

A Study of Occupational Shifts and Workforce Characteristics for Prince George's County

Presentation to the Prince George's County Planning Board

December 15, 2011

By

Battelle Technology Partnership Practice and
The Jacob France Institute at the University of Baltimore

For

 The Maryland-National Capital Park and Planning Commission

The Ultimate Competition is for “Talent”

Local communities compete on their ability to educate, train and recruit a **qualified workforce that meets the needs of local industry.**

“CEOs report that the availability of technically trained talent is their top priority—one that often determines where they locate high-value investments.”

National Governors' Association, State Leadership in the Global Economy, 2002

Consultant Team

Battelle Technology Partnership Practice

Technology-based economic development consulting arm of Battelle composed of well-versed practitioners involved in developing leading programs to spur business acceleration services, incubators and research parks, and workforce and talent development

Jacob France Institute, Merrick School of Business, University of Baltimore

Leading Maryland research group provides economic development research and technical assistance to public and private sector. Specializes in industry targeting analyses and assessment and has developed methods for analyzing the economic and fiscal impacts of and supplier relationships generated by key industry clusters.

Market-Economics, Inc.

Well regarded economic consulting firm with emphasis in real estate analysis and forecasting, financial risk management, small business market analysis and economic forecasting of housing and employment.

Project Objective

Guide a coherent workforce development strategy for Prince George's County that highlights the existing and projected mismatches between what skills industry is demanding and the skills of the county's incumbent and prospective workforce.

Project Methodology

Demand Drivers

What are the likely industry drivers in the future for the county?

•

What workers with what skills will be required by likely industry drivers in county?

Gap Analysis

Existing or expected mismatches

Supply Drivers

What are the skills of existing residents in the county?

•

What is the county's capacity to develop workers' skills?

•

What workers from outside of the county are attracted to work in the county?

Primary Industry Clusters

- 23 Primary Industry Clusters in Prince George's County
- Represent the Drivers of Economic Development for the County
- Over 150,000 Total Employees

- Aerospace Products & Parts
- Media Services
- Big Box Retail
- Biosciences
- Business Consulting Services
- Business Support Services
- Communications & Media Equipment
- Computer & Peripheral Equipment
- Construction
- Federal Government
- Finance & Insurance
- Hospitals and Health Services
- Legal
- Marketing & Advertising
- Navigation & Control Instruments
- Research, Development & Engineering Services
- Semiconductors & Electronic Components
- Software & Computer Services
- Strategic Office Centers
- Telecommunications Services
- Traditional Print Media
- Transportation, Distribution and Logistics
- Travel & Tourism

Despite overall slow total employment growth, many primary industry clusters stand out as growth opportunities for Prince George's County

Primary Industry Clusters Growth Opportunities

**Specialized
Industry Clusters
Growing in Jobs
Faster than U.S.**

- **Business Support Services**
- **Navigation & Controls**

Primary Industry Clusters Growth Opportunities

**Specialized
Industry Clusters
Growing in Jobs
But Not as Fast
as U.S**

- **Software & Computer Services**
- **R&D/Engineering Services**
- **Federal Government**
- **Construction**

Primary Industry Clusters Growth Opportunities

**Growing In
Jobs
Not Yet
Specialized**

- **Biosciences—Regional Strength**
- **Business Consulting Services—Regional Strength**
- **Communications and Media Equipment**
- **Hospitals and Health Services**
- **Strategic Office Centers**
- **Travel and Tourism**

Identifying Core Competencies

Industry Clusters	Core Competency Factors			
	Patents (XXX >50; XX>25; X > 0)	SBIR, VC or CorpTech	Publications (XXX>500; XX>100; X > 0)	Research Centers (XXX > 3; XX>1; X>0)
Aerospace Products & Parts	X	XXX	XXX	XXX
Biosciences	XXX	XXX	XXX	XXX
Communications & Media Equipment	XXX	XX	XX	XXX
Computer & Peripheral Equipment	XX	XX	X	
Navigation & Control Instruments	XX	XX	XX	
Research, Development & Engineering Services	XX	XX	XXX	XXX
Semiconductors & Electronic Components	XX	XXX	XXX	XXX
Software & Computer Services	XX	XXX	XXX	XXX

Sources: U.S. Patent & Trademark Office; Battelle analysis.

Developing Growth Scenarios for Industry Clusters

National Context

- Projected U.S. Industry Growth Rates

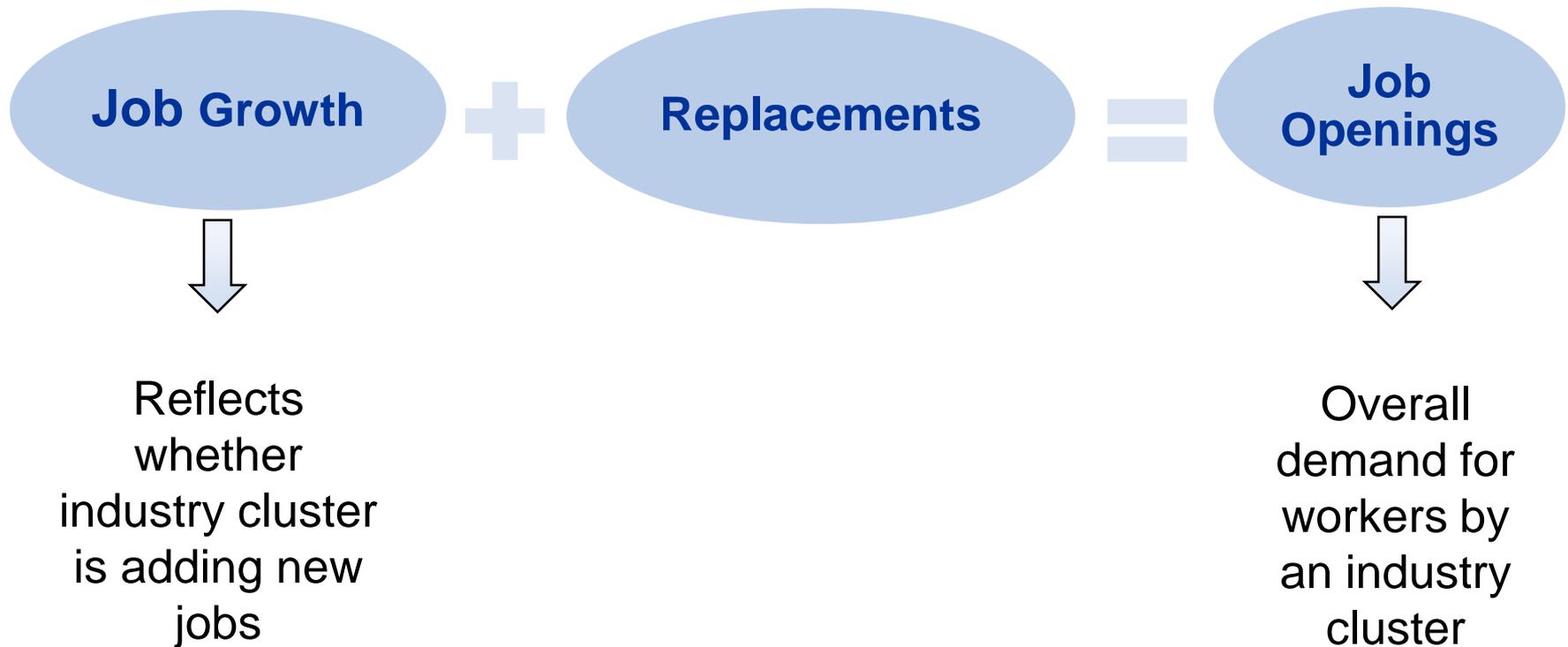
Past Performance

- How Prince George's grew over the Last Business Cycle (2001-2007)

Accelerated Growth Potential in the Regional Context:

- Growth at the Higher Relative Rate of the D.C. Metro Region
- Catch-up to the D.C. Metro Region Level of Concentration

Job Openings in Industry Clusters



High Growth Occupations

Significant Job Gainers Under Both High and Low Industry Growth Scenarios:

- Computer and Mathematical Science Occupations
- Business and Financial Operations Occupations
- Protective Service Occupations
- Building and Grounds Cleaning and Maintenance Occupations
- Personal Care and Service

High Growth Occupations

Other Fast Growing Occupations Under High Industry Growth Scenario:

- Engineering and Architecture Occupations
- Life, Physical, and Social Scientists Occupations
- Education, Training, and Library Occupations
- Management Occupations

Occupations with Highest Job Openings

- Construction and Extraction
- Office and Administrative Support
- Computer and Mathematical Science
- Sales and Related Occupations
- Business and Financial Operations

Supply and Demand Gaps

Higher Skilled Occupations

Prince George's County is generating more graduates than projected demand in:

- Engineering and Architecture
- Life, Physical, and Social Scientists
- Management
- Computer and Math Scientists
- Business and Financial Operations

Supply and Demand Gaps

Lower Skilled Occupations

- There are not as many educational or training programs for lower skilled occupations
- Health support and transportation occupations, which have the most training programs, seem to be on par with projected demand

Key Findings

1. Overall economy in Prince George's County, as well as many of the primary industry clusters, underperformed in overall economic growth compared to both the nation and the Washington, D.C. Metropolitan Region over the full business cycle of 2001 to 2007.

Key Findings

2. Many primary industry clusters offer excellent targets for economic development going forward, because of their level of specialization in the county or recent gains in employment.

Key Findings

3. Prince George's County possesses a critical mass of core technology competences or “know how” in eight of the twenty-three primary industry clusters.

Key Findings

4. Projected growth in occupations across the primary industry clusters in the county reflects both high and low skilled occupations.

Key Findings

5. The pipeline of new graduates programs and apprenticeship programs in the county suggest that there is an ample generation of high skilled talent being generated in the county in order to meet the annual demands by primary industry clusters in the county.

Key Findings

6. At the lower skill level, there appears to be opportunities to put in place additional job training and workforce development programs, particularly targeting incumbent and unemployed workers.

Key Findings

7. The broader trends in labor supply in Prince George's County suggests some considerable concerns, but also point to opportunities in moving forward.

Recommended Strategies and Actions

- A comprehensive and integrated approach is recommended
- Focus on the intersection of education, workforce, and economic development in the county
- Promote stronger connections between those activities and stakeholders

Five Key Recommended Strategies

- 1. Strengthen the connections** across high skilled talent being generated by post-secondary institutions in Prince George's County with employers in the county's primary industries.
- 2. Promote industry cluster development** with a strong emphasis on linking talent and technology core competencies to targeted industry clusters.
- 3. Advance career and technical education** at the K-12 level in high skilled areas.
- 4. Enrich the skill sets of incumbent/unemployed workers** to address key skill shortages and provide workers with new career options.
- 5. Ramp up labor demand** through expanded economic development marketing and incentives targeted to key primary industry cluster growth.

Proposed Action Plan

Strategic Priority 1: Strengthen the connections

Action 1a: Advance internship and experiential learning programs between students in high skilled degree fields from across post-secondary institutions in the county

Action 1b: Create a highly skilled talent bank of both residents who commute and new and recent graduates to connect with employers in the county

Proposed Action Plan

Strategic Priority 2: Promote industry cluster development

Action 2a: Convene industry cluster interest groups to facilitate networking and shared services

Action 2b: Advance skill centers by encouraging industry-post-secondary collaborations through competitive planning grants

Action 2c: Create a Prince George's County Technology Transfer Center

Action 2d: Leverage the core technology competency strengths of the University of Maryland-College Park for existing and emerging companies in the county

Action 2e: Stay abreast of emerging cluster opportunities by monitoring industry trends for the county and the region

Proposed Action Plan

Strategic Priority 3: Advance career and technical education

Action 3a: Advance an integrated career and technical education curriculum which links science, technology, engineering, and mathematics (STEM) education with problem-solving, team building, and experiential learning activities in defined areas of technology and industry

Action 3b: Promote Career Academies as a model for educational reform

Proposed Action Plan

Strategic Priority 4: Enrich the skill sets of incumbent/unemployed workers

Action 4a: Establish a Jobs Funnel initiative in Prince George's County for entry-level jobs and career development targeted to lower skilled immigrant groups in the county

Action 4b: Assess the opportunities for advancing adult literacy and basic skills development

Proposed Action Plan

Strategic Priority 5: Ramp up labor demand

Action 5a: Address the business and overall image of Prince George's County

Action 5b: Create more incentives and direct financing programs for emerging growth companies

Five Key Recommended Strategies

- 1. Strengthen the connections** across high skilled talent being generated by post-secondary institutions in Prince George's County with employers in the county's primary industries.
- 2. Promote industry cluster development** with a strong emphasis on linking talent and technology core competencies to targeted industry clusters.
- 3. Advance career and technical education** at the K-12 level in high skilled areas.
- 4. Enrich the skill sets of incumbent/unemployed workers** to address key skill shortages and provide workers with new career options.
- 5. Ramp up labor demand** through expanded economic development marketing and incentives targeted to key primary industry cluster growth.

Contacts

Mitch Horowitz

VP & Managing Director

Technology Partnership Practice

Battelle

Voice: (240) 462-5456

E-mail: horowitzm@battelle.org