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Historically, Central Maryland has been the home of much of Maryland's industry, military and government. Annapolis, located in Anne Arundel County, is home to Maryland's state government and State House, which houses the two chambers of Maryland's General Assembly. Baltimore City, however, has more state employees than Annapolis. Since 1845, the U.S. Naval Academy has also been situated in Annapolis.

Central Maryland as a whole has a number of important military sites including Fort Meade, home of the National Security Administration, and Aberdeen Proving Ground, the 72,500-acre site for the Installation Management Agency for the Northeast region of the United States. The federal government in general heavily influences the region, especially the suburban counties of Montgomery and Prince George's where many federal agencies are located and many federal employees live. Montgomery County, for instance, is the location for such agencies as the National Institutes of Health, the U.S. Food and Drug Administration, the National Oceanic and Atmospheric Administration, and the Walter Reed Army Medical Center.

Baltimore City, once the heart of Maryland's industrial base, has witnessed a decline in manufacturing and related employment in recent decades, but its downtown area is still home to major employers such as Johns Hopkins Institutions, the University of Maryland Medical System, Constellation Energy, Legg Mason and T. Rowe Price. In cooperation with the city, both Johns Hopkins and the University of Maryland are currently developing bio-tech parks with the aim of enhancing both the city and regional economies. The Port of Baltimore is a significant economic engine for Maryland, generating $1.4 billion in revenues and employing 126,700 workers. Baltimore City is also a major tourist destination in Maryland, home to important cultural and sports venues such as the Camden Yards ballpark, the Ravens football stadium, the National Aquarium, the Maryland Science Center, the Baltimore Museum of Art and other cultural attractions.
REGIONAL OVERVIEW OF CENTRAL MARYLAND
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CENTRAL MARYLAND POPULATION TRENDS
The population of Central Maryland was 4.1 million in 2000. From 1970 to 2000, it increased by more than 930,000 people, or 29%. Of the counties in Central Maryland, Montgomery County witnessed the largest increase in numbers of people with a growth of 350,000 people from 1970 to 2000. Howard County had the largest percentage population change - a dramatic 300% - from 1970 to 2000; followed not far behind by Carroll County where the population more than doubled during this period. Baltimore City was the only jurisdiction in Central Maryland to lose population in the last several decades. It declined from a high of more than 900,000 people in 1970 to a little more...
than 650,000 in 2000.

Current projections suggest that Central Maryland’s population will continue to grow to more than 5 million by 2030, an addition of almost 28,000 people annually from 2000 to 2030. The largest projected growth is in Montgomery County with an increase of more than 280,000 by 2030. Prince George’s County is not far behind with projected growth of more than 140,000. Baltimore City’s rate of population loss is expected to slow greatly with a total projected loss of only 2,000 people between 2000 and 2030.

Foreign immigration is a substantial element of population growth in Central Maryland. When considering in- and out-migration to the region between 1995 and 2000, much of the net gains in population can be attributed to foreign immigration, particularly in Montgomery and Prince George’s counties. During these five years, Montgomery County had a net gain of almost 56,000 immigrants; Prince George’s a net gain of more than 30,000, and Baltimore County a net gain of more than 14,000. The net gain in population for most counties is from immigration, although Prince George’s County has a substantial net in-flow of population from surrounding states as seen in Table 14.

Central Maryland’s immigrant population comes from a very diverse list of continents and countries as seen in Figure 16. In 2000, more than two-thirds of the foreign born in Central Maryland were from Asia and Latin America and 13% were from Africa. Most Asian immigrants hail from the countries of China, Korea, India, and the Philippines. Of the African population in 2000, more than half were from Western African and 3% of the foreign born in Central Maryland were from Nigeria. Seventeen percent of the foreign born in Central Maryland were from Central America, more than half of whom came from El Salvador, Mexico, and Guatemala, and Peru accounted for 10% of the Latin and South American foreign born in Central Maryland.

The population of Central Maryland has become more diverse, particularly in the last two decades, not only with an influx of immigrants, but also with an increase in the Black population. There were a total of 1.3 million Black people living in Central Maryland in 2000, more than 30% of the total population. From 1990 to 2000, the number of Blacks in the region increased by more than 250,000, many living in the suburban counties. The percentage of Blacks living in the counties of Prince George’s and Montgomery was almost 63% and 15%, respectively, in 2000. Twenty percent of Baltimore County’s population and more than 14% of Howard County was Black in 2000. While the percentage of the Black population in Baltimore City increased from 59% in 1990 to 64% in 2000, the number of Blacks decreased by almost 17,000 during this period as the city lost Black as well as White populations.

<table>
<thead>
<tr>
<th></th>
<th>Total Net Migration</th>
<th>Maryland Counties Only</th>
<th>Rural Counties Only</th>
<th>Other States</th>
<th>Surrounding States Only</th>
<th>Abroad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anne Arundel</td>
<td>14,245</td>
<td>8,532</td>
<td>-2,439</td>
<td>-4,671</td>
<td>-249</td>
<td>10,384</td>
</tr>
<tr>
<td>Baltimore County</td>
<td>59,456</td>
<td>45,113</td>
<td>-1,361</td>
<td>-36</td>
<td>-2,359</td>
<td>14,379</td>
</tr>
<tr>
<td>Carroll</td>
<td>6,521</td>
<td>9,927</td>
<td>-424</td>
<td>-4,561</td>
<td>-2,691</td>
<td>1,155</td>
</tr>
<tr>
<td>Harford</td>
<td>10,367</td>
<td>8,325</td>
<td>-2,245</td>
<td>-969</td>
<td>-1,793</td>
<td>3,011</td>
</tr>
<tr>
<td>Howard</td>
<td>19,126</td>
<td>11,434</td>
<td>-529</td>
<td>90</td>
<td>-56</td>
<td>7,602</td>
</tr>
<tr>
<td>Montgomery</td>
<td>28,342</td>
<td>-16,262</td>
<td>-1,621</td>
<td>-11,363</td>
<td>1,689</td>
<td>55,967</td>
</tr>
<tr>
<td>Prince George’s</td>
<td>15,091</td>
<td>-33,034</td>
<td>-2,559</td>
<td>17,658</td>
<td>19,505</td>
<td>30,467</td>
</tr>
<tr>
<td>Baltimore City</td>
<td>-79,567</td>
<td>-73,418</td>
<td>207</td>
<td>-18,805</td>
<td>-6,738</td>
<td>12,656</td>
</tr>
</tbody>
</table>

Table 14. Sources of Net Migration Gains and Losses for Central Maryland, 1995-2000
These trends of increasing immigrant and other minority populations will most likely continue at high rates in Central Maryland for the next several decades. As a result of this trend, the Washington Post recently reported that in the next four to eight years, minority residents will constitute a majority in the Washington, DC metro area population, with 53% of the minorities Hispanic. Currently, for residents under the age of 40, minorities already outnumber the majority White population.

Some minority populations are struggling economically when compared to Whites. For instance, the poverty rate for Hispanics and Blacks in Central Maryland is higher than that of the White population. Meanwhile, Asian immigrants are faring better with more than half holding bachelor degrees or higher and many in professional jobs. Among the Black population, there is some income disparity, with many middle income Blacks settling in areas such as Montgomery County, while low-income Blacks are concentrated in Baltimore City and the older suburbs of Prince George’s and Baltimore counties.

Overall, urban expansion in the Region is being fueled by increasing immigration and the suburbanization of Blacks. The dynamics of racial segregation suggest that the continued development of Black suburbs may lead to further out-migration of Whites. There is also a need for specific services in schools and local communities to cater to increasing minority populations. While many immigrants and Blacks are settling in suburban counties, services must be decentralized into local jurisdictions that traditionally have not needed to cater to these populations.

CENTRAL MARYLAND EMPLOYMENT TRENDS

Central Maryland has experienced a dramatic period of growth between 1969 and 2001, when employment in the region grew from almost 1.4 million to more than 2.5 million workers, a job growth of more than 8%.

Projections show that employment in Central Maryland will continue to grow in the future. Between 2005 and 2030, an additional 435,200 new jobs are forecasted. As Figure 17 reveals, much of the historic employment growth in Central Maryland has been in the service sector as witnessed by the addition of almost 700,000 service jobs from 1969 to 2000.

Meanwhile, employment in farming has remained low and manufacturing employment has declined over the last decades. Keeping pace with population and urban growth, retail, construction and government employment has risen significantly. The distribution of places of work for these industries varies spatially across the region, with employment centers located in a number of key areas. As Figure 19 illustrates,
Figure 17. Employment Growth in Central Maryland, 1969 to 2030

Figure 18. Employment by Industry in Central Maryland, 1969 to 2000

areas of high employment in the Central Maryland region include the military bases of Aberdeen, Prince George's, and Fort Meade, as well as around the BWI airport. Other important employment centers include the I-95 corridor from Baltimore to Washington D.C. and the I-270 corridor in Montgomery County. Hunt Valley in Baltimore County is also a hub of employment activity along with areas outside Annapolis.

Central Maryland also has a very high number of jobs in the high technology sector. Figure 20 shows the location of high-tech employment by zip code for Central Maryland, highlighting hubs of biotechnology and information processing near Annapolis and Columbia, in the Owings Mills area of Baltimore County, and along I-270 in Montgomery County - which has been named the "Technology Corridor" and informally called "DNA Alley."
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Figure 19. Places of Work by Transportation Analysis Zone in Central Maryland, 2000
CENTRAL MARYLAND HOUSING TRENDS

To keep pace with population growth, housing development has also occurred at a rapid pace in the Central Maryland region, particularly in the 1970s and 1980s. In 1970, there were more than one million housing units in Central Maryland. By 2000, an additional 650,000 housing units had been built for a total of almost 1.7 million, a 64% increase in three decades. In the 1970s, the region witnessed an increase of more than 230,000 units, and a similar increase of almost 240,000 units occurred in the 1980s.

There was a slowing of housing development in the 1990s in the region as a whole. But with the expected addition of more than 430,000 new jobs and more than 830,000 people in the region by 2030, the pace of housing construction or the reuse of currently underutilized housing stock (particularly in Baltimore City) is necessary to prevent both a housing shortage and a continued rise in property values.

The rate of housing development varies across counties in the region. In raw numbers, housing
development in Montgomery, Prince George's and Baltimore counties far outpaced other counties in the region, with these counties adding almost 400,000 housing units from 1970 to 2000. As Figure 21 indicates, in terms of percentage change in the number of units, however, Howard County is the highest, exhibiting more than a 400% increase during this time. It is also important to note that during this time, five of the seven counties in the region more than doubled their housing stocks.

An important element of the housing market in recent years has been the increase in property values. Between I-270 and I-70 in Montgomery County, the sales value of single family housing in many zip codes exceeded $350,000, and in some cases, $500,000 in 2003. Zip codes around Annapolis and in parts of Northern Baltimore County had similarly high sales values in contrast to the more affordable housing in the Baltimore inner suburbs, and in Prince George's County.

**C E N T R A L  M A R Y L A N D ENVIRONMENTAL ISSUES**

**An Aging Infrastructure**

Aging infrastructure -- particularly sanitary sewerage, storm water drainage, water-system pipes, roadways and parks -- is a major challenge to the older areas in Central Maryland. The degradation of these systems not only affects water quality directly, but also impacts the ability of older areas to cope with other stresses such as urban runoff during floods, or increasing water demand resulting from population and economic changes. The Baltimore and Washington D.C. regions, like many older metropolitan areas in the Eastern Seaboard, have an aging infrastructure that requires investment and renewal. The EPA has mandated, by consent decree, that Baltimore City and Baltimore County upgrade their aging systems for an estimated cost of almost $940 million for the city and $800 million for the county.

**Groundwater**

Groundwater is the primary source of water for the jurisdictions in Maryland that lie in the...
Atlantic Coastal Plain, which for the Central Region includes primarily Prince George’s and Anne Arundel and portions of Baltimore and Harford counties (see Figure 22). With continued urban development, ground water levels are significantly compromised, with current levels of decline of the confined Coastal Plain aquifers at about two feet per year. Continued water-level declines affect the long-term growth plans for many areas of the Coastal Plain. Of particular concern in the Central Maryland region are the impacts of urbanization in both Anne Arundel and Prince George’s counties on ground water levels, and the ability of the ground water to supply future growth.

**Urban and Agricultural Land Use**

Non-point source pollution is the major reason for water quality impairment. The largest contributor to non-point source pollution through nitrogen and phosphorous run-off is agriculture. According to the Maryland Department of the Environment, agricultural land use accounts for 43% of phosphorous and 39% of nitrogen loadings in Maryland’s water bodies. Urban land use, while less significant, still accounts for 24% of the phosphorous and 16% of the nitrogen run-off in these same streams, rivers, and Bay area. Urban development in Central Maryland will continue to generate urban runoff, and, without adequate mitigation, will create significant pollution for the environment. This is especially true as more and more of the land is developed and converted to impervious surfaces. Similarly, current agricultural practices in the Central region affect Maryland’s environmental sustainability, particularly as it relates to the Chesapeake Bay and its ailing health.

**Air quality**

An important environmental challenge facing Central Maryland is the problem of air pollution. One way to measure air pollution is to examine the number of days when the ozone standard is violated. In 2002, the Baltimore metropolitan area experienced 16 “Code Red” poor quality air days when ozone reached levels deemed unhealthy and exceeded the federal one-hour ozone standard. The Washington, D.C. metro area had nine “Code Red” days that same year. In more recent years, there has been some improvement in air quality in Washington, DC where there were no “Code Red” days in 2005. However, EPA is currently phasing out the one-hour ozone measure for a stricter eight-hour standard, and, during 2005, the Washington DC metropolitan region had 19 days where this 8-hour ozone standard was exceeded. The county with the worst ozone pollution in Central Maryland is Anne Arundel, ranking 17th among the top 25 worst ozone counties nationally. In measuring particulate matter in the air, the Baltimore / Washington, DC metropolitan region ranks 21st among the top 26 metropolitan areas with the most polluted year-round particulate pollution. As more population and jobs move into the region, traffic will increase and most likely worsen this situation.

**GROWTH RELATED ISSUES IN CENTRAL MARYLAND**

Much of the problem of air quality in Central Maryland is fueled by traffic and traffic congestion. According to the State Highway Administration, the number of annual vehicle miles traveled for commuters in the Central Maryland region increased from 21,428 in 1980 to 40,680 in 2004. In terms of traffic congestion, the Baltimore region ranked 17th
nationally in traffic congestion in 2003, and the Washington, DC region, third.

The national housing boom has greatly impacted the Central Maryland region. "Housing burden" refers to the U.S. Department of Housing and Urban Development standard that households should spend not more than 30% of their monthly income towards housing expenses, including utilities. According to data from Census 2000, 26% of households in Central Maryland were paying 30% of more of their income on housing. While these are the latest figures available, with increasing property values, the housing burden has likely increased for many households.

Other growth related issues facing Central Maryland include the increased pressure on protected lands and natural resources. For instance, Montgomery County’s agricultural preserve is under development pressure as housing prices continue to rise and the population influx to the county is likely to continue. Strict protection of land in some counties leads to leap-frog development in counties with looser land regulations. For instance, while Baltimore County’s Urban Rural Demarcation Line (URDL) continues to preserve farm areas in northern part of Baltimore County, it also fuels development in neighboring Carroll and Harford counties. A regional approach to land use might be better able to deal with these growth issues.

It is anticipated that many more jobs will be created in Central Maryland with the implementation of Base Realignment and Closure (BRAC) recommendations. On May 13, 2005, the U.S. Department of Defense released its BRAC recommendations that were reviewed by the BRAC Commission, approved by the President, and officially took effect on November 9, 2005. The implications of BRAC for Central Maryland are extensive in terms of potential job growth. While figures are still changing, the projected employment as a result of realignment for the two primary military bases, Fort Meade and Aberdeen Proving Ground, in Central Maryland is as shown in Table 15.

The Intercounty Connector (ICC) has been a controversial topic in Central Maryland for several decades. It is a proposed 18-mile, 6-lane highway that will run between I-270 and the I-95 corridors in Montgomery and Prince George’s counties. Plans to develop the highway have been on and off Maryland’s political agenda since the 1950s. In 1999, then Governor Parris Glendenning canceled an environmental impact study on the project. Current Governor Robert Ehrlich has brought the highway to the forefront again, using $2 million in transportation funding to restart the planning process for the connector. The current status of the ICC is that the planned route of the highway has been selected and the final environmental impact statement by the State Highway Administration has been issued.

It remains a very controversial topic today with both passionate supporters and opponents. Supporters of the highway believe it is necessary to link businesses, particularly along the I-270 corridor, with the BWI airport and the Port of Baltimore, both near I-95. They also feel that the connector will reduce traffic congestion in the northern suburbs of Washington, DC improving both residents’ quality of lives and the environment. Some of the concerns with the highway include the potential loss of parkland and wetlands that could disrupt migratory birds and threaten fish habitat; the possible negative impact of the highway on local communities; and increased traffic due to the highway’s potential effect of encouraging more development. The major land use concern that opponents have is that the ICC cuts through an area of Montgomery County that has been historically a part of the region’s “Wedges and Corridors” Plan. This plan designated corridors of intense development with wedges of open space. Opponents fear that the ICC will be an impetus to the development of this large, sparsely developed wedge.

Table 15. Projected Employment Due to BRAC

<table>
<thead>
<tr>
<th>Military Base</th>
<th>Location</th>
<th>Expected Number of New Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aberdeen Proving Ground</td>
<td>Harford County</td>
<td>30,000 to 35,000</td>
</tr>
<tr>
<td>Fort Meade</td>
<td>Anne Arundel</td>
<td>20,000 to 25,000</td>
</tr>
</tbody>
</table>
THE TABLES AND NUMBERS INCLUDED IN THIS SECTION APPLY ONLY TO THIS REGION.

REALITY CHECK PLUS - CENTRAL MD
APPENDIX A

Density Visualizations for Each of the Blocks

**RESIDENTIAL**

- Very Low Density
- Low Density
- Low/Medium Density
- Medium Density
- High Density

**COMMERCIAL/INDUSTRIAL**

- Low Density
- Low/Medium Density
- Medium Density
- High Density

**MIXED USE / MIXED INCOME**

Yellow Legos represent workforce housing

| LEGO® Block Representations (each block is 0.8 miles X 0.8 miles or 410 acres) |
|---|---|---|---|---|---|
| Number of Blocks | Number of Households | Household Density | Number of Blocks | Number of Jobs | Job Density |
| 1 black* | 410 | Very Low Density (1.0 hh per acre) | 1 blue | 2,320 | Low Density (5.6 jobs per acre) |
| 1 white or yellow | 1,640 | Low Density (4.0 hh per acre) | 2 blue | 4,640 | Low/Medium Density (11.2 jobs per acre) |
| 2 white or yellow | 3,280 | Low/Medium Density (8.0 hh per acre) | 3 blue | 6,960 | Medium Density (16.8 jobs per acre) |
| 3 white or yellow | 4,920 | Medium Density (12.0 hh per acre) | 4+ blue | 9,280+ | High Density (22.2+ jobs per acre) |
| 4+ white or yellow | 6,360+ | High Density (16.0+ hh per acre) |    |        |            |

*Black LEGO® are only provided in limited numbers to be used as a bank. At the request of the table participants, the facilitator may exchange one white LEGO® for four black LEGO® (with a maximum limit of 10 white LEGO® for 40 black LEGO®)."
Illustrated below are pictures showing examples of densities that may be possible in this exercise. The densities will vary depending on the existing density shown on the map.

Photos Courtesy of: Design Collective, Inc., Lincoln Institute for Land Policy & Maryland Department of Planning

**Very Low Density Residential: 1 du/acre**

Examples of this include: Rural Howard County

**Low Density Residential: 4 du/acre**

Examples Include: Eldersburg/Sykesville, Havre de Grace
Low/Medium Density Residential: du/acre

Examples Include: Columbia, Westminster

Medium Density Residential: 12 du/acre

Examples of this include: Annapolis, Homeland (Baltimore City)
Low/Medium Density Residential: du/acre

Examples Include: Columbia, Westminster

High Density Residential: 16+ du/acre

Examples of this include: Downtown Baltimore, Silver Spring, and Rockville
Low Density Jobs

Examples of this include: Eldersburg/Sykesville, New Windsor

Low/Medium Density Jobs

Examples of this include: Westminster, White Marsh
Medium Density Jobs

Examples of this include: Parts of Baltimore City, Annapolis

High Density Jobs

Examples of this include: Downtown Baltimore, Silver Spring, and Rockville