# COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY

ST. MARY'S CEDS UPDATE | 2022

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## **ACKNOWLEDGEMENTS**

The St. Mary's County Department of Economic Development is focused on fostering an innovationdriven economy and is dedicated to promoting and supporting businesses within the county's core industry sectors (aviation/ aerospace, unmanned systems, advanced manufacturing, tourism, and agriculture/aquaculture), ensuring a high quality of life for a talented and diverse workforce, building a robust environment for innovation and entrepreneurship, and enhancing the important mission of Naval Air Station Patuxent River.

### Thank you to the members of the Economic Development Commission, who helped guide the development of this report:

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Special appreciation to the many stakeholders who participated in the working sessions in June 2022 - your input helped to shape the recommendations that appear in this report.



## Fourth Economy designed and supported the development of this publication for the St. Mary's County Department of Economic Development.

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## **EXECUTIVE SUMMARY**

This document serves as an update to the St. Mary's County 2017 Comprehensive Economic Development Strategy (CEDS). **Its purpose is to guide the Department of Economic Development (DED) as it pursues initiatives to advance economic growth, resilience, and quality of life throughout the county.** In this pivotal moment, as St. Mary's County emerges from the aftermath of the COVID-19 pandemic, DED is excited to pursue the strategies and recommendations presented in this CEDS.

The county's economic opportunities and challenges are presented for four main focus areas, which were determined by the dedicated work of members of the Economic Development Commission (EDC). Those areas are Workforce **Development and Talent Attraction; Tech** Transfer, Development, and Innovation; Local Agriculture and Seafood; and Rural Development and Quality of Place. The EDC also identified major resilience risks for the county, including natural disasters, sequestration or budget cuts, cyber attacks, food supply disruption, utility disruptions, the loss of anchor retail businesses due to e-commerce, and geographic vulnerabilities, as a peninsula, in respect to supply chain or evacuation.

Recommendations to bolster the county's resilience against these risks are presented within each key focus area section. These include establishing education and training programs to ensure local residents have skills needed to prepare for and address these challenges, developing an entrepreneurial focus on innovating and creating technologies that can detect and combat these risks, working with the agriculture, forestry, and seafood industries to anticipate and mitigate potential threats, and putting placemaking and development practices into place that prevent negative impacts of climate and market shifts.



Strategies related to the four main focus areas were designed with the help of local stakeholders who participated in build sessions during the summer of 2022. These community members are experts in their fields who work to address these opportunities and challenges every day. **The recommendations generated will be the roadmap for DED's work over the next five years.** They include:

- Establishing a forum for workforce development collaboration and the creation of a county-wide workforce and talent plan
- Building a mechanism to expose residents to apprenticeship and internship opportunities
- Strengthening the county's autonomous systems technology capabilities through access to formal and informal education in related skills
- Increasing innovation and collaboration with the Navy
- Expanding the ecosystem for innovation and entrepreneurship to encourage non-defense UAS startups, main street businesses, and innovation in general
- Creating a St. Mary's Ag & Seafood Brand and more actively promote the sector to consumers
- Identifying and attracting needed ag, seafood, and local food product infrastructure
- Developing a density of inclusive, welcoming quality of place assets
- Enabling development in designated districts while better communicating smart growth strategies to preserve the land necessary to support the ag and forestry sectors and support NAS PAX

DED is eager to pursue these strategies with the help of essential partners, listed in each strategy section, over the coming years. **With sustained focus on these critical areas, St. Mary's County will be well-positioned for economic success and growth and the betterment of all who call the county home.** 



## INTRODUCTION

The first Comprehensive Economic Development Strategy (CEDS) for St. Mary's County was approved in January 2017. Since then, the County's Economic Development Commission (EDC) established three working groups to guide the 2022 CEDS update to reflect current and emerging initiatives, and ensure the 2022 CEDS adequately sets the foundation and framework for the St. Mary's County Department of Economic Development (DED)'s workplan for the coming five-year period.

The 2022 CEDS update builds on that research and input from the EDC's three working groups:

- Document Review Workgroup This committee reviewed the 2017 CEDS document to ensure findings and recommendations are still valid and to suggest minor revisions where necessary. This includes identifying where new research is needed.
- Economic Resilience Workgroup This committee guided the drafting of a section for the CEDS that addresses how DED can best position itself, given the changes to the economy and business organization that are occurring due to the COVID-19 pandemic and other potential disruptors, aligned with the St. Mary's County Continuity of Operation Plan.
- New Initiatives/Projects Workgroup This committee explored the question, "is new material needed to properly inform a five-year workplan for DED, given the established priorities?" Sustainable Communities and the Regional Innovation Collaborative are two examples of recent initiatives that show alignment with the CEDS.

In preparation for the 2022 CEDS update, several documents were reviewed to ensure prior planning efforts and ongoing economic development activities were reflected in the DED's ongoing work:

- 2020 St. Mary's County Innovation District Master Plan Final Report
- 2019 Lexington Park Sustainable Communities Renewal Application
- 2017 Assessment of the County's Development Review Process: St. Mary's County, Maryland
- 2016 Lexington Park Development District Master Plan
- 2016 St. Mary's County, Maryland Comprehensive Economic Development Study & Proposed Strategy (CEDS)
- 2016 St. Mary's County Tourism and Hospitality Master Plan

In addition, SelectUSA, a U.S. government program led by the U.S. Department of Commerce, in early 2022 prepared an analysis of the strengths, opportunities, and challenges of St. Mary's County related to its General Economic and Business Environment; Industry Clusters; Demographics; Workforce; Foreign Direct Investment and Export Competitiveness; and Living Environment. Data from that report is referenced throughout this CEDS update. The output of the EDC's working groups, the report review, and data analysis were synthesized into four focus areas for St. Mary's County's 2022 CEDS:

- Workforce Development and Talent Attraction
- Tech Transfer, Development, and Innovation
- Local Agriculture, Forestry, and Seafood
- Rural Development and Quality of Place

Interviews were conducted with stakeholders working in each of these four areas to better understand and validate the county's prevailing challenges and opportunities. Following these interviews, four working sessions were held with experts in each focus area to workshop and refine resilience solutions. The strategies herein reflect the output of those sessions as well as St. Mary's County Department of Economic Development ongoing priorities and new initiatives.

### **ECONOMIC RESILIENCE**

The 2022 CEDS contains an economic resiliency plan that is inclusive of existing and new initiatives that will help St. Mary's County reduce vulnerabilities in key areas. Through the CEDS planning process, St. Mary's stakeholders identified the following risks to economic resilience:

### Tier I – Major Disruptors

- Natural Disaster/Hurricane
- Sequestration/Budget Cuts
- Cyber Attacks

### Tier II – Underlying Across Multiple Tier I Vulnerabilities

- Food Supply Disruption
- Utility Disruptions
- Redevelopment of disappearing retail losing anchor retail and the trickle effect-pivot to e-commerce
- Geographic vulnerabilities in respect to supply chain and/or evacuation
- Warning signs of downturn including early warning tools/economic indicators, as well as strategies to implement in light of early warning

In response to these possible threats, a resilience lens was applied to each of the existing priorities and the action items that advanced during the planning process. Overall, these risks point to a need to diversify the county's economic base and further prioritize existing and emerging sectors. The Key Areas of Focus include specified actions to meet relevant goals of economic resilience.

Metrics to track over time to assess the health and progress of these goals is included in the Appendix.

# **KEY AREAS OF FOCUS:** Workforce development AND TALENT ATTRACTION

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## **KEY AREAS OF FOCUS**

### WORKFORCE DEVELOPMENT AND TALENT ATTRACTION

Ensuring that the county has a workforce that is available and properly trained to meet the needs of local businesses is a priority for defense contractors, fabricators and manufacturers, aviation businesses, and others. St. Mary's County has an attractive employment landscape with a low unemployment rate (4th lowest annual average unemployment rate in state at 4.5%) and many high-wage job opportunities in growing industries. Multiple colleges and university research facilities, such as St. Mary's College of Maryland, College of Southern Maryland, University System of Maryland at Southern Maryland, and the University of Maryland, are located within the county, providing the opportunity to retain college graduates and researchers.

Projected growth rates are highest for jobs requiring bachelor's and postgraduate degrees. Top forecasted occupation supply gaps are for computer and business occupations. The top occupation cluster location quotients (LQ)<sup>1</sup> are Science, Technology, Engineering, & Math; Government & Public Administration; and Information Technology, which indicates that the percentage of people employed in these sectors is higher than the percentage in the US overall – in other words, that St. Mary's County has a high concentration or specialization in these careers.

The Aerospace Vehicles and Defense Industry Cluster has higher average annual wages per worker than the U.S. average and faster average annual wage growth than both Maryland and the U.S.<sup>2</sup> The county is expected to see employment growth for high-wage industry clusters, including:

- Aerospace Vehicles and Defense Industry Cluster (average annual wages per worker: \$120,875)
- Business Services Cluster (average annual wages per worker: \$101,753)
- Information Technology & Analytical Instruments Industry Cluster (average annual wages per worker: \$88,893).<sup>3</sup> The Information Technology occupation cluster has the highest 5-year forecast growth rate at 6.5%.<sup>4</sup>

St. Mary's is in the top 18% out of 3,110 counties in the country in the Educational Attainment Index.<sup>5</sup> It is also 4th in state for bachelor's degree and graduate degree attainment for age 25+.<sup>6</sup> However, this trend is concentrated largely among those working in the Aerospace and Defense sectors, with many other pockets of the county experiencing lower educational attainment and fewer pathways into the county's more lucrative industry clusters. With a population that is expected to grow, particularly among young adults, the county can further leverage its higher education institutions by ensuring that they provide the skills needed by area employers to fill current and projected gaps in targeted local industries.

The county is a member of the ACT<sup>™</sup>Work Ready Communities program, which both certifies workers to better help them land jobs, and helps employers to fill jobs with trained employees that have documented skills. As the county carries out its goals in the ACT<sup>™</sup> Work Ready Communities program as a key task for the next five years, it will not only help train community members for local jobs, but will also help area businesses enhance the skills of their employees.

Additionally, strengthening existing and developing new internship, apprenticeship, and mentoring programs, while also analyzing future needs to develop programs that help firms fill positions, can help prepare local students and others for career opportunities in in-demand and high-paying occupations. This also begins to create a pipeline of talent for area employers.

### NEW INITIATIVE

### Developing a Workforce Attraction and Retention Master Plan can help address the county's workforce and talent challenges.

With its goals of replicating the success of places like Leonardtown, with its high standard of living, quality of place amenities, and mixed-use, walkable communities, the county has the opportunity to attract talent from outside the region, especially remote workers. Ensuring there is an adequate supply of affordable, workforce housing and the amenities desired by targeted professionals is crucial to talent attraction efforts; **therefore the development of a countywide housing plan is also recommended.** 

### attraction efforts on training, education, and skills ed skills. As the

RESILIENCE

 Environmental Science (Disaster and Risk Management), Renewable Energy, Green Infrastructure, and Utility Management - in order to anticipate and mitigate the impacts of hurricanes and other natural disasters

WORKFORCE DEVELOPMENT AND

The Department of Economic Development

to focus workforce development and talent

should work with education and training partners

- Cybersecurity in order to grow our own computer science capabilities as resilience to cybersecurity threats
- Food Science, Technology, and Innovation - to design and implement food traceability standards and policies to prevent food safety issues and augment against food supply disruption
- Public Sector Administration (Financial Management and Accounting) - to prepare for and bolster against future potential sequestration and budget cuts
- Economic Development, Commercial Banking, and Project Financing – to help reverse the effects of the loss of anchor retailers and pivots to e-commerce

### KEY WORKFORCE DEVELOPMENT RESILIENCE INDICATORS

The Department of Economic Development should maintain data around the number of and enrollment in training programs, as well as educational attainment (via Integrated Postsecondary Education Data Systems (IPEDS) - see appendix for all indicator-tracking data sources) in cyber security, food science and technology, public financial management and accounting, economic development and commercial banking, renewable energy, green infrastructure, and environmental science, in order to track the growth and development of these sectors from a workforce development standpoint, to ensure there is ample local talent trained in these important areas of resilience.



# **KEY AREAS OF FOCUS:** TECH TRANSFER, DEVELOPMENT, AND INNOVATION

## TECH TRANSFER, DEVELOPMENT, AND INNOVATION

The Naval Air Station (NAS) Patuxent River, as the county's largest employer, has a huge influence on St. Mary's County's economy and has propelled the growth of innovation and technology in the region. After the air station complex was selected to host the Naval Air Warfare Center Aircraft Division (NAWCAD) and Naval Air Systems Command (NAVAIR) in the 1990's, this led to new research, development, testing, and evaluation capabilities and facilities. As a result, technology firms and innovationfocused businesses have been growing in recent years, particularly in the commercial aviation sector.

This growth is reflected in the county's ranking among innovation economies nationwide. St. Mary's County ranks 440th of 3,110 U.S. counties in the StatsAmerica Innovation Intelligence Index, placing it in the top 14% of all counties in the U.S.<sup>7</sup> This includes:

- Human Capital and Knowledge Creation Index 153.7 (rank: 113; top 4%)
  - » Technology-Based Knowledge Occupation Clusters (rank 5)
  - » Average High-Tech Industry Employment Share (rank 11)
- Average High-Tech, Early-in-Life-Cycle Establishment Ratio (rank 48)
- Patent Diversity (rank 162)
- Patent Technology Diffusion (technology spreads and is adopted - rank 1,501)
- Establishment Dynamics (establishment churn - rank 1,151)

One important area for NAS Patuxent River's innovation-related capabilities has been uncrewed aircraft systems (UAS), which includes civilian applications at the UMD UAS Research and Operations Center, as well as the opening of the University System of Maryland at Southern Maryland's (USMSM) Autonomous Research and Technology (SMART) Building in 2021. These facilities and many of the aviation technology firms are clustered around another major economic asset, the St. Mary's County Regional Airport within AeroPark Innovation District.



### NEW INITIATIVE

An Innovation District Master Plan was completed in 2020 for the Airport and nearby area. The Plan lays out how best to build out the airport, the private sector businesses on airport property, and the industrial park to the north of the airport, to maximize the potential for an environment that fuels an innovation ecosystem, strategic business attraction, and workforce development tied to UAS, aviation, and technology. Key accomplishments of ongoing Master Plan implementation include branding the innovation district including logo and signage, renovation of the terminal building to include space for events, food service, and rental office space, and completion of site preparation of the county-owned 30 acres on the west end for development.

This priority includes ensuring that local defense contractors continue to solve defense-related problems and win important contracts, that the Navy is satisfied with work performed by firms in St. Mary's County, and that the Navy looks to the county as a source of UAS technology. It also includes ensuring that AeroPark Innovation District businesses can provide technologies to address commercial as well as Navy problems. The work will enable the technology created on base to increasingly fuel the local economy. The continued implementation of the Innovation District Master Plan will leverage the aforementioned assets clustered in the area to not only encourage the growth of uncrewed autonomous systems technology but also innovation in general.

Still, interviews with stakeholders conducted as a part of the engagement process for this CEDS update revealed that there is a need for Research and Development, prototyping, and limited production facilities to make up for the lack of large-scale manufacturing resulting from geographic and other constraints. Needs include ensuring zoning works for these types of businesses, and focusing on dual use technologies, i.e., not only government but greater emphasis on commercial use cases, which offers faster economic growth opportunities. While the AeroPark Innovation District and USMSM's SMART Building are strengths, increased private and public funding is needed to generate and scale entrepreneurial activity and allow these efforts to reach full potential, as well as emphasizing and developing research capabilities as discrete activity separate from innovation due to differences in funding and approach to work. This includes the need for more local investment to maintain economic benefits within the county, as well as better utilizing local funding resources such as those through Maryland's Technology Development Corporation (TEDCO) and Maryland Economic Development Corporation (MEDCO).

Huntsville, Alabama is an aspirational community in its abilities around business attraction, promotion of local companies, and supporting contract competitiveness. There is an opportunity to apply best practices, in St. Mary's County, such as increasing sharing events and open transfer portals, to attract and grow local businesses, and engage government to enhance two way tech transfer into and out of the government and the base.

### NEW INITIATIVE

St. Mary's County is focused on building upon the clustering of academic research and testing activity to ensure local tech firms can capitalize on the emerging demand for commercial autonomous systems. They are doing this by prioritizing partnerships with tenants at TechPort, which is strategically located in the heart of AeroPark as a physical space with intentional programming and events that creates meaningful collisions between the Navy and non-DoD entities. Current tenants could also serve as the conduit for facilitating collaboration between the Navy and private sector. The goal of this work is to continue to improve connections between base work and the local economy.

### **INNOVATION AND RESILIENCE**

The Department of Economic Development should work with innovation, entrepreneurial, and tech transfer partners to ensure their activities include a focus on the following areas:

- Environmental Disaster and Risk Management, Renewable Energy, and Utility Management - in order to anticipate and mitigate the impacts of hurricanes and other natural disasters
- Cybersecurity in order to prevent and combat cyber attacks across public and private sectors
- Food Science, Technology, and Innovation

   to design and implement food traceability technology solutions to prevent food safety issues and augment against food supply disruption
- Public Sector Administration (Financial Management and Accounting) – to create technology solutions that will help the public sector prepare for and bolster against future potential sequestration and budget cuts
- Small and Independent Business
   Development to develop new economic activity that will help reverse the effects of the loss of anchor retailers and pivots to e-commerce

### **KEY INNOVATION RESILIENCE INDICATORS**

The Department of Economic Development should maintain data around cyber security, food innovation, financial management and accounting, renewable energy, sustainability, and disaster preparedness companies and technologies (via SBIR - see appendix for all indicator-tracking data sources); investments into these technologies and companies; as well as small business/new establishment-starts to track the growth, health, and development of these economic sectors.





# **KEY AREAS OF FOCUS:** Local Agriculture, Forestry, and seafood

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## LOCAL AGRICULTURE, FORESTRY, AND SEAFOOD

St. Mary's County has a rich culture of Chesapeake Bay tidewater farming, fishing, and crabbing. Agriculture represents one of the oldest facets of the local economy, and the industry continues to evolve.

- As of 2017, according to the most recent Ag Census data, the County had 61,803 acres of farmland and 615 farms.
- Market value of products sold was \$26 million, with 79% of sales from crops and 21% from livestock, poultry, and products.<sup>8</sup>
- The total value of agricultural products sold in the county increased 19% from 2012 to 2017, reaching nearly \$26 million in total sales in 2017.
- The number of operations with hired farm workers increased 17% from 2012 to 2017 and during that time the number of hired farm workers increased 37%.
- St. Mary's County's 10-year forecast growth rate for Agricultural Inputs & Services is 6.9%, indicating this will continue to be an important economic factor in the region

What's more, the county has high employment specialization in Aquaculture, Fishing & Fishing Products (2.82 LQ). The number of aquaculture operations with sales and distribution went from 3 in 2012 to 12 in 2017, an increase of 400%. Total sales and distribution was more than \$3 million in 2017, which was 17% of Maryland's total. 22% of Maryland's aquaculture operations with sales and distribution are located in the county. While not the largest source of jobs or income, agriculture and seafood remain the major share of land use. These industries are important contributors to the county's economy while also helping to preserve its natural resources and beauty.

There is a need to identify and attract necessary infrastructure to support the processing, sales, and distribution of Ag, Forestry, and Seafood products. In particular, there is demand and desire for more meat processing facilities, including both USDA approved kill floors and finer butchering. Since many producers are currently spending money out of the state, this type of facility would save producers time and money. It also has the potential to increase production with the anticipated saving. Similarly, infrastructure like a custom crush facility, which requires large, upfront capital investment, could support the local beverage industry. In December 2021, St. Mary's County Commissioners authorized funding for the construction of the Regional Agricultural Center (RAC). The facility on New Market Turner Road will include a butcher shop for cut and wrap, finer meats processing, a meat locker, cold storage, warehousing and distribution, commercial kitchen, and product storage. The Southern Maryland Agricultural Development Commission (SMADC) has agreed to operate the facility under a long-term lease with the County, and the creation of apprenticeship and job training programs are planned.<sup>9</sup>

In April 2022, The Barns at New Market opened, and includes two buildings: a yearround facility and seasonal market. The space will host agricultural workshops, county public meetings, aggregation and distribution of farm products, and some limited processing.<sup>10</sup> There is an opportunity to locate additional farmers markets and outlets for locally grown produce, value added products, and meats at multi-use spaces where community members are already congregating and infrastructure is available that is accessible to pedestrians, cyclists, and slow moving vehicle traffic, like within parks or along FDR Boulevard. This promotes accessibility to shoppers and producers, and can offer electricity and wifi to producers who otherwise need to purchase hot spots and generators for refrigeration.

There is also a desire to improve licensing for food trucks and alcohol at farmers markets and other events. St. Mary's County is working to expand the number of farm breweries, wineries, and distilleries, including improving regulations that govern these operations. Farm based alcohol production was limited in the past, due to zoning and regulatory restrictions, though the county has recently updated to more business friendly regulations to encourage economic diversity and expansion.

St. Mary's County has an aggressive Land Preservation Program. The County Commissioners make significant investments into the budget for land preservation annually. The County has a goal of preserving 60,000 acres. To date, 29,430 acres have been preserved in St. Mary's. The County utilizes two programs for land preservation: 1) the Maryland Agriculture Land Preservation Foundation (MALPF), and 2) the Rural Legacy Area program. Both programs allow land owners to receive funding in exchange for giving up future development rights. The program allows St. Marv's to maintain the critical land required to retain and expand existing ag based businesses, supports new and diverse agriculture operations, and restricts development to reduce encroachment of NAS Pax River

### NEW INITIATIVE

The county will assess how to manage and support its farmers markets for new and expanded direct marketing of local food products, as well as explore additional marketing and promotional opportunities like a St. Mary's County Ag and Seafood Brand and campaign to support locally made products.

St. Mary's County is exploring additional ways to leverage its land preservation efforts, its support for farm breweries, wineries, and distilleries, increased direct marketing opportunities, and adding processing, sales, and distribution infrastructure to better support the growth and diversification of local farming, forestry, and seafood related activities including horticulture, wineries, agritourism, and aquaculture.

### AGRICULTURE AND RESILIENCE

The Department of Economic Development should work with partners in the agriculture, forestry, and seafood industries to develop a focus on the following areas:

- Environmental Disaster and Risk Management, Renewable Energy, Green Infrastructure, and Utility Management - in order to anticipate and mitigate the impacts of hurricanes and other natural disasters that may negatively impact agricultural land, forestry, fishing and aquaculture operations
- Food Science, Technology, and Innovation - to design and implement food traceability standards, policies, and technology solutions to prevent food safety issues and augment against food supply disruption
- Small and Independent Food and Agricultural Business Development

   to develop new economic activity that will help reverse the effects of the loss of anchor retailers and pivots to e-commerce

### KEY AGRICULTURE RESILIENCE INDICATORS

To anticipate early warning signs of economic downturn or potential weakness against natural shocks/stressors, the Department of Economic Development should track data around renewable energy and green/ agricultural infrastructure development at agriculture, forestry, and seafood operations; employment and revenues of the agriculture, forestry, and seafood industries; and small business/new establishment-starts (via Census, Business Formation Statistics see appendix for all indicator-tracking data sources), which can help ensure these industries are prepared for and preventing natural disasters, combating against threats to food safety, and encouraging economic diversification.

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# **KEY AREAS OF FOCUS:** Rural development AND quality of place

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# RURAL DEVELOPMENT AND QUALITY OF PLACE

St. Mary's County has a population of approximately 114,000<sup>11</sup> and is known for its compelling combination of history, high-tech innovation, and natural landscape, which the county seeks to preserve through applying smart growth and mixed-use development principles.

The county is recognized for having strong career opportunities that offer high earnings potential. St. Mary's is in the top 16% of 3,221 counties nationally for Young Adult Population Growth Rate<sup>12</sup>, and has a higher population annual average growth rate than Maryland and the U.S.<sup>13</sup> There is a lower poverty level and higher median household income than in Maryland and the U.S.<sup>14</sup> The Economic Well-Being Index is in the top 8% (rank 239) indicating a high standard of living.<sup>15</sup>

From a tourism and leisure perspective, St. Mary's County boasts five state parks and 22 county parks that feature boat ramps, beaches, fishing piers, playgrounds, a skate park, and a disc golf course. The county is expanding public water-access to the Bay, Potomac, and St. Mary's River through improvements at Shannon Farms Park, Leonardtown Wharf, and new private charter service in Ridge, MD. St. Clement's Island is a premier archaeological and outdoor living history museum, while visitors are attracted by the county's lighthouses, Patuxent River Naval Air Museum, and Leonardtown Arts & Entertainment District. Over 50 festivals and fairs include the River Concert Series, Crab Festival, County Fair, Oyster Festival/National Oyster Shucking Championships, and Wine Festival.<sup>16</sup>

The St. Mary's College of Maryland Performing Arts Building featuring a 700-seat auditorium and a 125-seat recital hall opened in August 2022, and the new conference facility at USMSM is Maryland's largest meeting space south of the DC beltway. All of these assets are thoroughly promoted by Visit St. Mary's, which operates as a private, nonprofit 501(c)6 with a contract for services with the county. St. Mary's County recently adopted this private model to better serve its destination marketing efforts, as outlined in the most recent St. Mary's County Tourism and Hospitality Master Plan, a component of the 2017 CEDS.



The St. Mary's College of Maryland Performing Arts Building opened in fall 2022

The county is served by St. Mary's County Regional Airport, with Reagan Airport, BWI, and Dulles International airports within a 1.5 to 2 hour drive. Arteries in the county connect with U.S. 301, I-95 and I-495. Its close proximity to large metropolitan areas such as Washington D.C. and Baltimore is an asset to be leveraged for talent attraction and retention, as well as tourism. However, improved transportation to increase mobility to, from, and within the peninsula is needed. For example: consider adding ferry access for recreation, commercial, and transit, as well as options similar to the new trolley in Leonardtown to connect quality of place assets. There is a need to improve food access for rural communities and to create more amenities for children such as community centers, parks, and other desirable amenities. There is also an opportunity to expand inclusive cultural and recreational assets tailored to a larger more diverse audience, prioritize the development of independent locally-owned businesses, as well as encourage and advertise "clusters" of assets to increase visitors.

This is being addressed in part by clustering development around specific hubs like Leonardtown, St. Mary's City, Great Mills Road, the Aeropark Innovation District, and Lexington Park.

#### NEW INITIATIVE

The County recently received a Sustainable Communities redesignation for Lexington Park, which grants access to State of Maryland revitalization tools to support development and revitalization.

The Lexington Park Sustainable Communities Master Plan details numerous objectives for improving the quality of life in the Lexington Park commercial corridor.

Several St. Mary's County departments are engaged in ongoing implementation tasks, including initiating a streetscape and façade improvement program, improving pedestrian and bicycling routes and accessibility, improvements to Lexington Manor Passive Park and Lancaster Park, supporting community events, and recently establishing a business association, LexBA. County Commissioners also approved plans in 2021 for a YMCA facility in Lexington Park that is proposed to contain a gym, pool, a multipurpose room, a youth development zone, a conference room, and a kitchen.

This clustering is an important strategy given that 18% of county land is designated as protected "critical area." The county has developed designated development districts in response, to accommodate development while mitigating environmental impacts on critical areas and retaining the county's rural character. Still, developers, investors, and business owners often are unsure of the policies relating to these districts, as well as how to access opportunities.

### NEW INITIATIVE

Business attraction, retention, and growth can be encouraged by creating a "front door" process and resource guide for new and prospective business owners, including coordination between county and state; prioritizing and promoting proactive zoning updates based on targeted businesstypes; providing assistance with infrastructure and sustainability, particularly: innovative septic solutions, expanding utilities, and support with "critical area" requirements, and greater regional collaboration as it relates to infrastructure. These strategies are consistent with the findings of the **Business Friendly Environment-**Zucker Report as well as its implementation.

## RURAL DEVELOPMENT AND RESILIENCE

The Department of Economic Development should work with development and placemaking partners in the county to encourage a focus on the fololwing areas :

- Environmental Science (Disaster and Risk Management), Renewable Energy, Green Infrastructure, and Utility Management - in order to anticipate and mitigate the impacts of hurricanes and other natural disasters
- Small and Independent Business Development and Project Financing

   to develop new economic activity that will help reverse the effects of the loss of anchor retailers and pivots to e-commerce

### KEY WORKFORCE DEVELOPMENT RESILIENCE INDICATORS

To anticipate early warning signs of economic downturn or potential weakness against shocks or stressors, the Department of Economic Development should track data around new infrastructure development and maintenance within the county, project financing, employment and revenues of the tourism and hospitality industries (via StatsAmerica, USA Counties in Profile - see appendix for all indicator-tracking data sources), and small business/new establishment-starts. These will help ensure the county is prepared for the threat of natural disasters and is increasing economic diversity.



# **RECOMMENDATIONS AND STRATEGIES**

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## RECOMMENDATIONS AND STRATEGIES

## **1. WORKFORCE DEVELOPMENT AND TALENT ATTRACTION STRATEGIES**

#### a. Develop a forum for workforce development collaboration to foster the creation of a county-wide workforce development and talent attraction and retention plan

There are many successful workforce development, skills training, educational, and talent attraction and retention programs currently in place in St. Mary's County. For example, local colleges and universities train both graduate and undergraduate students in skills for in-demand careers. The Naval Air Warfare Center Aircraft Division Strategic Education Office is launching a \$1 million workforce initiative. Additionally, the Department of Economic Development is working to connect new hires to the area, promote the area's amenities and attractions, and connect newcomers to resources, such as through the 20 Away-Talent attraction campaign highlighting the benefits of living and working in the county, which launched in 2020 and will continue through 2023. However, anecdotally, opportunities for professional and social connections are not well communicated, especially outside of the Navy, leaving many workers who are new to the area feeling disconnected.

Regional stakeholders across St. Mary's County already work together to create partnerships and tap into workforce development resources provided by federal, state, and local agencies. **However, there is a general lack of awareness across entities working in this space about what other organizations are doing.** 

More could be done to integrate these efforts, share information and resources, and collaborate toward shared goals. To that end, a county-wide workforce development and talent attraction and retention plan is needed, facilitated by the creation of a forum for workforce development collaboration.

## **ACTION STEPS**

- Develop a SWOT analysis of the workforce development space and document the importance of creating a forum for ongoing collaboration through a convening of workforce development, training and education, and talent attraction/retention partners.
- 2. Create buy-in among the county's broad selection of organizations and employers by conducting outreach to ensure broad participation, diversity, and representation within the forum.
- 3. Together among forum members, develop an organizing framework, including mission and vision statements. Build a Workforce Development and Talent Attraction and Retention Master Plan that details shared goals, and objectives to work on to reach those goals over the next 5 years. Objectives might include developing a series of open houses at workforce development organizations, or creating a welcome packet for organizations to give to new hires.

## **STAKEHOLDERS**

- College of Southern Maryland (CSM)
- Forrest Tech Center
- Local employers
- Maryland Autonomous Technology Research and Innovation Xploration (MATRIX) Lab
- Naval Air Station Patuxent River (NAS PAX)
- Southern Maryland Workforce Development Board
- Southern Maryland Navy Alliance (SMNA)
- St. Mary's College of Maryland (SMCM)
- St. Mary's Chamber of Commerce
- St. Mary's County Department of Recreation & Parks
- St. Mary's County Public Schools
- St. Mary's Young Professionals and other young professionals networks
- Tri-County Council for Southern Maryland
- The Patuxent Partnership
- UMD UAS Research and Operations Center
- University System of Maryland Southern Maryland (USMSM)

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#### b. Establish a mentor program to help expose residents to existing apprenticeship and internship opportunities, pique interest in these programs, and instill confidence

There are many apprenticeship and internship programs deployed in St. Mary's County that do a great job preparing students and adult learners for jobs in target industries, both within and separate from the Navy.

One key challenge is that there is currently no entity operating a centralized hub for advertising, promoting, and recruiting for this multitude of resources and programs.

The state of Maryland promotes and supports non-degree apprenticeship programs. Regionally, the Tri-County Council for Southern Maryland (TCCSMD) has funding available to support apprenticeships and internships, and can help employers build programs. Still, stakeholders agree that more paid high school internship programs are needed, and more local companies could be involved in providing summer employment opportunities. Employers like the Navy and other government agencies have security concerns with apprenticeship programs, which presents a barrier to participation in such efforts.

Some DOD contractors are interested, but are bound by Navy qualifications and labor code, and some students and adults have trouble successfully meeting these and passing security clearances. Generally, local resume and interview training for young people and residents is needed.

Furthermore, it is difficult to find hardto-reach students, especially those in underserved areas or from low-income families. An entity creating a central point of access, awareness, and communication as core to its work is needed to help people effectively through the career pathways pipeline. This can be accomplished by establishing a mentor program, through the Workforce Development Collaboration described above, to help expose residents to opportunities, pique their interest, and instill confidence.

### **ACTION STEPS**

- Document the county's many existing opportunities for students and adult jobseekers, by convening apprenticeship and internship providers, local employers, and workforce development entities. Promotion and marketing of these resources and programs can happen via website, social media, job fairs, open houses, or other means.
- 2. Highlight and communicate the value of the local talent pool and their abilities in order to recruit additional businesses as well as potential mentors.
- Help develop a framework for recruiting mentors within local companies ("Project Reach Back") with compensation, credit or recognition, or preferential evaluations and training.
- Define possible career and education pathways available in the county including occupations at area employers and display on a central website.

- Develop a "Local Mentor Spotlight" speaker series of industry leaders showcasing the types of job opportunities available to local schools.
- **6.** Support the creation and promotion of programs for soft skills development.

### **STAKEHOLDERS**

- Career centers within local high schools
- College of Southern Maryland (CSM)
- Career and Technology Education
- Department of Economic Development
- Forrest Tech Center
- Healthcare Industry (HR accounting billing coding)
- Local employers
- Tri-County Council for Southern Maryland
- Southern Maryland Navy Alliance (SMNA)
- St. Mary's County Chamber of Commerce
- St. Mary's College of Maryland (SMCM)
- St. Mary's County Public Schools
- The Patuxent Partnership (TPP)
- University System of Maryland at Southern Maryland (USMSM)

Apprenticeship and internship programs deployed in St. Mary's County include:

• AMP/Tech Jobs Rule is an initiative with the James A. Forrest Technology Center (Forrest Center), The Strategic Education Office of NAWCAD, The Patuxent Partnership, and member companies. Talented high school students who are interested in skilled work in manufacturing, business operations, and STEM fields are given paid apprenticeship opportunities with local industry and the government.

- Tri-County Council for Southern Maryland (TCCSMD) Summer Youth Employment Program is a six week paid work experience for young people aged 16-24
- Career centers within local high schools host job fairs
- UMD/CSM/USMSM/Navy Mechanical **Engineering or Electrical Engineering program** - CSM, in partnership with the University of Maryland (UMD), offers the Associate of Science Engineering Degree to its students. Upon completing the engineering curriculum at CSM, students may then transfer with junior status to earn a Bachelor of Science Degree in Mechanical Engineering or Electrical Engineering at UMD. Students also have the opportunity to do an internship with the Naval Air Warfare Center Aircraft Division (NAWCAD), a division of NAVAIR, with a possible employment opportunity upon successful graduation and completion of all Pathway Program requirements.
- College of Southern Maryland (CSM) has its cyber program, and its apprenticeship office
- St. Mary's College of Maryland (SMCM) has funding for internships, as well as career and internship fairs in the fall and spring
- U.S. Naval Test Pilot School (USNTPS) is a three week, unpaid internship program for high school students
- Navy STEM internships for high school students- Science and Engineering Apprenticeship Program (SEAP) places high school students in Department of Navy (DoN) laboratories where they take part in real Naval research for eight weeks during the summer.

- Navy STEM internships for college students:
  - STEM Student Employment Program (SSEP) provides direct hire authority for undergraduate and graduate degree seeking students enrolled in scientific, technical, engineering, or mathematics majors.
  - » Naval Research Enterprise Internship Program (NREIP) places college and university students in Department of Navy (DoN) laboratories where they take part in real Naval research for ten weeks during the summer
  - Science, Mathematics and Research for Transformation (SMART) Scholarship for Service Program has been established by the Department of Defense (DoD) to support undergraduate and graduate students pursuing degrees in science, technology, engineering and mathematics (STEM) disciplines.
- Navy Non-STEM Programs DoD College Acquisition Internship Program (DCAIP) is a paid, 10-week summer internship that provides students with real-world exposure to Department of Defense acquisition workforce career opportunities. The program targets fulltime second and third year students currently enrolled in an undergraduate program at an accredited college or university. Interns receive hands-on, practical experience in analysis, research, report writing, oral briefings, policy development, program analysis, and computer applications.
- Navy Navy Acquisition Development Program (NADP) provides highly qualified and talented entry level employees an opportunity for rapid advancement, regular promotions, systematic development, career broadening assignments and graduate education through a structured, systematic career development process using a career field Master Development Plan (MDP)



# 2. TECH TRANSFER, DEVELOPMENT, AND INNOVATION STRATEGIES

#### a. Connect pockets of excellence and broaden access to formal and informal education to strengthen the county's autonomous systems technology capabilities

One of the NAS Patuxent River's strongest innovation-related capabilities is autonomous systems technology. With applications in archaeology, farming, construction surveying, ovster restoration, health services and medication delivery, and energy and grid resilience, there is almost limitless potential for this field in both defense and non-defense related-industries. The state of Maryland has a focus on autonomy, and local educational institutions are beginning to zero in on this key area. For example, the Chesapeake Biological Laboratory (CBL) at UMD Center for Environmental Science does water research. and the UMD UAS Research and Operations Center is doing critical research in unmanned systems technology. The Naval Aviation Systems Consortium (NASC) was formed to support the technology needs of the Naval Air Warfare Centers (NAWCs) and the Naval Air Systems Command (NAVAIR), while TechBridge - NavalX enhances collaboration between Naval Labs, industry, academia, and other military branches through collaboration, knowledge sharing, and innovation with leading-edge tech companies.

Local innovation companies like Shield AI, formerly Heron systems, apply cuttingedge AI to build technological solutions for the defense industry. Meanwhile, the field is reaching the general public through tours of the MATRIX Lab in the SMART building, and autonomy competitions like NAWCAD & growingSTEMS robotics competitions. All of this activity has helped raise awareness and make connections, inspiring shared resources including state, local, and Navy investment, as well as grants and local industry involvement.

Despite this activity, stakeholder interviews revealed several challenges that the field faces. For one, there is a local need for prototyping and light manufacturing facilities to spur innovation and technology development, as well as more quantum and Al/machine learning capabilities and companies, as the building blocks of UAS. In addition, the region lags in water- and sustainable energy related applications, as well as agriculture and archaeology applications.

There is also a need to **reach new people to get involved in the sector**, not just Navy legacy employees, through better communication of events and opportunities, as well as **consistent focus, programming, and awareness** through the school system, like through high school competitions and camps to teach students, and continuing to develop graduate level research and innovation in key areas.

## **ACTION STEPS**

- Pull together a coalition of innovation ecosystem leaders to establish a plan that communicates focused efforts and defined outcomes.
- 2. Explore and support the development of a county-supported nonprofit to carry out the function of providing dedicated capacity and bandwidth to lead these efforts, located at the AeroPark Innovation District as a hub for autonomous systems technology and innovation in general in the county (potentially an Aeropark Innovation District Development Authority).
- Develop company-sponsored and funded science and innovation competitions for students kindergartenup. Get buy-in and support from industry, including funding and human capital as mentors and judges. Reengage large companies like Boeing and Lockheed Martin, as well as small, local, SBIR-supported businesses, by showing the ROI to their companies.
- 4. Create a continuum of investment opportunities, from K-12 to higher education to training for employment, to create sustained funding in education. For example, a central internship or job fair program could be offered through a community resource like health centers or Volunteer Fire Departments. Create a scholarship network with company support and buy-in. Develop mentorship with a network of educators and retirees.
- Develop relationships and regular touchpoints with statewide agencies such as MEDCO, TEDCO, Maryland Procurement Technical Assistance Center, and others that may help advance these efforts. Identify activities in other communities that are successful that St. Mary's County can learn from and replicate.

## **STAKEHOLDERS**

- Community nonprofits, faith-based, and social groups such as volunteer fire departments, VFWs, Rotary, Knights of Columbus
- Maryland Procurement Technical Assistance Center
- MEDCO
- National or local stem nonprofit like Robonation
- Navy, state, county, and local governments
- Research Park Association
- SMART building education and events
- Southern Maryland Heritage Area Consortium
- TEDCO
- USMSM

## b. Increase innovation output and collaboration with the Navy

There is an opportunity for tech firms to build on the clustering of academic research and testing activity and capitalize on the emerging demand for commercial autonomous systems products. The continued implementation of the Innovation District Master Plan will leverage assets clustered in the area to not only encourage the growth of uncrewed autonomous systems technology but also encourage the development of innovation activity in general. Together with this opportunity is continuing to develop the relationship with the entities in TechPort, a conduit for facilitating collaboration between the Navy and private sector. There are a number of strategies that can be deployed to help accelerate this work, described in the action steps below.

## **ACTION STEPS**

- Analyze the pros and cons of establishing a new, off-base entity with a dedicated coordinator to serve as lead organization for these initiatives (potentially the Aeropark Innovation District Development Authority/nonprofit described above). Recruit a steering committee of Navy and non-Navy stakeholders.
- Help plan for and launch "Aviation Week": a coordinated week of events to encourage stakeholders to develop a series of events during the same time frame to demonstrate a critical mass of activity.
- Support the development of additional Tech Gap workshops, building from the work of Southern Maryland Innovates, to identify the technology gaps and needs. This can be driven by the Navy roadmaps, etc, but before requirements are too defined. Build the resulting tech roadmap.
- 4. Leverage \$134 million in recent NAVAIR SBIR and STTR funding by creating an SBIR matchmaking program with regional partners, for industry and small business to learn about the need and opportunities.

## **STAKEHOLDERS**

- Academic Institutions
- Association for Uncrewed Vehicle Systems International (AUVSI)
- Industry partners
- Investors and Venture Capitalists
- Office of the Chief of Naval Operations (OPNAV)
- Office of Naval Research (ONR)
- Outreach providers
- MCWL Marine Corps Warfare Lab
- NAVAIR SBIR PM
- Naval Air Warfare Center Aircraft Division (NAWCAD)
- Naval Aviation Systems Consortium (NASC)
- Small Business Development Center
- Startups

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UMD/USMSM

## c. Encourage non-defense UAS startups, and innovation in general

In addition to the strong defenserelated business development happening in St. Mary's County, the presence of commercial innovation activity and main street business activity enhances quality of life and increases economic strength of the area. This is displayed in the Lexington Park development and the work of its CDC; the strength of the ag and seafood industry and its partnerships with state and federal resources; the branding of the Aeropark Innovation District, which provides structure and assets for encouraging innovation in general; and the work of Deloitte in 2022 to identify and capitalize on unique opportunities at the SMART Building to become a leader in aviation, UAS, and Advanced Air Mobility (AAM) startups and innovation.

Innovation is encouraged at the collegiate and pre-college level through:

- K-12 STEM curriculum at St. Mary's Public and private schools
- Career development bridges to the STEM and IT industry
- AMP/Tech Jobs Rule through the Forrest Center, Strategic Education Office of NAWCAD, and The Patuxent Partnership
- SMCM's marine science major, Pathways to Engineering program, and LEAD program (Learning Through Experiential and Applied Discovery), each of which foster creative problem solving skills while blending academic experience and professional skill development, and connect students to local hands-on learning opportunities.

More can be done to foster startup activity, through the development of an educational ecosystem for innovation and more intentional and proactive communication about the county's many startup resources available to entrepreneurs and innovators.

## **ACTION STEPS**

- Lead the development of an enhanced ecosystem for UAS by convening regional stakeholders to determine and collaborate around what is needed.
- 2. Develop a resource guide for commercial, nondefense UAS innovation, potentially housed on the Southern Maryland Innovates website.
- Map a framework for an innovation educational/ workforce development ecosystem and its implementation. Solicit buy-in from businesses and industry for internships and developing students.

## **STAKEHOLDERS**

- CSM
- Deloitte
- James A. Forrest Technology Center (Forrest Tech Center)
- Pax Partnership
- Public Schools
- USMSM
- SMCM
- Navy Alliance
- Chamber of Commerce
- Department of Economic Development
- Southern Maryland Innovates
- St. Mary's County Community Development Corporation

### **3. LOCAL AGRICULTURE, FORESTRY, AND SEAFOOD STRATEGIES**

#### a. Develop St. Mary's Ag & Seafood Brand and more actively promote the sector

St. Mary's County has seen a surge in interest in local agriculture and seafood over the past several years. Activities like Oyster Festival, the development of the First Landing Wine Trail, Farm to School Week, pick your own fruit farms, and destination farmers markets, have helped drive consumer awareness and buy-in, as do traditional institutions like the County Fair and 4H. Businesses like West Ham Butcher Shop, Clover Hill Dairy, and the Southern Maryland Meats program have driven demand and provide consumers with great local products. Meanwhile, infrastructure like the county's land preservation and rural legacy programs, as well as the produce auction in Loveville help the agriculture community grow and thrive.

More can be done to increase promotion of local seafood and agriculture, including the marketing of local food products in local grocery stores, more weekday farmers markets and money for farmer market promotion, additional commodity trails (e.g., Maryland Department of Agriculture's state-wide ice cream Trail) and transportation to bring people on agriculture-tours, more local food tasting events, festivals, and other celebrations, and general marketing support for the sector, including accessibility to broadband for online marketing. This can be supported with the creation of a St. Mary's County-specific Ag & Seafood Brand.

## **ACTION STEPS**

- Put out an open invitation to create and join a Steering Committee/Working Group to all ag, seafood, and forestry practitioners and producers (including growing fields like urban ag) to help generate ideas to develop the brand and promote the sector. Recruit participants via:
  - » Local farmers markets
  - » Maryland Farm & Harvest (local PBS show)
  - » Southern Maryland Beekeeping FB Group

This Committee or Group should survey consumers on their preferences, and determine the parameters of what is considered "local."

- Identify sources of funding for development of brand and material development (infographics, pamphlets, label stickers), marketing and online selling training, including SMADC grant funding and USDA.
- **3.** Connect with existing events like Taste of St. Mary's and US Oyster Festival to encourage cross-marketing.
- Promote/market the program through existing ag tours and marketing efforts, social media, the Visit St. Marys website, Craft beverage app, and others. Develop an ag and seafood digital presence similar to Loudoun County, VA and Frederick County, MD.
- Develop a networking series for peer learning opportunities (like an Agriculture Chamber of Commerce). Connect producers with business training resources for things like book-keeping, permitting, land acquisition, etc, such as those offered through organizations like the University of Maryland College of Agriculture and Natural Resources.
- 6. Pursue opportunities to promote and sell St. Mary's County products state-wide through things like a Maryland craft food festival or catalog.

## **STAKEHOLDERS**

- Chesapeake Alliance for Sustainable
   Agriculture / <u>Future Harvest</u>
- County Agriculture, Seafood, and Forestry Board
- Farmers recruited by:
  - » Farm Bureau
  - » County Extension
  - » Maryland Forestry Association
- Maryland Department of Agriculture
- Maryland Wineries Association (supported by "<u>Grow and Fortify</u>")
- Rural Maryland Council
- Southern Maryland Agricultural Development Commission
- St. Mary's County Watermen's Association
- Tri-County Council for Southern Maryland
- University of Maryland College of Agriculture and Natural Resources
- USDA
- Visit St. Mary's MD

#### **b. Identify and attract additional needed ag, seafood, and local food product infrastructure**

The launch of The Barns at New Market in early 2022, which was built to replace and expand the current North County Farmers Market, provides space for a seasonal market with multiple vendor stalls; a 5,100-squarefoot year-round Value Added Market that will provide for a vast array of market and community activities geared towards agriculture & aquaculture; a boardwalk through the woods linking the market buildings to the nearby Three Notch Trail; ample parking; and public restrooms. The anticipated 2023 completion of the Regional Agricultural Center (RAC), which will include a butcher shop, finer meats processing, meat locker, cold storage, warehousing

and distribution, commercial kitchen, and product storage, will fill an existing gap in meeting St. Mary's County's local food product infrastructure needs. The Loveville Produce Auction. The Barns at New Market. the California Farmers Market, and the Home Grown Farm Market, Cheese House, local sawmills, and active equipment dealerships also help fill important roles in the processing, storage, and selling of local agriculture, seafood, and forestry products in the county. This has enabled the growth of the fresh cut flower industry, for example, as well as the local grain market, timber industry, and oyster farming locally. Strong land preservation and soil conservation programs, funding, and assistance through the Extension Service help support the sector as well, helping to create a strong, diversified agricultural economy with small but intensive full time producers, agri-tourism, and loyal buy-local consumers.

However, several gaps remain, including seafood processing and mobile processing that can meet local demand, pulpwood sales and processing that is close to forestry businesses, grain processing and small flour mills, seafood infrastructure, particularly blue catfish processing and seafood cold storage, value added processing, particularly for vegetables and meat, and larger equipment dealerships with wide parts availability and repair. Additionally, land access for beginning farmers is a need, as is skilled labor for specialty crops, transportation assistance for commodity shipping (e.g., grains), and better connections between farms, schools and other institutions and businesses to buy local.

Stakeholders can work together to fill these gaps in needed agriculture, seafood, and forestry infrastructure to realize the full economic potential of these sectors.

## **ACTION STEPS**

- Identify and document all needed infrastructure by bringing producers together by sector, ensuring this is a producer-led effort. Conduct a needs assessment to validate and assess the extent of needs.
- Identify resources to facilitate implementation, including exploring the possibility of the formation of a co-op(s).
- Support and review an education needs assessment for needed agricultural skills, specifically on farm management, farm production, research and development, and value added products.
- 4. Prioritize ag education program needs and support the development of programs to provide technical assistance to help increase the effectiveness of producers.
- **5**. Create a taskforce to evaluate current regulations, zoning, and other hurdles to agricultural expansion and development.
- 6. Work with appropriate agencies, like local boards and county and state officials, to resolve identified issues.

## **STAKEHOLDERS**

- Ag industry and potential investors
- Agriculture, Seafood, and Forestry Board
- County farmers
- Department of Land Use and Growth Management
- Farm Bureau
- Farmers Amish/Mennonite and Large/ Small producers
- Land Grant Extension programs
- Regional Support
  - » Maryland Department of Agriculture
  - » Southern Maryland Agricultural Development Commission
  - » Maryland Agricultural & Resource Based-Industry Development Corporation
  - » Private businesses
- St. Mary's Soil Conservation District
- UMD Extension (production, alternative agriculture, and research and development)



## **4. RURAL DEVELOPMENT AND QUALITY OF PLACE STRATEGIES**

### a. Develop a density of inclusive, welcoming quality of place assets

St. Mary's County boasts many quality of place amenities that increases the quality of life for those who call it home. From the many museums and parks, to year-round weekend events and festivals (Juneteenth Festival Weekend, First Fridays, Beerfest at Historic St. Mary's City, Oyster Festival, Taste of St. Mary's, River Concert Series, Jazzfest, Art Show Weekend, Christmas Tree Lighting), to sunset cruises, and hiking and kayaking excursions, the county has something for everyone, and has been able to attract tourism from the Baltimore-Washington metro area. However, existing assets and attractions can be enhanced and marketed to better meet the needs, interests, and desires of prospective residents and visitors. The county can seem to lack diversity at first glance, though many diverse events and amenities are hidden in plain view and must be found out via word of mouth. Many new residents and young professionals in particular don't feel connected, and see little by way of culinary, theater, music, or other nightlife culture. Main street businesses - such as restaurants, retail, and arts & entertainment establishments – are known to improve vibrancy and pride of place within a community in addition to serving as an economic driver.

Existing quality restaurants, experiences, and attractions must be **clustered together** to have an effect of density. What's more, additional marketing and promotion can help drive awareness and feelings of connectedness to what is happening across the region.
# **ACTION STEPS**

- Work with partners, like Visit St. Mary's, to create a central communication mechanism to help county residents more readily discover events and local assets. Develop additional marketing and promotion tactics to showcase existing assets and events to local residents, including Sirius and college/community radio; a community news hub to advertise happenings; and a welcome packet with diverse representation, in coordination with employers including the Navy, to distribute to new hires during onboarding.
- Embrace, celebrate, and widely promote the county's African American and Native American history and heritage, through sites like the Woodland Indian Hamlet, Drayden African-American Schoolhouse, African-American Monument and Freedom Park, and Historic Sotterley.
- Conduct a Quality of Place Asset Demand Analysis to determine what is wanted by both residents and potential visitors, what is already present in St. Mary's County to meet those desires, and what could be transformed and promoted to satisfy that demand.
- 4. Continue to develop and encourage the proliferation of quality of place amenities such as kayaking outfitters, restaurants, music venues, independent shops and businesses, and more. Facilitate the reuse and expansion of existing small businesses.
- 5. Work together to intentionalize this diversity and inclusion work to ensure long term consistency and committment. Bring together a committee of leaders from the nonprofit, for profit, and government sectors, develop a mission statement, and solicit long term buy in to ensure ongoing progress is made.

# **STAKEHOLDERS**

- Citizens
- Colleges and universities to lead best practices
- Health dept and other sites of community outreach
- Hospital, colleges, and other employers as recruiters of people, diverse talent
- Library as meeting place & outreach
- Museums as story tellers
- PAX Partnership for business outreach
- Navy commanding officers
- Special interest groups (NAACP, PFLAG, etc.)
- St. Mary's County Chamber of Commerce
- St. Mary's Young Professionals
- Visit St. Mary's

#### b. Enable development in designated districts while better communicating smart growth strategies to preserve the rural character of our communities

As a relatively rural peninsula with nearly 500 miles of shoreline and 18% of its land designated as protected critical area, the county's geographic and natural landscape present unique opportunities and challenges for developing and maintaining quality of life amenities and businesses.

One of the goals of the critical area program is to establish land-use policies that accommodate growth but also address the environmental impacts of development.<sup>17</sup> As such, the county is working to reduce barriers and support growth of small businesses, encouraging development to occur in designated districts to promote vibrancy while protecting natural resources. To date, the county has seen a clustering of amenities and new development in a few key areas: the Aeropark Innovation District, Great Mills Road, Leonardtown, Lexington Park, and St. Mary's City. Successes include sites like the Wharf development, SMART building, and the increase in on demand charter flights and businesses located at the airport.

Still, community enagement revealed the community faces a general lack of clarity about regulation and zoning, especially when it comes to the waterfront, as well as coordination and communication across different levels of government.

A **focused government strategy and leadership effort** is needed to create partnerships with developers and a customer service mentality while maintaining accountability.

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# **ACTION STEPS**

- Continue to work with the Maryland state government to create more designated "Priority Places" in St. Mary's County and solicit support for existing clustering of amenities. For example, Leonardtown's designation provided coordination across government agencies and levels, and as the only incorporated town in the county, DED works closely with Leonardtown on issues of ongoing development.
- 2. Establish a public-private partnership to ensure private sector buy-in and to leverage private resources. Deploy Maryland Regional Resource Teams for added collaboration.
- 3. Plan for land control, utility, and road development near hubs like the Aeropark Innovation District and Lexington Park. Integrate efforts with the county's Tourism and Hospitality Marketing Master Plan.
- 4. Publish user-friendly and interactive zoning documents and regulations online for easier viewing and access.

# **STAKEHOLDERS**

- AeroPark Business Alliance
- Airport Fixed Base Operator
- County Department of Land Use and Growth Management
- County Department of Public Works and Transportation
- County Department of Recreation & Parks
- Property owners
- Realtors
- State agencies
- State Parks, Maryland DNR
- USMSM/UMD

# CONCLUSION

This updated 2022 CEDS lays out priorities for St. Mary's County around the four critical areas of Workforce Development and Talent Attraction; Innovation, Development, and Technology Transfer; Agriculture, Forestry, and Seafood; and Rural Development and Quality of Place. The strategies listed were developed with the help of dozens of stakeholders who participated in working sessions in the summer of 2022, ensuring that they have the insights and buy-in from essential partners to this work. The CEDS document will serve as a roadmap for the St. Mary's County Department of Economic Development to follow in the coming years, to allow for continued economic growth, focused and strategic development, and resilience against potential natural and economic threats to the county's sustained success.

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# **Diagnostic Data Report**

# **Prepared by SelectUSA for**

St. Mary's County 2022

U.S. Department of Commerce International Trade Administration SELECTUSA



### **Overview**

This report presents an analysis of the strengths, opportunities, and challenges of St. Mary's County, Maryland with regards to:

- General Economic and Business Environment
- Industry Clusters
- Demographics
- Workforce
- Foreign Direct Investment and Export Competitiveness
- Living Environment
- Education

The analysis presents data where available for the specific industry clusters of Aerospace Vehicles and Defense, Business Services, and Information Technology and Analytical Instruments. While the focus of this report is on the location's strengths and opportunities, potential challenges and threats are also highlighted where applicable. It should be noted that this report is for informational purposes only and is in no way advisory.

This report is broken down by data category, with an overview of the top strengths, opportunities, and challenges for that category presented at the top of each section. The strengths, opportunities, and challenges are characterized either by the region's relative status among other regions or by the region's status relative to the United States.

References and a data glossary are provided at the end of the report.

### **Report Highlights**

Top strengths from the report include:

- St. Mary's County outperforms many other counties on business, economic, and innovation indicators.
- St. Mary's County has high employment specialization in two of its targeted industry clusters and two of its targeted occupation clusters.

Top opportunities from the report include:

- Positive forecast growth rates indicate that St. Mary's County has the opportunity to expand all three of its strong industry clusters and two of its targeted occupation clusters.
- St. Mary's County has positive forecast employment growth rates across all education and training levels.



# **Economic and Business Environment**

Key Takeaways: St. Mary's County ranks highly on almost all economic and business environment indicators. A strong performance on cluster metrics indicates that establishments in St. Mary's County's strong industries are expanding and diversifying.

#### Business Environment Indicators for St. Mary's County

In 2019, St. Mary's County had a gross domestic product (GDP) per capita of \$36,222, which is in the 52<sup>nd</sup> percentile out of 3,221 counties.



#### Traded Industry Cluster Indicators for St. Mary's County

St. Mary's County has a slightly higher share of employment in traded clusters (groups of related industries that serve markets beyond the region in which they are located) than Maryland and scores in the top two quintiles in four cluster indicators.

Тор 31%	Тор 13%			
or second quintile of 3,110 counties in	or first quintile of 3,110 counties for			
Traded Cluster Establishment Births to	Traded Cluster Establishment Birth to All			
Deaths Ratio, 2021 Establishments Ratio, 2020				
Source: StatsAmerica, Innovation Intelligence				

#### Share of Employment in Traded and Local Clusters, 2019

#### St. Mary's County's Ranking in Key Cluster Indicators of 3,110 Counties, 2021



# 0





### **Innovation and Startup Environment**

**Key Takeaways:** St. Mary's County has a relatively high innovation capacity, with patterns of establishment formation and composition indicating a high level of business competitiveness.



Source: StatsAmerica, Innovation Intelligence

#### St. Mary's County's Innovation Intelligence Ranking, 2021

St. Mary's County ranks **440**<sup>th</sup> of 3,110 U.S. counties in the StatsAmerica Innovation Intelligence and scores in the top two quintiles in four major indices.



#### St. Mary's County's Ranking in Key Innovation Indicators of 3,110 Counties, Divided by Quintile





# **Industry Clusters**

Top Strengths:	St. Mary's County has both high employment and high employment specialization in the business services and transportation and logistics clusters.		
Top Weaknesses:	St. Mary's County has experienced employment contraction over the last five years in ten out of 21 industry clusters.		
Top Opportunities:	Positive forecast growth rates indicate that St. Mary's County has the opportunity to expand its four strong clusters of business services, environmental services, marketing, design, and publishing, and transportation and logistics.		
Top Threats:	St. Mary's County has a negative forecast growth rate in ten out of 21 industry clusters		

#### St. Mary's County Industry Cluster Strengths: Largest and Most Concentrated Industry Clusters

Employment (Number of Employees)	Business Services 9,979	Transportation & Logistics 1,301	Education & Knowledge Creation 824	Hospitality & Tourism 439	Marketing, Design, & Publishing 401
Employment Specialization (Location Quotient)	Business Services 3.00	Fishing & Fishing Products 2.82	Transportation & Logistics 2.16	Aerospace Vehicles & Defense 1.02	Environmental Services 0.87

# St. Mary's County Industry Cluster Weaknesses: Most Contracted and Least Concentrated Industry Clusters

Employment Contraction (5-Year % Change in Employment)	Education & Knowledge Creation -39.7%	Distribution & Electronic Commerce -26.4%	Communication Equipment & Services -17.4%	Furniture -16.2%	Transportation & Logistics -11.3%
Employment Specialization (Location Quotient)	Food Processing & Financial Manufacturing 0.08 0.11		Construction Products & Services 0.12	Distribution & Electronic Commerce 0.14	Agricultural Inputs & Services 0.23

#### St. Mary's County Industry Cluster Opportunities: Fastest Forecast Growth Rates

10-Year Fo Growth 2021 Q2-20	Rate,	Environmental Services 12.1%	Business Services 10.4%	Marketing, Design, & Publishing 10.3%	Transportation & Logistics 8.3%	Agricultural Inputs & Services 6.9%
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#### St. Mary's County Industry Cluster Threats: Slowest Forecast Growth Rates

10-Year Forecast Growth Rate,	Electrical Equipment	Printing Services -19.1%	Forestry -14.6%	Communications Equipment & Services	Wood Products -11.0%
2021 Q2-2031 Q2	-31.3%	-19.1%		-11.7%	

Source: JobsEQ by Chmura Economics, 2021 Q2

The industry SWOT only includes industry clusters with more than 20 employees.



# **Aerospace Vehicles and Defense Industry Cluster**

**Key Takeaways:** Despite overall low employment in this cluster, St. Mary's County has experienced faster employment and wage growth than Maryland and the United States over the last ten years.

### Aerospace Vehicles and Defense Indicators for the St. Mary's County



#### Supply Chain Gaps

St. Mary's County's aerospace industry (NAICS 3364) makes 26 percent of all expected annual purchases in-state.

#### Drivers of Employment Growth in the Aerospace Industry from 2010 to 2020

Of the 36 net employees added to St. Mary's County's aerospace vehicles and defense industry between 2010 and 2020, 53 of these new jobs were attributable to local competitiveness, a regional productive advantage in this industry.





# **Business Services Cluster**

**Key Takeaways:** St. Mary's County has triple the employment specialization of the overall United States in the business services cluster and a positive forecast employment growth rate indicates that it may further develop its strength in this cluster.

### Business Services Indicators for the St. Mary's County



Average Annual Increase in Wages 2011 Q2-2021 Q2



#### Source: JobsEQ by Chmura Economics, 2021 Q2

Maryland

St. Mary's County

#### Supply Chain Gaps

St. Mary's County's business management industry (NAICS code 55) makes 53 percent of all expected annual purchases in-state, and its professional, scientific, and technical services industry (NAICS code 54) makes 18 percent.

#### Top Sub-Sectors Average Annual Change in Employment, 2011 Q2–2021 Q2



2.1%

2.6%

# SELECTUSA

# Information Technology & Analytical Instruments Industry Cluster

**Key Takeaways:** Despite shrinking employment in this cluster over the last ten years and a low location quotient, a positive forecast growth rate indicates that St. Mary's County has the opportunity to expand its information technology cluster.

### Information Technology Indicators for the St. Mary's County





#### Source: JobsEQ by Chmura Economics, 2021 Q2

Maryland

St. Mary's County

-17.2%

#### Supply Chain Gaps

St. Mary's County's computer and electronic product manufacturing industry (NAICS 334) makes 10 percent of all expected annual purchases in-state.

#### **Occupation Staffing Pattern**

Of the employees in St. Mary's County's information technology industry, 86 percent are in the computer and mathematics occupation group.



2.5%



# **Demographics**

**Key Takeaways:** St. Mary's County performs well on social indicators as well as metrics of migration and population growth.

### Demographic Indicators for St. Mary's County



#### Social Indicator Comparison for St. Mary's County, 2019



■ St. Mary's County ■ Maryland ■ United States

Source: JobsEQ by Chmura Economics, 2019



### Workforce

**Key Takeaways:** St. Mary's County has lower unemployment rates in most occupation clusters than Maryland and the United States. Positive forecast growth rates in the business and science, technology, engineering, and math clusters indicate that St. Mary's County has the opportunity to further expand two of its targeted clusters.



#### Labor Force Participation, 2019

Ages 25-54

Source: JobsEQ by Chmura Economics, 2021 Q2

# Top Occupation Cluster 5-Year Forecast Growth Rates, 2021 Q2



Source: JobsEQ by Chmura Economics, 2021 Q2

	4.7/0				
	Unemployment rate, 2021 Q2 Maryland: 6.7% United States: 6.8%				
	Top Occupation Clust Moving Average Une 2021 Q2	,			
	Hospitality &         Services           Tourism         Employment           9.6%         7.8%           (U.S.: 13.4%)         (U.S.: 10.6%)				
	Arts, A/V Technology & Human Services Communication 6.1% 6.6% (U.S.: 7.5%) (U.S.: 9.1%)				
Т		nura Economics, 2021 Q2 Location Quotients			
	Science, Technology, Engineering, & Math 4.50				
	Government & Public Administration 2.28				
	Information Technology 1.98				
	Remote J	obs			
	1.77				

White Collar Employment

1.21

4.7%



#### **Top Potential Occupation Gaps**

Over the next ten years, St. Mary's County is projected to have particularly strong unmet demand in business and computer related occupations and a surplus in restaurant and retail occupations.





Source: JobsEQ by Chmura Economics, 2021 Q2

#### Top Potential Skills Gaps in St. Mary's County by Number of Candidates, 2021

Based on resume and job posting data, St. Mary's County has the most annual skills gaps in cash registers and merchandising (the amount by which job postings in the county requiring certain skills exceeded the number of candidates with those skills on their resumes).



Source: JobsEQ by Chmura Economics, 2021 Q2



3.6%

**Occupation Group** 

#### Business, Management, & Administration Workforce Gaps for St. Mary's County

Over the next ten years, St. Mary's County is projected to have an annual supply gap of 32 workers in business, management, and administration occupations.

# Top Annual Supply Gaps for Business, Management, & Administration Occupations, 2021-2031



Source: JobsEQ by Chmura Economics, 2021 Q2

# Top 10 Skill Gaps in Business, Management, & Administration Occupations by Number of Candidates, 2021

Based on resume and job posting information, the largest skill shortage in business, management, and administration occupations in St. Mary's County was in secret clearance, where there were 28 more job postings than current candidates with skills in that area.

Process	Discipline		Certification
System Integration 23	Retail Sales 12	Mathematics 12	
			Secret Clearance 28
Invento			Software
Configuration Manager	nent		
Management 13 9	Job Training 11	Typewriters 9	Sabre 8

Source: JobsEQ by Chmura Economics, 2021 Q2



### Manufacturing Workforce Gaps for St. Mary's County

Over the next ten years, St. Mary's County is projected to have an annual supply gap of two workers in manufacturing occupations.



#### Top 10 Skill Gaps in Manufacturing Occupations by Number of Candidates, 2021

Based on resume and job posting information, the largest skill shortage in manufacturing occupations in St. Mary's County was in secret clearance, where there were 7 more job postings than current candidates with skills in that area.

Certification	Software		Tools	
				Pipe Threaders 1
	SAP 3	Micro Project 1	Generators 2	Hacksaws 1
	Process		Discipline	
				Painting 1
				Automotive
Secret Clearance 7	System Integration 4		Mechanical 2	Maintenance 1

Source: JobsEQ by Chmura Economics, 2021 Q2



# Science, Technology, Engineering, and Mathematics (STEM) Workforce Gaps for St. Mary's County

Over the next ten years, St. Mary's County is projected to have an annual supply gap of 22 workers in STEM occupations.



#### Top 10 Skill Gaps in STEM Occupations by Number of Candidates, 2021

Based on resume and job posting information, the largest skill shortage in STEM occupations in St. Mary's County was in system integration, where there were 16 more job postings than current candidates with skills in that area.

Discipline				Process
Mathematics	7	Job Training 7		
				System Integration 16
		Engineer in Training 3	Aviation 3	
	Data Analysis			Configuration Management 9
Calculus 4	4	Budgeting 2		Secret Clearance 2

Source: JobsEQ by Chmura Economics, 2021 Q2



# Foreign Direct Investment and Trade

**Key Takeaways:** While fDi Markets has only recorded one announced greenfield FDI project in St. Mary's County since 2003, St. Mary's County ranks highly on FDI attractiveness indexes.

### FDI Indicators for St. Mary's County, 2021



#### Announced Greenfield FDI Projects in St. Mary's County

Since 2003, foreign companies announced one greenfield project in the software and IT sector.

1
project announced

**\$1.4 million** *estimated capital invested* 

# **6 jobs** estimated jobs created

Source: <u>fDi Markets</u>

### Export Competitiveness Indicators in the Targeted Industries for Maryland

17.7% Compound average annual growth rate for the	-6.5% Compound average annual growth rate for the		
total value of Maryland exports in aerospace materials, 2005-2019	total value of Maryland exports in computers and electronic products, 2005-2019		
\$361	\$197		
Total value of exports in aerospace materials per capita, 2020	Total value of exports in computers and electronic products per capita, 2020		
17.25%	9.40%		
Percentage of total goods exports which are attributed to exports of aerospace materials, 2020	Percentage of total goods exports which are attributed to exports of computer and electronic products, 2020		

Source: <u>fDi Benchmark</u>



# Living Environment

**Key Takeaways:** Despite a high cost of living, St. Mary's County performs well in most quality of life indicators.

#### Income Indicator Comparisons, 2021 Q2

■ St. Mary's County ■ Maryland ■ United States

Source: JobsEQ by Chmura Economics, 2021 Q2







Median Household Income

Quality of Life Indicator

In 2019, St. Mary's County had a homeownership rate of 71 percent, six percent higher than the national average.

#### Median Property Value, 2013-2019

■ St. Mary's County ■ Maryland ■ Neighboring Counties



Rankings out of 3,110 Counties, 2021 Top 11% in Income Inequality Bottom 29% in Per Capita Personal Income Growth Top 8% in Government Transfersto Total

Personal Income Ratio
Source: StatsAmerica, Innovation

<u>Intelligence</u>

# Health and Crime Indicators





# **Education**

**Key Takeaways:** St. Mary's County ranks highly in the educational attainment index. With positive forecast employment growth rate across all education and training levels, St. Mary's County has the highest projected growth rates for jobs requiring bachelor's and postgraduate degrees.

### Educational Attainment Comparison for St. Mary's County, 2019



Top Education Certificates and Awards in St. Mary's County, 2019-2020 Academic Year

General Psychology Biology	English	Environmental	Political Science
	Literature	Studies	and Government

Source: JobsEQ by Chmura Economics, 2021 Q2

Number of Degrees Awarded Relating to the Targeted Industries from St. Mary's County Educational Institutions, 2019-2020 Academic Year<sup>1</sup>



# Annual Average Projected Job Growth by Education and Training in St. Mary's County, 2021 Q2-2031 Q2



<sup>&</sup>lt;sup>1</sup> Related degrees include those that correlate to other industries as well.



# **Glossary of Terms/Data Dictionary**

# Business and Economic Environment Indicators

**Cluster** – A cluster is a regional concentration of related industries that arise out of the various types of linkages or externalities that span across industries in a particular location.

**Traded Cluster** – Traded clusters are groups of related industries that serve markets beyond the region in which they are located.

**Business Dynamics Index** – The Business Dynamics Index indicates the mechanisms of entry and exit of businesses and how they relate to innovation and economic dynamism in a region.

*Establishments Formation Sub-index* – The Establishments Formation Index measures establishment formation, the share of traded sector establishment births, the rate of business formation over time, and the number of jobs attributed to new businesses.

High-Tech Industry Early-in-Life-Cycle Establishment Ratio – The High-Tech Industry Early-in-Life-Cycle Establishment Ratio measures the relative youth of high-tech firms in the region, providing an indication of the region's startup ecosystem and innovation pipeline.

Traded Cluster Establishment Births to All Establishments Ratio – The Traded Cluster Establishment Births Ratio is the ratio of new businesses that serve export markets relative to all establishments.

*Establishment Dynamics Sub-index* – The Establishment Dynamics Index measures the level of business turnover, the ratio of establishment expansion versus contraction, and growth trends among traded sector establishments.

*Traded Cluster Births and Expansions to Deaths and Contractions Ratio* – The Traded Cluster Births to Deaths Ratio is traded-sector establishment births divided by deaths.

**Business Profile Index** – The Business Profile Index gauges the regional business environment by measuring local business conditions and resources (either capital, connectivity, or innovation) available to companies. Venture Capital Dollar Measures Sub-index – The Venture Capital Dollar Measures Index calculates average venture capital over 10 years, the change in venture capital dollar financing over time, and venture capital in expansion stage firms and the high-tech industry.

Venture Capital Count Measures Sub-index – The Venture Capital Count Measures Index includes the number of IPOs in a region over 10 years, the number of average annual venture capital deals, and the change in venture capital deals over time.

*Proprietorship Sub-index* – The Proprietorship Index uses rates of proprietorship, profitability, and capital availability as proxies to gauge the level of entrepreneurship in a region.

**Employment and Productivity Index** – The Employment and Productivity Index indicates the extent to which regional economies are enhancing innovative production and the high-value talent pool by measuring economic and job growth, as well as the direct outcomes of regional innovative activity.

*Industry Performance Sub-index* – The Industry Performance Index measures establishment size and startup presence in high-tech industries.

*Industry Diversity* – Industry Diversity quantifies whether a region is relatively concentrated in a few industries or whether there is a broad assortment of industries.

Latent Innovation Sub-index – The Latent Innovation sub-index measures latent innovation in terms of spatial proximity to innovative industries and interindustry transactions. The index gauges the extent to which industries interact with and influence each other and the degree to which firms in different industries colocate in the same area.

*Industry Diversity* – Industry Diversity quantifies whether a region is relatively concentrated in a few industries or whether there is a broad assortment of industries.

*Gross Domestic Product Sub-index* – The Gross Domestic Product (GDP) Index measures the economic output per worker for a single year, as well as the change in GDP per worker over time.



Industry Cluster Performance Sub-Index – The Industry Cluster Performance sub-index measures industry specialization and the role industry cluster have in economic performance.

*Industry Cluster Growth Factor*–Industry Cluster Growth Factor is the percent of employment growth in a region that is attributed to strong clusters.

*Industry Cluster Strength* – Industry Cluster Strength measures the degree to which clusters may dominate the employment in the region.

Patents Sub-index – The Patents Index measures the change in average patenting rate for a region, as well as patent diversity and the number of patents across institution types.

Job Growth to Population Growth Ratio – The Job Growth to Population Growth Ratio measures whether employment is growing more or less quickly than the general population.

Human Capital and Knowledge Creation Index – The Human Capital and Knowledge Creation Index indicates the degree to which a county's labor force is able to engage in innovative activities, measured by educational attainment, patent diffusion, knowledge spillovers, business incubator presence, STEM degree holders and occupations, and the share of high-tech employment.

*Educational Attainment Sub-index* – The Educational Attainment Index measures the quantity (average years of schooling) and quality (average test scores) of both high school and postse condary educational attainment.

Knowledge Creation and Technology Diffusion Sub-index – The Knowledge Creation and Technology Diffusion Index indicates how innovation and resources spread within and between regions, measuring patent diffusion, university R&D spending, and the presence of business incubators.

STEM Education and Occupations Sub-index – The STEM Education and Occupations Index measures the quantity of STEM degree graduates, the concentration of jobs that apply high technology, and the share of employment in high tech industries.

**Manufacturing Intensity** – Manufacturing intensity indicates manufacturing jobs as a percent of all jobs.

**Startup Ecosystem Score** – The Startup Ecosystem Score incorporates indicators of the quantity of startups in a location, the quality of the startups (how well the startups drive regional innovation), and the overall business environment (measured by the success of the local startup ecosystem and general indicators connected to infrastructure, business environment, and the ability to freely operate as a startup founder in the country or city).

#### **Education Indicators**

**Educational Attainment Index** – See entry in Business and Economic Environment Indicators section.

#### Living Environment Indicators

**Cost of Living Index and Purchasing Power** – The Cost of Living Index estimates the relative price levels for consumer goods and services. The average for all participating places equals 100, and each participant's index is read as a percentage of the average for all places. The Index does not measure inflation (price change over time). When applied to wages and salaries, the result is a measure of relative purchasing power.

**Economic Well-Being Index** – The Economic Well-Being Index indicates the average standard of living in a region through measures of employment, poverty, in-migration, and personal income.

*Compensation Sub-index* – The Compensation Index measures both the change in average annual earnings per worker and the change in average annual income per proprietor.

Income Inequality – The Income Inequality measure compares the region's mean household income to the median household income. A higher score denotes more equality between the richest and poorest residents.

*Government Transfers to Total Personal Income Ratio* – The Government Transfers to Total Personal Income Ratio represents the degree to which a region relies on government income programs.

*Per Capita Personal Income Growth* – Per Capita Personal Income Growth calculates the average annual rate of change in personal income from 2002 to the latest year available.

**Population to Primary Care Physicians Ratio** – The number of people for each primary care physician in an area.



#### Location Definitions

**Metropolitan Statistical Area (MSA)** – A metropolitan statistical area is a core geographic area containing a substantial population nucleus, together with adjacent communities having a high degree of economic and social integration with that core.

#### Industry Indicators

**Establishment** – An establishment is a single physical location at which business is conducted or services or industrial operations are performed. It is not necessarily identical with a company or enterprise, which may consist of one or more establishments. When two or more activities are carried on at a single location under a single ownership, all activities generally are grouped together as a single establishment.

**In-Region Purchases** – The percent of in-region purchases is the expected share of total annual U.S. purchases made in the region.

#### Workforce Indicators

**Annual Demand** – Annual demand is a of the sum of the annual projected growth demand and separation demand.

**Growth Demand** – Growth demand is the increase or decrease of jobs expected due to expansion or contraction of the overall number of jobs.

**High Employment Share** – Areas with high employment *share* rank among the top 10 percent of areas with employment information by number of employees in an industry.

**High Employment Specialization** – Areas with high employment *specialization* have a location quotient ranking among the top 25 percent of areas with employment information for an industry.

**Location Quotient (LQ)** – The LQ value is the ratio of an industry's share of total area employment relative to its share of total national employment. An LQ value greater than 1 indicates a higher than average cluster concentration in a location.

**Occupation Gaps** – The potential occupation gaps metric is based on a forecast comparing occupation demand growth to the local population growth and the projected educational attainment of those residents.

**Separation Demand** – Separation demand is the number of jobs required due to separations — labor

force exits (including retirements) and turnover resulting from workers moving from one occupation into another.

Skills Gaps – Skill gaps are the difference between the supply and demand for a skill, measured by job count. Skill supply (candidates) is collected from resume data; demand (openings) is collected from job ads (RTI).

#### **Demographic Indicators**

**Disconnected Youth** – Disconnected youth are 16–19year-olds who are not in school, not high school graduates, and are either unemployed or not in the labor force.

#### Foreign Direct Investment Indicators

Foreign Direct Investment Attractiveness Sub-index– The Foreign Direct Investment (FDI) Attractiveness Index includes measures of regional spillovers from announced greenfield FDI investments.

*Greenfield FDI Employment Measure* – The FDI Foreign Source Employment Index is a ratio of employment created by new, foreign-sourced greenfield investment to the working-age population (between ages 18 and 66).

U.S. Greenfield Employment Measure – The FDI National Source Employment Index is a ratio of employment created by new, U.S.-based incoming greenfield investment to the working-age population.

*Greenfield FDI Investment Measure* – The FDI Foreign Source Investment Index is a ratio of the most recent three-year average of dollars of greenfield investment by new, foreign-sourced FDI to the working-age population.

U.S. Greenfield Investment Measure – The FDI National Source Investment Index is a ratio of the most recent three-year average of dollars of greenfield investment by new, U.S.-sourced FDI to the working-age population.



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ST. MARY'S COUNTY DEPARTMENT OF ECONOMIC DEVELOPMENT

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