

The Economic and Fiscal Impacts of TEDCO: The Linchpin of Maryland's Entrepreneurial Ecosystem

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Executive Summary

The Maryland Technology Development Corporation (TEDCO) commissioned Sage Policy Group, Inc. to estimate the economic and fiscal impacts the organization generates for the State of Maryland. The organization, created by the Maryland General Assembly in 1998, administers dozens of investment funds, grant programs, and advisory initiatives that aid companies at every stage of the entrepreneurial lifecycle. Over the past quarter century, TEDCO has evolved from a source of capital for technology commercialization to a critical component of Maryland's economic infrastructure.

This analysis uses IMPLAN input-output modeling and focuses on fiscal year 2025, in which TEDCO received \$56M from the State of Maryland. Key findings for FY 2025 include the following:

- Statewide economic output was bolstered by more than \$1 billion.
- That output represents more than \$17.00 of economic activity per dollar of FY 2025 State funding.
- TEDCO supported more than \$600 million in value added, an amount equivalent to 2.7 percent of Maryland's 2025 GDP growth.
- TEDCO-supported activity generated nearly \$60 million in State and local tax revenues, composed of \$35.6 million in State revenues and \$24.1 million in local revenues.
- Those revenues exceeded the State's FY 2025 appropriation (\$56 million) for TEDCO, implying a return of more than one dollar in public revenue per dollar appropriated.
- Maryland's local governments do not provide funding to TEDCO, yet the tax revenues they received because of the organization's FY 2025 operations were enough to fund the salaries of 420 new public school teachers.
- TEDCO supported more than 4,000 statewide jobs, and those jobs are collectively associated with \$479 million in annual labor income.

Cumulatively, TEDCO has supported more than 38,000 jobs since its inception. Those jobs are associated with more than \$4.5 billion in labor income and more than \$9.9 billion in economic output.

These estimates are likely conservative. Several benefits are not conducive to input-output modeling and are excluded. For example, models used in this analysis do not account for the fact that TEDCO can increase the odds of transformational company growth. TEDCO's portfolio includes enterprises like Aledade, valued at \$3.5 billion as of 2023, alongside unicorns like Xometry and ShiftMed.

TEDCO's ability to facilitate connections that would otherwise not occur, like those made at the Entrepreneur Expo, can also lead to significant business expansion. These connections, in addition to non-financial support supplied by TEDCO, including advisory hours, proposal training, and portfolio company visibility, are not accounted for in the model but generate real and significant impacts, nonetheless.

These results are especially consequential in light of the economic and fiscal headwinds Maryland now faces:

- Maryland has lost more than 46,000 jobs since December 2024 (through June 2026), and its employment base is roughly the same as in 2019 while the balance of the nation's employment expanded nearly 5 percent.
- New business formation in Maryland has lagged the nation for two decades. Maryland's business establishment base has expanded approximately 35 percent this century, compared with 55 percent growth across the remainder of the nation.
- Maryland entered the 2025 legislative session facing a budget shortfall approaching \$3 billion, with the structural gap projected to exceed \$6 billion by 2030.
- The state's share of patents granted to U.S. inventors has fallen from roughly 1.8 percent in 1992 to approximately 1.3 percent more recently.

These conditions heighten, rather than diminish, the value of TEDCO's work. Federal workforce reductions have displaced precisely the technical workforce from which new technology companies are formed, and TEDCO is the State's principal mechanism for converting that talent into Maryland-based enterprises rather than ceding it to competing states.

Maryland retains the assets of a successful innovation economy: research universities, the nation's largest concentration of federal laboratories, and a highly educated workforce. TEDCO represents a critical mechanism by which those assets can be translated into commercialization, economic growth, and a more substantial tax base.

Introduction

The Maryland Technology Development Corporation (TEDCO) commissioned Sage Policy Group, Inc. (Sage) to estimate the economic and fiscal impacts that the organization generates for the State of Maryland. This report summarizes Sage’s analytical methods, key findings, and major policy implications.

The Maryland General Assembly created TEDCO in 1998. The organization was initially tasked with facilitating the commercialization of public-sector-generated technologies and aiding the growth of tech businesses across the state. Notably, the organization’s role and importance to the State’s economy have expanded considerably since its founding.

As evidenced by the breadth of services currently provided by TEDCO, the organization has evolved from a source of capital for technology commercialization to a connective institution linking entrepreneurs, researchers, investors, universities, government agencies, and other participants in Maryland’s innovation economy.

Today, TEDCO administers dozens of investment funds, grant and advisory programs, and other initiatives targeted toward improving the State’s business ecosystem, providing support for companies at nearly every stage of the entrepreneurial lifecycle from preliminary research to helping established companies grow and remain in-state. As evidenced by the breadth of services currently provided by TEDCO, the organization has evolved from a source of capital for technology commercialization to a connective institution linking entrepreneurs, researchers, investors, universities, government agencies, and other participants in Maryland’s innovation economy.

TEDCO comprises 30+ distinct programs, many of which have their own subprograms. This report endeavors to capture the organization’s holistic impacts, and while each and every aspect of TEDCO’s operations was considered and, to the extent possible, incorporated into the economic impact model used in this analysis, distinct impacts for each program are not presented. A comprehensive accounting of TEDCO’s myriad components can be found in Appendix A of this report.

This report endeavors to estimate the jobs, labor income, economic activity, and tax revenues that are generated by TEDCO’s operations. While the analysis is primarily focused on fiscal year 2025 activities, it also captures the effects of prior-year activities as well as the organization’s historical contributions to Maryland’s economy. Impacts pertaining to TEDCO’s direct operations, the follow-on funding attracted by supported companies, and the enhanced survivability of those companies are explicitly estimated, while benefits stemming from other outcomes that are not readily susceptible to quantitative economic modeling are separately examined.

Methods & Inputs

METHODOLOGY

This analysis endeavors to model impacts that would not occur but for TEDCO. It strives to do so both comprehensively, capturing the myriad ways in which the organization generates benefits, and conservatively, striving to avoid anything that would overestimate impacts.

To quantify economic impacts, this analysis uses IMPLAN economic modeling software and its embodied multipliers to generate estimates of employment, labor income, and output (i.e., economic impacts). Employment impacts are presented in the form of jobs, with one job being the equivalent of one full- or part-time position that exists for one year. Labor income encompasses all forms of employment income including employee compensation (wages and benefits) and proprietor income (earnings of business owners). Output represents the sum of business sales (goods and services) that occur as a result of the modeled activity and can also be referred to as economic activity.

Economic impacts are presented at the direct and secondary level. **Direct** impacts are generated by TEDCO and the entities it funds. **Secondary** impacts can collectively be considered the multiplier effect and can be segmented into two types of impacts: **indirect** and **induced**.

Indirect benefits are generated through the expanded volume of business-to-business transactions that would not occur but for the direct activity. For instance, consider a biomedical research company that buys office equipment from a local vendor using Maryland Stem Cell Research Fund financing. The sale of that office equipment represents indirect output. If that office supply company then uses those revenues to buy inventory from another in-state vendor, that would also be considered an indirect impact.

Induced benefits occur when workers primarily or secondarily supported through the activity under consideration spend their earnings in the local economy. To the extent that expenditures by businesses or consumers take place beyond Maryland's boundaries, they are not captured in this model. Appendix B of this report contains a glossary of economic impact-related terms.

The fiscal impact estimates included in this analysis were produced using multiple methods. Income tax estimates, for instance, were generated by applying effective tax rates calculated using data from the Office of the Maryland Comptroller. Note that labor income estimates in this report include benefits and other forms of compensation. Parameters sourced from the U.S. Census Bureau and U.S. Bureau of Labor Statistics (BLS) are used to scale those estimates to reflect only taxable income.

Other fiscal impact estimates were implicitly generated within the IMPLAN model, which incorporates community-specific tax rates.

Finally, note that this analysis assumes that TEDCO-supported companies are more likely to survive in their early years than those that do not receive TEDCO support. That effect leads to larger impacts in out years due to the ongoing operations of companies that would have failed were it not for TEDCO's prior-year activities. Accordingly, impacts related to prior-year TEDCO operations are carried forward in time only to the extent that those companies would have failed were it not for TEDCO's support.

The Information sector, which captures many of the tech-related companies supported by TEDCO, has the highest ten-year failure rate of any BLS-tracked sector at 71 percent. This highlights the critical importance of both TEDCO's support and the need for a model to account for enhanced survivability.

This analysis uses conservative parameters derived from a broad review of data on the enhanced survivability of companies that receive venture capital to model this survivorship premium. The Bureau of Labor Statistics' Business Employment Dynamics data, which was also used to assess and scale these parameters, supplies key insights. For instance, the Information sector, which captures many of the tech-related companies supported by TEDCO, has the highest ten-year failure rate of any BLS-tracked sector at 71 percent. This highlights the critical importance of both TEDCO's support and the need for a model to account for enhanced survivability.

Notably, these parameters are designed to account for the inherent effects of selection bias on survivability (i.e., companies supported by TEDCO are selected based on their promise and are therefore more likely to succeed even absent TEDCO's support). In recognition, it is assumed that companies are a mere 2 percent more likely to survive in the year immediately following receipt of TEDCO's support. That premium rises to 8 percent by the fifth year after receiving TEDCO support and decays to 0 percent by year 12.

INPUTS

TEDCO OPERATIONS

Inputs used in this analysis were derived from TEDCO's detailed budgetary information. There were also targeted data requests as well as conversations with both TEDCO officials and leaders at associated companies. The Sage study team also used historical data from the Office of the Maryland Comptroller.

In FY 2025, TEDCO's budgeted operating expenses totaled approximately \$65 million. The majority of those expenditures were grants and awards (more than \$49 million). TEDCO derives revenues from multiple sources and expenditures are not directly equivalent to State funding. For instance, the FY 2025 legislative appropriation covered a bit less than 90 percent of TEDCO's budgeted expenditures for that year. TEDCO's general and administrative expenditures represent approximately 8 percent of spending.

Exhibit 1: TEDCO FY 2025 Budgeted Expenditures by Program/Function

Program (or Function)	FY 2025 Expenditures
Stem Cell	\$20,500,000
Maryland Equity Investment Fund	\$9,609,313
Social Impact Funds	\$8,250,000
Maryland Innovation Initiative	\$6,100,000
Equitech	\$5,000,000
Seed Funds	\$3,400,000
Executive Management	\$3,043,438
Federal Engagements	\$2,529,838
Marketing	\$2,019,180
Maryland Venture Fund	\$1,091,636
Makerspace	\$1,000,000
Venture Development	\$859,413
Rural Business Innovation Initiative	\$640,000
Cyber MD	\$539,000
SSBI 2.0	\$323,206
Urban Business Innovation Initiative	\$180,000
DefTech	\$100,000
Total	\$65,185,025

Source: TEDCO

Exhibit 2: TEDCO FY 2025 Budgeted Expenditures by Category

	Operating	Programmatic	Total
Program Operational Costs	-	\$2,821,973	\$2,821,973
Auditing & Accounting	\$115,000	-	\$115,000
Contractual Fees	\$220,000	-	\$220,000
Contractual Fees Rollup	-	\$1,966,366	\$1,966,366
Events, Sponsorships & Outreach	-	\$92,300	\$92,300
Grant Expenditures/Awards	-	\$49,238,368	\$49,238,368
Indirect Salaries & Benefits	\$2,796,619	-	\$2,796,619
IT & Web	\$462,000	\$136,550	\$598,550
Legal Fees	\$230,000	\$469,697	\$699,697
Meetings, Travel & Related	\$134,000	\$169,534	\$303,534
Office Expenses	\$156,140	\$58,533	\$214,673
Office Rent	\$36,000	-	\$36,000
Other Expenses	\$44,000	\$279,000	\$323,000
Salaries & Benefits	-	\$4,742,496	\$4,742,496
Sponsorships, Events & Outreach	\$798,860	-	\$798,860
Subcontractors Rollup	-	\$147,590	\$147,590
Training & Development	\$70,000	-	\$70,000
Total Operating Expenses	\$5,062,619	\$60,122,407	\$65,185,025

Source: TEDCO

Critically, the data mentioned above represent TEDCO’s *budgeted* expenditures which, in some cases, do not directly align with inputs used in this analysis. For instance, the Maryland Defense Technology Commercialization Center (DefTech) received a grant of approximately \$585,000 from the U.S. Department of Defense Office of Local Defense and Community Cooperation in December 2024. There can also be delays between when expenditures are budgeted and when those funds are deployed as capital. To enhance granularity, this model uses capital allocations by source and fiscal year as inputs.

FOLLOW-ON FUNDING

TEDCO enables Maryland-based companies to attract massive amounts of capital to the state. It accomplishes this less as a one-time grantor and more as a de-risking partner, utilizing early, non-dilutive or small equity investments to make companies more credible to outside capital. Certain programs, like the Maryland Innovation Initiative and various investment funds, provide validation along with grants and executive support that help university spinouts and early-stage founders to clear the pre-seed and seed “gap” that often stalls promising innovations.

In FY 2025 alone, TEDCO-supported companies attracted nearly \$630 million in follow-on funding. Active Maryland Venture Fund portfolio companies attracted \$320 million in follow-on funding in FY 2025, while Life Science Investment Fund portfolio companies attracted another \$102 million. Maryland Innovation Initiative (MII) portfolio companies attracted more than \$27 million in follow-on funding in FY 2025, bringing the MII total to approximately \$570 million since FY 2013, the vast

Theradaptive Exemplifies Follow-On Funding Potential

Theradaptive, a Frederick-based company that develops bioactive implants that stimulate the body's own tissue regeneration, received a \$300,000 commercialization grant from the Maryland Stem Cell Research Fund (MSCRF) in 2018. That modest investment spurred the company to massive growth, and it has since attracted more than \$50 million in follow-on funding.

Theradaptive subsequently received a \$1 million manufacturing assistance grant from the MSCRF in 2024, funding that helped the company establish critical manufacturing infrastructure needed to support its clinical trials.

Theradaptive's rapid growth and successful and ongoing commercialization efforts exemplify TEDCO's promise: early funding that gives promising companies the runway they need to attract substantial private capital and subsequent support that helps maintain the kind of growth that creates jobs for Marylanders, tax revenues for the state and its local governments, and technologies with the potential to change lives.

majority of which comes from sophisticated technology investors like angels and venture capitalists.

Funding for the type of nascent, start-up companies typically supported by TEDCO is primarily used for labor. This analysis presumes that exactly one third of all follow-on funding is allocated toward compensation. Another 12 percent is allocated toward capital expenditures, while 10 percent is allocated toward marketing.

This analysis assumes that 55 percent of all follow-on funding received by TEDCO-supported companies is spent in Maryland. Note that this is likely an overly conservative assumption, and one that has been made in an effort to ensure that impacts are not overstated.

Economic & Fiscal Impacts

FY 2025 ECONOMIC IMPACTS

Once multiplier effects are considered, TEDCO supported more than 4,000 jobs in FY 2025. Those jobs were associated with approximately \$479 million in labor income. Statewide economic output was bolstered by more than \$1 billion because of TEDCO's operations. This equates to more than \$17.00 of economic activity per \$1 of State funding in FY 2025 and more than \$600 million of value added, an amount equivalent to more than 2.7 percent of Maryland's 2025 GDP growth.

Exhibit 3: FY 2025 Economic Impacts

	Jobs	Labor Income (Millions \$2026)	Economic Output (Millions \$2026)
<i>Statewide Impacts from All TEDCO Sources</i>			
Direct effects	1,841	\$316.5	\$576.1
Indirect effects	1,113	\$92.4	\$256.6
Induced effects	1,074	\$70.1	\$215.4
Total	4,027	\$479.0	\$1,048.2

Source: Sage, IMPLAN

*Totals may not add due to rounding

These impacts stem from three distinct sources:

1. The support, funding, and other activities performed by TEDCO during FY 2025 (Operational Impacts).
2. Attributable follow-on funding attracted in FY 2025 (Follow-on Funding Impacts).
3. The activities of companies that would not have been operational in FY 2025 if not for prior TEDCO support (Survivability Premium Impacts).

While approximately half of the jobs TEDCO supports are in science and technology-related industries, the organization supports at least 10 jobs in 64 distinct industry sectors, including several that do not require four-year college degrees.

Detailed impacts by source are presented below. The operational impact category can be viewed as the narrowest of the three and captures only the benefits that would not occur had TEDCO not operated in FY 2025. For instance, the Social Impact Funds deployed \$5.4 million of capital during the fiscal year. Like all supported TEDCO operations, those dollars were used to create jobs and expand the statewide economy. The point is that those jobs and associated economic activity and fiscal impact would not exist without that deployment.

Importantly, the narrow and immediate nature of the operational impacts does not imply that the other two sources of impact are not directly attributable to TEDCO. Rather, impacts related to follow-on funding and survivability are often attributable to prior year TEDCO operations.

For instance, consider a TEDCO portfolio company that attracts follow-on funding in FY 2025. That follow-on funding could have been made possible by TEDCO support or grants that were made in FY 2024. Ultimately, this analysis accounts for follow-on funding in the year during which it was attracted, not the year in which the specific company was initially—or most recently—supported by TEDCO.

Statewide economic output was bolstered by more than \$1 billion because of TEDCO's operations. This equates to more than \$17.00 of economic activity per \$1 of State funding in FY 2025 and more than \$600 million of value added, an amount equivalent to more than 2.7 percent of Maryland's 2025 GDP growth.

It is also important to note that the operational impacts, while smaller than the other two sources, are what enable those other two sources to exist in future years. Put another way, TEDCO's FY 2025 operations will continue to support economic activity that otherwise would not occur in future years.

Exhibit 4: Detailed FY 2025 Economic Impacts

	Jobs	Labor Income (Millions \$2026)	Economic Output (Millions \$2026)
<i>Operational Impacts</i>			
Direct effects	293	\$33.2	\$80.9
Indirect effects	153	\$12.2	\$33.1
Induced effects	157	\$10.2	\$31.5
Total	602	\$55.6	\$145.5
<i>Follow-on Funding Impacts</i>			
Direct effects	1,114	\$208.6	\$359.3
Indirect effects	698	\$58.4	\$163.0
Induced effects	664	\$43.3	\$133.1
Total	2,475	\$310.4	\$655.4
<i>Survivability Premium Impacts</i>			
Direct effects	434	\$74.7	\$135.9
Indirect effects	262	\$21.8	\$60.5
Induced effects	253	\$16.5	\$50.8
Total	950	\$113.0	\$247.2

Source: Sage, IMPLAN

*Totals may not add due to rounding

FY 2025 FISCAL IMPACTS

TEDCO-supported activity generated nearly \$60 million in tax revenues for State government and Maryland's counties and municipalities. Local government revenues were bolstered by an estimated \$24.1 million, with those revenues fairly evenly distributed between income and property taxes.

Exhibit 5: FY 2025 Fiscal Impacts (Thousands \$2026)

	Tax Revenues
Local Governments	
Income	\$10,452.8
Real & Personal Property	\$13,643.2
Total	\$24,096.0
State Government	
Income	\$17,087.4
Sales	\$12,571.6
Corporate Profits	\$4,893.8
Real Property	\$1,070.8
Total	\$35,623.6
State & Local Government	
Total	\$59,719.6

Source: Sage

*Totals may not add due to rounding

At the State level, income tax revenues represented nearly half of TEDCO's \$35.6 million contribution. These impacts are also broken down into the same three sources as mentioned above in the economic impacts section of this report: Operational, Follow-on Funding, and Survivability Premium impacts.

Exhibit 6: Detailed FY 2025 Fiscal Impacts (Thousands \$2026)

	Operational Impacts	Follow-on Funding Impacts	Survivability Premium Impacts
Local Governments			
Income	\$1,214.0	\$6,773.3	\$2,465.5
Real & Personal Property	\$1,816.5	\$8,608.7	\$3,218.1
Total	\$3,030.4	\$15,382.0	\$5,683.6
State Government			
Income	\$1,984.5	\$11,072.4	\$4,030.5
Sales	\$1,673.8	\$7,932.5	\$2,965.3
Corporate Profits	\$614.1	\$3,125.4	\$1,154.3
Real Property	\$142.6	\$675.7	\$252.6
Total	\$4,415.0	\$22,806.0	\$8,402.7
State & Local Government			
Total	\$7,445.4	\$38,188.0	\$14,086.3

Source: Sage

*Totals may not add due to rounding

HISTORICAL ECONOMIC IMPACTS

Since its inception, TEDCO has supported more than 38,000 jobs (recall that a “job,” in this context, is a full- or part-time position that exists for one year). Those jobs have been associated with more than \$4.5 billion in labor income. In total, TEDCO has bolstered the statewide economy by more than \$9.9 billion.

Exhibit 7: Economic Impacts Over Time

Fiscal Year	Jobs	Labor Income (Millions of Current Dollars)	Economic Output (Millions of Current Dollars)
Prior to 2011	5,814	\$691.5	\$1,513.0
2011	1,019	\$121.2	\$265.1
2012	1,193	\$142.0	\$310.6
2013	1,416	\$168.4	\$368.5
2014	1,468	\$174.6	\$382.0
2015	1,532	\$182.2	\$398.7
2016	1,962	\$233.4	\$510.7
2017	2,018	\$240.0	\$525.1
2018	2,036	\$242.2	\$529.9
2019	2,068	\$246.0	\$538.3
2020	2,917	\$346.9	\$759.1
2021	2,079	\$247.2	\$541.0
2022	2,202	\$261.9	\$573.0
2023	2,320	\$275.9	\$603.8
2024	3,972	\$472.4	\$1,033.7
2025	4,027	\$479.0	\$1,048.2
Total	38,042	\$4,524.9	\$9,900.7

Source: Sage

*Totals may not add due to rounding

Impacts Not Captured in This Analysis

While this analysis endeavors to quantify as much of TEDCO's impact as possible, certain aspects of the organization's operations are not conducive to input-output modeling. This section of the report provides a qualitative overview of those difficult-to-measure sources of impact.

THE POTENTIAL FOR TRANSFORMATIONAL GROWTH

Perhaps the most significant impact of TEDCO that is inherently difficult to model is the possibility that its support enables the creation of a transformational company. While most early-stage companies remain relatively small, with many ultimately failing, a select few achieve extraordinary growth. These private companies that attain billion-dollar valuations, commonly referred to as "unicorns," are rare, but the economic implications of producing even one can be enormous.

Ion Storage Systems Exemplifies TEDCO's Potential for Growth

Ion Storage Systems, a battery company that is rapidly approaching commercialization, received two investments totaling \$3.5 million from TEDCO. The company, which currently employs more than 70 people at its 33,000 square foot facility in Beltsville, has attracted over \$40 million in private venture capital.

Jorge Diaz Schneider, Ion's CEO, credits TEDCO with providing not only investment capital but also other forms of support: "TEDCO has been supportive through investment, but also through all of the different additional benefits that come through a partnership like that," Diaz Schneider said. "Connectivity to investors, connectivity to state representatives...they've distinctively supported us on two different stages of development."

Because there is significant variance in the outcomes of early-stage technology companies, the potential for producing a unicorn company is particularly relevant to an organization like TEDCO. Small investments and other forms of support supplied at a critical stage in a company's development can help validate a technology, attract a key employee or additional private capital, or simply enable survival so that the company can achieve commercial success.

Consider, for instance, Aledade, a healthcare technology company headquartered in Bethesda. TEDCO's Maryland Venture Fund invested \$1.5 million in Aledade in 2016. By 2023, Aledade was valued at \$3.5 billion. This unicorn has more than 1,600 employees and leases nearly 20,000 square feet of office space in Montgomery County.

Xometry, a publicly traded marketplace for on-demand manufacturing services, and ShiftMed, which built a platform that helps address healthcare worker shortages, are two

additional unicorns that received early funding and support from TEDCO. The benefits of even one such company are massive and extend beyond just economic and fiscal impacts typically associated with business activity.

Unicorns recruit highly skilled workers to the state, and those workers can in turn become investors, mentors, and entrepreneurs. More broadly, a unicorn's presence enhances the state's innovation ecosystem, generating impacts that exceed what can be captured by ordinarily assumed multiplier effects. Consequently, the economic impacts presented in this report are likely conservative due to the exclusion of this potentially significant source of benefit.

TEDCO'S ENTREPRENEUR EXPO

TEDCO's Entrepreneur Expo, an annual event that brings entrepreneurs, investors, innovators, and other relevant entities together for a day-long conference, has the potential to massively benefit Maryland's economic and fiscal health. Many of those impacts, however, are nearly impossible to quantify. While this analysis does capture the economic and fiscal effects of the direct expenditures involved in running the Expo—those related to venue rentals, vendor expenses, and other event-related costs—it does not endeavor to model the benefits stemming from network effects.

A founder meeting an investor, an inventor finding a commercialization partner, or an entrepreneur discovering a new resource can drastically alter company prospects. Research indicates that structured, in-person events can substantially increase the probability of such an encounter. A field experiment at Harvard Medical School found that randomly assigning biomedical researchers to structured 90-minute information sharing sessions increased the probability that a pair would jointly apply for a

How The SBIR/STTR Proposal Lab Enabled NanoBioFab's Ongoing Commercialization

NanoBioFab, a MedTech startup developing AI-powered nanosensors that use scents to detect pathogens, credits TEDCO's SBIR/STTR Proposal Lab as a turning point in their company's history.

"The Proposal Lab was a turning point," said NanoBioFab founder Xiaonao Liu. "The iterative mentor feedback process closely mirrored real review panels and significantly strengthened our proposals and overall strategy."

Liu directly attributes the program with the company's ongoing success. "After the Proposal Lab, we secured our first SBIR Phase I in 2020, which enabled us to move from borrowed bench space to our own lab and hire our first full-time team member. Subsequent funding supported team growth and platform development/validation. Today, we have 24 patents (4 issued) ... and signed a strategic partnership with one of the largest orthopedic device companies. We're targeting launch of our first product in 2027."

grant by 75 percent.¹ Importantly, those are colleagues employed at the same institution. The TEDCO Entrepreneur Expo brings together potential partners who are unlikely to have met without the event.

Some of the benefits generated by the Expo, like follow-on funding attracted by a company that was made possible by the event, are captured by this analysis. Other potential impacts, such as a company that discovers a key partner and therefore grows in a way it otherwise would not, are not captured in this analysis.

Notably, founders appear to find significant value from TEDCO's Entrepreneur Expo. The FY 2025 event attracted more than 1,000 attendees. A follow-up survey found that 95 percent of them accomplished their purpose for attending while 97 percent indicated they would attend again. The FY 2025 Expo was slated to be the final iteration of the event, but the event has been revived due to overwhelming demand from TEDCO stakeholders.

SUPPORT BEYOND CAPITAL ALLOCATION

While the most easily quantified benefits of TEDCO stem from the capital it allocates, a substantial share of the organization's impact is generated by the non-monetary ways in which it supports companies, workers, and the broader entrepreneurial ecosystem. Perhaps most importantly, the organization provides thousands of hours of expert time at no cost.

Examples of these services include:

- **Network Advisors** connects tech-based entrepreneurs with pro bono expert counsel. In FY 2025, the program supplied 45 pro bono consultations at 2-3 hours each.
- The **Loaned Executives** program allows a company that has received or is likely to receive TEDCO funding to engage one of the Network Advisors on a contractual basis. In FY 2025, TEDCO funded 21 loaned executives, each of whom went to an underserved entrepreneur.
- **Prelude Pitch** is a monthly event that provides start-up companies with the opportunity to practice their pitches in front of TEDCO team members and experienced mentors, receiving valuable feedback in the process. 59 companies utilized this opportunity in FY 2025.
- **Builder Fund** portfolio companies received an additional 639 mentor hours.
- **Rural and Urban Business Innovation** mentors logged 1,151 and 559 hours of mentoring, respectively, alongside 1,745 hours of outreach.

¹ Kevin J. Boudreau et al., "A Field Experiment on Search Costs and the Formation of Scientific Collaborations," *Review of Economics and Statistics* 99, no. 4 (October 2017): 565–76, https://doi.org/10.1162/REST_a_00676.

Input-output modeling also does not capture certain benefits related to improved access that can be gained through TEDCO services. Through DefTech, 42 member companies were connected with Department of Defense laboratories for cooperative research, facility tours, and specialized equipment they could not otherwise afford. TEDCO's Market Search service provides founders remote access to the Frost & Sullivan and GlobalData research platforms, while TEDCO's partnership with IPGen offers free access to an artificial intelligence-assisted patent tool, further examples of how the organization enhances access.

What Founders Say About TEDCO

"Because of TEDCO, LOOP™ now has a clearer development roadmap, early-stage testing plans, emerging partnership opportunities, and a stronger financial and operational foundation. While the work is ongoing, I am moving forward with greater confidence, structure, and access than I had before."

— Chekejai Coley, Founder, LOOP™

"Because of TEDCO's support, IPS is now a more competitive, funding-ready organization. We have successfully expanded our R&D pipeline, strengthened our commercialization strategy, and grown our reputation as both an innovator and a trusted CRO. The training we received continues to pay dividends as we pursue federal funding, work with partners ranging from startups to multi-billion-dollar companies, and advance novel infectious disease solutions toward real-world impact."

— Mina Izadjoo, President & Chief Science Officer, Integrated Pharma Services

"Because of TEDCO's support, The Laundry Basket® is operating with greater clarity and confidence. We have strengthened our operational systems, expanded key partnerships, and positioned the company for continued growth while staying true to our mission of serving families, professionals, and communities with dignity and care."

— Hyacinth Tucker, Founder, The Laundry Basket®

Impacts stemming from the enhanced visibility the organization provides for companies are also not quantified in this analysis. In FY 2025 TEDCO secured regional and national recognition for more than 90 companies and founders, issuing more than 100 press releases, placing 28 articles, exhibiting at 27 events, and contributing to more than 100 speaking engagements and panels. For an early-stage company, press coverage is simultaneously a recruiting instrument and a signal to prospective investors. To the extent the benefits generated by these activities are not reflected in follow-on funding or captured by the survivability premium factored into this model, the impacts presented in this report should be viewed as conservative.

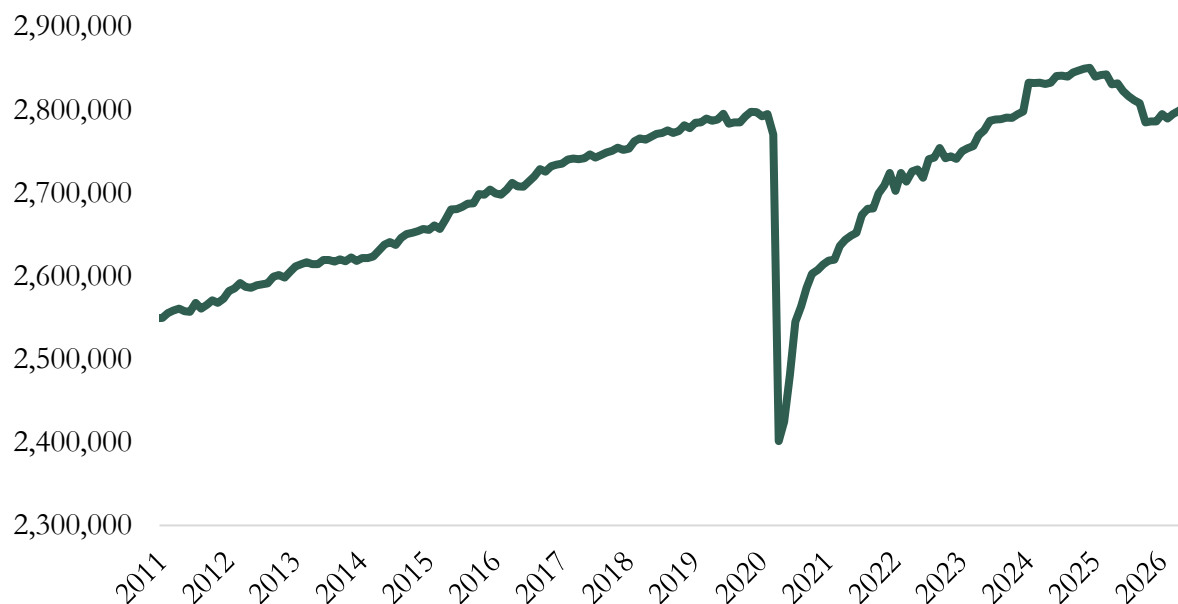
Relevant Economic & Fiscal Context

This section of the report discusses Maryland’s current economic and fiscal environment. The following section of this report discusses TEDCO and its impact given this critical context.

RECENT LABOR MARKET DISRUPTION

Maryland’s employment level reached an all-time high in December 2024 before declining over the following year. By October 2025, the state had lost more than 65,000 jobs, a decline that was largely due to Federal government job losses (discussed below). Employment performance improved in 2026, however.

Exhibit 8: Maryland Total Nonfarm Employment



Source: U.S. Bureau of Labor Statistics

To contextualize this decline, Maryland’s employment base shrank 0.4 percent between December 2019 and December 2025. Employment across the rest of the nation expanded 4.5 percent over that span.

Federal government jobs accounted for almost half of the job losses over this period. The number of federal government employees in Maryland declined by nearly 30,000 positions from October 2024 to May 2026, a decline exceeding 18 percent.

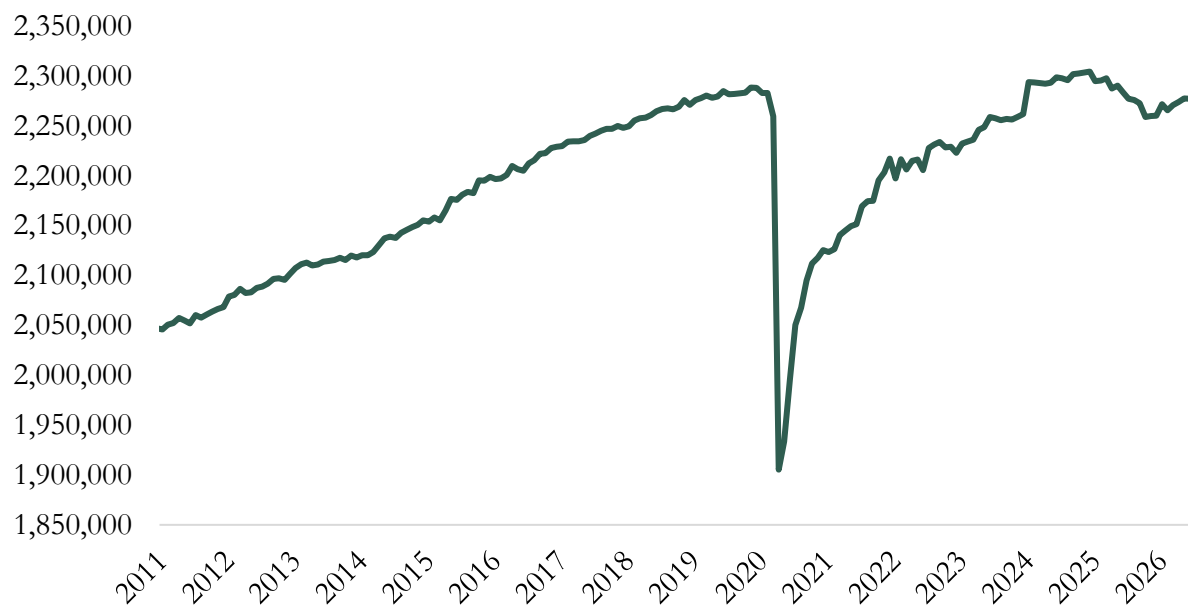
Exhibit 9: Maryland Federal Government Employment



Source: U.S. Bureau of Labor Statistics

While this rapid contraction appears to have ceased as of mid-2026, Maryland's federal government employment base remains smaller than at any point since 2009. The state's private sector lost even more jobs, with private employment levels contracting by 44,700 between December 2024 and November 2025.

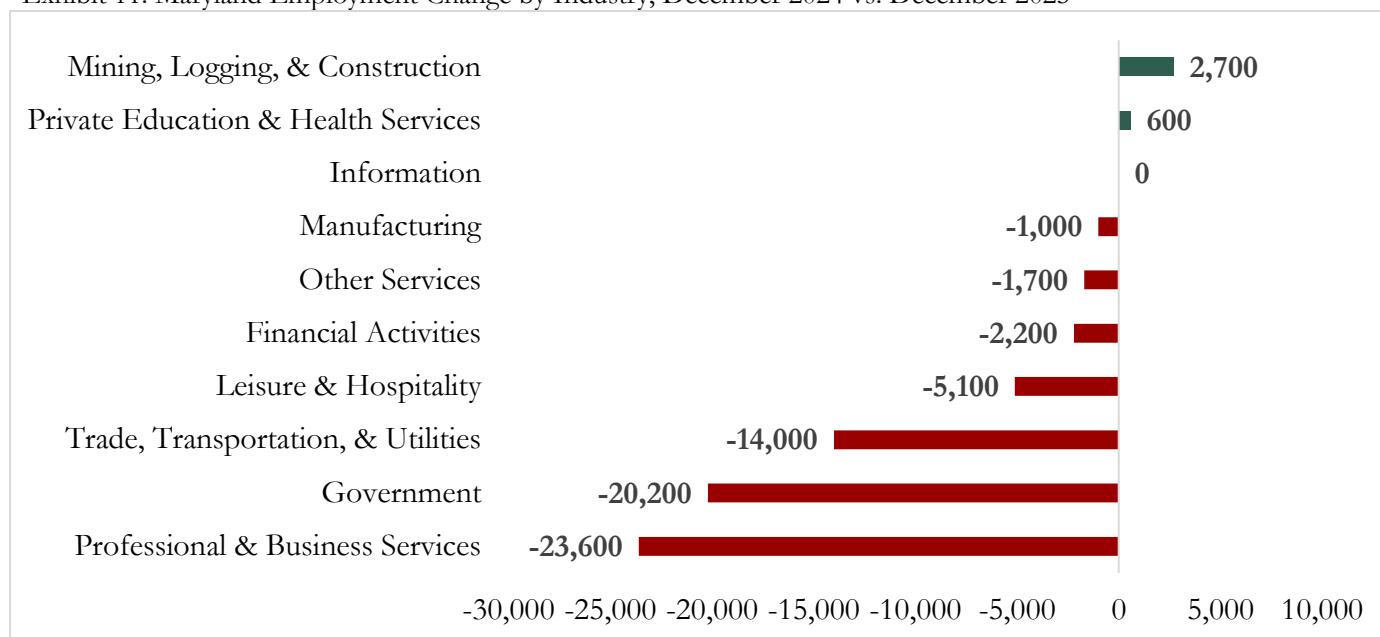
Exhibit 10: Maryland Private Sector Employment



Source: U.S. Bureau of Labor Statistics

Only two of Maryland’s major industries—mining/logging/construction and private education/health services—added jobs between the end of 2024 and the end of 2025. The professional and business services segment, much of which is reliant on federal government grants and contracts, posted the steepest decline over that period, losing even more jobs than the public sector.²

Exhibit 11: Maryland Employment Change by Industry, December 2024 vs. December 2025



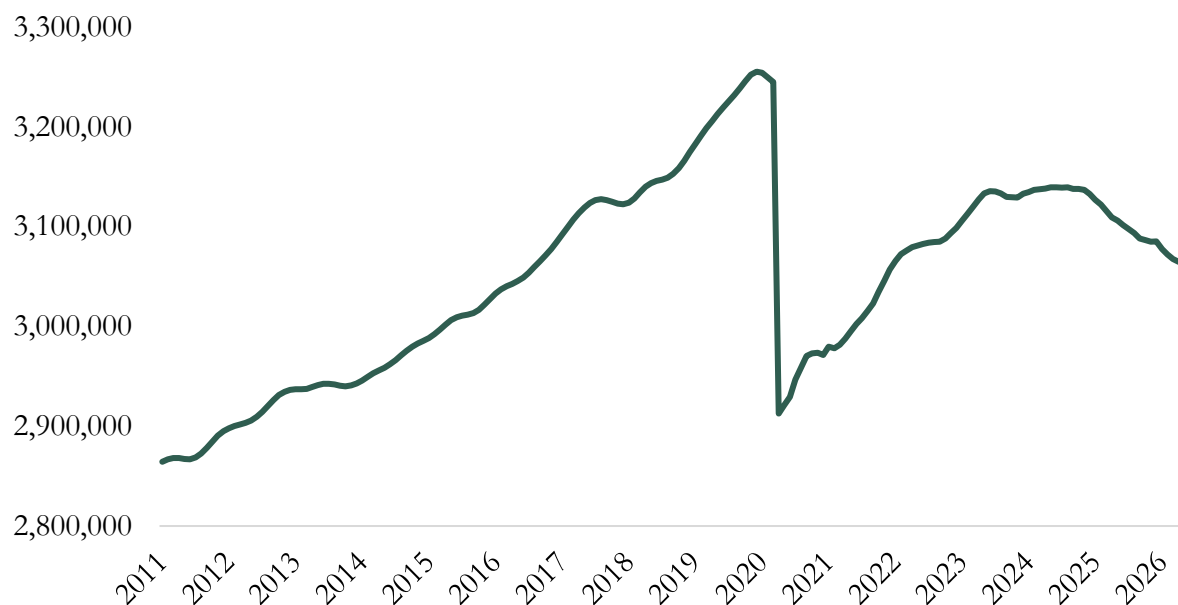
Source: U.S. Bureau of Labor Statistics

A second trend accompanies the loss of Maryland-based job opportunities: a decline in the number of employed persons living in Maryland. The number of employed people living within the state never recovered from the pandemic-caused recession and has generally been in decline since the end of 2024.

Much of this decline can be traced to remote work, which gives employees the opportunity to access jobs while living in relatively less expensive states. This trend carries direct fiscal consequences, since employed persons predominantly pay taxes—be it income, property, or sales—in their state of residence. Put another way, Maryland’s employee-based tax base has failed to recover from the 2020 recession and has been shrinking since the end of 2024.

² Note that state and local government hiring offset some of the federal government job losses that occurred throughout 2025.

Exhibit 12: Employed Persons Living in Maryland



Source: U.S. Bureau of Labor Statistics

MARYLAND'S ONGOING FISCAL HEADWINDS

Against this economic backdrop, Maryland entered the 2025 legislative session facing a substantial budget shortfall, with general fund expenditures set to exceed revenues by nearly \$3 billion. That structural deficit has been projected to expand to more than \$6 billion by 2030.

While steps were taken to ameliorate short-term budget issues, a durable solution requires growth in the underlying tax base. That, in turn, requires expanded support for the State's entrepreneurial ecosystem.

MARYLAND'S INNOVATION ECONOMY

Maryland's pace of patent creation has slowed considerably over the past three decades. As of 1992, the first year for which data were available, Maryland accounted for slightly greater than 1.8 percent of all patents granted to U.S. inventors, a share approximately proportional to the state's percentage of nationwide population (1.9% as of 1992). One might wonder why the state's patent share was not even greater given its abundance of federal and university research laboratories. The answer lies largely in the state's relatively small manufacturing sector. Many of the nation's patents emerge from that economic segment.

Exhibit 13: Maryland's Share of Nationwide Patents

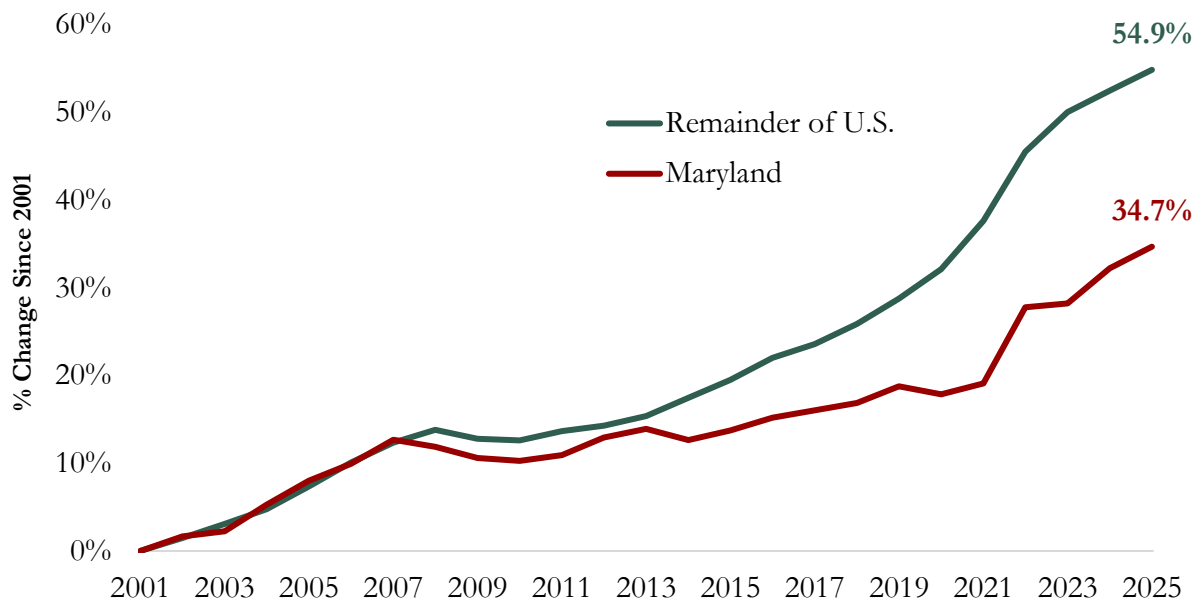


Source: U.S. Patent and Trademark Office

Maryland's share of nationwide patents declined markedly during the 1990s and 2000s before plateauing at roughly 1.3 percent in the 2010s. Notably, the state has accounted for a disproportionately small share of nationwide patents relative to its share of nationwide population over the past thirty years. This strongly suggests that there has been a disconnect between the state's researchers, support for entrepreneurship, and the marketplace for commercialization.

At least partially due to the slower pace of innovation, Maryland's rate of new business formation has consistently lagged behind the remainder of the nation over the past two decades. This century, Maryland's business establishment base has expanded by approximately 35 percent, while the remainder of the nation has seen 55 percent growth.

Exhibit 14: Business Establishment Growth Since 2001



Source: U.S. Bureau of Labor Statistics

TEDCO'S ROLE IN THIS ENVIRONMENT

TEDCO has a critical role to play in the State's current economic and fiscal environment. The rapid loss of federal employment has displaced thousands of knowledge workers, precisely the technical workforce from which new technology companies are typically formed. Those workers' next steps—whether they form a company in Maryland, join a company in Maryland, or leave the state—are not predetermined and at least partially hinge on whether the capital, mentorship, and network effects required to build a company are available to them, and those are precisely the functions that TEDCO performs.

TEDCO's Impacts in the Relevant Context

Maryland's economic and fiscal challenges, discussed at length in the previous section of this report, render TEDCO's contributions even more valuable. Maryland has a wealth of under-utilized assets, including world-class universities, densely concentrated federal laboratories, and a highly educated workforce. To date, those assets remain underleveraged relative to their potential to generate business formation, private-sector job creation, and broad-based economic growth.

In FY 2025, TEDCO-supported activity generated approximately \$35.6 million for the State government and \$24.1 million for counties and municipalities. That represents more than \$1 in State and local tax revenue for every \$1 of State funding provided to TEDCO.

The scale of TEDCO's impacts demonstrates its ability to convert those assets into much-needed economic and tax-base growth. The approximately \$1 billion in statewide economic activity supported by the organization included more than \$600 million in value added, an amount equivalent to 2.7 percent of the State's 2025 GDP growth. That contribution is even more striking when viewed in the context of the state's investment in the organization; TEDCO supported more than \$17.00 in economic activity for every \$1 of State funding it received in FY 2025.

The fiscal implications are just as, if not more, important. Maryland has significant and structural budget challenges that are unlikely to be resolved via spending reductions, tax increases, or fund transfers. Rather, the state requires a larger economy, a broader tax base, and ongoing growth.

In FY 2025, TEDCO-supported activity generated approximately \$35.6 million for the State government and \$24.1 million for counties and municipalities. That represents more than \$1 in State and local tax revenue for every \$1 of State funding provided to TEDCO. This is particularly impactful at the local level; counties do not provide any funding to TEDCO, and the tax revenues they receive because of TEDCO are enough to fund the salaries of 420 new public school teachers.³

Note that these comparisons do not describe conventional financial rates of return. Economic activity and tax revenues are distinct measures, and a sizable portion of the activity supported in FY 2025 reflects the cumulative effects of TEDCO's prior year operations. These measures do, however,

³ This calculation is based on the National Education Association's Educator Pay in America dataset; the average teacher starting salary in Maryland for the 2024-25 school year.

provide useful context for the magnitude of TEDCO's contribution relative to the public resources devoted to the organization.

More broadly, TEDCO enables the kind of activity Maryland most needs: entrepreneurship, investment, high-wage employment, and the creation of businesses with substantial growth potential. The impacts presented in this report, while considerable, do not fully capture the importance of these efforts, particularly given the scale of the opportunity that remains to convert the state's underlying assets into private sector growth.

Conclusion

Maryland possesses the assets typically associated with a world-class innovation economy: research universities, the nation's densest concentration of federal laboratories, and one of the most highly educated workforces in the country. TEDCO exists to close the gap between that potential and the state's realized economic results.

The findings of this analysis indicate that it does so efficiently. In FY 2025, TEDCO supported more than \$1 billion in statewide economic output, over 4,000 jobs, and \$479 million in labor income, while generating \$35.6 million in State revenues and \$24.1 million in local revenues. That amounts to more than \$17 in economic activity and more than \$1 in State and local tax revenue for every dollar the State appropriated. Since its inception, the organization has supported more than 38,000 jobs and \$9.9 billion in economic output. These figures understate TEDCO's full contribution, as benefits stemming from network formation, potentially transformational company growth, and mentorship and other support services are discussed but not quantified in this report.

These returns are most valuable precisely when they are most difficult to generate. Maryland is contending with federal workforce reductions, a shrinking resident employment base, and a structural budget gap projected to exceed \$6 billion by 2030. Those conditions cannot be resolved through spending reductions or revenue measures alone; they require a larger private economy and a broader tax base, and TEDCO is among the State's most direct instruments for producing both.

Appendix A: TEDCO's Myriad Impact Generators

TEDCO is not a single program but a portfolio of them. Created by the Maryland General Assembly in 1998 to facilitate the transfer and commercialization of technology out of the state's research universities and federal laboratories and to assist in the creation and growth of technology-based businesses in every region of Maryland, the organization today administers more than two dozen distinct funds, grant programs, advisory services, and ecosystem initiatives.

The descriptions that follow summarize the components of the organization, with emphasis on FY 2025 activity. They are organized along the lines of TEDCO's own reporting structure—technology transfer and commercialization, venture development, and federal laboratory technology initiatives—with the Maryland Stem Cell Research Fund treated separately given its scale and unique focus, and with cross-cutting programs and ecosystem support addressed at the end.

The breadth on display is itself analytically relevant. These programs operate at different points along the path from laboratory research to commercial success, and they deliver value in forms as varied as research grants, equity investments, convertible notes, mentoring hours, and workshop instruction. No single input, therefore, captures TEDCO's footprint, and the modeling described in this report accounts for each accordingly.

EQUITY INVESTMENTS

SEED FUNDS

TEDCO's Seed Funds invest in companies that show promise of becoming venture-fundable or that, through a seed investment, can become sustainable on customer revenue, follow-on funding, or corporate venture support. The Seed Funds comprise four distinct vehicles, each addressing a different segment of the early-stage market, and they are among the programs supported by Maryland's allocation under the federal State Small Business Credit Initiative.

MARYLAND TECHNOLOGY COMMERCIALIZATION FUND

TEDCO's legacy technology transfer vehicle, the Technology Commercialization Fund (TCF) supports technology and product development at start-ups generally deemed too early to attract traditional venture capital. Its investments are meant to defray the additional research and development required to bring a technology to the threshold of commercialization. In FY 2025, TCF received 49 proposals and made one \$200,000 investment. Companies in the fund's active portfolio employed 11 workers and attracted \$16.9 million in follow-on funding during the year.

CYBERSECURITY INVESTMENT FUND

Created in 2014, the Cybersecurity Investment Fund (CIF) builds on the TCF model and is targeted specifically at cybersecurity technologies. In FY 2025, CIF received 10 proposals and made one \$500,000 investment. Funded companies employed 12 workers and the active portfolio attracted \$21.4 million in follow-on funding.

LIFE SCIENCE INVESTMENT FUND

The Life Science Investment Fund (LSIF) supports companies developing products for human health that require FDA approval. Transferred to TEDCO from the Department of Commerce's BioMaryland program, where it operated as the Biotechnology Development Awards and Translational Research Awards, the fund was restructured to meet the needs of life science companies facing the most challenging commercialization pathways. In FY 2025, LSIF received 18 proposals and made one \$500,000 investment. Funded companies employed 73 workers and the active portfolio attracted \$102.2 million in follow-on funding—the second-largest follow-on total of any TEDCO program.

GAP INVESTMENT FUND

The Gap Investment Fund makes matched disbursements to start-ups that need capital to grow in Maryland, bridging the distance to institutional venture capital and retaining companies that might otherwise leave the state in pursuit of funding at that stage. Recipients must use the capital to employ new staff. In FY 2025, the fund received 19 proposals and made three investments totaling \$840,000 in companies employing 44 workers.

SOCIAL IMPACT FUNDS

TEDCO's Social Impact Funds are designed to engage and invest in economically underserved founders and communities. These funds consist of the Pre-Seed Builder Fund and the Inclusion Fund; a single application covers both. Applicants must be technology-based, headquartered in Maryland, and have at least half of their workforce here. They also may not have received more than \$15 million in dilutive funding and must have fewer than 251 employees. The Social Impact Funds were budgeted at \$8.25 million in FY 2025.

PRE-SEED BUILDER FUND

The Builder Fund financially and operationally supports start-ups run by entrepreneurs whose socially and economically disadvantaged backgrounds hinder access to traditional capital and executive networks at the pre-seed stage. Recipients receive direct investment and agree to accept executive management assistance toward specified milestones that better position them for follow-on investment.

In FY 2025, the fund received 112 proposals, committed to 30 investments totaling \$6.3 million, and provided 639 hours of mentoring. TEDCO additionally refers interested companies to the Maryland Small Business Development Financing Authority.

INCLUSION FUND

The Inclusion Fund targets investment opportunities overlooked by traditional sources of financing, concentrating on the gap between pre-seed and seed funding. Applicant companies must have at least one full-time employee, agree to receive executive support, be at least 30 percent owned by individuals who have demonstrated social and economic disadvantages, and remain controlled and managed by such individuals for at least one year following investment. In FY 2025, the fund received 112 proposals and made two investments totaling \$1.0 million in companies collectively employing 53 workers.

MARYLAND VENTURE FUND

The Enterprise Fund and the Invest Maryland Program were transferred in 2015 from the Maryland Department of Commerce to TEDCO. Collectively these are known as the Maryland Venture Fund (MVF). The Enterprise Fund provides capital through equity purchases in start-ups developing innovative technologies. The Invest Maryland Program, created in 2011, established a State-supported venture capital program funded through an auction of tax credits against the insurance premium tax, which raised \$84.0 million.

MVF no longer receives new appropriations and now operates as an evergreen, early-stage venture capital fund making direct investments of between \$500,000 and \$1.5 million in technology and life science companies as well as indirect investments in venture capital funds. In FY 2025, MVF received 89 proposals and made 11 investments totaling \$2.3 million. Portfolio companies employed 426 workers, 283 of them in Maryland, and the active portfolio attracted \$320 million in follow-on funding. This is, by a wide margin, the largest single contributor to the follow-on totals modeled in this report.

STATE SMALL BUSINESS CREDIT INITIATIVE

TEDCO was announced in fiscal year 2022 as a direct participant in Maryland's allocation under the U.S. Treasury Department's State Small Business Credit Initiative (SSBCI) and directs those federal funds into four existing programs serving technology-based Maryland businesses. Three—the Venture Equity Fund, the Venture Capital Limited Partnership (VCLP) Equity Program, and the Seed Funds Equity Program—are oriented toward venture capital and start-up funding, while the fourth, the Social Impact Funds, supports entrepreneurs demonstrating social or economic disadvantage.

From SSBCI's inception through FY 2025, TEDCO allocated \$7,891,022 to the Seed Funds Equity Program, \$6,999,957 to the Venture Equity Fund, and \$1,650,000 to the Social Impact Funds. A

further \$7 million was committed to the VCLP Equity Program, of which \$291,923 had been deployed. VCLP partners include Collide Capital, 100KM Venture Capital, and AIN Ventures.

TECHNOLOGY TRANSFER & COMMERCIALIZATION

Technology transfer and commercialization programs form the earliest link in TEDCO's chain of support, moving discoveries out of Maryland's universities, research institutions, and laboratories and into companies capable of eventually attracting private capital. Collectively, the funds and programs described in this section accounted for a substantial share of TEDCO's FY 2025 expenditures, and they are the source of most of the follow-on funding attributed to the organization in this report.

MARYLAND INNOVATION INITIATIVE

The Maryland Innovation Initiative (MII) is the state's premier early-stage technology transfer and commercialization program. It is a collaboration between the State of Maryland, Johns Hopkins University, Morgan State University, the University of Maryland, College Park, the University of Maryland, Baltimore, and the University of Maryland, Baltimore County. Under a bench-to-market approach, MII offers grants to assess the commercial viability of a technology and then makes investments in the companies that form to license the related intellectual property.

Demand for MII funding grew sharply in FY 2025, with \$16.1 million in total funding requests received during the fiscal year, up from an already unprecedented \$11.2 million in FY 2024. The program received 88 proposals, made 27 awards and investments, and granted and invested \$5,092,530. MII anticipates continued growth in requests owing to expanded technology transfer activity at its partner institutions, reduced federal research funding, and declining private early-stage investment activity.

MII portfolio companies attracted more than \$27 million in follow-on funding during FY 2025, the vast majority of it from sophisticated technology investors such as angels and venture capitalists.

MII INSTITUTION PARTNERSHIP EXTENSION PROGRAM

The Maryland Innovation Initiative Institution Partnership Extension Program was launched in 2025 and expands MII's technology validation, entrepreneurial development, and industry engagement services to all public and private nonprofit institutions of higher education in the state. The program follows the Baltimore Innovation Initiative pilot and an earlier since-lapsed pilot that extended MII services to Frostburg State University and Bowie State University. The extension program had not received funding as of the close of FY 2025, though MII used existing relationships to begin engaging newly eligible institutions and was directed to submit a statewide expansion strategy by January 1, 2026.

BALTIMORE INNOVATION INITIATIVE

The Baltimore Innovation Initiative (BII) is a two-year pilot that advances technology toward commercialization and bolsters support systems for entrepreneurs across the Baltimore–Columbia–Towson metropolitan statistical area. The opt-in program is available to 21 public and private colleges and universities in the region, which must formally join as collaborators before submitting proposals. Funding flows through two tracks, each offering awards up to \$50,000. These include technology advancement awards to faculty, students, and student principal investigators, as well as entrepreneurship commercialization, programming, and infrastructure awards to staff and faculty operating commercialization programs.

The inaugural request for applications opened in February 2025 and closed that May, with awards announced in June 2025. BII received 25 proposals, made 14 awards totaling \$645,472 across seven institutions, and saw one start-up company formed and four funded.

THE MARYLAND STEM CELL RESEARCH FUND

Created under the Maryland Stem Cell Research Act of 2006, the Maryland Stem Cell Research Fund (MSCRF) promotes human stem cell research and treatment through grants to entities in Maryland. It is treated separately here for two reasons. The first is scale: at \$20.5 million in budgeted FY 2025 expenditures, MSCRF is the single largest line item in TEDCO’s budget, accounting for nearly a third of the organization’s spending during the fiscal year. The second is structure: MSCRF operates as an independent program within TEDCO, with awards directed by the Maryland Stem Cell Research Commission and reported separately to the Governor under § 10-442 of the Economic Development Article.

That structural distinction carries analytical weight. While most of TEDCO’s programs invest in companies, a substantial share of MSCRF’s awards fund investigators at Maryland’s research institutions. The resulting economic activity therefore takes a different form—employment of researchers, laboratory expenditures, and the eventual formation and growth of regenerative medicine companies.

MSCRF FY 2025 AWARDS

The Maryland Stem Cell Research Commission awarded more than \$22 million across two FY 2025 funding rounds. The first cycle allocated more than \$4.5 million across 11 projects. The second round, announced in May 2025, awarded more than \$18 million supporting 52 investigators working on nearly 50 distinct conditions, among them sickle cell anemia, diabetes, cancers, and chronic pain, as well as cardiac, skeletal, digestive, and neurological disease. Recipients spanned academic researchers at Johns Hopkins University, the University of Maryland, Baltimore, the University of

Maryland, College Park, the University of Maryland, Baltimore County, and the Uniformed Services University of the Health Sciences and the Henry M. Jackson Foundation, alongside Maryland companies including Seraxis, Britecyte, SereNeuro Therapeutics, and Diagnostic Biochips.

Awards are made across several categories addressing different stages of the research-to-therapy pathway. These range from Launch awards, which draw new and new-to-the-field faculty into regenerative medicine, to Commercialization awards supporting Maryland-based start-ups developing human stem cell-based products. Demand has run well ahead of available funding. The Commission has characterized recent application cycles as unusually competitive and has noted that the budget permits it to fund only a portion of the proposals it judges meritorious.

CUMULATIVE ACTIVITY

Since its establishment, MSCRF has invested more than \$230 million in more than 700 projects. TEDCO attributes more than \$525 million in economic activity and over 2,000 jobs statewide to that investment. The fund's grants have also functioned as a source of continuity for Maryland's regenerative medicine community during a period of contracting federal research support, with a number of supported therapies having advanced into clinical development.

VENTURE DEVELOPMENT

Renamed during FY 2025 from Entrepreneur and Ecosystem Empowerment (E3), TEDCO's Venture Development department pairs capital with the non-financial inputs that early-stage companies frequently lack. Its programs and services take different forms depending on a company's stage and its likely path forward. The TEDCO Venture Development team crafts mentorship and advisory solutions that complement whatever other assistance an entrepreneur is already receiving. Because much of what Venture Development delivers is measured in advisory hours rather than dollars, its contribution is understated by budget figures alone.

TECHNOLOGY INCUBATOR PROGRAM

TEDCO's enabling legislation was amended in June 2001 to create the Incubator Development Fund, through which capital appropriations totaling \$8,267,500 have supported 11 incubator projects statewide, from techcenter@UMBC and ETC@Johns Hopkins Eastern to facilities in Hagerstown, Germantown, Rockville, Frederick, Silver Spring, and Dorchester County. Due to a lack of funding, no new projects were funded, and no incubator feasibility studies were undertaken in FY 2025. TEDCO also supports the incubator network through project funding grants to the Maryland Business Innovation Association, which competitively awards them to start-ups located within individual incubators for prototype development, market studies, lab equipment purchases, and competitive analysis.

EQUITECH GROWTH FUND

Established in 2023, the Equitech Growth Fund supplies grants for infrastructure and workforce development initiatives that support Maryland's economic competitiveness and accelerate growth in emerging and advanced industries with the stated goal of positioning Maryland as a leading global innovation economy by 2040. TEDCO announced the fund's inaugural cohort in FY 2025, selecting 13 awardees from a pool of 74 applicants and distributing a total of \$6,734,460 across 14 projects. LaunchPort, LLC received awards for both an infrastructure and a workforce development project.

Six of the projects are infrastructure investments and eight are workforce development efforts. Three of these are housed in Baltimore City, four in Montgomery County, and two in Prince George's County, with one each in Talbot, Allegany, Howard, Caroline, and Washington counties. Individual awards ranged from \$41,500 to \$1.2 million and funded work spanning sustainable medical waste processing, advanced materials manufacturing, agricultural biotechnology, cybersecurity training ranges, quantum computing instruction for high school students, and biotechnology workforce programs. Separately, the Equitech Growth Commission completed its ten-year strategic plan for growing the state's innovation economy during FY 2025 and submitted it on July 1, 2025. This strategic plan guides the fund's funding priorities.

PAVA LAPERE INNOVATION ACCELERATION GRANT PROGRAM

Established in 2024, this program honors the legacy of Baltimore entrepreneur and chief executive Pava LaPere. It makes non-dilutive awards of \$50,000 available to qualifying technology-based startups founded by students of post-secondary institutions in the Baltimore area, supporting costs associated with planning, development, regulatory compliance, and related technical assistance.

TEDCO partnered with the ecosystem organization UpSurge to manage the inaugural FY 2025 award cycle. Thirteen participating institutions nominated 39 student ventures. Nine received awards, which were presented at the Maryland Student Venture Showcase on February 18, 2025. Awardee technologies ranged from a non-invasive neurostimulation device for obstructive sleep apnea and microsurgical instruments for fetal surgery to tree sap-derived energy storage and retrofittable systems for laboratory energy efficiency.

RURAL BUSINESS INNOVATION INITIATIVE

The Rural Business Innovation Initiative (RBII) addresses the needs of small businesses in Western Maryland, Southern Maryland, Northeastern Maryland, and the Upper and Lower Eastern Shore. Research by the U.S. Small Business Administration has found that rural high-technology companies are impeded by the absence of supporting infrastructure and by difficulty recruiting enough appropriately skilled workers. The SBA has also determined that targeted small business assistance

delivered through nonprofits and rural development centers measurably improves economic development outcomes in those areas.

Since its inception in 2009, RBII has been supported by State, federal, and TEDCO funds. It operates by placing Business Mentors drawn from the local areas they serve. The program provides project grants and pre-seed investments alongside hands-on technical assistance.

In FY 2025, Business Mentors worked with approximately 45 new companies, delivering 1,151 hours of mentoring. Six companies received pre-seed investments and five received project grant funding, supporting activities such as market studies, competitive analysis, and product development. RBII also organized regional meetings with TEDCO's chief executive and continued to support a virtual I-Corps course run in conjunction with the University of Maryland, access to which was extended to companies from other TEDCO programs.

RURAL PRE-SEED FUND

Launched in FY 2018 within RBII, the Rural Pre-Seed Investment Fund invests \$25,000 at a time in rural companies participating in the program. In FY 2025 it made seven investments totaling \$175,000.

URBAN BUSINESS INNOVATION INITIATIVE

TEDCO extended the RBII model to underserved urban entrepreneurs beginning in FY 2021, initially in Prince George's County and Baltimore City and, by 2025, in Montgomery, Howard, and Anne Arundel counties as well. In FY 2025, Urban Business Innovation Initiative (UBII) representatives mentored 52 new companies, delivering 559 hours of mentoring and 1,745 hours of outreach. The initiative approved three project grants to start-ups for work including market assessment and product development. As in the rural program, UBII mentors coordinate with accelerators, incubators, and other ecosystem organizations, meeting quarterly as a group so that entrepreneurs are connected to the right resources at the right point in their growth.

CONCEPT CAPITAL

Launched in FY 2025 using Builder Fund resources, Concept Capital fills the very earliest funding gap for underrepresented and disadvantaged founders, with particular attention to those in rural or economically disadvantaged communities. The program offers convertible notes between \$25,000 and \$50,000 on founder-friendly terms, including zero interest and negotiable valuation caps. Applicants must be Maryland-based with a principal office in the state. More than half their workforce must be based here. These enterprises must be technology-driven and non-retail, must have been founded within the previous seven years, and must be located in a rural or disadvantaged community or led by a socially and economically disadvantaged individual. Recipients also receive one-on-one

mentoring and advisory services, access to performance-tracking and investment-readiness software, and tailored guidance toward critical venture milestones. Eight awards totaling \$200,000 were made in FY 2025.

MARYLAND MAKERSPACE INITIATIVE PROGRAM

Created by the Maryland General Assembly and administered by TEDCO, the Makerspace Initiative Program provides grants of up to \$100,000 together with technical assistance delivered by Open Works to entities establishing a new makerspace, expanding an existing one, or developing makerspace programming. The initiative endeavors to grow a statewide community of makerspaces that supply entrepreneurs access to tools, technologies, and knowledge while expanding workforce training. In its third year of execution, the program received 27 applications and awarded 14 makerspaces a combined \$784,065, of which 41 percent, or \$323,500, went to makerspaces in rural Maryland counties. Five of the 14 awardees were newly funded.

NETWORK ADVISORS AND LOANED EXECUTIVES

TEDCO has curated a network of advisors with current and relevant experience in the specific areas where Maryland entrepreneurs most often report needing help. Network Advisors typically provide two to three hours of pro bono advising to an individual company several times a year. The network grew to 122 advisors in FY 2025 and fielded more than 45 requests.

Companies that have received or are likely to receive a TEDCO investment may also engage a Network Advisor on a contractual, paid basis through the Loaned Executives program to reach a specific milestone that renders them competitive for the next round of anticipated funding. TEDCO funded 21 loaned executive projects in FY 2025 representing approximately 1,000 hours served. Projects spanned Maryland demographically and geographically and ranged from designing medical device prototypes to filing non-provisional patents to developing customer acquisition and sales strategies. All went to underserved entrepreneurs.

PRELUDE PITCH

Each month TEDCO invites start-ups to practice their pitch before TEDCO team members and experienced Network Advisors, receiving feedback and an introduction to the organization. Fifty-nine companies pitched at Prelude Pitch events during FY 2025.

INFORMATION PLATFORMS AND BUSINESS RESOURCES

TEDCO built the Maryland Entrepreneur Hub in FY 2021 in partnership with the Maryland Department of Commerce and the University System of Maryland. The artificial intelligence-enabled platform connects innovators, founders, and small business owners with investors, universities,

mentoring programs, networking groups, and training programs, and allows resources to be filtered or mapped by region, resource type, industry sector, stage of growth, and founder focus.

Market Search provides entrepreneurs remote access to commercial market research databases, among them Frost & Sullivan and GlobalData, improving the market assessment and opportunity analysis typically underpinning business plans and funding applications. Separately, TEDCO partnered with IPGen, a Builder Fund portfolio company founded by a patent attorney, whose platform applies artificial intelligence, natural language processing, and machine learning to simplify stages of the patent process. It is free to entrepreneurs for one year. TEDCO also curates online educational resources oriented toward lean start-up practice.

COMPREHENSIVE TECHNICAL ASSISTANCE PROGRAM

Created in 2021, the Comprehensive Technical Assistance Program provides concierge-style technical assistance to any business qualifying for TEDCO's funding programs, whether delivered by TEDCO staff directly, by referral to other State resources, or by matching companies with expertise from TEDCO's advisory network. The fiscal note accompanying the legislation estimated an annual cost of roughly \$250,000 and a reach of approximately 130 companies. TEDCO has promulgated the required implementing regulations, but the program remained unfunded through FY 2025.

FEDERAL LABORATORY TECHNOLOGY INITIATIVES

Maryland is home to more federal laboratories than any other state. Federal laboratory technology initiatives are correspondingly central to TEDCO's mission. Federal labs hold both an interest and a mandate in transferring their innovations to the commercial sector. They maintain equipment and facilities with excess capacity that they are generally willing to make available, usually for a fee. TEDCO has entered into formal agreements with federal labs to give Maryland entrepreneurs access to their technology, data sets, and facilities, and connects the labs both to founders commercializing new technology and to existing companies adopting it.

TEDCO has also pursued federal funding more aggressively in recent years, with results reflected in the programs below. The organization remains appropriately cautious, however, recognizing that federal funding streams may be rescinded or reprogrammed in the present environment—a consideration of some weight given that several initiatives in this section are dependent on federal awards.

SBIR/STTR MATCHING GRANT PROGRAM

The Maryland SBIR/STTR Matching Grant Program was established in 2021—and received funding for the first time in 2025—to encourage Maryland businesses to pursue federal Small Business

Innovation Research and Small Business Technology Transfer funding. Businesses that have received a Phase I or Phase II award may apply for an investment or grant of up to 25 percent of that award, capped at \$25,000 for Phase I and \$75,000 for Phase II, provided they apply within six months of receiving it. Applications are reviewed quarterly.

TEDCO received 26 applications in FY 2025. The first two rounds of review selected five awardees from a pool of 11 applicants and distributed \$275,000. Awardee technologies included integrated circuits for spacecraft instrumentation, a long-term delivery approach for in vivo expressed biologics, GPU-native computational fluid dynamics software for hypersonics and aviation design, a lightweight wearable device allowing stroke patients to practice tasks at home, and a smart dressing for real-time detection of burn wound infections.

SBIR/STTR TECHNICAL ASSISTANCE PROGRAM

This program helps Maryland technology and life science companies with limited experience with competitive federal funding programs build the expertise needed to access SBIR and STTR funding. It is organized into two parts. The first comprises workshops covering the federal SBIR/STTR landscape and agency-specific sessions on Department of Defense, National Institutes of Health, and Department of Energy programs, followed by practical training on topic selection and technical writing, commercialization planning, technical assistance, and budget preparation. The second provides two rounds of individual proposal review by technical and business experts.

The program received funding for the first time in 2025. In FY 2025, it accepted 25 early-stage start-ups, and TEDCO, in partnership with OST Global Solutions, delivered six full-day training workshops to 22 participants covering federal requirements and high-quality proposal preparation. All 25 companies were slated to continue into the proposal review phase.

SBIR/STTR PROPOSAL LAB

The Proposal Lab is a workshop series funded in part by a Small Business Administration FAST grant with a TEDCO match of cash and in-kind effort delivered in partnership with the GovCon Incubator and the Small Business Development Center. It targets first-time proposers among women-owned, small disadvantaged, and rural Maryland businesses. The original goal was to double the 16 percent national win rate for first-time proposals. The program has achieved an overall award rate of 40 percent and cohort graduates have been awarded more than \$28 million in SBIR and STTR Phase I and Phase II funding from multiple agencies.

In FY 2025 the lab conducted eight full-day training workshops divided between pitch preparation and proposal preparation and submission. TEDCO engaged more than 50 small businesses through interviews, selecting 28 for the first part of the lab and 14 for the second ahead of the National Science

Foundation (NSF) July submission window. Fifty-seven percent of participant pitch submissions were accepted by NSF. Every accepted pitch resulted in a submitted proposal. Each company's proposal received two formal reviews and five reviews in total, supplemented by project pitch reviews from industry experts and by market segment analysis drawn from TEDCO's Market Search databases.

ASPIRE

TEDCO partnered with VentureWell to establish Aspire, a five-week hybrid program that equips early-stage medical technology start-ups with training, guidance, and investor connections needed to cross the funding gap between grant support and private investment. Through cohort-based learning, one-on-one mentoring, and hands-on activities, participating companies strengthen their commercialization capability and investment readiness.

MARYLAND DEFENSE TECHNOLOGY COMMERCIALIZATION CENTER

The Maryland Defense Technology Commercialization Center (DefTech) is funded by the Department of Defense Office of Local Defense and Community Cooperation, TEDCO, and the Maryland Department of Commerce, and connects Maryland businesses to Department of Defense laboratories in order to further product development, engage in cooperative research, and access the facilities, equipment, and expertise available through those labs. The program was piloted in 2018 and on the strength of its performance received follow-on funding from the Office of Local Defense Community Cooperation extending through June 2026, including an award of approximately \$585,000 in December 2024.

Demand has been strong enough to bring the program near capacity. Active membership stood at 42 companies at the close of FY 2025, with six new members approved and 13 technology transfer agreements completed or in progress in the fourth quarter alone. Member activity during the year included Cooperative Research and Development Agreement (CRADA) negotiations with the DEVCOM Chemical Biological Center and the Navy, a \$2 million direct-to-Phase II Department of Defense SBIR award for a wound infection sensor, FDA clearance of a filter needle device, and DARPA and Defense Logistics Agency proposals generated through DefTech-organized briefings, facility tours, and opportunity distributions.

FEDERAL LABS LEVERAGING INNOVATION TO PRODUCTS

The Federal Labs Leveraging Innovation to Products (FLLIP) pilot program operates under a three-year period of performance running from July 1, 2024 through June 30, 2027. It is structured to phase strategic planning, expert deployment, and company engagement across the full term. The program established its material infrastructure during its first year, and by January 2025 was fully operational following exploratory meetings with program stakeholders, federal laboratory partners, and ecosystem

collaborators. By February 2025, TEDCO had recruited and procured a team of technical experts, deliberately engaging more than ten to absorb expected attrition. Initial briefings with three federal labs were completed by September 2025, ahead of schedule. Over the period of performance, FLLIP is intended to support 30 companies with tailored education and advisory services and to establish deep relationships between five to ten of those companies and participating federal labs.

BUSINESS RESOURCE INFORMATION, DEVELOPMENT, AND GUIDANCE ECOSYSTEM PROGRAM

The Business Resource Information, Development, and Guidance Ecosystem (BRIDGE) Program, funded largely through a U.S. Department of the Treasury grant, provides legal, accounting, and financial advisory services to businesses owned by socially and economically disadvantaged individuals and to very small businesses with fewer than ten employees. The intent is to improve those firms' access to capital, including SSBCI funds and federal opportunities arising from the Bipartisan Infrastructure Law, the CHIPS and Science Act, the Inflation Reduction Act, and the SBIR/STTR programs. The three-year project is led by TEDCO with the Small Business Development Centers at the University of Maryland, College Park, George Mason University, and Howard University, together with the University of Maryland Francis King Carey School of Law and collaborators in Delaware and Virginia.

Services delivered under BRIDGE include one-on-one advising following a business assessment; financial literacy and credit-building consulting; competitive technical assistance grants of up to \$100,000 to community development financial institution partners; back-office grants of up to \$100,000 for accounting and bookkeeping support; the Institute for Women Entrepreneur Excellence's BRIDGE Cohorts; expansion of the Rural and Urban Business Innovation Initiatives through two additional venture advisors; a proposal lab blending Department of Labor-certified apprenticeship instruction with capture and proposal development for federal contractors; expanded pro bono legal clinics at the Carey School; and 30 additional loaned executive engagements each year. The BRIDGE team has spoken with 118 companies not yet formally registered, while a further 127 companies have completed applications.

CROSS-CUTTING PROGRAMS AND ECOSYSTEM SUPPORT

Alongside its funding and advisory programs, TEDCO administers initiatives that serve the innovation ecosystem as a whole rather than any single cohort of companies. Its administrative and operational teams supply continuous support to Maryland's early-stage technology and life science communities.

CYBER MARYLAND PROGRAM

The Cyber Maryland Program was created to address cybersecurity workforce vacancies in the state. It builds a cybersecurity talent pipeline, serves as a hub for State workforce development programs, and coordinates cybersecurity research and innovation more broadly. TEDCO released Maryland's Cybersecurity Talent Strategy in April 2025. Administration of the program transferred to the Maryland Department of Labor on July 1, 2025—in other words, at the end of FY 2025. Accordingly, the fiscal year under study captures the final full year of TEDCO administration.

ENTREPRENEUR EXPO

TEDCO's flagship event gathering Maryland's entrepreneurial community returned in FY 2025 and was held on December 4, 2024 at the Renaissance Harborplace hotel in Baltimore. The event brought entrepreneurs, business owners, angel and venture investors, legislators, and other influencers together, attracting more than 1,000 attendees to hear from more than 100 speakers across nearly 25 sessions, including a keynote address delivered by Governor Wes Moore and a fireside chat with legislative leaders. Eighty-three percent of attendees rated the event very good or excellent, 95 percent reported that their purpose in attending was accomplished, and 97 percent indicated they would attend again.

INSTITUTE FOR WOMEN ENTREPRENEUR EXCELLENCE

The Institute for Women Entrepreneur Excellence was created to address the barriers women entrepreneurs face in Maryland and partners with a network of organizations to deliver workshops and entrepreneurial leadership programming. The organization works with the State's four Historically Black Colleges and Universities—Morgan State University, Coppin State University, University of Maryland Eastern Shore, and Bowie State University—leveraging each institution's unique strengths to support the growth of the entrepreneurial ecosystem. Its reach was extended in FY 2025 through the Institute for Women Entrepreneur Excellence's BRIDGE Cohorts, which funds expanded programming for women leading very small businesses and those demonstrating social and economic disadvantage.

ADMINISTRATION AND GOVERNANCE

TEDCO's board approved 34 positions for FY 2025 across roles including executive management, vice presidents and chiefs, program directors, assistant directors, associates, and administration. Approved compensation totaled \$6,780,838, comprising \$5,060,327 in salaries and \$1,720,511 in incentives. These figures represent approved positions and compensation rather than actual expenditures since several positions were vacant for at least part of the fiscal year. General and administrative expenditures accounted for approximately 8 percent of TEDCO's FY 2025 spending.

The organization received an unqualified audit opinion on its FY 2025 financial statements from its independent audit firm.

AUTHORIZED BUT UNFUNDED PROGRAMS

Several programs exist in statute without appropriation and generate no impacts captured in this analysis. The Coordinating Emerging Nanobiotechnology Research in Maryland Fund, created in 2008, has never received an appropriation and reports no program activity. The Comprehensive Technical Assistance Program and the Maryland Innovation Initiative Institution Partnership Extension Program, described above, were likewise unfunded through FY 2025 despite TEDCO having taken preparatory steps within its control. The Incubator Development Fund, though capitalized in prior years, funded no new projects or feasibility studies in FY 2025 for want of resources.

These gaps are worth noting for what they imply about capacity. Demand for support for entrepreneurs—\$16.1 million in Maryland Innovation Initiative requests against \$5.1 million awarded, 112 Social Impact Fund proposals versus 32 investments, 74 Equitech applicants against 13 awardees—consistently exceeds resources available to meet it. Among other things, this Appendix serves to catalog this unmet demand.

Appendix B: How to Interpret Economic Impact Estimates

To quantify the economic impacts of TEDCO, Sage used IMPLAN economic modeling software and its embodied multipliers to generate estimates of employment, labor income, and output. Below is an abbreviated glossary of terms that may prove helpful in interpreting analytical findings.

EMPLOYMENT

As defined by IMPLAN, a job that lasts twelve months equals one job, two jobs that last six months equal one job, three jobs that last four months equal one job, etc. Based on this, **job-years** represents a useful term. For instance, an endeavor that supports 200 jobs for a six-month period would be considered to support 100 jobs measured in job-years. Note that IMPLAN jobs are not quite the same thing as full-time equivalents (FTEs). Each of IMPLAN's 536 unique industries has a different conversion rate between jobs and FTEs, although for almost every industry one job is equal to less than one FTE.

OUTPUT (BUSINESS ACTIVITY, ECONOMIC ACTIVITY)

Output equals the value of industry production or service provision. It might be easier to conceptualize this as total business sales or economic activity. For retail industries, it is the gross margin (not gross sales). For manufacturing, output is the quantity of total sales plus/minus the change in inventories. For the service sector, output is directly equal to sales. This is summarized by the following equation:

$$\text{Output} = (\text{Manufacturing sales} + / - \text{change in inventories}) + (\text{service sector sales}) + (\text{gross margin for wholesale and retail trade})$$

LABOR INCOME

Labor Income is comprised of wages, benefits, and proprietor income (money accruing to owners of businesses).

$$\text{Labor Income} = \text{all forms of employee compensation (wages/benefits)} + \text{proprietor income}$$

DIRECT EFFECTS

Direct effects are impacts tightly aligned with the endeavor under consideration.

INDIRECT EFFECTS

Indirect effects stem from business-to-business spending activity within the study area that occurs as a result of the direct effects. These can also be considered broader supply chain effects. This is a form of **secondary** effect.

INDUCED EFFECTS

Induced effects relate to household spending that occurs due to expanded levels of labor/household income. This is also a form of **secondary** effect.

About Sage Policy Group

Sage Policy Group is an economic and policy consulting firm headquartered in Baltimore, MD. Dr. Anirban Basu, Sage's chairman and CEO, founded the firm in 2004. Sage has created a client base that encompasses more than forty states and seven countries and includes Fortune 500 companies, NFL teams, aquariums and zoos, state and local governments, insurance companies, banks, brokerage houses, major medical systems, trade organizations, and law firms, among others.

The company is especially well known for its analytical capabilities in economic and fiscal impact estimation, economic development, forecasting, legislative analyses, litigation support, environmental economics, and industry outlooks.

In addition to leading Sage, Dr. Basu has emerged as one of the nation's most recognizable economists. He serves as the chief economist to Associated Builders and Contractors, the Modular Building Institute, and the International Foodservice Distributors Association and as the chief economic adviser to the Construction Financial Management Association. He chaired the Maryland Economic Development Commission from 2014 to 2021 and currently chairs the Baltimore County Economic Advisory Committee.

Dr. Basu's lectures in economics are delivered to audiences across the U.S. and abroad. He has lectured at Johns Hopkins University and is presently the Distinguished Economist in Residence at Goucher College, where he teaches History of Economic Thought.