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Domestic Migration To and From the Washington DC Metropolitan Area:

1985 - 2007

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DOMESTIC MIGRATION TO AND FROM THE WASHINGTON DC METROPOLITAN AREA 1985 – 2007

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Between 1985 and 2007, the population of the Washington DC Metropolitan Area grew from 3.72 million to 5.31 million, an increase of 1.6 million people. Population growth is a function of vital events (births and deaths) and international and domestic net migration. The in-flows and out-flows of people from other parts of the country have helped shaped the economic and demographic composition of the Washington DC metropolitan area. Being able to attract highly skilled workers from the rest of the country will be important to the Washington DC region's future growth, particularly if local and federal immigration policies stem the flow of workers from abroad.

Highlights from the Report

- **None of the Washington DC region's population gain over the past 22 years can be attributed to domestic migration.** Over the past two decades, nearly all of the population growth in the Washington DC region was due to international immigration and the higher fertility rates of the foreign born population. The flows of people coming to the Washington DC metropolitan area from other parts of the country (in-flows) were basically offset by the flows of people leaving the region for other parts of the U.S. (out-flows).

- **Households that move into the Washington DC region from other parts of the U.S. tend to be smaller and have lower incomes than households moving out.** People moving into the region tend to be younger, and therefore have smaller household sizes and lower incomes. Out-migrants are more likely to be families and have higher incomes. Non-migrants (i.e. households that stay in the region) have larger household sizes and incomes than both groups of migrants.

- **The biggest population exchanges were with major East Coast metropolitan areas.** About one-fifth of the domestic migration to the Washington DC region was from the 14 largest metropolitan areas. The biggest flows were from New York, Philadelphia and Boston. The Washington DC region typically lost population over the past two decades to large metropolitan areas in the South.

- **The major drivers of domestic migration are economic factors and housing costs.** Domestic migration to the Washington DC region was higher during periods when the region's economy outperformed the national economy. More households have left in the region in recent years in response to relatively high housing costs.

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A Note About the Data

This report uses annual County-to-County Migration data from the U.S. Internal Revenue Service. The IRS uses address-level data from individual tax returns to summarize county-level in-flows and out-flows from year to year, as well as to identify non-migrants. The data used in this analysis are for the period 1985 through 2007 and include the following: number of returns (used to approximate households), number of exemptions (used to approximate persons), and adjusted gross income (beginning in 1993 and used to approximate household income). The IRS County-to-County Migration data represents the best source of data on domestic migration. However, the data are not directly comparable with other data sources, such as U.S. Census data. These data cannot be used to identify foreign migrants.

Introduction

Every year millions of households move within the U.S. Recent data from the U.S. Census Bureau estimates that about 16 percent of Americans changed residence in the last year.[1] Many of these moves are local moves, typically to move to a bigger home or a better neighborhood. Other moves are longer distance moves and are often prompted by economic considerations, such as job opportunities. Over time, patterns of domestic migration are fundamentally related to a region's economy. For example, recent decades of population movement out of the Midwest and into the Sunbelt have been associated with economic slowdowns in places like Detroit, Cincinnati, and St. Louis, and economic booms in places like Phoenix, Dallas, and Miami.

The Washington DC metropolitan area[2] is known as a relatively transient area. In addition to international immigrants, there are significant flows of migrants from other parts of the U.S. Thousands of these domestic migrants move into and out of the region annually. About 10 percent of the Washington DC area's population is either moving into or out of the region in any given year. This report analyzes these flows of domestic migrants and discusses implications for the future economic growth of the region.

The Washington DC metropolitan area population increased by 1.6 million people between 1985 and 2007 but none of the growth is attributable to domestic migration.

The Washington DC region did not gain population through domestic migration over the past two decades. The region's population would have remained relatively flat over the last two decades without international immigration. Between 1985 and 2007, the flows of people coming to the Washington DC metropolitan area from other parts of the country (in-flows) were offset by the flows of people leaving the region for other parts of the U.S. (out-flows). At the same time, the Washington DC region became a magnet for foreign immigrants from Latin America, Asia and Africa.[3]

The recent period that has been dominated by international flows is a dramatic change for the Washington DC area. Population growth earlier in the 20th century was mainly due to domestic in-migration, which was largely driven by an expansion of federal government activities related to World War II (the 1940s), the Great Society (the 1950s and 1960s), and the Vietnam War (the 1960s and 1970s). A rise in government outsourcing resulted in the growth in the private contractor sector in the 1980s, which also attracted many workers from around the country. While jobs continue to be a draw for domestic migrants to the region, the flow of migrants from foreign countries has swelled to significantly outpace the flows of domestic migrants over the past two decades.

[1] U.S. Census Bureau, American Community Survey 2008, www.census.gov

[2] The Washington DC Metropolitan Area includes the city of Washington DC; the counties of Arlington, Fairfax, Loudoun, Prince William, Fauquier, Clarke, Stafford, Spotsylvania, and Warren and the cities of Alexandria, Fairfax, Falls Church, Manassas, Manassas Park, and Fredericksburg in Virginia; Calvert, Charles, Frederick, Montgomery and Prince George's counties in Maryland; and Jefferson County, West Virginia.

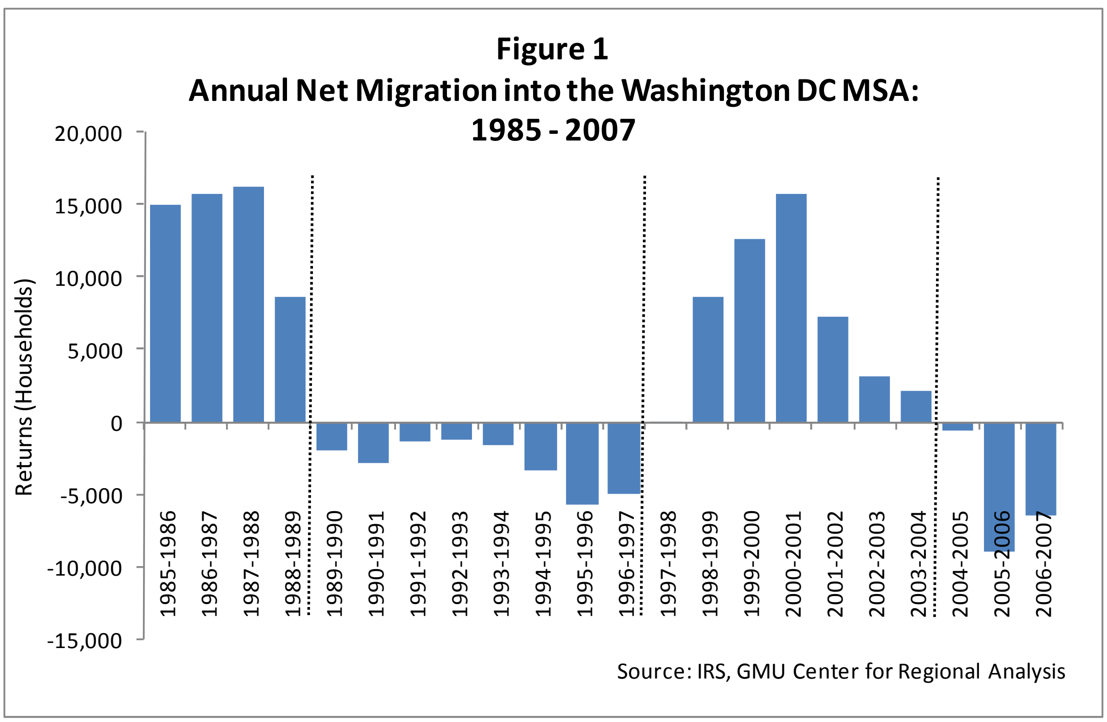
[3] Singer, Audrey. 2003. At Home in the Nation's Capital: Immigrant Trends in Metropolitan Washington. The Brookings Institution: Washington DC.

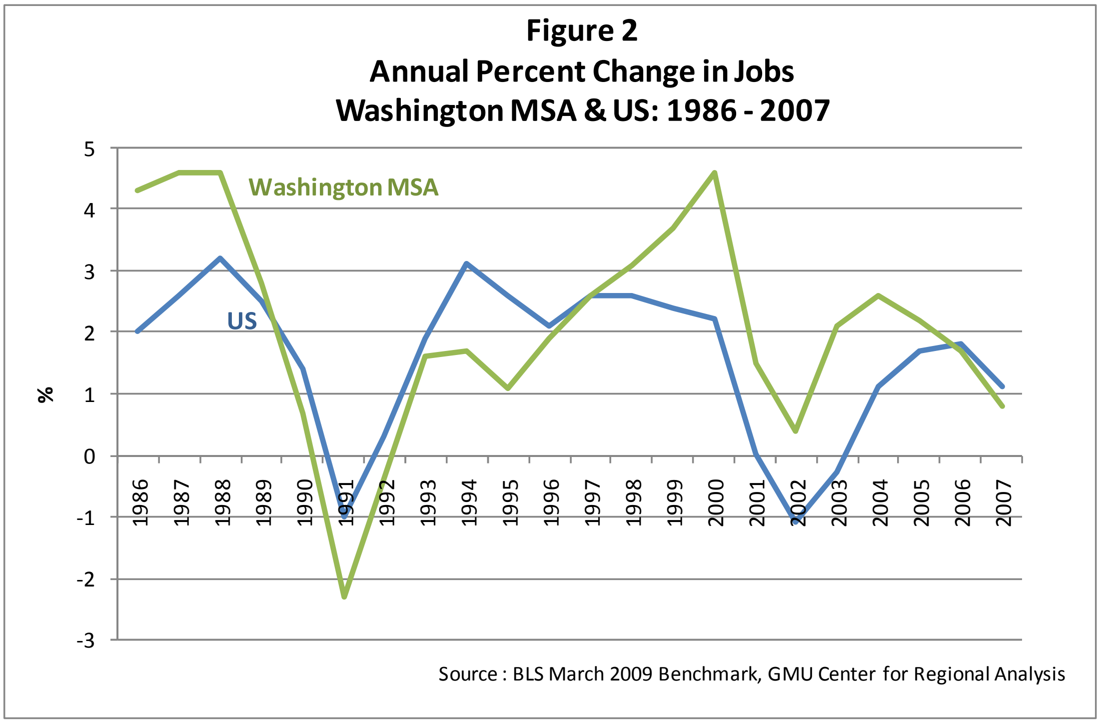
The ebbs and flows of domestic migration to the Washington DC region are associated with business cycle and housing cost factors.

Four periods of domestic migration are observed over the 22 period: (Figure 1)

1985 – 1989: During this period, the Washington DC region experienced positive net migration. Between 1985 and 1986, about 93,000 households moved to the Washington DC metropolitan area from other parts of the country and 78,000 left the Washington DC region for a net domestic migration of about 15,000 households. Net migration stayed around 15,000 to 16,000 households in 1986–1987 and 1987–1988. Between 1988 and 1989, the net migration of households into the region fell to under 9,000.

During this period, the Washington DC area economy outperformed the national economy. (Figure 2) Job growth was considerably higher in Washington compared with the rest of the country. The Gross Regional Product (GRP) of the Washington DC area grew by over four percent annually in 1986, 1987, and 1988 while the national economy grew by about three percent or less. The convergence of the growth rates of the region and the nation in 1989 corresponds to a decline in the positive net migration to the Washington area.





1989 – 1997: The Washington DC metropolitan area experienced a net loss in domestic population over this eight-year period. On average, about 3,000 more households moved out of the region than moved in each year between 1989 and 1997.

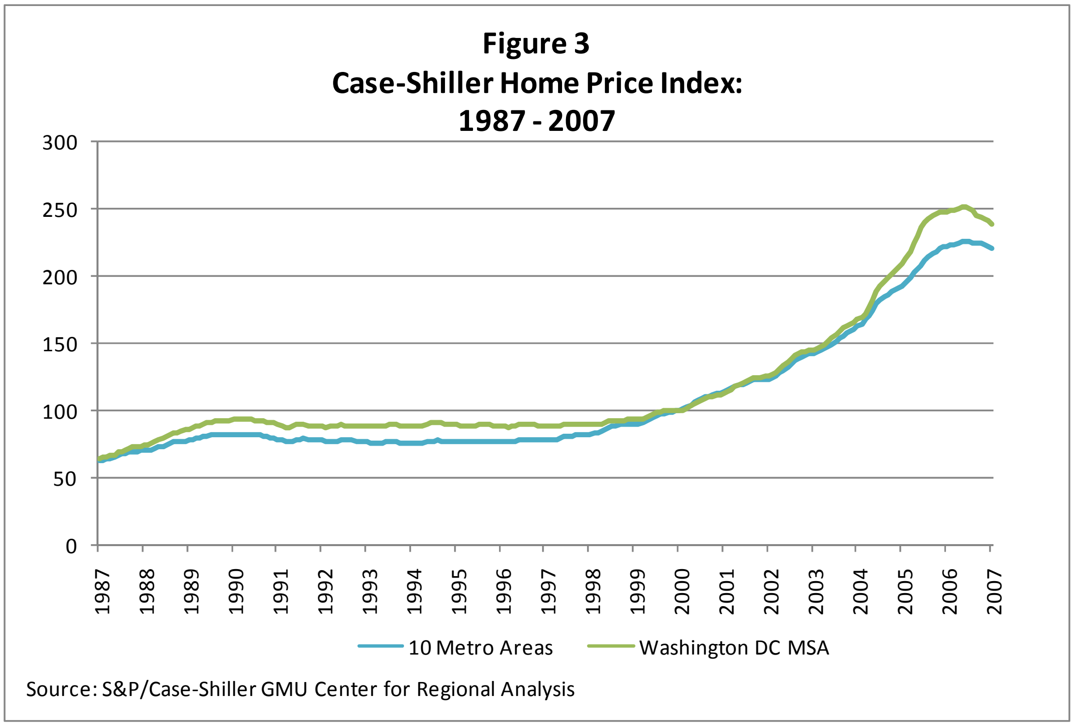
In seven of those eight years, the national economy grew faster than the regional economy.

1997 – 2004: Domestic migration rebounded in the late 1990s, with positive net migration of households into the Washington DC area from other parts of the United States through 2004. After basically zero net migration to the region between 1997 and 1998, net migration increased in 1998-1999 to nearly 9,000 households. Net migration increased steadily in 1999-2000 and 2000-2001, with the 2000-2001 period representing a return to the strong net migration of domestic households to the region that was experienced in the late 1980s. Beginning in 2001-2002, net migration was still positive at over 7,000 households, but it began to decline. Net migration dropped to about 3,200 households in 2002-2003 and to 2,200 households in 2003-2004.

The region's economy was outperforming the national economy during this entire period.

2004 – 2007: The most recent cycle of domestic migration in the Washington DC region generally has been negative. Between 2004 and 2005, nearly 106,000 households moved into the region and about the same moved out. Between 2005 and 2006, the out-flow of households exceeded the in-flow by about 9,000.

In 2004 and 2005, the Washington DC metropolitan added jobs at a faster rate than the rest of the country. In 2006 and 2007, the rate of job growth in the region was slower than the rest of the nation. However, the negative out-flow of domestic households during this period may be more related to rising housing costs in the region rather than job opportunities. While the Washington DC region's housing prices tracked above other metropolitan areas in the 1990s, the gap widened considerably beginning in 2005. (Figure 3)   Job growth was relatively strong in other parts of the U.S. where housing costs were more moderate, leading households to move out of the Washington DC region in recent years.



Households that move into the region tend to be smaller than those that leave. The non-migrating households are larger than both the in-migrants and out-migrants.

The IRS County-to-County Migration file includes data on the number of returns (which is used as a proxy for households) and the number of exemptions (which is used as a proxy for people). Therefore, an average household size can be approximated by dividing the number of exemptions by the number of returns. This approximation underestimates the actual average household size in the region. (The IRS data produces an estimated average household size for the region of about 2.1 while the U.S. Census Bureau reports an average household size of about 2.6.) However, this approximation from the IRS data can be used to show how the sizes of households of the in- and out-migrants differ and how the household sizes of the groups have changed over time.

Over the 22-year period, the households moving into the Washington DC metropolitan area have been smaller than both the households leaving the region and the households staying in the region. Because of this trend, over the past two decades the region has gained about

67,000 *households* from other parts of the U.S. while losing about 67,000 *people* to other parts of the U.S. In recent years, the gap in household sizes between the in- and out-migrating households has widened. (Figure 4) Up until about 2001, the gap in average household size between domestic out-migrants and domestic in-migrants was about 0.08, meaning that households moving out of the region had about 0.08 more people, on average, than households moving into the region. Beginning in 2002, this gap began to increase. In 2005-2006, when the gap was largest, households moving out of the region had, on average, 0.19 more people than households moving into the region. Non-migrant households had 0.41 more people than the households moving into the region in 2005-2006.

This difference in household sizes is, perhaps, not surprising. The Washington DC region—like many major metropolitan areas—tends to attract young singles and couples looking for employment. As individuals get older and have children, they may be more inclined to leave large metropolitan areas. While factors such as moving closer to family may be part of the reason these households leave the Washington DC area, rising housing costs may be pushing families to leave in order to buy a home.

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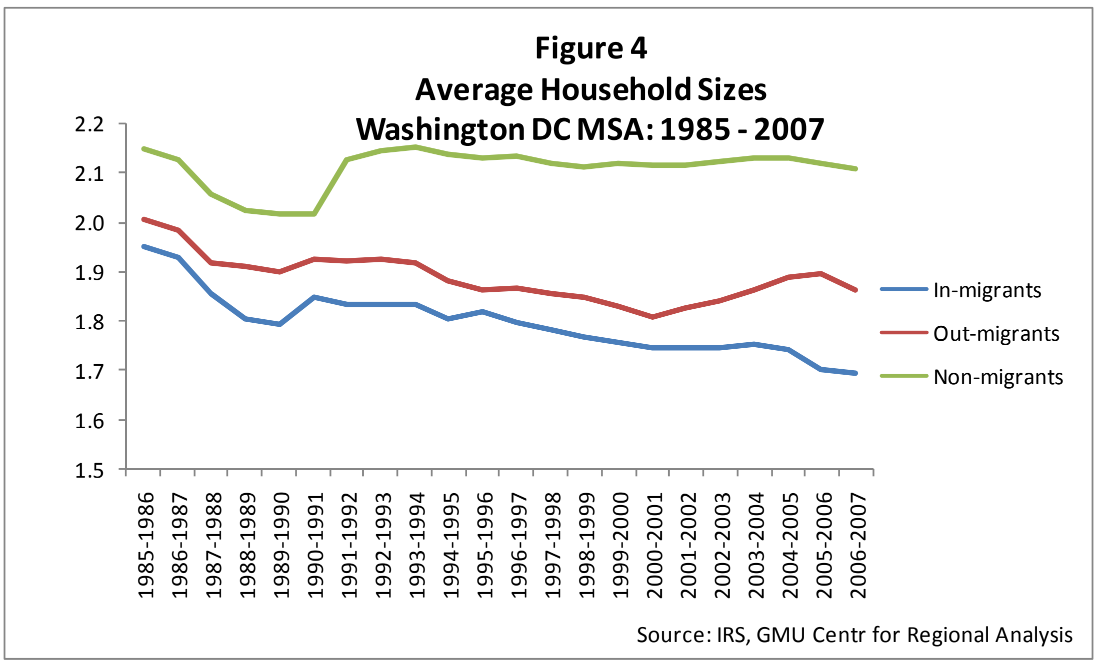
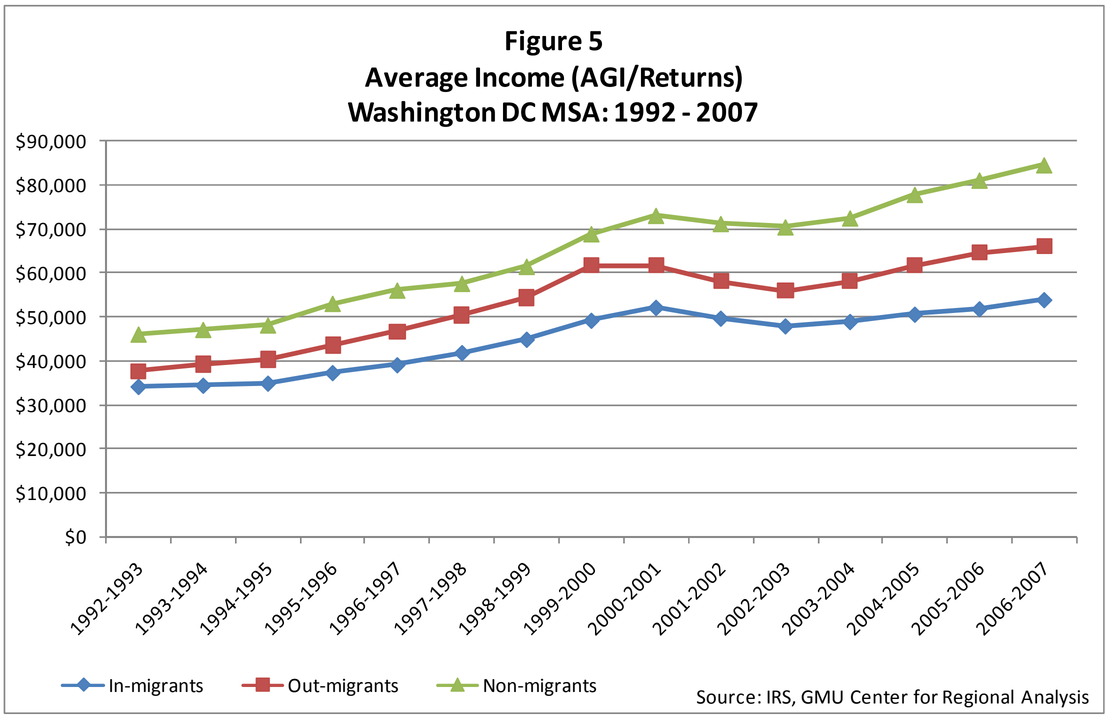


Households moving to the region tend to have lower household incomes than the households moving out of the region.

Data on adjusted gross income (AGI) are available from the IRS County-to-County Migration files beginning in 1992. To approximate household income, total AGI is divided by the total number of returns. Like the household size measure, this measure of household income underestimates the true average household income but it can be used to compare incomes across groups and over time.

Over the 22-year period, in-migrants consistently have had lower average household incomes than out-migrants. (Figure 5) Non-migrating households have had the highest average incomes. The gap in average incomes between in- and out-migrants has widened over time. In 1992-1993, the average household income of out-migrants was about 11 percent higher than the average household income of in-migrants. In 2006-2007, the incomes of out-migrants were about 23 percent higher than the incomes of domestic in-migrants.

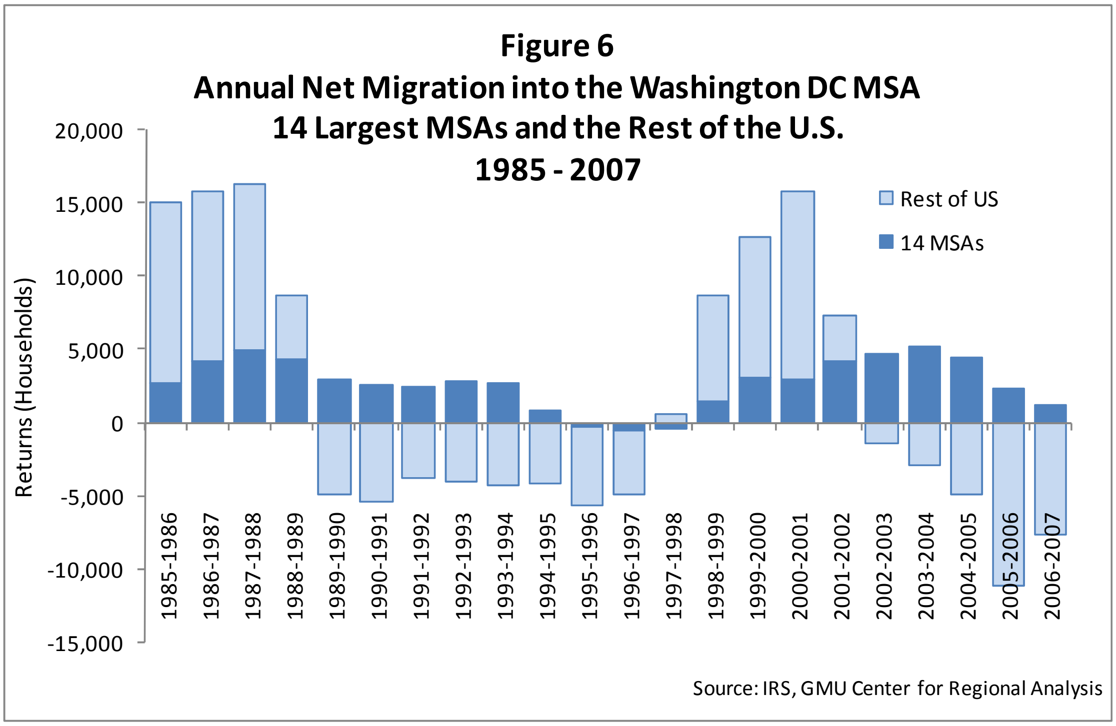
Much of this difference in average household sizes can be attributed to the smaller household sizes of in-migrants. Smaller household sizes imply fewer workers per household and, thus, lower overall household incomes. In addition, many individuals moving to the Washington DC region are attracted by entry-level professional and technical services and federal government jobs which have entry-level salaries.

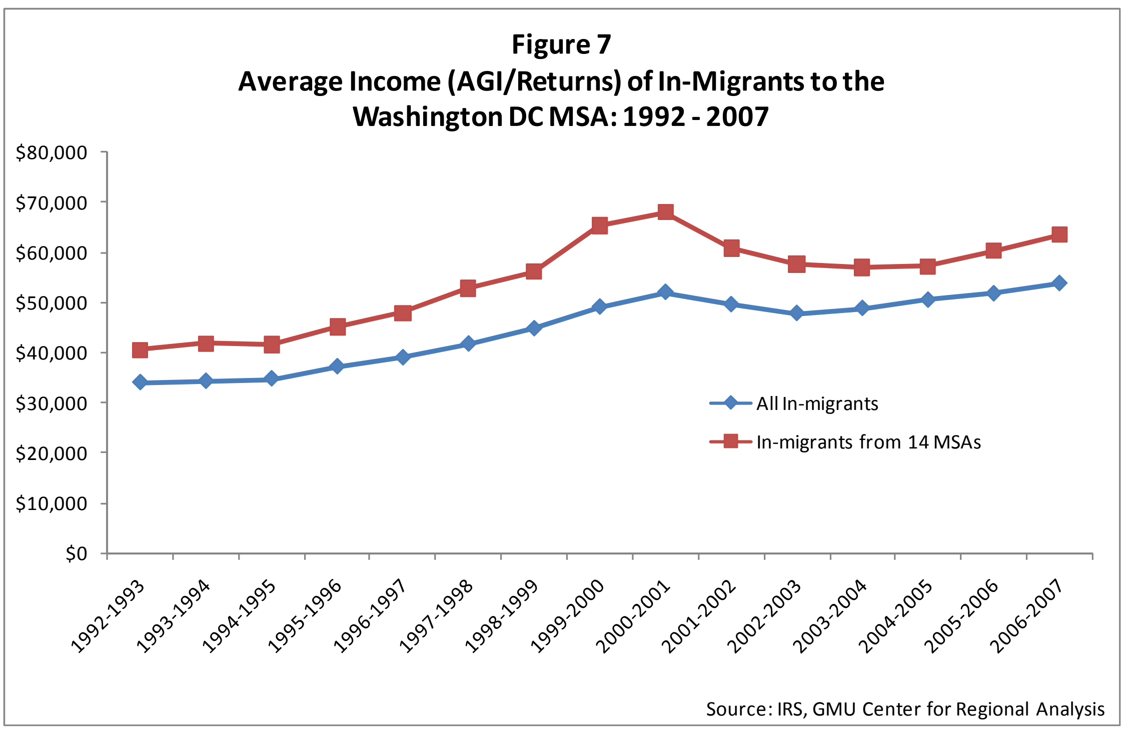


Even when overall domestic net migration into the region was negative, the Washington DC area almost always gained from the country's largest metropolitan areas.

Over the past two decades, about 20 percent of the domestic in-migrants to the Washington DC region came from one of the 14 other largest metropolitan areas in the U.S.[4] Even in the years where there was negative net domestic migration into the Washington DC area, there was almost always positive net migration from these 14 metropolitan areas. (Figure 6)

[4] These metropolitan areas are New York, Los Angeles, Chicago, Dallas, Philadelphia, Houston, Boston, Miami, Atlanta, Detroit, San Francisco-Oakland, Minneapolis, Phoenix, and Seattle.





For example, when overall net migration turned negative in 1989-1990, there was still a positive net migration of about 3,000 households from the 14 largest metropolitan areas (offset by the loss of nearly 5,000 households to other parts of the country.) Even when the region lost more than 11,000 households to negative net migration in 2005 – 2006, there was a positive gain of about 2,300 households to the region from the 14 largest metropolitan areas.

One of the reasons for this continued strength in attracting households from major metropolitan areas is that the Washington DC region consistently outperforms the largest metropolitan areas in terms of job growth. In addition, until recently, Washington DC was a relative bargain in terms of housing prices. Compared to some of the largest metropolitan areas—New York, Los Angeles, Boston—the Washington DC area still is relatively more affordable. However, that advantage has diminished recently.

The households moving from the 14 largest MSAs to the Washington DC region have higher incomes than households moving into the region from other parts of the U.S.

In each year between 1992 and 2007, the average incomes of households coming in to the Washington DC region from the largest metropolitan areas have been higher than the incomes of other in-migrants. (Figure 7) In the 1992-1993 migration flows, the average household income of in-migrants for the 14 MSAs was about $6,700 higher than the average income of all in-migrants. The difference widened until 1999-2000 when the in-migrants from the 14 MSAs had incomes more than $16,000 higher than the average incomes of all in-migrants. In 2006-2007, the gap in incomes was had dropped to about $10,000.

Table 1. Domestic Migration Into and Out of the Washington DC Metropolitan Area 14 Largest Metropolitan Areas and the Rest of the U.S. 1985 - 2007

	Households			People		
Metro Area	In-Migration	Out-Migration	Net Migration	In-Migration	Out-Migration	Net Migration
New York	122,569	81,429	41,140	199,726	116,575	83,151
Los Angeles	44,694	42,353	2,341	81,313	68,598	12,715
Chicago	28,462	23,745	4,717	45,673	36,554	9,119
Dallas	19,900	19,005	895	36,972	37,929	-957
Philadelphia	50,420	35,741	14,679	79,283	59,690	19,593
Houston	15,976	13,322	2,654	29,706	26,578	3,128
Boston	39,835	29,067	10,768	60,006	42,622	17,384
Miami	21,145	27,265	-6,120	35,738	47,183	-11,445
Atlanta	23,321	31,205	-7,884	38,738	56,661	-17,923
Detroit	9,959	5,681	4,278	16,356	10,557	5,799
San Francisco	20,656	24,774	-4,118	33,574	35,566	-1,992
Minneapolis	7,265	5,741	1,524	10,879	9,511	1,368
Phoenix	9,070	13,416	-4,346	16,060	24,432	-8,372
Seattle	12,068	14,154	-2,086	21,829	24,445	-2,616
14 Largest MSAs	**425,340**	**366,898**	**58,442**	**705,853**	**596,901**	**108,952**
Rest of the U.S.	**1,697,733**	**1,689,169**	**8,564**	**3,104,630**	**3,280,758**	**-176,128**
Total	**2,123,073**	**2,056,067**	**67,006**	**3810483**	**3877659**	**-67,176**

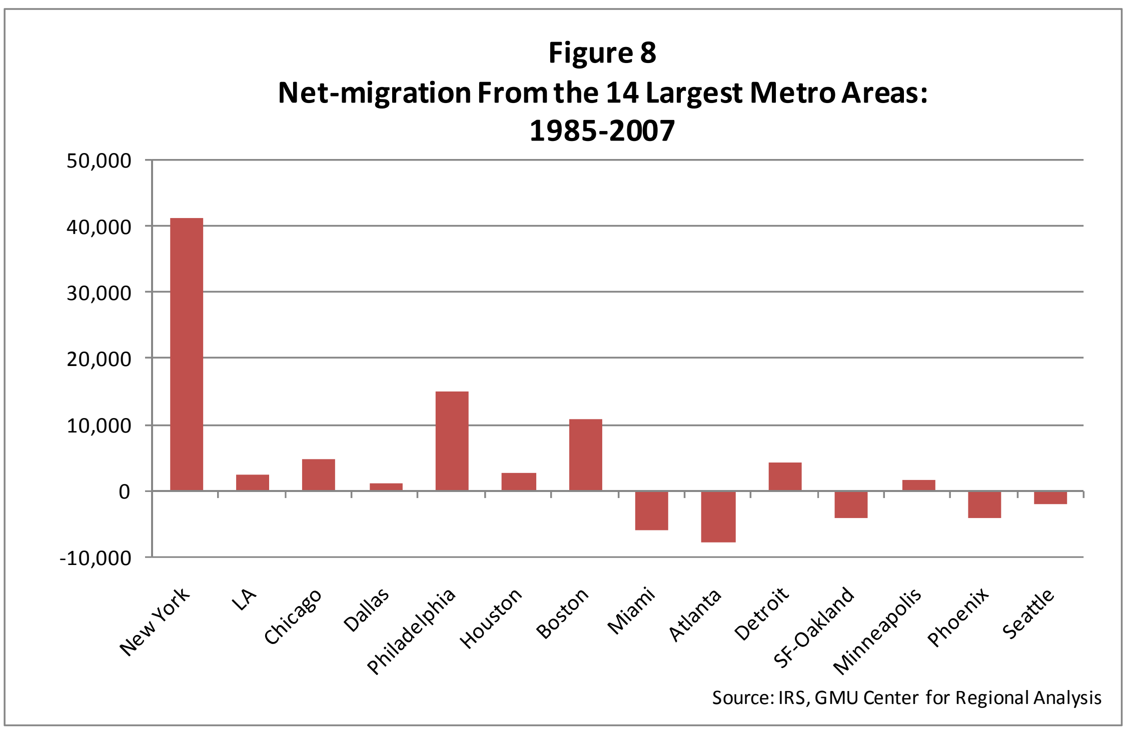
Source: IRS, GMU Center for Regional Analysis

The New York City metropolitan area has sent the most households to the Washington DC region and has consistently been a "net sender" over the 22-year period.

While the 14 largest metropolitan areas accounted for about 20 percent of the domestic in-migration to the Washington DC region, the New York City metropolitan area was the dominant sender. In fact, New York alone accounted for six percent of all the household in-flows into the region. Over the period from 1985 to 2007, there was positive net migration into the Washington DC region from the New York region of more than 41,000 households. (Figure 8) Philadelphia was the next largest sender, with a net migration of nearly 15,000, followed by Boston with a net migration of about 11,000.

Migration theory posits that people are more likely to move to places to which they are closer. As a result, it is not surprising that the Washington DC region receives more households from these East Coast metropolitan areas than from Los Angeles or San Francisco. (Migration flows to and from the Baltimore and Richmond metropolitan areas are also very strong but because they are not among the largest U.S. metropolitan areas, they are not included in this analysis of the largest metropolitan areas.)

Both New York and Boston tend to be high cost areas—like Washington—which makes it easier for households to make the move. Moving from one high cost area to another is easier than moving from a low cost area to a high cost area.



There have been changes over time in which metropolitan areas have been net senders of domestic migrants to the Washington DC metropolitan area.

The Washington DC area has experienced a net gain in households from the major metropolitan areas in the Northeast and Midwest. In each year between 1985 and 2007, the Washington DC region experienced positive net migration from the New York, Philadelphia, Boston, Detroit and Minneapolis metropolitan areas. In Chicago, there were only three years in the mid-1990s when net migration was virtually zero. (Figure 9a) The pattern is less consistent in other metropolitan areas, particularly in the fast-growing Sunbelt regions. (Figures 9b – 9d)

During the last half of the 1980s, more households moved to the Washington DC region from Houston and Dallas than moved out of the Washington DC area to those Texas metropolitan areas. The uptick in in-migration from Houston and Dallas to the Washington DC region is at least partially related to the start of George H.W. Bush's presidency. The pattern of migration flows from Texas was different in the 1990s when the Washington DC area lost households to the Dallas metropolitan area in every year. In every year except 1993-1994 and 1994-1995, when net migration was virtually zero, the Washington DC region also lost households to Houston. The trend with the Texas metropolitan areas reversed again in the first half of the current decade. The positive net migration from Dallas and Houston in 2000-2001 corresponds to the beginning of George W. Bush's presidency. In 2006-2007, however, the Washington DC area again sent more households to Dallas and Houston than the region received.

Atlanta, San Francisco-Oakland, and Seattle exhibit a different pattern. For the most part, these metropolitan areas were net receivers of households from the Washington DC area through the late 1980s and 1990s. For a few years in the early 2000s, the Washington DC region received more households from these places than it sent out, likely as a result of the strong economic growth the region experienced. The tide began to turn again in 2005, as more households moved out of the region to Atlanta, San Francisco and Seattle.

People are less likely to move long distance than they are to move to places that are relatively close. However, nearly 45,000 households moved from the Los Angeles metropolitan area to the Washington DC region between 1985 and 2007, in addition to over 20,000 households from San Francisco and 12,000 from Seattle. In some years, net migration from Los Angeles to the Washington DC area was positive while in other years there was negative net migration. The biggest gains from Los Angeles were in 1993-1994 when net migration was nearly 1,200.

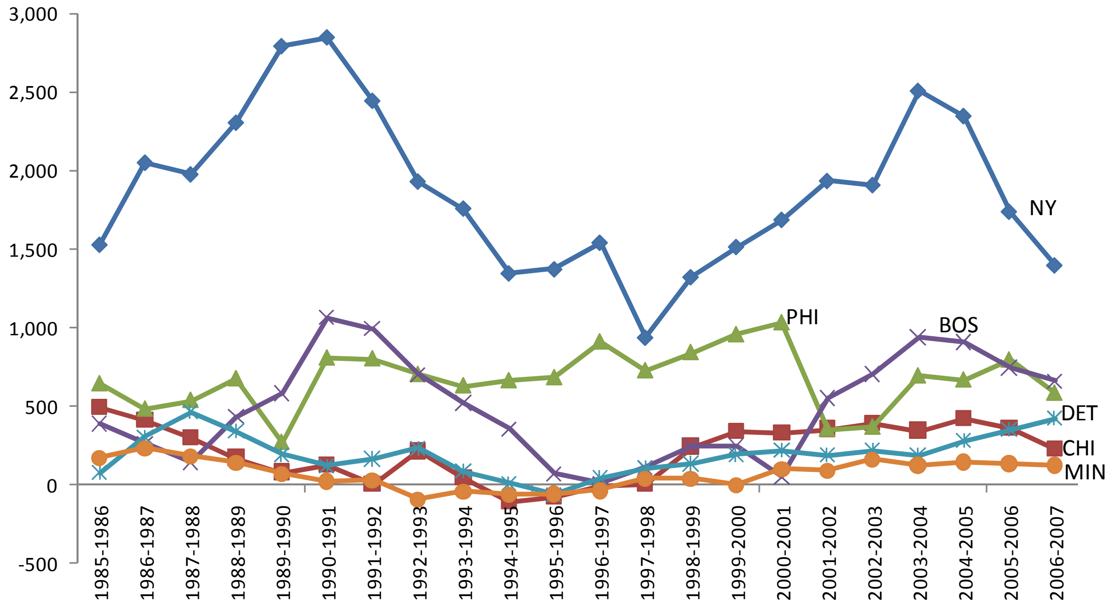
Finally, Miami and Phoenix are the two major metropolitan areas that consistently sent fewer households to Washington than they received. In every year between 1985 and 2007, net migration from Miami and Phoenix to the Washington DC metropolitan area was negative. These places tend to attract retirees, therefore accounting for the positive draw of households from the Washington DC metropolitan area.

Conclusion

Between 1985 and 2007, about 2.1 million households moved into the Washington DC metropolitan area from other places in the U.S. However, during that same period nearly the same number moved out of the region to other parts of the country. On net, the Washington DC area gained only about 67,000 households and lost about 67,000 people through domestic migration over this 22-year period. About one-fifth of the domestic migration to the region comes from the biggest metropolitan areas, though New York, Philadelphia and Boston are the biggest senders. There have been fluctuations in domestic migration to the region over the two decades, which has been tied to economic cycles, home prices, and (more modestly) to political changes.

Even as the Washington DC region experienced basically zero net domestic migration between 1985 and 2007, the population and the economy grew. This growth was fueled by influxes of

Figure 9a
Annual Net Migration from "Sending Metro Areas"
1985-2007



Source: IRS, GMU Center for Regional Analysis

Figure 9b
Annual Net Migration from Houston and Dallas
1985-2007

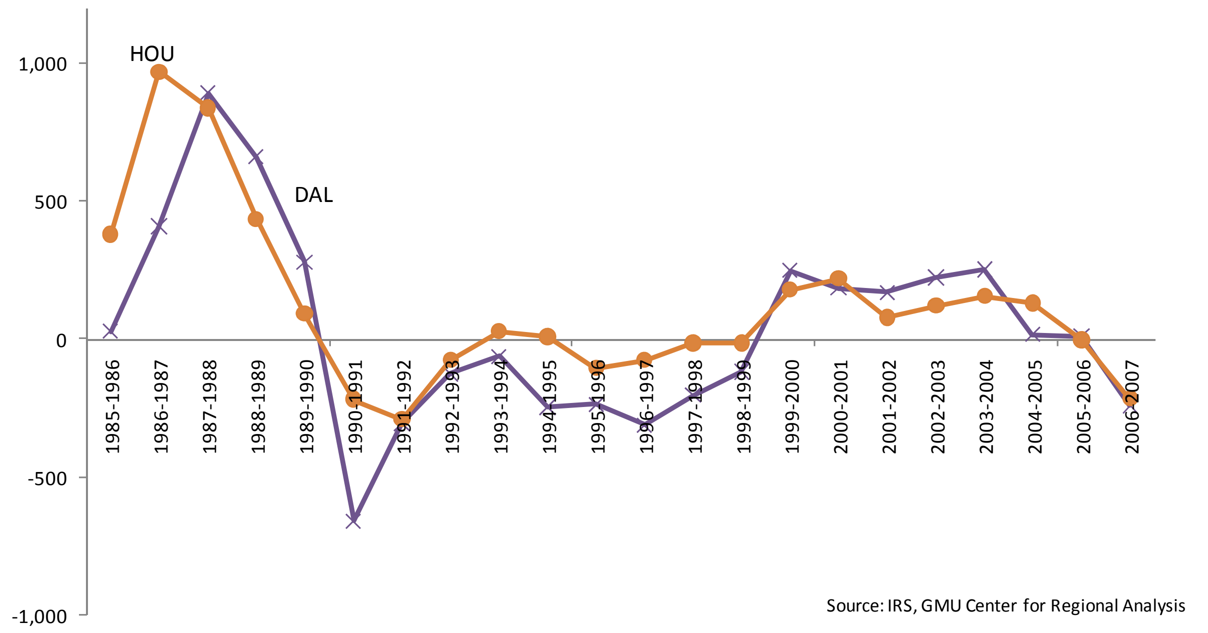
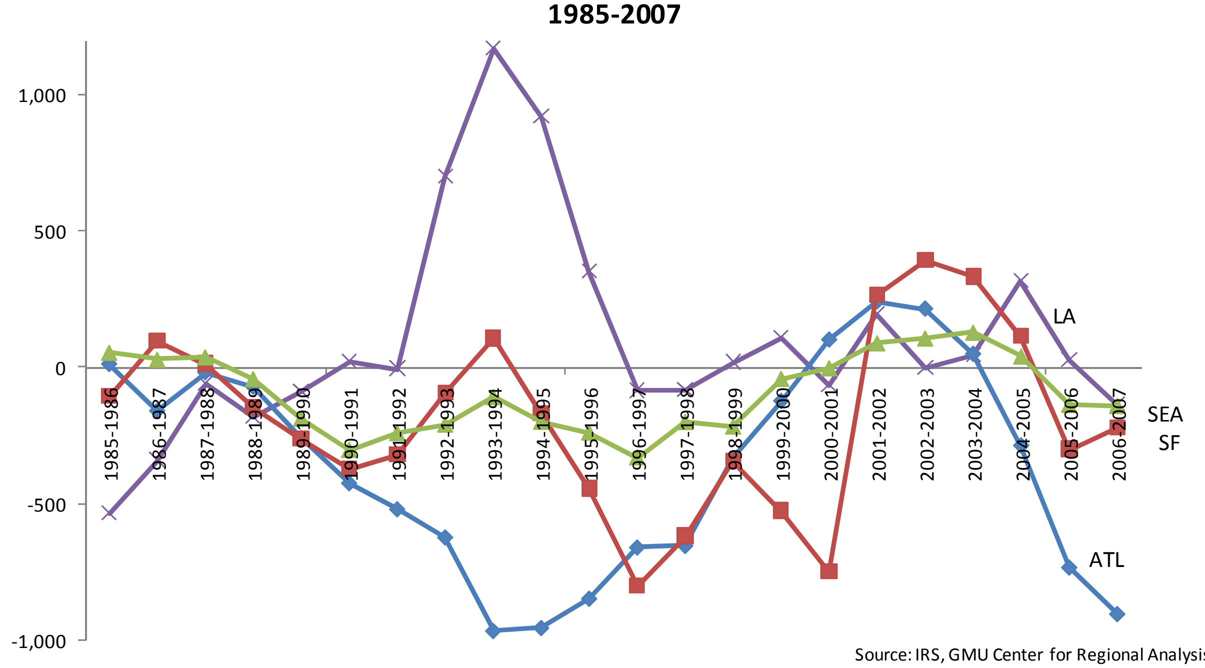


Figure 9c
Annual Net Migration from Los Angeles, Atlanta, San Francisco and Seattle
1985-2007



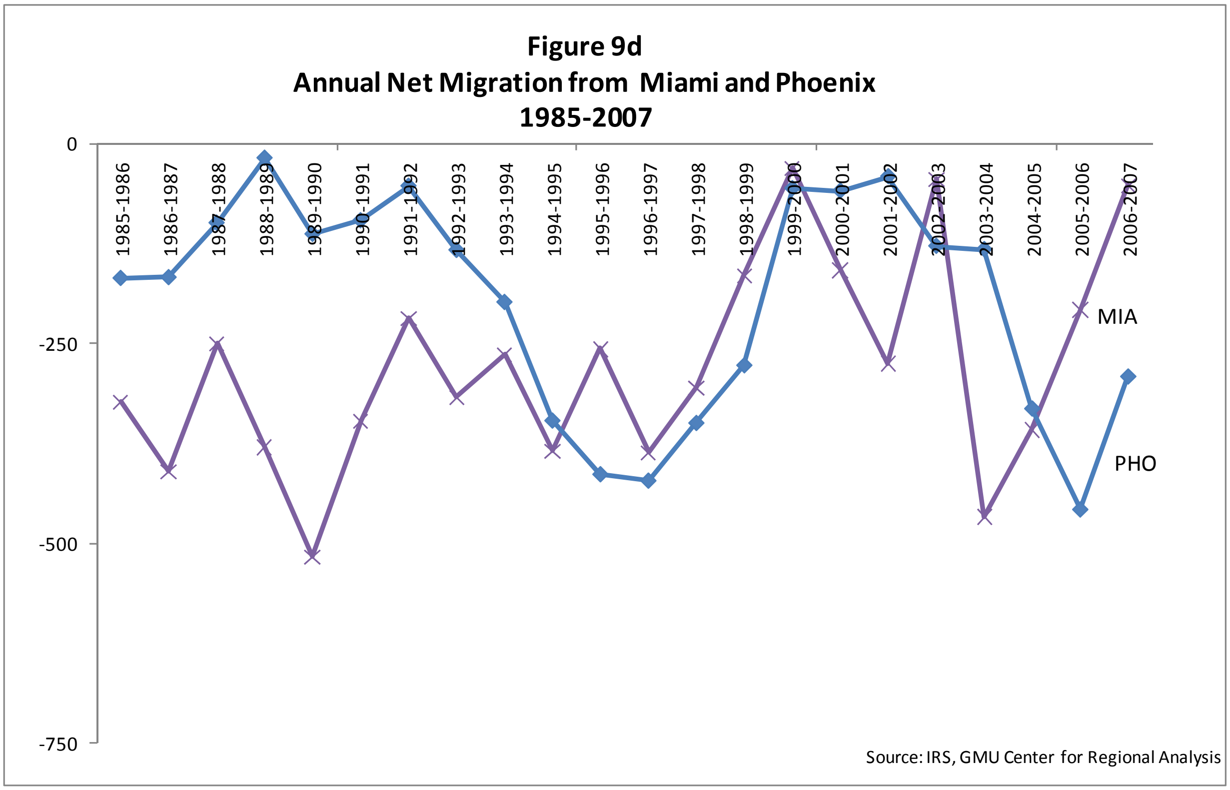


Figure 9d
Annual Net Migration from Miami and Phoenix
1985-2007
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-250
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-750
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MIA
PHO
Source: IRS, GMU Center for Regional Analysis

foreign migrants from Latin America, Asia and Africa. International immigrant will continue to be an important source of growth for the Washington DC area in future decades. However, local and federal policies will slow the flow of foreign migrants. Recent data from the U.S. Census Bureau finds a slowdown in the growth of the foreign born population in the region in 2008.[5] In order to continue strong economic growth into the future, the Washington DC region needs to attract educated domestic migrants and retain highly skilled current residents.

In order to develop strategies to attract and retain domestic migrations, additional research may be helpful. A handful of research questions are suggested by this analysis:

What are the socioeconomic characteristics of domestic migrants to the Washington DC metropolitan area? The IRS County-to-County Migration data are valuable for tracking annually flows into and out of the region. However, the data provide little detail on the characteristics of migrants. To better understand how domestic migrants can contribute to the future economic growth of the region, it is important to have a clear picture of the education levels, occupations, wages, and family structures of in-migrants.

How do the socioeconomic characteristics of out-migrants compare to those of the households that remain in the Washington DC region? The out-flows of domestic migrants have offset the in-flows of domestic migrants over the past two decades. However, the migrating households represent only about 10 percent of the region's total population. To develop strategies to retain domestic migrants, it would be useful to examine the socioeconomic characteristics of people who come to the Washington DC area from other parts of the U.S. *and stay.*

Are the socioeconomic characteristics of domestic migrants to the Washington DC region different from those of domestic migrants to other major U.S. metropolitan areas? The Washington DC metropolitan area will be competing with other large metropolitan areas for labor over the next several decades. Analyzing the characteristics of migrants to other metropolitan areas is important for understanding if the domestic migrants the Washington DC region would like to attract are choosing other places. This information could be helpful in designing strategies for attracting domestic migrants to Washington.

What is the relationship between housing costs and domestic migration? Preliminary evidence from this analysis suggests that relatively high housing costs have forced households out of the Washington DC metropolitan area in recent years. Some of these out-migrants may not be really leaving the region, as they may be moving just outside the region's boundary where housing is more affordable (e.g. to Anne Arundel or Howard counties in Maryland) while continuing to work in the Washington DC metropolitan area. These in-commuters take resources out of the metropolitan economy but still put pressure on local infrastructure.

[5] U.S. Census Bureau, American Community Survey 2008, www.census.gov