

Labor Market Analysis of the Susquehanna Workforce Investment Area

*On behalf of:
Cecil County Public Schools
Business Education Partnership Advisory Council*

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Purpose

- The Susquehanna Workforce Network hired Sage Policy Group to conduct a labor market analysis of the Susquehanna Region Workforce Investment Area, which includes Cecil and Harford Counties in Maryland. The purpose of this report is to provide an analysis of the region's labor market conditions, economic trends and workforce.
- Specifically, this report will provide background and data that could be utilized by economic and workforce planners to establish goals that will help the community meet current and future workforce needs. This report may also be useful in developing a strategic plan.

Employment Trends

Total Business Establishments & Employment

2005 vs. 2011

	Total Number of Establishments		
	2005	2011	% Change
Maryland	160,084	164,358	2.7%
Baltimore Metro	69,323	69,997	1.0%
Susquehanna WIA	7,420	7,506	1.2%
Harford	5,488	5,563	1.4%
Cecil	1,932	1,943	0.6%
	Total Employment (Average Annual)		
	2005	2011	% Change
Maryland	2,497,487	2,478,505	-0.8%
Baltimore Metro	1,229,752	1,221,230	-0.7%
Susquehanna WIA	109,720	111,231	1.4%
Harford	80,527	83,286	3.4%
Cecil*	29,193	27,945	-4.3%

Source: Bureau of Labor Statistics; *The decline in Cecil County jobs is due to the change in reporting method used by Veteran's Administration.

As of 2011, a total of 7,506 businesses supported 111,231 jobs in the SWIA.

Susquehanna WIA Private Sector Establishments by Size

As of Q4 2011

Size	Establishments	% of Total Establishments	% of Total Employment
Micro (0-9)	5,490	76.1%	17.8%
Small (10-24)	1,073	14.9%	18.9%
Medium (25-99)	521	7.2%	27.4%
Large (>=100)	132	1.8%	36.0%
Total	7,216	100.0%	100.0%

Source: Maryland Department of Labor, Licensing and Regulation

As of Q4 2011, micro-sized establishments comprised 76.1 percent of all private businesses in the SWIA. However, medium (27.4%) and large (36.0%) establishments employed the majority of private sector workers in the SWIA.

Susquehanna WIA Job Growth

2005 v. 2011

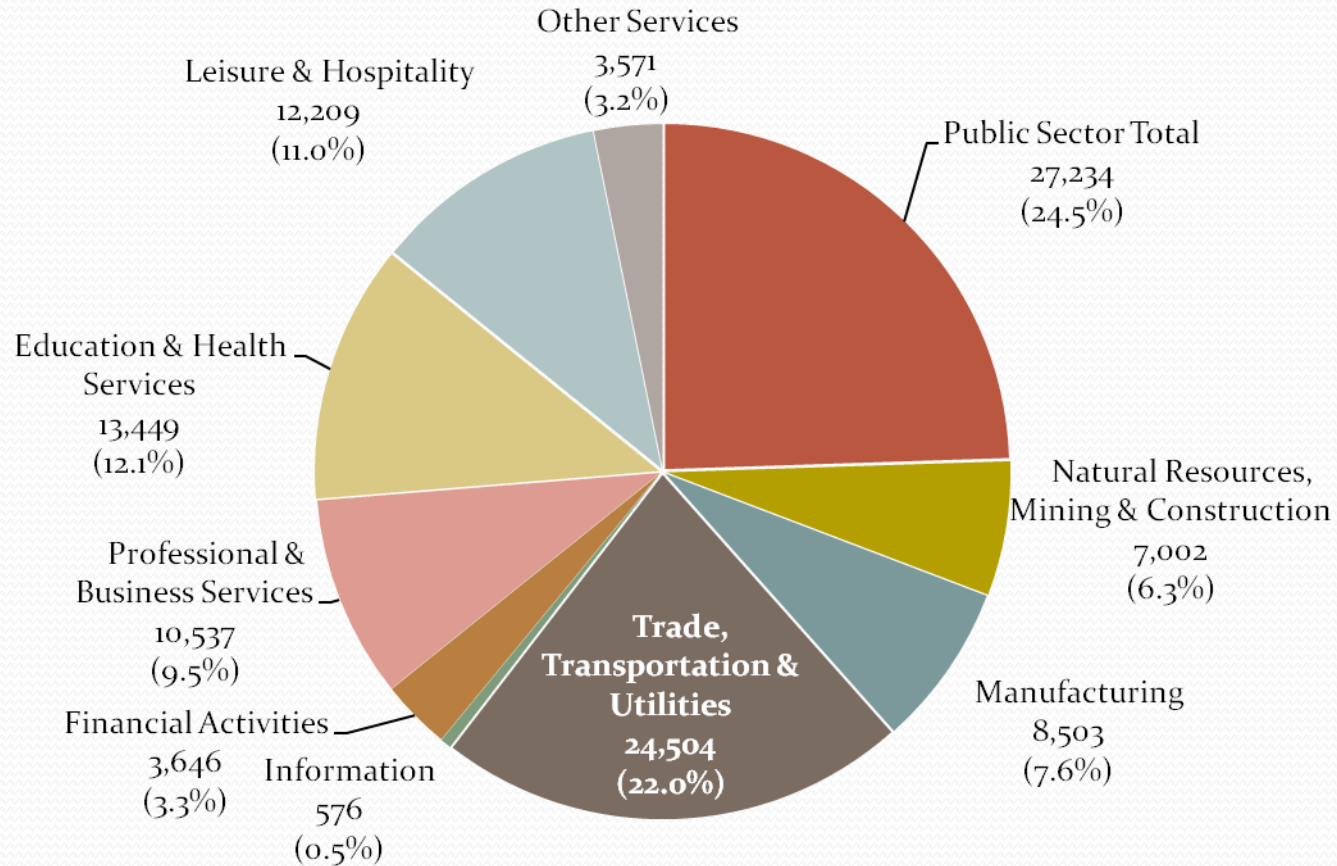
	Total Employment (Average Annual)			
	2005	2011	Absolute Change	% Change
Total Employment	109,720	111,231	+1,511	1.4%
<i>Public Sector Total</i>	23,321	27,234	+3,913	+16.8%
<i>Private Sector Total</i>	86,399	83,997	-2,402	-2.8%
Goods-Producing	18,862	15,506	-3,356	-17.8%
Service-Providing	67,536	68,491	955	+1.4%

- **2005-2011 job growth in Susquehanna WIA led by public sector;** This is in contrast with the past study ,which observed 23 percent expansion in private sector jobs between 1997 and 2002;
- **The goods-producing sector shrank significantly** in contrast with the prior study, which indicated 14 percent growth in this segment between 1997 and 2002.

Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

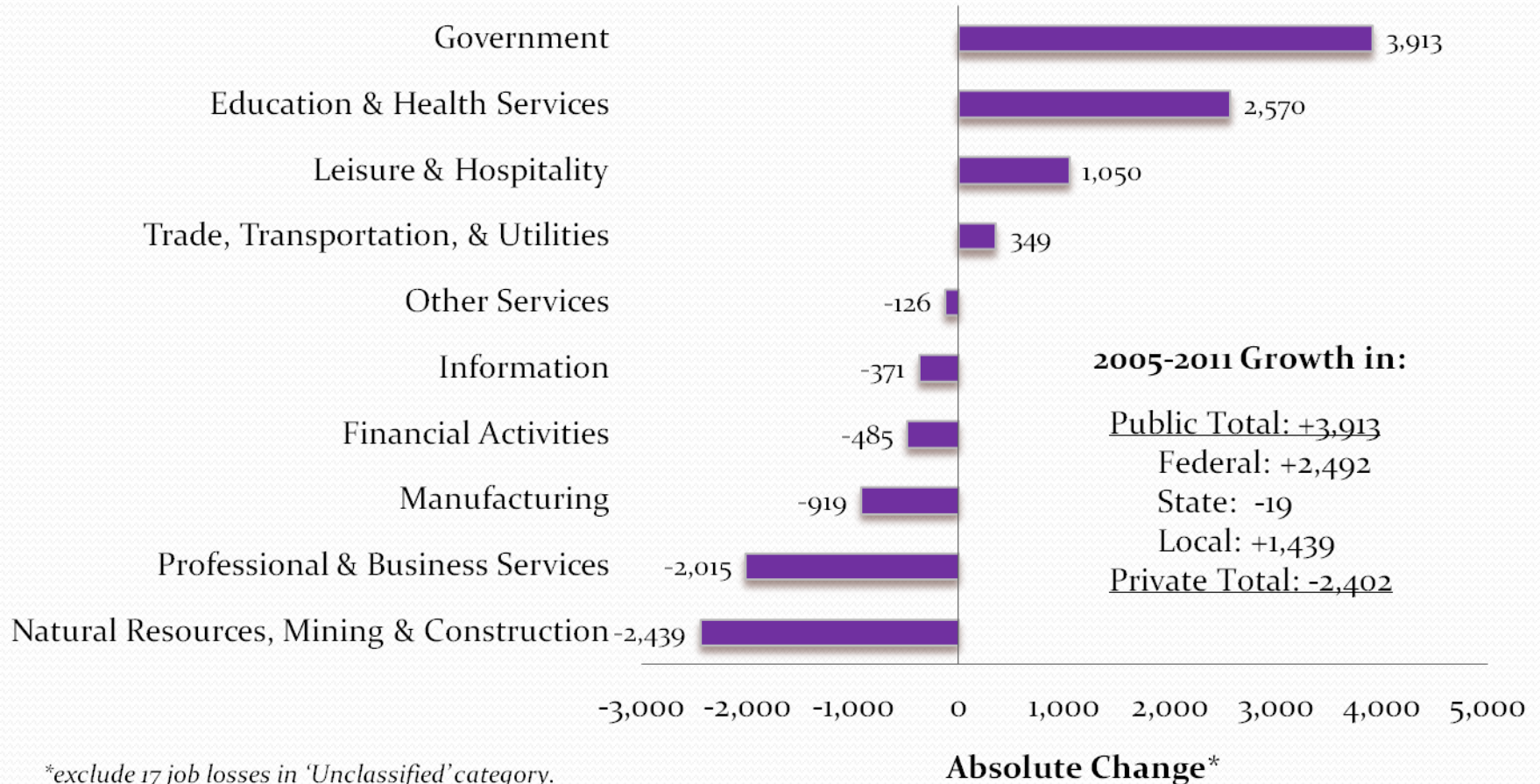
Breakdown of Industries in Susquehanna WIA

As of 2011



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Employment Changes by Industry Sector, Susquehanna WIA 2011 vs. 2005



*exclude 17 job losses in 'Unclassified' category.
Numbers may not add up due to rounding

Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Industry shifts in the Susquehanna WIA

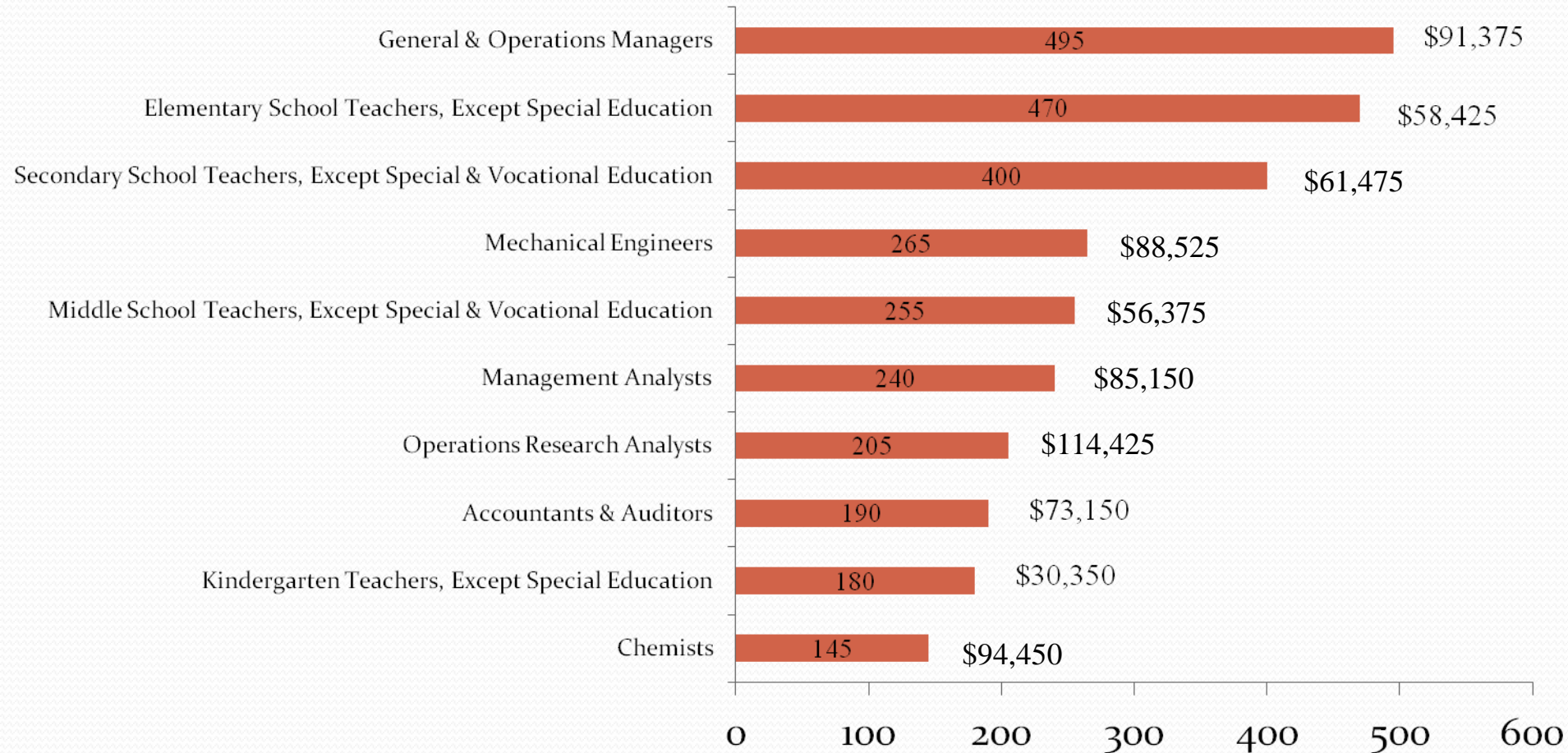
2011 vs. 2005

- **Government** now represents nearly a quarter of SWIA total;
- **Education and health services** expanded by 24 percent between 2005 and 2011, driven in part by growth in the ambulatory healthcare subsector;
- **Leisure and hospitality** expanded 9.4 percent regionally;
- **Trade, transportation & utilities** grew by 1.4 percent -- growth is attributable to expansion in the warehousing and storage subsector in Cecil County;
- **Information and financial activities** lost employment - information, which includes media activities, lost 39 percent of its employment since 2005. Financial activities lost 11.7 percent.

Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Job Outlook 2008-2018 in the Susquehanna Area

Occupations with Most Openings Requiring a Bachelor's Degree or Higher

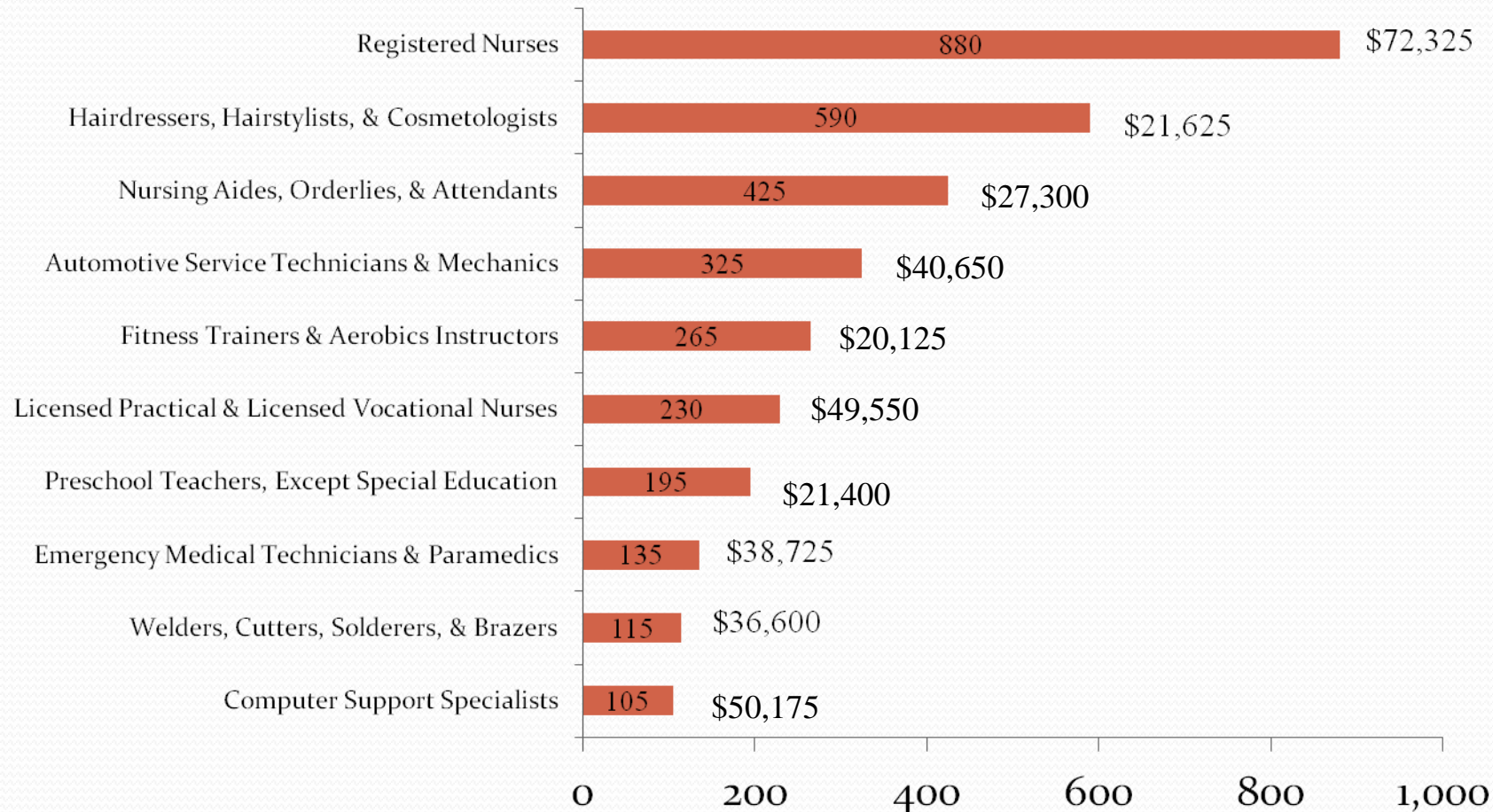


Source: Maryland Department of Labor, Licensing and Regulation

**Includes Cecil and Harford Counties*

Job Outlook 2008-2018 in the Susquehanna Area*

Occupations with Most Openings Requiring Vocational/Technical Training or an Associate's Degree



Source: Maryland Department of Labor, Licensing and Regulation

**Includes Cecil and Harford Counties*

Demographics

Percentage Change in Population

2000 vs. 2010

	2000	2010	Percent Change
Maryland	5,296,486	5,773,552	9.0%
Susquehanna WIA	304,541	345,934	13.6%
Cecil County	85,951	101,108	17.6%
Harford County	218,590	244,826	12.0%
Anne Arundel County	489,656	537,656	9.8%
Baltimore City	651,154	620,961	-4.6%
Baltimore County	754,292	805,029	6.7%
Carroll County	150,897	167,134	10.8%
Howard County	247,842	287,085	15.8%
Queen Anne's County	40,563	47,798	17.8%

Source: Census Bureau, 2000 & 2010 Decennial Census

Population of Susquehanna WIA by Sex and Age

2000 vs. 2010

	2000	2010	Absolute Change	Percent Change
Population	304,541	345,934	41,393	13.6%
Male	149,675	169,994	20,319	13.6%
Female	154,866	175,940	21,074	13.6%
Age				
Under 9	46,092	44,678	-1,414	-3.1%
10 to 19	45,473	50,048	4,575	10.1%
20 to 24	14,362	19,879	5,517	38.4%
25 to 34	40,657	39,812	-845	-2.1%
35 to 44	55,127	48,360	-6,767	-12.3%
45 to 54	44,257	57,372	13,115	29.6%
55 to 59	15,967	23,262	7,295	45.7%
60 and over	42,606	62,523	19,917	46.7%

Source: Census Bureau, 2000 & 2010 Decennial Census

Highest Level of Educational Attainment of Susquehanna WIA Residents, Age 25 and over

2005 vs. 2010

	2005	2010	Absolute Change	Percent Change
<i>Population 25 and over</i>	216,882	231,031	14,149	6.5%
Less than 9 th grade	6,759	6,227	-532	-7.9%
9 th to 12 th grade, no diploma	18,422	13,969	-4,453	-24.2%
High school graduate	67,964	72,780	4,816	7.1%
Some college, no degree	47,219	53,155	5,936	12.6%
Associates degree	17,207	18,024	817	4.7%
Bachelor's degree	38,869	41,270	2,401	6.2%
Graduate or professional degree	20,442	25,606	5,164	25.3%

Source: U.S. Census Bureau American Community Survey, 2005 & 2010

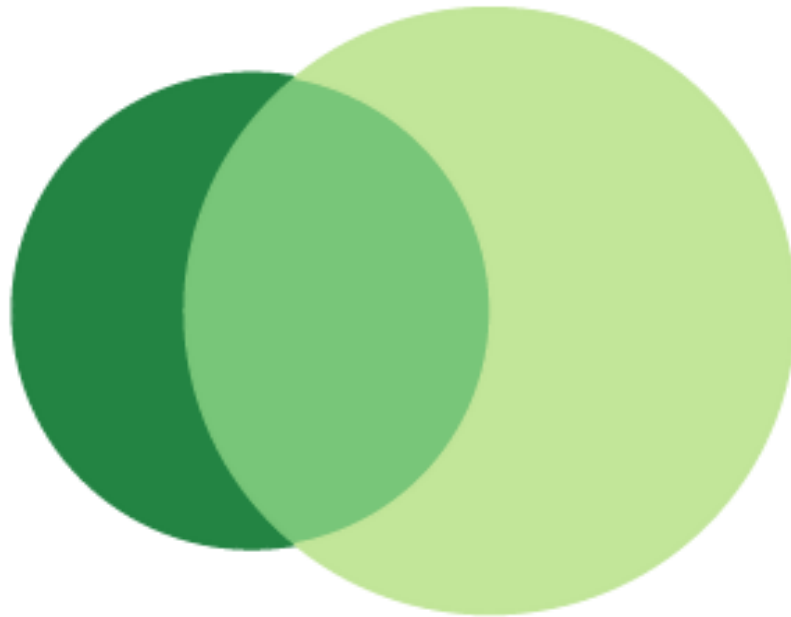
Percentage of Population 25 years and over by Educational Attainment, 2010

	Cecil	Harford	Anne Arundel	Baltimore County	Baltimore City	Carroll	Howard	Maryland Total
Less than 9 th grade	3.3%	2.4%	3.0%	3.3%	8.2%	2.2%	3.3%	4.7%
9 th to 12 th grade, no diploma	7.7%	5.4%	7.7%	6.6%	14.9%	5.9%	2.3%	7.2%
High school graduate	36.2%	29.6%	24.5%	27.0%	29.5%	30.8%	14.2%	25.9%
Some college, no degree	24.0%	22.6%	22.2%	21.1%	19.4%	18.9%	14.0%	19.7%
Associates degree	6.5%	8.3%	7.0%	6.3%	3.7%	7.2%	7.1%	6.3%
Bachelor's degree	14.6%	19.2%	21.6%	20.3%	13.2%	20.0%	30.2%	19.7%
Graduate or professional degree	7.6%	12.5%	14.0%	15.3%	11.0%	14.9%	28.9%	16.4%
Percent high school graduate or higher	88.9%	92.2%	89.3%	90.1%	76.9%	91.8%	94.3%	88.1%
<i>Up to high school diploma</i>	47.2%	37.4%	35.2%	36.9%	52.6%	38.9%	19.8%	37.8%
Percent bachelor's degree or higher	22.2%	31.7%	35.5%	35.6%	24.2%	34.9%	59.1%	36.1%

Source: U.S. Census Bureau, 2010 American Community Survey 1 year estimates

Susquehanna WIA Inflow/Outflow Job Counts

As of 2010, based on Primary Jobs



35,756	- Employed in Selection Area, Live Outside
91,812	- Live in Selection Area, Employed Outside
54,001	- Employed and Live in Selection Area

The relative size of the Venn diagram circles represents the amount of workers living and working in SWIA. The size of the intersection area represents the count of workers that live and work in SWIA.

Thirty-seven percent of SWIA residents also work in the SWIA; **60.2 percent** of all SWIA workers live in SWIA.

Source: U.S. Census Bureau, OnTheMap

Where Susquehanna WIA Residents are Employed

As of 2010, based on Primary Jobs

Counties		
	Count	Share
Total Workers	145,813	100.0%
Harford County	39,242	26.9%
Baltimore County	29,521	20.2%
Baltimore City	15,635	10.7%
Cecil County	14,759	10.1%
New Castle County, DE	10,642	7.3%
Anne Arundel County	7,889	5.4%
Montgomery County	5,487	3.8%
Howard County	3,684	2.5%
Prince George's County	3,537	2.4%
Washington County	1,417	1.0%
Other	14,000	9.6%

States		
	Count	Share
Total Workers	145,813	100.0%
Maryland	126,973	87.1%
Delaware	11,514	7.9%
Pennsylvania	3,480	2.4%
Virginia	1,145	0.8%
District of Columbia	1,011	0.7%
Other	1,690	1.2%

Source: U.S. Census Bureau, OnTheMap

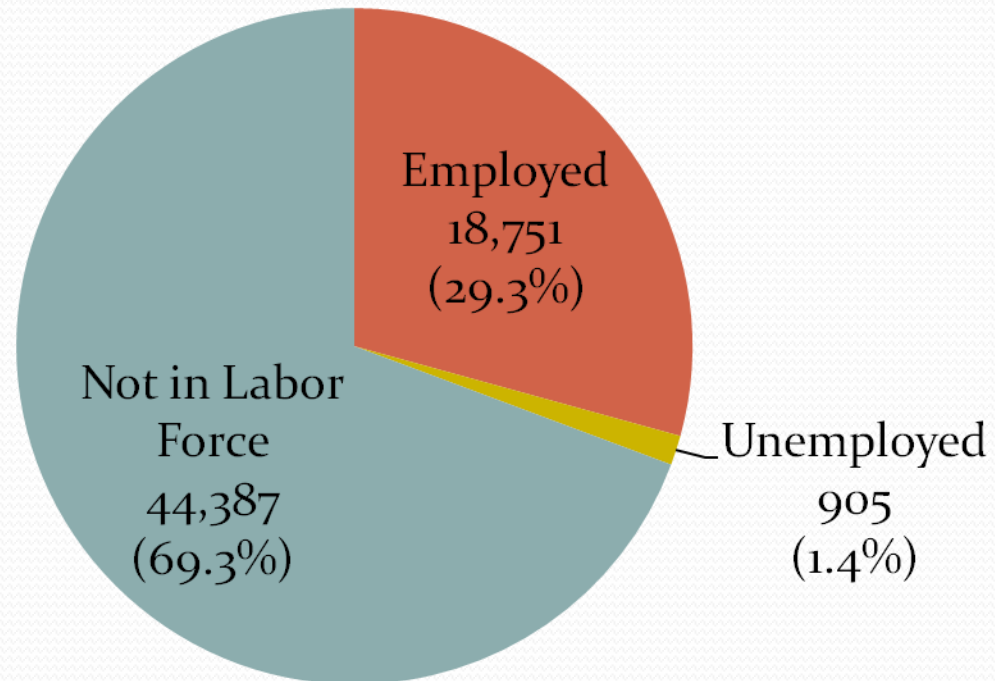
Senior Workforce & Retirement Trend

- Population of those aged 60 or plus is expected to grow faster in Susquehanna counties. Between 2010 and 2040:
 - Cecil County: *+101 percent*;
 - Harford County: *+68 percent*;
 - Maryland: *+61 percent*;
- Average retirement age continued to rise:
 - Since 1996, the retirement age rose from 60 to 67;
 - Only 38 percent of the surveyed are confident about their financial security after retirement -- indication that many are reluctant to retire yet.

Source: U.S. Census Bureau, Maryland State Data Center, Gallop

Senior Workforce: Labor Participation among Population Older than 60 Years of Age in SWIA: *As of 2011*

Total Population aged 60+: 64,043



Total in Labor Force among Seniors aged 60+: **19,656**

Labor force Participation Rate among Seniors: **30.7%** (18.2% in 2000)

Unemployment Rate
(= Unemployed/Total labor force): **4.6%**

Source: U.S. Census Bureau

Emerging Focal Points

Local Educational Institutions and Resources

- Cecil College
 - Over **2,400** students enrolled in school in 2011;
 - In 2011, **75** certificates are awarded: *more than half* of them in visual communications;
 - **235** associated degrees were awarded in 2011: **25 percent** in nursing; **13 percent** in business/commerce; **2 percent** in computer information and **2** percent in transportation and logistics.
- Harford Community College
 - Over **7,000** students enrolled in school in 2011;
 - **65** certificates awarded in 2011: *nearly half* of them are in health care-related subjects;
 - **772** associated degrees awarded in 2011: **17 percent** in nursing and medical; *Less than 5 percent* in computer information, electroneurodiagnostic technology, and engineering technology.

Source: Maryland Department of Education; Maryland Higher Education Commission

Local Educational Institutions and Resources (continued...)

- HEAT Center
 - Located in Harford County, offering variety of courses through various institutions located outside of the region;
 - The Center also offers certificates and associate degrees;
- Susquehanna Workforce Centers:
 - Susquehanna Workforce Network operates three workforce centers located in: Aberdeen, Bel Air, and Elkton;
 - These centers offer variety of career services at no cost, including: career assessment, counseling, skill training, and other specialized programs, such as veteran services, services for dislocated workers and people with disabilities;
- Federal Workforce Investment Act (WIA) made available funding for workforce development programs. In 2011, Susquehanna WIA received approximately 4 percent of the WIA fund distributed in the state.

Source: Maryland Department of Education; Maryland Higher Education Commission

Findings and Discussions from Focus Group

- Industry leaders agree with gap between demand and supply for skilled labor;
 - Particularly difficult to find workers with technical knowledge and **soft skills** (attention to detail, communication skills, service aptitude, etc.)
- Employers today look for broader skill sets:
 - As a result of advent of technology and diversification of services, employees have to perform more complicated tasks;
- Aging of current professionals put pressures on younger workforce:
 - When today's managerial-level staff retire, will there be good candidates to take over their jobs? Are today's young workers ready?

Findings and Discussions from Focus Group (continued...)

- Participants suggest that local educational institutions to:
 - Teach more STEM-related subjects;
 - Support students to obtain credentials important for working in the industry;
 - Make available the courses that develop students' soft skills
 - Constructively market the opportunities and availability of educational resources in the region.
- It must be noted that part of workforce development conundrum is not a short-term problem:
 - Development of personality is related to cultural environment in which the person is raised; Today's youth is not exposed to as many scientific influences as older generations.

SWOT Analysis

Strengths

- ✓ Highway/mass transit infrastructure
- ✓ Proximity to major metropolitan areas
- ✓ Workforce programs
- ✓ Community colleges and HEAT Center
- ✓ State Economic Enterprise Zone and availability of industrial space
- ✓ Significant manufacturing and distribution presence
- ✓ Aberdeen Proving Ground
- ✓ Lower cost of living than in adjacent metropolitan jurisdictions

Weaknesses

- ✓ **Ongoing deindustrialization**
- ✓ State tax climate
- ✓ **Lack of regional identity and associated challenges in recruiting top-level personnel**
- ✓ Below average educational attainment of the local workforce

- ✓ Expanding higher education
- ✓ Accelerated job openings via retirement
- ✓ Leveraging Aberdeen Proving Ground and existing defense contractors into more rapid technology diffusion and industry clustering
- ✓ Leveraging public research and testing facilities to attract private commercial enterprises
- ✓ Health care and retirement
- ✓ Casino and related entertainment
- ✓ Waterfront development/redevelopment
- ✓ More focus on STEM disciplines at two-year college and secondary levels

- ✓ Expiration of the State Enterprise Zone and associated capacity to retain and attract businesses
- ✓ Next round of base realignment
- ✓ Departure of large business enterprises
- ✓ Environmental restrictions
- ✓ Retirement of current professionals

Opportunities

Threats

Recommendations

1. Pursue Logistics

- i. Logistics industry is a potential industry in Susquehanna region given the abundant land, industrial space, and transportation;
- ii. Within logistic industry, Managerial level workers earn higher salary;
- iii. Focus on certifications through trade associations, such as the American Society of Transportation and Logistics (ASTL) and the International Society of Logistics (SOLE).

2. Primary and preventative healthcare, including lab work

- i. Healthcare practitioner occupations expected to grow by 3.5 percent between 2011 and 2013 in Susquehanna region;
- ii. Important to nurture soft skills, including critical thinking, attentions to details, organizational skill, and communication.

3. Construction

- i. Interests in construction career is declining among today's youth. However, technological shifts in construction industry creates high-wage opportunities;
- ii. Skills related to green construction is becoming important due to various tax incentives and relevant regulations.

Recommendations (continued)

4. Manufacturing and assembly

- i. Industry research indicates that manufacturing jobs are shifting back to U.S. Susquehanna region is home to many manufacturers , including Alcore and Constar;
- ii. Data indicate that 70 percent of applicants are rejected due to lack of basic skills.

5. Information technology

- i. Demand for computer technology professions is expected to increase in the region given the opportunities for defense contract;
- ii. Local community colleges should provide more courses to assist IT professionals in obtaining certifications in important programming languages such as Java and C++;
- iii. It is important to reinforce basic computer skills among the general workforce.

Recommendations (continued)

6. Credentialing strategy

- i. Employers look at credentials to identify the most qualified candidates;
- ii. Professional skills are just as important as technical skills. Some of the top workforce skills include mathematics, reading comprehension & writing, decision making, and interpersonal skills. There has been an effort to credential these skills (e.g. National Work Readiness Credential);
- iii. Credentialing is important for workers of all ages.

7. Aggressive promotion of career and technical education (CTE) at local high schools

- i. Maryland is a leader in implementing CTE programs for youth – SWIA area should be a leader within Maryland;
- ii. Collaboration with industry leaders to make modifications to CTE programs in accordance with changes in industries is recommended.

Thank You

- You can always reach me at abasu@sagepolicy.com
- Please look for updates of information at www.sagepolicy.com.
- Also, if you need us in a hurry, we are at 410.522.7243 (410.522.SAGE)
- Please contact us when you require economic research & policy analysis.