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Domestic Migration To And From The Washington DC Metropolitan Area

1985 – 2010

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Between 1985 and 2010, the population of the Washington DC Metropolitan Area grew from 3.72 million to 5.58 million, an increase of 1.86 million people.[1] Population growth is a function of vital events (births and deaths) and international and domestic net migration. Over the past 25 years, most of the population growth in the Washington DC metropolitan area has been due to international migration and the higher fertility rates of the foreign born population. However, since 2007, domestic migration has taken on a more significant role in shaping the economic and demographic composition of the region. Given the increased significance of domestic migration to the Washington DC metropolitan area's economy, the sensitivity of domestic migration to changes in regional economic conditions has important implications for the region's ability to attract highly skilled workers from the rest of the country.

Highlights from the Report

- **From 2009 to 2010, the Washington DC metro region experienced higher annual net domestic migration than at any time since 1988.** Net migration between the region and the nation's 14 largest metropolitan areas was also 38 percent higher than any other year in the data set, which covers the period from 1985 through 2010. This stands in contrast to the period from 1985 through 2007, when domestic inflows were offset by outflows to other parts of the country.[2] Economic data indicate this shift was caused by a significant gap in job growth between the Washington region and the rest of the United States.

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 inflows and outflows from year to year, as well as to identify non-migrants. The data used in this analysis are for the period 1985 through 2010 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.

[1] U.S. Census Bureau, Decennial Census 2010, www.census.gov
[2] Lisa A. Sturtevant and Yu Jin Yung. "Domestic Migration to and from the Washington DC Metropolitan Area: 1985-2007." Center for Regional Analysis. Technical Report No.4. Fairfax, VA: George Mason University. 2009. Pp.1.

- **While the largest population exchanges since 1985 have been with major East Coast metropolitan areas, the relationship with the South has been the most complex in recent years.** From 2007 to 2010, the Washington region experienced a flip in net migration with Atlanta, caused by a significant decline in the number of outmigrants from the Washington region to the Atlanta metropolitan area. At the same time, the region continued to lose population to Houston and Dallas.

- **The average income of households that move into the Washington DC metro region has been highly stable since 2007.** From 2007 to 2010, the region consistently attracted inmigrants with average adjusted gross incomes of $55,000 per household.[3] These inmigrants faced the financial pressures of a strained low-to-moderate income housing stock. Many inmigrants have been moving into the tightest segment of the rental market to take advantage of the Washington region's superior job growth relative to other metropolitan areas.

- **Net domestic migration into the Washington DC metro region will slow over the next few years, as national economic growth rates catch up to growth rates in the Washington region.** The Washington region's reliance on federal procurement spending will exacerbate the impact of policy decisions designed to address federal fiscal challenges. The region's ability to pivot in the face of these challenges will be essential to maintaining the flow of highly skilled workers that has been a vital conduit of its economic competitiveness.

Introduction

Every year, millions of households move within the U.S. Recent data from the US Census Bureau indicate that 12 percent of Americans changed residence in the last year.[4] Many of these moves are local moves, typically to establish one's own household or obtain a better home or apartment.[5] Other moves are long 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, 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. More recently, the housing bust and the financial crisis of 2008 have had national effects with idiosyncratic regional implications.

The Washington DC metropolitan area[6] was at the epicenter of domestic migration through the Great Recession. Although fewer people moved to the region from overseas, the region drew in households from nearly all of the major U.S. metropolitan areas. This stands in contrast to the historical trend between 1985 and 2007 in which domestic inflows to the region were offset by domestic outflows; prior

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[3] The IRS County-to-County data does not capture low-income non-filers and others not required to file. The adjusted gross income measure may also deviate from total income.

[4] U.S. Census Bureau. Annual Geographical Mobility Rates, By Type of Movement: 1947-2011. Current Population Survey. www.census.gov

[5] U.S. Census Burea. Current Population Survey. 2011. www.census.gov

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

to the Great Recession, much of the region's population growth could be attributed to foreign migration from Latin America, Asia, and Africa.[7] In addition to these trends, it is important to understand that the Washington region is known as a relatively transient area. About 8 to 10 percent of the Washington DC area's population is either moving into or out of the region in any given year.[8] This report places the most recent wave of domestic migration into its historical context, provides analysis, and discusses the implications for the future economic growth of the region.

Federal outlays during the Great Recession attracted inmigrants from metropolitan areas that experienced comparatively lower job growth.

From 2007 to 2010, population growth in the Washington DC Metropolitan area resembled the growth of the earlier 20th century, in which inmigration was driven domestically, 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). It also bears some similarities to the early 1980s, when a rise in government outsourcing resulted in the growth of the procurement sector, which attracted many workers who found jobs with private contractors.[9]

In the most recent wave of domestic migration, the federal government and the region's large procurement sector attracted inmigrants looking for insulation from the economic shocks other metropolitan areas were facing. The national economy's unstable jobs situation made the Washington DC region a net draw, increasing the incidence of inmigration by 11 percent, and reducing the incidence of outmigration by 13 percent.

The ebbs and flows of domestic migration to the Washington DC region over the last 25 years have been associated with business cycle and housing cost factors.[10]

Five periods of domestic migration are observed over the 25 year period (Figure 1):

<u>1985-1989:</u>

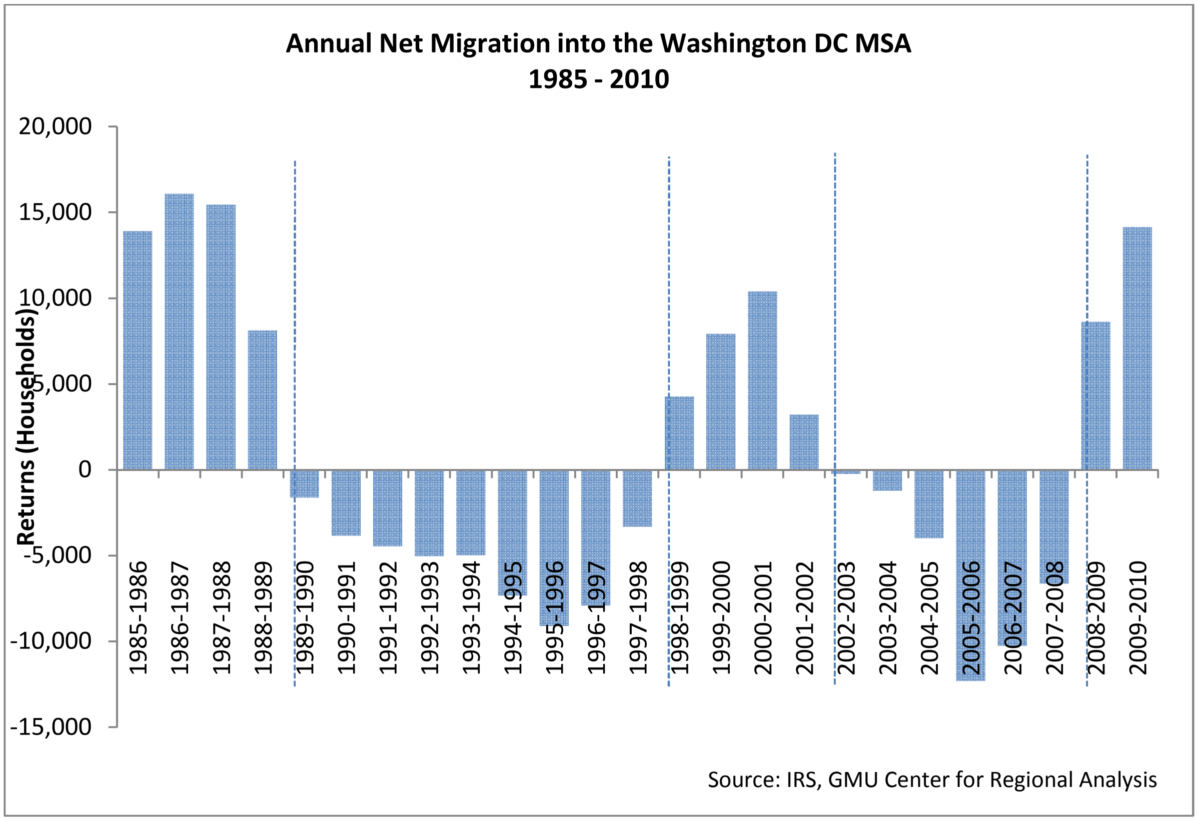
During this period, the Washington DC region experienced positive net migration. Between 1985 and 1989, about 364,000 households moved to the Washington DC metropolitan area from other parts of the country, and 310,000 left the region for a net domestic migration of about 54,000 households. Annual net migration stayed around 15,000 households through 1988, and then dropped to 8,000 by 1989, but remained in positive territory.

This period was characterized by superior economic growth in the Washington DC area compared to 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

[7] Audrey Singer. "At Home in the Nation's Capital: Immigrant Trends in Metropolitan Washington." The Brookings Institution: Washington DC. 2003.
[8] Internal Revenue Service. County-to-County Migration Data. 1985 – 2010.
[9] Lisa A. Sturtevant and Yu Jin Yung. "Domestic Migration to and from the Washington DC Metropolitan Area: 1985-2007." Center for Regional Analysis. Technical Report No. 4. Fairfax, VA: George Mason University. 2009. Pp.2.
[10] This section provides updates and revisions to the corresponding section of the 2009 report.

annually in 1986, 1987, and 1988, while the national economy grew by about 3 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.

FIGURE 1

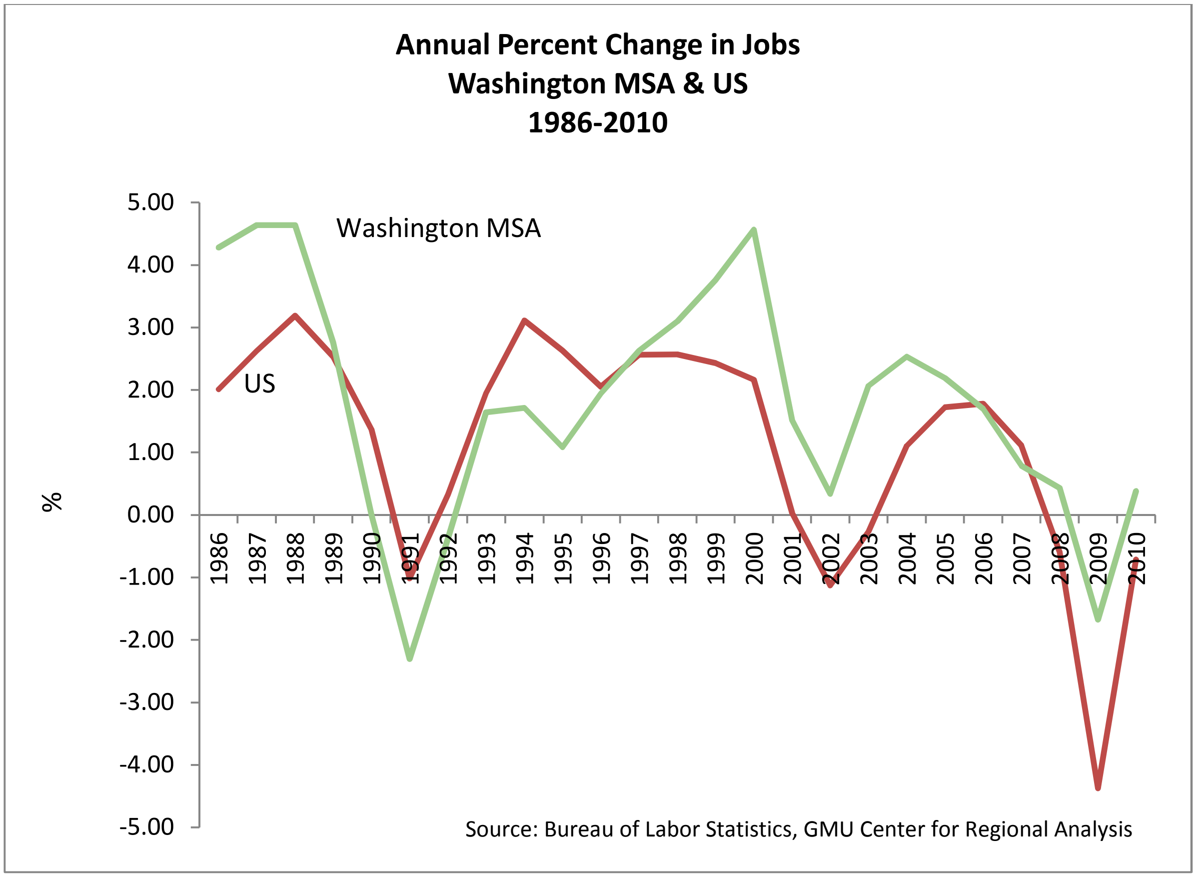


<u>1989 – 1998:</u>

The Washington DC metropolitan area experienced a net loss in domestic migrants over this nine-year period. From 1990 to 1994, an annual average of about 3,000 more households moved out of the region than moved in. From 1994 to 1997, the region experienced an uptick in net outflow to an average of 6,000 households, caused by a steady decline in the number of inmigrants. The trajectory showed signs of change by 1998, but not enough to produce positive net migration.

In seven of those nine years, the national economy grew faster than the regional economy. This was also the first period in the data set in which Washington area home price appreciation diverged from national home price appreciation. The cumulative effect of these two factors produced the longest period of net outflow in the study.

FIGURE 2

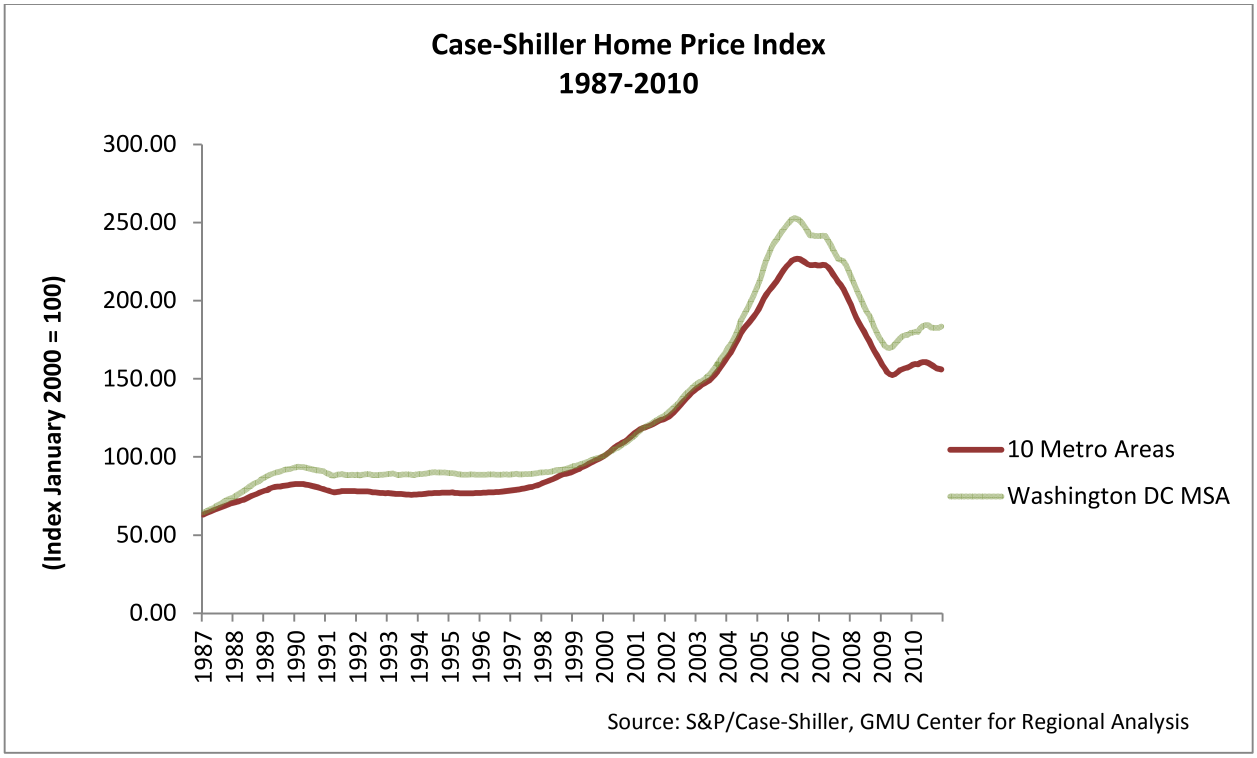


<u>1998 – 2002:</u>

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 nine consecutive years of net outflow, net migration climbed steadily in 1998-1999, 1999-2000, and 2000-2001 as annual job growth took off in the Washington region, exceeding national job growth by 2.4 percent by 2000. Beginning in 2001-2002, net migration was still positive at 3,000 households, but it began to decline.

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

FIGURE 3



<u>2002-2008:</u>

Net migration was basically flat in 2002-2003 and dropped every year until it reached its nadir in 2005-2006, when the region saw a net outflow of over 12,000 households. This was the first year since 1997 that the national economy matched the Washington region in terms of job growth, and it occurred just as the gap in home prices between the Washington region and the rest of the nation reached its highest level under the Case-Shiller index (Figure 3).

The period from 2002 to 2005 suggests domestic migration is sensitive to relative differences in home prices. Job growth in the Washington DC region exceeded national job growth by significant margins every year during this period, but the region still experienced net migration outflow as regional home price appreciation began a second divergence from national home price appreciation. Regions where housing costs were more moderate were also demonstrating strong job growth, leading households to move out of the Washington DC region.

From 2006 to 2007, net domestic migration began to increase as home price appreciation was converging. Job growth was actually slower in the Washington DC region than the rest of the nation. Up until the Financial Crisis of 2008, home prices had an association with domestic migration to the Washington DC region over the mid-part of the decade.

2008 – 2010:

The severity of the economic shocks the Great Recession produced in the rest of the country caused a high net inflow into the Washington DC region from 2008 to 2010. Federal direct and procurement spending kept the Washington DC region comparatively insulated from the dismal jobs situation that swept much of the United States. The structure of the region's economy was well-positioned to benefit from the administration of federal spending programs designed to soften the demand shock caused by the financial crisis and the precipitous slowdown in the housing market (Figure 4). Between 2007 and 2009, net inflows increased by over 15,000 households, moving from negative territory up to 10,000 households by 2009. By 2010, net inflow increased by another 5,000 households, approaching 15,000 net inmigrants per year. This was the highest level of annual inmigration experienced since the 1980s, and the sharpest increase in net inmigration over the 25 year period under study.

The evidence does not suggest this level of domestic migration to the region will continue. The rate of annual job growth between the Washington DC region and the rest of the United States converged dramatically between 2009 and 2010, separated by just 1.1 percentage points in 2010.[11] Home price appreciation began a third divergence from national rates toward the end of the decade, and this time larger than those experienced in the 1980s and 2000s. The outlook for procurement spending is also unfavorable. For example, the administration's 2012 request for defense procurement for the 2013 budget year was 15 percent lower than was planned in 2011 and 5 percent lower than the 2012 budget request. Notably, 40 percent of the decline in total budget authority from plan to request was concentrated in procurement.[12] The Budget Control Act of 2011 (BCA) requires long-term discretionary spending reductions of $778 billion over the 10 years from FY 2012 to FY 2021, and $5 billion in mandatory spending reductions. These provisions came into effect in 2012. The BCA also includes an automatic trigger to yield an additional $1.2 trillion in spending reductions that will come into effect in 2013 unless new legislation is enacted.[13] Within this context, the region's comparatively heavy reliance on federal outlays has steadily increased through FY 2010 (Figure 6). As the federal government addresses its fiscal challenges, the region's ability to make adjustments to the new fiscal reality will determine its ability to continue to draw highly-skilled workers. The region's housing stock, which already has an undersupply of multifamily housing, will not help; and it is unclear whether the region will be able to rely on international migration for its population growth, as it has during other periods when domestic migration fell. These factors will be influential within a context in which the Gross Regional Product is already forecasted to converge to some degree with the national GDP (Figure 5).

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[11] Bureau of Labor Statistics. Current Employment Statistics and Quarterly Census of Employment and Wages. 2012

[12] Stephen Daggett and Pat Towell. "FY 2013: Defense Budget Request: Overview and Context." CRS Report for Congress. Congressional Research Service. April 20, 2012. R42489.

[13] Mindy Levit and Marc Labonte. "The Budget Control Act of 2011: The Effects on Spending and the Budget Deficit When the Automatic Spending Cuts Are Implemented." CRS Report for Congress. Congressional Research Service. April 23, 2012. R42506.

FIGURE 4

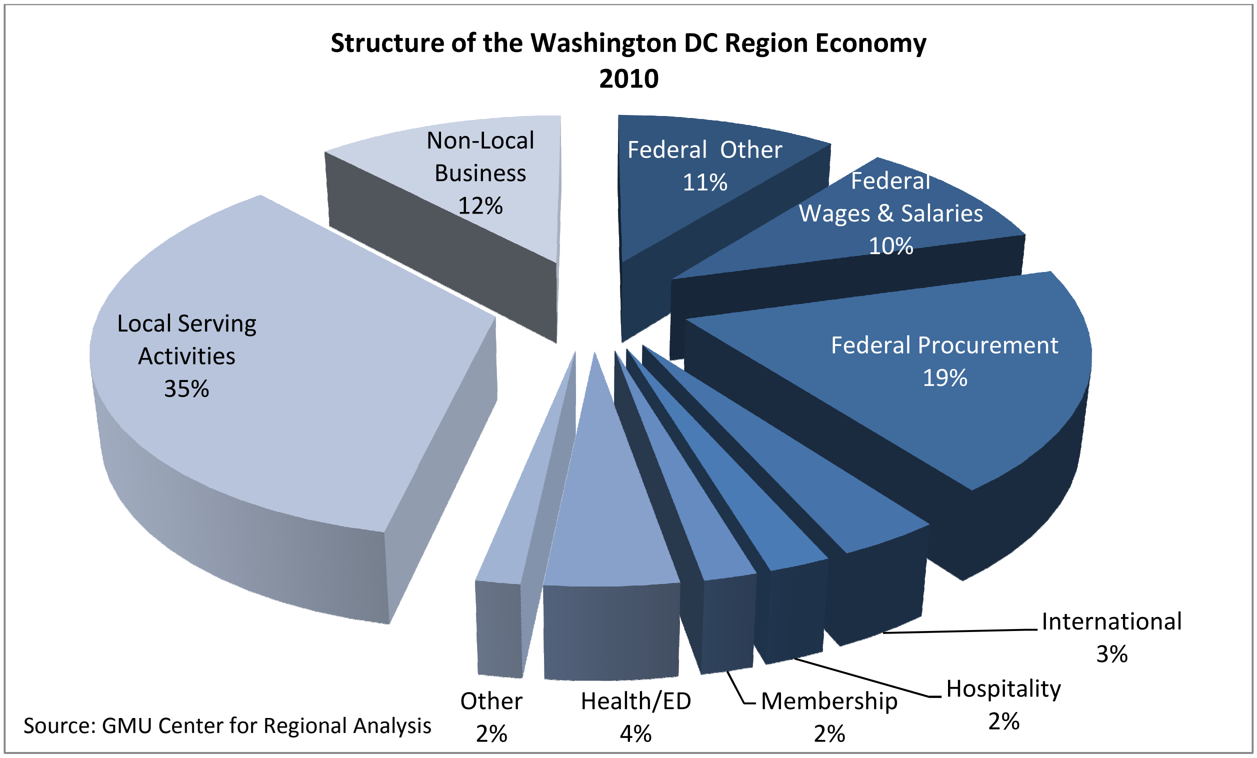


FIGURE 5

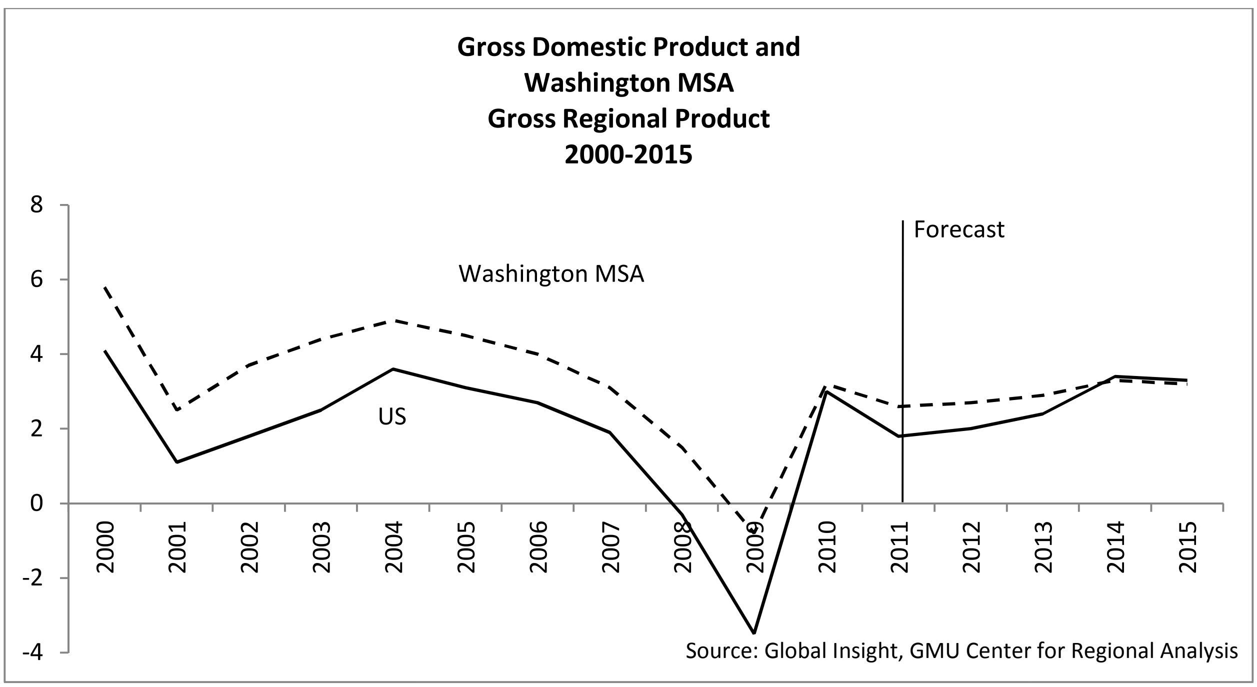
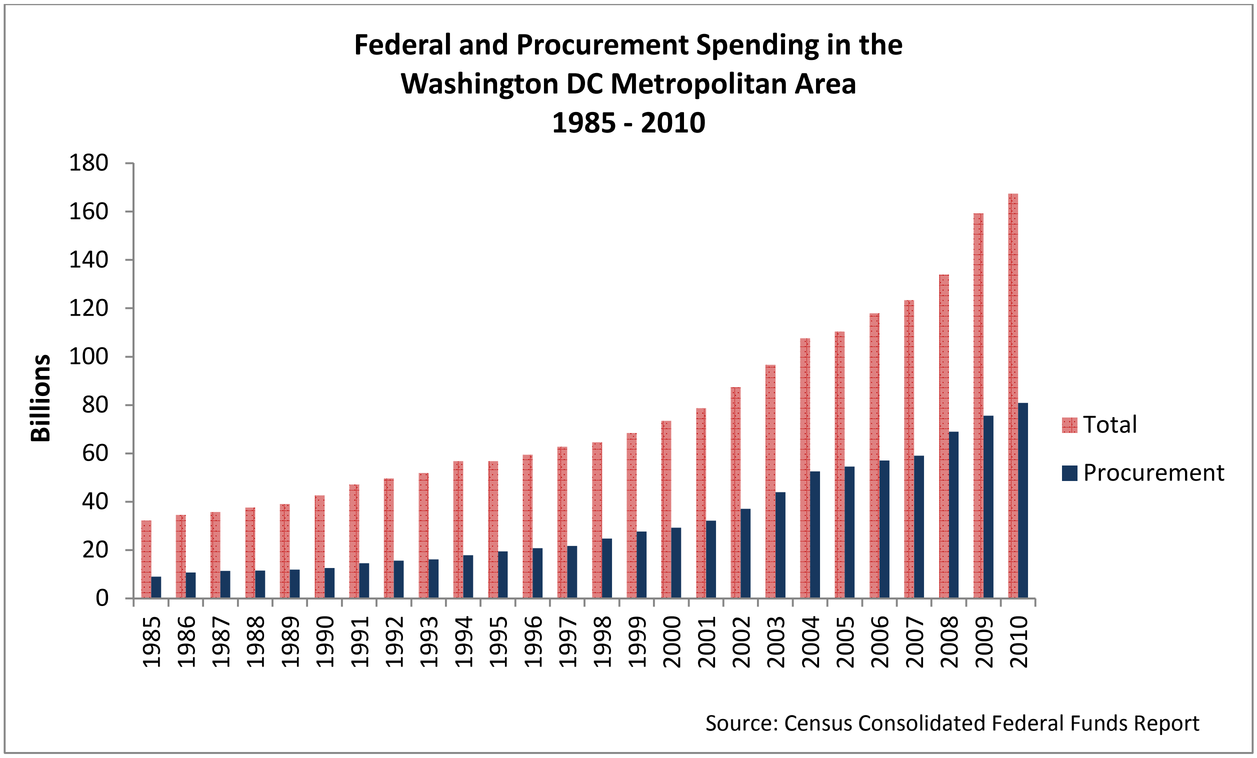


FIGURE 6



The average adjusted gross income of households that move into the region has been stable since 2007, at $55,000 per household.

Data on adjusted gross income (AGI) are available from the IRS County-to-County Migration files, beginning in 1992. To approximate average adjusted gross income, total AGI is divided by the total number of returns. The IRS County-to-County data does not capture low-income non-filers and others not required to file. The adjusted gross income measure also may also deviate from total income, but it can be used to compare incomes of inmigrants and outmigrants.

The average income of inmigrants has not changed since 2006. The average inmigrant over the last 10 years has had an annual adjusted gross income between $50,000 and $60,000 (Table 1). Many of these inmigrants are moving into a tight segment of the housing market. For example, median gross rents in the Washington metropolitan area were the highest of all metropolitan areas in the nation at $1,351 in 2010, and 83 percent of households whose total incomes were below $50,000 had rent burdens of 30 percent or more.[14]

The incomes of migrants coming into the region are not the same as the incomes of those moving out. In each year between 1992 and 2010, the average income of inmigrants has been lower than those of outmigrants. But while the difference generally ranged from $4,000 to $7,000 in the 1990s, it tended to range from $8,000 to $10,000 during the 2000s. As the gap stabilizes at a wider level, this dynamic has

[14] "The Washington DC Area Rental Market," Update from the American Community Survey. George Mason University. Center for Regional Analysis. March 2012.

implications for the ability of the housing stock to meet the requirements of the migration patterns. If the gap becomes too large, the attraction for inmigrants may decline without a broad reduction in home prices.

Much of the difference in average incomes can be attributed to the smaller household sizes of inmigrants. Smaller household sizes imply fewer workers per household, which implies 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. This demographic is becoming a larger share of the population of the Washington DC region than in previous years.

TABLE 1

Incomes and Exemptions of Washington DC Metropolitan Area Migrants

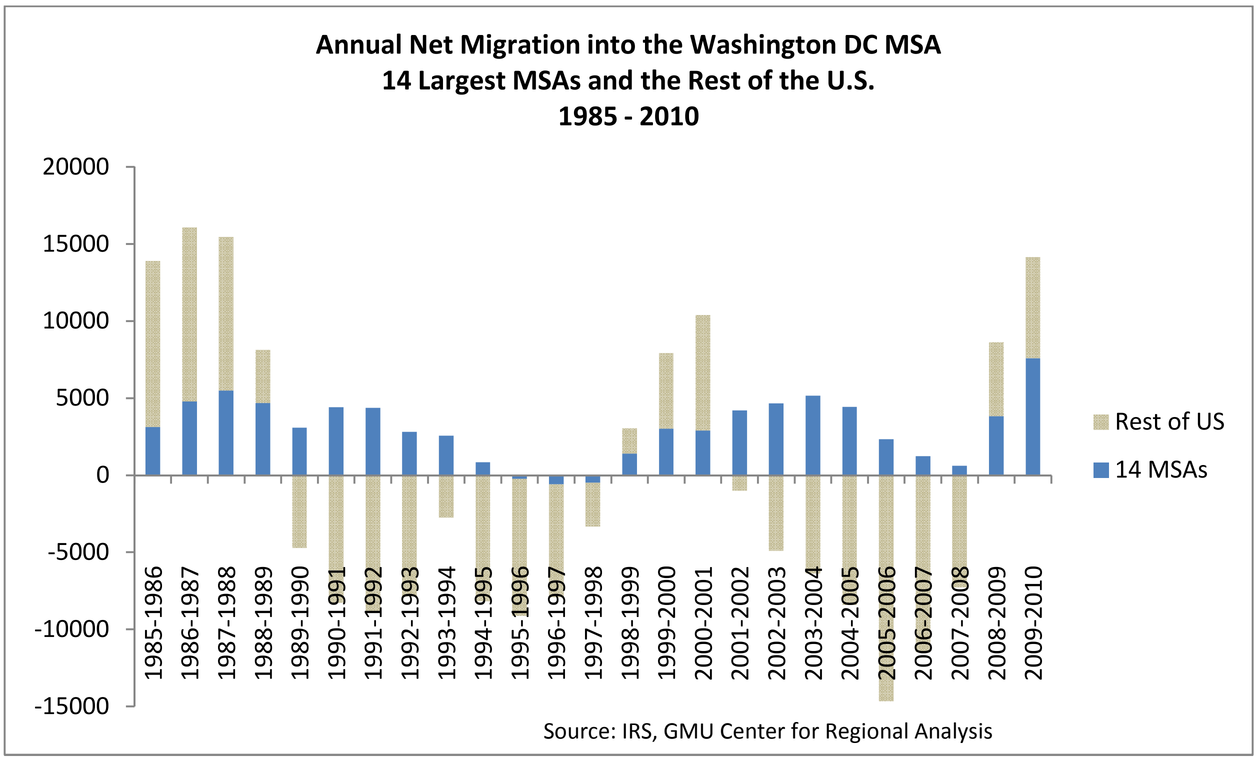
	Inmigrants			**Outmigrants**		
Year	Adjusted Gross Income per Return	Exemptions per Return	Total Returns	Adjusted Gross Income per Return	Exemptions per Return	Total Returns
1992-1993	$ 33,992	1.81	79,161	$ 37,381	1.91	84,200
1993-1994	34,748	1.85	83,628	38,991	1.90	83,823
1994-1995	34,910	1.79	80,084	40,056	1.86	87,423
1995-1996	37,997	1.80	76,267	43,536	1.84	85,379
1996-1997	39,671	1.79	79,131	46,737	1.85	87,041
1997-1998	42,943	1.77	82,890	50,552	1.84	86,217
1998-1999	45,824	1.76	88,066	54,469	1.83	85,017
1999-2000	50,684	1.76	93,054	61,743	1.81	85,130
2000-2001	54,317	1.75	96,861	61,895	1.79	86,460
2001-2002	51,087	1.74	92,885	58,179	1.81	89,673
2002-2003	48,998	1.74	90,945	55,992	1.83	91,200
2003-2004	49,827	1.75	92,330	58,263	1.85	93,541
2004-2005	51,308	1.74	97,214	61,851	1.88	101,209
2005-2006	52,586	1.70	97,716	64,528	1.88	110,032
2006-2007	55,000	1.69	95,691	65,842	1.85	105,949
2007-2008	55,743	1.69	103,503	66,637	1.80	110,146
2008-2009	55,721	1.71	106,700	64,599	1.78	98,076
2009-2010	55,054	1.74	106,040	62,140	1.79	91,883

Source: Internal Revenue Service, GMU Center for Regional Analysis

The region siphoned off population from most of the country's largest metropolitan areas.

Between 1985 and 2007, the net gain to the Washington DC region from the country's 14 largest metropolitan areas was typically positive; but the region was losing population to about half of those regions while net migration from New York was disproportionately large. Between 2008 and 2010, net migration from the 14 largest metropolitan areas was positive almost across the board on an *individual region* basis. The Washington region gained population from the historic net senders of New York, Chicago, Philadelphia, Boston, Detroit, and Minneapolis, but during this period it also gained population from traditional net receivers such as Miami and Phoenix, West Coast cities such as Los Angeles, San Francisco, and Seattle; as well as Atlanta in the Sunbelt. By 2010, it was coming from every large metropolitan area except Houston. Positive net migration from the 14 largest metropolitan areas had never been this widespread geographically at any other point in the data set.

FIGURE 7



But while the Washington DC region almost always pulls a cumulative net positive from the 14 largest metropolitan areas, the largest swings took place among other metropolitan areas. From 2005 to 2006, net migration between the Washington DC region and MSAs outside of the 14 largest was highly negative, reaching -15,000 by 2006, at a time when net migration from the 14 largest MSAs was still positive. By 2010, net migration from areas outside of the 14 largest MSAs had gone highly positive at 6,500, and nearly reached the level of net migration coming from the 14 largest MSAs.

TABLE 2

Total Domestic Migration Into and Out of the Washington DC Metropolitan Area
14 Largest Metropolitan Areas and the Rest of the U.S.
1985 - 2010

	Households		
Metro Area	In-Migration	Out-Migration	Net Migration
New York	142,815	97,807	45,008
Los Angeles	51,195	48,237	2,958
Chicago	33,737	27,805	5,932
Dallas	23,066	22,464	602
Philadelphia	58,710	41,650	17,060
Houston	18,258	16,509	1,749
Boston	46,230	33,764	12,466
Miami	26,651	31,966	-5,315
Atlanta	28,411	35,942	-7,531
Detroit	12,516	6,469	6,047
San Francisco	37,827	36,489	1,338
Minneapolis	8,745	6,629	2,116
Phoenix	11,159	15,269	-4,110
Seattle	14,691	16,707	-2,016
14 Largest MSAs	**514,011**	**437,707**	**76,304**
Rest of the US	**1,746,708**	**1,799,602**	**-52,894**
Total	**2,260,719**	**2,237,309**	**23,410**

Source: IRS, GMU Center for Regional Analysis

The New York City metropolitan area continued to be the dominant net sender through 2010, and Philadelphia and Boston continuing to send high numbers of migrants to the Washington DC region. However, Chicago replaced Boston as the third highest net sender to the region (See Figure 8). The differences in net migration from the latter group of cities were marginal, with annual net migration levels from those areas ranging from 800 to 1,000 households. Net migration from New York was double that amount, reaching 2,200 households annually by 2010. Over the 25 year period, New York accounted for 6 percent of all household inflows into the region (Table 2).

FIGURE 8

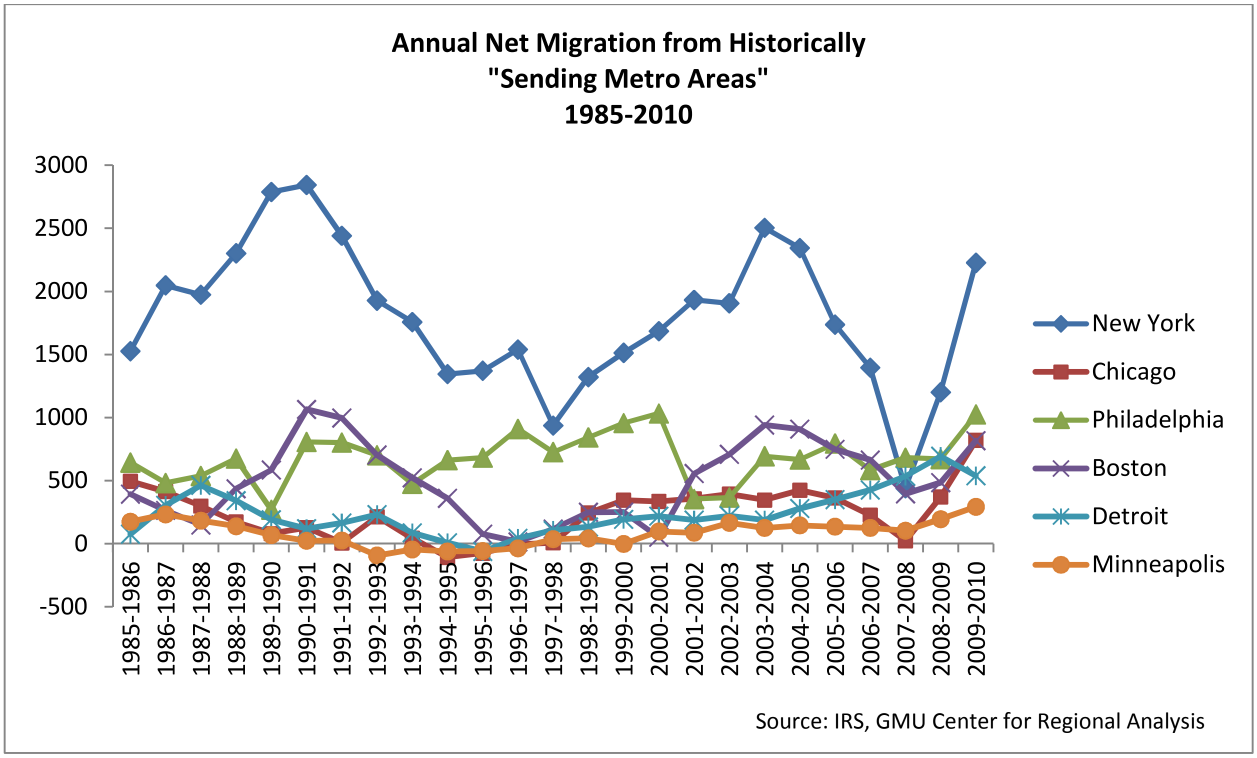
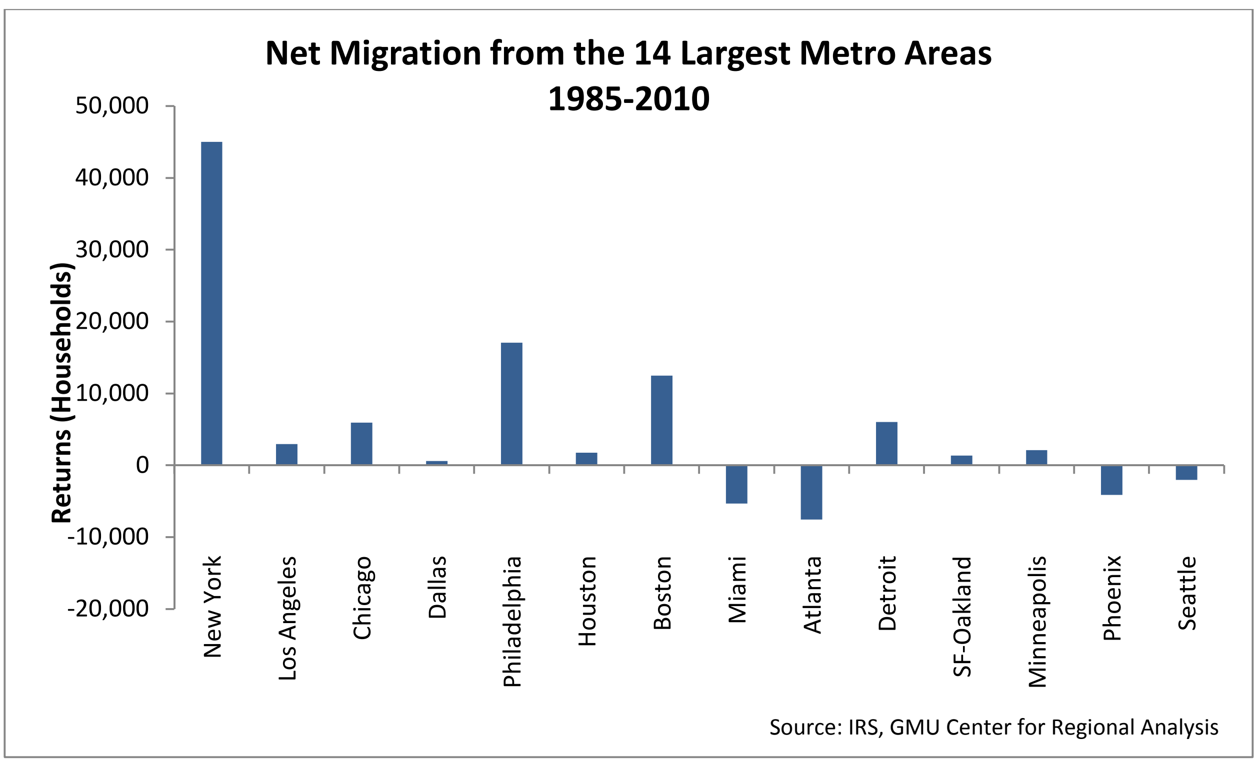


FIGURE 9



In 2008-2009 and 2009-2010, more inmigrants came from geographic areas that were distant than in previous years. The increase in long distance moves suggests the Washington DC region exhibited more pull than in previous years. There was also less push to metropolitan areas in the Sunbelt and on the West Coast. Migration flows from Miami and Phoenix went positive between 2007 and 2010 for the first time in the 25 year period. Net migration flows from Minneapolis reached their highest level over the 25 year period in 2010. Net migration flows from Seattle also reached their highest level. Net migration from Los Angeles reached its highest level since 1995.

FIGURE 10

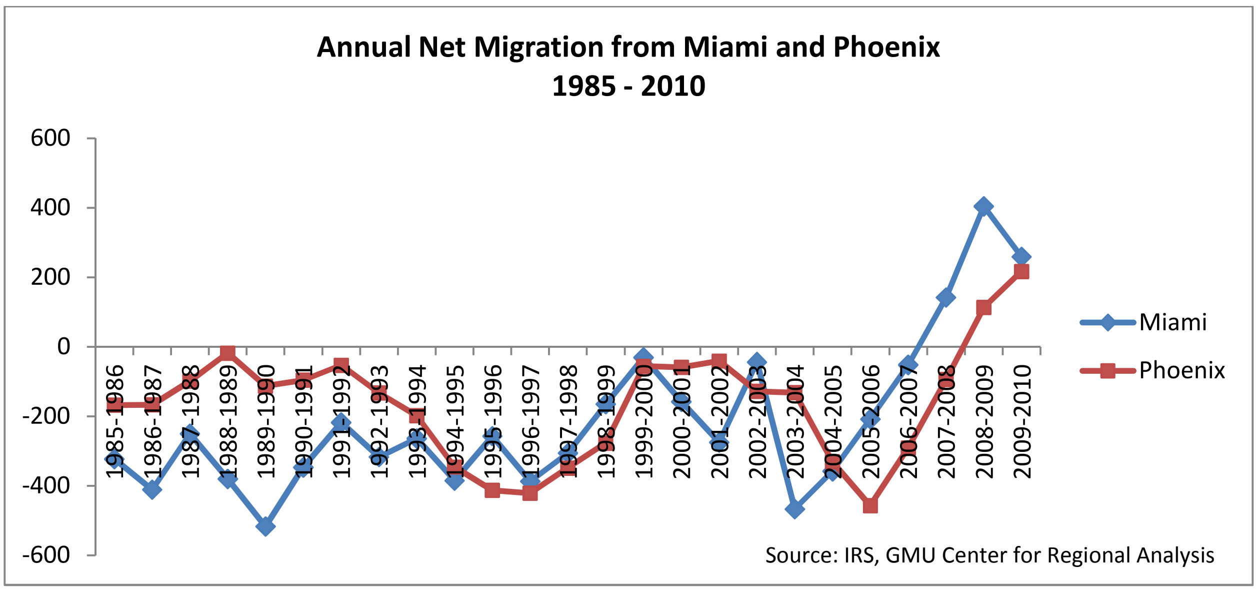
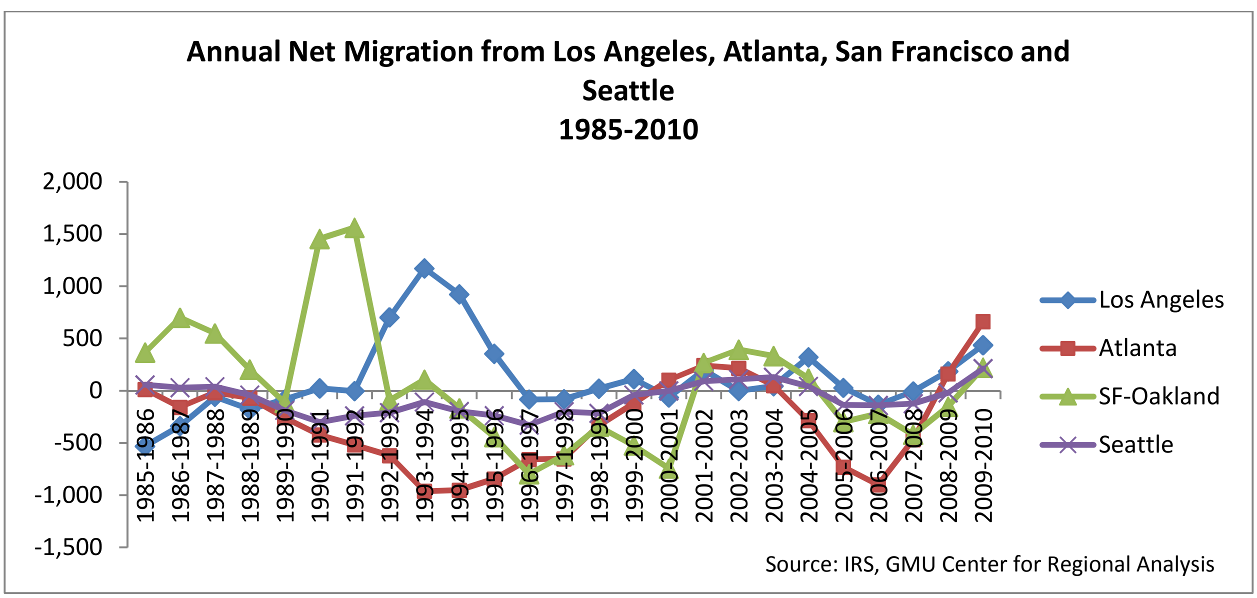
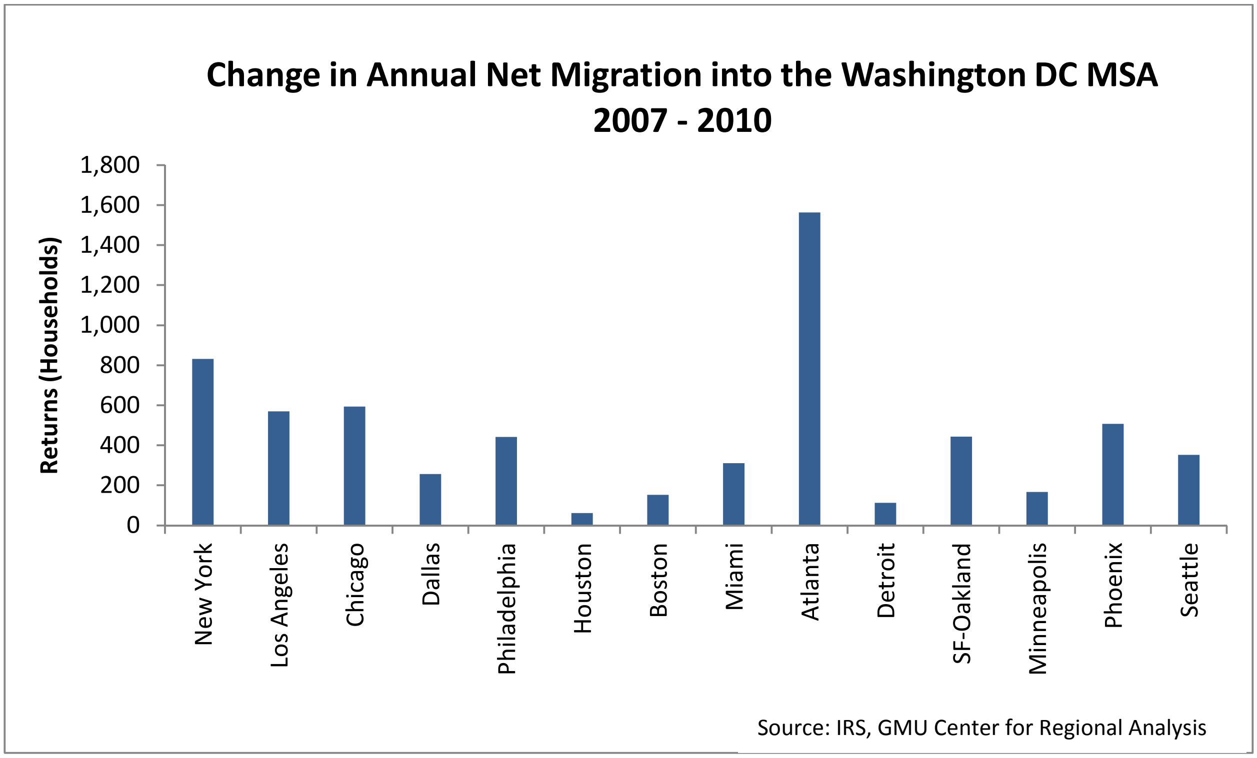


FIGURE 11



Migration flows with the Atlanta metropolitan region exhibited the most dramatic change, as annual net inflows increased by 1,500 households between 2007 and 2010 (Figure 12). After three years of losing population to Atlanta, net inflows from Atlanta increased by about 500 households every year between 2007 and 2010. Much of the difference in net migration between the two metropolitan areas was caused by a decline in the number of households moving to Atlanta, as annual outflows to Atlanta decreased from 2,400 in the 2006-2007 period to about 1,200 in the 2009-2010 period (Figure 11).

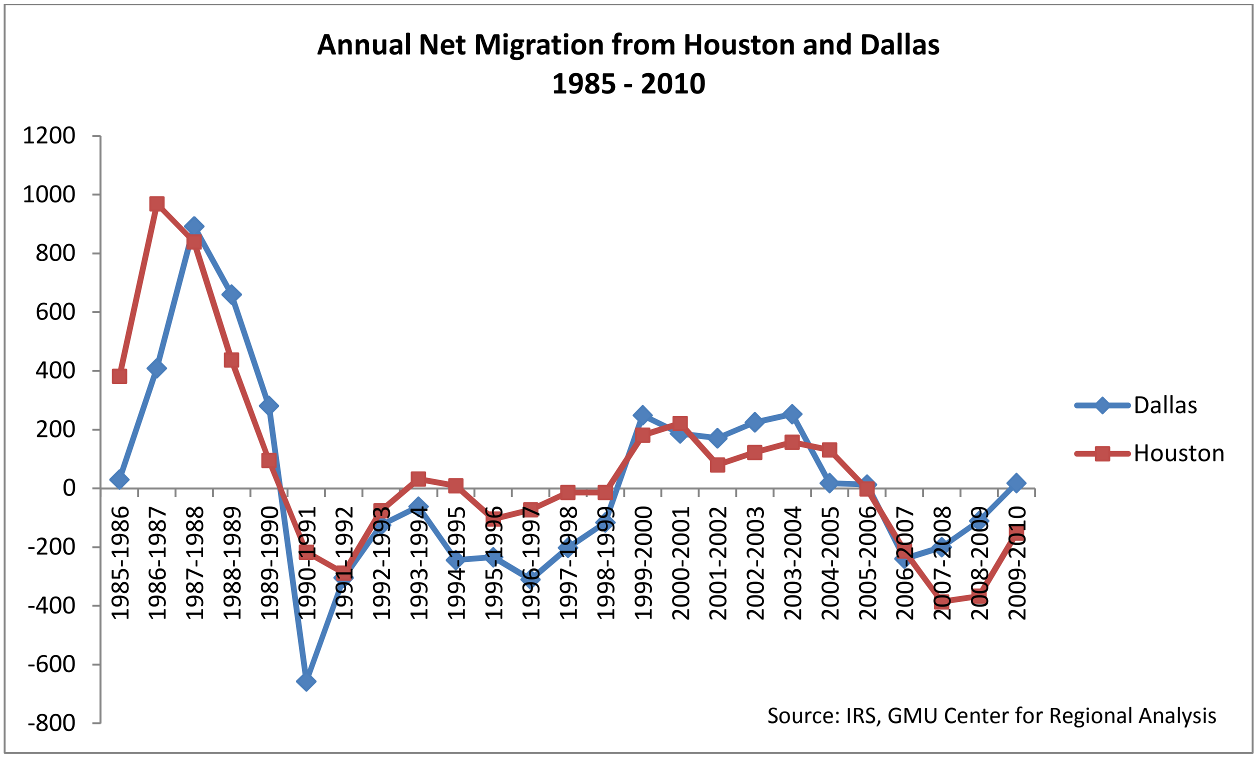
FIGURE 12



Houston and Dallas were also not immune from the effects of the recession on migration to the Washington DC region. Net domestic migration to the Washington DC region from these areas became more positive in 2008-2010 than it was in 2007. However, these Texas metros still tended to be net receivers between 2007 and 2010 (Figure 13). It is difficult to decipher a long-term pattern between the Washington DC region and the Texas metropolitan areas because the Bush presidency may have artificially bolstered their migration levels over the period from 2000 to 2004.[15]

[15] Lisa A. Sturtevant and Yu Jin Yung. "Domestic Migration to and from the Washington DC Metropolitan Area: 1985-2007." Center for Regional Analysis. Technical Report No.4. Fairfax, VA: George Mason University. 2009. Pp.11.

FIGURE 13



Between 2007 and 2010, the Washington metropolitan area exerted a broad pull factor across the United States. As the economic performance of the Washington DC region and the rest of the United States begins to converge, the pull factor from Washington should give way to the dynamics between individual metropolitan areas and the Washington DC region. The fundamental trend continues to be a migration from Northern and Rustbelt cities to Southern and Sunbelt cities (MAPS 3 & 4); however, it is not clear whether the patterns will revert back to the same ones that were predominant prior to the Great Recession in every case. For example, whether the Washington region has really curbed the net outflow of migrants to the Atlanta metropolitan area remains to be seen. Whether Phoenix has been hit too hard by the Great Recession to revert back to its historical pattern of pulling migrants from the region is unclear. Overall, however, regions in the South and the West that rebound well may be positioned to attract outmigrants from the Washington metropolitan area that will be pushed out by the combination of a decline in federal spending, a relative improvement in the national economy, and a disparity in home prices between the Washington region and the rest of the country.

Conclusion

The Washington DC region was at the epicenter of domestic migration during the period from 2007 to 2010. Whereas prior population growth in the region had been fueled by influxes of international migrants from Latin America, Asia, and Africa, domestic migrants came to influence the demographics of the Washington DC region through the Great Recession more so than at any other point since 1985. Where the next wave of population growth will come from is not yet clear. The economic outlook does not favor an extension of the pattern of domestic migration experienced from 2007 to 2010. At the same time, local and federal policies designed to slow the flow of foreign migrants may also have a negative effect on inmigration. To continue to demonstrate the strong economic growth the Washington DC region has exhibited over the last few decades, the region will need to be more proactive than it has had to be in the past about attracting highly skilled domestic migrants and retaining current residents.

In order to develop strategies to attract and retain domestic migrants, additional research may be helpful. The following research questions are suggested by this analysis:

Are the socioeconomic characteristics of domestic migrants to the Washington DC region different from those of domestic migrants other major U.S. metropolitan areas?

The Washington 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 areas. This information could be helpful in designing strategies for attracting domestic migrants to the region.

What amenities do highly skilled outmigrants from other metropolitan areas look for?

One of the areas that may be within the control of local governments is the way in which the built environment is situated. If potential inmigrants have a preference for shorter commutes, or new urbanist environments, local governments may need to examine these factors as well as continue to leverage the region's built-in advantages such as its educational systems, public transit, etc.

What strategies have other metropolitan areas used to attract new industries?

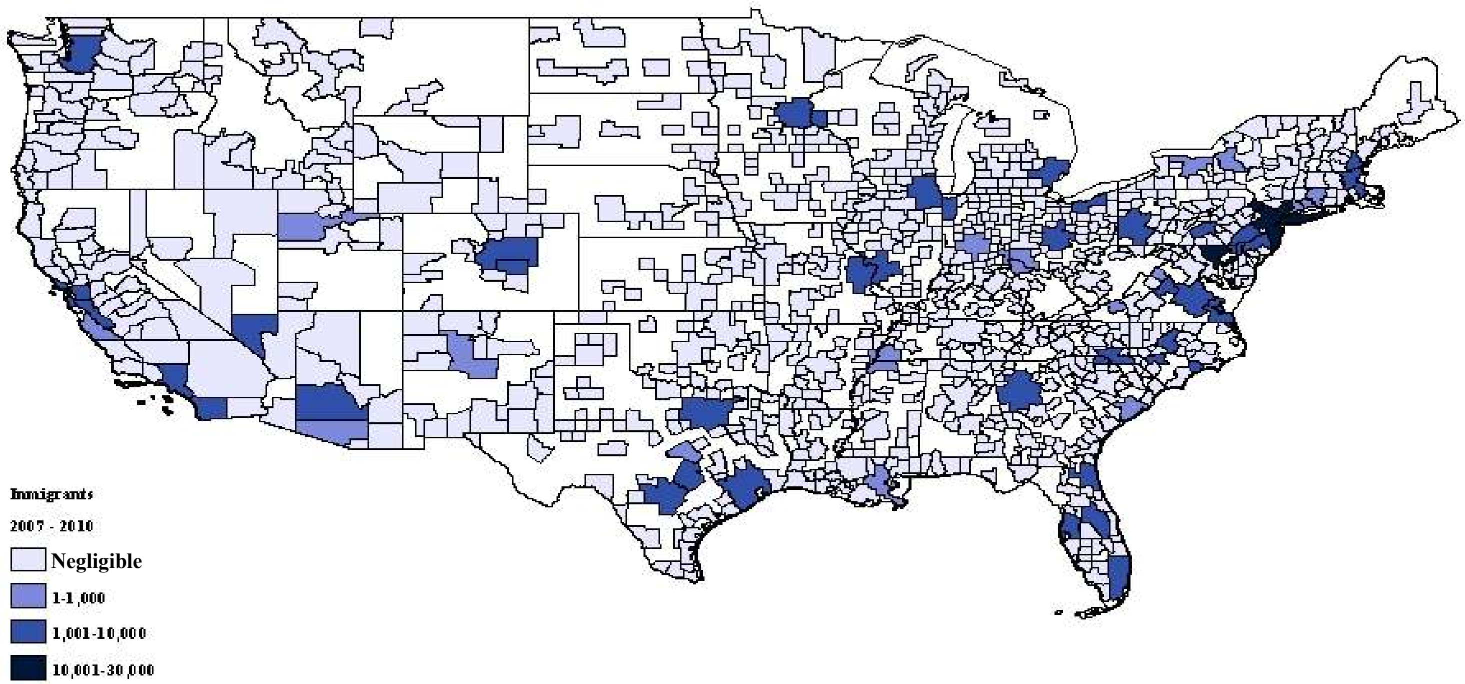
The region's heavy reliance on federal outlays in the form of both direct and procurement spending does not appear to be entirely sustainable. The region will need to make coordinated adjustments to the structure of the regional economy that will have been appropriately examined by the time economic fundamentals will require action. Preliminary evidence suggests action may need to be taken as early as 2013-2014. The region will have to look at its other competitive advantages as it restructures toward less reliance on the federal government.

What is the outlook for foreign migration?

The region has been dependent on foreign migration for its population growth over much of the previous few decades. Economic planning will require solid estimates of foreign migration at a time when the future of federal immigration policy is uncertain. How the national economy performs going forward relative to countries in Latin America, Asia, and Africa may also affect the level of foreign migration. In previous eras that have been economically similar to the current one, foreign migration has softened the blow to the region's population growth. Policymakers will need to understand the effects of barriers to foreign migration on economic growth in the Washington DC Metropolitan area.

MAP 1

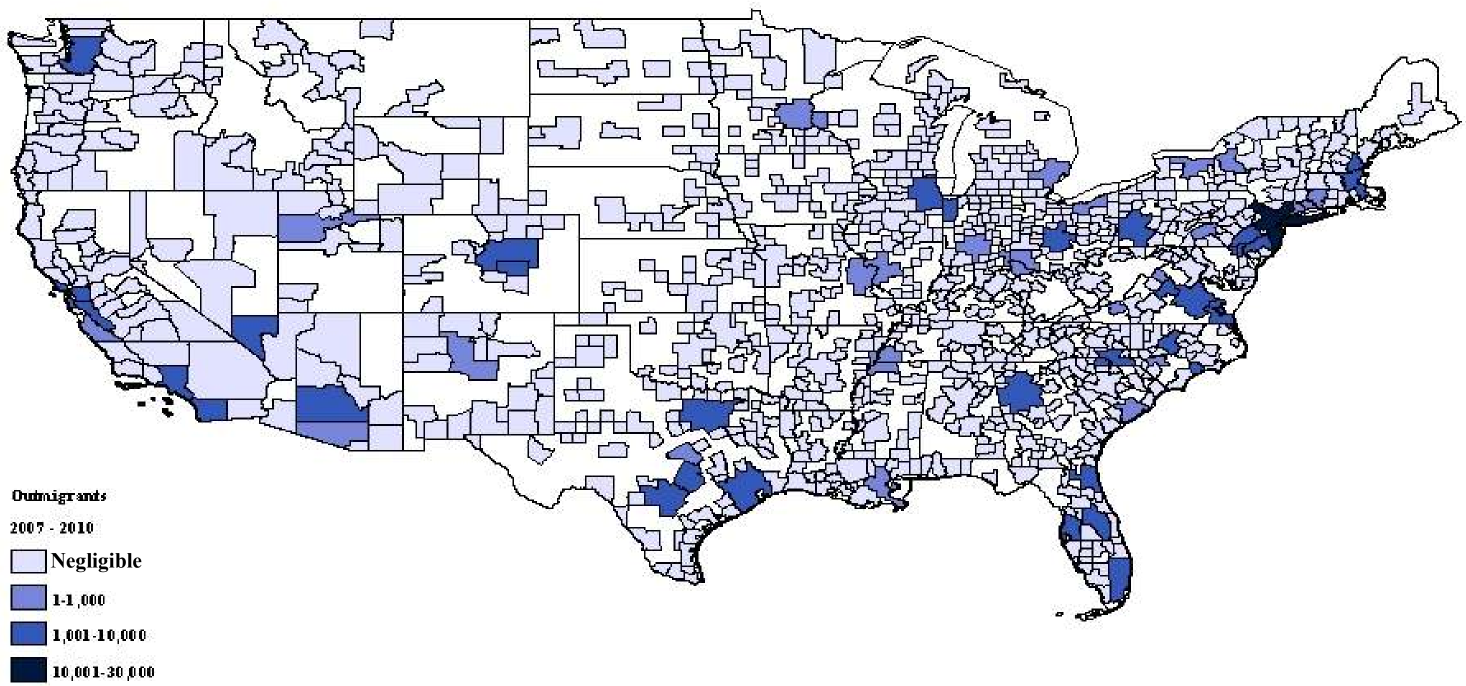
Sources of Domestic Inmigration to the Washington DC Metropolitan Area 2007 – 2010



Source: Internal Revenue Service and GMU Center for Regional Analysis

MAP 2

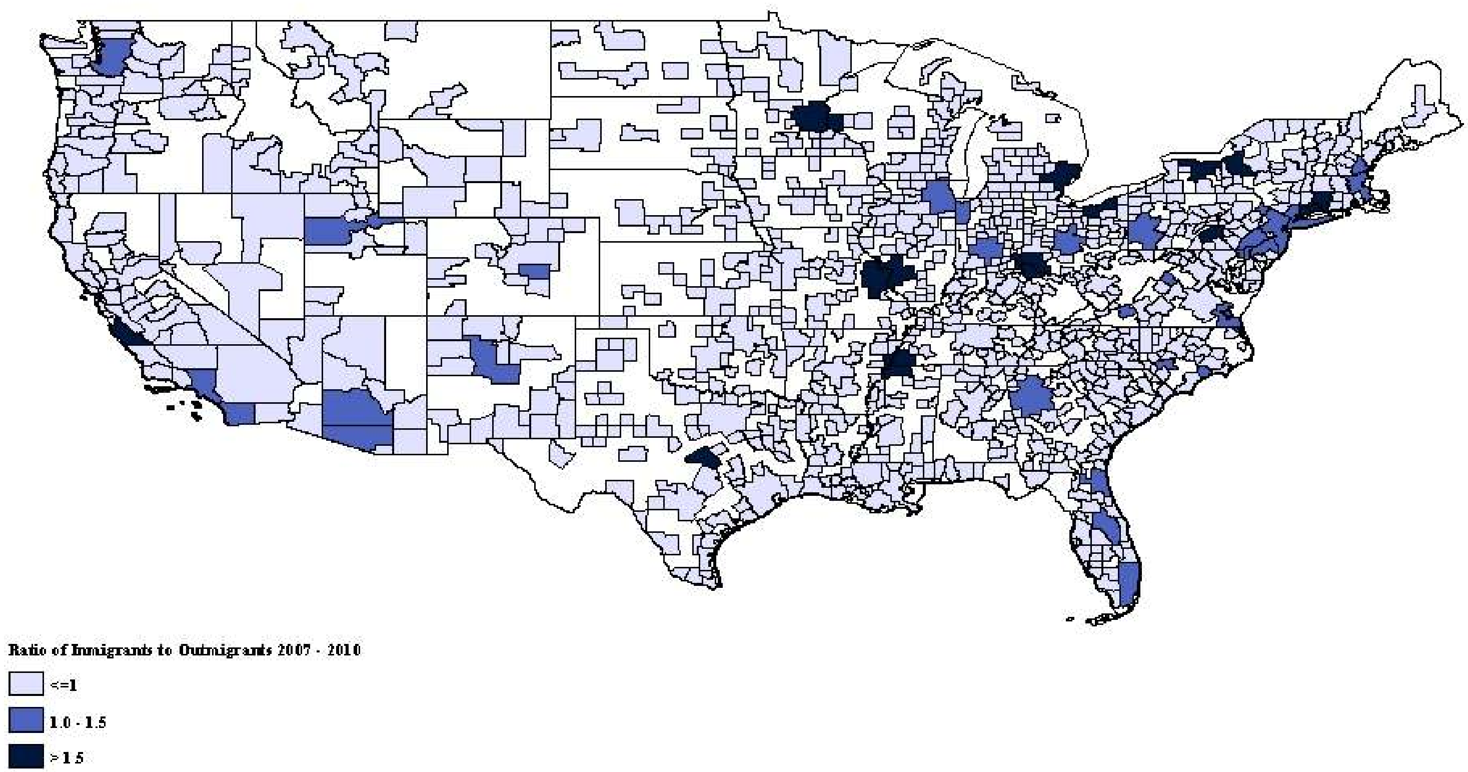
Destinations of Domestic Outmigrants from the Washington DC Metropolitan Area 2007 – 2010



Source: Internal Revenue Service and GMU Center for Regional Analysis

MAP 3

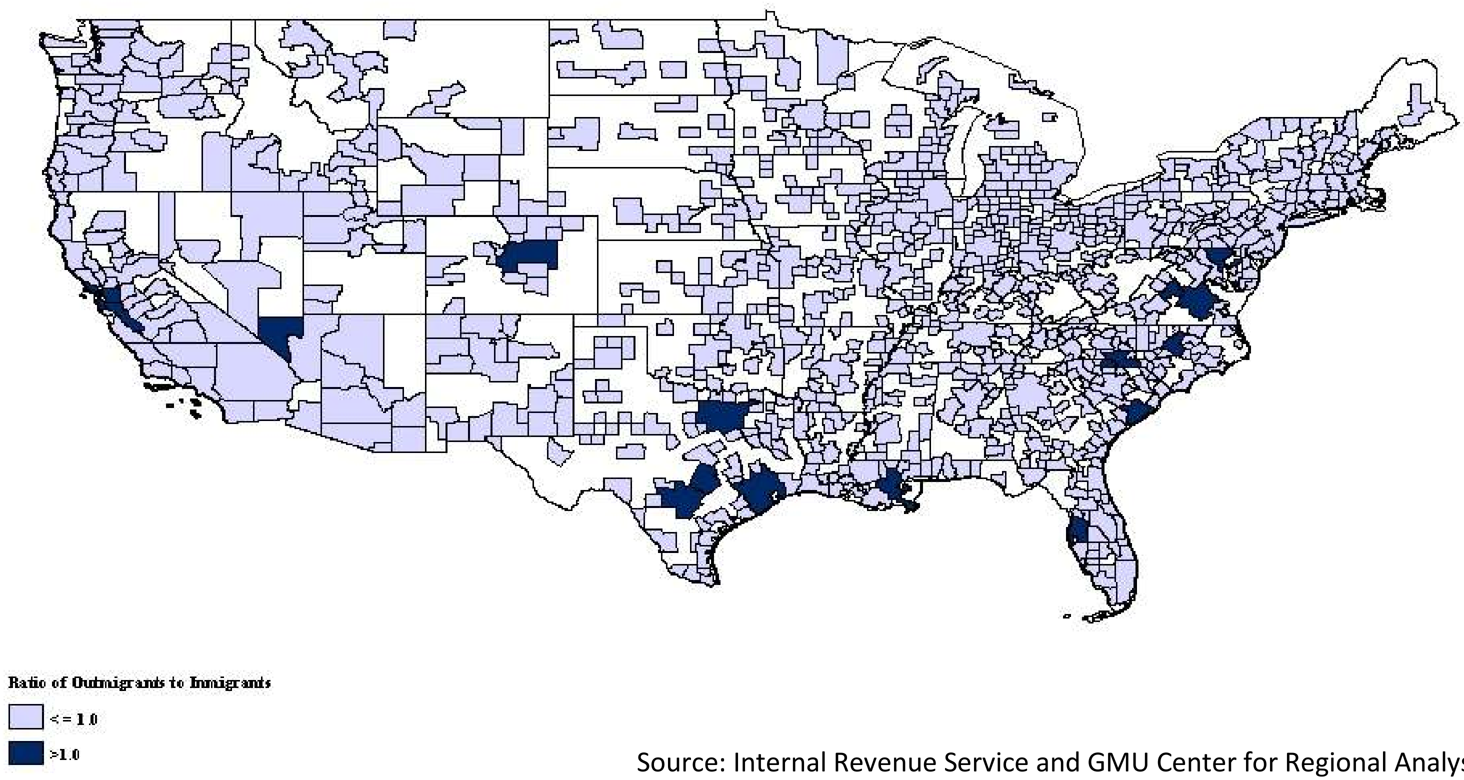
Ratio of Inmigrants to Outmigrants of the Washington DC Metropolitan Area 2007 – 2010



Source: Internal Revenue Service and GMU Center for Regional Analysis

MAP 4

Ratio of Outmigrants to Inmigrants of the Washington DC Metropolitan Area 2007 – 2010



Source: Internal Revenue Service and GMU Center for Regional Analysis