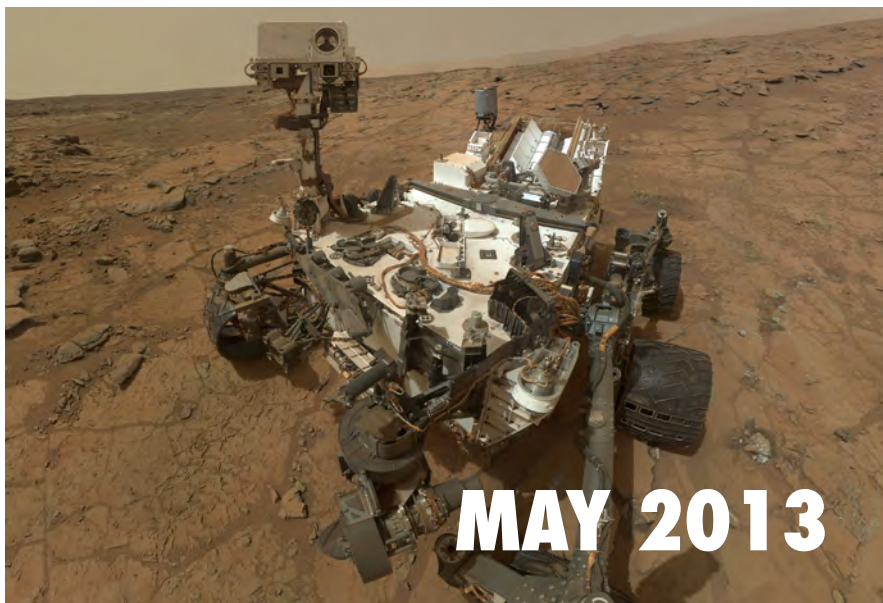


ECONOMIC DRIVERS AND CATALYSTS:

A TARGETED ECONOMIC DEVELOPMENT STRATEGY FOR PRINCE GEORGE'S COUNTY, MARYLAND





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This report presents the results of a year-long effort to create a targeted economic development strategy that will maximize the generation of new jobs in Prince George's County and diversify and grow the tax base that supports the county's government services and quality of life. The strategy focuses on:

- Identifying and targeting key high-growth industries that have the greatest potential to contribute to economic growth and development in Prince George's County.
- Leveraging the unique assets of Prince George's County to capture economic development opportunities in a competitive regional economy.
- Setting forth targeted strategies and actions to maximize economic development.

Strategy development was guided by a Project Steering Committee comprised of senior-level representatives from the County Executive's Office, the County Council, the Prince George's County Economic Development Corporation, the County Department of Housing and Community Development and the Prince George's County Planning Department.

The strategic planning process involved a broad collaborative engagement with economic development stakeholders from private industry, economic and workforce development, labor unions, higher education, real estate development, and community and government leadership. A Project Advisory Committee representing this broad group of stakeholders met in a day-long retreat to review, in detail, the analyses and provide input into the development of strategies and actions. In addition, feedback was solicited through separate presentations to:

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- The Andrews Business and Community Alliance
- The Bowie Chamber of Commerce
- The Maryland National Capital Building Industry Association
- The Laurel Board of Trade

- The Greater Beltsville Business Association
- Leadership Prince George's, Inc.
- Prince George's County Council members

To assist in the analysis and strategy development, a consulting team, led by the Battelle Technology Partnership Practice, was retained. The Technology Partnership Practice (TPP) is the economic development consulting arm of the world's largest independent nonprofit research and development organization. TPP is a national leader in advancing industry cluster-driven strategies with an established track record in developing and advising many of the most successful modern development programs in the United States.

Collaborating with Battelle was the University of Baltimore's Jacob France Institute, a leading Maryland research group at the University of Baltimore's Merrick School of Business—that focuses on industry, business climate, workforce development research, planning, and evaluation—and Green Door Advisors, LLC (GDA), a real estate advisory firm with comprehensive knowledge of the real estate and economic development market in Prince George's County.





TABLE OF CONTENTS

CHARTING A NEW COURSE FOR ECONOMIC DEVELOPMENT IN PRINCE GEORGE’S COUNTY — 1

SETTING THE CONTEXT: ASSESSMENT OF ECONOMIC DRIVERS AND ECONOMIC CATALYSTS IN PRINCE GEORGE’S COUNTY — 6

Economic Drivers Assessment.....	6
Economic Catalysts Assessment.....	16

STRATEGIC APPROACH RECOMMENDED FOR PRINCE GEORGE’S COUNTY TO CAPITALIZE ON ITS ECONOMIC GENERATORS AND CATALYSTS — 20

Strategy Component One: Development Strategies for the Targeted Industry Clusters in Prince George’s County	22
Strategy Component Two: Development Strategies for Cross-Cutting Economic Priorities	45
Establish Competitive Places for Development	54
Launch Proactive Outreach Marketing and Raise Quality of Life	61
Implementation Strategy.....	65
Performance Measures	68

PRINCE GEORGE’S COUNTY TARGETED ECONOMIC DEVELOPMENT STRATEGIC PLAN STEERING COMMITTEE — 69

Project Steering Committee	69
Project Advisory Committee and Other Stakeholders	70

ACKNOWLEDGEMENTS — 80

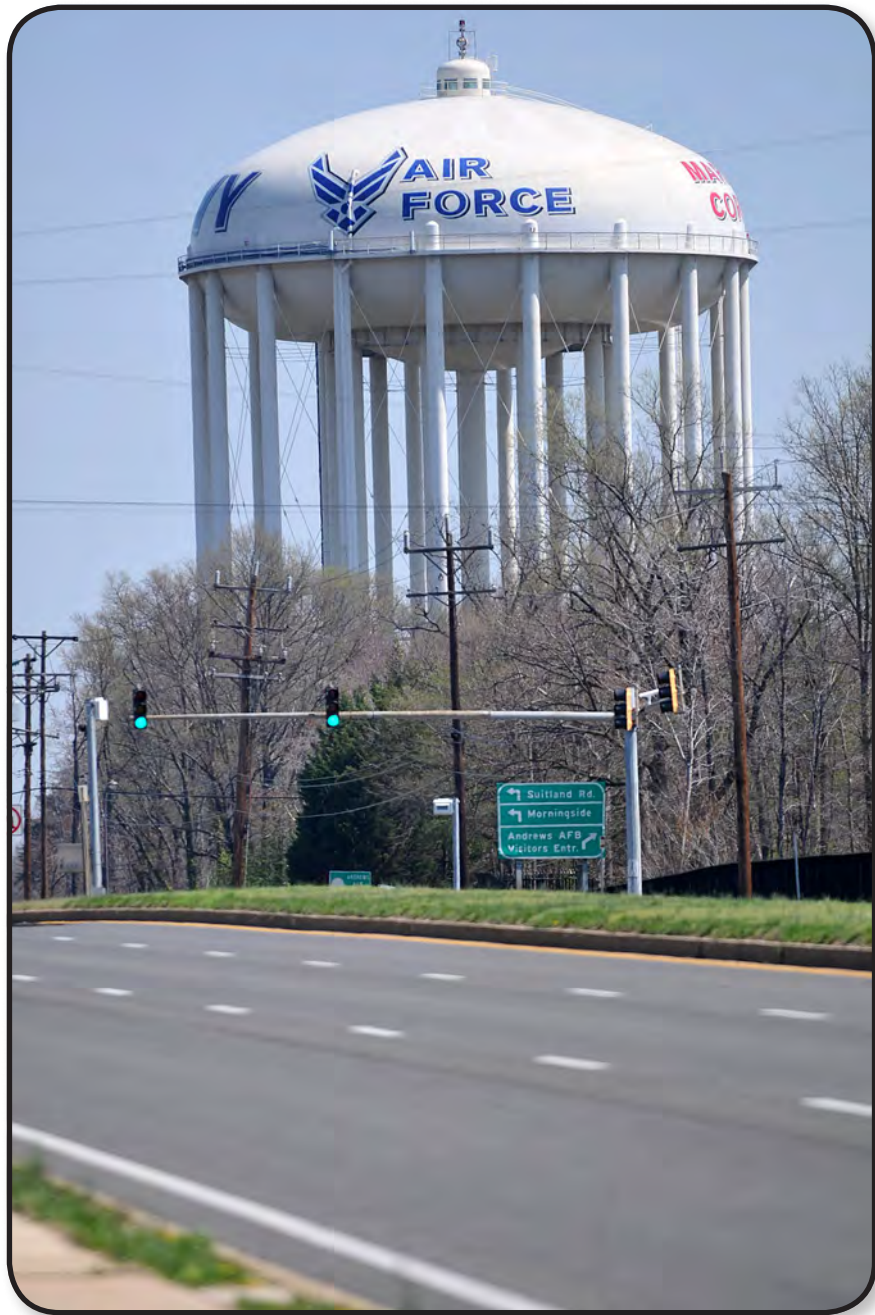
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CHARTING A NEW COURSE FOR ECONOMIC DEVELOPMENT IN PRINCE GEORGE'S COUNTY

Prince George's County has a diverse, high-value economy which includes the following assets:

- The presence of numerous federal installations, such as the Internal Revenue Service, Census Bureau, Joint Base Andrews, NASA Goddard, Beltsville Agricultural Research Center (BARC), the National Oceanic and Atmospheric Administration (NOAA), and the Army Research Laboratory.
- Close proximity to the Washington, D.C.
- Well-developed transportation and mass transit network.
- Well-educated workforce pipeline.
- Strong university base, which includes the region's top research university and many other higher education assets that generate top talent needed by industry.
- Available land for development and competitive real estate costs.

The economic performance over the past decade has made clear that "business as usual" will not generate the jobs to support a high quality of life for Prince George's County residents.

Given this wealth of economic assets, it is not surprising that the county's industry base is comprised of a number of sectors that offer high-skilled, high-paying jobs. These industry sectors include information technology services, aerospace, defense, and the Federal Government. This strong industrial base, in turn, has historically contributed to the county's high standard of living.

However, as a result of ever increasing economic competition, the county's assets that were leveraged into economic prosperity in the past may not be sufficient to ensure economic growth in the future. As the economic performance of Prince George's County over the past decade has made clear, "business as usual" will not generate the jobs and growing tax base needed to support a rising quality of life for Prince George's County residents.

During the past decade, before the Baker Administration and the new County Council took office, Prince George's County lost ground in economic development, even as the broader Washington, D.C.-Baltimore region, in which it is centrally-located, made impressive gains. From 2001 to 2011, Prince George's County lost nearly 5,400 jobs, or 1.8 percent of total employment in the county. During the same time, the overall Washington, D.C.-Baltimore region gained over 250,000 jobs, a gain of 6.4 percent. The Baker Administration and the County Council quickly realized the challenges facing the county and made economic development their top priority.

This economic decline in Prince George's County is not simply a reflection of the severe recession and weak national recovery from 2007 to 2011. It reflects a loss of regional competitiveness dating back as early as 2004 when the county's economy began to falter despite growth in the region. As shown in Figure 1, Prince George's County outperformed the nation and the region from 2001 to 2003, but slowed down from 2004 to 2006 just as

the nation's total employment growth rose. Since 2007 employment growth in the county has fallen well short of the substantial economic gains being made in the region and lagged slightly behind the weak national employment trends.

This weaker economic performance is also found among many of the leading high-skilled, high-paying industries driving economic growth in Prince George's County. For instance, aerospace and defense employment declined in Prince George's County by 2.7 percent from 2001 to 2011, while growing within the Washington, D.C.-Baltimore region by 9.5 percent. Similarly, information technology services employment declined in the county by 12.4 percent from 2001 to 2011, while growing 2.4 percent in the region. This trend of lagging behind regional industrial growth is even found in Federal Government employment. From 2001 to 2011, Prince George's County increased its federal employment by 6.2 percent; however, the region by comparison enjoyed an 18.4 percent rise in federal employment. Of the industry sectors analyzed, the rate of employment growth was greater in Prince George's County only for the Travel and Tourism industry sector, growing 63.8 percent for the county compared to 33.8 percent for the region.

These economic trends imply a lack of regional economic competitiveness, which results in a lost opportunity for improving the quality of life, economic vitality, and tax base in Prince George's County. Losing economic ground undercuts the quality of life in Prince George's County by limiting job opportunities for local residents. If Prince George's County had kept pace with regional growth over the period between 2001 and 2011 there would have been a gain of over 19,000 jobs in the county, rather than a loss of over 5,000. Job loss undermines local tax revenues and limits the county's ability to deliver improved services that are critical for raising the quality of life. As the Baker 2010 Transition Team Report explains: "Without a dramatic increase in the strength and breadth of its tax base, the county will not be able to pursue its ambitious initiatives and goals. In both conduct and message, the County Executive's administration should embrace the importance of growing the county's tax base through smart and aggressive development initiatives."¹

In recognition of the importance of bolstering the economy of Prince George's County, the newly elected leaders in Prince George's County have made economic development a critical priority with significant new development tools and initiatives advanced in the past year.

In the Baker Administration's first year, working alongside the newly elected County Council, much is already taking place to restructure economic development.

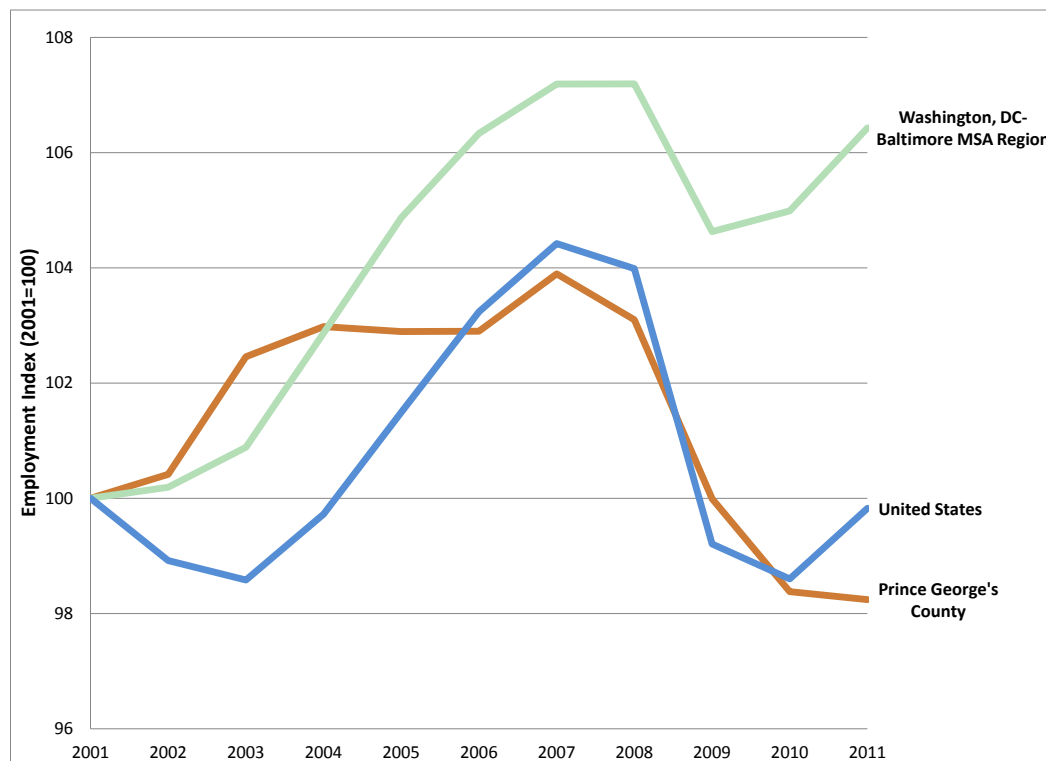
In recognition that Prince George's County is being outspent by neighboring jurisdictions in economic development, a unique \$50 million Economic Development Incentive Fund is now in place.

To increase the county's ability to advance major economic development projects in partnership with the private sector, state authorization for a new Payment in Lieu of Taxes approach has been implemented.

To improve the efficiency with which the county oversees development projects, a new Department of Permitting, Inspection, and Enforcement has been established.

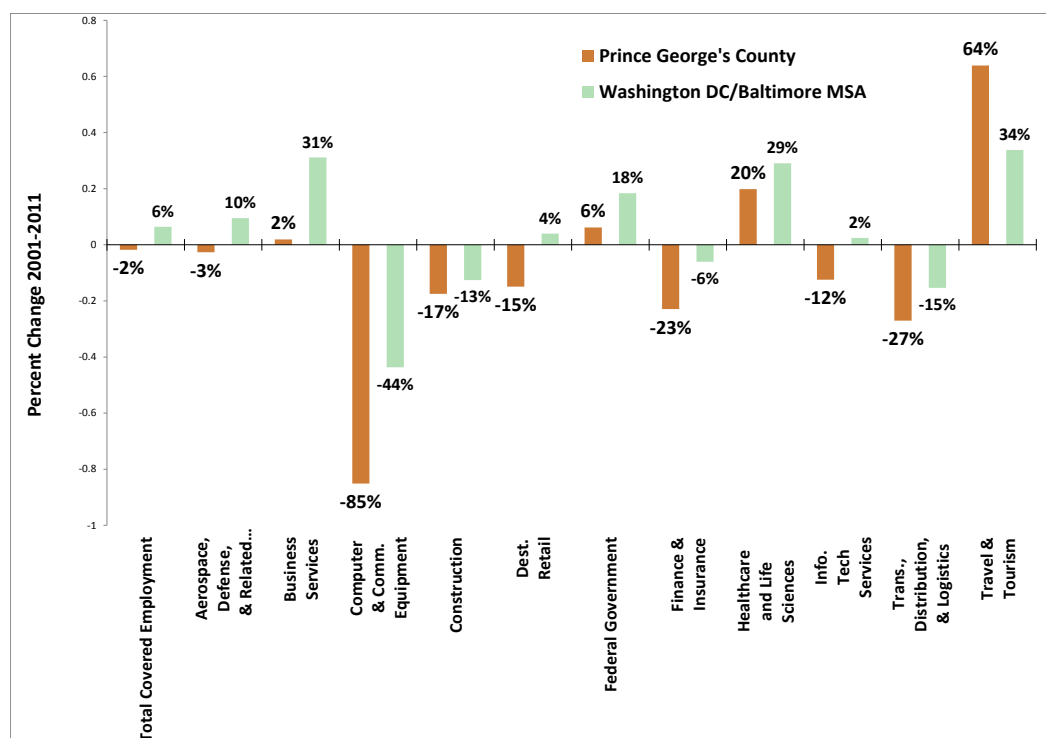
¹ See Baker 2010 Transition Team Report, March 11, 2011, page 21.

Figure 1: Total Employment Trends, Prince George's County, Washington D.C.-Baltimore Region and the United States (2001–10)



Source: Battelle analysis of Bureau of Labor Statistics, QCEW data; enhanced file from IMPLAN, 2001 to 2011.

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To remove blight and advance widely shared economic growth in the county, a Targeted Neighborhood Initiative (TNI) is in place that brings a holistic approach to development for these blighted areas and makes them a priority for economic development.

To ensure that economic development services are implemented effectively, the Baker Administration has brought proven economic development professionals into the executive office as well as brought in new leadership for the Prince George's Economic Development Corporation.

The implementation of these new development tools and programmatic efforts is an important first step to reversing the weak economic performance in Prince George's County. Also needed is the research to identify the industry targets-of-opportunity and specific strategic directions for economic development in which those new tools and programs can best work together to make a difference. Just like any successful company needs a strategic business plan to help it chart a course for continued growth, so too does local government need a well-researched, fact-based strategic plan to guide its efforts in economic development approaches. The Baker 2010 Transition Report explains that in order to create a game changing effort to advance economic development in Prince George's County there needs to be an effort to:

“Research and identify those private and government industry segments most attractive and appropriate for growth and expansion in Prince George's County. Favor such projects through “game changing” policies and incentives for those industries and development sites most suitable for immediate economic expansion. Organize all available county resources and strategies around these opportunity sites.”

This report provides the results of a year-long effort to create a targeted economic development strategy that will maximize the creation of new jobs in Prince George's County and diversify and grow the tax base that supports Prince George's County government services and quality of life. The strategy focuses on:

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The strategic planning process involved a broad collaborative engagement with economic development stakeholders from private industry, economic and workforce development, labor unions, higher education, real estate development, and community and government leadership. A Project Advisory Committee representing this broad group of stakeholders met in a day-long retreat to review in detail the analyses and provide input into the development of strategies and actions (see Appendix A for Advisory Committee members). In addition, feedback was solicited through separate presentations to:

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- The Prince George's County Economic Development Corporation (EDC) Board and staff
- The Baltimore-Washington Chamber of Commerce
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In the sections that follow, this Targeted Economic Development Strategy for Prince George's County sets out the analysis undertaken and its key findings, along with a detailed strategic plan of action.

SETTING THE CONTEXT: ASSESSMENT OF ECONOMIC DRIVERS AND ECONOMIC CATALYSTS IN PRINCE GEORGE'S COUNTY

The building blocks for advancing a targeted economic development strategy for Prince George's County are harnessing the economic drivers and economic catalysts found locally in the county. Economic drivers represent those industries that offer the best opportunities for advancing high-quality job creation to grow the local economy. Economic catalysts, meanwhile, are the assets found in Prince George's County from its research institutions, talent base, transportation network, commercial real estate base, and other development capacities that offer competitive advantages to build upon. The most promising development opportunities for Prince George's County are those that align its economic drivers and economic catalysts—so it represents not only where the potential for economic growth across its industry base is strongest, but where the county's economy has the capacity to grow at a scale to make a difference in the overall local county economy.

ECONOMIC DRIVERS ASSESSMENT

A three step process was undertaken to advance the assessment of economic drivers and culminated in the identification of four key industry targets-of-opportunity for advancing economic development in Prince George's County. Figure 3 sets out these three assessment steps by describing them in more detail.

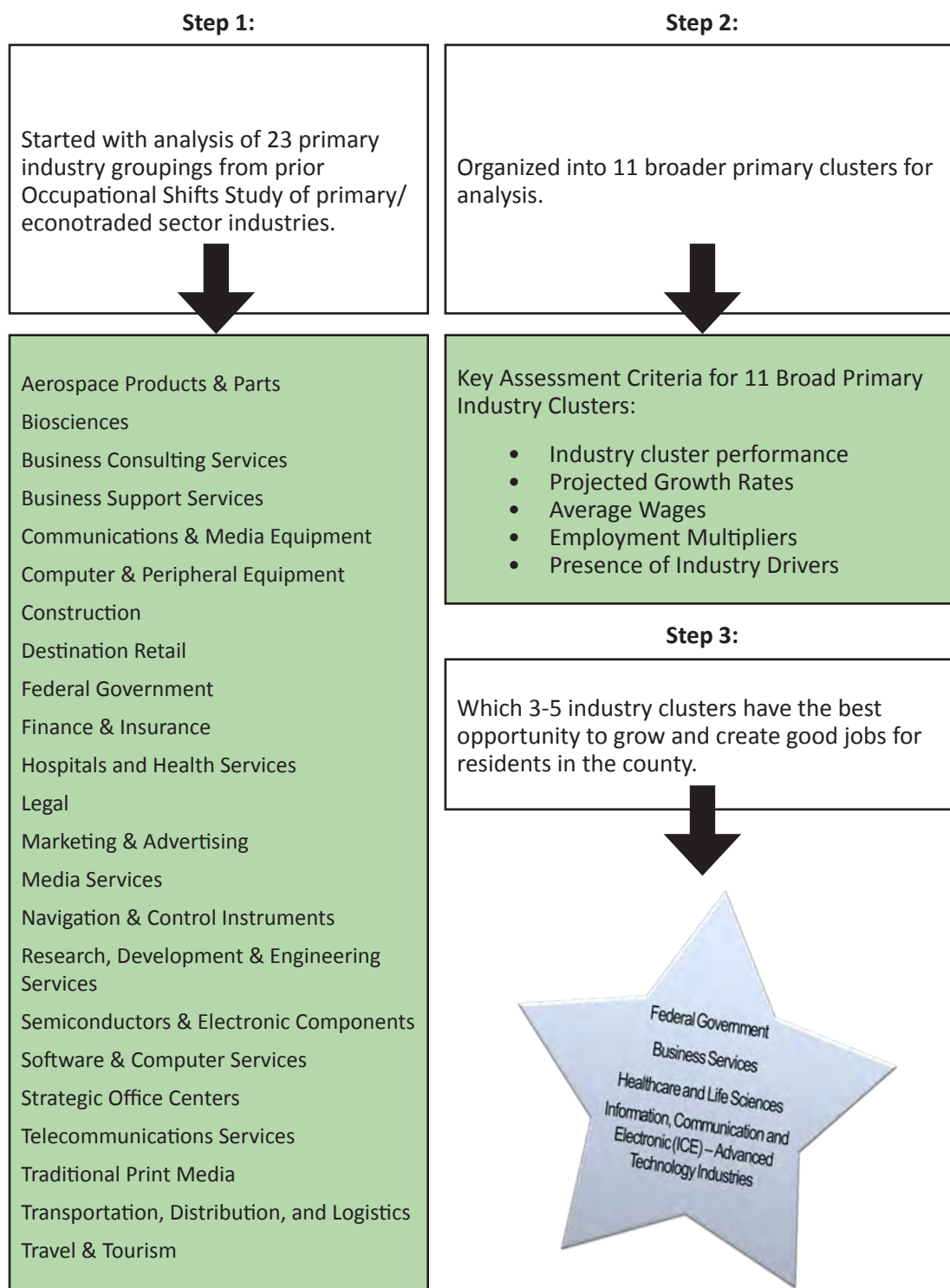
Step 1: The starting point of the economic drivers assessment was to identify how to consider industries for more extensive analysis. Two guiding principles informed the identification of the economic drivers:

First Principle **Strategic focus on primary or economic base industries that generate new income and wealth for the county.**

These primary industries serve customers and markets that go beyond local residents and businesses, and as a result, generate income from sources outside of the county. For instance, Federal Government activities in the county are a primary or economic base industry because they largely serve those outside of the county and are supported by national tax revenues. Similarly, most aerospace and defense companies and information technology services primarily serve markets beyond those of local county residents and businesses. Examples of non-primary activities include restaurants, dry cleaners, and local government services in the county, which largely serve only county residents. While these non-primary industries address local needs and are therefore critical to the quality of life in the county, they do not generate new income in the county and instead rely on purchases from local residents.

Second Principle **Primary focus on broad industry clusters that drive economic development and recognize that individual industries do not stand alone within regional economies, but are better understood as being part of a broader complex of industries that are interrelated.**

Figure 1: Total Employment Trends, Prince George's County, Washington D.C.- Baltimore Region and the United States (2001–10)



As Michael Porter, one of the world's leading experts in business and regional competitiveness explains:

*"Clusters are a striking feature of virtually every national, regional, state and even metropolitan economy, especially in more economically advanced nations...Clusters are not unique; however, they are highly typical—and herein lies a paradox: the enduring competitive advantages in a global economy lie increasingly in local things—knowledge, relationships, motivation—that distant rivals cannot match."*²

The industry clusters found within a local economy represent closely related industries that are logically connected. Many industry clusters share a common market that they serve, while others are based more on shared "know how" such as in biosciences or information technology.

There is not a standard set of primary industry clusters defined for all localities and the regional economies where they are located. Instead, identifying locally-based primary industry clusters requires analyzing the specific local industries that are focused on economic base activities and determining where there are logical connections and interrelationships in the locality and across its regional economy.

The identification of primary industry clusters in Prince George's County benefited from the significant work done to identify the leading economic base industry clusters in an earlier 2011 study for the Prince George's County Planning Department titled Occupational Shifts and Workforce Characteristics Study. This earlier study identified 380 detailed industries involved in economic base activities within the Washington, D.C. region and Prince George's County, employing 141,957 workers in Prince George's County in 2010 or 47 percent of total private and public sector employment in the county. These 380 detailed industries were grouped into 23 specific industry clusters as a reflection of the base of activity in both Prince George's County and the Washington, D.C.-Baltimore region.

Step 2: Based on an updated analysis of industry trends at the county and regional level, and in consultation with the Project Steering Committee and Project Advisory Committee, the analysis led to the identification of eleven broad industry clusters that best represent the logical industry interrelationships found in Prince George's County. Table 1 sets out these eleven industry clusters and the key industry activities involved with each industry cluster.

It is important to note that two of the industry clusters—Destination Retail and Hospitals and Health Services—would not be considered as part of the "economic base" from the perspective of the overall metropolitan region that Prince George's County resides within. However, from the county's perspective, there is competition across local jurisdictions within the Washington, D.C. metropolitan area for these industries.

There is one other possible primary industry cluster—Higher Education—but it is not possible to compile a complete picture of its economic position at the county or regional level. This is because public universities, such as the University of Maryland College Park and Bowie State University, are included in state industry employment and cannot be separated out. The result of this is an inability to provide detailed analysis or forecasts of higher education employment in Prince George's County or the region

² Michael Porter, Harvard Business School Professor, "Clusters and the New Economics of Competition," Harvard Business Review, November-December 1998.

Finally, in an effort to create broader industry cluster groupings, a number of specific industry clusters that were deemed to have a generally weak presence and performance in the county and/or region, and that do not fall into broader industry cluster groupings, were suggested to be dropped from the future analysis, including:

- Traditional Print Media
- Legal Services
- Media Services

Table 1: Listing of Eleven Identified Broad Industry Clusters in Prince George’s County for Detailed Assessment

Industry Cluster	Types of Industries
Aerospace, Defense and Related Engineering and Research and Development Services	Aircraft and aircraft engines and parts manufacturing; guided missile and related parts manufacturing; search and navigation; engineering services; and Research and Development (R&D)
Business Services	Involving three interrelated activities, including: Company-related administrative offices Management consulting services Marketing and advertising services Business support services such as back office administration services, facility support, security guards and janitorial
Computer and Communications Equipment and Components	Computer and related device manufacturing; communications and media equipment; and semi-conductors and electronic components
Construction	Commercial, industrial and residential contractors of all types
Destination Retail	Home centers, clothing stores, book stores
Federal Government	Offices of various federal agencies
Finance and Insurance	Commercial banks, investment banking, insurance agencies
Healthcare and Life Sciences	Hospitals plus outpatient facilities, nursing care, mental health facilities, kidney dialysis centers as well as biotech R&D, medical labs, drugs and pharmaceuticals, medical devices and agricultural biosciences
Information and Communications Technology Services	Data processing/hosting, programming, systems design, computer facilities, Internet and wireless and landline telecommunications services
Transportation, Distribution, and Logistics	Commercial transportation, wholesalers, warehousing, transportation support
Travel and Tourism	Hotel and lodgings, museums, amusement, travel agencies, etc.

Step 3: For these eleven primary industry clusters a detailed analysis was undertaken to assess which three to five industry clusters offer Prince George’s County the best opportunity for growth. The key assessment factors considered included:

- **Relative concentration of the primary industry cluster:** This is a measure of how specialized an industry cluster is in a specific geographic area relative to the nation, and so gauges “competitive advantage” for the industry cluster relative to the nation. The specific measurement of relative concentration is known as a location quotient. A location quotient is the share of a local areas’ employment found in a particular industry cluster divided by the share of total industry employment in

that industry cluster for the nation. A location quotient greater than 1.0 indicates a higher relative concentration, whereas a location quotient of less than 1.0 signifies a relative underrepresentation. A location quotient greater than 1.20 denotes employment concentrations that are significantly above the national average; areas such as this are considered specialized.

- **Job generation for the primary industry cluster:** In economic development, the growth of jobs is often considered one of the most important bottom-line measures of how industries and the overall economy is faring. The analysis considers whether an industry cluster in the county is gaining or losing jobs over the 2001 to 2011 period.
- **Relative growth of the primary industry cluster:** This third measure of regional trends examines whether a local industry cluster is gaining or losing competitive share compared to the nation. It is measured as the difference between the percentage change in employment in an industry cluster at the local geographic level minus the percentage in employment in that same industry cluster for the nation.
- **Projected national industry growth of the primary industry cluster:** Past performance of industry clusters matters, but it is also critical to have a view towards the expected future development of industry clusters. Of particular importance is whether industry clusters are expected to grow or decline in the next five to ten years. The long-term industry employment projection of national average annual employment growth—developed by the Bureau of Labor Statistics (BLS)—was used as the measure of national performance. Beginning more than 60 years ago, the BLS started developing long-term employment projections to provide career information to veterans reentering the civilian workforce after World War II. Today, the ten-year, long-term industry employment forecast has been a widely utilized tool for career guidance, educational and training program planning, and studying long-range employment trends. It is prepared every two years by the BLS.³ The most recent period for which projections are available is 2008 to 2018.
- **Average wages of the primary industry cluster:** Average wage levels reflect the overall quality of jobs found within an industry. It is a measure that related the contribution of an industry to a local economy's per capita income and, ultimately, the economic well-being of a community. By comparing average wage levels across industries within Prince George's County it is possible to learn which industries offer high-quality jobs. Average wage levels are measured by taking the total payroll reported by employers and dividing it by the number of jobs. This data is reported by employers to federal and state agencies. Similar to employment data, IMPLAN provides industry-by-industry levels of total payroll sourced from the employment data provided by the U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW, formerly ES-202) and supplemented by U.S. DOL County Business Patterns and Bureau of Economic Analysis' Regional Economic Information System data.
- **Employment multiplier of the primary industry cluster:** Multipliers are a way to consider the broader economic impact of the industry's economic activity

³ Please see the news release by the U.S. Bureau of Labor Statistics on its 2008–2018 forecast. For a detailed article on the industry employment projections, see Kristina J. Bartsch, "The Employment Projections for 2008–2018," Monthly Labor Review, November 2009, <http://www.bls.gov/opub/mlr/2009/11/art1full.pdf>

on a local economy. Of particular importance for economic development is how interconnected an industry cluster is to other industries found in the local economy; what is commonly referred to as the presence of a local supply chain for that industry. If there are close ties across industries in their purchase of goods and services, then the economic activity of an industry cluster will result in successive rounds of economic activity that will generate high multiplier impacts well beyond their level of economic activity. If there are weak ties, the economic activity of an industry cluster will not create additional economic activity in the county beyond what that industry generates. This indirect multiplier is estimated using the IMPLAN input-output model of the inter-industry purchasing that occurs on the national level and then considers the local industry structure in considering the opportunity for such inter-industry purchases to happen locally. IMPLAN is one of the most widely used input-output models in the nation and provides each county in the nation its own customized input-output model based on national inter-industry purchases and the structure of the local industry base.

- **Presence of institutional drivers supporting the growth of the primary industry cluster:** Industry cluster development depends the presence of key asset institutions that can drive or support growth of that industry cluster. Key institutions can include university research centers, federal agencies and laboratories, higher education degree programs, and other institutions that support an industry cluster. There is no precise way to measure key institutions. Instead, it requires the inventory of activities taking place in the region. A number of key institutions fall into specific categories:
 - o Research assets aligned with industry clusters: One key set of institutions are the research drivers found across universities and federal labs present in Prince George's County. The county enjoys the presence of four significant research drivers including the University of Maryland College Park, Bowie State University, NASA Goddard Space Flight Center, and the Army Research Lab. The county also benefits from Fort Meade in neighboring Anne Arundel County and the new FDA headquarters in White Oak. Based on examining their missions and cited research programs, and in the case of the Prince George's County research assets, their publications and past discussions with officials involved in research activities, it is possible to identify the alignment of these institutional drivers with the industry clusters.
 - o Federal agencies: There are significant federal agencies aside from the federal labs that are also key institutions for driving development. Of particular note in Prince George's County are Joint Base Andrews, the Bureau of the Census, and NASA Goddard. These federal agencies procure goods and services , and so being located close to them offers businesses advantages in growing their business, and in some cases, is required given the nature of the services. Based on a review of federal procurement data by agency, it is possible to consider where there is substantial alignment of federal agency procurement in Prince George's County with the 23 industry clusters. More detailed analysis of federal procurement will be considered in Task 3 of the project.

Appendix B presents the findings of these key indicators across the 11 industry clusters.

Based on the results of this assessment, and guidance from the Steering Committee, the Project Advisory Committee and other key stakeholder groups, four key industry clusters were identified as the focus for targeted development strategies to advance economic development in Prince George's County:

The **Federal Government** is a current industry strength across the region, as indicated by its concentration of employment in comparison to the nation, and the fact that it is growing in employment at a rate that is faster than the nation. Prince George's County, however, trailed behind the region in overall job gains from the Federal Government sector over the 2001 to 2010 period. While the county grew by 6.2 percent in Federal Government employment from 2001 to 2011, this rate of growth was significantly lower than the regional growth of 18.4 percent. Despite the fact that Federal Government employment is expected to decline nationally in the near-term, it will remain a strong presence in the region due to its historic concentration.

Prince George's County is well positioned to maximize the competitiveness of county sites both to maintain current federal leases in the county and to win future federal leases that are set to expire within the next several years for sites outside of the county. An analysis by Green Door Advisors of federal leases identified approximately 25 million square feet of federal leased space expiring over the next five years in surrounding jurisdictions of Montgomery County, Fairfax County, Arlington County, and the City of Alexandria.

The potential selection of Prince George's County as the future home of the new consolidated FBI headquarters presents a major opportunity for the county to expand its employment base. Prince George's County has many advantages when competing for federal leases: an extensive transportation and mass transit network, available land for development, competitive real estate costs, and a skilled workforce. However, a weakness that must be considered when attempting to attract Federal Government leases is the extent and quality of transit-oriented development (TOD) in the county.

Business services stands as a current industry strength across the region and is an emerging strength in the county. The business services industry cluster involves a wide range of activities that support the operations of companies and Federal Government agencies such as strategic planning, marketing, back office management, building cleaning, and maintenance. These services may be provided by employees of the company or may be purchased from contractors.

The growth of the business services industry cluster is highly dependent upon Federal Government procurement, therefore linking its advancement to growing the Federal Government presence in the county. Across the Washington, D.C.-Baltimore region, this industry cluster grew substantially—by 31.1 percent—over the 2001 to 2011 period. The business services cluster is a significant industry specialization for the region, standing 58 percent higher in its industry concentration for the region than the national as a whole. In Prince George's County, the business services industry cluster is not yet an industry specialization, growing at a much slower pace than the region with a 1.9 percent gain in employment from 2001 to 2011.

As an emerging industry cluster for the county, the focus needs to be on winning more of the growth taking place at the regional level. A specific opportunity for the county is to increase the amount of high-value business services offered, such as management consulting, that currently have a stronger presence across the region than in the county. High-value business services employment provides higher-skilled, higher-paying employment opportunities for the residents of the county.

Health care and life sciences stands as an emerging opportunity for the county. Prince George's County has shown strong growth in the health care and life sciences industry cluster in recent years, growing by 13.4 percent between 2007 and 2011—a period covering the recession and the first 2 years of recovery. This strong recent growth in Prince George's County outpaced the regional and national growth rates of 9.7 percent and 7.5 percent respectively.

The health care and life sciences industry cluster in Prince George's County will make an even more significant leap forward with the establishment of the University of Maryland Medical System's (UMMS) new regional medical center in the county. This new UMMS regional medical center is intended to reverse the strong outflow of Prince George's County residents seeking medical care in neighboring jurisdictions. The presence of the new UMMS regional medical center will also propel more research-oriented life sciences development in Prince George's County through clinical research connections with universities in the county and life sciences companies.

In the smaller—but growing—non-clinical biosciences industries, the challenge is to define a niche that Prince George's County can serve. The county is centrally located between the region's hub of non-clinical biosciences industry in the Shady Grove area, the National Institutes of Health in Bethesda, the Food and Drug Administration in White Oak, and the large academic medical complexes at Johns Hopkins University and the University of Maryland in Baltimore. Among the key assets for the county are the University of Maryland College Park (UMCP), the USDA Beltsville Agricultural Research Center, and the location of a large FDA facility focused on food safety at the University of Maryland's M Square Research Park. This suggests an opportunity for Prince George's County to further gain market share of non-clinical biosciences industries by targeting specific niches. One niche might focus on clinical research connections with universities and industry at the new UMMS regional medical center. Another niche might focus on nutritional and food safety research activities with industries leveraging the presence of the Beltsville Agricultural Research Center, FDA, and the University of Maryland's School of Agriculture.

Information, communication, and electronics (ICE) industries bring together three industry clusters involving information technology, computer and communications equipment, and aerospace and defense-related research, development, and engineering. ICE represents the heart of high-technology industries found within Prince George's County and across much of the region. Not surprisingly, ICE industries are a leading industry specialization in Prince George's County, with the county having a 73 percent higher industry concentration in ICE industry employment than the nation. The employment growth of the ICE industry cluster has not been strong in Prince George's County. Over the past decade it declined by 12.6 percent between 2001 and 2011. Across the Washington, D.C.-Baltimore region, the ICE industry cluster is also an industry specialization, but recorded only a modest growth of 2.5 percent from 2001 to 2011.

ICE industries and their associated technologies are critical to the extensive presence of federal defense and space facilities in the county and across the region. The ICE cluster is critical to the following military and space programs.

- NASA Goddard, Army Research Labs in Adelphi
- Joint Base Andrews
- National Oceanic and Atmospheric Administration (NOAA) with facilities in Suitland and at the University of Maryland M Square Research Park
- The National Security Agency at the University of Maryland M Square Research Park, Fort Meade, and the Aberdeen Proving Ground

The rise of network-centric warfare involving the integration of computing networks, mobile communications, and electronics and computing devices on the battlefield, in particular, make these technologies essential for our nation's defense. It is also critical to protect these networks and to find ways to attack the networks of our enemies, giving rise to the importance of cybersecurity.

For commercial uses, a similar integration of information, communications, and electronics technologies is occurring, and the critical need for cybersecurity in order to protect networks and information is growing. This convergence of communications, computing, and content generation is now blurring the boundaries of industries. For example, there is an increase in telephone and cable companies vying to provide similar services, both offering broadband access to the Internet and, with the rise of voice-over-internet protocol (VoIP) technology, each is able to offer basic voice communications. The separate device worlds of telecommunications, computers, mobile phones, and media/entertainment electronics are becoming highly overlapped in both use and production. It is because of this overlap that specific industry development strategies need to view the broad ICE industry cluster as an integrated grouping.

It is important to maximize the county's potential as a location for this growing high-tech industry cluster in serving federally-driven military and space activities, as well as in broader commercial applications.

CONTRIBUTING INDUSTRY CLUSTERS

In consultation with the Project Advisory Committee and other key stakeholders, it was also noted that all of these target industry clusters were further advanced by linking with the Travel and Tourism industry cluster and the Transportation, Distribution, and Logistics industry cluster. While these two clusters are important contributors to the county's economy, they do not stand alone as leading industry targets for economic development.

- The **Travel and Tourism industry cluster** is an important supportive cluster for all of the targeted industry clusters because it provides important amenities through the availability of hotels and meeting/conference spaces. This industry cluster enjoyed strong growth in Prince George's County over the 2001 to 2011 period, growing from 3,709 jobs in 2001 to 6,079 jobs in 2011. Still, it is a relatively small industry cluster in the county and paid an average wage of \$33,336 in 2011, well below the county's average wage of \$51,120. In addition, much of the growth of the Travel and Tourism cluster going forward will be related to increasing the number of

hotels and other amenities around the broader development agenda for advancing transportation-oriented development and the opportunity for casino gambling recently approved by state voters to further build-out the area around National Harbor.

- The **Transportation, Distribution, and Logistics industry cluster** is already a contributor to Federal Government activities through warehouse locations found in Prince George's County, as well as recent growth in life sciences that combines the distribution of life sciences products with laboratory services. However, by itself this industry cluster does not stand out as a target for industry development. For Prince George's County and the broader Washington, D.C.-Baltimore region, the Transportation, Distribution, and Logistics industry cluster has been declining significantly over the past decade, with the county losing 27 percent of its jobs in this industry cluster from 2001 to 2011, and the region losing 15 percent of its jobs. Also, this industry cluster's employment is not heavily concentrated for either the county or the region. Weak economic performance does not reduce the value of having Transportation, Distribution, and Logistics in supporting the growth of other industry drivers in the county, but suggests it is not a top target for economic development.

ECONOMIC CATALYSTS ASSESSMENT

As previously indicated, economic catalysts are the assets found in Prince George's County upon which competitive advantage can be built. These catalysts include the county's research institutions, talent base, transportation network, commercial real estate base, and other development capacities. The analysis of economic catalysts combines quantitative data on county and regional economic performance and key economic development indicators with interviews, stakeholder group meetings, and survey-based data in order to provide a detailed analysis of the key assets and issues shaping development in the county. The analysis strives to provide both objective data as well as informed perceptions to assess the county's competitive position and guide the development of strategies to attract and develop the targeted industry clusters.

To consider the county's economic catalysts that can support or impact the development of the targeted industry clusters, development factors were examined in-depth, including:

- Business Climate Perceptions of Industry
- Technology Commercialization Activity
- Development Infrastructure
- Financial Resources
- Small and Minority Business Environment
- Workforce and Talent Pipeline
- Quality of Life Factors
- Tax Climate
- Commercial Real Estate

Prince George's County's competitive position in these development factors is summarized in Figure 3, with each business climate area evaluated as a Weakness, Neutral (+/-), or as a Strength.

Figure 3: Prince George's Economic Catalyst Analysis Summary

	Weakness	+ / -	Strength
County Business Climate Perceptions		✓	
Technology Generation and Commercialization			✓
Transportation Infrastructure			✓
Small and Minority Business Environment			✓
Workforce and Talent Pipeline			✓
Quality of Life Factors	✓		
Tax Climate	✓		
Commercial Real Estate			✓

Specifically, the analysis found the following for each factor:

- **County Business Climate Perceptions:** Prince George's County businesses surveyed as part of the Maryland Business Climate Survey have a more positive view of the state's business climate than Maryland businesses in general. This is consistent with the previous Occupational Shifts report that found, through interviews, that county businesses had a positive view of doing business in the county. Still, only 35 percent of firms interviewed in Prince George's County for the Maryland Business Climate Survey had a positive view of Maryland as a place to do business, so the overall County Business Climate Perceptions are ranked as neutral for the county.
- **Technology Generation and Commercialization:** Prince George's County ranking in technology generation and commercialization stands in-between neutral and strength. With its concentration of federal and university research technology and commercialization resources, the county clearly has access to significant technology resources. Prince George's County is home to one of the nation's largest land-grant universities—The University of Maryland College Park (UMCP)—as well as several leading federal research institutions, including the Beltsville Agricultural Research Center (BARC), the National Oceanic and Atmospheric Administration (NOAA), the Army Research Lab, and NASA Goddard.

Despite these resources, the county has not emerged as a leader in technology generation or even captured the majority of federal or university spin-off activity generated within the county. This is consistent with the finding that the economic base industry clusters in Prince George's County have not fared well in the job gains from the creation of new companies. There was a substantially higher level of employment losses from business establishment closings than there were gains in employment from business establishment births in the county. The county's access to technology resources is clearly strong, yet its inability to capitalize on these resources is a concern, leading to a ranking in this factor in-between neutral and a strength.

- **Transportation Infrastructure:** The county's access to interstates, highways, and mass transit makes its transportation network a strength. This includes the recently completed Intercounty Connector bridging Prince George's County and Montgomery County, interstates I-95 and I-495, the Washington-Baltimore Parkway, and I-295 linking with the District of Columbia and Northern Virginia. The county also has a considerable mass transit infrastructure with 15 Metro stations found across the Blue, Orange, and Green Lines, as well as an AMTRAK station and MARC stations.
- **Small and Minority Business Environment:** Prince George's County is comparable to the region in the presence of small businesses, but stands out in its high level of minority businesses. Based on the latest data available from the U.S. Census, the county was home to 3,780 minority businesses employing 33,379 workers in 2007, and represented 33 percent of county businesses and 13 percent of county employment in minority businesses. This stands as the highest share of minority business employment among counties and cities in the Washington, D.C.-Baltimore region.
- **Workforce and Talent Pipeline:** As detailed in the 2011 Study of Occupational Shifts and Workforce Characteristics report, Prince George's County possesses a

diverse workforce with a range of skills. Most importantly, there is a strong pipeline of talent being generated in Prince George's County and across higher skilled occupational areas, such as computer sciences, engineering, and business and financial operations. This strong pipeline reflects the breadth of post-secondary institutions found in the county, including the University of Maryland College Park (UMCP), Bowie State University, Capitol College, University of Maryland University College, and Prince George's Community College.

Another key talent pool of well-educated and experienced workers is found among the 61 percent of employed county residents who commute for jobs outside of the county. These out-commuters are more highly educated than residents working in the county, with 44 percent of out-of-state commuters (primarily to Washington, D.C. and Virginia) and 32 percent of commuters to other Maryland jurisdictions having attained a bachelor's degree or above, compared to 29 percent for all residents aged 25 and older.

- **Quality of Life Factors:** Two key factors shape a poor performance in quality of life for Prince George's County: K-12 education and crime. In terms of the county education system, the county is comparable to its peers in terms of spending per pupil and class sizes, but lags behind in terms of educational performance, especially when compared to surrounding Maryland jurisdictions. Prince George's County has a lower percentage of students passing the Maryland High School Assessments, a lower graduation rate, lower SAT scores, and a higher dropout rate than its neighboring Maryland jurisdictions. In crime rates, Prince George's County is two to four times the rate of key competing suburban peer jurisdictions like Arlington, Fairfax, Howard, and Montgomery counties. On a favorable note, though, the overall crime rate in Prince George's County did decline by 7.6 percent in 2012.
- **Tax Climate:** While property tax rates in Prince George's County are generally competitive within Maryland, and below those in Virginia, it is disadvantaged by being located in a high tax state, with Maryland having the ninth worst state and local business tax burdens according to the Tax Foundation's State Business Tax Climate.
- **Commercial Real Estate:** The county has available land and a stock of commercial real estate with competitive real estate leasing costs, making this an area strength. Prince George's County has a sizable commercial real estate market with approximately 8.5 million square feet of Class A office space, 52.6 million square feet of industrial space, and 11 million square feet of flex market space. Still, Prince George's County has a much smaller Class A office space market than Fairfax County (70 million square feet) and Montgomery County (32 million square feet). The average leasing rates for Class A office space in Prince George's County is \$21.48 per square foot in the first quarter of 2012, compared to \$36.55 per square foot for the Washington, D.C. Metropolitan area—a significant \$16.26 per square foot difference. Similarly, Prince George's County has lower leasing rates than the Washington, D.C. region for industrial and flex commercial space, though the differences are smaller: \$2.10 per square foot for flex commercial space and \$0.54 per square foot for industrial space. Unfortunately, there is also a sizable vacancy rate in Prince George's County of 22 percent in 2012 for Class A commercial office space, 18 percent in flex market space, and 9 percent in industrial office space.

The discussion with key stakeholder groups identified some additional issues shaping the competitive position of Prince George's County, this included:

- Growing presence of amenities in the county as the travel and tourism sector has grown significantly over the past decade. All of the industry clusters in Prince George's County benefit from growth in travel and tourism, and the amenities it can offer businesses in the county.
- Despite a favorable commercial real estate market, from an availability and affordability perspective, there were concerns that Prince George's County is lacking in transit-oriented development that offers walkable/live-work-play areas, which are now found across the broader region in locations such as Bethesda, Rockville, and Ballston. Transit-oriented development in the county is held back by a difficult development process that is subject to overly burdensome and time-consuming reviews along with few development tools to expedite high priority development activities.
- There is a lack of identity and brand for Prince George's County in industry development and broader economic assets. There is minimal recognition for the significant concentration of research institutions found in the county—particularly in climate change, information technology, and life sciences—or the presence of leading industry drivers.

In summary, the analysis of economic catalysts found a number of specific strengths and opportunities in the overall economic assets of Prince George's County, including:

- Presence of major research universities and federal research labs
- Presence of high-skilled talent across residents and new graduates
- Central location coupled with extensive road network and mass transit infrastructure
- Large, small, and minority business environment
- Availability and affordability of commercial real estate as well as lower cost of land and many sites for development
- Growth of amenities found in the travel and tourism sector

Still, there are critical gaps and weaknesses in the county's economic asset base that need to be addressed, including:

- Low rates of overall new business start-ups, a poor track record of keeping high growth potential technology start-ups in the county, and low levels of venture capital investment.
- Lack of identity and brand for Prince George's County in industry development and broader economic assets.
- A lack of transit-oriented developments offering walkable/live-work-play areas in the county due to, among other things, a burdensome development process.
- Quality of life concerns relative to the region.

The opportunities and gaps suggested from this analysis of economic catalysts are addressed in the strategic approaches put forward by this plan.

STRATEGIC APPROACH RECOMMENDED FOR PRINCE GEORGE’S COUNTY TO CAPITALIZE ON ITS ECONOMIC GENERATORS AND CATALYSTS

Based on the findings from the economic drivers and the economic catalysts analysis, a two prong strategic approach is proposed to advance a targeted economic development strategy for Prince George’s County. These two strategic components are closely interrelated and reinforcing. Together they enable Prince George’s County to be responsive to the needs of specific industry clusters as well as to broader competitive issues critical to overall economic growth in the county.

The first component of the strategy focuses on the specific and tailored development plans to advance each of the targeted industry clusters that are likely to drive economic growth in the county in the years ahead—Federal Government, business services, health care and life sciences, and information, communication, and electronics (ICE) industries. Each of these targeted industry clusters represent an important grouping of interrelated economic base industries that can bring new wealth into Prince George’s County and provide a driver for increased revenues and jobs.

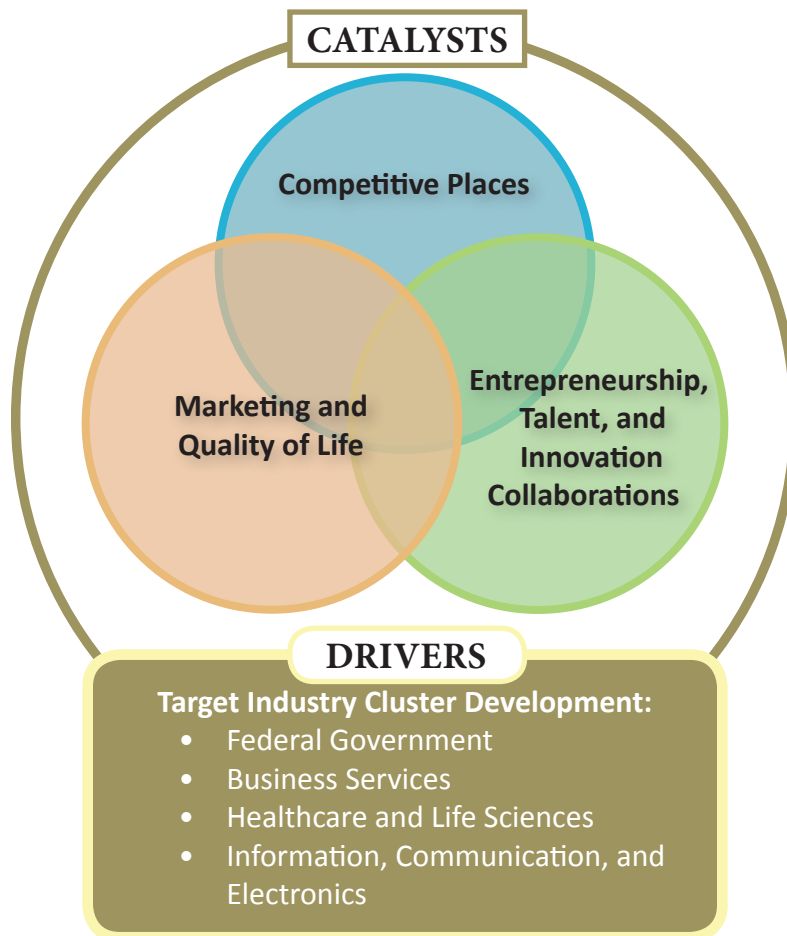
Since each of the leading industry clusters varies significantly in its requirements for growth, it is essential to focus on the specific needs of each cluster and develop tailored development strategies. It is also important to set out an organized approach on how to best integrate these targeted industry cluster strategies with existing economic development efforts.

The second component of the strategy focuses on addressing cross-cutting economic development priorities that are likely to serve as economic catalysts in the future. These cross-cutting economic development priorities can advance growth for all of the targeted industry clusters as well as the broader economic base industries of the county while focusing on the competitive opportunities and challenges facing Prince George’s County. These include:

- **Entrepreneurial, Talent, and Innovation Collaborations** to better leverage the presence of major research universities and other university/college and federal lab assets.
- **Ensuring Competitive Places** in the county for business development that address the development process and advance live-work-play/walkable communities.
- **Proactive Outreach Marketing and Raising the Quality of Life** to increase the awareness of the county’s competitive advantages for business development, address the business image of the county, and continue to raise the quality of life in the county.

The graphic in Figure 4 illustrates how this two-part approach can come together and offer a comprehensive economic development strategy for Prince George’s County that operates to advance each of the targeted industry clusters, as well as addressing cross-cutting economic development priorities for the county.

Figure 4: Prince George's County Two-Prong Economic Development Strategy



STRATEGY COMPONENT ONE: DEVELOPMENT STRATEGIES FOR THE TARGETED INDUSTRY CLUSTERS IN PRINCE GEORGE'S COUNTY

The first component of the strategy outlined below is focused on the specific and tailored development plans to advance each of the targeted industry clusters that are likely to drive economic growth in the county in the years ahead—Federal Government, business services, health care and life sciences, and information, communication and electronics (ICE) industries. Each of these targeted industry clusters represents an important grouping of interrelated economic base industries that can bring new wealth into Prince George's County and provide a driver for increased revenues and jobs.

Specifically, two critical strategic priorities have been identified to advance targeted industry clusters and broader economic base industries in the county, including:

- Implement Tailored Industry Cluster Development Strategies for the Four Identified Industry Clusters
- Organize Economic Development Resources to Support the Targeted Industry Clusters

The narrative below provides specific development strategy details for each of these targeted industry cluster development strategies and the actions needed to organize economic development resources to support the implementation of these targeted industry clusters.

Table 2 provides a summary of the specific approaches recommended to advance each of the targeted industry clusters.

STRATEGIC NEED FOR PRINCE GEORGE'S COUNTY

Success in economic development depends upon identifying and advancing the key industry clusters driving economic growth specific to a particular state or local economy. As the National Governors' Association explains, it is critical that each state and locality identify and focus on its specific industry clusters that can drive its broader economic growth in the global economy and "exploit the unique advantages it has relative to other states [and regions] and build on the strengths found in its local "clusters of innovation"—distinct groups of competing and cooperating companies, suppliers, service providers and research institutions."⁴

Past economic development strategies for Prince George's County have recognized the importance of industry clusters for the county's economic development efforts; however, these strategies were, for the most part, not acted upon⁵. This strategy is the first to undertake the analysis to comprehensively assess the economic performance of industry clusters found in Prince George's County and across the region, as well as to identify those specific industry clusters that have the best opportunity to drive economic growth in the county in the years to come.

In traditional economic development practices, the focus of business development efforts is to address the needs of individual businesses on a one-by-one basis. Industry cluster efforts, in contrast, seek to work collectively across businesses in a cluster to identify shared needs and opportunities and pursue common services.

4 National Governor's Association, "A Governor's Guide to Trade and Global Competitiveness," 2002

5 The 2005 Prince George's County Five Year Economic Development Strategy called for a specific goal to: "Identify, grow, and attract targeted industries."

Table 2. Tailored Development Approaches Recommended for Targeted Industry Clusters

For each of the targeted industry clusters, a set of development approaches are recommended as follows:

Federal Government

- Establish and sustain dedicated county economic development staff resources with established procedures in place to target, find, and take advantage of federal leasing opportunities.
- Proactively engage the private development and broker community to identify and pursue GSA opportunities.
- Make the needed public and private investments in transit-oriented development (TOD).
- Seek to have parity in the GSA rent cap across jurisdictions in the Washington, D.C. region and to allow rates that reflect the differences between a basic lease renewal in an existing building and one that requires new construction or costly upgrades.
- Advance the adoption of more stringent “proximity” clauses in federal government contracts by federal agencies operating in Prince George’s County in order to enhance the presence of government contractors in the county.

Business Services

- Seek support from existing business leaders to assist in the retention and expansion of business services (headquarters, administrative services, and management consulting).
- Pursue outreach to business services companies connected to key federal agencies in the county.
- Leverage TOD with the use of incentives.
- Build on existing clusters to attract business services companies from elsewhere in the region.

Healthcare and Life Sciences

- Establish the planned University of Maryland Medical System (UMMS) regional medical center as an extension of this top quality academic medical center into the county. This will result in access to high-quality medical care specialties, graduate medical educations, and research. In addition, translational and clinical research connections should be advanced that link this new UMMS regional medical center with the basic biological sciences and bioengineering capacities at the University of Maryland, College Park to advance broader life sciences innovation and industry development in the county. Address the lack of commercial bioscience wet lab space available in Prince George’s County through targeted use of existing county incentives.
- Consider partnering with the Beltsville Agricultural Research Center (BARC) on its Enhanced Use Lease Capacity to offer a site for life sciences companies, particularly targeting satellite labs for the many companies that have cooperative research and development agreements (CRADAs) with BARC.

Information, Communication and Electronics Industries

- Accelerate and enhance the development of the University of Maryland M Square Research Park as a high-quality mixed-use, “live-work-play” development since it stands as the epicenter for talent and research in information, communications, and electronics in Prince George’s County.
- Leverage the research industry drivers and their technology transfer activities with an active commercialization and entrepreneurial development organization that can integrate and help grow the technology business community.
- Advance industry networking in Prince George’s County to focus on digital media, e-commerce, and big data to serve both federal and commercial activities leveraging statewide efforts of the Technology Council of Maryland and other organizations in the region.

As pointed out in a case study of Arizona's industry cluster activities in the 1990s by Mary Jo Waits, currently Division Director of Economic, Human Services and Workforce at the National Governors Association : "During the early years of strategy implementation, the focus was on keeping the cluster organizations together, connected to each other, and visible to economic development organizations and the broader community ... Arizona economic development leaders soon learned, however, that such intelligence might be moot without the ability to modify services accordingly, provide them in a timely holistic manner, and reach enough firms to make an impact. In other words, the full formula to help firms compete in global markets is the identification of their needs plus development of an effective system for meeting their needs."⁶

PROPOSED ACTIONS:

Four specific actions are being proposed to advance targeted industry clusters in Prince George's County:

- Implement tailored industry cluster development strategies for the four identified industry clusters:
 - o Federal Government
 - o Business Services
 - o Healthcare and Life Sciences
 - o Information, Communications and Electronics
- Dedicate support for industry cluster development and networking
- Prioritize County incentives to the industry clusters
- Focus on workforce connections to the industry clusters (K-12, post-secondary and incumbent worker)

ACTION: IMPLEMENT A FEDERAL GOVERNMENT INDUSTRY CLUSTER DEVELOPMENT EFFORT

Rationale for Selection

Prince George's County, like other counties in the region, enjoys a high level of specialization in Federal Government activities and a growing jobs base in the county, with federal employment in the county standing at over 27,000 in 2011. Prince George's County, however, lagged behind the region in overall job gains from the Federal Government sector between 2001 and 2011. Therefore, it is important to focus development efforts to strengthen the county's position.

⁶ Mary Jo Waits, The Added Value of the Industry Cluster Approach to Economic Analysis, Strategy Development, and Service Delivery, Economic Development Quarterly, February 2000, page 47

By the Numbers: Key Assessment Factors for Federal Government Targeted Industry Cluster			
Assessment Factor		Prince George's County	Washington, D.C.-Baltimore Region
Industry Cluster Performance:	Overall Assessment of Industry Cluster Performance	Current Strength	Current Strength
	Number of Jobs, 2011	27,482	434,021
	Level of Industry Cluster Specialization, 2011	316 percent higher than nation	376 percent higher than nation
	Job Gains/Losses from 2001 to 2011	6.2 percent gain	18.4 percent gain
	Change in Competitive Share Compared to the U.S., 2001 to 2011	2 percentage points higher than nation	14 percentage points higher than nation
Average Wages in Prince George's County	Points to the quality of job opportunities found in the industry clusters	High wage industry cluster: \$93,296 in 2011 for Federal Government compared to \$45,248 for private sector employment	
Economic Multiplier in Prince George's County	Considers the additional jobs gained in other county industries for each additional job generated in the industry cluster	Not available because IMPLAN input output model does not include Federal Government	
Projected National Growth Rates	Expected job gains nationally in the years ahead for the industry cluster	Declining National Industry: Decline of 12.3 percent projected nationally from 2010 to 2020	

Sources: Industry Cluster Performance, Average Wages and Economic Multiplier—IMPLAN, calculations by Battelle Projected National Growth Rates—U.S. Bureau of Labor Statistics

Development Drivers

Looking forward, the broad opportunity for Prince George's County in advancing the Federal Government cluster is to maximize the competitiveness of sites in the county to win future General Services Administration (GSA) leases as existing leases for Federal agencies located in the region come up for renewal. Over the next five years, approximately 25 million square feet of leased space will expire in the regional comparison communities (excluding Washington, D.C.). Six Federal Government agencies represent over 50 percent of the leased and owned GSA space in the county, including the Internal Revenue Service, U.S. Census, U.S. Department of Agriculture, the Food and Drug Administration, the National Oceanographic and Atmospheric Administration, and the U.S. Department of the Treasury. These agencies offer an initial opportunity to target specific upcoming lease expirations in other jurisdictions and build upon the strengths of the county and its ability to further the GSA's goals of consolidation and economies of scale with its real estate portfolio.

The Battelle project team examined Federal Government leases in Prince George's County and across major counties in the Washington, D.C. region, with a focus on expiring leases that might be captured by Prince George's County. Montgomery County has the highest number of expiring leases within targeted agencies. A total of 5.2 million square feet will expire from 2013-2017 for agencies including NOAA, FDA, and USDA. The NOAA represents roughly 1.3 million square feet of the total space. There is 476,000 square feet of expiring

leases within target agencies in Arlington that includes the USDA and the National Science Foundation. In Alexandria there is 565,000 square feet that includes the USDA (majority is unidentified space) and in Fairfax County there 825,000 square feet that includes the Treasury (majority is unidentified space).

As it pursues other federal leases, Prince George's County must be concerned about retaining the leases it has today. Over the next five years, 45 percent of the existing federal leases in Prince George's County are due to expire.

A key advantage for Prince George's County in pursuing Federal Government leases is its lower leasing costs for Class A office space and the overall availability of office space. The average lease rate for Class A office space in Prince George's County is \$21.48 per square foot, compared to \$36.55 per square foot across the Washington, D.C. metropolitan area. Meanwhile, vacancy levels in Class A office space are considerably higher in Prince George's County than in the region, standing at over 20 percent since 2006. In the first quarter of 2011, there were 71 Class A office properties in Prince George's County: 24 were fully occupied, 26 had vacancy rates below 25 percent, and 21 of the properties had more than a 25 percent level of vacancy. These 21 properties with over 25 percent vacancy had an average of 137,000 square feet available.

One common concern noted in discussions with stakeholders was that the advantage Prince George's County has in lower leasing costs is reduced by the rent caps that are set by the General Services Administration in competing with neighboring jurisdictions. However, a closer look suggests that the differences are not that great across competitive suburban areas. First, Prince George's County is treated the same as Montgomery County with the rent cap set at \$35 per square foot. Second, the Northern Virginia counties have only a slightly higher rate of \$39 per square foot. Finally, while there is a significant differential with the District of Columbia's rent cap, which is set at \$50 per square foot, it may not be a critical competitive issue since the rent cap for the District of Columbia is still well below the Class A market rates found in the central business district of D.C.

The bigger issue facing all jurisdictions in the Washington, D.C. region is that the rent cap does not differentiate between existing facilities and new construction. Whether at a \$35 per square foot or \$39 per square foot cost, local jurisdictions are finding that there needs to be subsidization of new construction.

Proposed Development Approach

From across the interviews with developers, GSA officials, and current and former economic development officials working in the region, the overwhelming perspective was that Prince George's County had a lack of focus and resources dedicated to pursuing GSA leases, particularly as it relates to other communities in the region. Based on guidance from what works in other counties in the Washington, D.C. metropolitan region, the key ingredients needed by the county include:

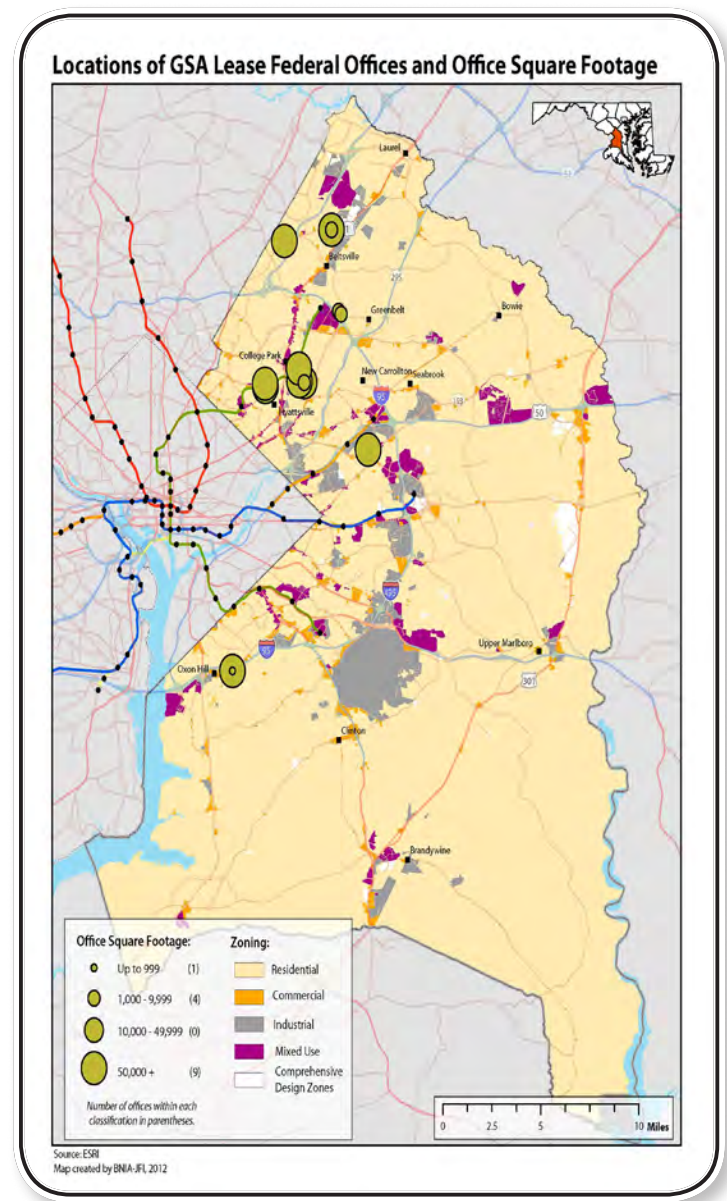
- Establishing and sustaining a dedicated county economic development staff resource with established procedures in place to target, find, and take advantage of federal leasing opportunities. Successful counties do not rely on waiting for outreach from the GSA.
- Proactively engaging the private development and broker community to identify and pursue GSA opportunities. It is particularly important to work with those specific developers and brokers who are best suited to pursuing Federal Government leases.

- Making the needed public and private investments in transportation-oriented development (TOD). Successful counties now have in place well-established sites that offer the combination of transit access and urban amenities in several sites desired by the GSA, which reflect years of effort involving significant public and private investment.
- Seeking to have parity in the GSA rent cap across jurisdictions in the Washington, D.C. region and to have a differential that reflects a difference between a basic lease renewal in an existing building and one that requires new construction or costly upgrades. By having parity in the rent cap for all jurisdictions in the region, the lower leasing costs of Prince George's County become an even more significant driver for gaining market share in Federal Government leasing. Meanwhile, the higher differential for new construction or costly upgrades reflects the realities of generating new space in the region, and is an issue of importance for all jurisdictions in the region.
- Advancing the adoption of more stringent "proximity" clauses in Federal Government contracts by federal agencies operating in Prince George's County, particularly related to Joint Base Andrews. These proximity clauses require government contractors to be located within a certain distance or travel time to the site of the federal agency they are supporting. By having more stringent proximity clauses, the siting of federal contractors in the county will increase. To accomplish this, Prince George's County needs to work closely with the Congressional delegation from Maryland.

Implications for Place-Based Growth in the County

A key advantage of pursuing Federal Government leasing is its broad presence across the county, as shown in Figure 5. What is important to capturing future growth, as set out in the development approach, is the county being able to offer Class A office space at transportation-oriented development sites (TOD) in the county at lower cost than competitive TOD sites in other counties.

Figure 5: Mapping of Federal Government Leases in Prince George's County



ACTION: IMPLEMENT A BUSINESS SERVICES INDUSTRY CLUSTER DEVELOPMENT EFFORT

Rationale for Selection

Business services involve a wide range of activities that support the operations of a company, from strategic planning to marketing to back office management to building cleaning and maintenance. These services may be provided by employees of the company or may be purchased from contractors.

The business services industry cluster generated modest job growth for the county from 2001 to 2011. Still, it is not yet a highly specialized industry in the county, nor one that is growing faster than the nation. In contrast, this is one of the Washington, D.C.-Baltimore region's booming industry clusters, with more than double the growth rate for the county and the nation, and is already an industry specialization in the region.

Looking to the future, the business services industry cluster is projected to grow strongly in the nation over the 2010 to 2020 decade. The rationale for targeting this industry cluster is to accelerate growth for the county in an area that is regionally strong and expected to continue to grow in the future.

By the Numbers: Key Assessment Factors for Business Services Targeted Industry Cluster			
Assessment Factor		Prince George's County	Washington, D.C.-Baltimore Region
Industry Cluster Performance:	Overall Assessment of Industry Cluster Performance	Emerging Opportunity	Current Strength
	Number of Jobs, 2011	11,892	289,867
	Level of Industry Cluster Specialization, 2011	2 percent lower than nation	58 percent higher than the nation
	Job Gains/Losses from 2001 to 2011	1.9 percent gain	31.1 percent gain
	Change in Competitive Share Compared to the U.S., 2001 to 2011	14 percent lower than nation	15 percent higher than nation
Average Wages in Prince George's County	Points to the quality of job opportunities found in the industry clusters	Slightly higher wage industry: \$49,626 for business services compared to \$45,248 for private sector employment	
Economic Multiplier in Prince George's County	Considers the additional jobs gained in other county industries for each additional job generated in the industry cluster	Low multiplier: Every additional new job in business services generates 0.2 new jobs in other industries in the county	
Projected National Growth Rates	Expected job gains nationally in the years ahead for the industry cluster	High growth industry: Gains of 32.3 percent projected nationally from 2010 to 2020	

Sources: Industry Cluster Performance, Average Wages and Economic Multiplier—IMPLAN, calculations by Battelle Projected National Growth Rates—U.S. Bureau of Labor Statistics

Development Drivers

The business services industry cluster in the region is highly dependent upon Federal Government procurement, and so its advancement is interrelated to growing the Federal Government presence in the county. Based on an analysis of federal procurement expenditures, it is estimated that nearly half the business services employment in Prince George's County is dependent upon the Federal Government, which is considerably higher than the 26 percent average for all other economic base industries.

A specific opportunity for the county is to move up in high-value-added business services, such as management consulting, that have a stronger presence across the region than in the county. Currently, the lower wage back-office administrative, facility support, and janitorial activities represent over 50 percent of business services in Prince George's County, while higher wage management consulting services is just under 20 percent. This concentration in lower wage business services is why Prince George's County has an average wage of \$49,626 compared to the regional wage for business services of \$81,354.

Proposed Development Approach

There are several key development approaches suggested for advancing the business services industry cluster, drawing upon best practices from other communities, including:

- **Seeking support from existing business leaders to support the retention and expansion of business services (headquarters, administrative services, and management consulting).** An excellent example of this approach is found in Columbus, Ohio, which has embraced the retention and expansion of business services (headquarters, administrative services, and management consulting) as a cornerstone of its unified economic development activities under Columbus 2020!. The approach of Columbus 2020! is to leverage top private sector leadership in the region to do more than just influence the direction of economic development, but to participate actively in identifying potential businesses for attraction and help persuade them to locate their operations in the county. This is important for the business services industry cluster, because who can sell the county as a place to locate headquarters and administrative operations better than CEO's involved in similar activities within the county.
- **Pursuing outreach to business services companies connected to key federal agencies in the county.** Prince George's County needs to actively identify government contractors serving key federal agency operations in the county—including the Internal Revenue Service (IRS), Department of Defense (DoD), Bureau of the Census, Food and Drug Administration (FDA), the National Oceanic and Atmospheric Administration (NOAA), and the Department of the Treasury—and target them for business attraction and retention. This effort can benefit from pursuing the proximity clauses in Federal Government contracting mentioned in the Federal Government development efforts.
- **Leveraging transit-oriented development with the use of incentives.** Business services involve a range of activities requiring accessibility for clients and amenities to serve their employees and clients. Typically, business services seek high-quality locations that offer public transportation along with amenities. Interviewed real estate brokers and developers agree that there is an opportunity for Prince

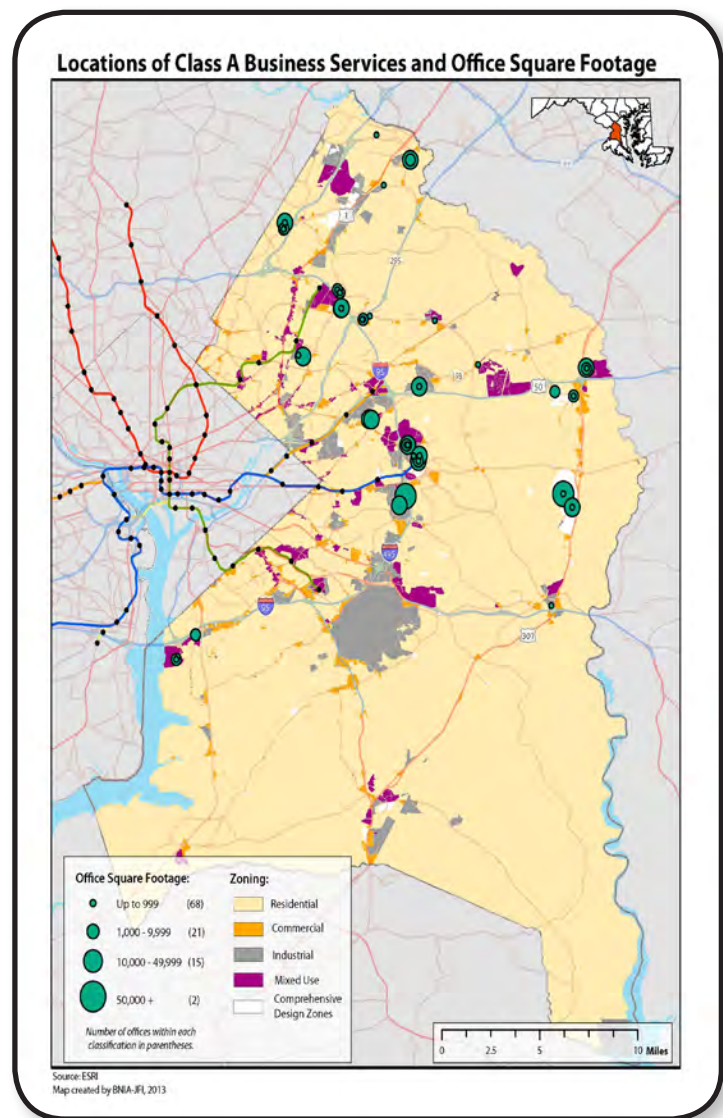
George's County to alter past trends and start to draw business services to the county if there can be high-quality TOD undertaken and combined with the use of incentives that would include: corporate tax breaks, assistance with company moving expenses, and expedition on any required permitting if renovation or new construction is involved.

- **Build on existing clusters to attract business services companies from elsewhere in the region.** Prince George's County needs to assess the extent to which its other existing industry clusters are tapping business services outside of the county and use that to identify business attraction strategies. Baltimore County has employed this kind of focus and is now targeting back office operations of financial services and insurance companies from across the region.

Implications for Place-Based Growth in the County

Similar to the Federal Government, business services companies seek out high-quality TOD locations, so the opportunity for business services industry cluster growth can be broad-based across the county. Currently, due to the lack of such high-quality TOD locations, the existing business services companies locating in Class A office space in Prince George's County are clustered in two main areas of the county—Greenbelt, and, to a lesser extent, the Largo Town Center area.

Figure 6: Mapping of Business Services Companies in Class A Space Across Prince George's County



ACTION: IMPLEMENT A HEALTHCARE AND LIFE SCIENCES INDUSTRY CLUSTER DEVELOPMENT EFFORT

Rationale for Selection

The Health Care and Life Sciences industry cluster represents an emerging opportunity for the county, and one that has great promise for the future given that it is projected to be a high growth industry nationally over the 2010 to 2020 period and has been growing across the region faster than in the county.

What is particularly promising for Prince George's County in healthcare and life sciences is the recent growth it has experienced. Over the period of 2001 to 2011, healthcare and life sciences grew by 19.8 percent in Prince George's County—a substantial rise, though below the overall growth rate of the region of 29.1 percent. A closer look reveals that the gains in healthcare and life sciences in the county actually accelerated in the most recent 2007 to 2011 period covering the recession and first few years of economic recovery, growing 13.4 percent compared to the previous business cycle period of 2001 to 2007, when it gained 5.6 percent. This fast pace growth in healthcare and life sciences employment from 2007 to 2010 in Prince George's County was greater than the regional growth of 9.7 percent and the national growth of 7.5 percent.

Another factor driving the importance of this sector is that, as County Executive Rushern L. Baker, III reported in testimony to the Maryland State Legislature, “over 60 percent of Prince George's County residents currently leave the county to receive healthcare. In our surrounding jurisdictions, this figure is less than 25 percent.”⁷ This is economic development in reverse, where county wealth is going to other jurisdictions in the region. Addressing this issue can have a significant economic development benefit for the county and raise the quality of life in the county.

A 2011 study of the economic impacts associated with the proposed University of Maryland System's development of a Prince George's County Regional Medical Center found that, once the Center reaches its full scale of operations, it will enhance both the scope and quality of healthcare and hospital services available inside of the county. As a result of these enhanced and improved services, the development of the proposed Regional Medical Center is projected to meet the hospital care and medical services needs of many of the county residents that currently seek and receive medical treatment in Washington, D.C. hospitals. These “recaptured” revenues represent net, new, and incremental revenues brought back into the county and are projected to total \$76.2 million. They will generate \$127.5 million in economic activity in Prince George's County, support 870 workers earning \$48.0 million in salaries and wages, and generate \$6.1 million in combined state and local taxes. Overall, once the Prince George's County Regional Medical Center is opened and reaches its full scale of operations in 2019, it will have projected revenues of \$324.3 million and employ 2,168 workers. Projected 2019 operations will generate \$542.4 million in economic activity in Prince George's County, support 3,702 workers earning \$204.3 million in salaries and wages, and generate \$26.1 million in combined state and local taxes.⁸

7 Testimony of Prince George's County Executive Rushern L. Baker, III to Maryland House Appropriations Subcommittee on Health and Human Services, January 19, 2012.

8 Study prepared for the University of Maryland Medical System by the University of Baltimore's Jacob France Center.

By the Numbers: Key Assessment Factors for Healthcare and Life Sciences Targeted Industry Cluster			
Assessment Factor		Prince George's County	Washington, D.C.-Baltimore Region
Industry Cluster Performance:	Overall Assessment of Industry Cluster Performance	Emerging Opportunity	Emerging Strength
	Number of Jobs, 2011	14,788	270,143
	Level of Industry Cluster Specialization, 2011	26 percent lower than the nation	11 percent lower than the nation
	Job Gains/Losses from 2001 to 2011	19.8 percent gain	29.1 percent gain
	Change in Competitive Share Compared to the U.S., 2001 to 2011	3 percentage points higher growth than nation	12 percentage point higher growth than the nation
Average Wages in Prince George's County	Points to the quality of job opportunities found in the industry clusters	Slightly higher wages – \$47,406 for healthcare and life sciences compared to \$45,248 for private sector.	
Economic Multiplier in Prince George's County	Considers the additional jobs gained in other county industries for each additional job generated in the industry cluster	Low multiplier – Every additional job in healthcare and life sciences generates 0.2 new jobs in other industries in the county	
Projected National Growth Rates	Expected job gains nationally in the years ahead for the industry cluster	High growth industry: Gains of 25.7 percent projected nationally from 2010 to 2020	

Sources: Industry Cluster Performance, Average Wages and Economic Multiplier – IMPLAN, calculations by Battelle Projected National Growth Rates – U.S. Bureau of Labor Statistics

Development Drivers

There are several specific drivers for healthcare and life sciences development in Prince George's County that can shape how the county advances this industry cluster, including:

- New hospital developments offer the potential to stem the flow of county residents leaving the county for healthcare services as well as attracting patients from outside of the county for healthcare services. Of particular note is the plan for a new University of Maryland Medical System (UMMS) regional medical center, to be located in the county. In addition, other major hospital investments may include the Joint Base Andrews Hospital and the redevelopment of Southern Maryland Hospital.
- Proximity of a new U.S. Food and Drug Administration (FDA) headquarters at White Oak in Montgomery County creates the potential to attract biopharmaceutical companies that provide contract services to the FDA as well as requiring close proximity for advancing new therapeutics and devices.
- Growing emphasis on food safety research and development drivers in Prince George's County, including the ongoing activities of the USDA's Agricultural

Research Services Human Nutrition Research Center in Beltsville and the recent location of the University of Maryland/FDA Joint Institute for Food Safety and Applied Nutrition at M Square Research Park.

- Ongoing research activities at the University of Maryland College Park in basic biological sciences and bioengineering. The commercialization of these is supported by the presence of wet lab incubation, post-incubator accelerator space, and shared use facilities, including scale-up manufacturing. In addition, Bowie State University has programs involved with clinical trials. To the extent that the new hospital developments bring a focus on clinical research, which would be expected, particularly for the University of Maryland Medical System regional hub, it would complement these basic research strengths and enable an opportunity for bringing research that links “laboratory experiments through clinical trials to point-of-care patient applications”⁹ or from bench to bedside.
- Link between healthcare and life sciences development with distribution activities, particularly to advance the growing use of diagnostic testing and laboratory services with the advent of more genomic-based, personalized medicine approaches. Prince George’s County is already an important hub of distribution and logistics activities in the region, and its central location and proximity to the airport only enhances the county’s advantages for being a center in the region for diagnostic and laboratory services.

Proposed Development Approach

Many of the cross-cutting economic development actions proposed in this strategy address the needs for biosciences development, particularly engaging the university on commercialization and supporting start-up companies, focusing on networking, making risk capital available and addressing workforce and talent pools. It is also notable that Prince George’s County Economic Development Corporation already has in place a BioPharma Task Force to facilitate industry networking activities, and is defining a work plan for supporting the development of the industry.

There are several specific development approaches to consider:

- **Establish the planned University of Maryland Medical System (UMMS) regional medical center as an extension of this top quality academic medical center into the county resulting in access to high-quality medical care specialties, graduate medical education, and research.** This will provide a major boost to the economy in Prince George’s County by retaining spending by county residents for health care services.

In addition, translational and clinical research connections should be advanced that link this new UMMS regional medical center with the basic biological sciences and bioengineering capacities at the University of Maryland College Park to advance broader life sciences innovation and industry development in the county. The connection between biomedical product advancement and clinical care is not simply one of advancing a supplier and buyer relationship. Instead, there is a close and needed interface of “bench and bedside” for biomedical innovation to move forward. The U.S. National Institutes of Health (NIH) explains that “information

9 http://en.wikipedia.org/wiki/Translational_research

flow at this interface is bi-directional, requiring close interaction between clinical and bench scientists.”¹⁰ For instance, physician observations often provide insights into unmet medical needs or protocol refinements. Those involved in research and product development often find insights for applications from epidemiological studies and conversations with clinical practice professionals. Furthermore, advances in life sciences to treat human health require extensive clinical trials to ensure the safety and efficacy of new medical products, which in turn call for close collaborations between industry and clinicians.

In other locations pursuing healthcare and life sciences development, this clinical connection is typically found as an outgrowth of having a medical school. Prince George’s County has an opportunity to promote more active clinical research programs at the new planned hospital developments that can strongly complement the basic biological sciences and bioengineering capacity at the University of Maryland College Park. These clinical research programs can build upon existing nursing programs found in the county at institutions such as Bowie State or Prince George’s Community College to offer specialized clinical research nurse and clinical trials management training.

- **Address the lack of commercial bioscience wet lab space available in Prince George’s County.** One area of particular concern for Prince George’s County is the lack of wet lab space. Beyond the limited availability of wet lab space at University of Maryland’s Technology Advancement Program incubator, there are few options for commercial wet lab space in the county. It is critical that the county seek to establish at least 50,000 to 100,000 square feet of multi-tenant commercial biosciences space in the county in partnership with the private sector, or it will be bypassed by many emerging biosciences companies who have many options for locating across the region, especially in Montgomery County. The new Economic Development Incentive Fund (EDIF) and Payment in Lieu of Taxes (PILOT) development tools will be very helpful in moving forward on multi-tenant commercial biosciences space. An added incentive would be to work with institutions, such as the University of Maryland, who could be available as tenants of last resort if available wet lab space goes unleased for a long period of time.

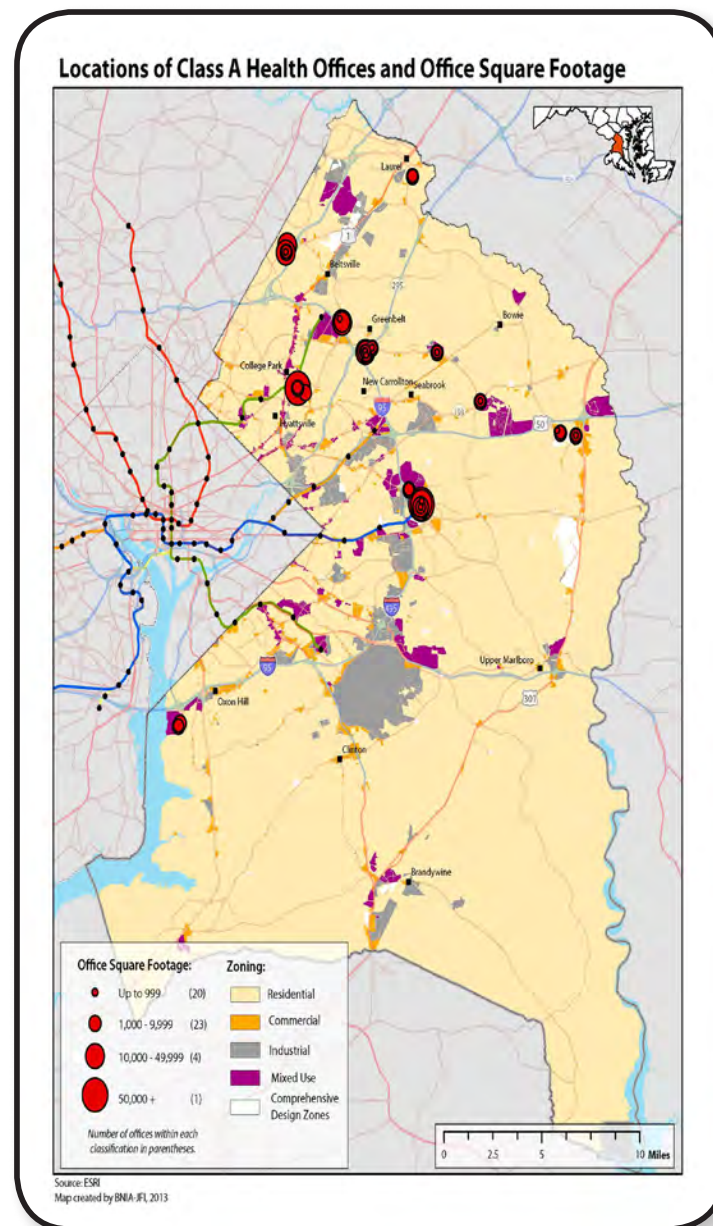
One innovative approach to create more commercial wet lab space is to partner with Beltsville Agricultural Research Center on its Enhanced Use Lease capacity to renovate an existing facility and seek industry tenants not just for post-incubation from University of Maryland College Park, but also for satellite labs for the many companies that have cooperative research and development agreements (CRADAs) with BARC.

Implications for Place-Based Growth in the County

The driver for place-based development of healthcare and life sciences is the location of key anchor facilities—specifically academic hospitals (those open to clinical connections with academic institutions and industry), along with proximity to research institutions, including University of Maryland College Park and BARC. Where the University of Maryland Medical System decides to locate the planned new regional hospital center will be an important site for development of commercial biosciences space. Locating the center near a transit station would be especially beneficial, as the center would stimulate additional TOD development.

¹⁰ National Institutes of Health, Request for Applications for Regional Translational Research Center Planning Grants, page 4, October 2004.

Figure 7: Mapping of Healthcare and Life Sciences Companies in Class A Space Across Prince George's County



ACTION: IMPLEMENT AN INFORMATION, COMMUNICATIONS AND ELECTRONICS INDUSTRY CLUSTER DEVELOPMENT EFFORT

Rationale for Selection

The Information, Communications, and Electronics (ICE) cluster brings together three industry clusters involving information technology, computer and communications equipment and aerospace, defense-related research, development and engineering. It represents the heart of high-technology industries found across much of the region, outside of the life sciences. It involves advanced technologies required by the military, intelligence, space, and climate communities' focus on network-centric operations for real time processing of information to decisions. These technologies include sensing, cloud computing, cybersecurity, data fusion, and predictive analytics.

The ICE cluster is specialized in Prince George's County and the region, pointing to the complex of activities taking place in the region. It is also a very high wage industry cluster, with significant requirements for computer science and engineering skill sets. Still, Prince George's County has not fared well in growth over the past decade, declining by 12.6 percent, while the region grew a modest 2.5 percent.

Looking forward, the ICE cluster is projected to be a high growth industry cluster at the national level, and so offers a good target for economic development. This is likely due to the significant growth potential of broader commercial areas, such as digital media, cloud computing, and big data. This suggests a new "break out" strategy for Prince George's County to focus on that goes beyond the standard defense and government customers for these services.

By the Numbers: Key Assessment Factors for Information, Communications and Electronics Targeted Industry Cluster			
Assessment Factor		Prince George's County	Washington, D.C.-Baltimore Region
Industry Cluster Performance:	Overall Assessment of Industry Cluster Performance	Specialized Retention Target	Current Opportunity
	Number of Jobs, 2011	18,280	352,096
	Level of Industry Cluster Specialization, 2011	73 percent higher than the nation	121 percent higher than the nation
	Job Gains/Losses from 2001 to 2011	-12.6 percent	2.5 percent
	Change in Competitive Share Compared to the U.S., 2001 to 2011	6 percentage points greater decline than the nation (which declined by 7 percent)	10 percentage point higher than the nation (which declined by 7 percent)
Average Wages in Prince George's County	Points to the quality of job opportunities found in the industry clusters	Higher wages – \$87,540 for information, communications, and electronics industries compared to \$45,248 for private sector.	
Economic Multiplier in Prince George's County	Considers the additional jobs gained in other county industries for each additional job generated in the industry cluster	High multipliers – Every additional job in the diverse information, communication and electronics industries generates between 0.4 and 0.9 new jobs in other industries in the county. The highest levels are found in computer and communications equipment, followed by more pure play IT and defense industries.	
Projected National Growth Rates	Expected job gains nationally in the years ahead for the industry cluster	High growth industry: Gains of 26.1 percent projected nationally from 2010 to 2020	

Sources: Industry Cluster Performance , Average Wages and Economic Multiplier – IMPLAN, calculations by Battelle
Projected National Growth Rates – U.S. Bureau of Labor Statistics

Development Drivers

For Prince George's County, and across the broader region, ICE industries and their associated technologies are critical to the extensive presence of federal defense, intelligence, space, and climate change facilities in the county and region. Within Prince George's County these key federal facilities include NASA Goddard, Army Research Labs in Adelphi, Joint Base Andrews, the National Oceanic and Atmospheric Administration and the Intelligence Advanced Research Projects Activity (IARPA) Center at the University of Maryland M Square Research Park. In addition, these industries in Prince George's County have close proximity to the broader National Security Agency activities at Fort Meade in neighboring Anne Arundel County. Therefore, it is important to target this high-technology industry cluster to ensure a high-quality business environment for serving federally-driven military, intelligence, space and climate change activities within the county and the broader region.

The big upside for the county, however, may lie in the commercial development potential of this high-technology industry cluster. The information, communications, and electronics cluster is integral to the transformative commercial developments of digital media, e-commerce, and big data. The top technology companies of today—Amazon, Apple, Google, and Facebook—represent this transformative change. These new commercial developments focus on the rapid convergence of communications, computing, and content generation technologies with the advances of the Internet, increased broadband capacity, mobile communications, and smaller electronics and computing devices.

To be a player in the commercial world of digital media, e-commerce, and big data, the county requires technology-rich and entrepreneurial business environments. The next generation of this transformative change will likely involve advances in network-centric operations, which the military is leading the way on, and which increasingly defines the research focus at the University of Maryland and other key research drivers in the county including the Army Research Labs and NASA Goddard. Therefore, on technology alone, Prince George's County is likely to be well-positioned; on creating a world-class entrepreneurial environment, however, there is much improvement needed as discussed below.

Proposed Development Approach

There are several key development approaches, drawing upon best practices from other communities, suggested for advancing the Information, Communications, and Electronics (ICE) industry cluster. A clear view on what it will take to realize success in targeting this industry cluster is presented by Boulder, Colorado. It is not simply about locating near a major military installation. It is all about creating the environment where entrepreneurship can thrive. Boulder, Colorado demonstrates that having a sense of community where top talent and entrepreneurs can mix and mingle with little friction is critical to advancing the fast moving world of integrated information, communications, and electronics. A technology-rich community, with a leading research university and federal labs in its midst, must still offer a focused place where live, work, and play can come together to create the positive dynamics to foster entrepreneurship.

Among the specific development approaches for the ICE industry cluster, include:

- Accelerating and enhancing the development of high-quality mixed use, live-work-play development near the University of Maryland College Park, which stands as the epicenter of talent and research for ICE industries in Prince George's County. Also close to the University of Maryland are many of the main federal facilities

driving military, intelligence, space, and climate change activities. This is the single most important effort for Prince George's County in order to realize the potential of its world-class research and development drivers.

The beginnings are in place with the University of Maryland M Square Research Park, but it needs to be accelerated and enhanced if it is to anchor the growth of a technology-rich, entrepreneurial business environment needed to grow the information, communications, and electronics industry cluster in the county.

- Leveraging the research drivers and their technology transfer activities with an active commercialization and entrepreneurial development organization that can integrate and help grow the technology business community. An excellent example of this is San Diego CONNECT. CONNECT was originally founded in 1985 by the University of California (UC) San Diego, the San Diego Economic Development Corporation, and private sector business leaders, to stimulate the commercialization of science and technology discoveries from the local research institutions and facilitate the creation and growth of technology clusters in San Diego. It continues to focus on mentoring entrepreneurs, fostering strategic partnerships between startups and established companies, providing in-depth entrepreneurial training, and introducing early-stage companies to the world of venture-capital finance. CONNECT has assisted in the formation and development of more than 2,000 companies since its launch in 1985. This can be advanced by creating a Prince George's County Innovation and Commercialization Collaborative as set out in the cross-cutting strategic priorities.

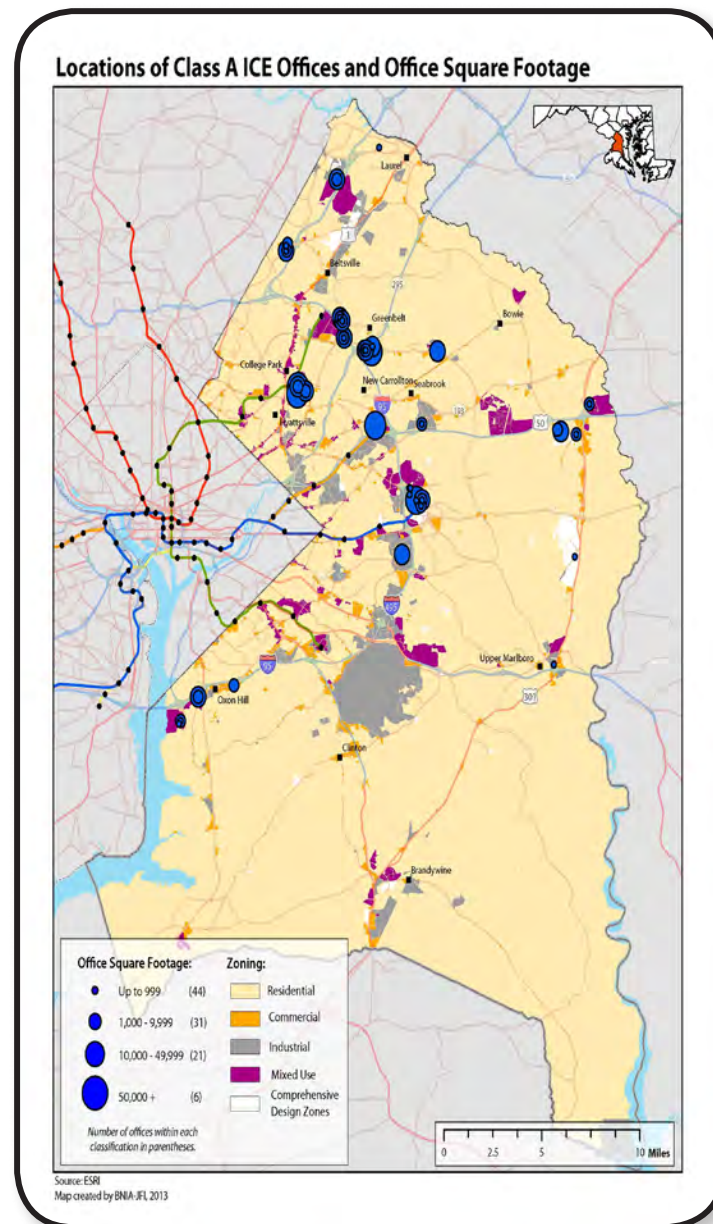
At the same time there needs to be intensive industry networking to focus on federal requirements as well as the more commercial worlds of digital media, e-commerce, and big data. This type of networking also occurs in San Diego through its Software and Internet Council. The Council organizes business interest groups offering peer-to-peer networking and a forum for the exchange of ideas, sharing of resources, and promotion of specific niche technology needs, as well as an Entrepreneur's Forum to accelerate business formation and growth. Among the business interest groups currently being supported by the San Diego Software and Internet Council that fit this space of information, communications, and electronics, are ones in digital arts, entertainment and media, healthcare IT, and wireless applications. This can be advanced by pursuing the specific actions set out in the next section for organizing to support industry clusters.

Each of these suggested development approaches noted above—promote live-work-play environments around the county's research university, create an intermediary for commercialization and entrepreneurship, and pursue active networking—are part of the cross-cutting economic development priority actions set out in this strategy.

Implications for Place-Based Growth in the County

The advancement of the information, communications, and electronics industry cluster has very specific place-based development implications for the county. The industry is already clustered around the College Park-Greenbelt area as shown in Figure 8. The ideal place for a world-class, mixed-use live-work-play development is adjacent to the University of Maryland College Park, which is the epicenter for talent and research for this cluster in the county.

Figure 8: Mapping of Information, Communications, and Electronics Industry Cluster Companies in Class A Space Across Prince George's County



ACTION: DEDICATE STAFF SUPPORT FOR INDUSTRY CLUSTER DEVELOPMENT AND NETWORKING

Rationale:

Given the differences in industry clusters, it is important to have in place the staff capacity to learn about the needs of each cluster and to be engaged with firms in ensuring that development activities support the needs of each cluster.

Another key to success in advancing industry cluster development is to foster greater links between the varied industry, support service, and university players in a cluster. A critical first step in nearly all industry cluster strategies is engaging industry and other key stakeholders within a cluster to work collectively in order to identify shared needs and opportunities and to pursue common services.

A key lesson from regions that have successfully had industry-cluster-led development, whether they are Silicon Valley, Route 128, Research Triangle, or others, is the establishment of formal mechanisms that encourage networking among academia, industry, nonprofit, and public sector groups and organizations. As Annalee Saxenian has noted, regarding the rise of regions with strong industry clusters, “For these older industrial regions, the task will be to construct more decentralized industrial systems that encourage collaboration as well as competition. But even the newer industrial regions that boast elements of network systems will need to promote the local relationships needed to sustain collaborative—and competitive—advantage.”¹¹

An excellent example of industry networking taking place at a county level was the formation of the Montgomery County High-Technology Council in the 1980s. The council used networking efforts to bring together academia, industry, and the public sector. The council’s monthly biotechnology network, which started with 10 people and became a standing room only 100+ crowd, developed into a place where firms connected with each other, undertook joint research and development, shared personnel and equipment, and learned about trends and developments. A firm was spotlighted monthly, and panels of CEO-level firms, academia, and government were brought together regularly to discuss problems, needs, and opportunities. An outgrowth of the network was the forging of business relationships with the Maryland Biotechnology Institute (University of Maryland) including evening graduate programs and a research center located in the heart of the I-270 Technology Corridor, the Maryland Bioprocessing Center, and links to the National Institutes of Health (NIH) and the National Institute of Science and Technology (NIST). While the Montgomery County High-Technology Council transformed into the Suburban Maryland Technology Council, which included Prince George’s County, it continued to develop into the statewide Technology Council of Maryland, and lost its focused attention on individual counties.

Another excellent best practices example is San Diego County in California, which has successfully embraced industry clusters as a cornerstone to developing emerging and growing industry sectors. The industry cluster organizations in San Diego have focused on specific approaches to advancing networking, including promoting peer-to-peer networks as well as bringing together those interested in new start-up companies. Critical to advancing these industry cluster organizations has been the involvement of CONNECT in San Diego to serve as an anchoring organization that can nurture and grow new industry networking activities. CONNECT provides the staff resources to support industry networks for emerging industry clusters until they can be sustained on their own. Industry networking organizations that CONNECT has helped foster over the years include BIOCOM, CommNexus San Diego, CleanTECH San Diego, and the Wireless Life Sciences Alliance. The following is a quick overview of two of the longstanding industry clusters found in San Diego:

- BIOCOM/San Diego represents “biotechnology, medical device, and bio-agriculture companies” in San Diego County. It was formed more than 15 years ago when the then-fledgling biotech industry was concerned it would be smothered by regulation related to the region’s chronic problem with water supply. One of BIOCOM’s highest priorities is

¹¹ Annalee Saxenian, *Regional Advantage* (Cambridge: Harvard University Press, 1994), pg. 205.

connecting growing biotechnology firms with established pharmaceutical firms in joint ventures or development partnerships. Today, BIOCOM has more than 550 members and is actively involved in initiatives to advance capital formation in the region, increase the workforce/talent pipeline, educate the public on biotechnology, offer its members group purchasing, and advance networking events.

- Formed in 1994, the San Diego Software and Internet Council exists to foster and support the entrepreneurial spirit within the San Diego software and Internet industry by providing an organized forum for the exchange of ideas, sharing of resources, and promotion of industry goals. These efforts today include supporting six business interest groups involving peer-to-peer networking and a forum for discussing business and technology developments in niche areas of software and information technology. The council also supports an Entrepreneur's Forum to accelerate business formation and growth by bringing together technologists, entrepreneurs, and sales and marketing executives who are interested in participating in early stage or start-up companies. The council also holds annual membership events and provides regular communications to its members on key issues of concern.

Proposed Activities:

There needs to be a dedicated staff function at the Prince George's County Economic Development Corporation (PGEDC) that is responsible for facilitating and supporting industry cluster networking and shared services development for all of the identified clusters. It is important for this function to happen within PGEDC, rather than outsourced to an independent industry association, because of the need to continue to leverage available economic development services.

It is recommended that cluster resource teams be formed that draw upon existing program staff in PGEDC for each targeted industry cluster. These industry cluster resource teams would be involved in the following industry network and shared services activities:

- Undertaking proactive outreach and dialogue with companies and other key stakeholders (university research centers, specific departments in colleges offering degrees, professional service providers, etc.). For instance, the ongoing business visitation programs of PGEDC could be geared towards targeted industry clusters to focus on needs and services.
- Forming industry-led cluster groups comprised of corporate level executives from Prince George's County companies and other key stakeholders in the specific industry clusters to help in planning monthly or quarterly discussions on topics of interest and identifying specific projects for PGEDC to undertake related to shared services. These industry-led cluster groups would also be asked for ways to undertake proactive outreach marketing for each of the industry networks in order to increase its visibility and reach.
- Developing specific and measurable work programs to sustain the momentum of industry networks for each industry cluster network that delivers early results, but are also flexible and easily modified to take account of external and internal changes. Such shared services might include the need for technical assistance on modernization, access to university experts and labs, workforce development, and additional applied research efforts.
- Generating leads for business attraction based on identifying out-of-county supply-chain and strategic partners of existing county firms.

Resources Required: No new resources required as it is already implemented by the Prince George's County Economic Development Corporation.

Time Frame: Immediate (implemented within the next year)

Lead Organization: Prince George's County Economic Development Corporation

ACTION: PRIORITIZE COUNTY INCENTIVES TO TARGETED INDUSTRY CLUSTERS

Rationale:

The industry cluster analysis undertaken for this strategy has shown that Prince George's County is generally lagging behind national and regional growth trends, not only through the recent period of recession and initial recovery, but even in the prior business cycle from 2001 to 2007. This lagging economic performance of existing clusters includes all of the targeted industry clusters of Federal Government, Business Services, Information/Communications/Electronics, and Health and Life Sciences. There is a clear need for more proactive efforts to advance the development of leading industry clusters in Prince George's County.

One important way to be more proactive is to prioritize the allocation of available county economic development resources to the targeted industry clusters best positioned to advance economic growth in Prince George's County. This would be a strong statement of the importance of these targeted industry clusters for Prince George's County economic development efforts, as well as a needed step for gaining market share of broader regional growth in the targeted industry clusters. This is particularly important since the county has recently put in place some significant new economic development incentives, including:

- The Economic Development Incentive Fund – A one-time, \$50 million multi-year commitment, with approximately \$7 million to \$11 million available each fiscal year. The program's goals include expansion of the county's commercial tax base, promotion of major development and redevelopment opportunities, TOD development, job retention and attraction, and growth of key industry sectors.
- Payment In Lieu of Taxes Agreement – Approved by the Maryland Legislature in HB 898 and took effect July 1, 2012 to allow Prince George's County to exempt specified economic development projects located in designated focus areas from county property taxes based on entering into a specified payment in lieu of taxes agreement.

Proposed Activities:

For all county incentives involving discretion by the county Executive and County Council, priority should be placed on those projects involving the targeted industry clusters, along with projects meeting other key objectives such as inner beltway redevelopment. While targeted industry development projects would need to meet the criteria set out for the incentive programs, they should be more highly rated for accessing these very important and limited incentive funds.

This priority for targeted industry development projects should become an explicit policy of the county and embedded in the formal policies, criteria and outreach efforts by the county and the Prince George's Economic Development Corporation.

Resources Required: No new resources required.

Time Frame: Immediate (implemented within the next year)

Lead Organization: County Executive Office in collaboration with the County Council

ACTION: FOCUS ON WORKFORCE CONNECTIONS TO THE INDUSTRY CLUSTERS

Rationale:

An examination of successful industry clusters suggests that workforce development activities are perhaps the most valuable shared service beyond networking and information sharing. It is particularly important for industry to create a talent pipeline that can reach K-12 students, post-secondary students, and incumbent workers.

At the K-12 level, career academies are a proven way to connect high school students with specific industry skill needs. Prince George's County Public Schools (PGCPS) are in the midst of redesigning their high schools so that each high school focuses on specific career related themes. This effort is part of Secondary School Reform by PGCPS to ensure that 100 percent of its graduates are college and workforce ready. Career academies, according to the Manpower Development Research Corporation, which has been monitoring their growth and success, were first developed 35 years ago with the aim of restructuring large high schools into small learning communities and creating pathways between high school, further education, and the workplace. Since then, the career academy approach has taken root in an estimated 2,500 high schools across the country. The Manpower Development Research Corporation has been rigorously evaluating career academies across the nation since 1993. They have found that:

- Career academies produce sustained earnings gains that averaged 11 percent per year for academy group members compared to non-academy members.
- Career academies serve as viable pathways to post-secondary education.

At the post-secondary level, and when enhancing incumbent worker skills, creating skill centers in collaboration with local colleges and universities is an effective tool. According to the National Governors' Association Cluster Strategies report, such centers can offer a resource to industry by meeting a cluster's particular needs and interests, assuring a continued flow of qualified workers, and serving as a source of skill upgrading for the incumbent workforce. They also allow students access to better and deeper programs ("know what"), better employment information and more rungs on career ladders ("know who"), deeper understanding of industry context ("know why"), and more informal learning opportunities ("know how"). Community colleges are often the site for such industry-driven technology and workforce development centers, however, four year colleges and universities can also be key sites or partners. An example of advanced skill centers in Maryland includes Anne Arundel Community College's efforts in partnership with the Baltimore Washington International Airport (BWI) and the Port of Baltimore to develop a Transportation Logistics and Cargo Security (TLC) Homeland Security workforce training program.

Proposed Activities:

There are opportunities for Prince George's County to put additional workforce development efforts in support of its industry clusters in place.

There are already formed career academies that align strongly with the target industry clusters for Prince George's County including those for engineering and science, business and finance, and health and biosciences. This effort by Prince George's County Public Schools (PGCPS) can be built upon and enhanced by:

- **Enabling all high school students to have access to all career academies.**
Currently, these academies are only available to students if they are offered at their assigned high school.
- **Expanding the offerings of career academies to meet needs of industry clusters.**
In particular, there is a key gap in not having an information technology academy in Prince George's County, which is critical for Federal Government, business services, and pure play information technology industries in the county. Skills in software engineering, database management, cybersecurity, decision analytics and cloud computing are particularly needed.
- **Creating mechanisms for industry engagement.** A particular contribution that the Economic Development Corporation could provide is to connect industry networks to the relevant career academies in order to provide firsthand learning opportunities, such as mentoring for project based learning, job shadowing, in-class presentations, and internships with industry, as well as ensuring the curriculum is relevant to industry needs.

For advancing post-secondary skill centers, the goal is not for the county to fund these advanced skilled centers, but to support the planning activities and grantsmanship¹² needed to tap into state and federal funding. There are skill collaboration grants, particularly at the federal level, that can be accessed from numerous federal agencies, including the U.S. Department of Labor, National Science Foundation, and U.S. Department of Education. At the state level a more direct route would be to seek administration and/or General Assembly support for this effort. A competitive grant process would be undertaken for awarding these planning grants, which would require a consortium of at least five participating industry members and a post-secondary institution.

Resources Required: For skill centers – \$150,000 for up to three grants each year of \$50,000 each. For career academies, it would be done within PGCPs existing resources, possibly augmented by resources of \$100,000 to \$200,000 through PGEDC for industry experiential connections, which might include a coordinator and funding for transportation and other uncovered expenses.

Time Frame: Near term (implemented within the next one to two years)

Lead Organization: PGCPs and PGEDC Workforce Division

¹² The capacity to acquire peer-reviewed funding.

STRATEGY COMPONENT TWO: DEVELOPMENT STRATEGIES FOR CROSS-CUTTING ECONOMIC PRIORITIES

The second component of the strategy focuses on addressing cross-cutting economic development priorities to foster and sustain growth across the targeted industry clusters and the broader economic base. Specifically, three critical, cross-cutting strategic priorities have been identified to advance targeted industry clusters and the broader economic base industries in the county, including:

- **Entrepreneurial, Talent, and Innovation Collaborations** to better leverage the presence of major research universities and other university/college and federal lab assets.
- **Ensuring Competitive Places** in the county for business development that address development process and advancing live-work-play/walkable communities.
- **Proactively Conducting Outreach Marketing** to raise the awareness of the county's competitive advantages for business development and address the business image of the county.

The narrative below provides specific development strategy details for each of these cross-cutting economic priorities. The narrative encompasses:

- A discussion of the strategic need for this economic priority, drawing upon the overall findings from the analysis of regional industry dynamics, identification of economic drivers for Prince George's County, and competitive assessment of Prince George's County position across key economic development factors.
- Specific actions including rationale for the action, activities to be undertaken, timeframe, resources required, and key organization to lead the action.

PROMOTE ENTREPRENEURSHIP, TALENT, AND INNOVATION COLLABORATIONS

Strategic Need for Prince George's County

Given the extensive presence of research institutions in Prince George's County, including a leading research university and several federal laboratories, the focus on driving economic development by promoting connections to innovative research, entrepreneurship, and talent would seem to be a natural one. Despite this extensive research and talent base, the evidence is that Prince George's County is not doing well in translating these assets into economic development that sticks. ***It is imperative for Prince George's County to work with its research institutions to achieve sustainable progress.***

Prince George's County is home to one of the nation's largest public land grant research universities, the University of Maryland College Park (UMCP), as well as several leading federal research institutions, including the Beltsville Agricultural Research Center, the Army Research Lab, and NASA Goddard. An assessment of how this collection of research institutions relate to the targeted industry clusters finds a strong degree of connection with the information, communications, and electronics technology sector as well as with healthcare and life sciences.

The University of Maryland also educates the top talent needed by innovative, high growth potential companies. In combination with other post-secondary institutions in Prince George's County, the earlier Occupational Shifts study documented the extensive generation of bachelor's, master's, and doctorate graduates each year from the University of Maryland, Bowie State, Capitol College, and Washington Bible College. An important issue is figuring out how the county can connect this talent base with local firms and keep them as a resource for economic development.

It is not surprising that, given this environment of research institutions and talent generation, the University of Maryland is a key driver of new, high growth potential businesses, having formed 21 spin-out companies from 2006 to 2011. UMCP supports the growth of both its spin-out companies, and other high growth potential technology ventures, through its Technology Advancement Program (TAP) incubator, which offers furnished offices, flexible lab space, and a multitude of other benefits and services that can only be found at a technology business incubator situated on the campus of one of the nation's top research universities. TAP has 11 tenant companies with 98 employees. Bowie State University also operates the Bowie Business Innovation Center incubator with four tenant companies.

UMCP also operates the Maryland International Incubator, a collaboration between UMCP and the Maryland Department of Business and Economic Development, to help connect Maryland and international companies for successful joint ventures through a targeted array of business services, state-of-the-art facilities, and world-class resources. The Maryland International Incubator is home to 11 companies and 20 employees. Finally, UMCP is home to the Dingman Center for Entrepreneurship, a top-tier entrepreneurial institute recognized as a world leader in enterprise creation. The Dingman Center operates educational and assistance programs for start-up businesses. In addition, its Angels Investor Program was the first to bring regional start-up companies seeking early-stage funding to the angel investing community, and today it is the largest university-run angel investor network in the nation. The Dingman Center lists over 20 start-up companies related to the program.

Even with all of this good work, the record of these start-up companies staying in Prince George's County has not been strong. The new, high growth potential technology ventures being started in Prince George's County are not staying. The University of Maryland College Park Office of Technology Commercialization tracks start-up companies formed based on licensed university technology.¹³ Based on data from their website, a total of 21 start-up companies have been formed to commercialize UMCP technology since FY 2006. By FY 2011, the vast majority of these 21 companies remain located in Maryland (18), but only five of these companies are located in Prince George's County. Even though the University of Maryland College Park is clearly a key regional generator of technology and start-up companies, many of these companies choose to locate outside of the county.

13 See University of Maryland web site <http://www.otc.umd.edu/Start-ups.html#09>. The Jacob France Center at the University of Baltimore then conducted a company by company analysis using their databases and identified the location of each University of Maryland start-up company.

Builds upon key strengths:

- *Presence of major research university and federal research labs*
- *Presence of high skilled talent — across both residents and new graduates*

Addresses key weakness:

- *Low rates of overall new business start-ups*
- *Poor track record in keeping high growth potential technology start-ups in county*
- *Low levels of venture capital investment*

More broadly, this effort can address the finding that the economic base industry clusters in Prince George's County have not fared well in the job gains from new company formation. There was a substantially higher level of employment losses from business establishment closings than gains in employment from business establishment births in the county, with a birth to closing ratio of just 0.68. Moreover, the level of venture capital investments in the county—a measure of having new, high growth potential businesses—is low.

Details on Proposed Actions:

Four specific actions are being proposed to advance this cross-cutting economic development priority:

- Create a Prince George's County Innovation and Commercialization Collaborative.
- Develop Financing Approaches for High Growth Potential Emerging Technology Companies.
- Advance and Link with Local MBE Development.
- Promote Talent Bridges to Connect Companies in Targeted Industry Clusters with Top Talent Being Generated or Attracted by Universities and Federal Labs in the County.

ACTION: CREATE A PRINCE GEORGE'S COUNTY INNOVATION AND COMMERCIALIZATION COLLABORATIVE

Rationale:

Best practice reveals that, in order to leverage the presence of major research institutions, it is critical to go beyond institution-led technology transfer efforts and ensure that the broader technology and entrepreneurial business community is engaged. This will assist in the realization of additional successes in the commercialization of technology.

An excellent example is the Boulder Innovation Center (now known as the Innovation Center of the Rockies), which has become a premier entrepreneurial support organization that works closely with the university technology transfer offices in Boulder and across the Iron Range region from Denver to Colorado Springs. Started in 2005, it is now an indispensable part of the university commercialization process. The Innovation Center brings expert teams of entrepreneurial mentors and advisors together to assess and advance university technology transfer as well as mentor local early stage companies. It has developed a database of more than 1,000 screened and qualified advisors with specific technology domain expertise to support local early stage companies and to inform the commercial assessment of university technology and guide its commercialization approach, including connecting it with investors and management teams. To help directly support the commercialization of high potential technologies, the Innovation Center has organized an angel network. In addition to its critical role in supporting university technology assessments, the Innovation Center has worked with more than 80 research teams to commercialize its technologies, which have resulted in 8 new startup companies that have generated \$75 million in new capital raised and created over 400 jobs.

Boulder is not alone. Similar types of nonprofit intermediary technology commercialization organizations exist across the nation and have a strong track record of success working alongside university technology transfer activities such as San Diego CONNECT, TechColumbus, and I2E in Oklahoma.

This is not surprising when one understands the nature of technology transfer and the broader challenge of technology commercialization. Technology transfer is the management of a research organization's intellectual property. Technology transfer involves disclosure of discoveries, the determination of the need for patent protection, and the licensing of the intellectual property (to either a third-party organization or to create a new business) to pursue the development of a product, process, or other intervention based on the discovery, and its associated license. Each of the research institutions in Prince George's County has a technology transfer function to handle the intellectual property discoveries and innovations resulting from their faculty and staff research.

Complementing, but distinct from technology transfer, are more proactive efforts to commercialize technologies, focused on enhancing technology solutions to meet the need of customers in the marketplace. Technology commercialization is primarily concerned with building and growing new products and processes in existing or new firms. It involves a number of activities, such as assessing the technology and its potential markets against current products in the marketplace (e.g., technology and market assessments). It involves developing the product itself, and optimizing its engineering and design to meet price points of the marketplace. It involves putting the business and management team in place and securing the sources of equity and working capital that will carry the product and/or firm through various stages of maturity until it becomes an established company/product in larger domestic and global markets. Often Technology Transfer Offices at research universities have difficulty in moving beyond the more passive efforts to protect and license technologies and focusing on the more proactive activities of engaging in the commercialization of technologies.

Proposed Activities:

It is proposed that Prince George's County establish a new technology commercialization and entrepreneurship intermediary organization affiliated with the Prince George's Economic Development Corporation. Following the best practice lessons, this effort should be closely aligned with the county's research institutions, but stand outside of the traditional technology transfer offices. Key activities identified from best practices to enable this close alignment include:

- **Assessing New Discoveries** – Creating a systematic process in which the intermediary organization serves as an advisory board to the university and federal lab technology transfer efforts. This can include bringing together technology experts and serial entrepreneurs from the business community who can help in assessing new university research discoveries for their commercial potential.
- **Mentoring and Nurturing Start-Up Companies** – Mentoring is a key element in guiding the success of a new entrepreneur, whether the person is 20-something with great ideas but little experience or an older, experienced corporate executive or technical expert taking the plunge into starting a new venture. Mentoring approaches come in many flavors, with the two extremes being (1) mentors who have invested in the company and are active in guiding the business, and (2) mentors with no financial interest or active involvement in the business, but who are available to help the entrepreneur sort through issues, opportunities, and strategic directions.

- **Accessing the Expertise of Knowledgeable Business Service Providers** – The success of high-tech regions is dependent on having locally accessible and available business service providers who understand entrepreneurial efforts. Furthermore, access to a critical mass of local service providers further encourages the start-up firm to stay and expand in the community in which it starts.
- **Networking Entrepreneurs and Investors** – An important way to foster a more entrepreneurial environment is to host technology showcases and forums in Prince George’s County. These events can involve linking technology transfer offices and start-up/emerging companies with serial entrepreneurs, angel investors, and venture capitalists from across the region. These efforts also help to build a sense of community encompassing the characteristics discussed previously. Such efforts can be accomplished through networking and seminars to create this sense of community.

Resources Required: A budget of approximately \$300,000 to \$500,000 annually would be required to support the efforts of the new intermediary organization, with its growth coming from additional private sector resources it raises.

Time Frame: Long-term (implemented within the next 2 to 5 years)

Lead Organization: Prince George’s Economic Development Corporation

ACTION: ESTABLISH FINANCING APPROACHES FOR HIGH GROWTH POTENTIAL EMERGING TECHNOLOGY COMPANIES

Rationale:

Consistent with its difficulty in keeping technology venture start-up companies, it appears that Prince George's County significantly lags behind surrounding jurisdictions in terms of the level of venture capital deals, despite having a very significant base of research institutions. Venture capital funds a broad range of start-ups from the region's entrepreneurial, technology-based community. From 2006 to 2011, there were nearly 1,200 venture capital deals in the Washington, D.C.-Baltimore region. For Prince George's County, the number of venture capital deals was a mere 35. By comparison, Fairfax County had 326 venture capital deals, Montgomery County 296, Baltimore City 100, and even Howard County had 78.

Proposed Activities:

The issue facing Prince George's County is not how to create its own managed venture fund, but to find ways to incentivize emerging growth companies—especially those commercializing technologies from research institutions in Prince George's County—to locate and then stay in the county. Too often, companies receiving venture capital move in order to be close to their sources of venture capital or to be around other venture-backed companies. To break this cycle requires the provision of incentives to stay in Prince George's County.

It is recommended that through the Economic Development Incentive Fund, Prince George's County make available matching funds for venture capital backed companies that commit to remain or locate in the county. One straight-forward way to accomplish this would be to piggy-back investments for those companies willing to locate in Prince George's County that are approved by the Maryland Department of Business and Economic Development's Enterprise Investment Fund. This would avoid the need for any separate review process by Prince George's County as all state investments under the Enterprise Investment Fund are reviewed by the independent Maryland Venture Fund Authority. The matching investment by the Economic Development Incentive Fund would be on the same terms and conditions as the state's investment. Alternatively, Prince George's County could replicate aspects of the Enterprise Investment Fund Program by creating its own independent business review process and only make matching investments for qualified venture capital firm investments.

This approach might also be considered for other state funding of emerging and innovative companies, such as that done by the Maryland Technology Economic Development Corporation (TEDCO), the Maryland Industrial Partnerships Program, or the University of Maryland MTech program—all of which involve independent review processes when awarding their funding assistance.

Resources Required: No new resources required. Instead, allocate a portion of Economic Development Incentive Fund.

Time Frame: Immediate (implement within the next year)

Lead Organization: Prince George's County Economic Development Corporation

Maryland Department of Business and Economic Development's Enterprise Investment Fund

Makes direct equity investments in emerging technology companies, usually at the first round of institutional financing and works with emerging companies to move them into their next stage of development as a viable business. The amount of investment ranges from \$150,000 to \$500,000. Enterprise investments are generally in the form of equity, but follow the terms of the lead investor.

Requirements:

- Applicants must be in a technology industry. Areas of technology include life sciences—therapeutics, medical devices and diagnostics and information technology—software, communications and IT security
- The applicant must agree to maintain its principal place of business in Maryland for five years
- A minimum 3:1 match by a sophisticated investor is required.

ACTION: ADVANCE AND LINK TALENT AND INNOVATION ACTIVITIES WITH LOCAL MINORITY BUSINESS ENTERPRISE DEVELOPMENT

Rationale:

Prince George's County is known for its strong and successful minority business community. Based on the latest data available from the U.S. Census Bureau, as of 2007, the county was home to 3,780 minority businesses employing 33,379 workers. With 13 percent of county employment found employed by minority businesses, the county leads the region in its share of minority business employment.

These minority owned businesses are actively involved in federal procurements, accounting for 22 percent of FY 2010 and 26 percent of FY 2011 federal procurement, and are an important component of the county's economic base.

Proposed Activities:

Minority businesses can benefit from closer ties to the talent and innovation activities at the University of Maryland College Park, Bowie State University and other post-secondary institutions in the county to raise their competitiveness, especially in fast moving technology fields, and raise their profile with talented students and faculty.

As part of the efforts of the Supplier Development and Diversity Division (SDDD) of Prince George's County Government, qualified MBEs should be provided matching grants for technical projects they develop that employ teams of students mentored by a faculty member during the school year or during summer breaks. Working with the post-secondary schools in the county, a range of technical areas could be identified, including materials engineering, electronics reliability, sustainable development, or information technology involving cloud computing, digital media, or cybersecurity. This approach is being undertaken by a consortium of companies at the University of Delaware with JP Morgan Chase.

Additionally, the SDDD should establish technology innovation forums for MBEs on selected topics of interest, identifying key faculty and post graduate fellows to present at these forums. This would be an excellent way to develop relationships and help MBEs develop projects. In addition, these technology innovation forums could introduce new discoveries to MBEs as potential strategic partners and licensees of technologies.

Resources Required: It is proposed that Prince George's County fund this effort at an annual level of \$250,000 per year, or \$25,000 per project to be matched by industry sponsors of projects.

Time Frame: Near term (implemented in the next one to two years)

Lead Organization: Supplier Development and Diversity Division of the Prince George's County Government

ACTION: PROMOTE TALENT BRIDGES TO CONNECT COMPANIES IN TARGETED INDUSTRY CLUSTERS WITH TOP TALENT BEING GENERATED OR ATTRACTED BY UNIVERSITIES AND FEDERAL LABS IN THE COUNTY

Rationale:

Leveraging the potential of the top talent found in Prince George's County among graduate and post-doctoral fellows in sciences and engineering at universities and federal labs in the county requires the identification of ways to make these students aware of employment opportunities within the county and to connect employers with these graduates.

Other states and regions are doing just that. The Ohio Third Frontier operates an internship program for students in high-tech degree programs, which reimburses up to 50 percent of the intern's wages, or no more than \$3,000, for a 12-month period. Ohio targets its internships to a set of high-growth technology industries such as biosciences, information technology, instruments and controls, advanced materials, and advanced energy. Since 2002, more than 3,000 Ohio students have participated. In Indiana, the technology-focused Orr Fellows program, places a select number of recently-graduated undergraduate students with high-tech entrepreneurial firms for a two year internship. In New Jersey, for many years, that state's Science and Technology Commission awarded grants to companies for hiring recent Ph.D. graduates into post-doctoral industrial fellowships.

These are just some of the creative programs that other jurisdictions have undertaken to realize the potential of the talent being generated in their universities. While these efforts are more typically undertaken at a state level or by a local foundation, Prince George's County needs to proactively create a stronger connection with the top student talent generated and attracted to the county by its universities and federal labs. To leverage this top talent, these students must view the county and its businesses as a place to launch their careers.

There is strong evidence that creating internships and efforts to connect students with local businesses matter. A 2010 survey of the 884 industry members of the National Association of Colleges and Employers revealed that 82.5 percent of employers surveyed have an internship or co-op program and that more than 50 percent of interns accept full-time employment with the company for which they interned.¹⁴

Proposed Activities:

It is recommended that Prince George's County work with high growth and entrepreneurial firms in the targeted industry clusters to pursue two talent bridge matching grant programs:

- A talent bridge internship matching grant program to reach 50 to 100 top bachelor's, master's, and doctorate level students in science and engineering. These students would be offered year-long and summer internships with Prince George's County companies in the targeted industry clusters. Similar to the Ohio Third Frontier, these internship matching grants should be structured at 50 percent of the intern's wages, up to \$3,000, for a 12-month period.

¹⁴ See web site for National Association of Colleges and Employers.

To leverage more institutional efforts on the part of universities in the county to create ongoing connections to local employers, preference should be given to students participating in structured co-op programs offered as part of their university degree program.

- A talent bridge fellowship matching grant program for 20 to 30 recent Ph.D. and postdoctoral fellows to work with companies in a targeted industry cluster for up to one year on an applied research project at the company site. Businesses within the targeted industry council would develop project opportunities that Ph.D. and post-doctoral fellows could apply to undertake. A grant of 20 percent, or up to \$10,000, should be available to support the wages for the talent bridge fellow.

Resources Required: For the internship grant program, \$150,000 to \$300,000 annually. For the fellowship grant program, \$200,000 to \$300,000 annually.

Time Frame: Near term (implement within one to two years)

Lead Organization: Prince George's County Economic Development Corporation

ESTABLISH COMPETITIVE PLACES FOR DEVELOPMENT

STRATEGIC NEED FOR PRINCE GEORGE'S COUNTY

Prince George's County appears to have a sufficient supply of real estate available at prices that are lower than in peer jurisdictions. This is a significant competitive advantage for the county. While it is the case that Prince George's County has a smaller inventory of Class A office space than either Fairfax County (70 million square feet) or Montgomery County (32 million square feet), it is still sizable at 8.5 million square feet. Even with a smaller inventory than other large counties, Prince George's County has a much higher vacancy rate in Class A office space and flex market space than found across the region, which has persistently stood near or above 20 percent over the last five years in the county, and this has translated into lower leasing rates, especially for Class A office space. In industrial space, the county has a significant share of the region's industrial space and is on par with the region in its level of vacancy, although leasing rates are below the average in the Washington, D.C. metropolitan area.

Other competitive advantages of Prince George's County include its central location in the region, multiple neighboring counties and the District of Columbia, and the extensive road network and transit infrastructure. The county's road network includes the recently completed Intercounty Connector with Montgomery County, interstates I-95 and I-495, and the Washington-Baltimore Parkway. The county also has a considerable mass transit infrastructure with 15 Metro stations found across the Blue, Orange, and Green Lines, as well as an AMTRAK station and MARC stations.

Despite these many advantages, Prince George's County has not experienced substantial TOD (transit-oriented development) around its metro stations, as compared to neighboring jurisdictions in Montgomery County and Virginia. More typical for Prince George's County is the location of its commercial real estate in traditional office and industrial parks, many of which are not near Metro stations, and offer few amenities and housing options. As regional development patterns evolve, resident/employer preferences continue to increasingly choose vibrant, mixed-use environments for places to live and work.

This is a considerable disadvantage for Prince George's County at a time when a locality's competitiveness for growth depends on its ability to generate, attract, and retain companies and talent and to create physical environments that facilitate more live-work-play interactions. Jones Lang LaSalle and LaSalle Investment Management have captured this emerging view of the constitution of drivers of rising urban stars in their World Winning Cities research program. Among the broad themes identified in this World Winning Cities research program as key drivers for future winning cities are:

Being Technology Rich: Technology hubs—whether Raleigh-Durham, North Carolina or Austin, Texas, or Helsinki, Finland—

Builds upon key strengths:

- Availability and affordability of commercial real estate as well as lower cost of land and many sites for development
- Central location and extensive road network and mass transit infrastructure

Addresses key weakness:

- Lack of transit-oriented developments and walkable/live-work-play places
- Difficult development process with overly burdensome and process oriented local development ordinances
- Real and perceived quality of life concerns

are seen as key to having high-value, knowledge-intensive industry linked to a strong research and educational infrastructure and offering a high quality of life to retain and attract highly educated knowledge workers.

Resort/Urban “Hip” with Urban Sustainability: The quality of the urban environment will become a more important determinant of city competitiveness, particularly in mature cities. Cities will be making substantial efforts to improve their urban landscapes and their cultural and entertainment offerings, recognizing that they are the key ingredients in attracting and retaining mobile, well-educated, and knowledge workers. Along with the urban “hip” element is a focus on urban sustainability, where public awareness of the environment and social issues is increasing the desirability of sustainable cities.

The physical development of commercial real estate is not simply a matter of ensuring the availability of quality space at affordable rates. In the past, the presence of natural resources and access to commerce drove location decisions. Today, the quality of the “place” is more important than geography. Not surprisingly, regions across the nation are seeking the type of development that creates physical environments that can generate, attract, and retain knowledge-based companies and talent. One example is the new wave of strategically planned “mixed-use” campus expansions that is taking place across major research universities in urban settings. Communities like Raleigh, Seattle, Portland (Oregon), New York City, Denver, Chicago, and San Francisco are engaged in these significant, new mixed-use campus expansions for their leading research universities.

In the Washington, D.C. region, mixed use developments are also on the rise and have become premier locations for knowledge-based industry, amenities, and housing in developments such as Montgomery County’s downtown Bethesda, Rockville, and White Flint. In Virginia, beyond established developments in Crystal City, Ballston, and Alexandria, there is soon to be a significant town center with Metro access developed at Tyson’s Corner, already one of the region’s most significant developments.

Going forward, there are important implications for the target industry clusters identified in this strategy that relate to place-based development approaches in Prince George’s County.

- Federal Government and business services targeted industry clusters offer the broadest place-based development opportunities with a focus on more high-quality, transit-oriented development sites.
- The healthcare and life sciences target industry cluster is best suited to be advanced near specific institutional drivers, particularly if the University of Maryland Medical System hospital complex goes forward.
- The information, communications, and electronics target industry cluster is best suited to be located close to the University of Maryland College Park in a mixed-use campus development complex to take advantage of the research, innovation, and talent generation found at the campus.

Details on Proposed Actions:

Three specific actions are being proposed to advance the economic development priority of establishing competitive places for development in Prince George's County. They are:

- Create a “priority approvals process” for a set of targeted development sites associated with TOD, UMMS, etc., that streamlines approval processes.
- Make the build out of M Square as a live-work-play location a top county economic development priority.
- Examine the establishment of development tools such as pre-designated TIF districts, creation of BIDS (business improvement districts), and targeted industry incentives (e.g. real estate tax abatements for targeted tenants). In addition, fees for schools, public safety, and water should be evaluated to determine if they create disincentives in Prince George's County relative to other counties, especially in transit-oriented development.

ACTION: CREATE A “BY RIGHT ZONING” FOR A SET OF TARGETED DEVELOPMENT SITES ASSOCIATED WITH TRANSIT-ORIENTED DEVELOPMENT

Rationale:

The weakness of mixed-use developments in Prince George's County reflects more than just a lack of market interest, instead the weakness is also a symptom of larger problems associated with the difficulties of the development process in the county. According to the interviews conducted with real estate professionals involved in general office and property development, the county's development process is seen as “extremely time consuming” with “multiple reviews of the same issues.” Municipal government review of projects is seen as adding an entirely new level of politics to the planning process and recommendations that are not always consistent with the strategic county goals. Because of the time consuming nature of the process and the need to revise projects to satisfy the review process, market conditions may change or fail to match the requested changes in the project by the time the review process is complete. Developers do not understand why the development process takes years when they propose a development that is consistent with zoning. County review of the site planning process is seen as a key barrier to development that often leads to requested changes to meet non-economic considerations. In contrast, political review of planning in surrounding jurisdictions focuses on broad zoning issues—not site-specific issues.

This weakness of the development process has been articulated in many recent economic development studies, including the 2010 Prince George's County Regional Economic Development Incentives study, the 2010 Prince George's County Industrial Land Needs and Employment Study and the Baker 2010 Transition Team Economic Development Committee Transition Report.

One positive step is the recent Executive Order by County Executive Rushern L. Baker, III this past August that begins the process of creating the Prince George's County Department of Permits, Inspections, and Enforcement (DPIE). The core responsibilities of this new

department will be to advance greater efficiencies and streamline review, resulting in a more customer-friendly process for businesses and residents related to issuing permits, conducting commercial and residential property inspections, and enforcing property standards.

DPIE does not address the multiple entitlement reviews that proposed development projects must undergo, including County Council approval, even when they comply with zoning and other planning requirements. The 2010 Prince George's County Regional Economic Development Incentives study explains: "Some of the most common deterrents to new development cited by developers and owners were a long or unpredictable entitlement process, lack of public policy clarity, challenges in coordination with the Planning Board, as well as difficulty in obtaining council approval."

Proposed Activities:

The County Council should establish "by right development" for up to three major TOD districts over the next five years. By right development refers to projects that are permitted under their current zoning and do not require any legislative action by the county. They are approved administratively and do not require public hearings. Such an approach was used by the National Harbor project. It is also used elsewhere in the region, including by Fairfax County, for designated districts around older commercial areas of the county.

In addition, a competitive process in collaboration with the Planning Department should be developed to seek major TOD projects in other areas of the county. Specific criteria focused on the extent of the development, soundness of the approach, and demonstration of meeting the public interest should be established.

Resources Required: No new resources required, though it may encumber existing EDIF, PILOT or TIF funding.

Time Frame: Near term to be implemented in next one to two years

Lead Organization: County Council and Planning Department

ACTION: MAKE THE BUILD OUT OF M-SQUARE AS A MIXED-USE CAMPUS DEVELOPMENT A TOP COUNTY ECONOMIC DEVELOPMENT PRIORITY

Rationale:

The University of Maryland M Square Research Park is a unique development effort in the county. It is a public-private partnership between the University of Maryland and Corporate Office Properties Trust. Located on a site near the main campus, it is able to link physically and programmatically to university researchers, students and staff with federal laboratories and private sector companies. It also offers a high end transit-oriented development project, being adjacent to the College Park-UMD Metro station and the College Park MARC commuter rail station.

Most importantly, the University of Maryland's M Square Research Park is already playing a critical role in attracting new federal research operations to the county, having the National Oceanic and Atmospheric Administration (NOAA), the UMD/FDA Joint Institute for Food Safety and Applied Nutrition, and the Intelligence Advanced Research Projects Activity (IARPA) located in its research park. The breadth of its reach has already translated into advancing a premier location for all of the targeted industry clusters identified in this strategy.

It is making its mark on county development of Class A office space. Over the past three years, when Prince George's County has averaged nearly no new absorption of office space, M Square Research Park has been a critical driver of development. The M Square Research Park also offers one of the few LEED Silver properties in the county.

Currently, the M Square Research Park plans to deliver two million square feet of new development. However, it could be so much more if a broader mixed-use development approach can be advanced. Right now there are small residential and restaurant developments planned for M Square Research Park, but its proximity to the University, and its existing commercial multi-tenant and single tenant facilities, make it ideal for a vibrant mixed-use development vision.

Proposed Activities:

M Square Research Park should be the anchor for a much broader mixed-use, live-work-play development for the county. This should involve the county taking the lead to broaden the zoning and provide fast track approvals for:

- Increased townhouse, condominium, and apartment developments targeted at young faculty, post-doctoral fellows, and graduate students.
- Enhanced retail offerings to support a town center.
- Support for generating more multi-tenant facility developments.

The goal should be to create a Prince George's County equivalent of downtown Boulder. Boulder is widely touted as one of the top places for start-ups. Boulder, according to Bloomberg BusinessWeek, "is the top U.S. destination for new tech companies largely because of a bottom-up revolution led by entrepreneurs." But what stands out about Boulder is that it has consistently advanced the growth of its downtown into becoming a

place where entrepreneurial talent can thrive. As Brad Feld, who moved to Boulder from Boston in 1995 and now leads one of Boulder’s leading software and Internet venture capital firms, explains: “...many companies that start in downtown Boulder want to stay in downtown Boulder. The companies built their culture around being downtown, benefit from the extremely high entrepreneurial density of Boulder, and the dynamics of being in a downtown core rather than in a suburban office park.” The development of downtown Boulder was no accident. It dates to the 1980s with the activities of the Downtown Boulder Business Improvement District and Downtown Boulder, Inc. to promote a high-quality live, work, play environment over a 49 block neighborhood.

Resources Required: No new resources – Make use of EDI, PILOT, TIF and other incentives.

Time Frame: Near term to gain approvals for development in the next one to two years

Lead Organization: Prince George’s Economic Development Corporation

ACTION: CONTINUE TO EXAMINE FEASIBILITY AND ADVANCE NEW DEVELOPMENT TOOLS

Rationale:

Prince George's County needs to continue to consider innovative development tools to create a more streamlined development process that includes accountability. The Executive Order creating the Department of Permitting, Inspection, and Enforcement is one such example of a new tool. So would the "by right development" proposed above.

However, the Project Advisory Committee emphasized that more development tools are needed if the county is going to reverse years of poor performance and offer incentives to stimulate new development projects, particularly for TOD. Opportunities to leverage TOD and similar sights are critical both for overall development in the county and specific industry clusters.

Proposed Activities:

It is proposed that an ongoing study group involving representatives from the County Executive Office, Planning Department, Economic Development Corporation, and County Council meet on a regular basis to identify and consider broader innovations for advancing new development tools and improvements in the development processes.

Among the ideas that have surfaced from project interviews and forum discussions, but require more in-depth study, are:

- Transitioning from District Council review of site plans to a greater focus on master plan issues.
- Establishing pre-designated tax increment finance districts to encourage development with broader inducements through existing incentive programs.
- Evaluating whether fees for schools, public safety, and water create disincentives in Prince George's County relative to other counties, especially in transit-oriented development.
- Having a single point of contact for developers to work with in county government that understands local, state, and federal programs and can assist developers in leveraging incentives.
- Having a dedicated ombudsman to work with both GSA and private developers/brokers to identify strategic GSA lease opportunities, establish strong working relationships with congressional representatives/agency representatives and assist developers/brokers in pursuing and securing federal tenants within the county.

Resources Required: No new resources required.

Time Frame: Immediate

Lead Organization: Prince George's County Executive's Office, Department of Housing and Community Development, Redevelopment Authority and Planning Department

LAUNCH PROACTIVE OUTREACH MARKETING AND RAISE QUALITY OF LIFE

STRATEGIC NEED FOR PRINCE GEORGE’S COUNTY

While growing existing businesses and fostering new start-ups must be priorities for Prince George’s County in its targeted industry cluster activities, there is also a significant opportunity for business attraction efforts. Prince George’s County is situated in one of the most economically robust regions of the nation, which has outperformed the national economy consistently over the past ten years in periods of economic expansion and downturn. This strong regional performance is also found in the targeted industry clusters.

Yet, a close examination of the business dynamics suggests a major issue facing Prince George’s County is how to attract business establishments in the region to consider the county as a place to do business. Prince George’s County is still losing more jobs to business establishments moving out of the county than moving in. For every one job gained from business establishments in base industries moving into the county, Prince George’s County lost 1.1 jobs from existing business establishments moving out of the county from 2001 to 2009. This suggests that Prince George’s County has not been convincing growing business establishments to consider the county as a place to do business.

Also, concerns about quality of life remain an issue for Prince George’s County and must continue to be addressed. Reducing crime and improving schools are particularly important. But so is ensuring high-quality places to do business, which is why the prior discussion and recommended actions focused on how to build competitive places.

Details on Proposed Actions:

Two specific actions are being proposed to advance launching proactive outreach marketing for Prince George’s County:

- Implement a branding campaign for targeted economic development
- Develop an “alliance marketing” outreach approach for each targeted industry cluster

ACTION: IMPLEMENT A BRANDING CAMPAIGN FOR TARGETED ECONOMIC DEVELOPMENT

Rationale:

Improving the image of Prince George’s County is an integral component of marketing the county for economic development. Doing the hard work of identifying and pursuing business leads for companies to invest and/or relocate to the county is not sufficient to close the deal. Often, companies outside of the county rely on popular opinion to determine a locality’s suitability as a business location. For Prince George’s County this normally results in the county being viewed as suffering from high crime and low performing schools. The result is that the county not viewed as a good place to locate a business. Both crime and

Builds upon key strengths:

- Local businesses have a more positive perception of business climate than businesses outside of the county.

Addresses key weakness:

- Quality of life concerns relative to region colors public perception.
- Lack of identity and brand.

educational performance are significant economic development weaknesses for the county, relative to the overall region. In the region, only Baltimore City and Washington, D.C. have higher rates of crime and lower educational performance than Prince George's County. However, there are signs of improvement, such as the 7.6 percent decline in overall crime rate in 2012.

These two quality of life factors disproportionately shape the popular image of Prince George's County as a business location. While the Prince George's County firms participating in the 2011 Maryland Business Climate Survey reported that quality of life factors, such as schools and crime, were chief disadvantages at a higher rate than the statewide average, those same Prince George's County firms had a higher positive rating of Maryland as friendly to business than the statewide average. When existing businesses in the county were interviewed for the Occupational Shifts reported, they rated the county highly as a place to do business, with key strengths being the county's central location, proximity to customers, reasonable leasing rates, and access to public transportation.

The positive story of Prince George's County as a business location needs to be told in a consistent and unified voice by key economic development stakeholders as part of a branding and image campaign. This is exactly what Columbus 2020! did in Ohio and offers a best practice for Prince George's County. Nearly two years ago, after almost losing a major employer of the region due to what was perceived as inept economic development actions, a transformation began in how Columbus, Ohio marketed itself. In the past, the numerous organizations that market Columbus to various audiences (Columbus 2020! and the Columbus Chamber to businesses, Experience Columbus to visitors, corporations to executives, universities to educators and students, hospitals to physicians, and even Columbus residents to their friends) each marketed the Columbus area differently with a focus on their own unique brand. Facilitated by Columbus 2020!, the organizations in the region worked with local agency Fahlgren Mortine to develop a common theme: a Columbus marker, signifying not only the region's unity, but also its position in the domestic and global marketplace. In 2011, the cohesive brand was adopted by various organizations around the region, including more than 20 City of Columbus Departments. The brand is also advertised at Port Columbus International Airport and in New York's famed Times Square.

Proposed Activities:

In establishing an external focused "branding" campaign, a series of coordinated activities must come together to position Prince George's County and communicate key messages on the depth and breadth in leading industry clusters and competitive advantages. What must happen is a more formalized, strategic effort incorporating the following elements:

- **Brand Name.** Developing a brand name or theme for a locality helps create awareness of a locality. An example of this is the Greater Baltimore Committee, which had a branding theme of "Baltimore, Where Science Comes to Life." Another effective branding technique is establishing a sense of place, such as Research Triangle Park or Silicon Valley, which connotes the value of the region for technology development.
- **Focus Initially within the Locality.** Initial efforts should focus on building a local awareness of the strengths of the locality, particularly within its broader region. Internal education and awareness building efforts are critical to effectively shaping how outsiders view the region—the most frequent and effective marketers of a

locality are those who reside in it through their ongoing contact with those outside the region. The internal education efforts should be closely aligned with the overall branding campaign, but they also require a distinct set of activities. A key goal is to make meaningful connections between the locality's resources and the broader community

- **Earned Media Campaign.** An additional priority is to pursue an “earned media campaign,” particularly to articulate the localities targeted economic development strategies. A magazine or newspaper publishing an article focusing on the opportunities, strengths, and efforts underway in a locality is an example of a successful outcome in an earned media campaign. The placement of such articles requires an active public relations outreach to key publications and the active development of news stories.
- **National Conference Attraction.** Attracting major conferences to a locality in targeted areas of development should be another major element of the branding campaign because it gives the locality the chance to showcase itself before specific audiences of relevance to its targeted economic development activities. National Harbor represents a major asset in this regard.

This branding effort can build on the ongoing effort by the Prince George's County Conference and Visitor's Bureau to advance a branding initiative for the county. This branding initiative can offer the template in which more focused economic development messages can be developed consistent with the targeted industry clusters and the key economic development assets identified in the county. To implement this branding initiative for targeted economic development in Prince George's County will require a public-private partnership effort to carry out the earned media campaign and other marketing efforts.

Resources Required: The branding campaign should involve both public and private industry resources. The county should allocate up to \$500,000 for implementation of the branding effort to be matched by private sector resources.

Time Frame: Near term (implemented in the next 1 to 2 years)

Lead Organization: Coalition of Prince George's County business groups and Prince George's County Economic Development Corporation

ACTION: DEVELOP AN ALLIANCE MARKETING APPROACH FOR EACH TARGETED INDUSTRY CLUSTER

Rationale:

Developing an active “Alliance Marketing” effort is another critical step in advancing a proactive retention and attraction effort. Alliance marketing involves knitting together all of the key companies and institutions involved in the targeted industry clusters. This can include university leaders, utility companies, venture capitalists, and research park managers. The focus of activities includes generating marketing leads, developing industry-specific marketing materials that position the locality, and selling potential business prospects on the advantages of the locality as a location.

By adding a proactive business retention and attraction focus for industry cluster development, a locality can leverage its competitive strengths and build upon the base of activity being advanced through new innovations in economic development for entrepreneurial development, talent, and workforce development, and advancing technology-based economic development. Most importantly, for localities that are seeking to catch-up in economic development and gain market share of economic activity, it is crucial to have a strong, proactive retention and attraction effort to leapfrog its competitors that are well-positioned for growth in the region.

Proposed Activities:

There are a wide range of opportunities for alliance marketing approaches to targeted industry clusters in Prince George’s County:

- International companies in targeted industry clusters that are seeking a key foothold for the U.S. market.
- Companies outside a locality that are commercializing technologies and/or are maintaining ongoing relationships with university faculty and research centers within the locality.
- Companies that are key suppliers or strategic partners to existing companies within the locality.
- CEOs and other key management employees of companies in targeted industry clusters located outside the region who have graduated from local universities.
- Companies in targeted industry clusters who are actively recruiting graduates of local universities as employees.

The way to advance alliance marketing is to leverage the industry cluster activities to recruit local business executives and other stakeholders from universities, federal labs, professional services, etc., as ambassadors for Prince George’s County, including providing leads of potential business opportunities and participating in events with prospects to talk about the county as a place to do business.

Resources Required: No new resources (should be implemented as part of the PGCEDC’s cluster resource teams).

Time Frame: Immediate (implemented within the first year)

Lead Organization: Prince George’s County Economic Development Corporation

IMPLEMENTATION STRATEGY

The focus of the implementation strategy is to consider the full action plan, including lead organizations, timing, and resources required.

Consideration should be given as to how the county measures success in pursuing targeted industry cluster development and the broader cross-cutting economic development priorities. Through these performance measures, this new economic development approach for Prince George's County can be regularly assessed and fine-tuned as needed to drive a resurgent economy for the county.

ACTION PLAN

There are 16 specific actions called for in this comprehensive and targeted strategic economic development plan as summarized in Table 3. When fully implemented, these 16 actions require between \$1.15 million to \$1.7 million in increased county economic development funding annually. A one-time \$500,000 investment to implement a branding campaign is also required. Many of the actions do not call for new resources; they seek to prioritize or reallocate existing economic development resources in support of the targeted industry clusters and cross-cutting initiatives.

While this is a considerable sum, it is an investment that will generate increased tax revenues from heightened business development and job growth in Prince George's County. In addition, many of the efforts can be phased in over time so that the targeted industry cluster development and cross-cutting priority actions can demonstrate results. This, in turn, will help to secure additional funding for more long-term initiatives based on the early success.

Given the critical need for this effort, most of the actions should be implemented in the next two years. In fact, the proposed action to put in place dedicated staff support for industry cluster development has already been implemented by the Prince George's County Economic Development Corporation. There is one longer-term proposed action to advance a new intermediary organization for technology commercialization and entrepreneurial development, which may take three to five years to fully implement. If done well, this can be a transformative activity that will pay dividends for decades, similar to the impact of San Diego CONNECT.

Table 3: Summary of Action Plan

Strategy Components	Initiatives	Action	Time Frame ¹⁵	County Resources Required	Lead Organization
Strategy Component I: Development Strategies for the Targeted Industry Clusters in Prince George's County	Implement Tailored Industry Cluster Development Strategies For The Four Identified Industry Clusters	Federal Government Cluster	Immediate to Long-term	Supported through other actions.	Prince George's County Economic Development Corporation
		Business Services Cluster	Immediate to Long-term	Supported through other actions.	Prince George's County Economic Development Corporation
		Healthcare and Life Sciences Cluster	Immediate to Long-term	Supported through other actions.	Prince George's County Economic Development Corporation
		Information, Communications and Electronics Technology Cluster	Immediate to Long-term	Supported through other actions.	Prince George's County Economic Development Corporation
	Organizing Economic Development Resources to Support Targeted Industry Clusters	Dedicate Staff Support for Industry Cluster Development and Networking	Immediate	Already implemented, so no additional resources required	Prince George's County Economic Development Corporation
		Prioritize County Incentives to Targeted Industry Clusters	Immediate	No new resources.	Prince George's County Executives Office
		Focus on Workforce Connections to Targeted Industry Clusters	Near-term	\$150,000 annually for skill centers, plus \$100,000 to \$200,000 for industry experiential coordinator and support services	Prince George's County Economic Development Corporation and Prince George's County Public Schools
Strategy Component II: Development Strategies for Crosscutting Economic Priorities	Promote Entrepreneurship, Talent and Innovation Collaborations	Creating a Prince George's County Innovation and Commercialization Collaborative	Long-term	\$300,000 to \$500,000 annually	Prince George's County Economic Development Corporation
		Establish Financing Approaches for High Growth Potential Emerging Technology Companies	Immediate	No new resources	Prince George's County Economic Development Corporation Prince George's County Financial Services Corporation First
		Advance and Link Talent and Innovation Activities with Local Minority Business Enterprise Development	Near-term	\$250,000 annually	Supplier Development and Diversity Division of the Prince George's County Government

¹⁵ **Immediate** refers to within the current fiscal year; **Near Term** is generally in the next 1-2 years; **Longer term** is 2–5 years out. **Immediate to Long-term** reflects a more complex action that can be partially implemented in the near term, but will require a longer time period to be fully implemented.

Strategy Components	Initiatives	Action	Time Frame ¹⁵	County Resources Required	Lead Organization
Strategy Component II: Development Strategies for Crosscutting Economic Priorities	Promote Entrepreneurship, Talent and Innovation Collaborations	Promote Talent Bridges to Connect Companies in Targeted Industry Clusters with Top Talent Being Generated or Attracted by Universities and Federal Labs in the county	Near-term	\$150,000 to \$300,000 for the internship grant program \$200,000 to \$300,000 for the fellowship grant program	Prince George's County Economic Development Corporation
	Establish Competitive Places for Development	Create a "By Right Zoning" for a set of targeted development sites associated with Transit-oriented development	Immediate	No new resources	Prince George's County Council and Planning Department
	Establish Competitive Places for Development	Make the Build Out of M Square as a Mixed-Use Campus Development a Top County Economic Development Priority	Near-term	No new resources	Prince George's Development Corporation, Prince George's Planning Department, UMCP
		Continue to Examine Feasibility and Advance New Development Tools	Immediate	No new resources	Prince George's County Executive's Office, Department of Housing and Community Development, Redevelopment Authority and Planning Department
	Launch Pro-Active Outreach Marketing	Implement a Branding Campaign	Near-term	\$500,000 one time funding	Coalition of Prince George's County business groups, Conference and Visitors Bureau, and Prince George's County Economic Development Corporation
		Develop an Alliance Marketing Approach for Each Targeted Industry Cluster	Immediate	No new funding	Prince George's County Economic Development Corporation

PERFORMANCE MEASURES

For any economic development strategy to be effective, it needs to be held accountable to specific performance measures or “results” that can be monitored on an ongoing basis through the collection of government statistics and conducting annual surveys.

Based on this strategy’s two prong approach, which focuses on targeted industry cluster development and cross-cutting priorities for economic development, is a set of performance measures to be tracked on an annual basis:

PERFORMANCE MEASURES FOR ADVANCING TARGETED INDUSTRY CLUSTERS.

- Employment growth in targeted industry clusters.
- Employment growth rates compared to the Washington, D.C.-Baltimore region and the United States average.
- Projections of increased county tax revenues from growth in targeted industry clusters (using IMPLAN model).
- Gains in federal leasing activity.
- Approved development projects using county incentives in targeted industry clusters – projected employment gains, level of private investments made.

PERFORMANCE MEASURES FOR ENTREPRENEURSHIP, TALENT, AND INNOVATION COLLABORATIONS

- Venture capital investments made in Prince George’s County – level of investments, number of deals.
- New startup companies from research drivers forming in Prince George’s County.
- Retention of emerging growth companies started based on technologies from research drivers in Prince George’s County.

PERFORMANCE MEASURES FOR COMPETITIVE PLACES FOR DEVELOPMENT

- Approval of TOD developments – square footage, level of private investment.
- TOD development completed – square footage.

PERFORMANCE MEASURES FOR PROACTIVE OUTREACH MARKETING AND RAISING QUALITY OF LIFE

- Number of business attraction leads in targeted industry cluster identified and contacted, and results in terms of planned investments and job creation.
- Number of job retention calls made to companies in targeted industry clusters.
- Number of qualified development projects advanced – including results in terms of planned investments and job creation.

Together this action plan and ongoing tracking of performance measures can enable Prince George’s County to reposition itself in economic development efforts to share in the broader economic gains of the growing Washington, D.C.-Baltimore region. In doing so, Prince George’s County can offer its residents access to high-quality jobs within the county, and can generate a growing tax base able to sustain improved public services that raise the quality of life in the county.

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ACKNOWLEDGEMENTS

The Targeted Economic Development Strategic Plan for Prince George's County reflects the input from economic development officials and staff, government leaders and elected officials, business organizations and the consultant team led by the Battelle Technology Partnership Practice, with the Jacob France Institute and Green Door Advisors.

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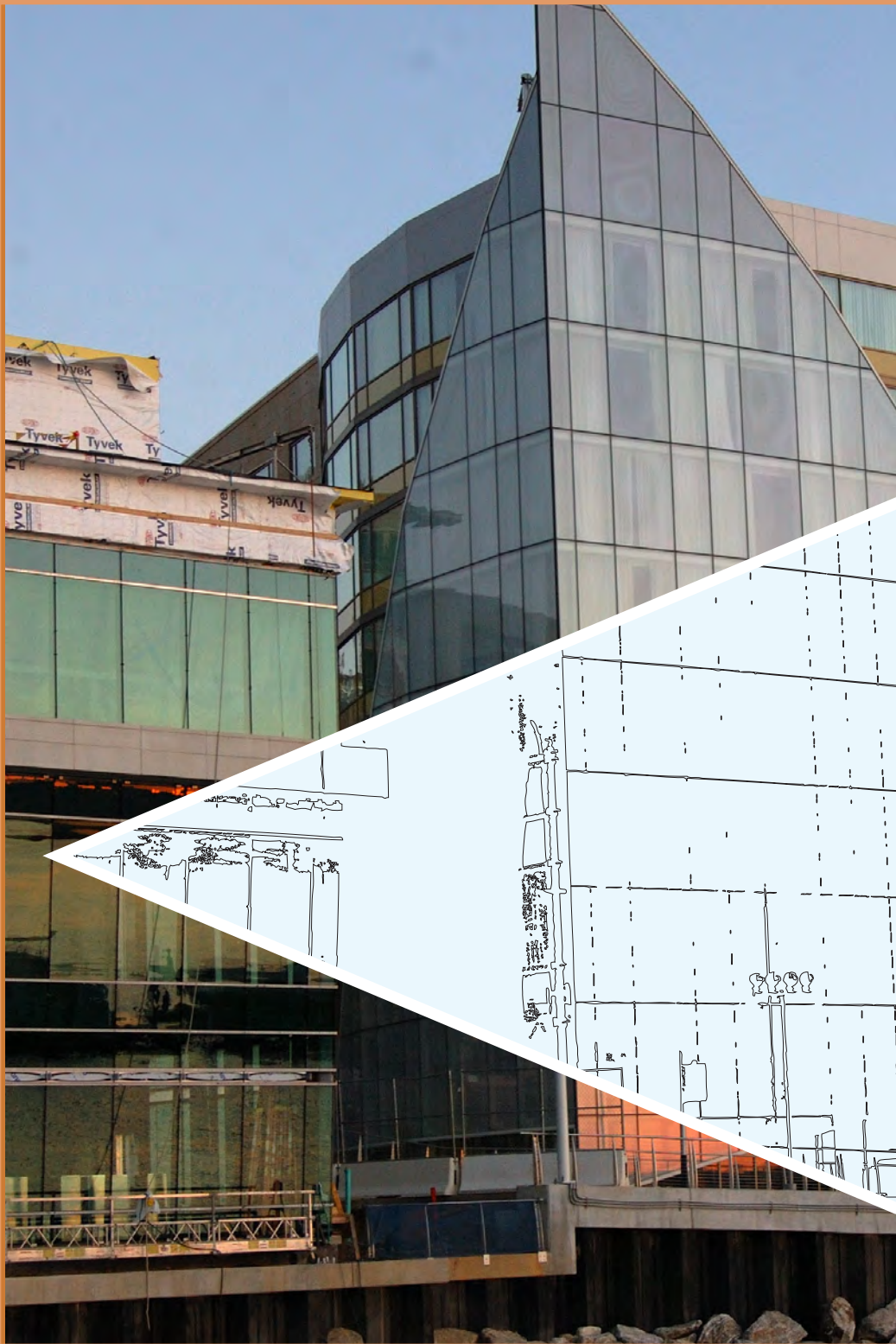
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