



RESEARCH REPORT

A publication providing statistical information on Howard County demographics, socioeconomic and employment trends and patterns. Available from the Department of Planning and Zoning by calling (410) 313-4370.

Howard County Population Growth – 2000 to 2003

Introduction

The Census Bureau recently released their intercensal population estimates for the period from April 1, 2000, the time of the last Decennial Census, to July 1, 2003. The population estimates are based on growth by three components of change: 1) natural population increase (births minus deaths), 2) international migration and 3) internal or domestic migration. *This report summarizes these estimates from the Census Bureau providing regional and state comparisons. In addition, the Bureau’s estimates are compared to the Department of Planning and Zoning’s (DPZ) population growth estimates based on new housing units. Historic population growth for Howard County is also discussed.* Later this year, sometime in the summer of 2004, the Census Bureau will provide growth estimates for the same time period by age, sex and race.

Howard County Population Growth

The table below summarizes population growth in Howard County since the 2000 Census was taken on April 1 of that year. Components of population growth are included in the table.

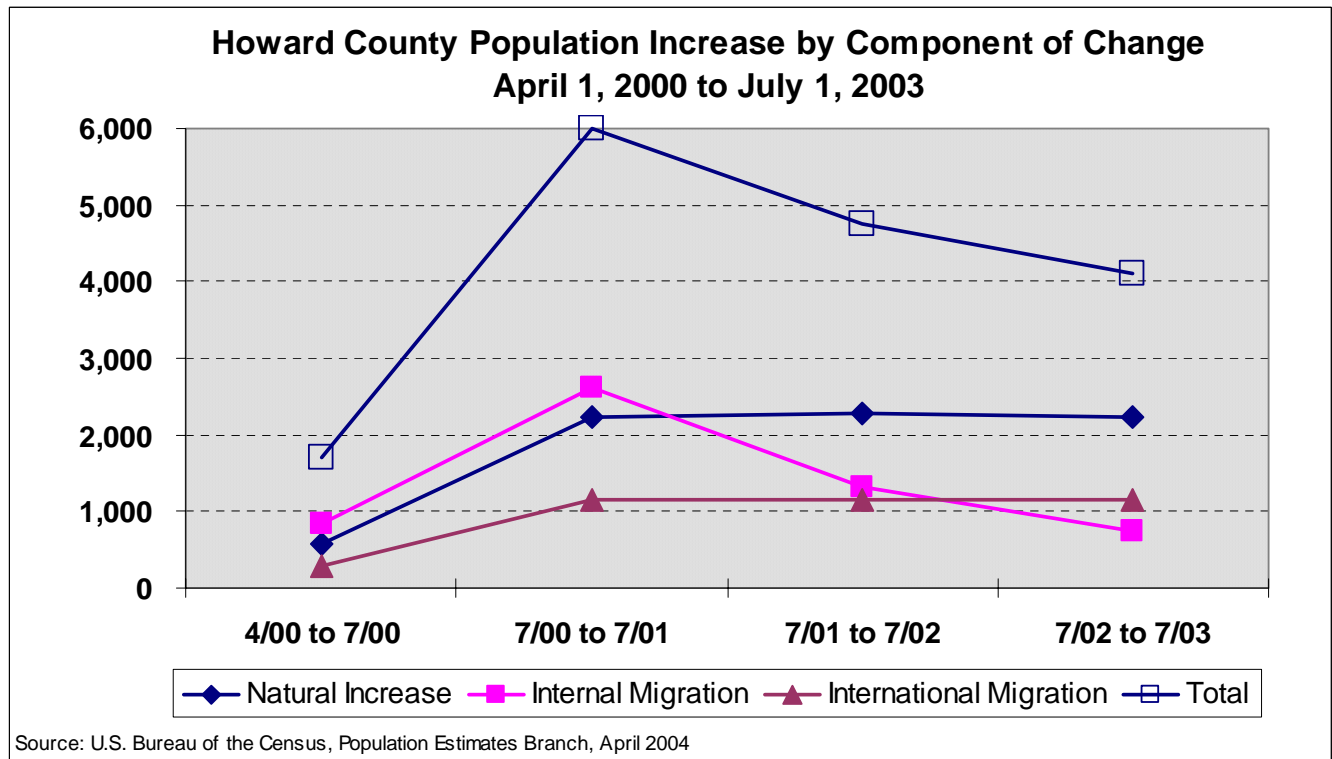
**Howard County Population Increase by Component of Change
April 1, 2000 to July 1, 2003**

Population Component	April 1 2000	July 1 2000	July 1 2001	July 1 2002	July 1 2003	Total	Percent
+ Births		882	3,535	3,577	3,570	11,564	
- Deaths		304	1,295	1,293	1,342	4,234	
= Net Natural Increase		578	2,240	2,284	2,228	7,330	44.6%
+ Internal Migration		844	2,614	1,316	745	5,519	33.6%
+ International Migration		290	1,143	1,145	1,142	3,720	22.7%
+ Residual		13	(35)	(68)	(56)	(146)	-0.9%
= Population Increase		1,725	5,962	4,677	4,059	16,423	100.0%
% Population Increase		0.7%	2.4%	1.8%	1.6%	6.6%	
Total Population	247,842	249,567	255,529	260,206	264,265		

Source: U.S. Bureau of the Census, Population Estimates Branch, April 2004

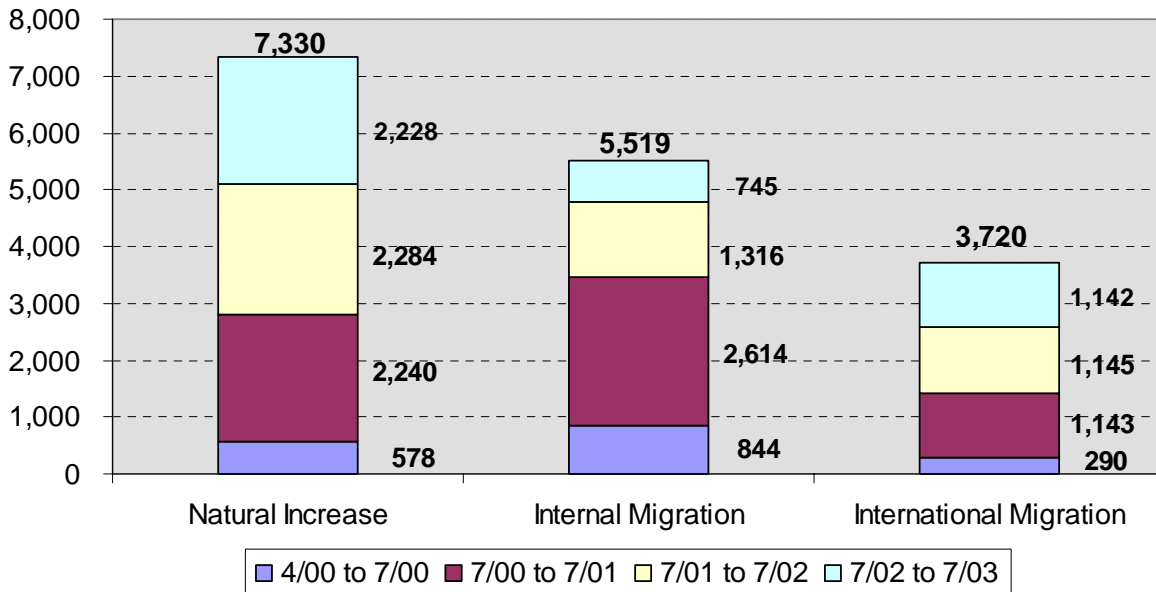
Over the three and a quarter year period, the County's population increased by an estimated 16,423 residents, from 247,842 on April 1, 2000 to 264,265 on July 1, 2003, a 6.6 percent increase. Annually, over that time period, population growth has slowed with an increase of 5,962 residents from 2000 to 2001, a smaller increase of 4,677 residents from 2001 to 2002, and only 4,059 additional residents from 2002 to 2003, the smallest increase since 1980 to 1981, more than 20 years ago.

Looking at the various component of population growth, 44.6 percent of the growth over the entire time period was due to natural population increase (births minus deaths), 33.6 percent due to internal or domestic migration and 22.7 percent was due to international migration.¹ The charts below summarize the components on an annual basis.



¹ The Census Bureau estimates natural population increase from vital statistics records (birth and death certificates). Internal migration estimates are based on an analysis of IRS tax records from one year to the next for those under 65 and Medicare enrollment records for those 65 and over. Data from the Armed Forces are also used. Foreign immigration estimates are based on national level data distributed down to the County level based on the previous five years immigration determined from the 2000 Census. The residual component is used to adjust the County totals slightly to match the national growth total. See the following Census web site for a detailed explanation of the methodology <http://eire.census.gov/popest/topics/methodology/states.php>

Howard County Population Increase by Component of Change April 1, 2000 to July 1, 2003



Source: U.S. Bureau of the Census, Population Estimates Branch, April 2004

It is clear that while the natural population increase and international migration has remained relatively constant from 2000 to 2003, internal migration has slowed considerably, from 2,614 residents in the 2000 to 2001 time period, when it was the greatest component, to only 745 residents in the 2002 to 2003 time period, when it was the smallest of the three components. Why this has occurred can only be speculated given that the detailed domestic migration data showing where residents came and went is not available yet. One possible explanation could be that the slowdown is a result of the limited supply of housing as well as the sharp increase in prices over the last few years prompting residents to choose to move to other further out counties like Carroll or Frederick where housing may be more affordable.

Comparisons to DPZ’s Construction Report Estimates

The Department of Planning and Zoning’s Research Division tracks residential building completions on a monthly basis. The results are summarized in DPZ’s Construction Report.² Population growth is also estimated in this report based on the type of units built, estimated household size and vacancy rates. The table on the next page compares the population estimated in the Construction Report to the Census Bureau’s estimates discussed above.

Based on building completions, it is estimated that the County grew by 17,253 residents from April 1, 2000 to July 1, 2003. This is 830 more residents than the 16,423 estimate provided by the Census Bureau, a difference of about 5 percent. By looking at the annual data, for the latest period from 2002 to 2003, the results were almost identical with a difference of only 12 people,

² See the following web site for the Construction Report: http://www.co.ho.md.us/DPZ/Research/dpz_research.htm

less than a three tenths of one percent difference. From April, 2000 to July 2001, the difference was also relatively modest at only 2.2 percent. For the middle period, from July 2001 to July 2002, however, the difference was comparatively large at 14.4 percent, with the building completion methodology estimating 673 more residents compared to the Census Bureau's estimates based on their methodology discussed above.

**Howard County Population Increase Based on New Unit Construction
Compared to Census Bureau Population Estimates
April 1, 2000 to July 1, 2003**

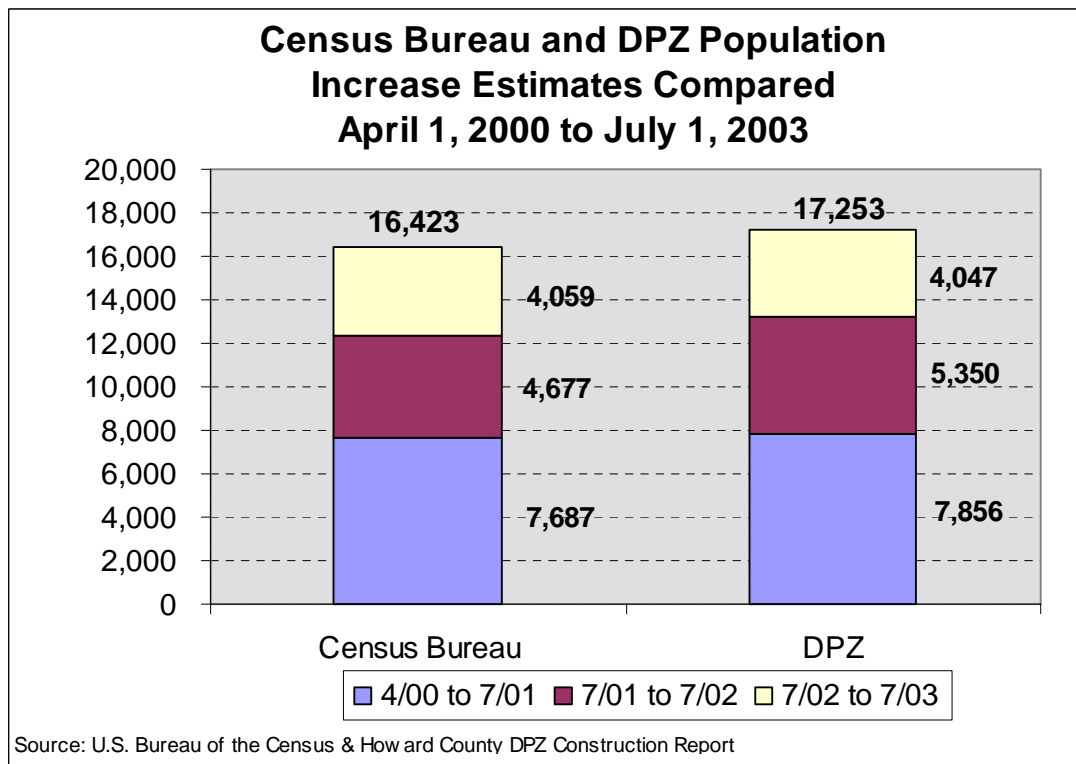
	April 1 2000	July 1 2001	July 1 2002	July 1 2003	Total
DPZ Estimates					
New Units		2,780	2,104	1,439	6,323
New Population (1)		7,856	5,350	4,047	17,253
Total Population (2)	247,842	255,698	261,048	265,095	
Census Bureau					
New Population		7,687	4,677	4,059	16,423
Total Population	247,842	255,529	260,206	264,265	
Difference					
Population (DPZ - CB)		169	673	(12)	830
Percent Diff in Growth Est.		2.20%	14.4%	-0.3%	5.1%
Percent Diff in Total Pop.		0.07%	0.32%	0.31%	

(1) Population Estimates based on new units times vacancy factors times household size by unit type. See DPZ's Construction Report for further details.

(2) DPZ future estimates begin with the 2000 Census population of 247,842 as a base.

Source: U.S. Bureau of the Census, Population Estimates Branch, April 2004

Howard County DPZ Construction Report

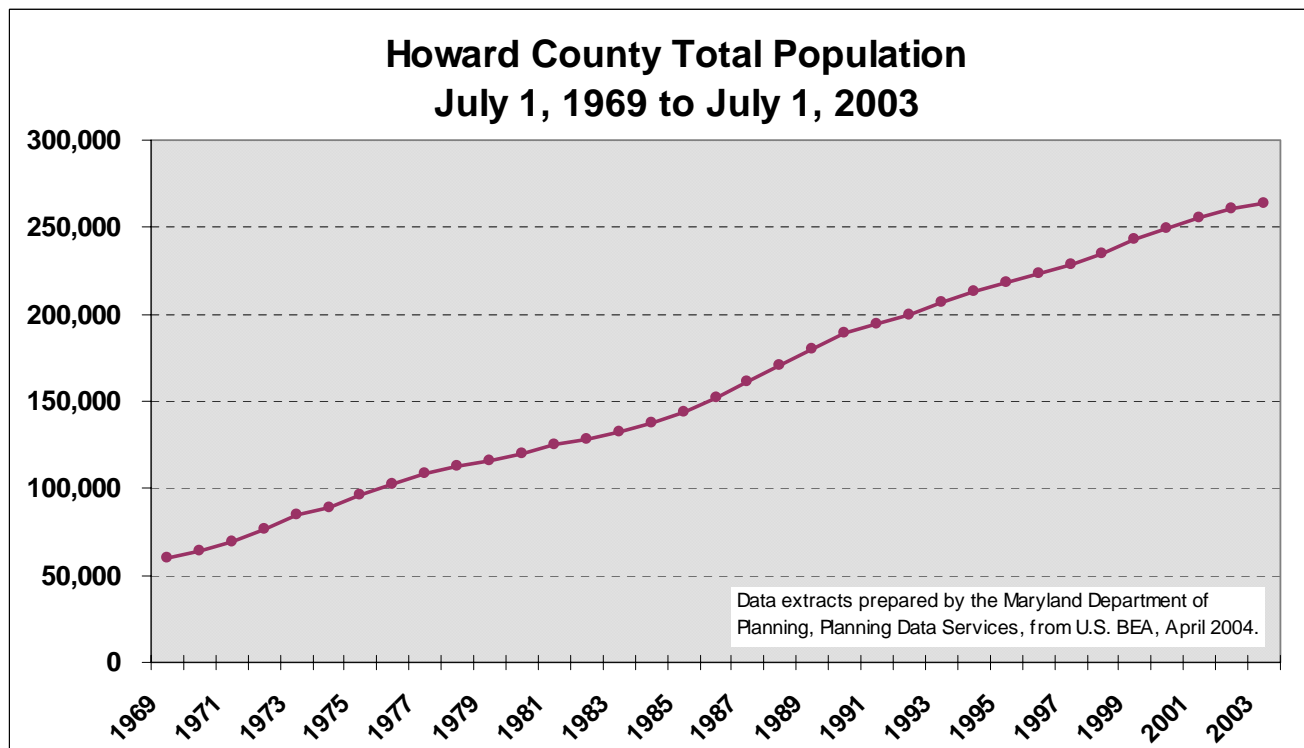


Given that both methodologies are estimates based on various factors, it is difficult to say which is closer to the truth. A number of factors could impact the Census Bureau's estimates such as a fallacy in their assumption that foreign immigration to Howard County maintains the same proportionate share of the national total as it did over the previous five years. On the other hand, the Construction Report assumes that household size countywide has not changed since 2000. If household size declines just slightly, then the total population estimates could be overestimated. In general, however, the two methodologies are relative consistent with a difference of only about 5 percent for the entire timeframe, providing a good set of checks and balances to ensure that neither is significantly off base.

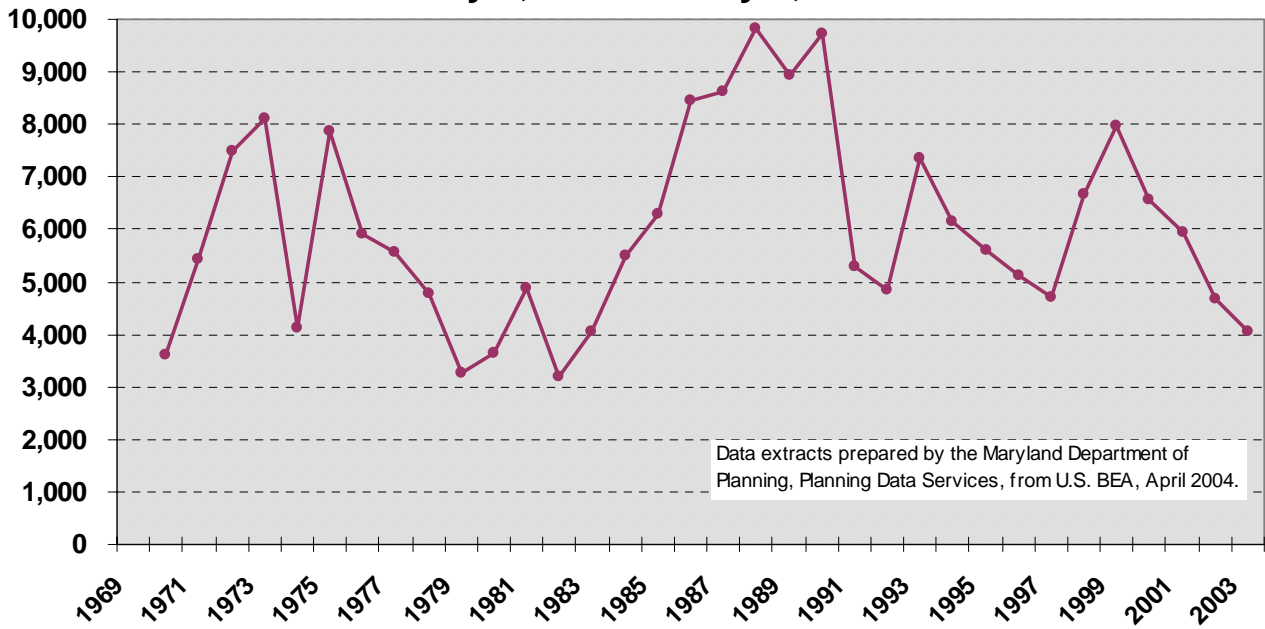
An Historical Perspective

In 1969 the population of Howard County was only 60,092, about 22 percent of the 264,265 residents living in the County in 2003. This represents an average annual growth rate of 4.45% over the 34 year period. In general, this growth has been relatively steady from one year to the next, although there have been peaks and valleys. In recent years, growth rates have steadily declined since 1999.

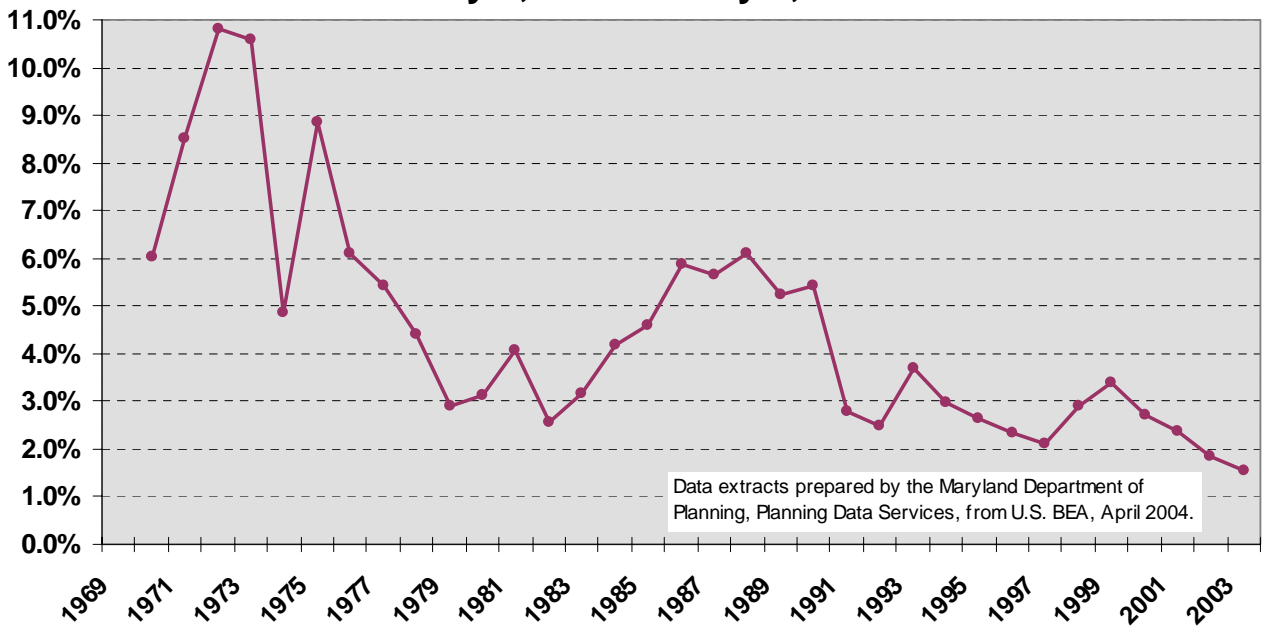
The first table below summarizes the cumulative population growth, whereas the subsequent two tables show the annual and percent annual growth, respectively. As indicated earlier, from 2002 to 2003 Howard County grew by the smallest amount in terms of new residents since 1981. In terms of the rate of growth, or percentage growth from one year to the next, the smallest level over the 1969 to 2003 analysis period occurred from 2002 to 2003 at only 1.6 percent. The rate was 1.8 percent from 2001 to 2002, the first time the rate was below 2 percent. This is to be expected given the growth limits imposed by General Plan 2000 in conjunction with a larger population base. Annual growth rates at these lower levels are anticipated into the future.



Howard County Annual Population Increase July 1, 1969 to July 1, 2003



Howard County **Percent** Annual Population Increase July 1, 1969 to July 1, 2003



Howard County Compared to Other Maryland Jurisdictions

The table below summarizes the population growth from April, 2000 to July 2003 for each Maryland jurisdiction organized by region. Maryland as a whole grew by 212,423 residents, a 4.0 percent increase, resulting in a statewide ranking of 14th greatest in the U.S. in terms of numbers of residents and 16th greatest in percentage growth.

Howard County's growth rate of 6.6 percent is higher than the Maryland average and the 8th greatest in the State. In absolute numbers, Howard ranked 6th. Montgomery County had the greatest population increase with 45,540 new residents, almost 2.8 times the increase in Howard. This is followed by Prince George's (37,201), Baltimore County (22,892), Frederick (18,385), Anne Arundel (16,964) and then Howard (16,423). Three jurisdictions actually *lost* population. Baltimore City lost the most with 22,484 residents, continuing a decades old trend. Allegany lost 1,262 residents and Dorchester lost 62.

COMPONENTS OF POPULATION CHANGE FOR MARYLAND'S JURISDICTIONS, 2000 - 2003

	Census Population 4/1/2000	CUMULATIVE TOTALS - APRIL 1, 2000 TO JULY 1, 2003							Total Population 7/1/2003	TOTAL CHANGE 00-'03	PCT. CNG. 00-'03
		Births	Deaths	Net Natural Increase	International Migration	Internal Migration*	Residual				
MARYLAND	5,296,486	+ 241,352	- 144,272	= 97,080	+ 72,453	+ 38,668	+ 4,222	= 5,508,909	212,423	4.0%	
BALTIMORE REGION	<u>2,512,431</u>	+ 110,391	- 77,064	= 33,327	+ 18,503	+ 2,548	+ 5,312	= <u>2,572,121</u>	59,690	2.4%	
Anne Arundel County	489,656	+ 22,256	- 11,708	= 10,548	+ 2,416	+ 4,375	+ -375	= 506,620	16,964	3.5%	
Baltimore County	754,292	+ 29,984	- 25,269	= 4,715	+ 7,163	+ 11,701	+ -687	= 777,184	22,892	3.0%	
Carroll County	150,897	+ 6,052	- 3,941	= 2,111	+ 229	+ 9,888	+ 82	= 163,207	12,310	8.2%	
Harford County	218,590	+ 9,382	- 5,076	= 4,306	+ 541	+ 8,748	+ -10	= 232,175	13,585	6.2%	
Howard County	247,842	+ 11,564	- 4,234	= 7,330	+ 3,720	+ 5,519	+ -146	= 264,265	16,423	6.6%	
Baltimore City	651,154	+ 31,153	- 26,836	= 4,317	+ 4,434	+ -37,683	+ 6,448	= 628,670	-22,484	-3.5%	
SUBURBAN WASHINGTON REGION	<u>1,870,133</u>	+ 93,818	- 39,398	= 54,420	+ 51,527	+ -3,433	+ -1,388	= <u>1,971,259</u>	101,126	5.4%	
Frederick County	195,277	+ 9,368	- 4,386	= 4,982	+ 1,007	+ 12,208	+ 188	= 213,662	18,385	9.4%	
Montgomery County	873,341	+ 42,796	- 18,138	= 24,658	+ 33,868	+ -12,313	+ -673	= 918,881	45,540	5.2%	
Prince George's County	801,515	+ 41,654	- 16,874	= 24,780	+ 16,652	+ -3,328	+ -903	= 838,716	37,201	4.6%	
SOUTHERN MARYLAND REGION	<u>281,320</u>	+ 13,012	- 6,173	= 6,839	+ 557	+ 20,765	+ 432	= <u>309,913</u>	28,593	10.2%	
Calvert County	74,563	+ 3,171	- 1,660	= 1,511	+ 153	+ 7,703	+ 180	= 84,110	9,547	12.8%	
Charles County	120,546	+ 5,698	- 2,656	= 3,042	+ 228	+ 9,014	+ 219	= 133,049	12,503	10.4%	
St. Mary's County	86,211	+ 4,143	- 1,857	= 2,286	+ 176	+ 4,048	+ 33	= 92,754	6,543	7.6%	
WESTERN MARYLAND REGION	<u>236,699</u>	+ 8,520	- 8,137	= 383	+ 309	+ 3,261	+ -139	= <u>240,513</u>	3,814	1.6%	
Allegany County	74,930	+ 2,328	- 2,892	= -564	+ 55	+ -682	+ -71	= 73,668	-1,262	-1.7%	
Garrett County	29,846	+ 1,043	- 1,025	= 18	+ 13	+ 198	+ -26	= 30,049	203	0.7%	
Washington County	131,923	+ 5,149	- 4,220	= 929	+ 241	+ 3,745	+ -42	= 136,796	4,873	3.7%	
UPPER EASTERN SHORE REGION	<u>209,295</u>	+ 8,292	- 6,767	= 1,525	+ 705	+ 10,460	+ 80	= <u>222,065</u>	12,770	6.1%	
Caroline County	29,772	+ 1,283	- 1,046	= 237	+ 188	+ 673	+ -9	= 30,861	1,089	3.7%	
Cecil County	85,951	+ 3,757	- 2,408	= 1,349	+ 172	+ 5,193	+ 81	= 92,746	6,795	7.9%	
Kent County	19,197	+ 537	- 760	= -223	+ 98	+ 614	+ -6	= 19,680	483	2.5%	
Queen Anne's County	40,563	+ 1,529	- 1,181	= 348	+ 143	+ 2,998	+ 56	= 44,108	3,545	8.7%	
Talbot County	33,812	+ 1,186	- 1,372	= -186	+ 104	+ 982	+ -42	= 34,670	858	2.5%	
LOWER EASTERN SHORE REGION	<u>186,608</u>	+ 7,319	- 6,733	= 586	+ 852	+ 5,067	+ -75	= <u>193,038</u>	6,430	3.4%	
Dorchester County	30,674	+ 1,078	- 1,337	= -259	+ 39	+ 187	+ -29	= 30,612	-62	-0.2%	
Somerset County	24,747	+ 831	- 837	= -6	+ 120	+ 589	+ -3	= 25,447	700	2.8%	
Wicomico County	84,644	+ 3,741	- 2,641	= 1,100	+ 502	+ 1,219	+ -90	= 87,375	2,731	3.2%	
Worcester County	46,543	+ 1,669	- 1,918	= -249	+ 191	+ 3,072	+ 47	= 49,604	3,061	6.6%	

* Represents the movement of domestic migrants as well as federal personnel and their families to and from overseas assignments.

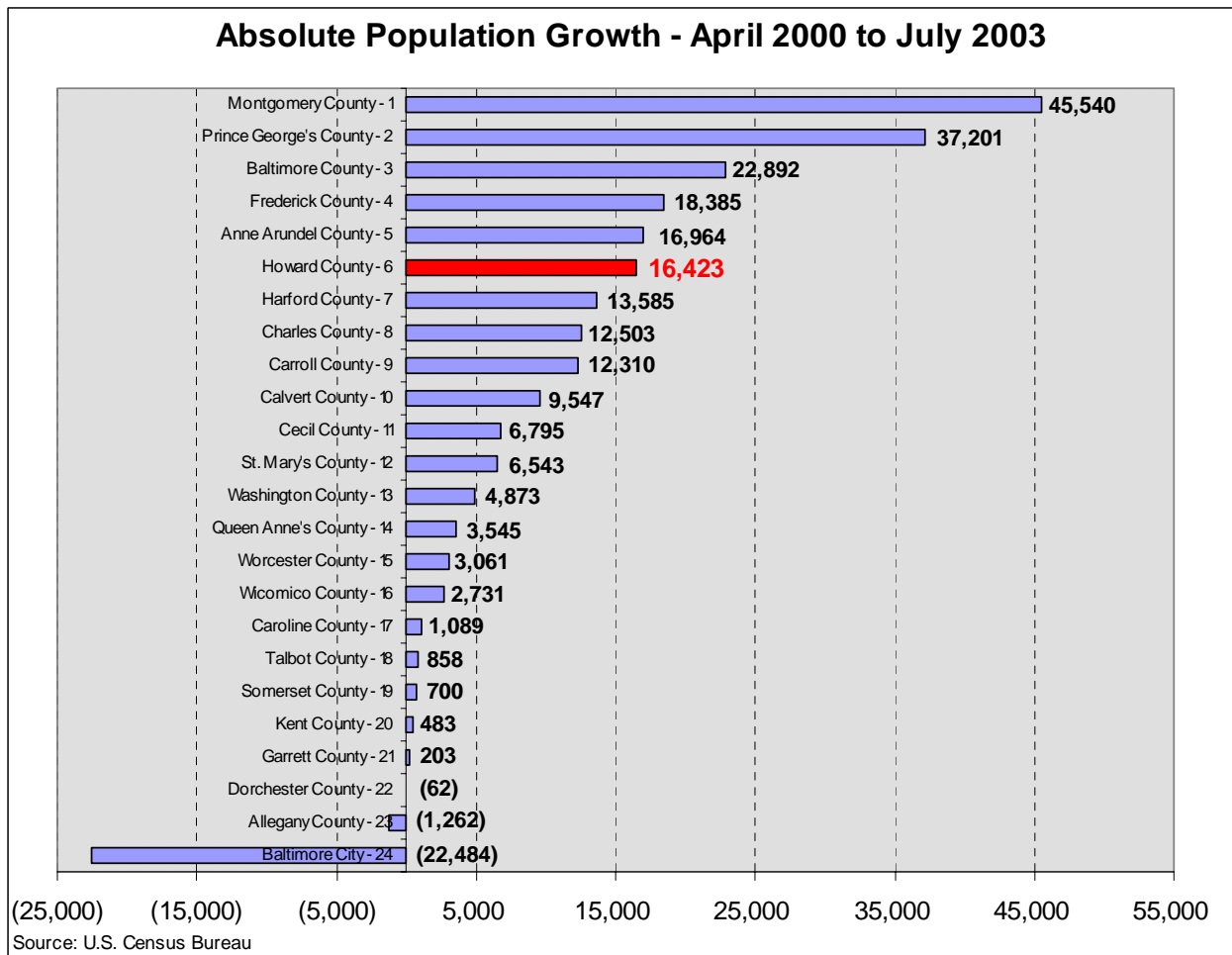
Source: U.S. Bureau of the Census, Population Estimates Branch, April 2004

Prepared by the Maryland Department of Planning, Planning Data Services

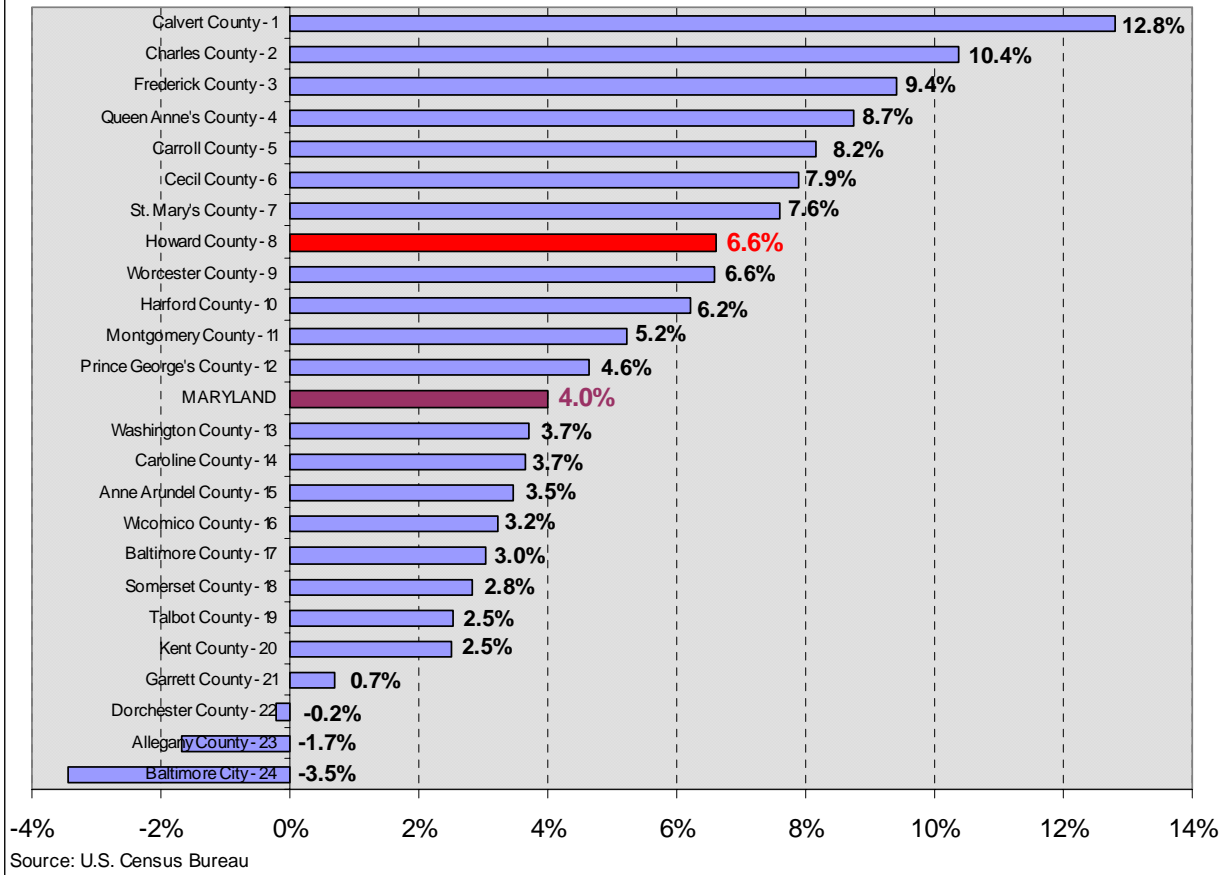
Observing the individual components of growth, clear patterns of the shifting populations become apparent. Statewide, about 45 percent of the growth was due to natural population increase (97,080 births minus deaths). About 36 percent was due to international migration (72,453) and 18 percent from internal or domestic migration (38,688). Montgomery County by far received the most international migrants, with 33,868, almost half the statewide total. This is followed by Prince George's with 16,652 immigrants representing almost a quarter of the statewide total. Howard County ranked 5th after Baltimore County and Baltimore City with 3,720 immigrants, about 5 percent of the statewide total.

Howard ranked 7th in the number of internal or domestic migrants with 5,519. Frederick had the most with 12,208 followed by Baltimore County with 11,701 and then Carroll (9,888). Interestingly, Baltimore City lost 37,683 residents due to domestic migration more than offsetting the growth it received from international migration and natural increase. Montgomery County also lost 12,313 residents due to domestic migration as did Prince George's (3,328) and Allegany (682).

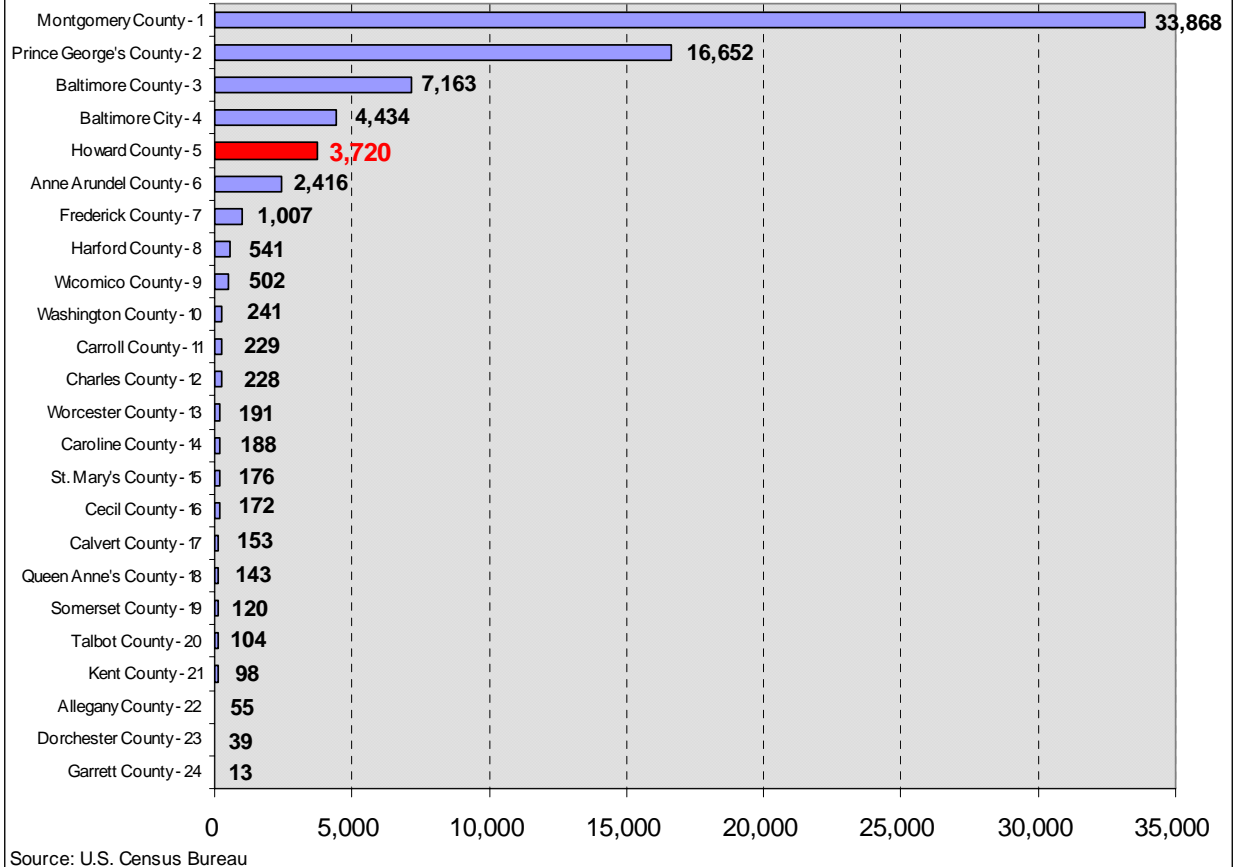
In general, and as expected, the natural population increase was greater for the larger counties in proportion to size. Counties on the eastern shore and the western part of the State experienced slight declines in population where deaths exceeded births. This is due to the relatively older populations living in these counties with proportionately less numbers of younger families. The charts below summarize the growth including the individual growth components.



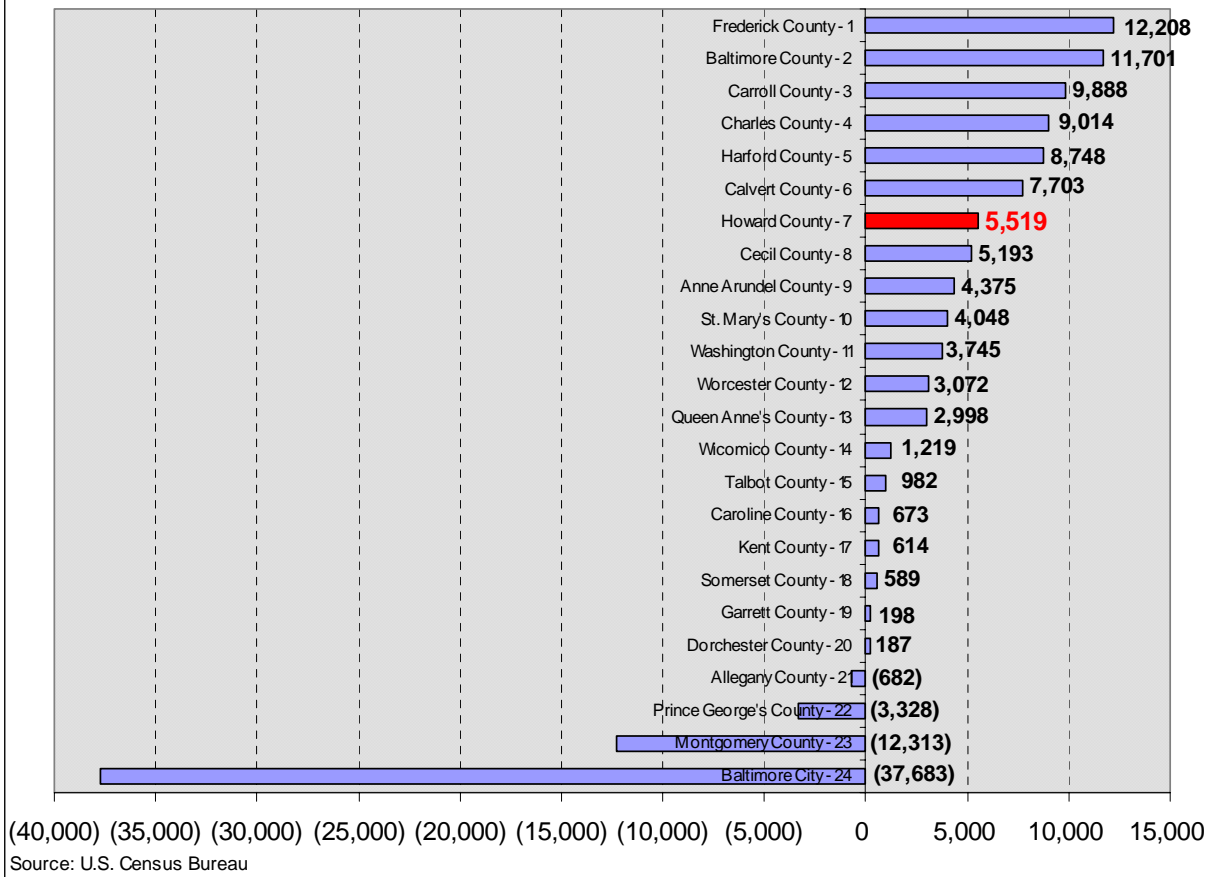
Percentage Population Growth - April 2000 to July 2003



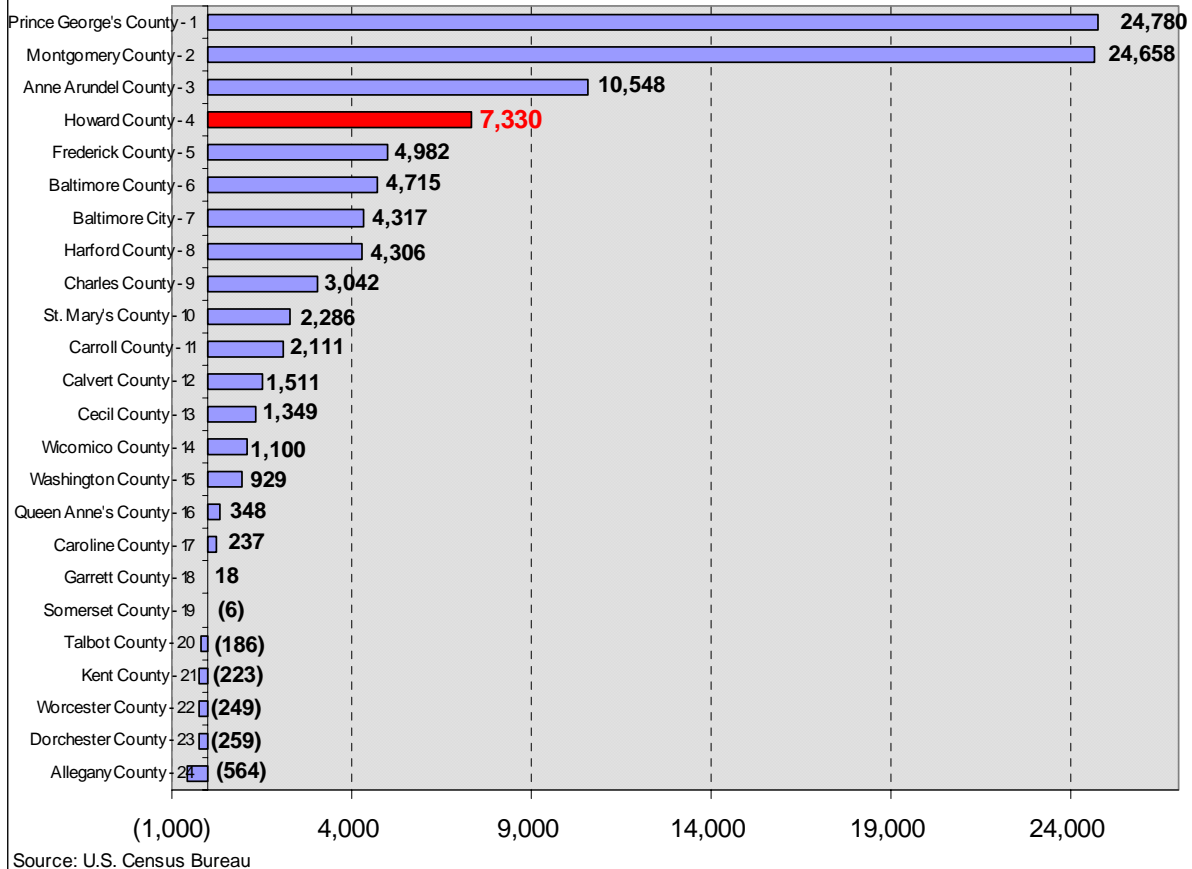
Growth from International Migration - April 2000 to July 2003



Growth from Internal Migration - April 2000 to July 2003



Growth from Natural Increase - April 2000 to July 2003



Regional Comparisons Over Time

The following table shows the yearly population change estimates between 2000 and 2003 by growth component for central Maryland jurisdictions. The subsequent charts show the results graphically. Similar to the results for Howard County discussed earlier, two of the three components, international migration and natural population change, remain relatively flat from one year to the next for all jurisdictions. That is, the population increases from these components do not vary much remaining relatively consistent on an annual basis. Internal or domestic migration, however, does change over the this time period for each of the jurisdictions.

Some of the major observations include: 1) an *increase* in *net domestic in migration* over time in Baltimore, Carroll, Harford, and Frederick (with the exception of the last year for Frederick); 2) a decrease in net domestic migration over time in Howard, Anne Arundel, Prince George's, and Montgomery, with Anne Arundel and Prince George's experiencing *net out migration* beginning in the 3rd and 2nd years, respectively. Montgomery shows net out domestic migration for all years with greater amounts over time. 3) Baltimore City shows net out domestic migration for all years, but *decreasing* amounts each year. This may be due to greater numbers of young adults moving into revitalized areas around the Inner Harbor in recent years.

Population Growth by Component by Year for Central Maryland Counties

Maryland Jurisdiction	International Migration				+	Internal Migration (1)			
	4/1/2000-7/1/2000	7/1/2000-7/1/2001	7/1/2001-7/1/2002	7/1/2002-7/1/2003		4/1/2000-7/1/2000	7/1/2000-7/1/2001	7/1/2001-7/1/2002	7/1/2002-7/1/2003
Anne Arundel County	228	730	747	711		585	2,207	1,769	(186)
Baltimore County	554	2,203	2,204	2,202		590	3,177	3,762	4,172
Carroll County	18	70	71	70		518	2,265	3,848	3,257
Harford County	48	164	167	162		449	1,803	3,147	3,349
Howard County	290	1,143	1,145	1,142		844	2,614	1,316	745
Baltimore City	342	1,364	1,365	1,363		(3,416)	(12,495)	(11,338)	(10,434)
Frederick County	82	308	310	307		783	4,006	4,826	2,593
Montgomery County	2,617	10,417	10,422	10,412		(95)	(1,211)	(3,524)	(7,483)
Prince George's County	1,306	5,116	5,126	5,104		(1,136)	1,832	(1,117)	(2,907)

Maryland Jurisdiction	+ Net Natural Change (Births-Deaths)				=	Total Population (2)			
	4/1/2000-7/1/2000	7/1/2000-7/1/2001	7/1/2001-7/1/2002	7/1/2002-7/1/2003		4/1/2000-7/1/2000	7/1/2000-7/1/2001	7/1/2001-7/1/2002	7/1/2002-7/1/2003
Anne Arundel County	935	3,191	3,252	3,170		1,748	6,128	5,768	3,695
Baltimore County	579	1,651	1,359	1,126		1,723	7,031	7,325	7,500
Carroll County	183	713	635	580		719	3,048	4,554	3,907
Harford County	406	1,284	1,307	1,309		903	3,251	4,621	4,820
Howard County	578	2,240	2,284	2,228		1,712	5,997	4,745	4,115
Baltimore City	424	1,321	1,236	1,336		(2,650)	(9,810)	(8,737)	(7,735)
Frederick County	427	1,548	1,503	1,504		1,292	5,862	6,639	4,404
Montgomery County	1,971	7,897	7,672	7,118		4,493	17,103	14,570	10,047
Prince George's County	1,962	7,877	7,610	7,331		2,132	14,825	11,619	9,528

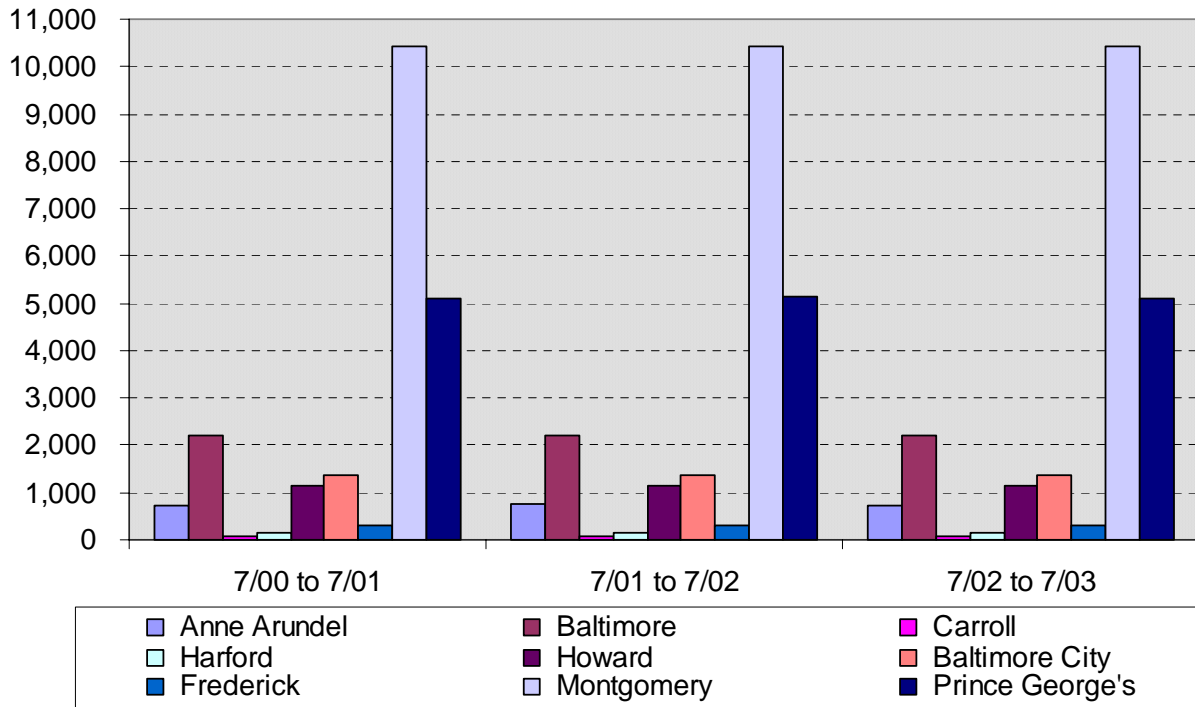
(1) Represents the movement of domestic migrants as well as federal personnel and their families to and from overseas assignments.

(2) Not including residual adjustments.

Source: U.S. Bureau of the Census, Population Estimates Branch

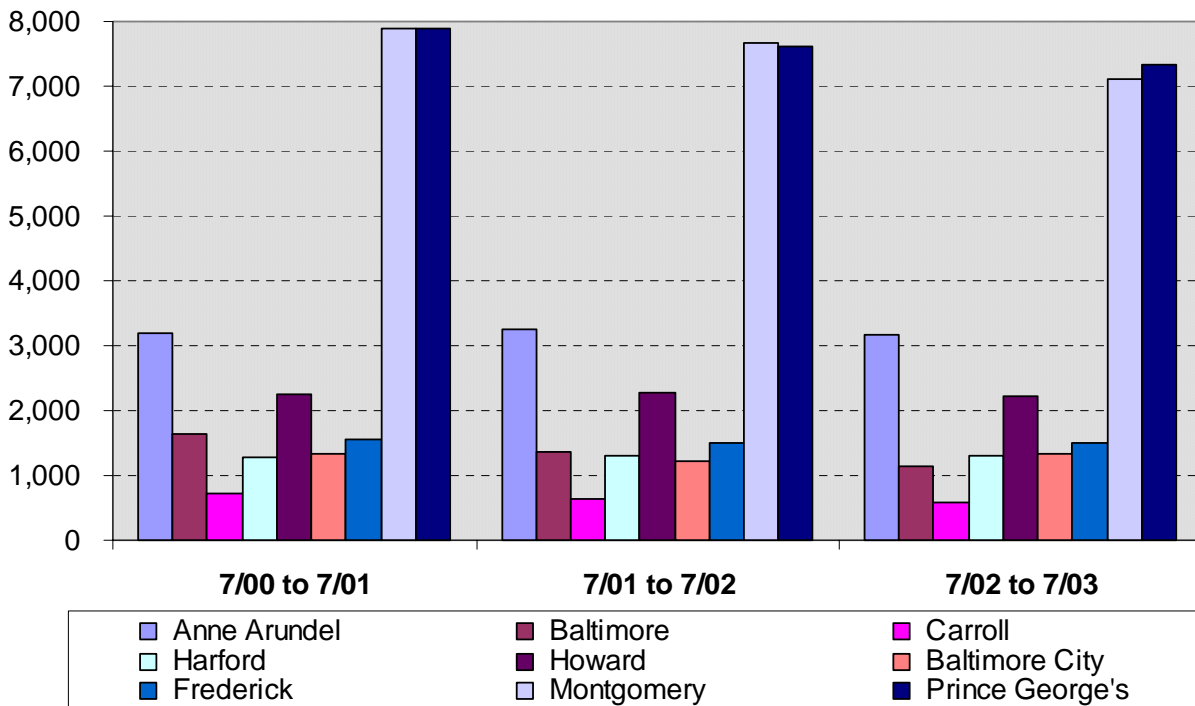
Prepared by the Maryland Department of Planning, Planning Data Services, April 2004.

Population Increase Due to International Migration July 1, 2000 to July 1, 2003



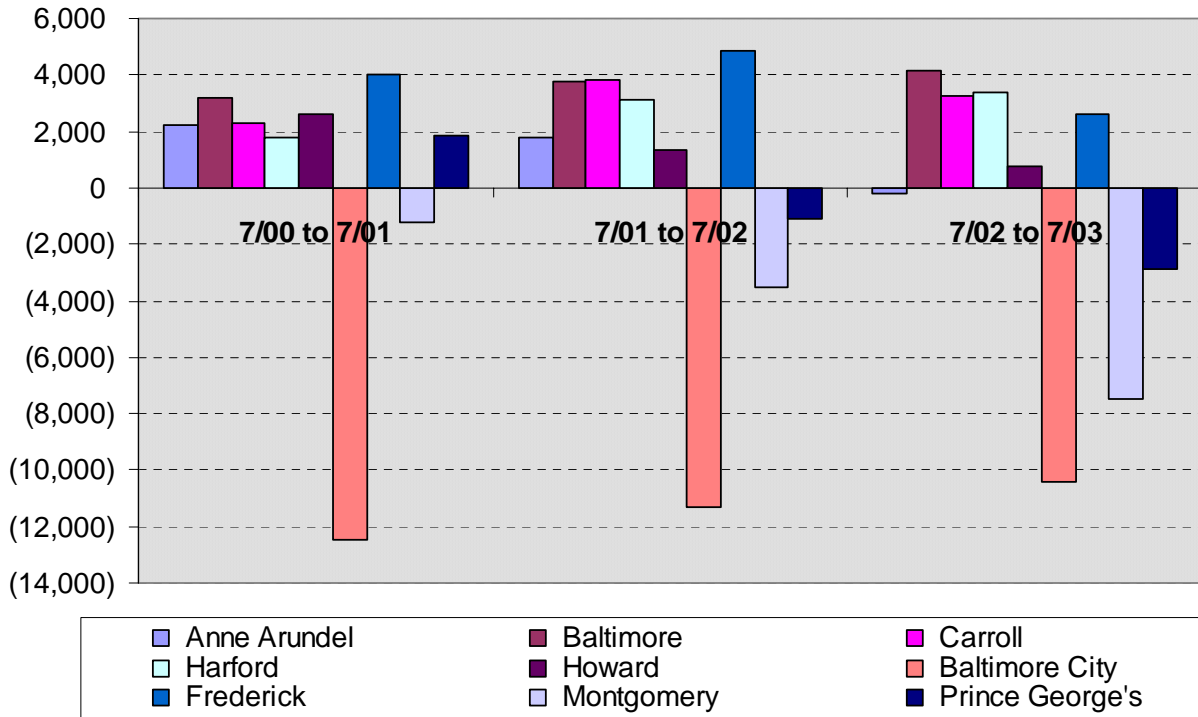
Source: U.S. Bureau of the Census, Population Estimates Branch, April 2004

Population Change Due to Natural Population Impacts July 1, 2000 to July 1, 2003



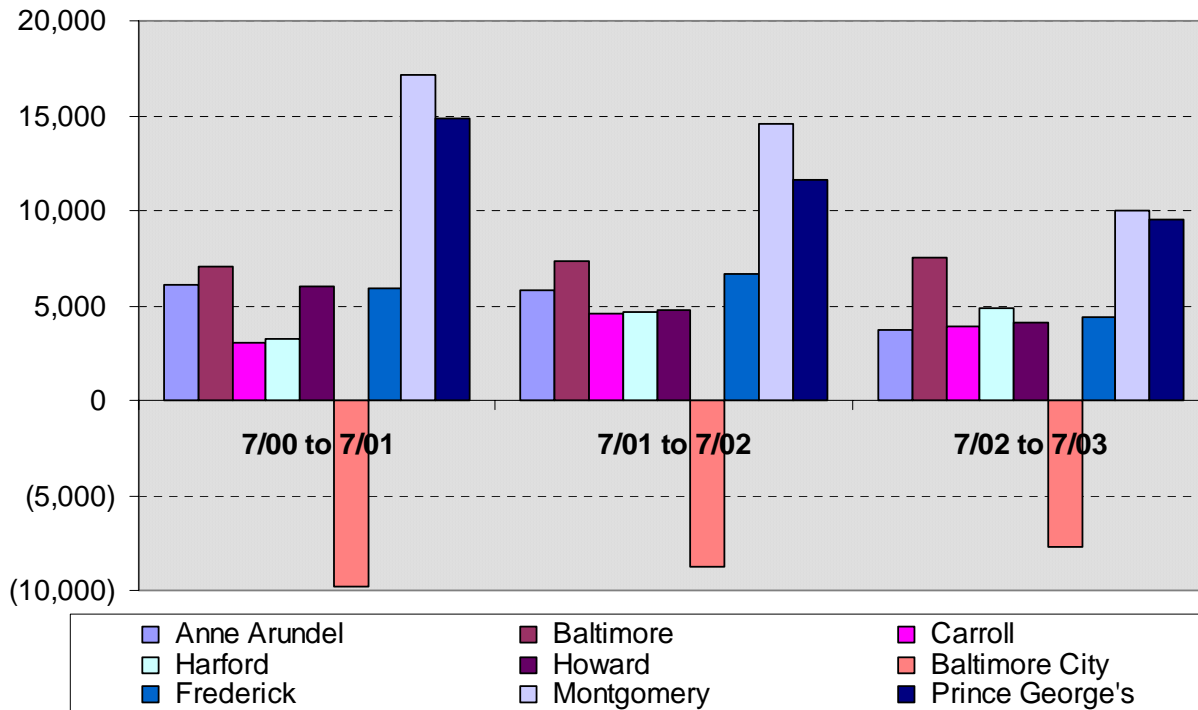
Source: U.S. Bureau of the Census, Population Estimates Branch, April 2004

Population Increase Due to Internal Migration July 1, 2000 to July 1, 2003



Source: U.S. Bureau of the Census, Population Estimates Branch, April 2004

Total Population Change Due to All Components July 1, 2000 to July 1, 2003



Source: U.S. Bureau of the Census, Population Estimates Branch, April 2004 Note: does not include residual population.