

***Maryland's Business Climate  
and Vulnerability to Federal Downsizing***

presented by

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Summer 2011



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# *Executive Summary*



## **Introduction**

This report highlights a quandary that faces Marylanders during the second decade of the 21<sup>st</sup> century. A number of factors have conspired to jeopardize Maryland's economic prosperity. First among them is the anticipated decline in the level of federal spending in future fiscal years. The second factor is Maryland's flawed business climate, which has served among other things to create even more dependence on federal activities due to disappointing levels of private investment and technology commercialization.

This report begins with a discussion of the extent of dependence of Maryland's economy on federal activities and the growth in that dependence over time. It then discusses Maryland's key economic development assets, including its concentration of human capital. It concludes with a discussion of Maryland's business climate and the various issues that arguably deter private investment and job creation here.

## **Public Policy has Dramatically Impacted the Structure of Maryland's Economy**

Maryland's adjacency to the District of Columbia has predictably created a symbiosis between the state's economy and the activities of the federal government. This symbiotic relationship has strengthened over time and will continue to expand due to base realignment and cyber-security.

The State of Maryland has come to rely heavily upon the federal government as a source of economic vitality. But the state's economy is now jeopardized by the unraveling of this relationship as the federal government prepares to deal with an accumulated national debt of more than \$14 trillion; a debt that is poised to expand a bit further in the years ahead before reversing course.

Because of the presence of the federal government and its historic expansion, the State has arguably taken prosperity for granted. The business climate has become unappealing, which has translated into outmigration from Maryland to other states of both people and businesses. Over the past year for which data are available, the state has added just 1,300 jobs, which ranked the state 44<sup>th</sup> in the nation along this dimension (April 2010 versus April 2011).

The business climate is associated with high taxes, high energy costs, high land costs, collective bargaining, health insurance mandates and a poor reputation. If the federal government begins to downsize as expected in future fiscal years, Maryland will need to attract significant private sector investment to offset the loss in economic activity associated with federal downsizing.

However, Maryland is not properly positioned to take advantage of its array of economic development amenities, including its scientific and technical talent, its highly competitive public school system, intermodal transportation network, phenomenal spending power, and high quality of life. Each of these assets should individually and collectively make Maryland more appealing to business, but conducting business here has become far more difficult than it should be.



Perhaps this explains why Maryland is so weak in the area of commercialization. According to the Milken Institute (2010), Maryland ranks second in the nation in terms of technology and science work force and fifth in terms of technology concentration and dynamism. However, the state often ranks in the lower half of states in terms of technology commercialization. This suggests that Maryland generates a considerable share of the nation's innovation, but businesses often choose to commercialize their technologies elsewhere, perhaps in states offering more favorable tax and regulatory policies.

The state is also associated with lengthy commutes, which compromises productivity and quality of life, despite Maryland's status as a geographically compact and highly urban community. Data from 2009 indicate that Marylanders suffer the second-longest commutes in the nation. Many of the longest commutes are associated with Western Maryland and the Eastern Shore, which implies that these parts of the state do not supply enough jobs to residents, forcing many to commute long distances into major metropolitan areas.

### **Dependence of Federal Government Cannot Last**

Based on a potential scenario discussed in the report and based upon recent recommendations promulgated by the National Commission on Fiscal Responsibility and Reform, Sage found that a reduction in spending of 22 percent in federal procurement in Maryland, grants and wages and salaries would collectively result in the loss of nearly 150,000 jobs in Maryland. These jobs are

associated with nearly \$11 billion in annual labor income and nearly \$21 billion in local business sales. To put that into perspective, if such a loss occurred, Maryland would lose more than a decade worth of job expansion, with employment returning to April 1999 levels.

All things being equal, Maryland's unemployment rate would rise from 6.8 percent (April 2011; based on 203,400 unemployed persons) to 11.8 percent. Only Nevada (12.5 percent) would be associated with a higher rate of unemployment. Furthermore, under this scenario, State and local



governments in Maryland would collect roughly \$1.2 billion less in taxes per year, including a loss approaching \$400 million in personal income tax collections. Property taxes would decline by roughly \$260 million while sales tax collections would plummet by \$240 million per annum.

While this scenario seems unimaginable, it must have been the case that the people of Michigan in the 1960s and 1970s could scarcely conceive of the events of the past three decades and in recent years. In 2000, Michigan still ranked 19<sup>th</sup>

in the nation in terms of per capita income. By 2005, this rank had fallen to 31<sup>st</sup> and by 2010 to 36<sup>th</sup> as the auto industry continued to contend with foreign competition and a severe reduction in domestic vehicle sales. Maryland's principal industry is the federal government and that is now the American industry most likely to downsize in the years ahead.

### **One Thing Leads to Another: Economic Losses will Produce Broader Impacts**

The loss of the federal government as a primary generator of economic activity would cause various aspects of the state's quality of life to fall apart. For instance, Maryland's demographics are associated with high income levels and levels of educational attainment. However, much of this explained by the presence of heavily federally oriented jurisdictions such as Montgomery, Howard and Anne Arundel counties. Were these counties to encounter substantial federal downsizing, the trajectory of economic affairs would be fundamentally altered.

Much of Maryland income is derived from federal activities. The families associated with these activities tend to be highly educated and their children tend to excel in school. This helps

explain Maryland's lofty rankings in terms of educational attainment and public school performance. But if those families leave Maryland because of a loss of economic opportunity, this would lead to fundamental shifts in the nature of Maryland's societal performance, including in the form of diminished test scores, graduation rates and educational attainment. That in turn would produce additional negative impacts on the state's economy.

### **All is not Lost: Growth Opportunities Abound**

At the same time, there are enormous opportunities for growth. Some of these are tied to the federal government, however. For instance, the State of Maryland has correctly identified life sciences as a source of innovation and high-wage job expansion going forward, but much of this expansion is tied to future NIH grant funding. Similarly, the State has identified cyber security as a major economic driver, particularly given the announcement that the Department of Defense's Cyber Command will be located at Fort Meade in Anne Arundel County. If anything, initiatives around the life sciences and cyber security will only enhance Maryland's dependence upon federal spending.

Correspondingly, Marylanders need to strongly consider potential paths toward economic diversification. This could include efforts to make Maryland more of a player in alternative energy, including through the attraction of waste to energy plants and onshore wind facilities and through the attraction of firms involved in logistics/inventory management. Other possibilities include high-tech manufacturing, but this would involve creating an environment associated with more favorable energy prices, a thorough review of the state's labor union laws and the retraining of the state's workforce, including in rural communities.



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## *The Role of the Federal Government Defines Maryland's Economic Landscape*



### *Implications*

*This section highlights how important the federal government has become as a driver of economic activity in Maryland. Just as Detroit has historically been associated with the auto industry, Pittsburgh with steel, and North Carolina with tobacco, Maryland depends heavily upon federal spending as the primary source of shared well-being. However, just as Detroit, Pittsburgh and North Carolina have been forced to undergo jarring transformations, Maryland will need to adjust as well as the federal government works to reduce a national debt that is now well in excess of \$14 trillion.*

One of Maryland's most advantageous locational characteristics historically has been its adjacency to Washington, D.C. As the federal government has expanded, so too has Maryland's advantage vis-à-vis the nation in terms of income, diminished unemployment and deal from government-related procurement. In FY2009, Maryland benefitted from \$27.4 billion in federal procurement, \$13.2 billion in federal salaries and wages, and \$11.8 billion in federal grants.

## **Stress Test Number One – Federal Government Downsizing and Potential Impact on Economic Activity in Maryland**

To test our vulnerability to future federal government downsizing, we assessed the impact of 22% declines in these spending levels, which translates into \$8.6 billion in lost procurement and grants as well as \$2.9 billion in federal salaries and wages. This assessment utilized IMPLAN modeling software, which embodies economic multipliers specific to Maryland's economy.

The 22% figure was based upon an extrapolation of the recommendations submitted by the National Commission on Fiscal Responsibility and Reform, which were submitted in December 2010. Among other things, the Commission recommended nearly \$4 trillion in deficit reduction through 2020, reduction in debt to 60 percent of GDP by 2023 and to 40 percent by 2035. As the exhibit below shows, a reduction in spending of 22 percent would result in the loss of nearly 150,000 jobs in Maryland. These jobs are associated with nearly \$11 billion in annual labor income and nearly \$21 billion in local business sales. To put that into perspective, if such a loss occurred, Maryland would lose more than a decade worth of job expansion, with employment returning to April 1999 levels.

### **Exhibit 1. Economic impact of 22 percent decrease in federal government spending in procurements, grants, and salaries and wages**

	<i>Jobs</i>	<i>Labor Income (\$millions)</i>	<i>Business Sales (\$millions)</i>
<i>Direct Effect</i>	82,328	\$7,401.1	\$11,245.7
<i>Indirect Effect</i>	19,330	\$1,106.8	\$3,051.3
<i>Induced Effect</i>	46,831	\$2,134.0	\$6,478.7
<i>Total Effect</i>	148,489	\$10,641.9	\$20,775.7

Source: Sage Policy Center

## **Dependence on Federal Government is Massive**

Exhibit 2 shows that federal government employment as a percentage of total employment is larger here than in even Virginia, while Exhibit 3 reflects how reliant upon federal employment Maryland's population has become. The data in Exhibits 2 and 3 do not reflect the role of the federal government in creating jobs in the non-profit and federal contracting sectors. In other words, the data do not reflect the role of NIH grants upon employment at Johns Hopkins or the role of the Department of Defense on employment at Lockheed Martin or Northrop Grumman.



**Exhibit 2: Federal government employment as percent of total employment, 2010**

Rank	State	%	Rank	State	%	Rank	State	%
1	District of Columbia	29.4	18	Arizona	2.5	35	North Carolina	1.9
2	Hawaii	5.9	19	Colorado	2.5	36	Nebraska	1.8
<b>3</b>	<b>Maryland</b>	<b>5.6</b>	20	Mississippi	2.5	37	Louisiana	1.8
4	Alaska	5.4	21	Kentucky	2.4	38	Ohio	1.7
5	Virginia	4.8	22	Rhode Island	2.3	39	Nevada	1.7
6	New Mexico	4.2	23	Vermont	2.3	40	Illinois	1.6
7	Montana	3.5	24	Missouri	2.3	41	New Jersey	1.6
8	Oklahoma	3.3	25	Idaho	2.2	42	Massachusetts	1.6
9	West Virginia	3.3	26	Kansas	2.1	43	New York	1.5
10	Utah	3.2	27	Texas	2.0	44	Indiana	1.5
11	Alabama	3.1	28	Tennessee	2.0	45	Michigan	1.5
12	South Dakota	3.0	29	Florida	2.0	46	Delaware	1.5
13	Wyoming	2.8	30	Arkansas	2.0	47	Minnesota	1.3
14	Georgia	2.8	31	Pennsylvania	1.9	48	Iowa	1.3
15	Washington	2.7	32	California	1.9	49	New Hampshire	1.3
16	North Dakota	2.7	33	South Carolina	1.9	50	Connecticut	1.2
17	Maine	2.6	34	Oregon	1.9	51	Wisconsin	1.1

Source: BLS

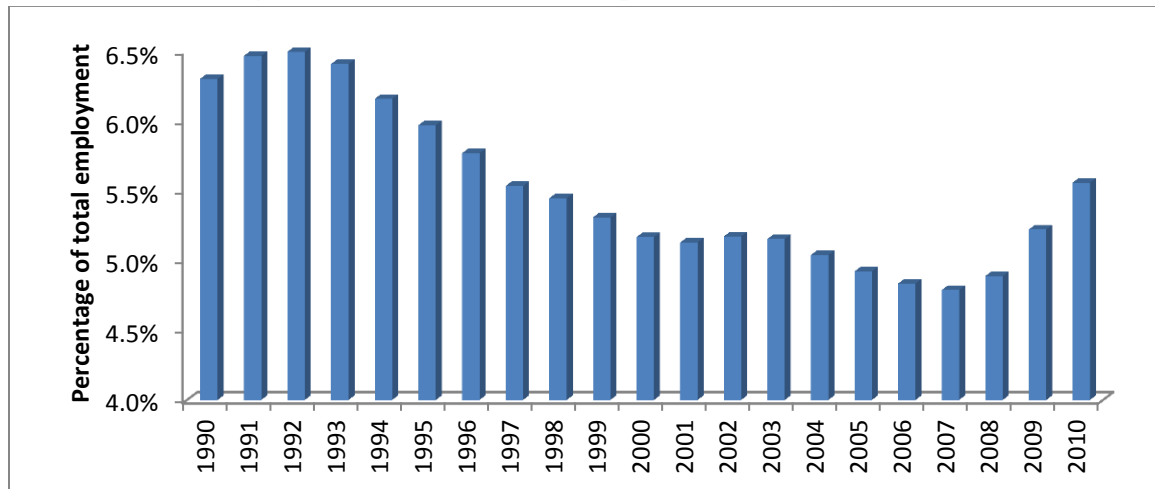
**Exhibit 3: Federal government employees per 1,000 population, 2010**

Rank	State	Rate	Rank	State	Rate	Rank	State	Rate
1	District of Columbia	347.7	18	Georgia	11.0	35	Florida	7.6
2	Hawaii	25.6	19	Vermont	10.9	36	South Carolina	7.5
3	Alaska	24.6	20	Rhode Island	10.1	37	Louisiana	7.4
<b>4</b>	<b>Maryland</b>	<b>24.2</b>	21	Missouri	10.0	38	Ohio	7.3
5	Virginia	21.8	22	Kentucky	9.8	39	California	7.2
6	New Mexico	16.4	23	Kansas	9.8	40	Illinois	7.1
7	North Dakota	15.2	24	Nebraska	9.5	41	New Jersey	7.0
8	Montana	15.0	25	Arizona	9.4	42	Nevada	6.9
9	South Dakota	14.7	26	Mississippi	9.2	43	New York	6.8
10	Wyoming	14.2	27	Pennsylvania	8.6	44	Delaware	6.8
11	Utah	13.6	28	Idaho	8.6	45	Minnesota	6.6
12	Oklahoma	13.5	29	Texas	8.3	46	Indiana	6.5
13	West Virginia	13.1	30	Tennessee	8.2	47	Iowa	6.3
14	Alabama	12.3	31	Oregon	7.9	48	New Hampshire	6.1
15	Maine	11.7	32	Arkansas	7.8	49	Michigan	5.8
16	Washington	11.2	33	Massachusetts	7.7	50	Wisconsin	5.5
17	Colorado	11.1	34	North Carolina	7.6	51	Connecticut	5.5

Source: BLS, 2010 Census

Exhibit 4 reveals how important the federal government has been to supporting economic activity in Maryland during a period of economic dislocation. But the Exhibit also stands for the proposition that Maryland has become more susceptible to federal government spending adjustments in the face of an annual deficit that will total roughly \$1.5 trillion this year.

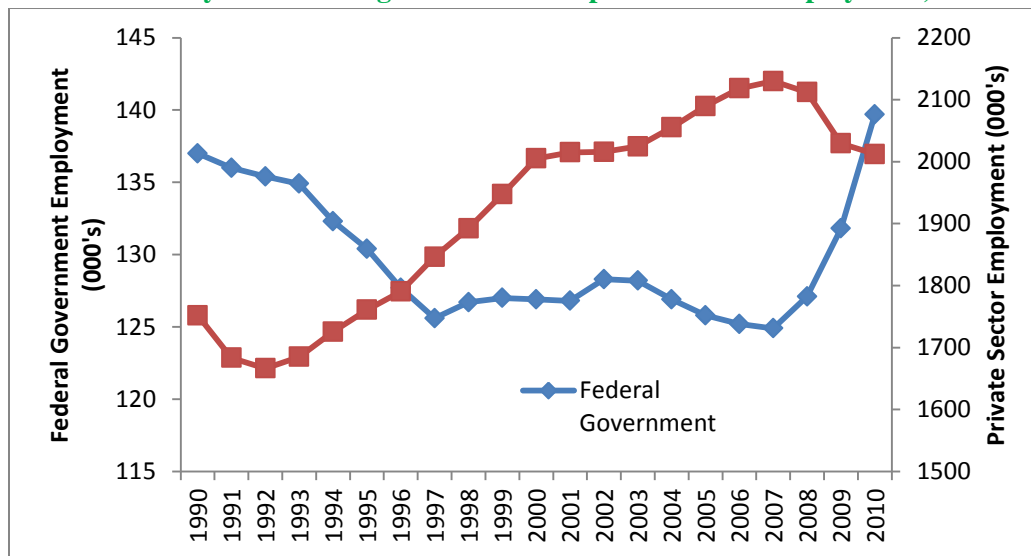
**Exhibit 4: Federal government share of total employment in Maryland, 1990-2010**



Source: Bureau of Labor Statistics

Exhibit 5 provides a sense of a megatrend in Maryland, with private sector employment slumping as federal government employment expands. It may be that the ongoing expansion of federal activities has hidden from view many of the major economic challenges that Maryland faces in its economic development competition with other states and the balance of the world.

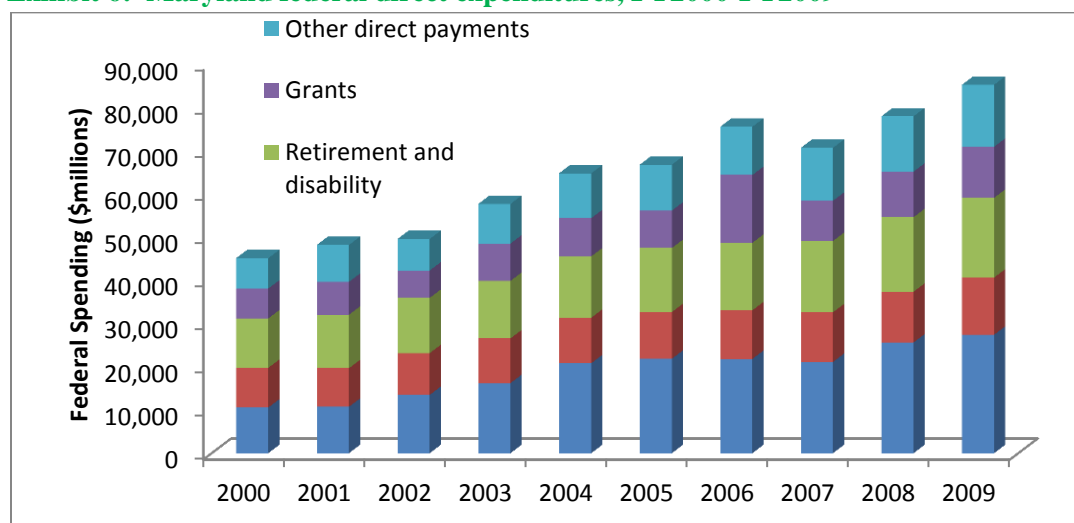
**Exhibit 5: Maryland federal government and private sector employment, 1990-2010**



Source: Bureau of Labor Statistics

Exhibit 6 shows that the growth in federal direct expenditures in Maryland in recent years is largely attributable to growth in federal procurement. This implies that the private sector would be quite vulnerable to any reduction in procurement given how important it has become as an economic driver, which is what the IMPLAN analysis above is designed to highlight.

**Exhibit 6: Maryland federal direct expenditures, FY2000-FY2009**



Source: U.S. Census Bureau

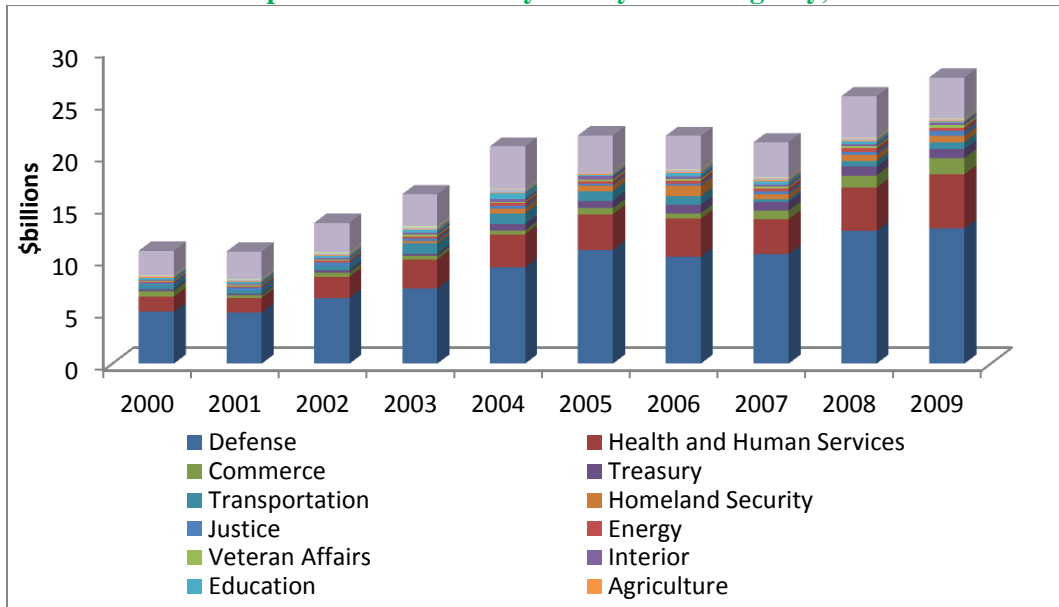
Exhibit 7a shows that in terms of federal procurement and salaries/wages, Maryland ranks 2<sup>nd</sup> and 4<sup>th</sup>, respectively, in terms of per capita federal spending. In other words, Maryland's heavy reliance upon the federal government is about far more than direct agency employment. During the recent downturn, the elevated presence of the federal government in Maryland's economic affairs represented a boon. Today, it arguably reflects the state's greatest economic development liability if one presumes that federal government is poised to decline in real terms going forward. Exhibit 7b provides a detailed breakdown of federal procurement in recent fiscal years.

**Exhibit 7a: Major federal direct expenditures, United States and Maryland, FY2007**

Type of Direct Expenditure	Total Amount (\$bil)	Percent Total		Per Capita		Rank
		MD	US	MD	US	
Retirement and Disability	\$16.5	23.4%	30.0%	\$2,937	\$2,571	13
Other Direct Payments	12.2	17.3%	22.9%	2,179	1,926	11
Grants	9.3	13.2%	19.4%	1,656	1,624	20
Procurement Contracts	21.1	29.9%	17.2%	3,756	1,393	2
Salaries and Wages	11.4	16.2%	9.9%	2,041	825	4
<b>Total</b>	<b>\$70.5</b>			<b>\$12,569</b>	<b>\$8,339</b>	<b>3</b>

Source: Maryland Department of Legislative Services<sup>1</sup>; 2007 Consolidated Fed Funds Reports, U.S. Census Bureau

<sup>1</sup> <http://mlis.state.md.us/2010rs/misc/ImpactFederalGov.pdf>.

**Exhibit 7b: Federal procurement in Maryland by federal agency, 2000-2009**

Source: U.S. Census Bureau

Exhibit 8 indicates that in FY2009, the federal government spent more than \$16,100 per capita in Maryland, which ranks behind only three states and the District of Columbia. In 2009, per capita income in Maryland was \$34,389, which means that federal spending in the state equaled 47 percent of income that year.

**Exhibit 8: Federal spending per capita, FY2009**

Rank	State	\$ Spent	Rank	State	\$ Spent	Rank	State	\$ Spent
1	Washington, DC	83,196	18	Mississippi	11,127	35	Florida	9,477
2	Alaska	20,352	19	Rhode Island	10,935	36	Arkansas	9,449
3	Virginia	19,734	20	Tennessee	10,887	37	California	9,360
4	Hawaii	19,001	21	West Virginia	10,885	38	Ohio	9,354
<u>5</u>	<u>Maryland</u>	<u>16,169</u>	22	Wisconsin	10,837	39	New Jersey	9,262
6	New Mexico	13,670	23	Maine	10,803	40	Michigan	9,228
7	North Dakota	13,323	24	Louisiana	10,765	41	Nebraska	9,198
8	Massachusetts	12,723	25	Pennsylvania	10,765	42	Delaware	9,193
9	Kansas	12,312	26	South Carolina	10,283	43	Texas	9,164
10	Connecticut	12,105	27	Oklahoma	10,175	44	North Carolina	9,043
11	South Dakota	11,693	28	Washington	9,988	45	Illinois	8,990
12	Alabama	11,611	29	New York	9,978	46	New Hampshire	8,942
13	Kentucky	11,593	30	Iowa	9,764	47	Oregon	8,781
14	Wyoming	11,535	31	Idaho	9,638	48	Minnesota	8,676
15	Vermont	11,406	32	Arizona	9,556	49	Georgia	8,538
16	Missouri	11,347	33	Indiana	9,520	50	Utah	7,435
17	Montana	11,205	34	Colorado	9,514	51	Nevada	7,148

Source: U.S. Census Bureau

Exhibit 9 shows that Maryland is heavily dependent upon civilian federal government spending, though much attention is given by policymakers and stakeholders to military spending. Along this dimension, Maryland is even more dependent upon federal spending than Virginia.

#### Exhibit 9: Civilian federal government share of state GDP, 2008

Rank	State	%	Rank	State	%	Rank	State	%
1	District of Columbia	28.1%	18	Missouri	2.4%	35	Louisiana	1.5%
<u>2</u>	<u>Maryland</u>	<u>7.6%</u>	19	Tennessee	2.3%	36	Massachusetts	1.5%
3	Virginia	5.6%	20	Idaho	2.3%	37	New Hampshire	1.5%
4	Hawaii	5.0%	21	Colorado	2.2%	38	Michigan	1.4%
5	New Mexico	4.2%	22	Arizona	2.2%	39	Illinois	1.4%
6	West Virginia	4.1%	23	Arkansas	2.2%	40	Nevada	1.4%
7	Alaska	3.6%	24	Washington	2.2%	41	Indiana	1.4%
8	Alabama	3.6%	25	Pennsylvania	2.0%	42	New Jersey	1.4%
9	Montana	3.4%	26	South Carolina	1.9%	43	Nebraska	1.4%
10	Utah	3.2%	27	Wyoming	1.8%	44	California	1.4%
11	Maine	3.1%	28	Florida	1.8%	45	New York	1.1%
12	Oklahoma	3.0%	29	Oregon	1.8%	46	Minnesota	1.1%
13	Mississippi	2.8%	30	Ohio	1.7%	47	Wisconsin	1.1%
14	Georgia	2.6%	31	South Dakota	1.7%	48	Iowa	0.9%
15	Vermont	2.6%	32	Kansas	1.7%	49	Delaware	0.9%
16	Kentucky	2.5%	33	Texas	1.6%	50	North Dakota	0.9%
17	Rhode Island	2.4%	34	North Carolina	1.6%	51	Connecticut	0.8%

Source: Bureau of Economic Analysis

On the following page, Exhibit 10 provides statistical detail regarding the top 20 federal contractors in Maryland. These are some of Maryland's largest employers. They also happen to provide the state's economy with a disproportionate share of its highest paying jobs.

**Exhibit 10: Top 20 federal contractors in Maryland, federal fiscal years 2004-2008**

<i>Rank</i>	<i>Contractor Parent Company Name</i>	<i>Total Contract (\$millions)</i>	<i>Services and Awarding Agencies</i>	<i>Jobs</i>
1	Lockheed Martin	\$5,259.8	Defense Contractor	9,777
2	Northrop Grumman Corporation	3,746.2	Defense Contractor	11,000
3	SAIC, Inc.	3,420.0	Scientific, Engineering, and Technology R&D operations – NCI-Frederick, DoD, Other Agencies	4,597
4	Computer Services Corporation	3,387.5	Telecomm. Services – IRS, Fed Tech. Services, Other Agencies	1,200
5	Johns Hopkins University	3,180.5	R&D – Defense, NASA, NIH	
6	Textron, Inc.	2,481.8	Defense Contractor, Drones, Aircraft Maintenance and Components	1,097
7	IBM	2,440.9	Accounting Services, ADP and Telecomm Services, CMMS, IRS, Customs, NOAA, SSA, Defense, Other	
8	ARINC Inc.	1,968.6	Defense Contractor – Systems, Engineering, Most Contracts - Army	1,300
9	Westat, Inc.	1,764.6	Survey design and implementation NIH and other health agencies, Dept. Education	1,500
10	Drs. Technologies Inc.	1,540.8	Defense Contractor	
11	URS Corporation	1,530.5	Defense Contractor	900
12	Honeywell International	1,410.3	Aerospace, Defense Contractor	1,425
13	General Dynamics Corporation	1,405.8	Defense – Telecomm, Support, Engineering Services, Navy, Army, other Military and Gov't Agencies	
14	Motorola	1,372.7	Telecommunications Equipment and Services, Defense, Customs and Immigration, Other Agencies	
15	BAE Systems	1,339.1	Defense Contractor	
16	Affiliated Computer Services Inc.	1,087.5	Quality Control Testing Computer Systems, Dept. Education – Student Loan Program	
17	Thales	1,056.3	Defense – Communications Equipment Army, Navy, U.S. Special Operations Command	
18	Hewlett-Packard Company	971.1	ADP equipment, supplies, and Services Defense, Government Agencies	
19	Raytheon	923.8	Hardware and Software Systems; Defense Contractor NASA, NOAA & Other /Ballistic Missile Defense (SM-3)	
20	Association for Research in Astronomy	908.6	Space Telescope Science Institute - NASA	

Source: Maryland Department of Legislative Services



## *Demographics are Suberb Here and the Income is High (but not everywhere)*



### *Implications*

*This section highlights Maryland's superb demographics. Specifically, income and educational attainment are impressive relative to national standards. However, much of this income and educational attainment is concentrated in a handful of communities.*

*Though many embrace the notion of One Maryland, the data reveal a state that is characterized by high levels of income/demographic disparity. As a result, prosperity is not as broadly shared as many people believe. This is true between counties and within counties.*

*Moreover, much of the brain power in Maryland is related directly or indirectly to the presence of federal activities. Correspondingly, should the federal government begin to significantly reduce agency employment along with grants and procurement, Maryland would be positioned to suffer a massive brain drain. Only a productive private sector could limit the extent of that brain drain, but as a subsequent section will indicate, Maryland's private sector is not particularly strong and the business climate here has become unattractive and disrespected.*

## **Stress Test Number Two – Federal Government Downsizing and Potential Impact on Maryland’s Demographics**

To test how vulnerable Maryland’s demographics are to a federal downsizing scenario, we modeled a situation in which Montgomery, Howard and Anne Arundel counties (they presently boast among the nation’s highest incomes) would be disproportionately impacted. Specifically, we modeled what the state’s demographics would look like if these three jurisdictions had income levels consistent with the prevailing income average for the other twenty-one jurisdictions. Under that scenario, Maryland’s per capita income ranking would drop from 6<sup>th</sup> nationally to 13<sup>th</sup>, falling behind states such as New York, Virginia and Washington state. Maryland per capita income would decline by roughly \$6,300. Though this is a highly unlikely scenario, something reminiscent could occur, and this analysis reflects how dominant these jurisdictions (among others) are in terms of raising Maryland’s overall demographic profile.

Moreover, these jurisdictions are also disproportionately home to the state’s top performing students as reflected in the test scores cited below. The implication is that if Maryland’s demographics deteriorate, so too would educational outcomes, threatening the state’s number 1 ranking by *Education Week* and much more.

### For Now, Maryland's Demographics Remain Appealing

According to the latest data from the Bureau of Economic Analysis, the average national per capita income in 2010 was \$40,584. The District of Columbia had the highest per capita income of \$71,044 while Maryland ranked fifth at \$49,025. All things being equal, Maryland's high incomes should be attractive to the retail, entertainment and distribution industries (Exhibit 11). Exhibit 12 reflects the wide disparities in income by Maryland jurisdiction.

#### Exhibit 11: Per capita personal income by state, 2010

Rank	State	Personal Income	Rank	State	Personal Income	Rank	State	Personal Income
1	District of Columbia	71,044	18	Hawaii	41,021	35	Ohio	36,395
2	Connecticut	56,001	19	North Dakota	40,596	36	North Carolina	35,638
3	Massachusetts	51,552	20	Vermont	40,283	37	Michigan	35,597
4	New Jersey	50,781	21	Delaware	39,962	38	Georgia	35,490
5	<u>Maryland</u>	<u>49,025</u>	22	Kansas	39,737	39	Montana	35,317
6	New York	48,821	23	Nebraska	39,557	40	Tennessee	35,307
7	Wyoming	47,851	24	Texas	39,493	41	Arizona	34,999
8	Virginia	44,762	25	Florida	39,272	42	Indiana	34,943
9	Alaska	44,174	26	South Dakota	38,865	43	Alabama	33,945
10	New Hampshire	44,084	27	Louisiana	38,446	44	New Mexico	33,837
11	Washington	43,564	28	Wisconsin	38,432	45	Kentucky	33,348
12	Illinois	43,159	29	Iowa	38,281	46	South Carolina	33,163
13	California	43,104	30	Maine	37,300	47	Arkansas	33,150
14	Minnesota	42,843	31	Oregon	37,095	48	West Virginia	32,641
15	Colorado	42,802	32	Nevada	36,997	49	Utah	32,595
16	Rhode Island	42,579	33	Missouri	36,979	50	Idaho	32,257
17	Pennsylvania	41,152	34	Oklahoma	36,421	51	Mississippi	31,186

Source: Bureau of Economic Analysis

#### Exhibit 12: Per capita income by Maryland jurisdiction, 2007-2009

Rank	Jurisdiction	Income	Rank	Jurisdiction	Income
1	Montgomery County	46,506	13	Worcester County	31,275
2	Howard County	44,205	14	Prince George's County	31,093
3	Talbot County	39,315	15	Kent County	30,809
4	Anne Arundel County	37,792	16	Cecil County	28,651
5	Queen Anne's County	35,960	17	Dorchester County	26,052
6	Calvert County	35,434	18	Wicomico County	25,689
7	Charles County	34,844	19	Washington County	25,420
8	Frederick County	34,592	20	Caroline County	24,665
9	Harford County	33,593	21	Garrett County	24,093
10	St. Mary's County	33,415	22	Baltimore City	23,101
11	Baltimore County	33,322	23	Allegany County	20,782
12	Carroll County	33,121	24	Somerset County	17,422

Source: Maryland State Data Center

### PreK-12 Education is Ranked Highly Here

Maryland ranked 1<sup>st</sup> overall among states for education quality (Exhibit 13). The state ranked 6<sup>th</sup> in the Chance for Success category, 3<sup>rd</sup> in K-12 Achievement, 22<sup>nd</sup> in Standards Assessments & Accountability, 1<sup>st</sup> in Transitions & Alignment, 5<sup>th</sup> in Teaching Profession, and 6<sup>th</sup> in School Finance (Exhibit 14). This should be viewed as an enormous business climate advantage for a number of reasons, including the fact that entrepreneurs, professionals and others are more likely to be drawn to Maryland and remain here to take advantage of educational quality for their children. This in turn stimulates greater business startup activity, job creation and innovation.

#### Exhibit 13: Education Week's quality counts overall state ranking, 2010-2011

Rank	State	Score	Rank	State	Score	Rank	State	Score
<u>1</u>	<u>Maryland</u>	<u>87.6</u>	18	Wisconsin	77.8	35	North Dakota	74.9
2	New York	84.7	19	North Carolina	77.8	36	Minnesota	74.6
3	Massachusetts	82.6	20	Hawaii	77.6	37	Kansas	74.4
4	Virginia	81.8	21	Louisiana	77.6	38	Missouri	73.9
5	Florida	81.5	22	Delaware	77.5	39	Colorado	73.7
6	Arkansas	81.4	23	Tennessee	77.4	40	Illinois	73.0
7	New Jersey	80.7	24	Michigan	77.2	41	Utah	72.4
8	Georgia	80.5	25	Alabama	76.8	42	Arizona	71.5
9	Pennsylvania	80.1	26	Iowa	76.7	43	Oregon	71.5
10	West Virginia	79.9	27	Maine	76.6	44	Idaho	71.2
11	Ohio	79.8	28	New Hampshire	76.3	45	Nevada	70.7
12	Vermont	79.7	29	Wyoming	76.3	46	Alaska	70.7
13	Texas	78.8	30	California	76.2	47	Montana	70.4
14	Indiana	78.6	31	Rhode Island	75.7	48	Mississippi	70.0
15	South Carolina	78.3	32	New Mexico	75.7	49	South Dakota	69.2
16	Connecticut	78.3	33	Washington	75.4	50	DC	69.1
17	Oklahoma	78.1	34	Kentucky	75.2	51	Nebraska	68.6

Source: EPE Research Center, 2010 and 2011 Quality Counts

#### Exhibit 14: Maryland grade and rank by category

Category	Grade	Rank
Overall	B+	1
Chance for Success	B+	6
K-12 Achievement	B-	3
Standards, Assessments, & Accountability	B+	22
Transitions & Alignment	A	1
Teaching Profession	B	5
School Finance	B+	6

Source: EPE Research Center, 2010 and 2011 Quality Counts

## *Sheer Intellect and Institutional Strength is a Maryland Signature*



Marylanders are educated. As Exhibit 15 shows, CNNMoney recently ranked our state as America's second smartest state behind (predictably) Massachusetts. The amassing of intellect is largely attributable to institutional strength, including Johns Hopkins University, several high-profile

University of Maryland campuses, the U.S. Naval Academy, NIH, FDA, NIST, the National Security Agency, the National Cancer Institute and a number of tech-intensive and large private



employers, including Lockheed Martin, MedImmune and Human Genome Sciences, which are all headquartered locally. Cyber-security specialist Sourcefire also calls Maryland home.

**Exhibit 15: America's smartest states, as ranked by CNNMoney**

Rank	State	Residents with advanced degrees	Residents with some college
1	Massachusetts	16.0%	61.8%
<u>2</u>	<u>Maryland</u>	<u>15.6%</u>	<u>61.6%</u>
3	Colorado	12.5%	64.5%
4	Connecticut	15.1%	59.3%
5	Vermont	12.7%	57.9%
6	New Hampshire	11.6%	60.2%
7	Virginia	13.6%	59.1%
8	Minnesota	9.9%	63.0%
9	Washington	10.8%	64.4%
10	New Jersey	12.7%	56.5%

Exhibit 16 indicates that Maryland ranks fourth nationally in terms of the proportion of the population with at least a bachelor's degree. Key competitor states, including Virginia, New Jersey, New York and Delaware are also in the top 20 along this dimension.

**Exhibit 16: Educational attainment by state, percent of population 25+ with bachelor's degree, 2009**

Rank	State	%	Rank	State	%	Rank	State	%
1	District of Columbia	48.5	18	Oregon	29.2	35	South Dakota	25.1
2	Massachusetts	38.2	19	Delaware	28.7	36	Michigan	24.6
3	Colorado	35.9	20	Utah	28.5	37	South Carolina	24.3
<b>4</b>	<b>Maryland</b>	<b>35.7</b>	21	Georgia	27.5	38	Ohio	24.1
5	Connecticut	35.6	22	Montana	27.4	39	Idaho	23.9
6	New Jersey	34.5	23	Nebraska	27.4	40	Wyoming	23.8
7	Virginia	34.0	24	Maine	26.9	41	Tennessee	23.0
8	Vermont	33.1	25	Alaska	26.6	42	Oklahoma	22.7
9	New York	32.4	26	North Carolina	26.5	43	Indiana	22.5
10	New Hampshire	32.0	27	Pennsylvania	26.4	44	Alabama	22.0
11	Minnesota	31.5	28	North Dakota	25.8	45	South Dakota	25.1
12	Washington	31.0	29	Wisconsin	25.7	46	Nevada	21.8
13	Illinois	30.6	30	Arizona	25.6	47	Louisiana	21.4
14	Rhode Island	30.5	31	Texas	25.5	48	Kentucky	21.0
15	California	29.9	32	Florida	25.3	49	Mississippi	19.6
16	Hawaii	29.6	33	New Mexico	25.3	50	Arkansas	18.9
17	Kansas	29.5	34	Missouri	25.2	51	West Virginia	17.3

Source: Census



Maryland's ranking is even higher when one considers advanced degrees (Exhibit 17). Roughly one in six Marylanders boasts an advanced degree (e.g., Master's, Ph.D., MBA, J.D., etc.).

**Exhibit 17: Educational attainment by state, percent of population 25+ with advanced degree, 2009**

Rank	State	%	Rank	State	%	Rank	State	%
1	District of Columbia	28.0	18	Minnesota	10.3	35	South Carolina	8.4
2	Massachusetts	16.4	19	Kansas	10.2	36	Wisconsin	8.4
3	<b>Maryland</b>	<b>16.0</b>	20	Pennsylvania	10.2	37	Montana	8.3
4	Connecticut	15.5	21	Georgia	9.9	38	Indiana	8.1
5	Virginia	14.1	22	Hawaii	9.9	39	Tennessee	7.9
6	New York	14.0	23	Maine	9.6	40	Wyoming	7.9
7	Vermont	13.3	24	Missouri	9.5	41	Alabama	7.7
8	New Jersey	12.9	25	Michigan	9.4	42	Nevada	7.6
9	Colorado	12.7	26	Arizona	9.3	43	Idaho	7.5
10	Illinois	11.7	27	Utah	9.1	44	Iowa	7.4
11	Rhode Island	11.7	28	Alaska	9.0	45	Oklahoma	7.4
12	Delaware	11.4	29	Florida	9.0	46	South Dakota	7.3
13	New Hampshire	11.2	30	Nebraska	8.8	47	Mississippi	7.1
14	Washington	11.1	31	North Carolina	8.8	48	Louisiana	6.9
15	California	10.7	32	Ohio	8.8	49	North Dakota	6.7
16	New Mexico	10.4	33	Kentucky	8.5	50	West Virginia	6.7
17	Oregon	10.4	34	Texas	8.5	51	Arkansas	6.1

Source: U.S. Census Bureau



Two jurisdictions, Howard and Montgomery counties, dramatically skew the state's educational attainment levels higher. Exhibits 18 and 19 reflect the fact that these two jurisdictions are materially different from the balance of the state along this dimension. Educational attainment on the Eastern Shore and Western Maryland generally lags statewide averages with the notable exceptions of Talbot and Kent counties.

**Exhibit 18: Educational attainment by Maryland jurisdiction, percent of population 25+ with bachelor's degree, 2007-2009**

Rank	Jurisdiction	Bachelor's Degree	Rank	Jurisdiction	Bachelor's Degree
1	Howard County	57.1	13	Queen Anne's County	27.1
2	Montgomery County	56.1	14	Charles County	26.5
3	Anne Arundel County	35.9	15	Worcester County	26.2
4	Frederick County	35.5	16	Baltimore City	25.8
5	Baltimore County	34.7	17	Wicomico County	23.4
6	Talbot County	32.1	18	Cecil County	20.0
7	Kent County	30.3	19	Washington County	18.2
8	Harford County	30.1	20	Garrett County	17.7
9	Carroll County	29.8	21	Caroline County	17.6
10	Prince George's County	29.5	22	Dorchester County	16.3
11	Calvert County	28.8	23	Allegany County	15.5
12	St. Mary's County	27.2	24	Somerset County	13.7

Source: U.S. Census Bureau

**Exhibit 19: Educational attainment by Maryland jurisdiction, percent of population 25+ with advanced degree, 2007-2009**

Rank	Jurisdiction	Advanced Degree	Rank	Jurisdiction	Advanced Degree
1	Montgomery County	29.3	13	Queen Anne's County	10.8
2	Howard County	26.8	14	Charles County	9.7
3	Anne Arundel County	14.8	15	St. Mary's County	9.6
4	Talbot County	14.5	16	Wicomico County	9.6
5	Baltimore County	14.4	17	Worcester County	8.3
6	Frederick County	13.3	18	Allegany County	6.9
7	Kent County	12.8	19	Cecil County	6.9
8	Baltimore City	12.2	20	Dorchester County	6.9
9	Prince George's County	11.9	21	Washington County	6.9
10	Calvert County	11.5	22	Garrett County	6.4
11	Harford County	11.5	23	Caroline County	5.0
12	Carroll County	10.8	24	Somerset County	4.4

Source: U.S. Census Bureau

## *Issues of Legal and Illegal Immigration Represent a Challenge*



The Pew Hispanic Center estimates that 250,000 unauthorized immigrants lived in Maryland in 2009. This represented 4.5 percent of the state's total population. Of those 250,000 unauthorized immigrants, 190,000 are estimated to be in the labor force, with these individuals collectively representing 6.3 percent of Maryland's total labor force.

The debate regarding illegal immigrants is well established. Familiar laments pertain to negative fiscal impacts as non-taxpayers consume government services, the dislocation of legal residents from employment, and the general downward pressure on compensation. At the same time, illegal immigrants have many supporters, who cite their contribution to the economy through hard work, productivity and spending power.

As do other states, Maryland continues to wrestle with the issue of illegal immigration. For now, the State appears to have decided to support this population, including by rendering them eligible for in-state tuition at Maryland's prestigious collection of public colleges and universities.

The legal foreign-born population in Maryland represented 12.8 percent of the total population in 2009, or approximately 730,400 people according to the U.S. Census Bureau. The data indicate that 37.6 percent of those 730,400 people originated from Latin America, while 32.8 percent came from Asia, 16.1 percent came from Africa and 12.2 percent from Europe. Roughly 45 percent of the foreign-born population were naturalized U.S. citizens while the remaining 55 percent were not U.S. citizens at that time.

There are a number of issues associated with legal immigration. Generally, legal immigrants (for instance, those on H1-B visas) are highly educated and often have specific technical skill sets in short supply. However, since 9/11, the federal government has been wrestling with issues of homeland security that have slowed legal immigration. This has slowed the formation of the technical labor pool in Maryland and much of the balance of the nation.

Interestingly, some of Maryland's fastest growing industries are not accessible to legal immigrants. For instance, security clearances often require birth in the U.S., including in rapidly growing segments such as cyber-security. Though legal immigration represents an important issue in the context of Maryland's economy, policymakers here have very little influence over national decisions regarding legal immigration policy.

## *Maryland's Business Climate is Unappealing, at Least Reputationally*



### *Implications*

*This section highlights key elements of Maryland's business climate. For the most part, this section is consistent with the notion that Maryland is not nearly as attractive as it ought to be from the perspective of business relocation or expansion. This renders the state's economy even more vulnerable to federal government downsizing.*

*Arguably, the best preparation for a future associated with downsized federal activities is to improve the state's business climate and reputation now. There are a number of ways to do this, including considering the impact of various regulations (e.g., healthcare mandates, restrictions on natural gas exploration) and taxes, including corporate taxes.*

*Maryland's policymakers should understand that if the federal government downsizes its activities as one might expect, one of the implications is that state and local government tax revenues will decline in conjunction with the overall level of economic activity. Therefore, one of the implications is that the tax code must change in response to the imperative of stabilizing future revenues while improving the likelihood of private sector expansion. These objectives will be difficult to simultaneously achieve.*

### **Stress Test Number Three – Potential fiscal impacts associated with Prospective Federal Government Downsizing in Maryland**

Base on the IMPLAN analysis above, which is based upon 22 percent reductions, in procurement, grants and federal wages/salaries, State and local governments in Maryland would collect roughly \$1.2 billion less in taxes per year, including a loss approaching \$400 million in personal income tax collections. Property taxes would decline by roughly \$260 million while sales tax collections would plummet by \$240 million per annum.

These losses could, of course, be offset by growing the part of the private sector that is not dependent upon federal procurement. However, to do that, Maryland must have an attractive business climate that induces private investment, including foreign direct investment. The bulk of available information indicates that Maryland's business climate is not presently associated with the level of private sector involvement that will be needed in the years ahead.

## Maryland's Business Climate is Challenging

- Taxes Relevant to Business are High in Maryland

Maryland's taxes are high. This is not a political statement, it is an objective one. Exhibit 20 provides a ranking of tax friendliness as it relates to business. Only a handful of states rank worse than Maryland in terms of business tax climate. It is important to note that several surrounding states rank much higher according to this measure, including Virginia at number 12 and Delaware at number 8.

### Exhibit 20: The Tax Foundation's 2011 state business tax climate index

Rank	State	Score	Rank	State	Score	Rank	State	Score
1	South Dakota	7.43	18	Idaho	5.27	35	Kansas	4.76
2	Alaska	7.39	19	Kentucky	5.22	36	Louisiana	4.71
3	Wyoming	7.30	20	North Dakota	5.14	37	West Virginia	4.67
4	Nevada	6.74	21	Mississippi	5.09	38	Vermont	4.66
5	Florida	6.53	22	Hawaii	5.06	39	Arkansas	4.55
6	Montana	6.39	23	Illinois	5.05	40	Wisconsin	4.55
7	New Hampshire	6.18	24	South Carolina	5.04	41	North Carolina	4.47
8	Delaware	6.03	25	Georgia	5.02	42	Rhode Island	4.46
9	Utah	5.80	26	Pennsylvania	5.01	43	Minnesota	4.40
10	Indiana	5.79	27	Tennessee	5.00	44	Maryland	4.25
11	Washington	5.78	28	Alabama	4.99	45	Iowa	4.20
12	Virginia	5.67	29	Nebraska	4.98	46	Ohio	4.16
13	Texas	5.63	30	Oklahoma	4.98	47	Connecticut	4.01
14	Oregon	5.61	31	Maine	4.98	48	New Jersey	3.96
15	Colorado	5.57	32	Massachusetts	4.89	49	California	3.78
16	Missouri	5.48	33	New Mexico	4.89	50	New York	3.73
17	Michigan	5.40	34	Arizona	4.81	-	District of Columbia	4.57

Source: The Tax Foundation

Anecdotes regarding the impact of state tax systems on business investment are plentiful. Several years ago in Illinois, hundreds of millions of dollars of private capital expenditures were delayed when then-Governor Rod Blagojevich proposed a hefty gross receipts tax. Only when the legislature resoundingly defeated the bill did investment resume. In 2005, California-based Intel decided to build a multi-billion dollar chip-making facility in Arizona due to its favorable corporate income tax system. In more recent times and more locally, Northrop Grumman chose



to move its corporate headquarters to Virginia over Maryland, citing a better business tax climate. Anecdotes such as these reinforce what we know from economic theory -- taxes matter to businesses and those places with the most competitive tax systems will disproportionately reap the benefits of business-friendly tax climates.

However, it is important not to view taxes in isolation. For instance, the table above indicates that South Dakota is the most highly ranked state in the nation from a business tax perspective. While that undoubtedly creates some benefits, the corresponding lack of taxes paid by state businesses may help explain why South Dakota's K-12 education system is ranked as being among the nation's worst.

If only state-level tax rates were considered, Maryland would not be in the group of states with the highest top rates. However, municipal and county-level income taxes are also counted and as a result, Maryland's average local rate of 2.98 percent is added to its 6.25 percent top state-level rate for a combined average rate of 9.23 percent.<sup>2</sup> This means that making Maryland more competitive from a taxation perspective is reasonably complex and would involve multiple levels of government.



<sup>2</sup> The local income tax rate add-ons are calculated by using a weighted average of each locality's rate. The locality's portion of the state's personal income is used as the weight. For example, in New Jersey, large municipalities with populations over 200,000 can impose a payroll tax. Newark is the only city to do so currently by imposing a 1 percent tax rate. Newark's share of the state's total personal income is then used as a weight and multiplied by the 1 percent rate, thereby producing New Jersey's .09 percent add-on rate.



## Unionization may be a Deterrent to Business Expansion

Maryland does not rank particularly high in terms of unionization. Based on that, one might view this as not a particularly important business climate consideration. However, on the East Coast, Maryland is the southern-most of the non-right-to-work states and borders Virginia, a right-to-work state with less than one-half the level of unionization.

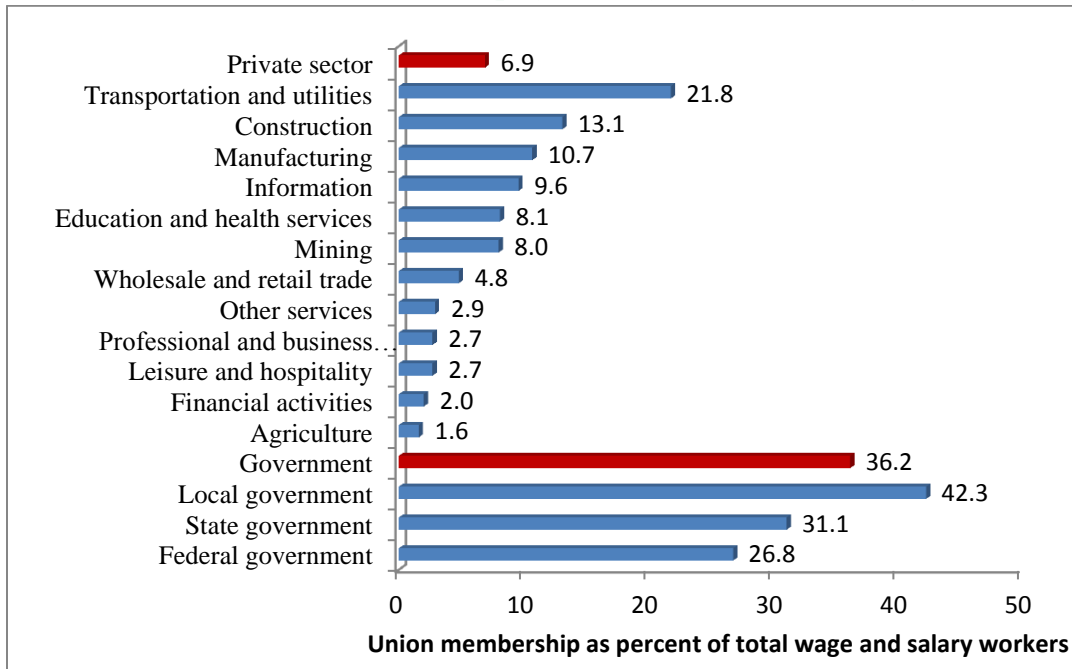
### Exhibit 21: Union membership by state, 2010

Rank	State	Rate	Rank	State	Rate	Rank	State	Rate
1	New York	24.2	18	Ohio	13.7	35	Idaho	7.1
2	Alaska	22.9	19	Montana	12.7	36	Kansas	6.8
3	Hawaii	21.8	20	Vermont	11.8	37	Colorado	6.6
4	Washington	19.4	21	Maine	11.6	38	Utah	6.5
5	California	17.5	22	Maryland	11.6	39	Arizona	6.4
6	New Jersey	17.1	23	Delaware	11.4	40	Florida	5.6
7	Connecticut	16.7	24	Iowa	11.4	41	South Dakota	5.6
8	Michigan	16.5	25	Indiana	10.9	42	Oklahoma	5.5
9	Rhode Island	16.4	26	New Hampshire	10.2	43	Texas	5.4
10	Oregon	16.2	27	Alabama	10.1	44	Tennessee	4.7
11	Minnesota	15.6	28	Missouri	9.9	45	South Carolina	4.6
12	Illinois	15.5	29	Nebraska	9.3	46	Virginia	4.6
13	Nevada	15.0	30	District of Columbia	9.0	47	Mississippi	4.5
14	West Virginia	14.8	31	Kentucky	8.9	48	Louisiana	4.3
15	Pennsylvania	14.7	32	North Dakota	7.4	49	Arkansas	4.0
16	Massachusetts	14.5	33	Wyoming	7.4	50	Georgia	4.0
17	Wisconsin	14.2	34	New Mexico	7.3	51	North Carolina	3.2

Source: Bureau of Labor Statistics

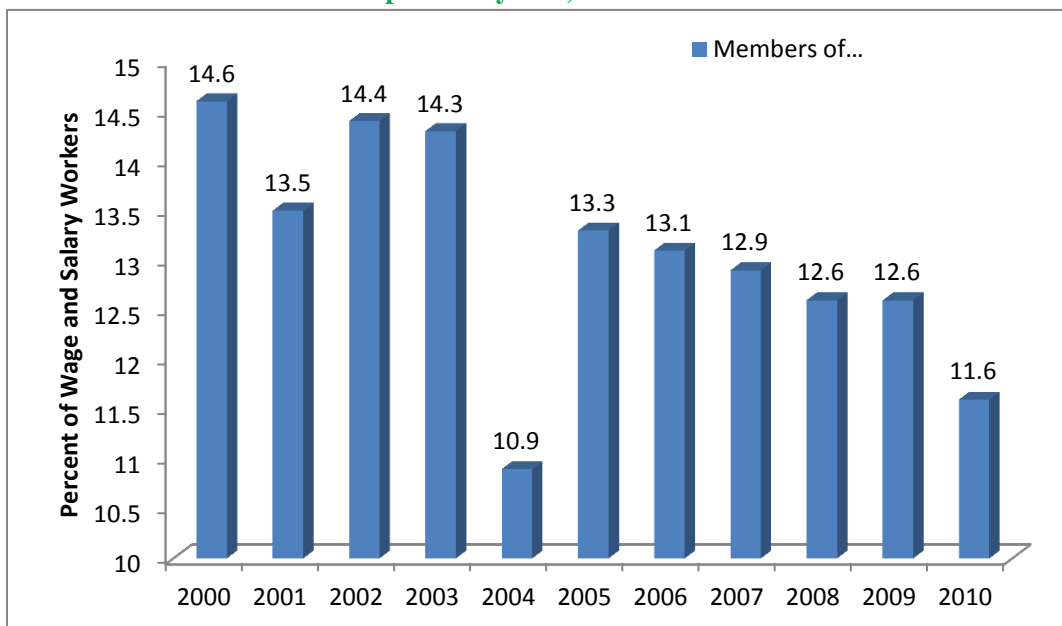
To the extent that businesses seek to avoid unions but desire a location in the Mid-Atlantic region of the United States, the prediction would be that many would select Virginia over Maryland. This may be part of the explanation for why Virginia persistently enjoys a lower unemployment rate than Maryland (presently 6.1 percent versus 6.8 percent in Maryland; April 2011) despite Maryland's higher levels of educational attainment.

On the following page, Exhibit 22 reflects union membership by industry nationally. It is worth noting that among private industries, transportation and utilities is particularly susceptible to unionization. It may be that private transportation operators avoid Maryland for Virginia to avoid having to deal with issues of unionization/collective bargaining.

**Exhibit 22: National union membership by industry, share of salary/wage workers, 2010**

Source: Bureau of Labor Statistics

That said, the general trend in Maryland has been decreasing union membership. This is reflected in Exhibit 23.

**Exhibit 23: Union membership in Maryland, 2000-2010**

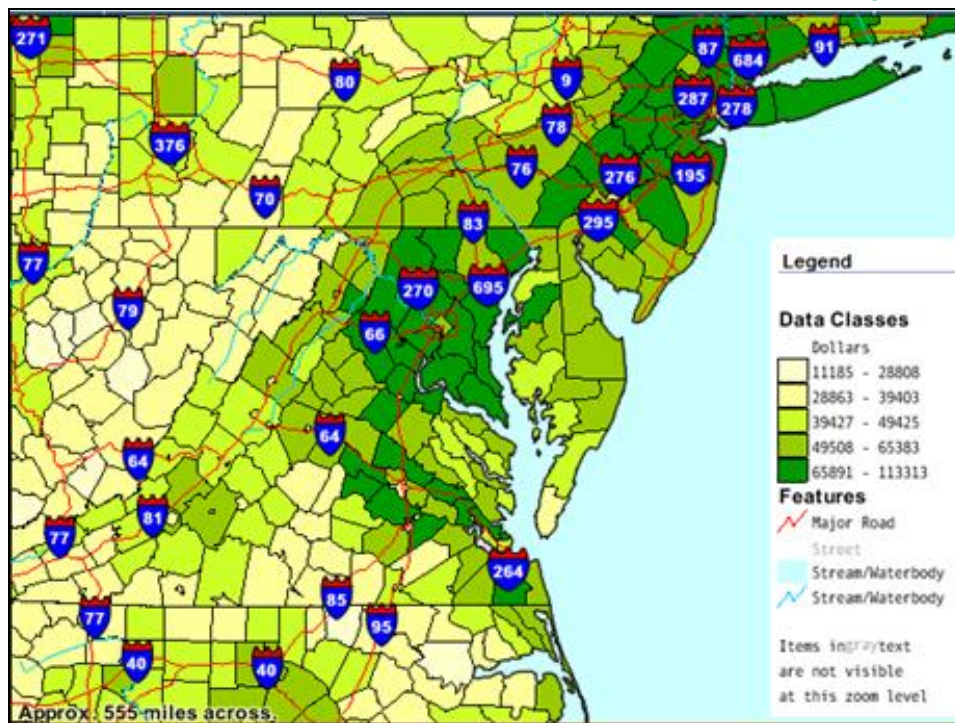
Source: Bureau of Labor Statistics

### **Maryland has not Excelled as a Port Destination Despite Its Central Location**

Given the presence of the Port of Baltimore (which has been setting records in terms of tonnage recently), significant freight facilities at BWI, several major interstates, high incomes and proximity to other high income communities, Maryland should be a leader in logistics and distribution. The Port of Baltimore's status as the East Coast's most inland major seaport also supports the notion that Maryland has significant advantages in the area of distribution and logistics. These advantages could be countervailed, however, by high land costs and a lack of suitable labor.

Exhibit 24 reflects the concentration of elevated incomes along the Eastern seaboard. Exhibit 25 reveals that Maryland has been a laggard in terms of wholesale trade (distribution) employment growth in recent years, perhaps an indication that Maryland's anti-business perception and/or high land/labor costs have kept employers away. While wholesale trade employment is roughly unchanged over the past twelve months nationally, it is down significantly in Maryland over that time period. It is probably not coincidental that employment in manufacturing in Maryland is also in decline even as it grows nationally.

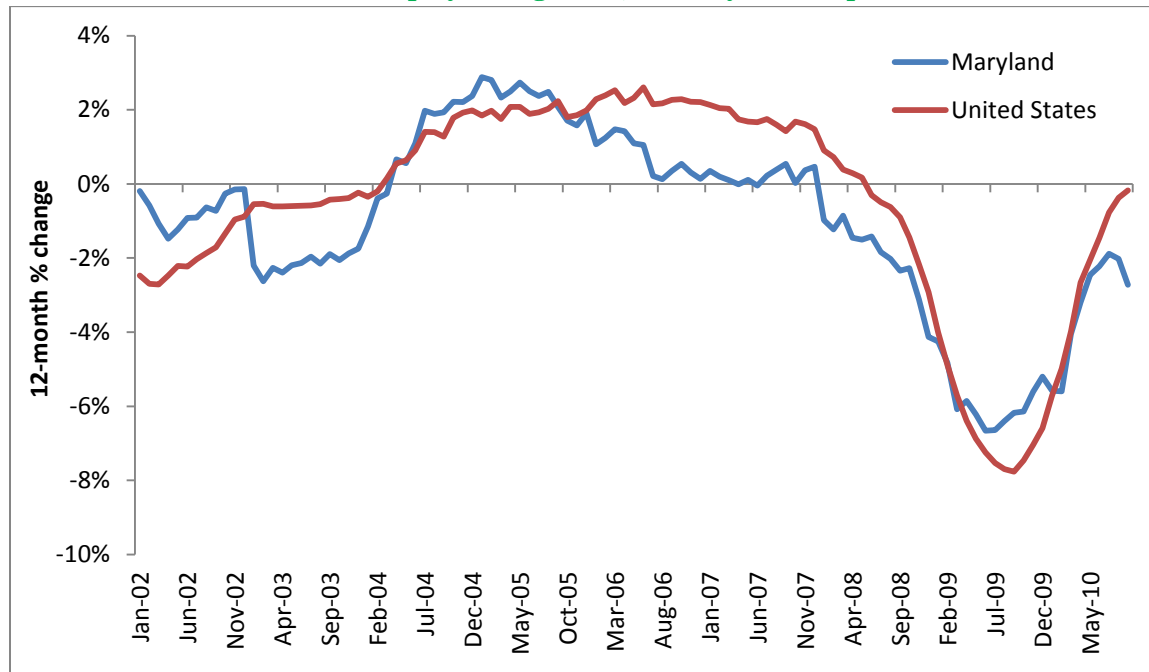
Exhibit 24: Median household income of area counties, 2005-2009 average



Source: U.S. Census Bureau

This should not be the case given Maryland's intermodal infrastructure, which is rarely replicated in terms of comprehensiveness around the nation. It is difficult to identify communities with a deep water port, immediate access to several major interstates, served by two major freight companies (CSX, Norfolk Southern) and proximate to some of the world's higher median household incomes. Despite these advantages among others, Maryland has not been able to capitalize in the area of logistics and distribution employment.

**Exhibit 25: Wholesale trade employment growth, January 2002-September 2010**



Source: Bureau of Labor Statistics

## Disappointing Levels of Venture Funding and Commercialization

Given its immense concentration of human and institutional capital, one would expect a significant amount of investment in early stage companies and associated commercialization of emerging technologies in Maryland. However, the data broadly indicate that Maryland is not among the top-tier of U.S. states in terms of venture capital investment and commercialization.

Exhibit 26 indicates that one state in particular dominates the landscape of venture capital nationally. That state is California, which easily leads the nation in terms of both information technology and the life sciences. Massachusetts is a distant second. Maryland ranks 11<sup>th</sup> on this list, in a tie with Virginia but behind North Carolina, home to the Research Triangle. It is true, however, that Maryland often ranks behind much larger states and if the figures in Exhibit 26 were adjusted for population, Maryland's ranking would be more impressive along this dimension.

To address a perceived shortage of risk-seeking capital flowing to Maryland, the State of Maryland recently enacted a plan dubbed "Invest Maryland" that is expected to yield up to \$75 million for a venture fund. The program is intended to support commercialization of innovations yielded from basic research and other mechanisms.

Exhibit 26: Venture capital investment by state, 2010 (\$billions)

Rank	State	\$	Rank	State	\$	Rank	State	\$
1	CA	\$11.60	18	MI	\$0.15	35	NM	\$0.02
2	MA	\$2.47	19	MN	\$0.15	36	SC	\$0.02
3	NY	\$1.37	20	UT	\$0.14	37	LA	\$0.02
4	TX	\$0.98	21	WI	\$0.12	38	KY	\$0.02
5	IL	\$0.73	22	DC	\$0.11	39	OK	\$0.01
6	WA	\$0.64	23	IA	\$0.10	40	NE	\$0.01
7	PA	\$0.56	24	IN	\$0.08	41	HI	\$0.01
8	NC	\$0.53	25	AZ	\$0.08	42	WY	\$0.01
9	CO	\$0.48	26	MO	\$0.06	43	ID	\$0.01
10	NJ	\$0.47	27	RI	\$0.06	44	AR	\$0.01
<b>11</b>	<b>MD</b>	<b>\$0.40</b>	28	NH	\$0.06	45	PR	\$0.00
12	VA	\$0.40	29	TN	\$0.06	46	WV	\$0.00
13	GA	\$0.34	30	KS	\$0.04	47	ME	\$0.00
14	FL	\$0.22	31	VT	\$0.03	48	MT	\$0.00
15	CT	\$0.22	32	DE	\$0.03	49	AL	\$0.00
16	OR	\$0.20	33	NV	\$0.03	50	Unknown	\$0.00
17	OH	\$0.18	34	MI	\$0.15	51	Grand Total	\$23.26

Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree Report, Data: Thomson Reuters

### Foreign Investors have not Demonstrated Significant Interest in Maryland

One might think that foreigners would be racing to invest in Maryland given the state's concentrated labor markets, disproportionate supply of scientific capital, institutional strength and access to three major airports. But Maryland is hardly a hotbed of foreign direct investment, with only 19 Marylanders out of every 1,000 residents employed by an enterprise that is majority-owned by a foreign interest. A number of states to Maryland's north are associated with far more foreign direct employment, including Connecticut, Massachusetts, New Jersey and Rhode Island.

The reason for Maryland's unimpressive ranking along this dimension is unclear. Taxes may be one of the reasons, but given the presence of New Jersey and Massachusetts on the list of national leaders along this dimension, taxes can hardly be the only reason. One possible explanation is that Maryland's international marketing efforts have not been as successful. Leading states like New Hampshire, Connecticut and Massachusetts are each connected to the Boston metropolitan area, which apparently enjoys significant international cachet. Not surprisingly, New York and New Jersey also rank ahead of Maryland – again, not a surprise given the global reach of New York City. Other states that rank ahead of Maryland can claim significant business cost advantages, including South Carolina, Kentucky and Tennessee.

**Exhibit 27: Employment of majority-owned foreign U.S. affiliates, ranked by employment per 1,000 residents**

Rank	State	Rate	Rank	State	Rate	Rank	State	Rate
1	Delaware	35.3	18	Rhode Island	20.3	35	Wisconsin	15.0
2	New Hampshire	30.7	19	Ohio	20.2	36	Nevada	14.3
3	Connecticut	29.9	20	Wyoming	19.9	37	Nebraska	14.1
4	Massachusetts	29.1	<b>21</b>	<b>Maryland</b>	<b>19.3</b>	38	Washington	13.9
5	District of Columbia	26.9	22	Kansas	19.1	39	Florida	13.9
6	New Jersey	26.5	23	Minnesota	18.6	40	Oregon	12.4
7	South Carolina	23.9	24	Georgia	18.6	41	West Virginia	12.1
8	Hawaii	23.8	25	Alaska	18.2	42	Utah	11.9
9	Maine	23.3	26	Texas	18.1	43	Arizona	11.8
10	North Carolina	22.4	27	Colorado	17.3	44	Arkansas	11.7
11	Kentucky	22.3	28	Vermont	16.9	45	Idaho	11.5
12	Indiana	22.2	29	Alabama	16.8	46	South Dakota	10.9
13	New York	21.4	30	California	16.2	47	Louisiana	10.9
14	Illinois	21.2	31	Iowa	16.1	48	Oklahoma	10.1
15	Pennsylvania	21.2	32	North Dakota	15.7	49	New Mexico	9.4
16	Tennessee	21.0	33	Missouri	15.4	50	Mississippi	9.1
17	Virginia	20.6	34	Michigan	15.1	51	Montana	7.4

Source: Bureau of Economic Analysis



Exhibit 28 is an even more stark reflection of the lack of interest in Maryland among foreign investors. When one measures foreign presence by value of plant and equipment, Maryland ranks 38<sup>th</sup> nationally among 44 states for which data exist, just ahead of North Dakota. Neighboring Delaware boasts a per capita concentration of foreign physical presence that is more than twice as high as Maryland's.

**Exhibit 28: Gross property, plant, and equipment of majority-owned foreign U.S. affiliates by state, ranked by \$million of property per 1,000 residents**

Rank	State	Rate	Rank	State	Rate	Rank	State	Rate
1	Alaska	50.4	16	Connecticut	3.8	31	Mississippi	2.8
2	Wyoming	21.3	17	Ohio	3.8	32	Vermont	2.8
3	District of Columbia	9.5	18	Nevada	3.8	33	Oregon	2.7
4	Louisiana	7.3	19	Illinois	3.8	34	Wisconsin	2.6
5	Kentucky	6.6	20	Tennessee	3.7	35	Utah	2.5
6	Texas	5.4	21	Montana	3.5	36	New Mexico	2.4
7	Delaware	5.2	22	West Virginia	3.5	37	Michigan	2.4
8	Rhode Island	5.1	23	Washington	3.3	<b>38</b>	<b>Maryland</b>	<b>2.3</b>
9	Alabama	4.9	24	Pennsylvania	3.2	39	North Dakota	2.2
10	Hawaii	4.8	25	North Carolina	3.2	40	Arizona	2.1
11	Maine	4.8	26	Iowa	3.2	41	Florida	1.9
12	New Jersey	4.4	27	Minnesota	3.1	42	Arkansas	1.7
13	Massachusetts	4.2	28	California	3.0	43	South Dakota	1.6
14	New York	4.2	29	Oklahoma	2.9	44	Idaho	1.4
15	New Hampshire	4.0	30	Kansas	2.8			

Source: Bureau of Economic Analysis, Data not disclosed for every state

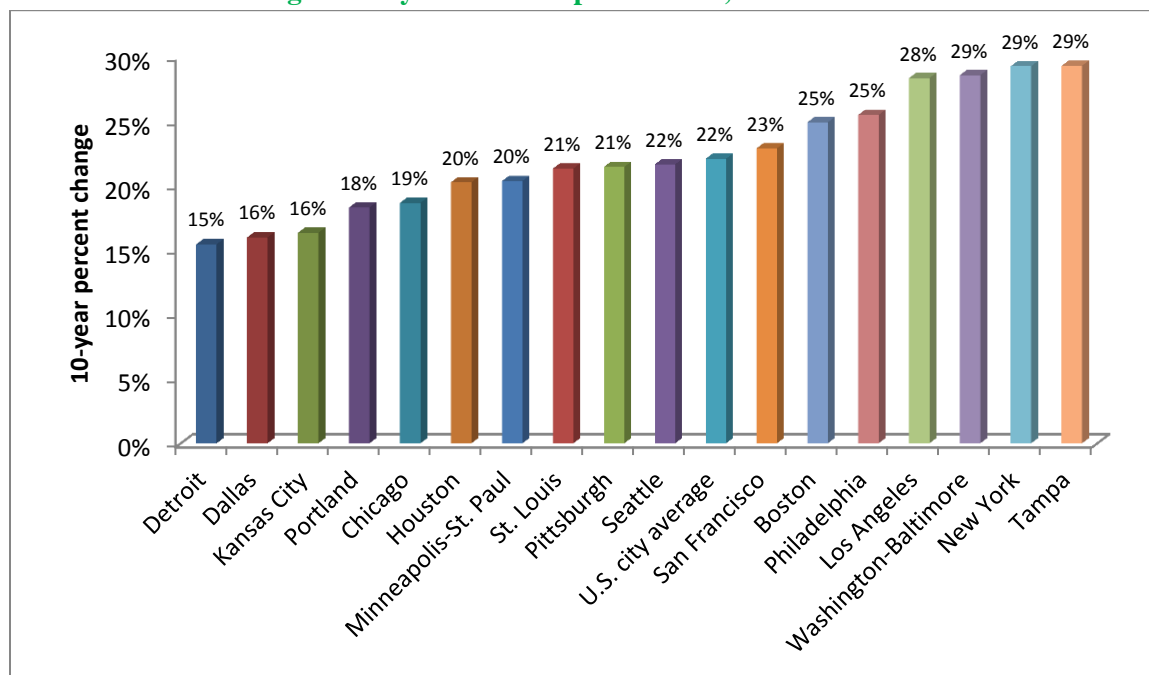
### Higher Costs of Living and Local Taxes Cause Sprawl

Living in Maryland is relatively expensive compared to other states. Homes are more expensive, households and businesses pay more for energy and healthcare than many other states, and Marylanders even face a large tax penalty being married. Within the state, the suburbs of Washington, D.C. represent some of the most expensive areas in the country which helps contribute to a growing sprawl problem within the state. All of these factors present a hurdle for an average family to succeed in Maryland.

- Cost of Living is Rising Faster Here

Over the last ten years, the Washington-Baltimore metropolitan area has experienced relatively high inflation compared to other metropolitan areas. Between 2000 and 2010, the U.S. city average growth of core-CPI (consumer prices excluding food energy) was 22.1 percent while the corresponding growth in the Washington-Baltimore metropolitan areas was 28.6 percent. In three of the past ten years (2001, 2005, 2006), Washington-Baltimore core CPI jumped more than 3.0 percent year-over-year. However, inflation has slowed substantially over the last two years as core-CPI grew 1.9 percent in 2009 and 1.4 percent in 2010, largely a reflection of a lack of pricing power among businesses during a time of economic weakness.

**Exhibit 29: Core CPI growth by select metropolitan area, 2000 v. 2010**



Source: Bureau of Labor Statistics

According to the Council for Community and Economic Research, Maryland ranks 44th in terms of overall cost of living, with cost of living nearly 25 percent higher than the national average (Exhibit 30). Maryland ranks 48th in terms of housing costs, with prices more than 69 percent higher than the national average. This may be due in part to a restrictive development environment in which local governments often deny building permits for a host of reasons and often ask for downsizing and reduced density of projects to reduce public opposition to proposed development.

Disaggregating total cost of living reveals certain other key disadvantages. For instance, utility costs are 17 percent higher than the national average; grocery costs are 10 percent higher, and transportation costs are 8 percent higher.

There are at least two implications. First, operating costs in Maryland are higher since businesses are consumers of energy and transportation. Second, this higher cost of living necessitates higher wages, which in turn translates into higher operating costs. In a world in which businesses are often fixated on reducing operating costs to the penny, Maryland predictably is disadvantaged by a high cost environment. The question is to what extent these high costs are attributable to the density and nature of economic activity here as opposed to needless regulation of business activity.

**Exhibit 30: State cost of living ranking, fourth quarter 2010**

Rank	State	Index	Rank	State	Index	Rank	State	Index
1	KY	89.21	18	MI	95.25	35	DE	102.4
2	TN	89.49	19	ND	95.91	36	AZ	103.73
3	OK	90.09	20	IL	96.08	37	WA	103.98
4	AR	90.61	21	LA	96.15	38	OR	110.47
5	TX	91.04	22	NC	96.21	39	ME	116.42
6	NE	91.09	23	WI	96.45	40	NH	116.68
7	KS	91.31	24	VA	97.66	41	MA	117.8
8	MO	91.66	25	FL	98.39	42	VT	120.38
9	GA	92.21	26	SD	98.53	43	RI	123.25
10	MS	92.26	27	WY	98.66	<b>44</b>	<b>MD</b>	<b>124.81</b>
11	AL	92.74	28	SC	98.71	45	NY	128.29
12	ID	93.04	29	NM	98.88	46	NJ	128.47
13	OH	93.85	30	MT	100	47	CT	130.22
14	IA	93.98	31	PA	100.67	48	CA	132.56
15	IN	94.19	32	NV	101.39	49	AK	132.64
16	WV	94.4	33	CO	102.23	50	DC	139.92
17	UT	95.15	34	MN	102.23	51	HI	165.56

Index: Average for all participating places, both metropolitan and nonmetropolitan communities, equals 100.

Source: The Council for Community and Economic Research

- Health Insurance Premiums are Elevated in Maryland

Exhibit 31 shows that health insurance premiums are expensive in Maryland, in part because of health insurance mandates layered on top of Maryland's employers. In 2006, the State's legislature attempted to place additional burdens on large employers by passing the Fair Share Act. That Act required employers with more than 10,000 employees in Maryland (e.g., Wal-Mart) to offer and contribute at least 8 percent of total payroll to health coverage or pay a penalty to the State. However, the 4<sup>th</sup> Circuit reasoned that the Maryland law directly impacted plan design and contravened ERISA's purpose of preserving plan uniformity. The State of Maryland did not seek an appeal to the U.S. Supreme Court.

It should be noted that these premiums reflect both employer and employee contributions in Exhibit 31. In Exhibit 32, the employer contribution is broken out separately. The exhibit indicates that employer contributions for health insurance in Maryland are higher than in a number of surrounding competitor states, including in Virginia and Delaware. However, health insurance premiums paid by employers are higher along much of the East Coast north of Maryland.

**Exhibit 31: Average family premium per enrolled employee for employer-based health insurance by state, ranked by total premium, 2009**

Rank	State	Cost	Rank	State	Cost	Rank	State	Cost
1	Massachusetts	\$14,723	18	Texas	\$13,221	35	Kentucky	\$12,407
2	Wisconsin	\$14,656	19	Minnesota	\$13,202	36	Missouri	\$12,353
3	Vermont	\$14,558	20	Michigan	\$13,160	37	South Carolina	\$12,343
4	Wyoming	\$14,319	21	North Carolina	\$13,087	38	Nebraska	\$12,227
5	District of Columbia	\$14,222	22	Florida	\$12,912	39	Tennessee	\$12,134
6	Alaska	\$14,182	23	Indiana	\$12,872	40	Iowa	\$12,036
7	Connecticut	\$14,064	24	New Mexico	\$12,848	41	Alabama	\$11,978
8	Louisiana	\$13,846	25	Arizona	\$12,813	42	Idaho	\$11,887
<b>9</b>	<b>Maryland</b>	<b>\$13,833</b>	26	Georgia	\$12,792	43	Ohio	\$11,870
10	New Hampshire	\$13,822	27	Oregon	\$12,783	44	Utah	\$11,869
11	New York	\$13,757	28	Washington	\$12,758	45	Kansas	\$11,829
12	New Jersey	\$13,750	29	Nevada	\$12,700	46	Hawaii	\$11,826
13	Illinois	\$13,708	30	Delaware	\$12,682	47	South Dakota	\$11,596
14	Rhode Island	\$13,608	31	California	\$12,631	48	North Dakota	\$11,590
15	Maine	\$13,522	32	Virginia	\$12,622	49	Oklahoma	\$11,417
16	Colorado	\$13,360	33	Mississippi	\$12,590	50	Montana	\$11,365
17	Pennsylvania	\$13,229	34	West Virginia	\$12,554	51	Arkansas	\$10,969

Source: The Henry J. Kaiser Family Foundation

**Exhibit 32. Average family premium per enrolled employee for employer-based health insurance by state, ranked by employer contribution, 2009**

Rank	State	Contrib	Rank	State	Contrib	Rank	State	Contrib
1	Wisconsin	\$11,757	18	Nevada	\$9,819	35	Utah	\$8,863
2	Wyoming	\$10,993	19	West Virginia	\$9,771	36	Iowa	\$8,852
3	Vermont	\$10,765	20	Louisiana	\$9,738	37	Virginia	\$8,830
4	New York	\$10,723	21	Maine	\$9,665	38	Missouri	\$8,709
5	Massachusetts	\$10,635	22	Indiana	\$9,615	39	Kansas	\$8,697
6	New Jersey	\$10,615	23	Minnesota	\$9,490	40	Nebraska	\$8,695
7	District of Columbia	\$10,599	24	Washington	\$9,282	41	Mississippi	\$8,683
8	Connecticut	\$10,553	25	New Mexico	\$9,270	42	Alabama	\$8,658
9	Pennsylvania	\$10,455	26	Delaware	\$9,259	43	Idaho	\$8,654
10	Michigan	\$10,341	27	Texas	\$9,197	44	Florida	\$8,637
11	Illinois	\$10,312	28	Arizona	\$9,196	45	North Dakota	\$8,380
12	New Hampshire	\$10,295	29	Georgia	\$9,165	46	Tennessee	\$8,344
<b>13</b>	<b>Maryland</b>	<b>\$10,162</b>	30	North Carolina	\$9,151	47	Oklahoma	\$8,331
14	Alaska	\$10,031	31	California	\$9,148	48	South Dakota	\$8,219
15	Oregon	\$9,991	32	Kentucky	\$8,999	49	Ohio	\$8,203
16	Colorado	\$9,990	33	Hawaii	\$8,958	50	Arkansas	\$8,046
17	Rhode Island	\$9,919	34	South Carolina	\$8,910	51	Montana	\$7,467

Source: The Henry J. Kaiser Family Foundation

- Maryland's Marriage Penalty is among the Worst in the Nation

A marriage penalty exists when a state's standard deduction and tax brackets for married taxpayers filing jointly are not double those for single filers. As a result, two singles (if combined) can have a lower tax bill than a married couple filing jointly with the same income. This is discriminatory and can have serious business ramifications. The top-earning 20 percent of taxpayers is dominated (85 percent) by married couples. This same 20 percent also contains the highest concentration of business owners (43 percent) of all income groups (Hodge 2003A, Hodge 2003B). Because of these concentrations, marriage penalties affect a large share of taxable income. States with the largest marriage penalties include Maryland, California, New Jersey, Ohio, Rhode Island, Vermont and North Dakota.

- Energy Costs are Higher in Maryland

As of January 2011, the average retail price of electricity for a U.S. customer was 9.62 cents per kilowatt hour. In Maryland, the rate was 28 percent higher than the national average at 12.31 cents per kilowatt hour, the thirteenth highest rate among all states. Moreover, the State of Maryland charges \$23.50 cents per gallon in motor fuel taxes for motor gasoline, which is 4 percent higher than the average state tax nationally. However, it is still significantly lower than the neighboring Commonwealth of Pennsylvania which charges 31.2 cents per gallon, but much higher than the Commonwealth of Virginia, which charges 17.50 cent per gallon. Exhibit 33 provides relevant statistical detail.

**Exhibit 33: Average retail price of electricity to ultimate customers for all sectors, January 2011, ranked by cents per kilowatt hour**

Rank	State	Rate	Rank	State	Rate	Rank	State	Rate
1	Hawaii	27.19	18	Michigan	9.9	35	Montana	8.05
2	Connecticut	16.8	19	Georgia	9.07	36	Oregon	8.04
3	New York	15.76	20	Tennessee	8.99	37	New Mexico	7.98
4	Alaska	15.54	21	Texas	8.92	38	Indiana	7.92
5	New Hampshire	15	22	Alabama	8.9	39	West Virginia	7.67
6	Rhode Island	14.41	23	Arizona	8.69	40	South Dakota	7.58
7	New Jersey	14.33	24	South Carolina	8.65	41	Iowa	7.27
8	Massachusetts	14.27	25	Mississippi	8.64	42	Missouri	7.27
9	Vermont	13.7	26	Ohio	8.64	43	Louisiana	7.05
10	Maine	13.5	27	Colorado	8.6	44	Oklahoma	7
11	District of Columbia	13.15	28	Nevada	8.57	45	Kentucky	6.95
12	California	12.94	29	Virginia	8.5	46	Nebraska	6.94
13	<b>Maryland</b>	<b>12.31</b>	30	Illinois	8.43	47	Arkansas	6.68
14	Delaware	11.77	31	North Carolina	8.41	48	Idaho	6.57
15	Florida	10.79	32	Minnesota	8.4	49	Utah	6.49
16	Pennsylvania	10.5	33	Washington	8.23	50	North Dakota	6.46
17	Wisconsin	9.99	34	Kansas	8.1	51	Wyoming	6.26

Source: Energy Information Administration



- Sprawl is a Serious Problem in Maryland

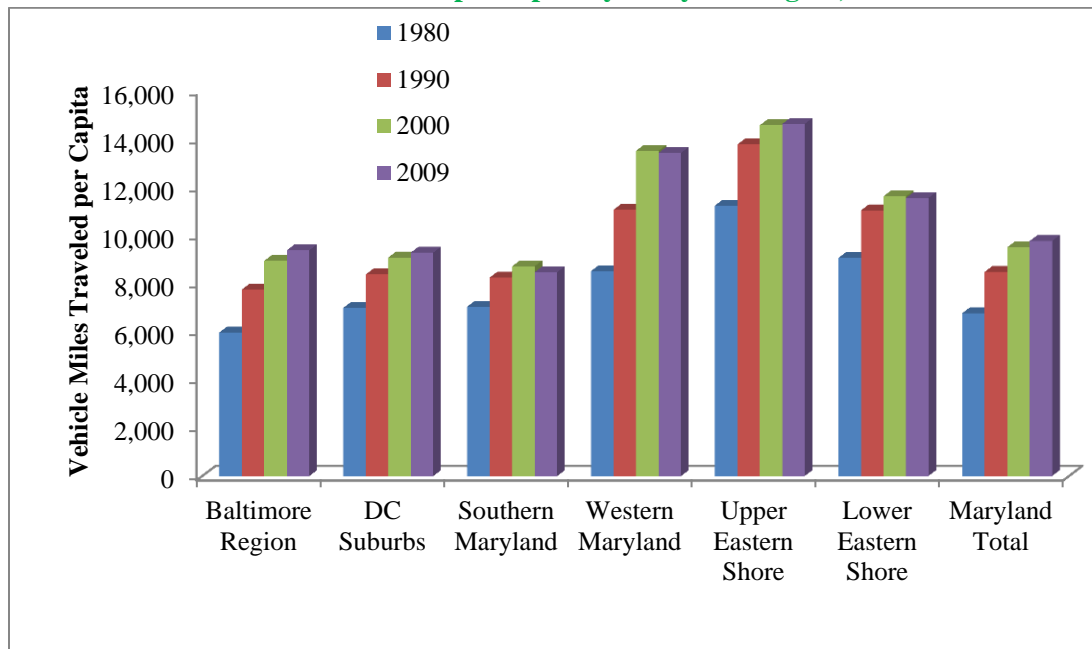
As a geographically compact state, one of the blessings of living in Maryland should be short commutes. In fact, Marylanders suffer the second-longest commutes in the nation (behind New York), and the trend suggests that Maryland will soon own the dubious distinction of suffering the nation's longest commutes.

Exhibit 34 shows that vehicle miles traveled are greatest in more rural parts of the state, an indication that many members of the workforce who live on the Eastern Shore and in Western Maryland must commute long distances to work, suggesting that there are not enough local jobs. In fact, unemployment data reveals that most of the jurisdictions with the highest unemployment rates are in Western Maryland or on the Eastern Shore. This is reflected in Exhibit 35.

**Exhibit 34: Work commute, ranked by mean travel time to work in minutes, 2009**

Rank	State	Time	Rank	State	Time	Rank	State	Time
1	New York	31.4	18	Colorado	24.5	35	Minnesota	22.5
<u>2</u>	<u>Maryland</u>	<u>31.3</u>	19	Arizona	24.3	36	Oregon	22.1
3	New Jersey	29.8	20	Connecticut	24.3	37	Vermont	21.9
4	District of Columbia	29.2	21	Tennessee	24.0	38	New Mexico	21.6
5	Illinois	28.0	22	Michigan	23.7	39	Wisconsin	21.2
6	Massachusetts	27.3	23	Alabama	23.6	40	Arkansas	21.1
7	Virginia	27.2	24	Delaware	23.6	41	Utah	21.0
8	Georgia	26.9	25	Mississippi	23.6	42	Oklahoma	20.5
9	California	26.6	26	Missouri	23.2	43	Idaho	19.8
10	New Hampshire	25.7	27	North Carolina	23.2	44	Iowa	18.5
11	Hawaii	25.5	28	Rhode Island	23.2	45	Kansas	18.5
12	Florida	25.4	29	South Carolina	23.2	46	Wyoming	18.0
13	Pennsylvania	25.4	30	Nevada	23.1	47	Nebraska	17.9
14	Washington	25.4	31	Indiana	22.9	48	Alaska	17.7
15	West Virginia	25.1	32	Maine	22.9	49	Montana	16.8
16	Louisiana	24.7	33	Ohio	22.8	50	South Dakota	16.7
17	Texas	24.6	34	Kentucky	22.6	51	North Dakota	16.6

Source: U.S. Census Bureau

**Exhibit 35: Vehicle miles travelled per capita by Maryland region, 1980-2009**

Source: NCSGR; Maryland State Highway Administration and U.S. Census Bureau

- Growth in Western Maryland and the Eastern Shore

This brief section focuses upon prospects for expansion in economic activity and employment in rural portions of Maryland. Available information and data suggest that the future is more promising than many may realize. Between 2006 and 2016, Western Maryland residents are expected to be increasingly engaged in high-paying highly-educated positions. Computer and mathematical occupations are expected to grow by 33.5 percent, while legal occupations are expected to rise by 26.9 percent and education, training and library occupations are expected to jump 26.9 percent. Employment for architects and engineers is expected to grow 20.7 percent and would grow even faster if Western Maryland is successfully able to establish itself as a hub for alternative energy sources such as solar and wind power.

Exhibit 36 provides occupational projections for Western Maryland between 2006 and 2016. In total, occupational growth is expected to be roughly 10 percent over this eleven year period.

**Exhibit 36: Western Maryland 2006-2016 occupational projections**

	2006	2016	% Chg.
Computer and Mathematical Occupations	820	1,095	33.5%
Legal Occupations	390	495	26.9%
Education, Training, and Library Occupations	6,080	7,590	24.8%
Healthcare Support Occupations	4,225	5,215	23.4%
Food Preparation and Serving Related Occupations	10,155	12,390	22.0%
Protective Service Occupations	3,610	4,375	21.2%
Architecture and Engineering Occupations	675	815	20.7%
Healthcare Practitioners and Technical Occupations	6,630	7,960	20.1%
Building and Grounds Cleaning and Maintenance Occupations	3,595	4,300	19.6%
Community and Social Services Occupations	1,615	1,925	19.2%
Sales and Related Occupations	13,880	15,730	13.3%
Business and Financial Operations Occupations	3,855	4,325	12.2%
Life, Physical, and Social Science Occupations	300	335	11.7%
Construction and Extraction Occupations	7,600	8,455	11.3%
Personal Care and Service Occupations	3,430	3,790	10.5%
Arts, Design, Entertainment, Sports, and Media Occupations	1,275	1,405	10.2%
Office and Administrative Support Occupations	20,295	22,105	8.9%
Farming, Fishing, and Forestry Occupations	260	280	7.7%
Transportation and Material Moving Occupations	9,600	10,265	6.9%
Management Occupations	3,955	4,085	3.3%
Installation, Maintenance, and Repair Occupations	4,380	4,295	-1.9%
Production Occupations	9,535	6,920	-27.4%
Total, All Occupations	116,150	128,145	10.3%

Source: Maryland Department of Labor, Licensing, and Regulation

Exhibits 37 and 38 provide similar data for the Upper Eastern Shore and Lower Eastern Shore, respectively. It is worth noting that several high-wage occupations are expected to expand substantially in the years ahead, including computer and mathematical operations (43.1% on the Upper Eastern Shore), healthcare practitioners and technical occupations (22.2% on the Lower Eastern Shore), and Legal Occupations (more than 20 percent on both the Upper and Lower Eastern Shore).

### Exhibit 37: Upper Eastern Shore 2006-2016 occupational projections

	2006	2016	% Chg.
Computer and Mathematical Occupations	290	415	43.1%
Education, Training, and Library Occupations	4,035	5,240	29.9%
Healthcare Support Occupations	1,700	2,200	29.4%
Life, Physical, and Social Science Occupations	560	705	25.9%
Business and Financial Operations Occupations	1,845	2,310	25.2%
Protective Service Occupations	860	1,075	25.0%
Community and Social Services Occupations	720	885	22.9%
Architecture and Engineering Occupations	655	800	22.1%
Legal Occupations	525	635	21.0%
Installation, Maintenance, and Repair Occupations	3,390	4,035	19.0%
Personal Care and Service Occupations	2,745	3,265	18.9%
Food Preparation and Serving Related Occupations	6,435	7,640	18.7%
Building and Grounds Cleaning and Maintenance Occupations	2,835	3,355	18.3%
Sales and Related Occupations	6,690	7,845	17.3%
Arts, Design, Entertainment, Sports, and Media Occupations	710	825	16.2%
Transportation and Material Moving Occupations	4,710	5,340	13.4%
Healthcare Practitioners and Technical Occupations	3,280	3,710	13.1%
Office and Administrative Support Occupations	11,125	12,510	12.4%
Management Occupations	2,660	2,940	10.5%
Construction and Extraction Occupations	5,140	5,570	8.4%
Production Occupations	5,470	5,410	-1.1%
Farming, Fishing, and Forestry Occupations	995	930	-6.5%
Total, All Occupations	67,385	77,640	15.2%

Source: Maryland Department of Labor, Licensing, and Regulation

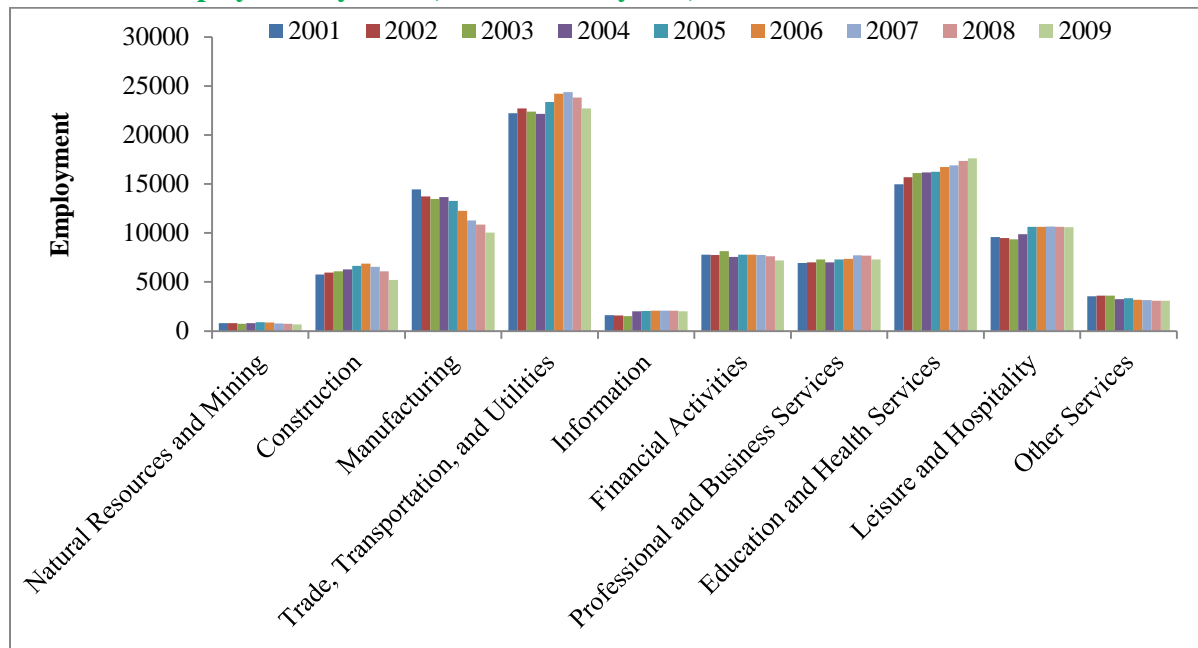
**Exhibit 38: Lower Eastern Shore 2006-2016 occupational projections**

	2006	2016	% Chg.
Community and Social Services Occupations	1,200	1,685	40.4%
Education, Training, and Library Occupations	4,410	5,845	32.5%
Healthcare Support Occupations	2,110	2,775	31.5%
Healthcare Practitioners and Technical Occupations	4,650	5,680	22.2%
Computer and Mathematical Occupations	625	750	20.0%
Personal Care and Service Occupations	2,805	3,335	18.9%
Protective Service Occupations	2,285	2,695	17.9%
Arts, Design, Entertainment, Sports, and Media Occupations	1,065	1,235	16.0%
Building and Grounds Cleaning and Maintenance Occupations	3,995	4,550	13.9%
Business and Financial Operations Occupations	2,240	2,535	13.2%
Food Preparation and Serving Related Occupations	10,085	11,375	12.8%
Life, Physical, and Social Science Occupations	510	565	10.8%
Sales and Related Occupations	11,525	12,755	10.7%
Office and Administrative Support Occupations	12,690	13,975	10.1%
Management Occupations	3,815	4,150	8.8%
Installation, Maintenance, and Repair Occupations	3,670	3,960	7.9%
Architecture and Engineering Occupations	865	925	6.9%
Construction and Extraction Occupations	5,840	6,205	6.3%
Legal Occupations	425	445	4.7%
Transportation and Material Moving Occupations	4,450	4,635	4.2%
Production Occupations	4,805	4,285	-10.8%
Farming, Fishing, and Forestry Occupations	840	675	-19.6%
Total, All Occupations	84,915	95,025	11.9%

Source: Maryland Department of Labor, Licensing, and Regulation

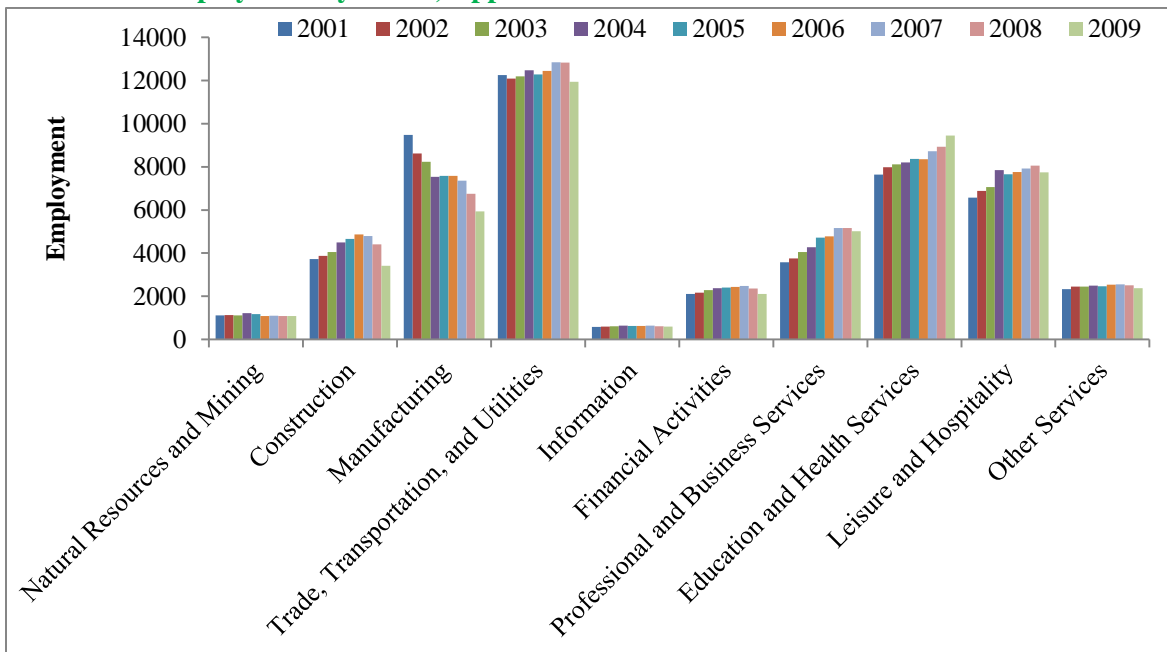
Exhibits 39, 40 and 41 show employment growth by sector in Western Maryland, the Upper Eastern Shore and the Lower Eastern Shore, respectively. Note that these geographies have experienced growth in a number of key segments over time, including in information, education/health services and professional and business services.

**Exhibit 39: Employment by sector, Western Maryland, 2001-2009**



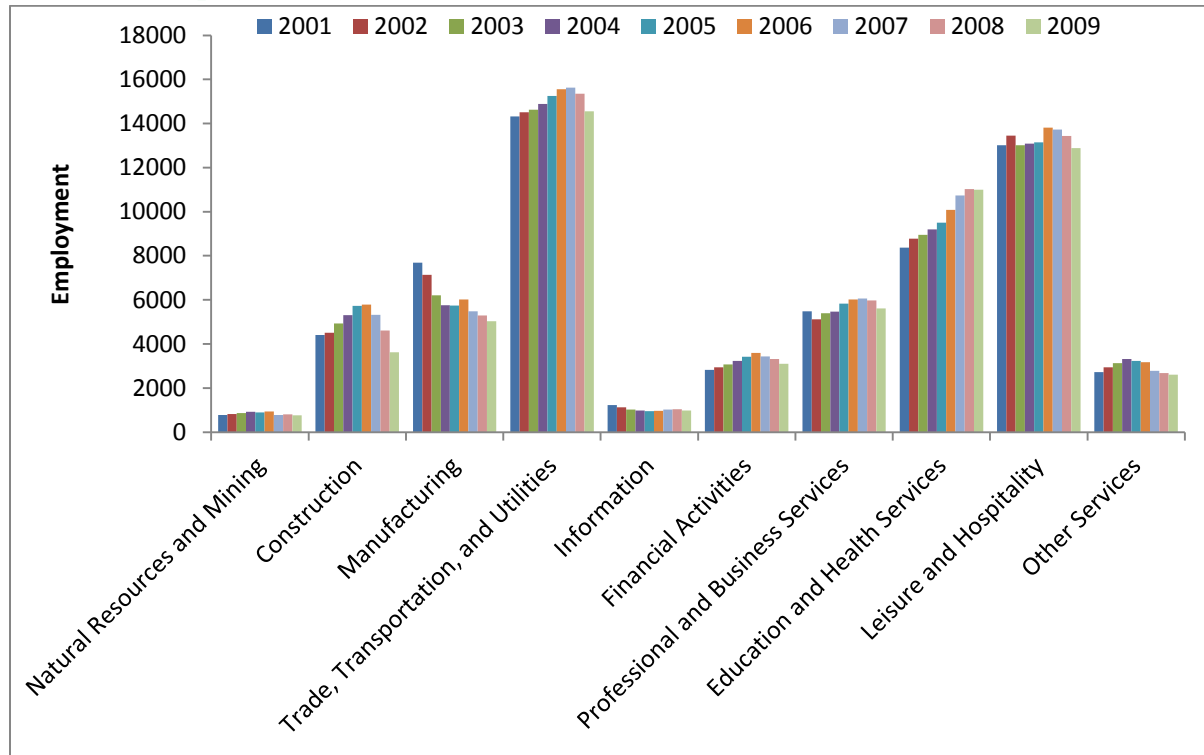
Source: BLS

**Exhibit 40: Employment by sector, Upper Eastern Shore 2001-2009**



Source: BLS



**Exhibit 41: Employment by sector, Lower Eastern Shore 2001-2009**

Source: BLS

## Conclusion



This report has laid some very simple notions:

1. Maryland's dependence upon the federal government is overwhelming;
2. The federal government's expansion is likely to reverse course during the latter years of the current decade;
3. This places Maryland's broadly shared prosperity at risk, particularly given a highly flawed business climate; and
4. The state must begin to address its business climate now with the goal of vastly increasing private investment and technology commercialization. Only this strategy can partially or fully offset the losses associated with the downsizing of federal activities that is certain to impact Maryland's economy in the years ahead.

What this means for Maryland, and what steps must be taken next, are conversations that Blueprint Maryland will be initiating in businesses, communities and homes across the State.