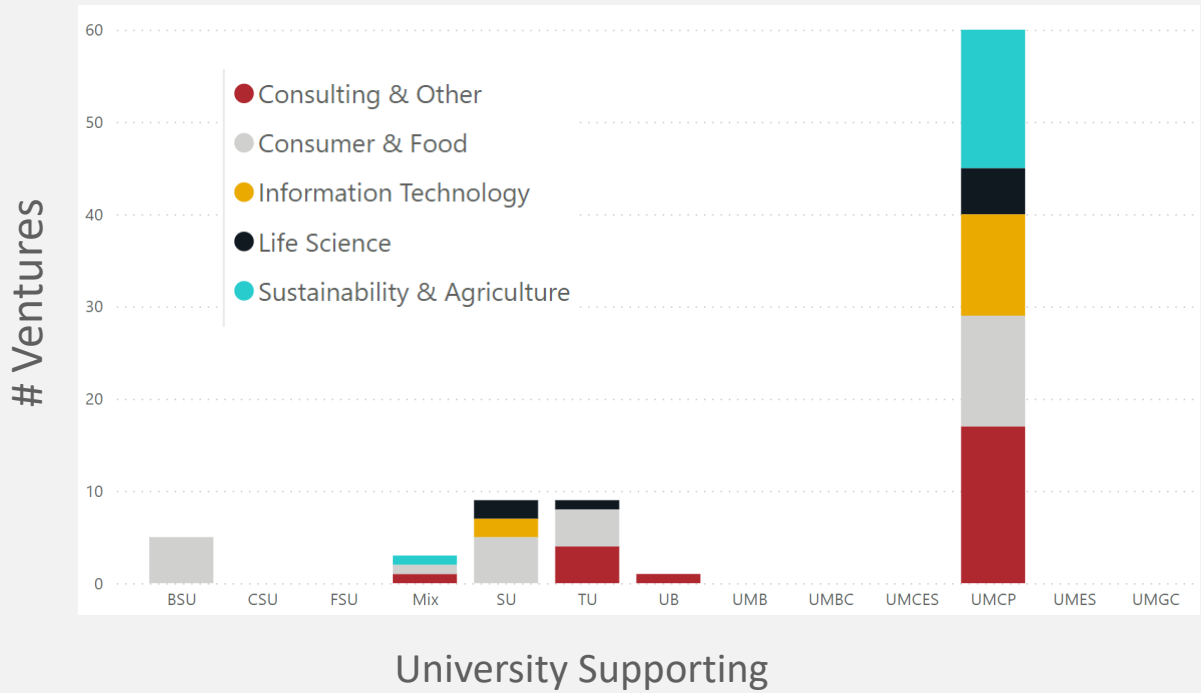
PROGRAMS JANUARY - JULY 2023

87 Ventures

59% *USM Founders*

41% *USM Student Founders*

5% *USM Intellectual Property*



Programs Reporting

- BSU Entrepreneurship Innovation Center, Summer Launch Program
- SU Student Entrepreneurship Competitions, Shore Hatchery
- TU StarTUp Accelerator
- UB RISE Competition
- UMD I-Corps, Blockchain Accelerator, Fearless Founders, Pitch Dingman, Dingman Mentoring, Mokhtarzada Hatchery, Do Good Institute, Maryland Energy Innovation Accelerator (MEIA), Quantum Startup Foundry

USM SUPPORT FOR VENTURES:

SPACES JANUARY - JULY 2023



37
Ventures

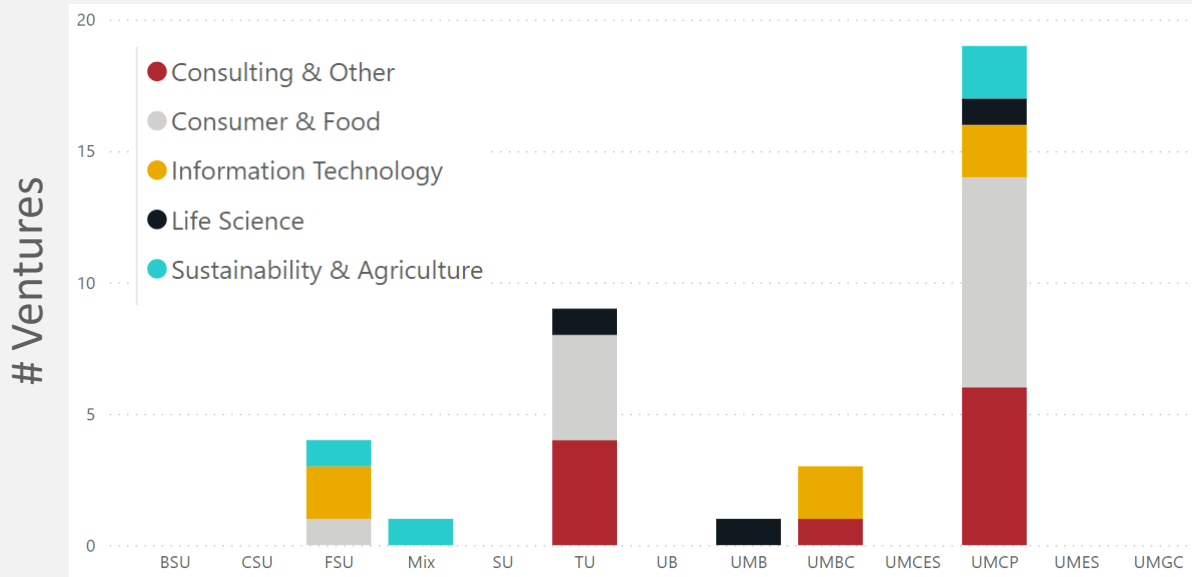
56%
*USM
Founders*

38%
*USM
Student
Founders*

3%
*USM
Intellectual
Property*

Spaces Reporting

- FSU Research District
- TU StarTUp Accelerator and Fund
- UMB BioPark
- bwtech@UMBC
- UMD Discovery District, Mokhtarzada Hatchery, Mtech Ventures Incubator, Startup Shell, Do Good Accelerator



University Supporting

USM SUPPORT FOR VENTURES:

CAPITAL JANUARY - JULY 2023



92
Ventures

59%
USM Founders

42%
USM Student Founders

10%
USM Intellectual Property

\$5.6M USM Capital

Capital Sources Reporting

>~ \$1M

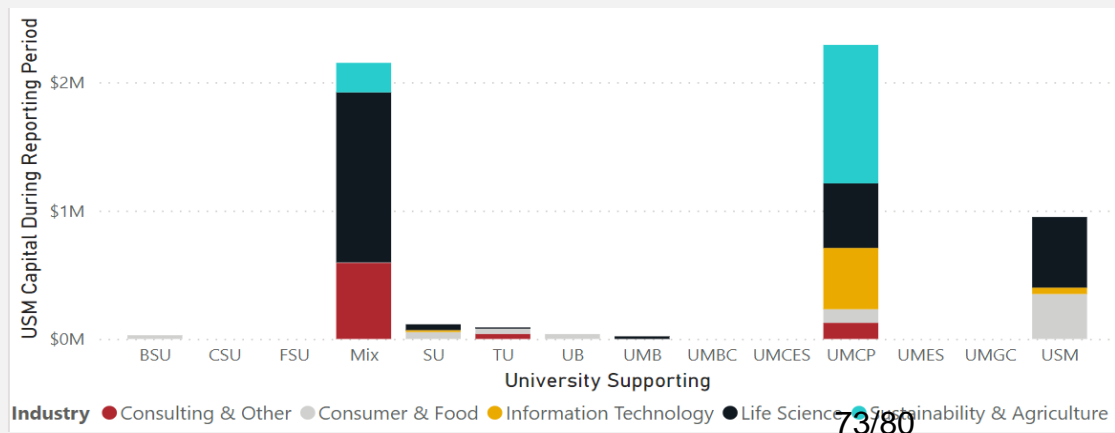
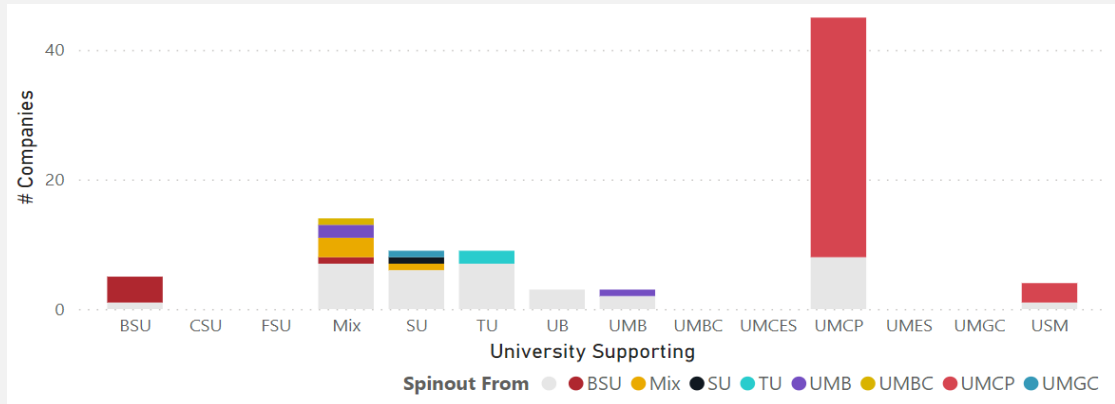
- USM Maryland Momentum Fund
- Maryland Industrial Partnerships (MIPS) Program
- UMD Discovery Fund

>~\$100k

- UMD Chesapeake Bay Seed Capital Fund, Pitch Dingman
- SU Shore Hatchery
- TU StarUp Accelerator and Fund

<~\$50k

- BSU Bulldog Pitch Competition, Summer Launch Program
- SU Student Entrepreneurship Competitions
- UMB Baltimore Fund
- UMD Terp Startup, Dingman E-Fund, Do Good Institute & Accelerator, Mokhtarzada Hatchery
- UB RISE Competition



Convening of USM Funds and major resource center leaders:

1. Increase USM cohesion of USM ecosystem to benefit programs, applicants, recipients
2. Help articulate USM resources hopefully -- *\$10M+ annual funds across 13+ sources!*
3. Strategize to collectively address gaps, enhance resources, and look ahead

UPDATES:

- *First convening held*
- *In-person strategy session in March*

ARTICULATING VENTURE IMPACTS

OVCRED is fostering greater articulation of the **impacts** of venture support

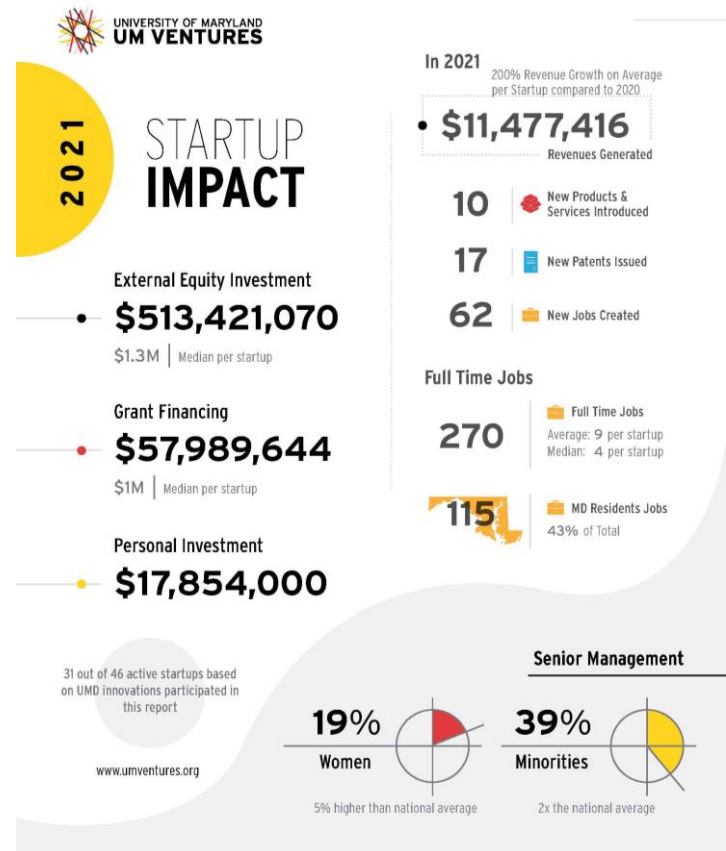
*Example: Follow-On Federal SBIR
Funding for USM Ventures*

Since 2012, at least 75 ventures supported by USM have gone on to receive a total of over **\$100M in federal small business R&D funding (SBIR/STTR)**

- About half are based on USM intellectual property ("spin-outs")
- Of the "spin-ins", ventures are primarily supported via research parks, the I-Corps program, and/or MIPS funding

From public data, we know that about 1/3 of Maryland companies partnering with USM institutions to jointly receive federal STTR funding have received startup support from USM.

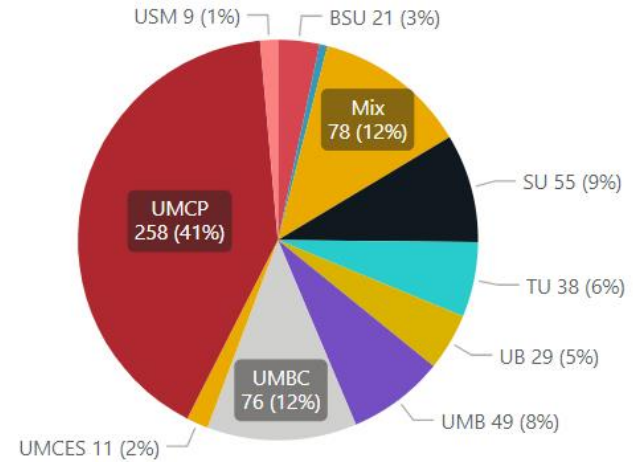
*Example: University of Maryland,
College Park IP-Based Startup Impacts*



APPENDIX: USM VENTURE DEVELOPMENT



Ventures Newly Assisted - By Supporting Institution



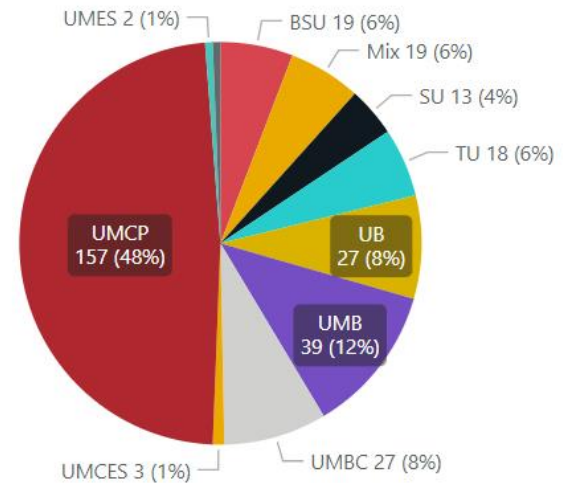
Ventures Newly Supported

June 2018 through
July 2023

563

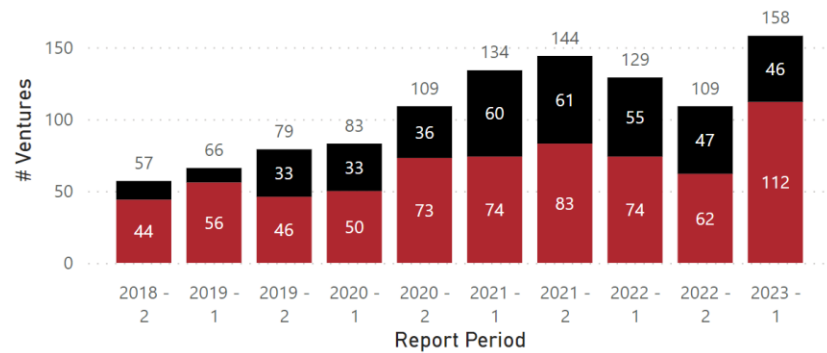
Distinct Ventures

"Spinout" Ventures Newly Assisted - By Spinout Institution

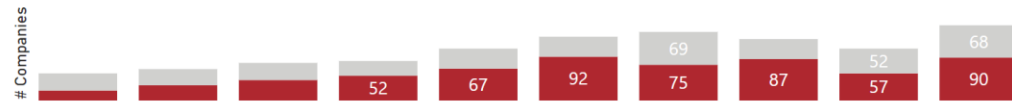


VENTURES SUPPORTED OVER TIME

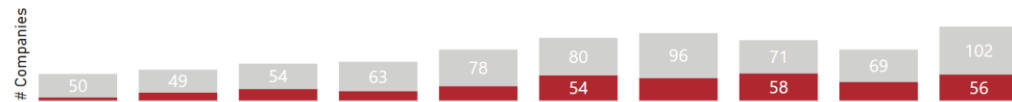
USM Status ● NEW TO USM ● RE-ENGAGED



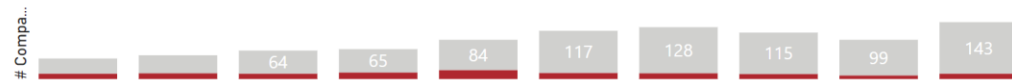
USM Founders (Red)



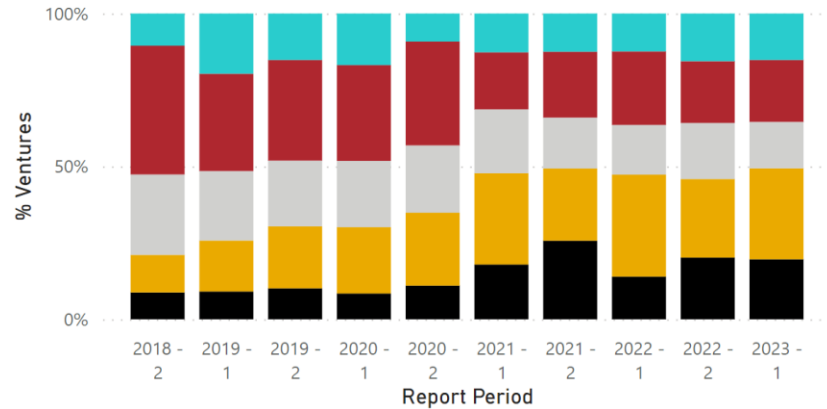
Student Founders (Red)



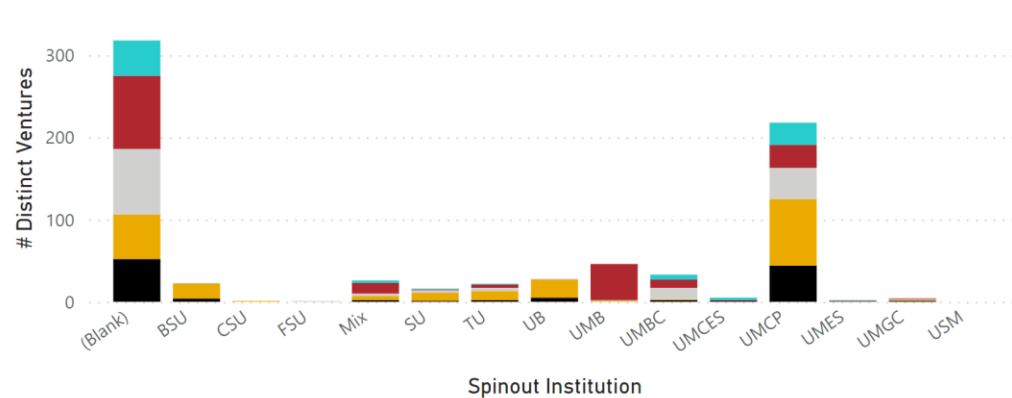
USM IP (Red)



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

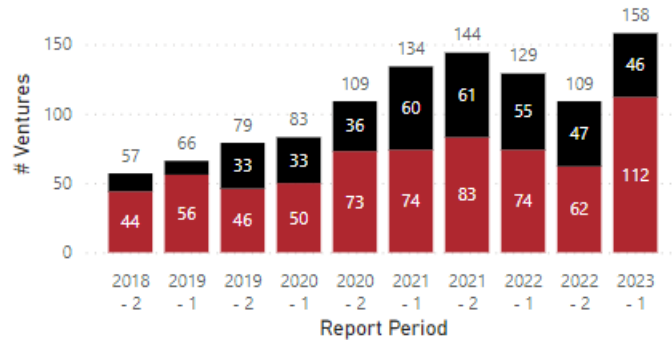


Industry ● Consulting & Other ● Consumer & Food ● Information Technol... ● Life Science ● Sustainability & ...



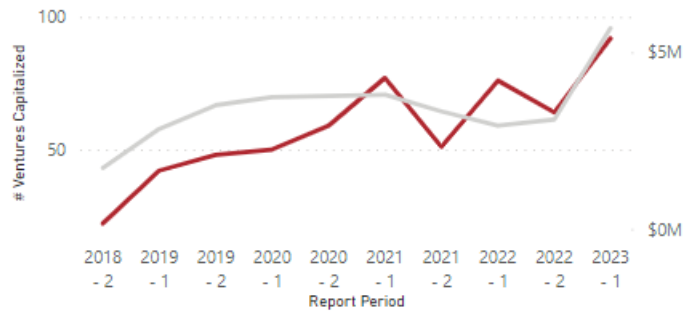
SUPPORT BY TYPE

USM Status ● NEW TO USM ● RE-ENGAGED



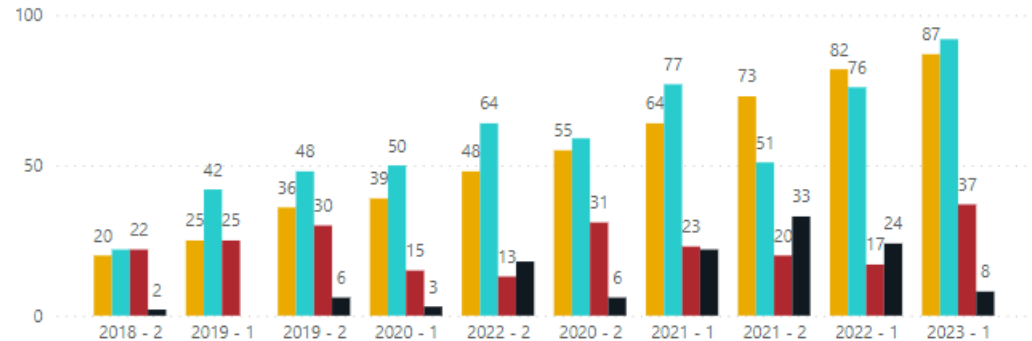
Capital Support

● # Ventures Capitalized ● \$ Capital



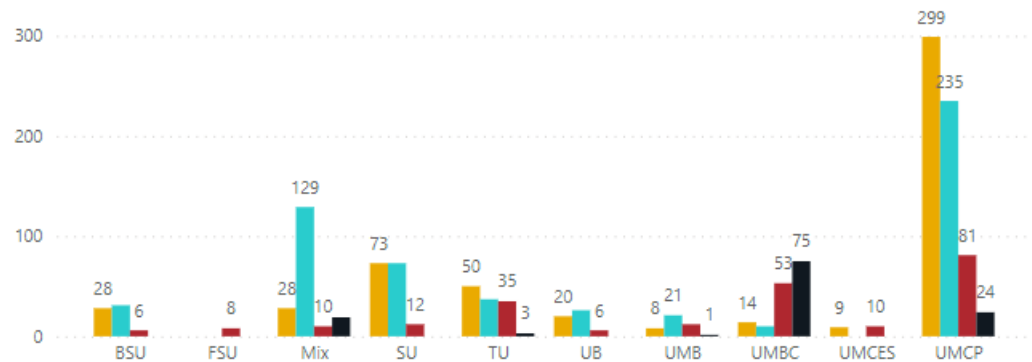
Support by Type

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



Support by Type and Institution (All-Time)

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



Includes the Momentum Fund!

Additional State-Wide Venture Support



Helps Maryland retain top tech talent by increasing the number of paid technical internships offered in the state. Administered by UMBC and funded by the State of Maryland, the program offers financial assistance to technology-based businesses, as well as state and local agencies, to hire more interns (mtip.umbc.edu).

About 30% of startup participants also are USM "spinouts" or "spin-ins".



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.

Companies Assisted Through USM Small Business Development Centers

University ● Frostburg State University (FSU) ● Salisbury University (SU) ● University of Maryland

