# MARYLAND'S WORKFORCE



Martin O'Malley, Governor Anthony G. Brown, Lt. Governor

Thomas E. Perez, Secretary Department of Labor, Licensing, and Regulation

William G. Robertson, Chair

Eric M. Seleznow, Executive Director Governor's Workforce Investment Board



### GOVERNOR'S WORKFORCE INVESTMENT BOARD

## MARYLAND'S WORKFORCE INDICATORS: 2008

Prepared by:

The Governor's Workforce Investment Board

December 2008

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#### About the Governor's Workforce Investment Board

The Governor's Workforce Investment Board (GWIB) is the governor's chief policy-making body for workforce development. The GWIB is a business-led board of 45 members, a majority of whom represent the business community, as mandated by the Workforce Investment Act of 1998 (WIA). Other members include the governor and the lieutenant governor, cabinet secretaries, college presidents, the state superintendent of schools, elected officials, labor, and representatives of non-profit organizations. The GWIB is responsible for developing policies and strategies to form a coordinated workforce system from a variety of education, and employment and training programs. It brings together and focuses various workforce development partners and stakeholders on two key outcomes - a properly prepared workforce that meets the current and future demands of Maryland employers, and providing opportunities for all Marylanders to succeed in the 21st century workforce.

This report is available online at: <u>www.gwib.maryland.gov.</u>

#### Acknowledgements

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- Maryland Association of Community Colleges
- Maryland Department of Aging
- Maryland Department of Business and Economic Development
- Maryland Department of Disabilities
- Maryland Department of Housing and Community Development
- Maryland Department of Human Resources
- Maryland Department of Juvenile Services
- Maryland Department of Labor, Licensing and Regulation
- Maryland Department of Planning
- Maryland Department of Public Safety and Correctional Services
- Maryland Higher Education Commission
- Maryland State Department of Education
- Workforce Investment Network for Maryland

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*Maryland Workforce Indicators: 2008* presents an overview of current conditions and notable trends affecting Maryland's workforce and economy. In this inaugural report, the Governor's Workforce Investment Board (GWIB) has assembled an array of relevant labor market information, education, and economic data, which have historically been collected and disseminated by different state and federal agencies. By gathering this information into a single annual report, the GWIB hopes to present an overall profile that identifies noteworthy trends and provides a measurable representation of the health of Maryland's workforce now and into the future. This annual report will, over time, reveal trends and patterns that will assist the GWIB, business leaders, and other workforce policymakers, to develop polices and programs to ensure Maryland's continued strength and competitiveness well into the 21st century.

The report confirms that Maryland's workforce is strong and dynamic, leading many states in educational attainment, labor force participation rate and earnings. Leading indicators show an economy that continues to create good jobs requiring all levels of skilled workers. Although there is a recent increase in unemployment, coupled with the troubling trend of home foreclosures and increased use of public assistance, Maryland's prospects for long-term growth remain positive. This growth is supported by a stable pipeline of workers, a strong K-20 educational system, steady job growth, and a highly engaged and educated immigrant population. In addition, Maryland's highly ranked public school system, noted for its high percentage of advanced placement students, contributes to a pipeline of highly educated workers that can support Maryland's burgeoning science, security and technology industries. While the recent economic crisis may impact this outlook, this strong workforce foundation positions Maryland well for the future.

There are also several challenges that lie ahead. These include replacing retiring workers, discouraging outof-state migration and reducing literacy and math remediation rates for entering college students. The data also show a significant population of potentially untapped or underutilized workers, who, with appropriate education and training, can contribute even further to Maryland's strong workforce foundation. Additionally, Maryland's adult education system currently serves only a small percentage of adults in need of basic education and English language training. These challenges contribute to an increasingly wide skills gap that leaves some employers unable to meet their workforce needs, and renders unskilled workers unable to secure family-sustaining employment. Proactively addressing these emerging trends will enhance Maryland's already strong competitive edge, and its ability to attract and grow jobs and develop skilled workers across all skill levels.

This report is divided into the following three major sections:

#### Section I – Workforce Characteristics

Section I provides an overview of Maryland's residents. This includes a discussion of the workforce, immigration and diversity issues, income, affordability and unemployment, as well as a look at the state's untapped worker populations. These factors show that Maryland workers are productive, largely due to its growing, educated workforce. Additionally, Marylanders, especially immigrants, have one of the highest rates of adults with at least a college degree. Their educational attainment, combined with a high participation in the workforce and solid job growth, contribute significantly to Maryland's high income and low poverty rate.



#### Section II - Demand for Workers

Section II illustrates the state's business/demand-side needs - providing key information on occupational and industry job growth. These indicators show Maryland's continued trend (through September 2008) of growing jobs by about one percent annually. Bioscience, aerospace, construction, and healthcare have shown the fastest job growth rates over the past five years, with healthcare and hospitality and tourism adding the most jobs. Healthcare and computer occupations are among the occupations with the fastest projected growth rates. However, in some concentrations, such as nursing and education, Maryland institutions are not producing enough workers to meet the hiring needs of employers.

#### Section III – Workforce Preparedness

Section III highlights the characteristics of Maryland's supply of available workers, specifically as it relates to educational attainment and its relevance to workforce preparedness. Maryland's education system ranks highly in many national measures, including graduation rate and advanced placement participation and scores. While Maryland's educational system graduates and prepares high-caliber workers, there are areas that can be improved and thriving programs that can be expanded. In adult education, meanwhile, enrollments continue to grow, but there are still too many Maryland residents without access to literacy and English skills training.

*Maryland Workforce Indicators: 2008* illustrates that despite some challenges, the foundation of Maryland's workforce is solid, resilient and ready to meet the demands of employers. In short, this report shows the continued need for Maryland's government, business, education and workforce development leaders to work together to maintain and grow the highly educated and skilled workforce while creating additional employment and training opportunities for all Marylanders to participate and succeed in the 21st century economy.

#### Editor's Note:

The data presented in this report were taken from publicly available resources, all of which are detailed in the References and Notes section at the end of this report. As with any data report, the figures and facts presented may be subject to revision and updates and may even be outdated at the time of publication (December 2008). This is particularly true given the fast changing events of the current economic crisis.

When researching the indicators to be used in this report the authors made efforts to include measures that were published by reliable sources, were published regularly (allowing for future updates to this report), and could be used to draw comparisons between Maryland, the nation, and other states.



Maryland is the nation's 19th most populous state. Recently, population growth has slowed to 36th in the nation, directly attributable to out-migration to other states. Simultaneously, foreign immigration has countered the out-migration, boosting the state's population. Southern Maryland and the state's Eastern Region experienced the fastest growth over the past seven years.

Key Indicators	Maryland	United States
Population (2007)	5,618,344	301,621,157
Population Growth (2006-2007)	+0.3%	+1.0%
New Citizens and Permanent Legal Residents (2007)	35,869	1,712,892
Net Migration with Other States (2006)	-19,878	Not applicable

Data source: U.S. Census Bureau and ,U.S. Department of Homeland Security, and Maryland Department of Planning

Area	Net Migration with MD (2005-2006)
Washington D.C.	7,354 into MD
New York	3,506 into MD
New Jersey	1,770 into MD
Virginia	-118 away from MD
Delaware	-1,694 away from MD
West Virginia	-2,640 away from MD
North Carolina	-5,171 away from MD
Pennsylvania	-8,849 away from MD

#### Slowing Population Growth, Supported by Immigration

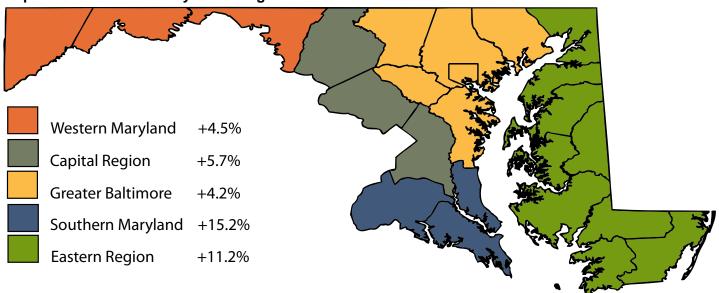
Maryland is the nation's 19th most populous state.

Maryland's population grew by about 1% annually during the 1990's and through 2003, when it began slowing. During 2006-2007, Maryland ranked 36th nationally in population growth.

Foreign immigration played a key role in sustaining Maryland's modest population growth.

For the third consecutive year, outmigration exceeded in-migration into Maryland from other states. Many Maryland residents moved to bordering counties in PA and WV with lower costs of living. Maryland gained residents from NY, NJ, DC, and LA.

Data source: Maryland Department of Planning



#### Population Growth in Maryland's Regions: 2000-2007



Maryland's well-educated population continues to be a major strength of the state's workforce. However, mirroring national trends, employers continue to express considerable concern about the aging of Maryland's workforce. This trend is particularly prevalent within the education and public administration industries. Over the past several years, Maryland's labor force growth has kept pace with the state's job growth.

Key Indicators	Maryland	United States	Workforce is Growing and Highly Educated Maryland's labor force grew by 1.2% between August
Labor Force (August 2008)	3,004,404	152,886,000	2007 and August 2008, keeping pace with the national rate of 1.3%. The five year growth (Aug 2003– Aug 2008) in Maryland was 4.7%, compared with 5.7% for the nation.
Labor Force Participation Rate (2006)	78.2%	74.5%	The state's labor force participation rate, the
% of People with at Least a Bachelor's Degree (2006)	35.1%	27.0%	percentage of working age people who are employed or seeking employment, is the 11th highest in the nation.
% of People with Advanced Degrees (2006)	15.7%	9.9%	Maryland ranks 3rd in the percentage of people with at least a bachelor's degree and 2nd in the percentage of people with advanced degrees.
Data source: U.S. Department of Labor a	and U.S. Census B	ureau	

#### The Aging Workforce

The aging of the workforce is a national concern, especially as the baby-boomer generation approaches retirement age. In 2007, 18% of all Maryland workers were age 55 and older, with the first of the state's 1.5 million baby-boomers beginning to reach the traditional retirement age of 65 in 2011.

Some industry sectors in Maryland, such as education, public administration, and manufacturing, have considerably higher proportions of older workers. Leaders in these industries will need to implement focused strategies to recruit, attract, and retain workers. In addition, these industries must overcome the challenge of "brain drain" - the loss of institutional knowledge that occurs when members of the workforce retire without passing along key information.

#### Industry Sectors in Maryland With the Highest Percentage of Workers Age 55+ in 2007



Data source: GWIB Analysis of U.S. Census Bureau Data



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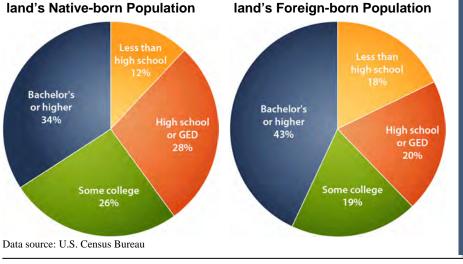
#### At-a-Glance

Immigrants to Maryland come from all over the globe, led by Latin America, Asia, and Africa. These individuals tend to be concentrated at very high or very low educational levels.

Key indicators	Maryland	United States	Maryland's Ranking	Maryland is Home to Many New Americans
Foreign-born Population (2006)	12.2%	12.9%	15th	About one of every eight Maryland residents was born in a foreign country.
Newly Naturalized Citizens (2007)	11,613	660,477	12th	More than 35,000 people became
New Permanent Legal Residents (2007)	24,255	1,052,415	10th	permanent legal residents or U.S citizens in Maryland in 2007.

**Educational Attainment of Mary-**

#### Educational Attainment of Maryland's Native-born Population

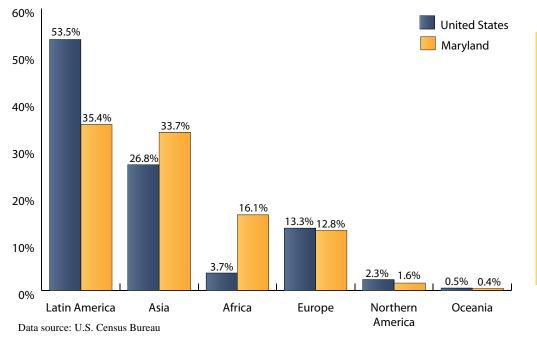


#### Foreign-Born Concentrated at High and Low Educational Levels

Thirty-five percent (35%) of Maryland residents 25 and older have at least a Bachelor's degree, compared to 27% for the nation.

Maryland's foreign born population has a very high percentage of people with bachelor's degrees or greater (43%). At the same time, 18% of Maryland's foreign-born residents lack a high school diploma, about 1.5 times the rate for native-born people.

#### Place of Birth for the Foreign-Born Population



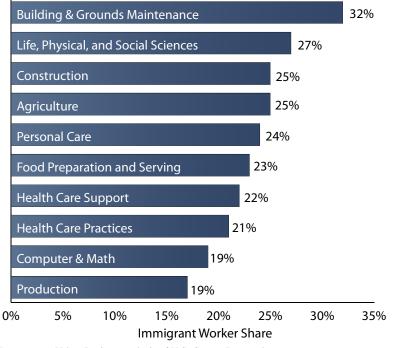
#### Maryland's Immigrants

More than half of the nation's total immigrants come from Latin America. However, only a third of Maryland's immigrant population originate from Latin America.

Maryland has higher proportions of foreign-born residents from Asia and Africa, when compared to the nation's foreign-born population.



#### Occupations With the Highest Concentration of Immigrants: Maryland 2005-2006



Immigrants Account for Significant Portions of the Workforce

About 15% of Maryland's workers are foreignborn. The chart to the left illustrates occupations in which Maryland's immigrants are over-represented. In many instances, these individuals are often over-represented in low-skill occupations such as maintenance, construction, and agriculture, and high-skill occupations such as the sciences, healthcare, and computers.

A recent Urban Institute study showed that highly-skilled, college-educated immigrants in Maryland are often working in unskilled occupations. This mismatch often results from an inability to read and/or write in English, as well as difficulty in transferring foreign credentials and certifications.

Data source: Urban In	nstitute analysis of U.S	. Census Bureau data
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Maryland	United States	Maryland's Ranking
4.9%	4.4%	7th
- / •		
28.9%	12.4%	5th
58.3%	66.2%	46th
6.0%	14.8%	28th
14.9%	19.7%	18th
	4.9% 28.9% 58.3% 6.0%	Maryland States   4.9% 4.4%   28.9% 12.4%   58.3% 66.2%   6.0% 14.8%

# Maryland is Home to Diverse People

Maryland surpasses most states in the diversity of its population.

About one of every six Maryland residents speaks a language other than English at home.

Data source: U.S. Census Bureau



Maryland has the nation's highest household median income and the lowest percentage of people living below the poverty level. However in 2008, Maryland began to experience some of the effects of the nation's economic downturn. Specifically, the state's unemployment rate, while relatively low, began rising during the second quarter. Additionally, the number of people applying for Temporary Cash Assistance began to rise after several years of decline. Mortgage foreclosures also increased in Maryland during the first half of 2008.

Key indicators	Maryland	United States
Median Household Income		
(2006)	\$65,144	\$48,451
Percent of Income Spent on		
Housing Costs (2006)	22%	22%
People Living Below the		
Poverty Level (2006)	7.8%	13.3%
Unemployment Rate: August 2008		
(Seasonally Adjusted)	4.5%	6.1%
	1 in every	1 in every
Foreclosure Event Rate	243	171
(2008, Q2)	households	households

Data source: U.S. Census Bureau, U.S. Department of Labor, and RealtyTrac

**Maryland Leads the Nation in Income** 

Maryland's median household income is the nation's highest.

Maryland's households spend about 22% of their income on housing costs. (Homeowners spent 20% of their income on housing costs, while renters spent about 29%).

Maryland has the nation's lowest percentage of people living below the poverty level.

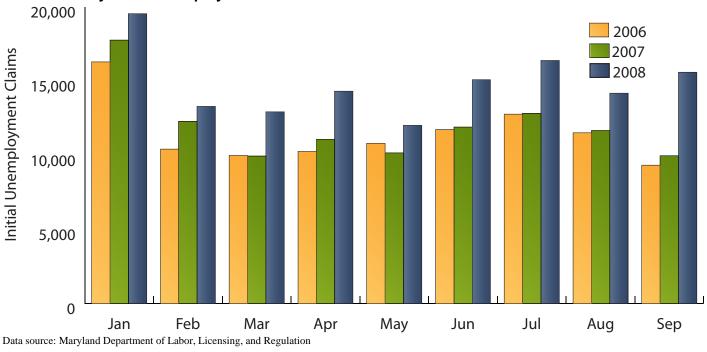
Maryland's unemployment rate is below the national average, but it began rising in 2008.

While below the national average, Maryland's rate of foreclosures is 16th highest in the nation. Maryland's rate grew by 130% between the second quarters of 2007 and 2008.

#### **Unemployment Insurance Claims are Rising**

While Maryland's unemployment rate remains one of the lowest in the nation, the number of workers filing initial unemployment insurance claims during the first nine months of 2008 was 24% higher than the same period in 2007 and 29% higher than the same period in 2006.







#### Temporary Cash Assistance (TCA) Rates in Maryland are Rising

The number of TCA recipients is a leading measure of economic well-being within Maryland. After several years of decline, the number of TCA recipients in Maryland began rising, indicating some negative change in economic conditions. Contributing factors include a national economic downturn, increased mortgage foreclosures, and rising unemployment. Maryland has shown success at moving TCA recipients to economic self-sufficiency, with close to 3/4 of former recipients remaining off of TCA and engaged in the workforce for at least one year.

#### **Temporary Cash Assistance in Maryland**

Time Period	Average Monthly TCA Recipients	Change from Prior Year
FY 2008	51,361	+2.4%
FY 2007	50,138	-14.9%
FY 2006	57,588	-14.2%
FY 2005	65,782	-7.7%

Data source: Maryland Department of Human Resources

#### What is TCA?

Temporary Cash Assistance (TCA) assists needy families with dependent children when available resources do not fully address the family's needs and while preparing program participants for independence through work.

#### **Temporary Cash Assistance**

After falling for several years, the number of people receiving TCA in Maryland began to rise.

In January through July 2008, an average of 52,877 people received TCA, 6.4% higher than for the same period in 2007.

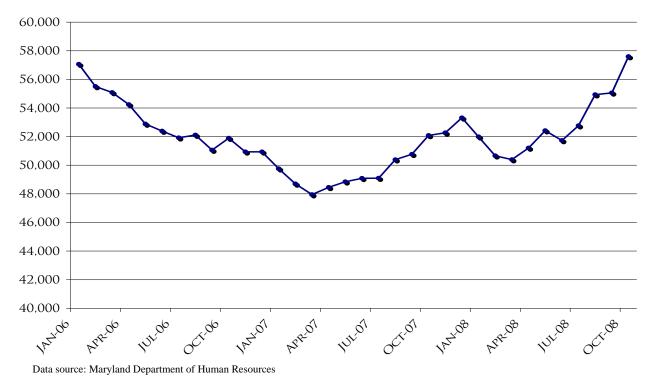
The number of people receiving TCA bottomed out at 47,949 in March 2007. Since then, the number of recipients has risen steadily.

#### **Becoming Economically Self-Sufficient**

Maryland's Department of Human Resources set a goal that at least 65% of families receiving TCA become economically self-sufficient by remaining off of TCA for at least one year.

In 2007 and 2006, 74% of families with an employable parent remained off of TCA for at least one year after their cases were closed.

#### Graph: Number of TCA recipients in Maryland: January 2006 through October 2008



# Maryland's Untapped Workers



#### At-a-Glance

Many Maryland residents are unemployed, underemployed, or facing barriers to employment. This represents a tremendous opportunity to train, educate, and assist this untapped pool of workers for entry or re-entry into the workforce, helping to fill the state's need for skilled workers.

Key Indicators	Maryland
Number of People Receiving Unemployment Insurance (Week of August 16, 2008)	50,221
Youth Ages 16-19, without a High School Diploma and Not Enrolled in School (2006)	21,059
(2000)	21,000
Adults Ages 18-64 with Limited English Proficiency (2006)	237,676
(2006)	237,070
Adults Ages 18-64 without a High School Diploma or Equivalent (2006)	286,551
Ex-offender Releases from County and State Correctional Facilities in Maryland	153,753
People with Disabilities who are not Working (2006)	215,960
Working Age (18-64) Veterans (2006)	313,291

Data sources: Maryland Department of Labor, Licensing, and Regulation, U.S. Census Bureau, and Maryland Department of Public Safety and Correctional Services

#### **Snapshot of Maryland's Untapped Workers**

#### **Unemployed Individuals**

More than 50,000 unemployment insurance checks were issued during the week of August 16, 2008, 39% more than were issued during the same week in 2007.

#### Youth

Of the 330,779 youth ages 16-19 in Maryland, 21,509 (6%) of them do not have a high school diploma and are not enrolled in school. Only about a third (35%) of the out-of-school students without diplomas are working.

#### Individuals with Limited English Speaking Ability

Ten percent (about 238,000) of people ages 18 to 64 in Maryland speak English less than "very well."

#### Working Age People Without High School Credentials More than 286,000 Maryland residents of working age

(18-64) do not have a high school diploma or its equivalent.

#### **Ex-Offenders**

There were 13,424 releases from Maryland's state correctional system and an additional 140,329 releases from Maryland's county jails.

#### **Individuals with Disabilities**

Only 42.5% of working age (16-64) people with disabilities in Maryland were employed during 2006, indicating that there are about 216,000 working age people with disabilities in Maryland who were not employed in 2006.

#### Veterans

Approximately 9% (313,291) of Maryland residents between the ages of 18 and 64 are military veterans.

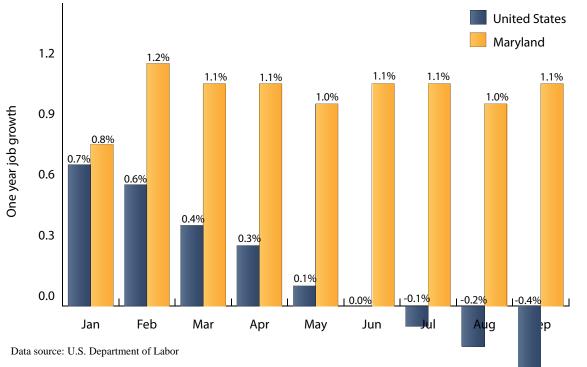


#### At-a-Glance

Maryland witnessed strong job growth between 2002 and 2007, which continued through the first half of 2008, even while the nation's job growth slowed. Industry sectors with the most robust growth included: Aerospace, Bioscience, Construction, Healthcare, Education, and Hospitality and Tourism. Maryland employers continue to stress the need for skilled workers.

GWIB's Targeted N Industry Sectors	Number of Jobs in 2007	Growth 2002-2007	Percent Growth 2002-2007	Maryland Jobs Grew by 5% in 5 Ye
Aerospace	77,821	9,543	14.0%	Between 2002 and 2007, the num jobs in Maryland grew by 4.9%, k
Bioscience	43,038	5,312	14.1%	pace with the national growth rate of
Construction	188,127	19,293	11.4%	All industry sectors, except
Education	231,552	15,405	7.1%	manufacturing, showed employment from 2002-2007. While the number
Energy	20,527	41	0.2%	manufacturing jobs decreased,
Healthcare	271,561	30,261	12.5%	industry's productivity continued to ris to improving technology.
Hospitality & Tourism	241,118	20,816	9.4%	Aerospace, bioscience, and heal
Information Technology	89,799	301	0.3%	grew at the fastest rates. In ad hospitality and tourism, construction
Manufacturing	131,699	-20,413	-13.4%	education added a significant numl jobs.
Retail Trade	296,387	11,676	4.1%	
Transportation & Warehousing	60,494	1,604	2.7%	Maryland added jobs at a rate of abo over the last year. Nationally, ther been slow job growth and losses in th
All Industries in Maryland	2,546,847	118,781	4.9%	nine months of 2008 vs. 2007.

Data source: Maryland Department of Labor, Licensing, and Regulation



#### Job Growth: 2007 to 2008

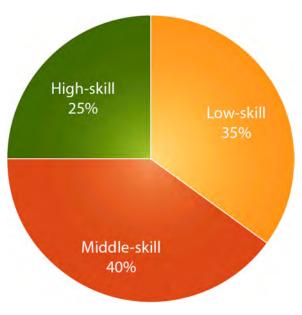


Healthcare and computer occupations represent 12 of the 15 fastest growing occupations in Maryland. Middle-skill and high-skill jobs are the most prevalent jobs in Maryland's economy, accounting for almost two of every three jobs. This indicates the need for workers to continue their training and education past the high school level, in order to gain employment in well-paying and high-demand occupations.

Occupation	Annual Openings	Annual Growth Rate	2014 Projected Employment
Home Health Aides	790	5.6%	17,835
Network Systems and Data Communications Analysts	477	5.0%	11,555
Database Administrators	164	4.3%	4,405
Computer Software Engineers, Applications	613	4.2%	16,685
Medical Assistants	451	4.2%	10,635
Network and Computer Systems Administrators	379	3.9%	10,510
Dental Assistants	290	3.9%	6,025
Computer Software Engineers, Systems Software	636	3.7%	18,465
Paralegals and Legal Assistants	205	3.7%	6,210
Preschool Teachers, Except Special Education	320	3.6%	9,045
Special Education Teachers, Preschool, to Elementary	305	3.6%	6,925
Personal and Home Care Aides	366	3.5%	9,695
Physical Therapists	139	3.4%	4,205
Nursing, Psychiatric, and Home Health Aides	1,756	3.3%	50,300
HR, Training, and Labor Relations Specialists, All Other	160	3.3%	4,275

#### Maryland's Fastest Growing Occupations, Ranked by Annual Growth Rate

Data source: Maryland Department of Labor, Licensing, and Regulation



#### Maryland's Jobs by Skill Level: 2007

#### Middle and High Skill Jobs lead Maryland

Middle-skill jobs make up the largest portion of jobs in Maryland. Typically, these jobs require more than short-term on the job training, but less than a Bachelor's Degree. The median annual salary for a middle-skill job in Maryland during 2007 was \$38,000

High-skill jobs require at least a Bachelor's Degree. The median annual salary for a highskilled job in Maryland during 2007 was \$66,000

On the other hand, low-skill jobs require only short-term on the job training. The median annual salary for a low-skilled job in Maryland during 2007 was \$25,000.



The K-12 system is the beginning of the state's workforce pipeline, putting great emphasis on preparing the next generation of workers. Maryland's education system ranks highly against many national measures, including graduation rate. and Advanced Placement (AP) participation and scores. Additionally, growing enrollments in and completions of Career and Technology Education (CTE) programs are increasing the pipeline of technically-skilled workers.

Key Indicators	Maryland	United States	Maryland's Rank	Maryland Students Rank Highly on Educational Measures
Averaged Freshman				
Graduation Rate (2004-2005)	79.3%	74.7%	20th	Maryland's high school graduation rate is
Public High School Seniors				4.6% higher than the national average.
who Took an Advanced				Maryland has the nation's 3rd highest AP
Placement exam (2007)	35.3%	22.4%	3rd	participation rate, increasing by 2.7% from
Public High School Seniors				2005 to 2006.
Who Scored a 3 or Higher on				
at Least One AP Exam				More than 22% of all public high school
(2007)	22.4%	15.2%	2nd	seniors in Maryland scored a grade of 3 or
K-12 Spending Per Pupil				higher on at least one AP exam — the grade
(2004-2005)	\$11,278	\$10,071	13th	needed to earn college credit for an AP course.
Data sources: The College Board and the U	S. Department of	Education		

#### **CTE in Maryland**

Key indicators	2007	2006				
Students Who Completed CTE programs	15,040	13,974				
% of CTE Completers Who Met the University System of Maryland's Admissions	51 09/	50.4%				
Requirements	51.0%	50.4%				
Data source: Maryland State Department of Education						

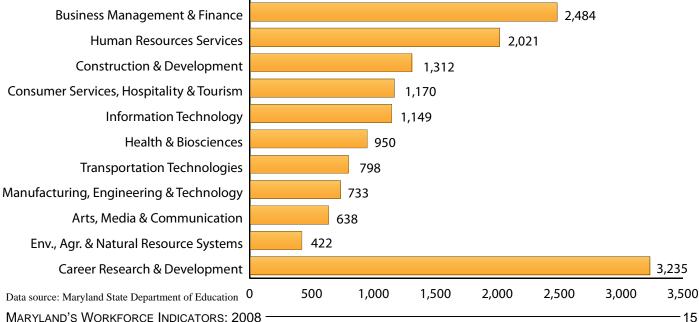
#### What is CTE?

CTE is a rigorous program of career and technical study that prepares students for both college and careers in highwage / high-skill occupations. It is focused around 11 career clusters.

CTE enrollment in Maryland grew by 7.6% between 2006 and 2007.

About half of the students who complete a CTE program also meet the admissions requirements for the University System of Maryland.

#### 2007 Maryland CTE graduates by Career Cluster





Adult learning is critical to developing Maryland's workforce and closing the skills gap for the 730,000+ Maryland residents who do not have a high school diploma or have limited English speaking ability. Adult education programs support workforce preparation by allowing underskilled and undereducated adults to upgrade their skills and gain employment in more highly skilled occupations. Enrollments in adult education and GEDs awarded have increased in recent years, yet Maryland lags the nation in the percentage of adults in need of education who are served. Expansion of current programs is needed to more fully meet the needs of adult learners in Maryland.

#### Adult Education Enrollment and Diplomas/GED in MD

Key Indicators	FY 2007	FY 2006	FY 2005
Adult Basic Education (ABE) Enrollment	18,445	17,098	13,981
Adult Secondary Education (ASE) Enrollment	4,938	5,360	5,776
English as a Second-Language (ESL) Enrollment	16,355	13,816	12,290
GEDs and Adult High School Diplomas Awarded	6,175	5,823	5,776

Data source: Maryland State Department of Education

Key indicators	Maryland	United States
Adult Basic Education (ABE) Enrollment Per 1,000 Adults with Less than a High School Diploma (2005)	71.1	101.7
English as a Second Language (ESL) Enrollment Per 1,000 Adults with Little or No English Proficiency (2006)	89.5	113.8
GEDs Awarded Per 1,000 Adults with Less than a High School Diploma	7.0	0.7
(2005) Data source: Council for Adult and Experiential Learn	7.0 ning analysis of U.S	8.7 . Census Bureau data

# Adult Education Enrollment in Maryland Growing, Lags Other States

Enrollments in adult basic education increased in recent years, while enrollments in adult secondary education declined from 2005 through 2007.

Maryland also witnessed an increase in the number of adult high school diplomas and GEDs awarded.

English as a Second Language enrollment has also recently increased. Around 9% of Maryland residents with limited English proficiency are enrolled in ESL classes. The national average is more than 11%

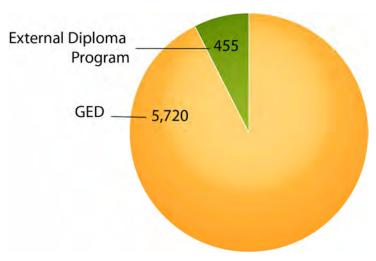
About 7% of Maryland adults with less than a high school diploma are enrolled in adult basic education. The national average is 10.17%.

#### **Adult High School Diplomas**

The General Education Development (GED) test is the most popular method for adults who earn a high school credential. In FY 2007, 5,720 Maryland adults passed the GED test. Among them were 695 incarcerated individuals who passed their GED tests as part of the correctional education high school diploma program.

In addition to the GED, Maryland also offers the External Diploma Program (EDP). This program allows participants to earn high school diplomas by demonstrating their mastery of 65 reading, writing, and mathematical competencies through life-experiences. Maryland is one of only 11 states, and the District of Columbia, to offer this program. There are 15 EDP sites across Maryland. In FY 2007, 455 adults in Maryland earned a high school diploma through the External Diploma Program.

#### Adult High School Credentials Awarded in Maryland During FY 2007



Data source: Maryland State Department of Education



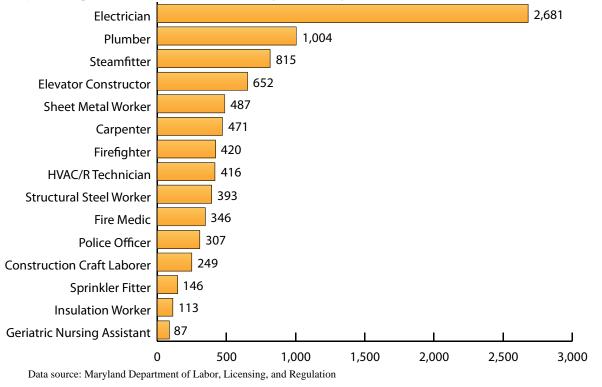
Apprenticeship programs are important resources used to prepare a pipeline of workers for high-paying careers in high-demand, technical and skilled trade occupations. Enrollment in Maryland's apprenticeship programs has increased in recent years, while completions have declined.

		United	
Key Indicators	Maryland	States	Enrollments Rising, Completions Declining
Newly Registered Apprentices			
(2007)	4,070	192,128	The number of active apprentices in Maryland
Newly Registered Apprentices			increased by 18% between 2005 and 2007.
(2006)	3,267	188,006	This increase is largely due to the growth in
Newly Registered Apprentices			Maryland's construction sector, which accounts
(2005)	2,563	151,632	for the majority of the state's apprenticeships.
Data source: U.S. Department of Labor			
Dum sourcer ellor D'opartment of Davor			Simultaneously, completions of apprenticeship
		United	programs in Maryland fell by 18% from 2005 to
Key Indicators	Maryland	States	2007. Apprenticeship programs have
Apprenticeship Completions			experienced high attrition rates in recent years,
(2007)	520	52,520	as many of the most capable potential
Apprenticeship Completions			candidates have chosen to pursue
(2006)	474	58,109	occupational opportunities outside of the skilled
Apprenticeship Completions			trades.
(2005)	638	56,849	
Data source: U.S. Department of Labor			
-			

#### **Registered Apprentices in Maryland**

As of July 2008, there were 9,661 registered apprentices in Maryland, working in over 70 different occupations. More than 3/4 of the apprentices work in construction occupations.





#### MARYLAND'S WORKFORCE INDICATORS: 2008



The number of private career schools in Maryland has increased, along with enrollments. The boom in real estate drove a large portion of the growth in the past few years. Maryland's private career schools have a graduation rate of 69%, and an employment rate of 64%.

Key Indicators	Maryland FY 2006	Maryland FY 2005
Number of Schools	156	163
Number of Programs	316	332
Enrollment	37,223	36,051
Completion Rate	69%	69%
Employment (Placement) Rate	64%	63%

Data source: Maryland Higher Education Commission

#### What are Private Career Schools?

Private career schools are privately owned, postsecondary educational institutions that offer non-degree, occupational training to the general public. Private career schools provide a diverse array of training that responds to changing labor market conditions.

#### School and Enrollment Growth, Coupled With Strong Outcomes

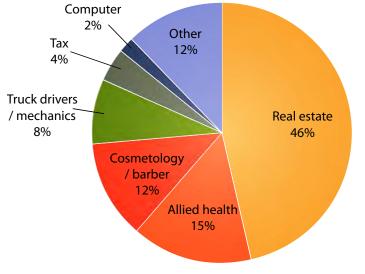
The number of private career schools grew by 26% between 2002 and 2006.

Enrollments grew by 3% from FY 2005 to FY 2006. Enrollment in real estate programs was strong, driven largely by interest in Maryland's hot real estate market.

Completion rates were at a record high 74% in 2002. However, they dropped to 69% in 2004 and have held steady since then. This decline is largely due to decreased enrollments in short-term, high-pass rate computer programs.

Employment rates have risen steadily from 51% in 2002 to 64% in 2006.

#### Enrollments in Maryland's Private Career Schools, by Program Area: FY 2006



Data source: Maryland Higher Education Commission

#### **Enrollment Trends for PCS**

The Maryland Higher Education Commission reported these enrollment trends from FY 2002 to FY 2006.

- 95% increase in real estate enrollments
- 122% increase in allied health enrollments
- 38% increase in cosmetology/ barber enrollments
- 71% decrease in computer/IT enrollments
- 33% decrease in tax preparation enrollments



Community colleges play a significant role in preparing Maryland's future workforce and in upgrading the skill sets of the current workforce. Sixty percent of Maryland high school graduates who attend college in the fall are enrolled at a community college. Enrollments, degrees, and certificates awarded at Maryland's 16 community colleges have been rising.

Key Indicators	Maryland (2006-2007)	Maryland (2005-2006)	Steady Growth in Enrollments and Degrees Awarded
Enrollment	119,655	119,142	Maryland's community college enrollment has risen slowly, by about 10% between fall 1995 and fall 2006.
Associate Degrees Awarded	9,705	9,474	The number of associate degrees awarded at Maryland's
Non-degree Certificates Awarded	2.566	2,242	community colleges increased by 2.4% from 2005-2006 to 2006-2007.
State Funds Spent per Full-Time Equivalent			The number of non-degree certificates rose by about 15% between 2005-2006 and 2006-2007.
Enrollment	\$2,368	\$2,288	
Data source: Maryland Higher Ed	lucation Commission		

#### Students Requiring Remediation in 2004-2005

(Includes 4-year and 2-year Public and Independent Institutions)

	Core students	Non-core students
Incoming Freshmen Requiring Remedial Education in Math	30%	41%
Incoming Freshmen Requiring Remedial Education in English	12%	21%
Incoming Freshmen Requiring Remedial Education in Reading	15%	24%

Data source: Maryland Higher Education Commission

#### **Remedial Education**

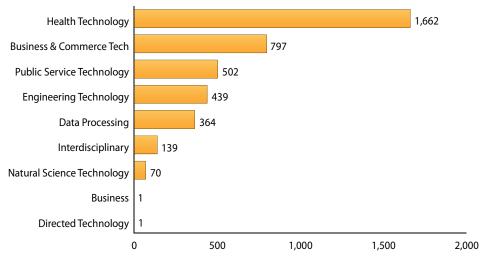
Remedial education is most often required for math courses, followed by reading and English courses.

Students who completed a "core" curriculum in high school required remedial education less frequently than students who did not complete a core curriculum.

\*Core students have completed at least: 4 years of English, 3 years of mathematics, 3 years of social science or history, 2 years of natural science, and 2 years of foreign language.

#### **Non-Degree Certificates**

The number of non-degree (also known as lower-division) certificates awarded at Maryland's community colleges has grown significantly over the past 12 years. In response to job market needs, health technology and data processing technology are the fastest growing areas of study.



Data source: Maryland Higher Education Commission

Non-Degree Certificates Awarded in 2007



Maryland's highly-educated workforce is largely due to the state's outstanding public and independent colleges and universities. Public and independent institutions in Maryland awarded more than 25,000 bachelor's and 16,000 graduate degrees in the 2006-2007 academic year. Undergraduate and graduate enrollments and degrees awarded have been rising at Maryland's 4-year colleges and universities.

Key Indicators (Public and Independent)	Maryland (2006-2007)	Maryland (2005-2006)	Strong Increase in Enrollments
Undergraduate Enrollment	137,333	131,399	Undergraduate enrollments increased by 4.5% between fall 2005 and fall 2006.
Bachelor's Degrees Awarded	25,586	25,484	The number of bachelor's degrees awarded in
Graduate Enrollment	62,813	60,148	Maryland has increased every year since 1995. Between 2006 and 2007, the number of degrees awarded increased by 0.4%
Graduate Degrees Awarded	16,530	15,750	Creducto corollment increased by 4.40/
State Funds Spent per Full-			Graduate enrollment increased by 4.4% between fall 2005 and fall 2006, and Maryland
Time Equivalent Enrollment (Public Only)	\$7,910	\$7,541	institutions awarded 16,530 graduate degrees
Data source: Maryland Higher Education Cou	mmission		in 2007, 5% more than in 2006 .

Data source: Maryland Higher Education Commission

#### **Degrees Awarded in Critical Need Areas**

Some of Maryland's greatest needs for skilled workers include: nurses and nursing faculty, workers in STEM (science, technology, engineering, and math) disciplines, and teachers. The following table shows the number of graduates of Maryland colleges and universities in these areas from 2005-2007.

**Nursing:** The Maryland Hospital Association reported a 9.6% vacancy rate for nursing positions at Maryland Hospitals in 2007, an improvement from 13.6% in 2006, yet still higher than the national average of 8.0%. The number of associate and bachelor's degrees awarded in nursing increased by 9% from 2005 to 2006 and then stayed flat from 2006 to 2007.

**STEM:** In addition to the job growth in Maryland's Bioscience and Aerospace sectors, Maryland employers will need workers with STEM skills to fill many of the tens of thousands of science and technical jobs that are moving to the state as part of the most recent Base Realignment and Closure. The number of Bachelor's Degrees awarded in Science, Technology, Engineering, and Mathematics (STEM) decreased by 4% from 2005 to 2006, and decreased by another 3% from 2006 to 2007.

**Education / Teaching:** In 2007, the Maryland State Department of Education hired 4,003 beginning new teachers. Only 1,234 (30.8%) of these teachers received their credentials at a Maryland college or university. Despite an increase in 2006, followed by a decline in 2007, the number of teacher education candidates prepared at Maryland's Institutions of Higher Education has remained relatively steady over the past several years.

#### Graduates of Critical Need Areas: Maryland Colleges and Universities

Program	Maryland 2007	Maryland 2006	Maryland 2005
Nursing Undergraduates (Associate and Bachelor's Degree Graduates)	2,251	2,251	2,068
Nursing Graduates (Master's and Doctoral degrees)	329	243	303
STEM—Science, Technology, Engineering, and Mathematics (Bachelor's Degrees)	4,532	4,694	4,890
Teacher Education Candidates (Undergraduate and Post-Baccalaureate Programs)	2,492	2,716	2,576

Data sources: Maryland Higher Education Commission and Maryland State Department of Education



This chart, provided by the Maryland Higher Education Commission, shows the number of degrees awarded at Maryland institutions in 2006-2007, by major and degree level. Business, education, social science, and health technology were the five most popular major programs.

#### Degrees Awarded in Maryland During 2006-2007, Ranked by Total Degrees Awarded

							Total	Total
	Lower						Degrees	Degrees
	Division					First	Awarded in	Awarded in
Major Program	Certificate	Associate	Bachelor's	Master's	Doctorate	Professional	2006-2007	2005-2006
Business	1	-	4,538	3,794	37	-	8,370	8,084
Education	-	_	1,096	3,215	124	-	5,213	5,020
Social Science	_	-	3,900	984	134	-	5,018	4,940
Health Technology	1,662	1,995	-	-	-	-	3,657	3,369
Health	-	-	1,674	1,182	223	524	3,603	3,506
General Studies Transfer	-	3,187	-	-	-	-	3,187	3,070
Computer Science	-	-	1,874	1,040	60	-	2,702	2,892
Psychology	-	-	1,698	452	54	-	2,204	2,154
Biological Science	-	-	1,568	432	203	-	2,203	2,072
Engineering	-	-	300	798	213	-	2,107	2,127
Interdisciplinary	139	177	1,209	313	19	-	1,857	1,640
Arts	-	-	1,289	302	54	-	1,645	1,636
Business & Commerce Tech	797	820	-	-	-	-	1,617	1,465
Communications	-	-	1,393	81	9	-	1,483	1,535
Letters	-	-	1,227	188	44	-	1,459	1,370
Public Affairs	-	-	736	538	8	-	1,282	1,234
Public Service Technology	502	726	-	-	-	-	1,228	1,167
Arts & Science Transfer	-	1,092	-	-	-	-	1,092	1,090
Business Administration Transfer	-	897	-	-	-	-	897	907
Data Processing	364	487	-	-	-	-	851	933
Law	-	-	186	51	-	558	795	713
Engineering Technology	439	322	-	-	-	-	761	687
Physical Science	-	-	313	176	91	-	580	594
Mathematics	-	-	281	106	38	-	425	444
Languages	-	-	300	38	20	-	358	308
Theology	-	-	97	97	2	57	253	260
Natural Science Technology	70	169	-	-	-	-	239	229
Agriculture	-	-	150	48	15	-	213	229
Home Economics	-	-	180	17	9	-	206	208
Area Studies	-	-	163	20	11	-	194	172
Teacher Education Transfer	-	168	-	-	-	-	168	215
Architecture	-	-	112	34	1	-	147	134
Elementary Educ A.A.T.	-	146	-	-	-	-	146	168
Library Science	-	-		115	1	-	116	122
Engineering Transfer	-	92	-	-	-	-	92	90
Computer Science Transfer	-	83	-	-	-	-	83	113
Early Childhood Educ A.A.T.	-	25	-	-	-	-	25	2
Science Transfer	-	17	-	-	-	-	17	15
Math Transfer	-	5	-	-	-	-	5	4
Secondary Educ. (Math) - A.A.T.	-	5	-	-	-	-	5	1
Secondary Educ. (Spanish) - A.A.T.	-	2	-	-	-	-	2	N/A
Directed Technology	1	-	-	-	-	-	1	3

Data source: Maryland Higher Education Commission



Maryland's local workforce investment areas operate a network of 32 one-stop workforce centers. These centers provide job-seekers and businesses with a full range of services, including: job readiness, job-placement, and business services. In recent years, the efforts of Maryland's one-stop workforce centers have been hampered by decreased federal funding.

Key Indicators	Maryland 2007	Maryland 2006	Increased One-Stop
One-Stop Enrollments	137,840	126,171	More than 137,000 p
One-Stop Job Placements	57,419	46,446	workforce centers in 57,000 people were p
Job Skills Training	4,895	5,420	Job skills training de
Incumbent Worker Training	5,557	6,297	2006 to FY 2007, training decreased to
Business Services Provided	41,227	39,326	period.

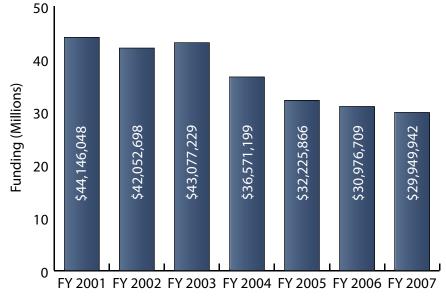
Data source: Maryland Department of Labor, Licensing, and Regulation and Workforce Investment Network for Maryland

#### What is a One-Stop Workforce Center?

Maryland's 32 one-stop workforce centers are part of a nationwide network of 1,773 centers.

One-stop workforce centers provide a variety of services to both job-seekers and employers, helping job-seekers find and prepare for employment and helping businesses recruit, screen, and retain talented employees. The diverse job-seekers enrolling at one-stop workforce centers include a wide-range of people who are looking for employment or training to upgrade their workplace skills.

#### Workforce Investment Act Funds to Maryland



#### Increased One-Stop Workforce Activity

More than 137,000 people enrolled at one-stop workforce centers in FY 2007, and more than 57,000 people were placed into jobs.

Job skills training decreased by 10% from FY 2006 to FY 2007, while incumbent worker training decreased by 12% during the same period.

#### Top Trainings

The most frequently completed trainings at Maryland's one-stop workforce centers align with current occupational needs:

- Information Technology—29%
- Allied Health—19%
- Business Management and Administration—15%
- Skilled Trades—13%

Data source: Maryland Higher Education Commission

#### **Declining Federal Funds**

Federal job training funds, once a major resource for job training, have significantly decreased in Maryland, declining by \$16 million (36%) between 2000 and 2007.

22



The following table illustrates how Maryland compares to nearby states and Washington, D.C. on key workforce indicators.

	Ma <sub>ryiand</sub>	Pennsylvania	Delaware	Washington, D.C	nia	North Carolina
Key Indicator	Maryı	Penn	Delav	Wash	Virginia	Vorth
Population						
Population (2007)	5,618,344	12,432,792	864,764	588,292	7,712,091	9,061,032
Population growth (2002-2007)	3.4%	1.0%	7.4%	1.6%	5.9%	8.9%
Migration from Maryland (2006) Newly naturalized citizens and	Not applicable	8,849	1,694	-7,354	118	5,171
permanent residents (2007)	35,868	34,182	3,179	3,875	43,853	22,075
Workers						
Labor force August 2008	3,016,800	6,403,374	447,046	332,388	4,144,496	4,568,570
Labor force growth (August 2003-2008)	4.7%	4.2%	6.0%	8.7%	8.8%	8.7%
Labor force participation rate (2006)	73.4%	69.5%	70.3%	67.1%	70.8%	68.2%
Adults (25+) with at least a Bachelor's degree	35.1%	25.4%	27.0%	45.9%	32.7%	24.8%
Workers ages 55-64 (2005-2007 average)	15.1%	15.9%	14.7%	12.7%	14.8%	15.1%
Immigration and Diversity						
Foreign-born population (2006)	12.2%	5.1%	8.1%	12.7%	10.1%	6.9%
Newly naturalized citizens (2007)	11,613	11,371	1,094	1,334	14,171	6,606
New permanent legal residents (2007)	24,255	22,811	2,085	2,541	29,682	15,469
Asian (2006)	4.9%	2.3%	2.9%	3.4%	4.8%	1.8%
Black or African-American (2006)	28.9%	10.4%	20.7%	55.4%	19.6%	21.4%
White, non-Hispanic (2006)	58.3%	82.0%	68.8%	31.6%	67.6%	67.7%
Hispanic or Latino (2006)	6.0%	4.2%	6.3%	8.2%	6.2%	6.7%
Speak a language other than English at home (2006)	14.9%	9.2%	12.1%	15.3%	13.1%	9.6%
Income, Affordability, and Unemployment						
Median household income (2006)	\$65,144	\$46,259	\$52,833	\$51,847	\$56,277	\$42,625
Percent of income spent on housing costs (2006)	22.2%	20.7%	19.8%	22.3%	21.1%	19.8%
People living below the poverty level (2006)	7.8%	12.1%	11.1%	19.6%	9.6%	14.7%
Unemployment rate (August 2008)	4.5%	5.8%	4.8%	6.9%	4.6%	6.9%
Foreclosure rate (number of households per foreclosure): Q2, 2008	243	524	633	241	228	383

# State Comparisons



	Maryland	Pennsylvania	Delaware	Washington, D.C.	Virgin <sub>ia</sub>	North Carolina
Key Indicator	Mar	Pen	Delé	M <sub>as</sub>	Virg	Nor.
Industry Job Growth						
Job growth (2002-2007)	4.9%	2.7%	5.3%	4.1%	7.9%	8.3%
K-12 Education						
Average freshman graduation rate (2000-2001 freshmen)	79.3%	82.5%	73.1%	68.8%	79.3%	72.6%
% of public high school seniors who took an advanced placement exam (2007)	35.3%	17.7%	27.4%	39.7%	34.4%	31.9%
% of public high school seniors who scored a 3 or higher on at least one AP exam (2007)	22.4%	11.7%	14.5%	8.1%	21.5%	18.5%
K-12 spending per pupil (2004-2005	\$11,278	\$11,723	\$12,621	\$15,315	\$10,030	\$7,854
Adult Education						
Adult Basic Education enrollment per 1,000 adults with less than a high school diploma	71.1	71.5	92.1	Data not available	50.8	133.2
English as a second language enrollment per 1,000 adults w/ limited English proficiency	89.5	108.7	109.5	Data not available	89.0	156.1
GED's awarded per 1,000 adults with less than a high school diploma	7.0	10.0	4.3	Data not available	12.9	9.6
Apprenticeship Programs						
Newly registered apprentices (2007)	4,070	6,008	795	1,523	5,462	4,037
1 year change in newly registered apprentices	24.6%	2.1%	-10.3%	7.3%	-10.5%	-22.5%
Completions (2007)	520	4,119	203	296	2,073	3,569
1 year change in completions	9.7%	35.2%	24.5%	-13.2%	4.1%	-9.0%
Higher Education						
Associate degrees awarded (2005-2006)	10,131	26,282	1,328	1,105	15,987	19,420
1 year change in associate degrees awarded	3.0%	2.6%	5.2%	147.2%	7.1%	5.2%
Bachelor's degrees awarded (2005-2006)	25,693	79,791	5,410	10,556	38,775	39,969
1 year change in bachelor's degrees awarded	2.7%	2.6%	3.1%	14.8%	4.9%	1.7%
Graduate degrees awarded (2005-2006)	15,924	35,727	2,705	12,626	17,475	15,673
1 year change in graduate degrees awarded	2.9%	4.2%	4.0%	4.4%	4.4%	5.8%

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#### **State Comparisons**

With the following exceptions, all state comparisons use the same data sources as the respective, preceding sections of this report

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