



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 Domestic Migration – 1990 to 2000

Introduction

As pointed out in previous Research Reports, over the last decade Howard County grew by 60,514 residents, from a population of 187,328 in 1990 to 247,842 in 2000, a 32 percent increase. This current report discusses domestic migration into and out of the County during that time period. Domestic migration estimates are derived by the U.S. Census Bureau as part of their intercensal population estimates for counties. These estimates are based on tax data provided by the IRS. By comparing addresses from one year to the next and the number of exemptions claimed on tax forms, estimates are made regarding how people move around the country. **Note that this just measures domestic migration. Foreign migration and natural population increase will be discussed in a future Research Report.**

1990 to 2000 Net Domestic Migration

The table on the next page summarizes the cumulative domestic migration patterns in Howard County from 1990 to 2000. All values represent *net* migration, which is defined as in migration minus out migration. The total net migration into the County over the decade was 26,739 residents. This represents about 44 percent of the total population growth of 60,514 during that time period. The other components of population growth include natural population increase and international migration.¹

The total net migration includes intrastate, interstate and federal citizens movement. Federal citizens movement is primarily Department of Defense personnel moving to and from overseas assignments. For Howard County, there was a net *in migration* of 26,388 residents from other

¹ In addition to domestic migration, the Census Bureau's intercensal population estimates also include these two other components – international migration and natural population increase (births minus deaths). All three components are combined to comprise the estimated population growth for counties provided by the Census Bureau on an annual basis between each decennial census.

counties in Maryland and a net *out migration* of 1,344 residents to other states. There was also a net increase of 1,685 federal citizens returning from overseas assignments.

**1990 to 2000 Net Migration in Howard County (In - Out)
(Based on Exemptions Reported in IRS Records)**

Region	Net (In - Out) Migration	Region	Net (In - Out) Migration
INTRA-STATE MIGRANTS	26,388	INTER-STATE MIGRANTS	(1,334)
Baltimore Region	7,251	Surrounding States	489
Anne Arundel	250	Washington D.C.	498
Baltimore County	8,816	Virginia	(46)
Carroll	(5,364)	West Virginia	(300)
Harford	(114)	Pennsylvania	698
Baltimore City	3,663	Delaware	(361)
Suburban Washington	20,319	Other States By Region	(1,823)
Frederick	(1,770)	Region 1: N. East	4,702
Montgomery	8,813	Region 2: N. Central	155
Prince George's	13,276	Region 3: South	(5,753)
		Region 4: West	(927)
Southern Maryland	(179)	FEDERAL CITIZENS MOVEMENT (2)	1,685
Calvert	(217)		
Charles	58		
St. Mary's	(20)		
Western Maryland	(57)	TOTAL NET MIGRATION (3)	26,739
Allegany	34		
Garrett	0		
Washington	(91)		
Upper Eastern Shore	(563)		
Caroline	0		
Cecil	(56)		
Kent	0		
Queen Anne's	(411)		
Talbot	(96)		
Lower Eastern Shore	(240)		
Dorchester	0		
Somerset	0		
Wicomico	83		
Worcester	(323)		
Other Maryland Counties (1)	(143)		

(1) Counties where migration is small and not reported individually.

(2) This refers primarily to the movement of Department of Defense personnel and their dependents to and from overseas assignments.

(3) Total Net Migration includes sum of Intra-State, Inter-State and Federal Citizens Movement.

Source: Prepared by the Maryland Department of Planning, based on summary data prepared by Internal Revenue Service using the IRS Individual Master File (IMF) of all Form 1040, 1040A, 1040EZ, 1040NR, 1040PR, 1040VI & 1040SS tax returns.

Of the 26,388 net intrastate migrants over the decade, a significant majority, 20,319, came from suburban Washington. This includes 13,276 from Prince George's County and 8,813 from Montgomery County offset by net loss of 1,770 residents to Frederick County.

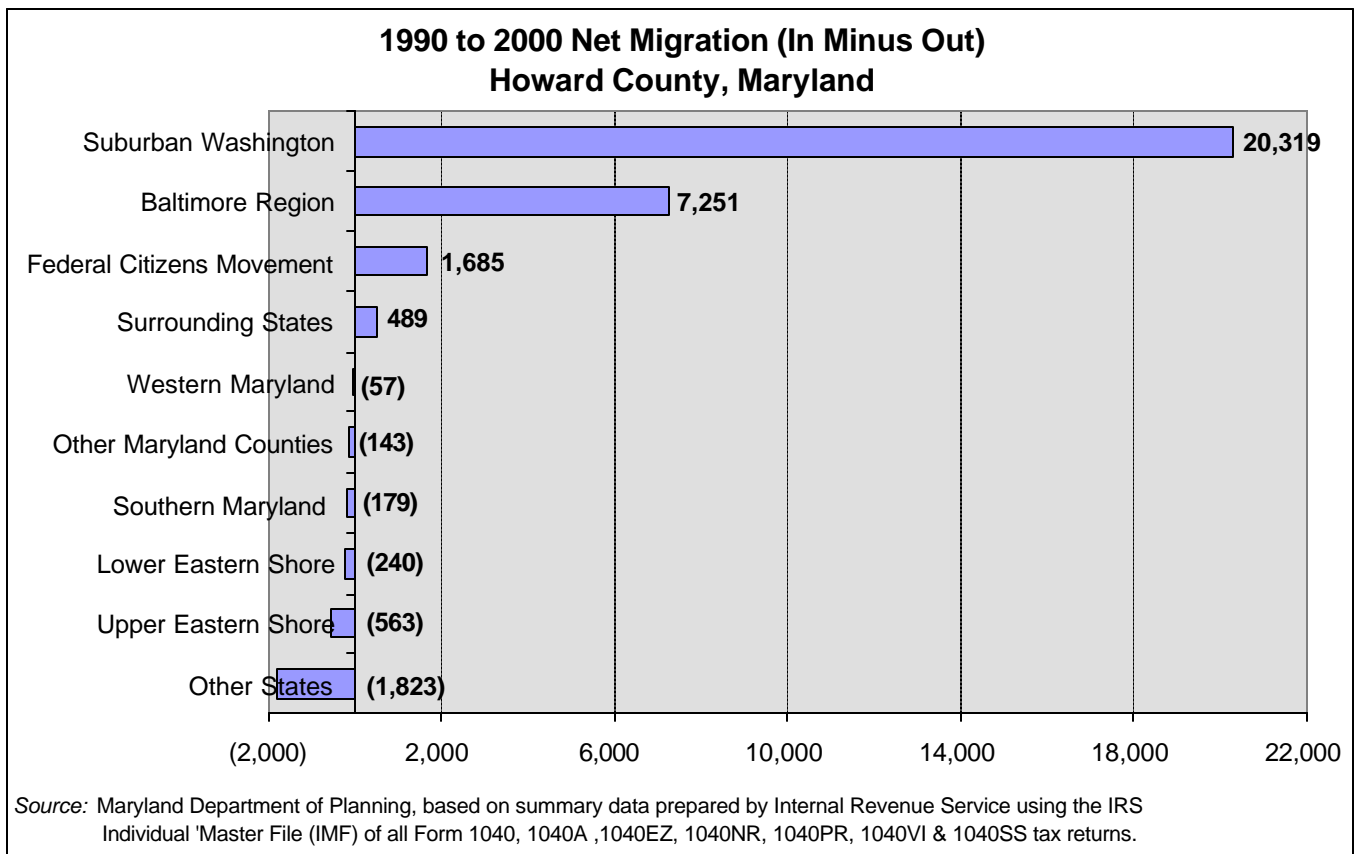
The Baltimore region was the source of the next largest number of net in migrants, totaling 7,251. This includes net in migration of 8,816, 3,663, and 250 residents from Baltimore County, Baltimore City and Anne Arundel County, respectively, and net out migration of 5,364 and 114 residents to Carroll and Harford counties. Of all intrastate migrants, therefore, the greatest net influx of Howard County residents came from Baltimore County and the greatest net out-flow moved to Carroll County.

Whereas there was a net increase of residents to Howard County from both the Washington and Baltimore regions, there was a net loss of residents to all other regions of the State. This loss was

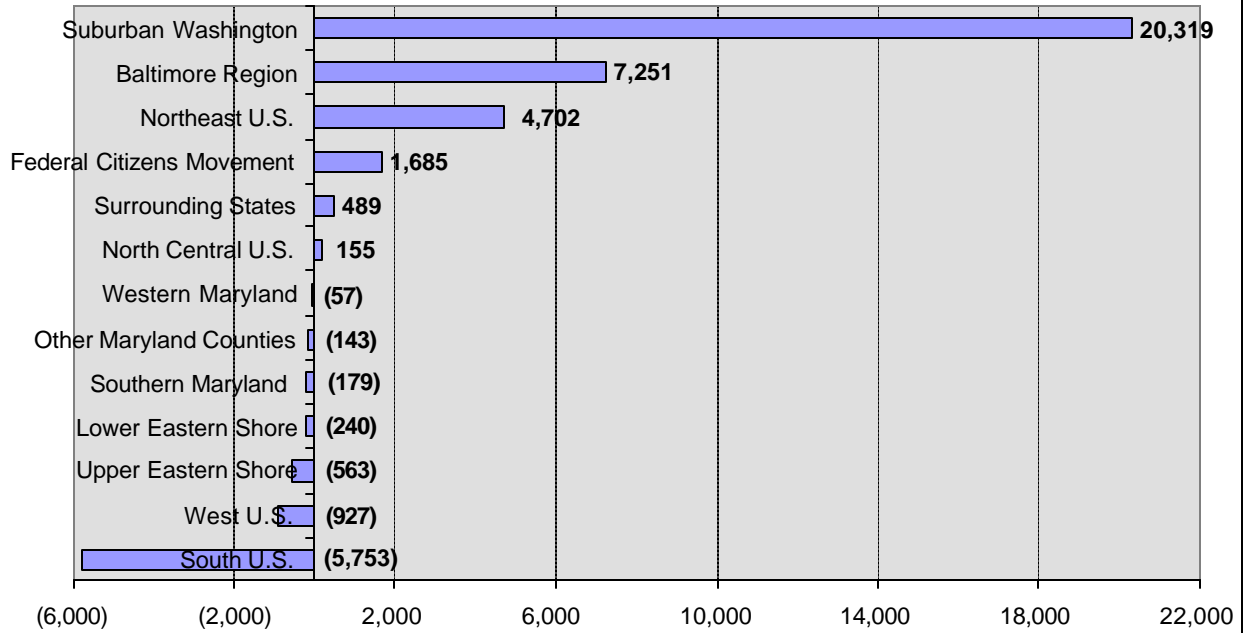
relatively, minor, however, totaling only 1,182 residents. The greatest number moved to the Upper Eastern Shore with 563 and the smallest net out-flow of only 57 moved to western Maryland. There were some counties within these general regions from which Howard County experienced minor net gains. These include Charles, Allegany and Wicomico counties.

The net out migration of 1,334 residents to other states includes a net gain of 489 residents from surrounding states offset by a net loss of 1,823 residents to other regions of the U.S. By far, the greatest net influx of residents, 4,702, came from the Northeastern part of the U.S. This includes the New England States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut as well as the middle Atlantic states of New York and New Jersey. The greatest net out migration from Howard County was 5,753 residents moving to the South, which includes the following states: North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma and Texas. Clearly, the pattern reflects residents moving from north to south, a trend reflected by the growing population in the South. There was also a minor net gain of 155 residents from the North Central states and a minor net loss of 927 residents to the West.

The charts below depict the results in graphical format better showing order of magnitude differences as well as the respective rankings. The first two charts show the net migration of the larger regions. The third chart shows the more detailed results by all counties, states and other U.S. regions listed in the table. *Note that in the Appendix at the end of this report (Page 14) there is a map showing the net migration patterns to and from Howard County for the Baltimore and suburban Washington regions.*

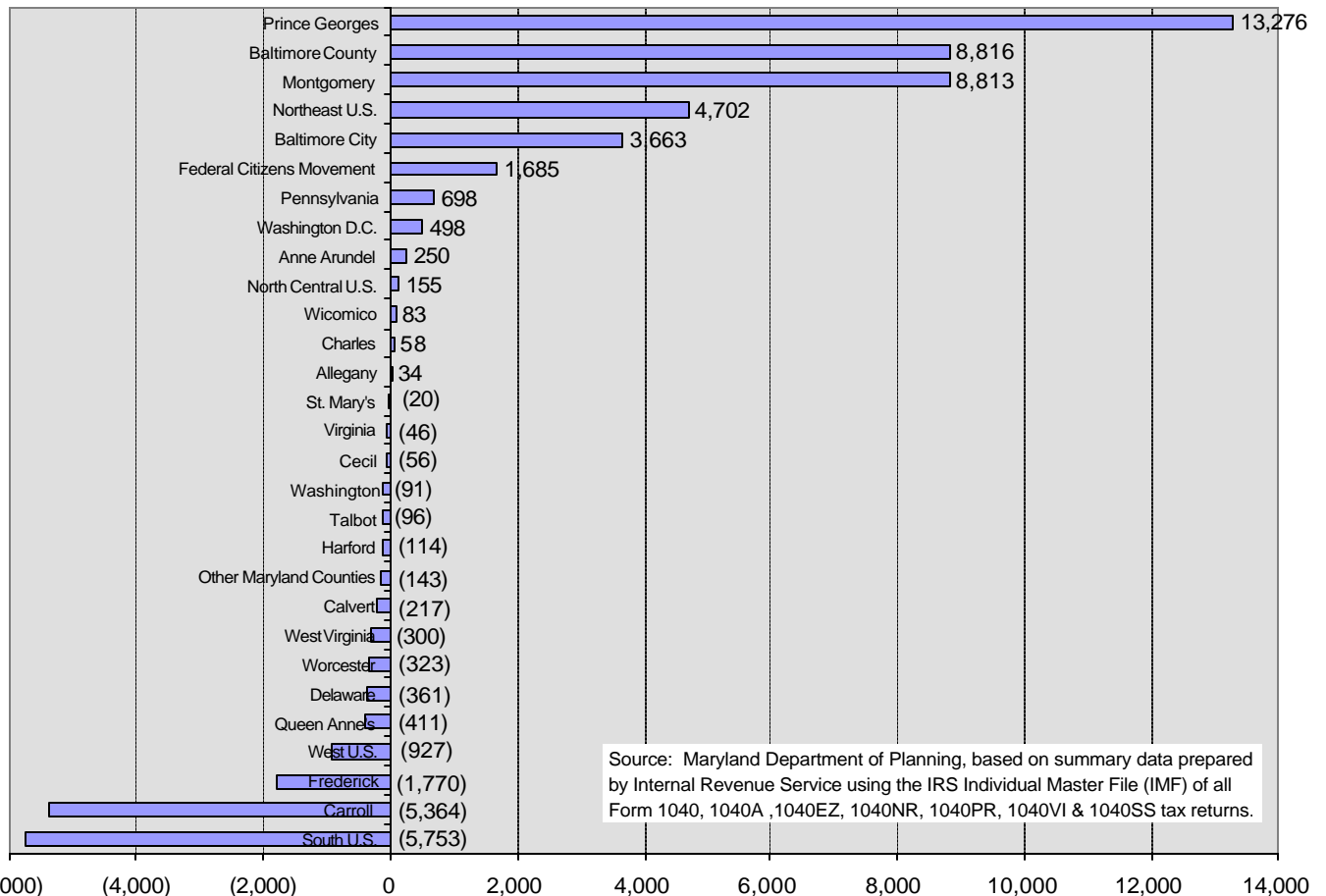


1990 to 2000 Net Migration (In Minus Out) Howard County, Maryland



Source: Maryland Department of Planning, based on summary data prepared by Internal Revenue Service using the IRS Individual Master File (IMF) of all Form 1040, 1040A, 1040EZ, 1040NR, 1040PR, 1040VI & 1040SS tax returns.

1990 to 2000 Net Migration (In Minus Out) Howard County, Maryland



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1990 to 1995 Compared to 1995 to 2000

The two tables below show Howard County net migration for the 1990 to 1995 and the 1995 to 2000 time periods. The chart following the tables summarizes the data in a graphical format comparing the two time periods. It is clear that more movement occurred during the second half of the decade. From 1990 to 1995 total net migration amounted to 11,404 residents compared to a larger 15,335 net migrants from 1995 to 2000, an increase of 3,931 or 34.5 percent. This was most likely a result of the stronger economy in the latter half of the decade compared to the first, particularly in Howard County which experienced very strong job growth beginning in 1997.

Observing the data more closely, there were significantly more net in migrants from Baltimore and Prince George's counties (6,200 more) during the second half of the 1990's compared to the first. This was off-set in part by more net out migrants to Carroll and Frederick counties during this time period, as well as to the West U.S., Virginia and other areas to a lesser degree. There were also 871 less net in migrants from Montgomery County from 1995 to 2000 compared to the first half of the decade.

1990 to 1995 Net Migration in Howard County (In - Out)
(Based on Exemptions Reported in IRS Records)

Region	Net (In - Out) Migration	Region	Net (In - Out) Migration
INTRA-STATE MIGRANTS	10,860	INTER-STATE MIGRANTS	(466)
Baltimore Region	1,484	Surrounding States	337
Anne Arundel	52	Washington D.C.	283
Baltimore County	2,027	Virginia	150
Carroll	(2,344)	West Virginia	(127)
Harford	(133)	Pennsylvania	208
Baltimore City	1,882	Delaware	(177)
Suburban Washington	9,950	Other States By Region	(803)
Frederick	(811)	Region 1: N. East	2,514
Montgomery	4,842	Region 2: N. Central	(115)
Prince George's	5,919	Region 3: South	(2,923)
Southern Maryland	(81)	Region 4: West	(279)
Calvert	(131)	FEDERAL CITIZENS MOVEMENT (2)	1,010
Charles	66		
St. Mary's	(16)	TOTAL NET MIGRATION (3)	11,404
Western Maryland	19		
Allegany	43		
Garrett	0		
Washington	(24)		
Upper Eastern Shore	(218)		
Caroline	0		
Cecil	16		
Kent	0		
Queen Anne's	(186)		
Talbot	(48)		
Lower Eastern Shore	(166)		
Dorchester	0		
Somerset	0		
Wicomico	(1)		
Worcester	(165)		
Other Maryland Counties (1)	(128)		

(1) Counties where migration is small and not reported individually.

(2) This refers primarily to the movement of Department of Defense personnel and their dependents to and from overseas assignments.

(3) Total Net Migration includes sum of Intra-State, Inter-State and Federal Citizens Movement.

Source: Prepared by the Maryland Department of Planning, based on summary data prepared by Internal Revenue Service using the IRS Individual Master File (IMF) of all Form 1040, 1040A, 1040EZ, 1040NR, 1040PR, 1040VI & 1040SS tax returns.

1995 to 2000 Net Migration in Howard County (In - Out)
(Based on Exemptions Reported in IRS Records)

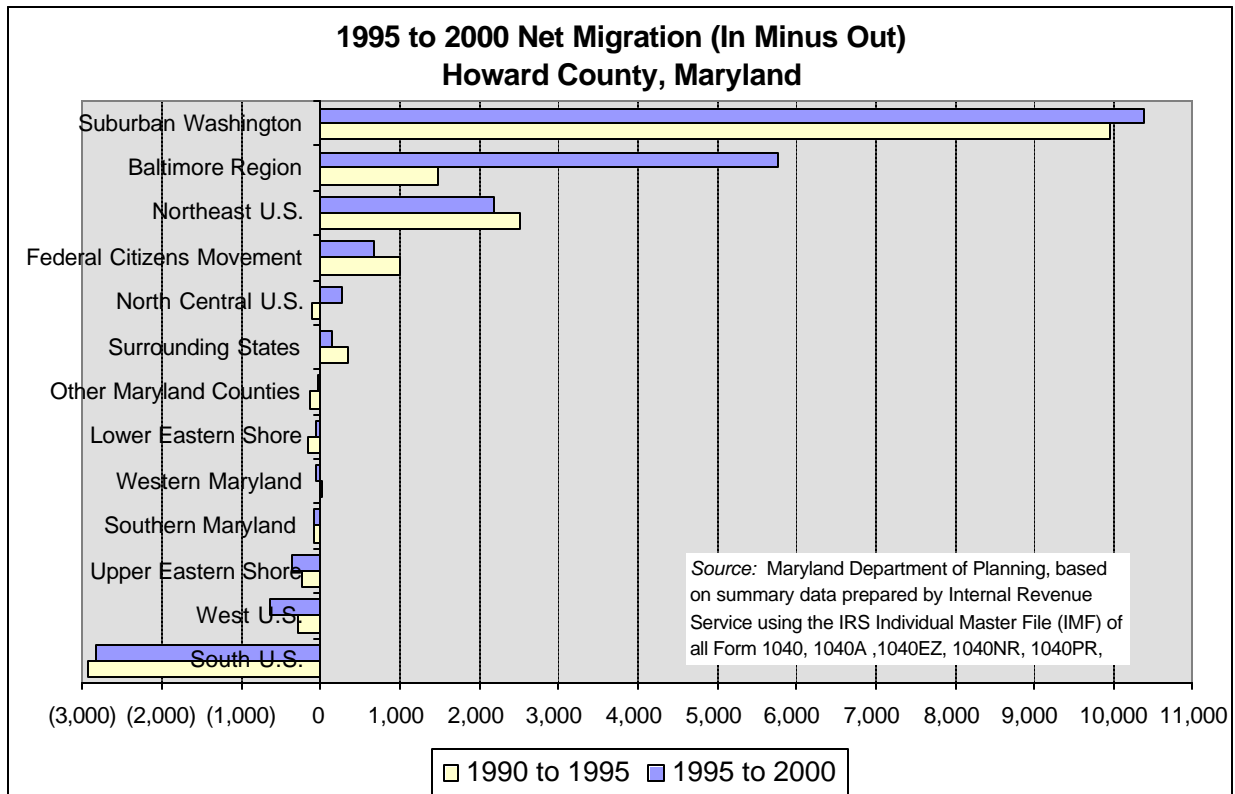
Region	Net (In - Out) Migration	Region	Net (In - Out) Migration
INTRA-STATE MIGRANTS	15,528	INTER-STATE MIGRANTS	(868)
Baltimore Region	5,767	Surrounding States	152
Anne Arundel	198	Washington D.C.	215
Baltimore County	6,789	Virginia	(196)
Carroll	(3,020)	West Virginia	(173)
Harford	19	Pennsylvania	490
Baltimore City	1,781	Delaware	(184)
Suburban Washington	10,369	Other States By Region	(1,020)
Frederick	(959)	Region 1: N. East	2,188
Montgomery	3,971	Region 2: N. Central	270
Prince George's	7,357	Region 3: South	(2,830)
Southern Maryland	(98)	Region 4: West	(648)
Calvert	(86)	FEDERAL CITIZENS MOVEMENT (2)	675
Charles	(8)	TOTAL NET MIGRATION (3)	15,335
St. Mary's	(4)		
Western Maryland	(76)		
Allegany	(9)		
Garrett	0		
Washington	(67)		
Upper Eastern Shore	(345)		
Caroline	0		
Cecil	(72)		
Kent	0		
Queen Anne's	(225)		
Talbot	(48)		
Lower Eastern Shore	(74)		
Dorchester	0		
Somerset	0		
Wicomico	84		
Worcester	(158)		
Other Maryland Counties (1)	(15)		

(1) Counties where migration is small and not reported individually.

(2) This refers primarily to the movement of Department of Defense personnel and their dependents to and from overseas assignments.

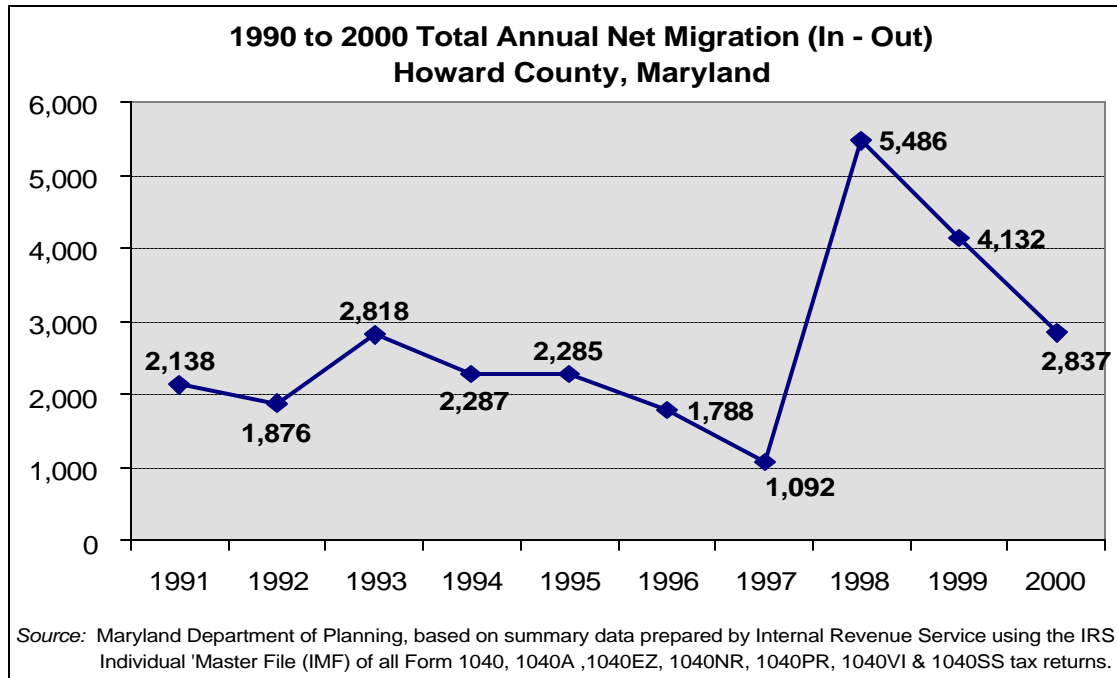
(3) Total Net Migration includes sum of Intra-State, Inter-State and Federal Citizens Movement.

Source: Prepared by the Maryland Department of Planning, based on summary data prepared by Internal Revenue Service using the IRS Individual Master File (IMF) of all Form 1040, 1040A, 1040EZ, 1040NR, 1040PR, 1040VI & 1040SS tax returns.



Annual Net Domestic Migration – 1990 to 2000

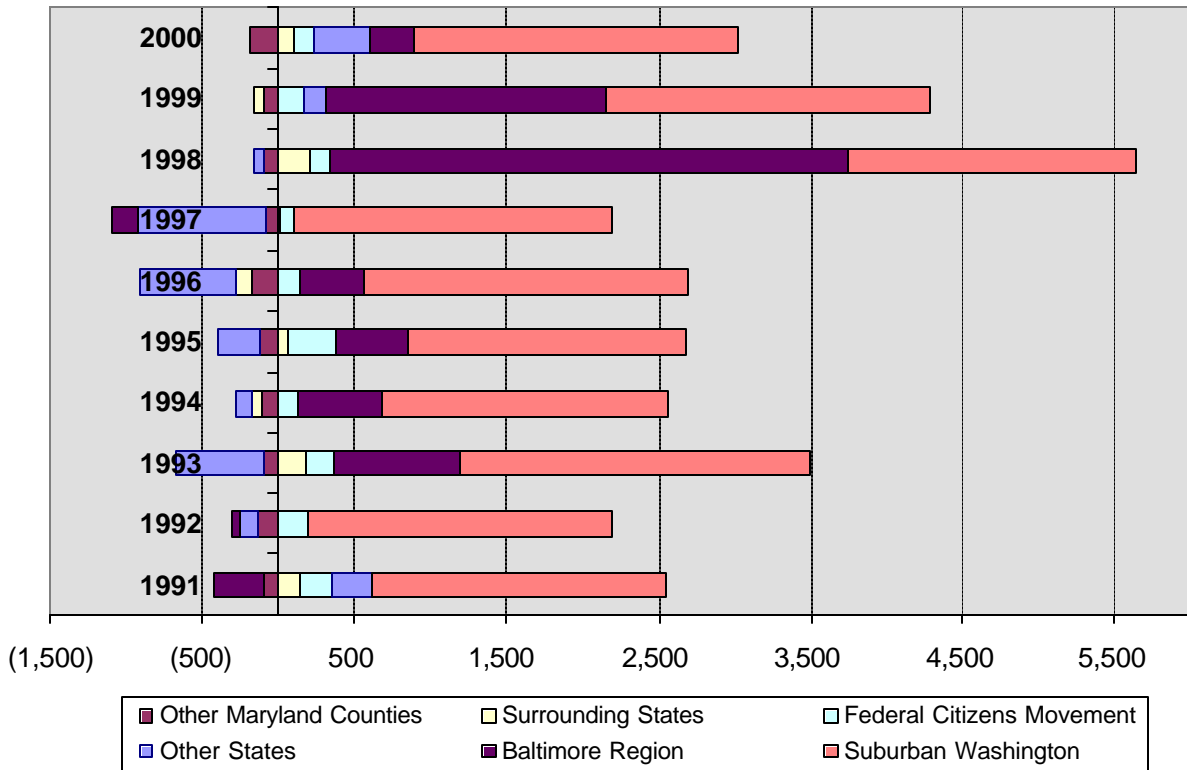
Annual net migration to Howard County was less than 3,000 residents from 1990 to 1997. From 1997 to 1998 there was a significant jump in net migration to almost 5,500, compared to only 1,092 the year before. Net migration remained relatively high the next year with 4,132 before dropping to below 3,000 again from 1999 to 2000. This large increase beginning in 1997 is likely due to strong job growth in Howard County beginning during this time period. The annual numbers are shown in the chart below.



The charts on the following pages summarize the annual net migration to and from Howard County indicating the destination or originating county, region or state. The first chart depicts the *total net migration* by larger region inside and outside Maryland. The second chart shows the net migration *within Maryland*. The third chart focuses on the net migration *within the Baltimore/Washington region*. The final chart which shows the net migration *to and from other states*.

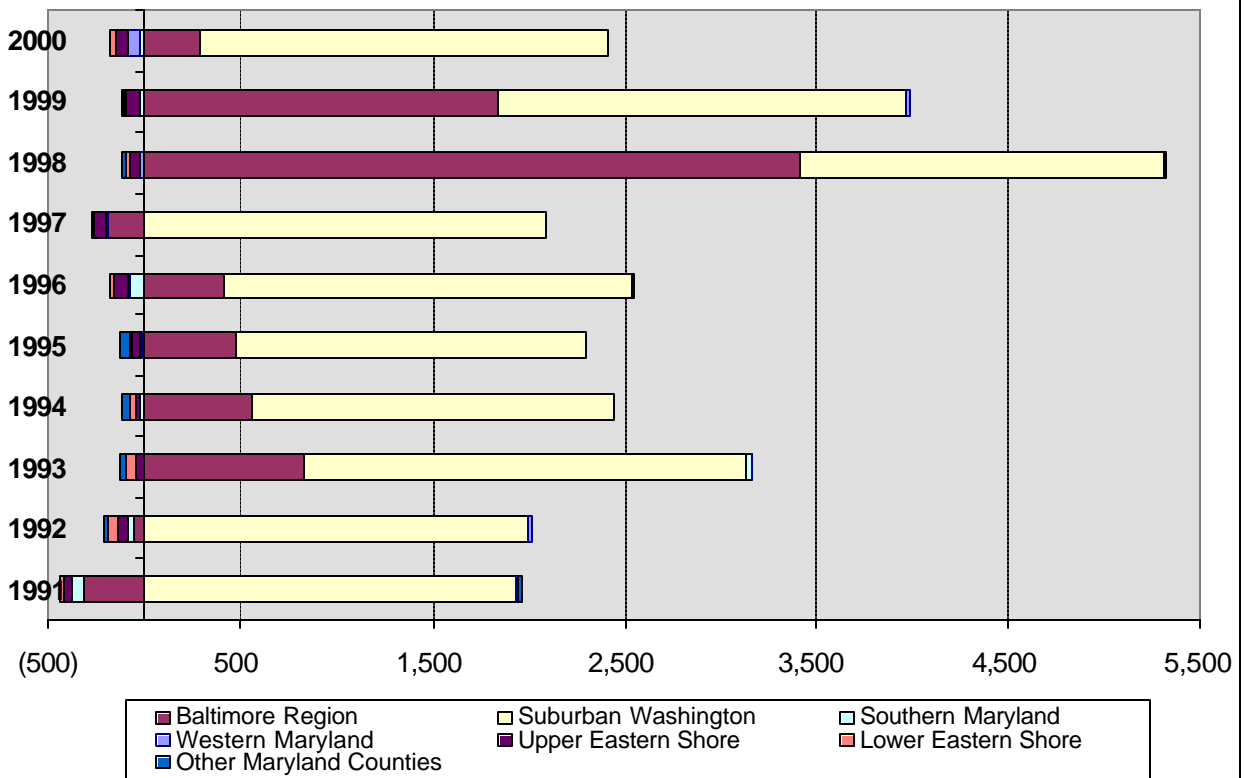
Although net migration changes from one year to the next, the general pattern is relatively consistent with only a few exceptions. Each year most of the net migrants come to Howard County from suburban Washington. The Baltimore region also has large numbers of net migrants moving to Howard County with the exception of three years: 1991, 1992 and 1997 when there was a small net out migration from Howard County to the Baltimore region. *For all years* there was a net *out migration* to Carroll and Frederick counties and a net *in migration* from Prince George's, Montgomery and Baltimore counties as well as Baltimore City firmly entrenching this pattern. There was also a small net out migration to surrounding and other States for all years except 1991, 1998, 1999 and 2000. This pattern generally follows the strength of the economy at the end of the decade and prior to the impacts of the recession in the early 1990's. As indicated earlier, the general pattern for the decade is movement from the Northeast to the South and West.

**1990 to 2000 Total Annual Net Migration (In - Out)
Howard County, Maryland**



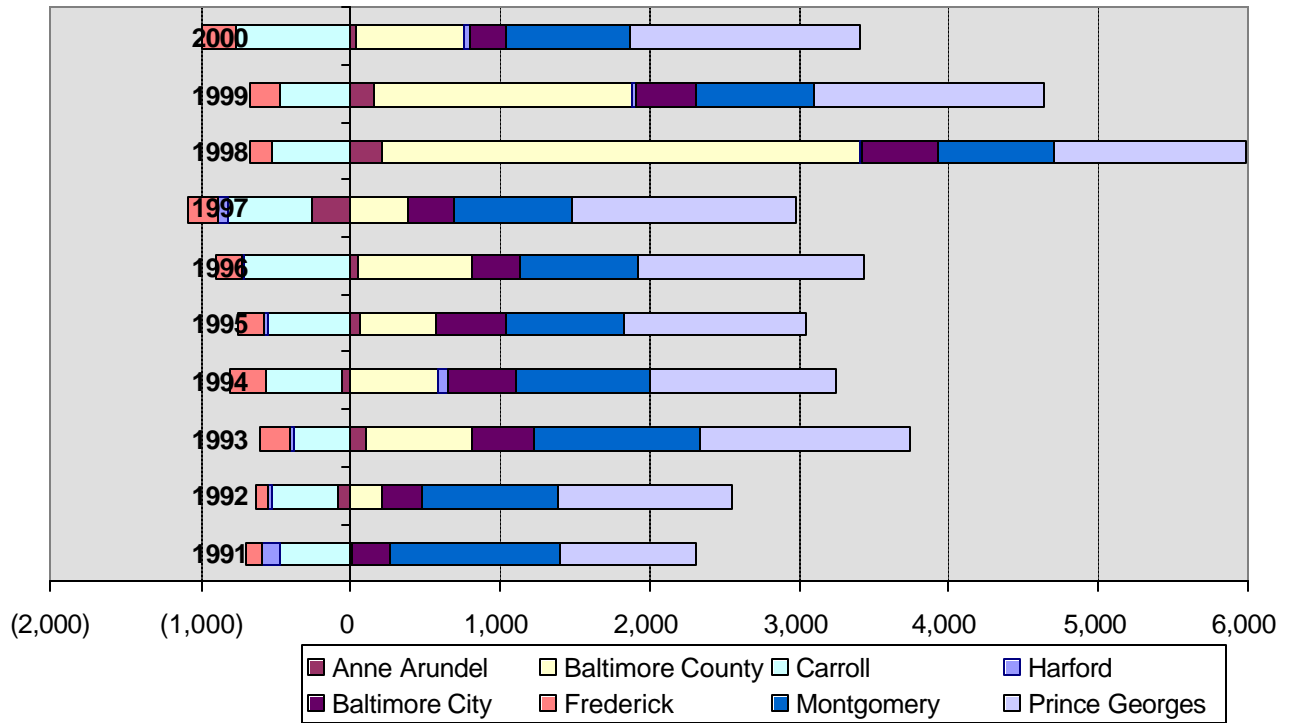
Source: Maryland Department of Planning, based on summary data prepared by Internal Revenue Service using the IRS Individual Master File (IMF) of all Form 1040, 1040A, 1040EZ, 1040NR, 1040PR, 1040VI & 1040SS tax returns.

**1990 to 2000 Annual Net Migration within Maryland (In - Out)
Howard County, Maryland**



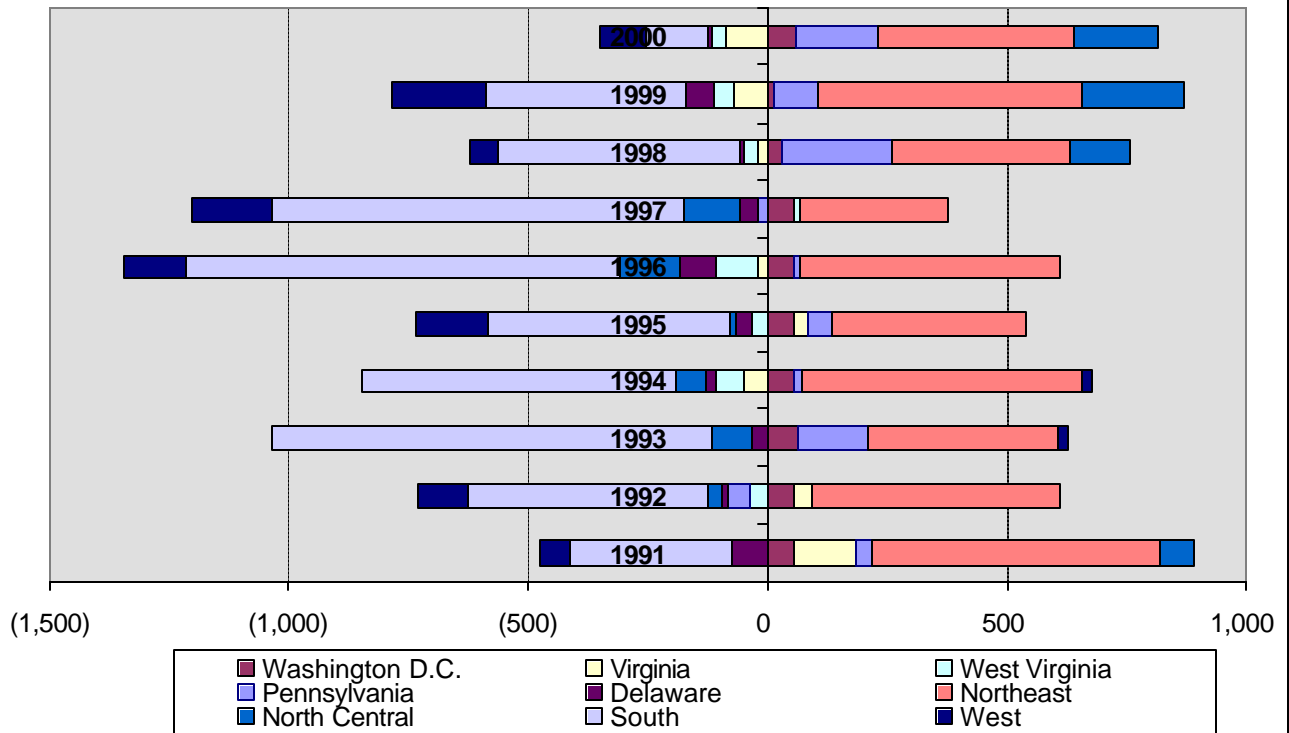
Source: Maryland Department of Planning, based on summary data prepared by Internal Revenue Service using the IRS Individual Master File (IMF) of all Form 1040, 1040A, 1040EZ, 1040NR, 1040PR, 1040VI & 1040SS tax returns.

1990 to 2000 Annual Net Migration in Baltimore/Washington Region (In - Out) Howard County, Maryland



Source: Maryland Department of Planning, based on summary data prepared by Internal Revenue Service using the IRS Individual 'Master File (IMF) of all Form 1040, 1040A, 1040EZ, 1040NR, 1040PR, 1040VI & 1040SS tax returns.

1990 to 2000 Annual Net Migration to/from Other States (In - Out) Howard County, Maryland



Source: Maryland Department of Planning, based on summary data prepared by Internal Revenue Service using the IRS Individual 'Master File (IMF) of all Form 1040, 1040A, 1040EZ, 1040NR, 1040PR, 1040VI & 1040SS tax returns.

In and Out Domestic Migration Details

The table below summarizes the total in and out migration for Howard County and the resulting net migration for the entire 1990 to 2000 time period. As previously discussed, net in migration to Howard County was greatest from the suburban Washington and Baltimore regions – mostly from Prince George’s, Montgomery and Baltimore counties and Baltimore City. Not surprisingly, these areas also have the greatest in and out movement. For the Baltimore region, there were 62,129 in migrants and 54,878 out migrants. About 45 percent of this in migrant total and about 35 percent of the out migrant total applied to Baltimore County alone, representing the biggest movement of all Counties. Prince George’s and Montgomery counties also had large migrations both to and from Howard County. Although the net migration to Howard County from Anne Arundel County was small at only 250 over 10 years, the total movement was significant with over 15,000 residents moving in each direction.

1990 to 2000 Net Migration in Howard County (In - Out)
(Based on Exemptions Reported in IRS Records)

Region	In Migration	Out Migration	Net Migration	Region	In Migration	Out Migration	Net Migration
INTRA-STATE MIGRANTS	112,596	86,208	26,388	INTER-STATE MIGRANTS	63,715	65,049	(1,334)
Baltimore Region	62,129	54,878	7,251	Surrounding States	13,265	12,776	489
Anne Arundel	15,652	15,402	250	Washington D.C.	1,846	1,348	498
Baltimore County	28,217	19,401	8,816	Virginia	6,134	6,180	(46)
Carroll	4,293	9,657	(5,364)	West Virginia	14	314	(300)
Harford	1,356	1,470	(114)	Pennsylvania	4,760	4,062	698
Baltimore City	12,611	8,948	3,663	Delaware	511	872	(361)
Suburban Washington	47,570	27,251	20,319	Other States By Region	50,450	52,273	(1,823)
Frederick	1,703	3,473	(1,770)	Region 1: N. East	14,842	10,140	4,702
Montgomery	19,215	10,402	8,813	Region 2: N. Central	8,074	7,919	155
Prince George's	26,652	13,376	13,276	Region 3: South	18,556	24,309	(5,753)
Southern Maryland	1,055	1,234	(179)	Region 4: West	8,978	9,905	(927)
Calvert	328	545	(217)	FEDERAL CITIZENS MOVEMENT (2)	5,377	3,692	1,685
Charles	525	467	58				
St. Mary's	202	222	(20)	TOTAL NET MIGRATION (3)	181,688	154,949	26,739
Western Maryland	493	550	(57)				
Allegany	146	112	34				
Garrett	0	0	0				
Washington	347	438	(91)				
Upper Eastern Shore	196	759	(563)				
Caroline	0	0	0				
Cecil	16	72	(56)				
Kent	0	0	0				
Queen Anne's	124	535	(411)				
Talbot	56	152	(96)				
Lower Eastern Shore	592	832	(240)				
Dorchester	0	0	0				
Somerset	0	0	0				
Wicomico	343	260	83				
Worcester	249	572	(323)				
Other Maryland Counties (1)	561	704	(143)				

(1) Counties where migration is small and not reported individually.

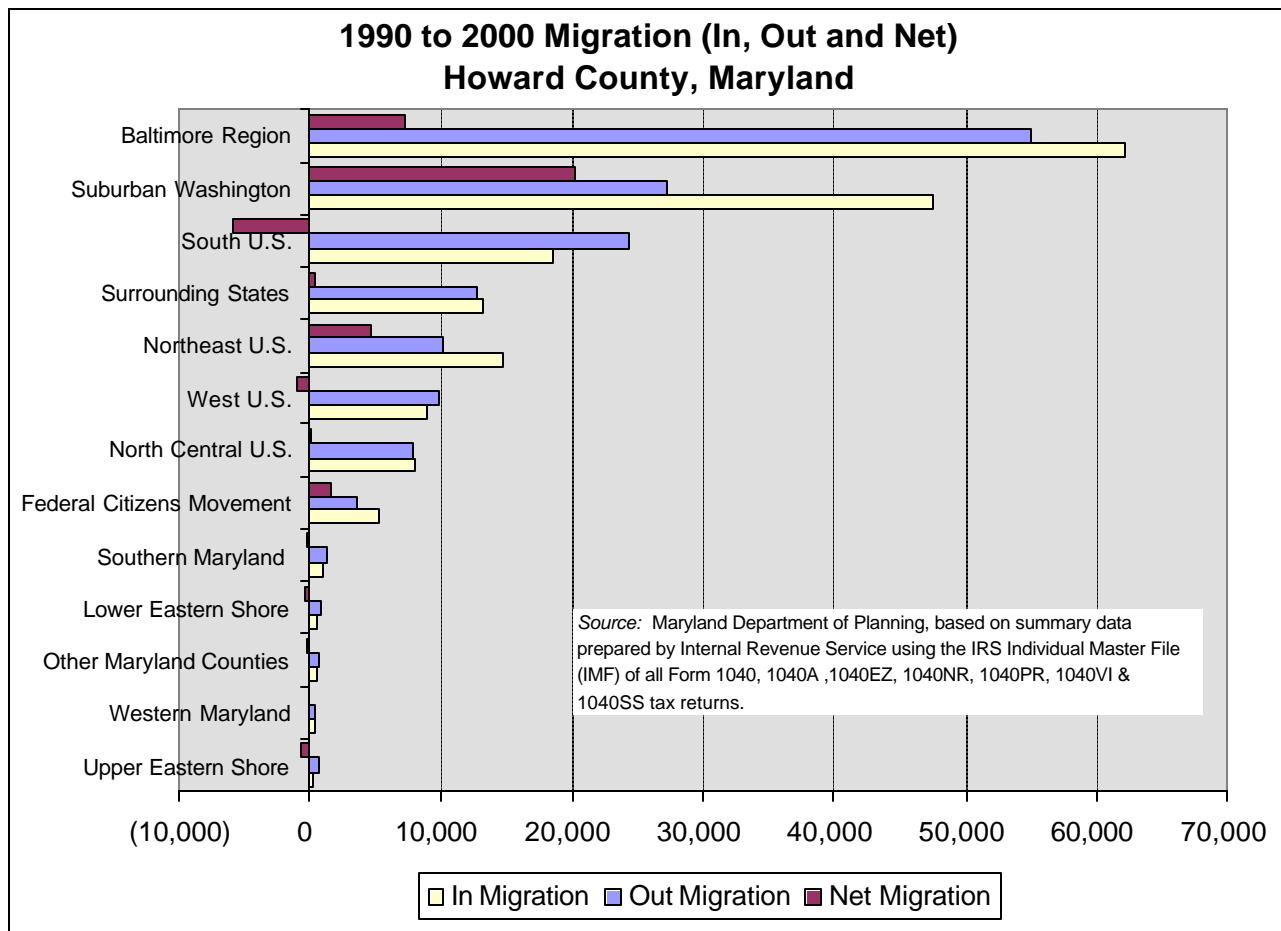
(2) This refers primarily to the movement of Department of Defense personnel and their dependents to and from overseas assignments.

(3) Total Net Migration includes sum of Intra-State, Inter-State and Federal Citizens Movement.

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Of the surrounding states, most movement occurred to and from Virginia, with 6,135 in migrants and 6,180 out migrants. This is followed by Pennsylvania with 4,760 in migrants compared to 4,062 out migrants. There were relatively fewer migrants to and from Washington D.C., Delaware and West Virginia.

Over the decade, there was also significant movement to and from the Northeast U.S. with 14,842 residents moving to Howard County and 10,140 residents leaving Howard County resulting in a net population increase in the County of 4,702. There was even greater movement to and from the South U.S. with 18,556 in migrants to Howard County and 24,309 out migrants. Despite this large in migration from the South U.S., the even larger outflow resulted in a net population loss of 5,753. The West and North Central regions of the U.S. had comparatively less movement with about 7,900 to 9,900 residents moving in either direction. The in and out migration values were also close in these regions off-setting each other and resulting in relatively small net migration numbers – a net loss of only 927 to the West and a net gain of only 155 from the North Central region. The chart below shows these results in graphical format ranked from highest to lowest total movement.



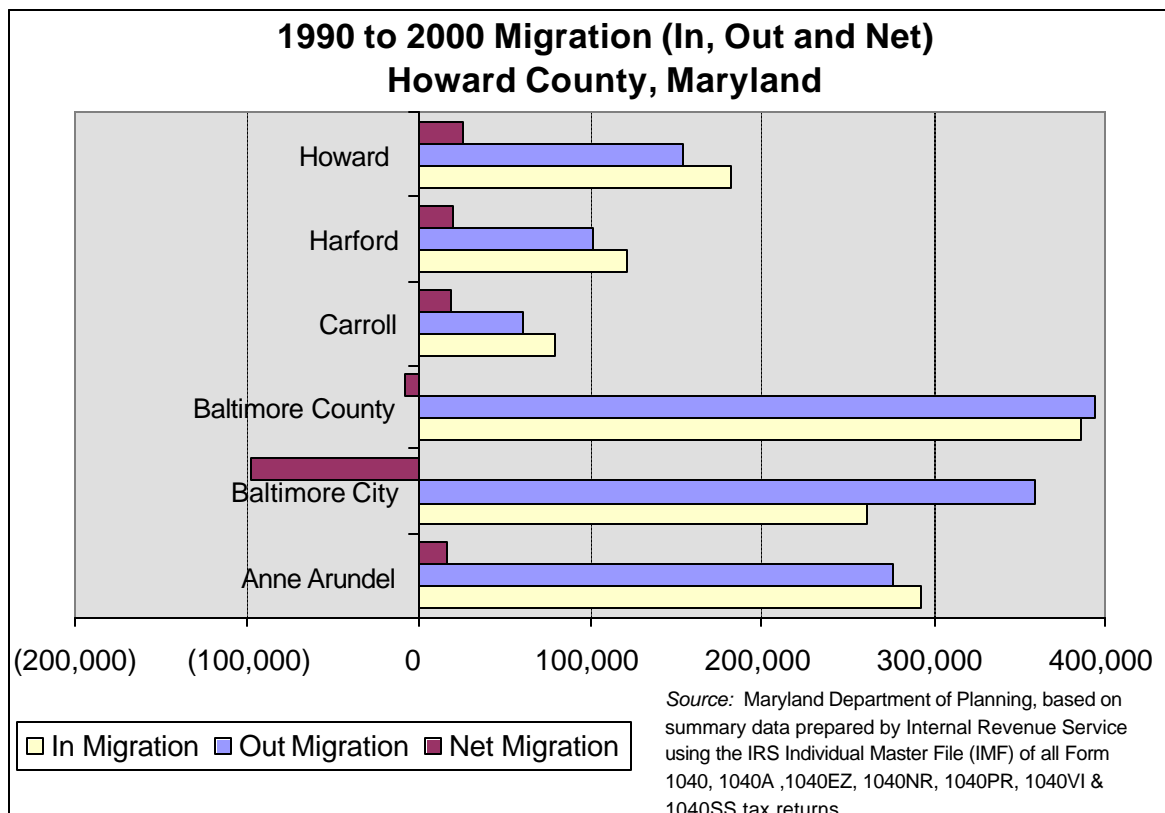
The amount of total domestic movement is striking, with 181,688 residents moving to Howard County and 154,949 residents moving out of the County over the decade. This is a total movement of 366,637 residents or an average of 33,664 per year, about 647 per week and 92 per day. Another interesting way to look at this is the following: given that Howard County grew by 60,514 residents from 1990 to 2000 – which includes natural growth, domestic and international migration – for each of these “new residents,” 3 domestic residents moved to the County and 2.5 domestic residents moved out. This clearly shows that while the County has steadily and significantly grown over the decade reaching a total population of 247,842, an even more significant movement of residents both in and out of the County ensued.

Howard County Compared to Other Jurisdictions in Region

The table and chart below summarize the domestic migration totals of the other jurisdictions in the Baltimore region.

**1990 to 2000 Migration in Baltimore Region (In - Out)
(Based on Exemptions Reported in IRS Records)**

Jurisdiction	In Migration	Out Migration	Net Migration
Anne Arundel	292,983	276,580	16,403
Baltimore City	261,503	358,406	(96,903)
Baltimore County	386,626	394,201	(7,575)
Carroll	79,854	60,489	19,365
Harford	122,194	101,778	20,416
Howard	181,688	154,949	26,739
Baltimore Region	1,324,848	1,346,403	(21,555)



Howard County had the greatest net in migration followed by Harford, Carroll and Anne Arundel counties, respectively. Baltimore City and County experienced net losses. Baltimore City's net losses were significant at 96,903, more than enough to offset the gains of the other counties and which resulted in an overall net loss of 21,555 for the entire region.

Appendix – Howard County Net Migration, Surrounding Jurisdictions

The map below shows the net migration patterns in Howard County to and from surrounding jurisdictions. About 72 percent of all the net movement to Howard County (in or out) over the decade is represented. The remaining 28 percent represents movement to other jurisdictions not shown, including other counties within Maryland and other states and U.S. regions as discussed in this report.

