Population Dynamics in the District of Columbia since 2000

by Brooke DeRenzis

Findings

After years of fiscal volatility, Washington, D.C. is financially stable. New population estimates suggest that the city has gained residents since the official Census 2000 count, following decades of population decline. This study reviews socio-demographic and economic changes among the District's population since 2000 and examines population movement in and out of D.C. Using a number of data sources, this report reveals that:

• **In 2006, the District remained a majority-black city although that majority has decreased since 2000.** Immigration and domestic migration have likely contributed to changes in the city's racial and ethnic composition. More than half of those moving into the District between 2005 and 2006 were non-Hispanic whites while a slight majority of those moving out were people of color.

• **From 2000 to 2004, the District experienced the largest real increase in median adjusted gross income compared to nearby jurisdictions in the region.** However economic disparities between the city and its neighbors persisted. In 2004, the city had a higher proportion of low- and lower- middle income households than its counterparts.

• **An analysis of tax returns suggests that interest in District living was renewed by the 2000s.** In the mid 1990s, the District lost taxpaying households through migration, but the gap between the number of households moving in and out each year narrowed over time, mostly due to an increase in in-migrant households. On average, households moving into D.C. were smaller than those moving out, suggesting that the city is attracting more singles or childless couples than families with children.

• **From 2000 to 2004, 55 percent of the city's newcomers came from places outside of the Washington metropolitan area.** By contrast, only 40 percent of individuals moving out of the District left the region while the other 60 percent settled in the Washington area's suburbs or inner core. Of all the counties in the metro area, Prince George's captured the largest share of the District's out-movers followed by Montgomery.

• **Migration between the District and its surrounding counties echoed the division between the prosperous western side of the region and the less affluent eastern side.** Washington's relatively large migration flows with Prince George's County differed from its smaller migration flows with other bordering jurisdictions as households moving between the District and Prince George's were, on average, bigger and had lower median adjusted gross incomes. Census 2000 data indicate that migration flows also reflect the region's racial divide as individuals moving between the District and Prince George's County from 1995 to 2000 were more likely to be black than those moving between D.C. and other bordering jurisdictions.

Evidence from a variety of sources indicates that there is renewed interest in living in the District of Columbia. The city has drawn newcomers interested in urban living from across the country. Many of those leaving the District are settling in the Washington region's suburbs.

Introduction

The District of Columbia is in the midst of revitalization. Once almost bankrupt, the city has balanced its budget for the past 10 years. The District also gained jobs this decade following consecutive years of job loss in the early- and mid-1990s.[1] Cranes dot the city's skyline, signaling new development. Along with new commercial investment, residential development has also increased. In 2005 alone, building permits were authorized for 2,860 housing units, an amount 10 times the 1990s average.[2] Soaring home prices accompanied development. The real median home sales price (after adjusting for inflation) has more than doubled since 2000.[3]

The District's population has also grown for the first time since the mid 20th century. From 1950 to 2000, the number of people living in the District of Columbia declined while the population in surrounding jurisdictions dramatically increased.[4] Using administrative records of births, deaths, and taxes, as well as survey data, the Census Bureau originally estimated that 550,521 people lived in the District as of July 1, 2005—a decline from the official Census 2000 count of 572,059.[5] The city government successfully challenged this estimate by using a number of data sources to show a population increase between 2000 and 2005.[6] In response, the Census Bureau revised its July 1, 2005 estimate for D.C.'s population to 582,049 residents—a modest increase of almost 10,000 people since the official Census 2000 count.[7] The Census Bureau estimated the city's population at 581,530 residents as of July 1, 2006.[8]

Two factors can contribute to a change in the total population: (1) natural change, which is the total number of births minus deaths; and (2) net migration, which is the total number of people moving into a given area minus the total number moving out. Census figures on these components of population change do not reflect the new population estimates. However, the data used by the D.C. planning office to measure population growth suggest that the city's gain in residents was largely due to net in-migration. Migration can also contribute to net changes in the population's socio-demographic and economic makeup. There is a common perception that much of the District's revitalization has attracted affluent singles and childless couples while families with children have moved to the suburbs.[9]

Within the context of the city's population change and economic resurgence, this report addresses the following research questions:

- How have the socio-demographic and economic characteristics of the city's population changed since 2000?
- Who is moving into the city, who is leaving the city, and who is staying?
- Where are the city's newcomers moving from and where are the city's out-migrants moving to?

This report uses Census and IRS data to address these questions. The first part of the analysis examines socio-demographic and economic changes among the District's population since 2000 relative to other jurisdictions in the region. The remainder of the analysis examines migration in and out of Washington, D.C. by reviewing migration flows, as well as the race/ethnicity, education, age, and income of in, out, and non-migrants. The analysis also takes a closer look at migration flows between the District and its neighboring jurisdictions to provide insight on the regional dynamics of movement in and out of the city.

Data and Methods

Geographic Areas

This report analyzes trends within the District of Columbia, its neighboring jurisdictions, and the Washington metropolitan area. In addition to focusing on Washington, D.C., we often present data for the "inner core" jurisdictions of Arlington County, VA and Alexandria city, VA and for the "inner suburban" jurisdictions of Montgomery County, MD, Prince George's County, MD, and Fairfax County, VA. Due to data limitations, Fairfax city and Falls Church city are not included in the analysis of Fairfax. The Washington metropolitan area is defined in accordance with the 2005 Office of Management and Budget (OMB) definition of the Washington-Arlington-Alexandria, DC-VA-MD-WV metropolitan statistical area (Figure 1). This report also refers to the four regions of the United States as defined by the U.S. Census Bureau. Tables listing the geographic components of the Washington, D.C. metropolitan area and the Census Bureau regions can be found in the appendix.

Socio-demographic and Economic Change since 2000

To examine socio-demographic trends, this study uses

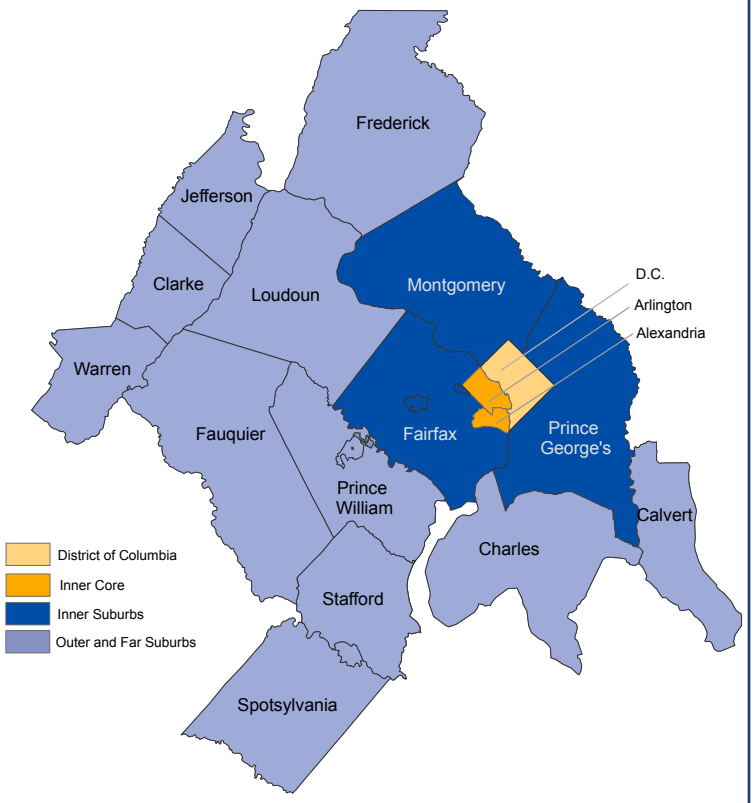
the Census 2000 Summary File 3 (SF3) and the 2006 American Community Survey (ACS). To account for sampling error associated with estimates from these surveys, all differences between the 2000 and 2006 estimates are tested for statistical significance at the 90 percent confidence level, as recommended by the Census Bureau.[10] Differences that are statistically significant at the 90 percent confidence level can be interpreted to mean that there is less than a 10 percent chance that the difference between the estimates is due to random chance alone.[11] Differences that are not statistically significant at the 90 percent confidence level are interpreted as "no change."

To examine income trends and household composition of taxpaying households, this study uses tax return data from 2000 to 2004 reported by the Internal Revenue Service's Stakeholder Partnerships, Education, and Communication (SPEC) Return Information Database. The data contain information on adjusted gross income (AGI) and tax-filing status. AGI differs from total income in that it includes taxable income from all sources minus specific adjustments, such as the student loan interest deduction, the IRA deduction, and the self-employed health insurance deduction.[12]

Migration in and out of the District

This report uses the terms "migrant" and "mover" interchangeably. We define "migrants" and "movers" as those moving in and out of the District of Columbia. Thus, those who moved from one residence to another within the District of Columbia are considered "non-migrants" or "non-movers."

Figure 1. Washington, D.C. Metropolitan Area



Source: Urban Institute classification of Washington Metropolitan Area as defined by the Office of Management and Budget Metropolitan Area, 2005

The analysis of migration in and out of the District of Columbia uses three datasets: the 2006 American Community Survey Public Use Microdata Sample (PUMS); the IRS state-to-state and county-to-county migration data files; and the Census 2000 5-Percent Public Use Microdata Sample (PUMS). We explain the use of each dataset below while a more detailed discussion of each dataset's limitations appears in the appendix.

2006 American Community Survey Public Use Microdata Sample

To ascertain how migration has contributed to overall changes in the city in regard to race/ethnicity and educational attainment, we turn to the 2006 ACS PUMS.[13] The 2006 ACS PUMS provides the most recent socio-demographic data on individuals moving in and out of the District of Columbia. The in-migrant universe includes all persons aged one or older who lived in the District of Columbia at the time they took the ACS survey in 2006, but lived outside of the District, including abroad, one year prior. The out-migrant universe includes all persons aged one or older who lived in another U.S. state at the time they took the ACS survey in 2006, but lived in the District one year ago.[14] Due to this dataset's small sample size, we test all differences between in- and out-migrants at the 90 percent confidence level.

IRS Migration Data

The IRS migration data are derived from the IRS Individual Master File, which contains administrative records for every federal income tax return filed by late September of the filing year.[15] The IRS data define migrants by comparing addresses on two consecutive years of tax returns for the primary taxpayer, and coding the addresses to counties or places abroad accordingly. If the taxpayer's county code differs, the return is designated as a migrant return. Since the data show movement from one year to another, they are expressed in two-year increments. When referencing the two-year increments in the study, we refer to the first of the two years.

The IRS migration data provide the following information for in-migrants, out-migrants, and non-migrants at the state and county level: the number of migrant returns (used to estimate households); the number of exemptions claimed on these returns (used to estimate individuals); the aggregate adjusted gross income of all migrant returns; and the median adjusted gross income of these returns. Readers should note that the IRS definition of "households" (tax returns) differs from the Census definition (all people who occupy a housing unit together), as does its definition of income (IRS provides adjusted gross income whereas Census provides total income).

Because of the IRS migration data's limitations (see appendix), we do not use it to elicit findings about changes in the District's total population count due to migration. Rather, this report employs the IRS migration data to better understand the dynamics of migration in and out of Washington, D.C. starting in 2000–2001 and ending in 2004–2005. Specifically, we use the IRS data to examine the places of origin of D.C. in-migrants, as well as the destinations of those leaving the city. While the IRS migration data may undercount total migration flows, the data are still useful for comparing the relative sizes of flows. We also use the IRS migration data to review the average household size (proxied by the average number of exemptions per return), median adjusted gross income, and per capita adjusted gross income of those moving in and out of the District. Figures on adjusted gross income correspond with the first year in each of the two-year increments, and are reported in 2004 dollars. [16]

2000 Census 5-Percent Public Use Microdata Sample

The IRS migration data provide us with a sense of how migrants and non-migrants differ on the basis of average household size and adjusted gross income. However, these are the only variables available in the IRS data. To better understand how sociodemographic characteristics may contribute to income differences among in-migrants, out-migrants, and non-migrants, we use the 2000 Census 5-percent PUMS available through the University of Minnesota's Integrated Public Use Microdata Series.[17]

This dataset allows us to identify where people lived at two points in time: April 1, 1995 and April 1, 2000.[18] While the migration period covered by Census 2000 is earlier than this study's period of focus, Census 2000 provides the most recent large sample with detailed characteristics of movers and non-movers for small geographies. We recognize that the characteristics of those moving in and out of the city since 2000 may be different.

Because we are using the Census 2000 PUMS data to supplement our IRS analysis, we limit our universe to likely taxpayers: individuals not living in group quarters aged 18 to 64 with wage and salary income in 1999.[19] Within this universe, we construct the following groups: in-migrants who lived in the District of Columbia in 2000, but lived elsewhere, including abroad, in 1995; out-migrants who lived in the District of Columbia in 1995 but lived in another U.S. state in 2000; and non-migrants who lived in D.C. in both 1995 and 2000.[20] The characteristics of migrants and non-migrants are as of April 1, 2000, and thus were not necessarily the same at the time of their move.

Findings

A. In 2006, the District remained a majority-black city although that majority has decreased since 2000.

The Washington metro area is becoming increasingly diverse. From 2000 to 2006, the white share of the region's population decreased, the black share remained constant, and the Asian and Latino shares increased (Table 1). However, localities within the region differ in regard to changes in their racial and ethnic composition over this period. The white proportions of the populations in the District and the inner core jurisdictions increased while they decreased in

Table 1. Racial and Ethnic Composition of the Total Population, 2000 and 2006 (%)

Race/Ethnic Group	District of Columbia		Arlington		Alexandria	
	2000	*2006*	*2000*	*2006*	*2000*	*2006*
Non-Hispanic Black	59	55*	9	9	22	20
Non-Hispanic White	28	32*	61	65*	54	59*
Non-Hispanic Asian	3	3	8	9	5	5
Non-Hispanic Other	2	2	3	2*	4	3*
Hispanic or Latino **	8	8	19	16	15	13
Total	*100*	*100*	*100*	*100*	*100*	*100*

Race/Ethnic Group	Prince George's		Montgomery		Fairfax		Washington Metro Area	
	2000	*2006*	*2000*	*2006*	*2000*	*2006*	*2000*	*2006*
Non-Hispanic Black	62	64*	15	16*	8	9*	26	26
Non-Hispanic White	24	18*	59	55*	64	60*	55	52*
Non-Hispanic Asian	4	4	11	13*	13	16*	7	8*
Non-Hispanic Other	3	2	3	2*	4	2*	3	2*
Hispanic or Latino**	7	12	12	14	11	13	9	12
Total	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*

Source: Brookings analysis of Census 2000 and 2006 American Community Survey data

** Indicates that the differences between 2000 and 2006 are statistically significant at the 90 percent confidence level*

*** 2006 estimates are controlled, so a statistical test between 2000 and 2006 estimates is not appropriate*

Percentages may not add to 100 due to rounding

each of the inner suburbs.

A majority black city for decades, the District continued to be majority black in 2006. However, the black proportion of the population decreased from 59 percent in 2000 to an estimated 55 percent in 2006 while the non-Hispanic white proportion increased from 28 percent to an estimated 32 percent. Meanwhile, the percentages of the District's population that are Hispanic, Asian, or of another racial group were the same in 2000 and 2006.

The two inner core jurisdictions, Alexandria and Arlington, which were majority-white in 2000, also became increasingly white in 2006. In both Alexandria and Arlington, the Latino share of the population declined while there was no statistically significant change in the black and Asian shares. By contrast, the proportion of whites in each of the inner suburbs of Montgomery, Prince George's, and Fairfax counties declined. The black, Asian, and Hispanic shares of the population slightly increased in both Montgomery and Fairfax counties, while Prince George's County only experienced an increase in the percentages of its population that are black or Latino.

Despite change in the Washington area's racial and ethnic composition, a stark east-west divide between the region's black and non-black residents persists. In 2006, the District and Prince George's County accounted for an estimated 63 percent of the region's black population even though these jurisdictions only made up approximately 29 percent of the region's total population.

Since 1970, the Washington area has emerged as one of the nation's major immigrant gateways with the District and its neighboring jurisdictions experiencing dramatic growth in their foreign-born populations through 2000.[21] While the region's foreign-born population continued to grow from 2000 to 2006, the foreign-born shares of the population in both the District and Alexandria remained unchanged (Table 2). Meanwhile, the estimated percentage of the population that is foreign-born in Arlington slightly declined over this period. These trends suggest that Washington's immigrants are increasingly settling in the suburbs rather than in the region's core.

The Washington area has one of the most highly educated populations in the country.[22] While the percentage of adults with a bachelor's degree or more in each of the inner jurisdictions is higher than the national rate, the region's western counties have larger shares of adults with a college degree than do the eastern jurisdictions (Figure 2). In both

Table 2. Share of the Population that is Foreign Born, 2000 and 2006

Jurisdiction	Percent Foreign-Born 2000	and margin of error (+/-)	Percent Foreign-Born 2006	and margin of error (+/-)
District of Columbia	12.9	0.2	12.7	0.8
Prince George's*	13.8	0.2	19.0	1.0
Montgomery*	26.7	0.3	29.3	1.0
Fairfax*	24.5	0.3	26.8	1.2
Arlington*	27.8	0.7	23.3	2.3
Alexandria	25.4	0.7	23.4	3.0
Washington Metro Area*	***17.3***	***0.2***	***20.1***	***0.3***

Source: Brookings analysis of Census 2000 and 2006 American Community Survey data
Note: All margins of error are at the 90 percent confidence level
** Indicates that the difference between the 2000 and 2006 estimates are statistically significant*

2000 and 2006, the percentage of the District's adult population with at least a Bachelor's degree was smaller than those in every neighboring jurisdiction except for Prince George's County. The estimated percentage of adults with a college degree grew nationally and regionally from 2000 to 2006. The increase in the share of adults holding college degrees in the District, which went from 39 percent in 2000 to an estimated 46 percent in 2006, was larger than increases experienced by the inner suburbs and the nation as a whole.[23]

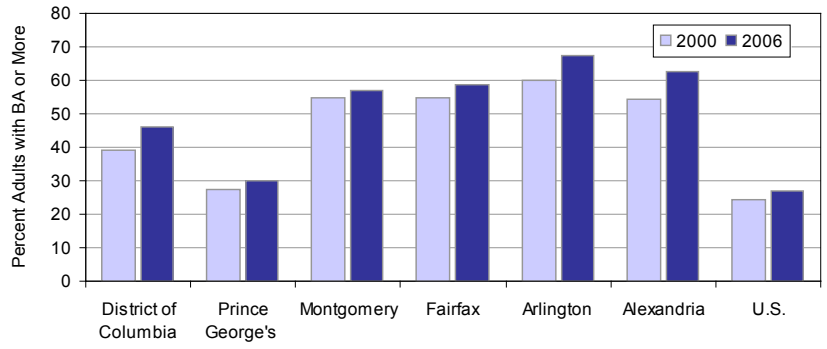
In sum, though the District remained a majority-black city from 2000 to 2006, its population has become less black and slightly more white while other race/ethnic groups' shares remained the same. The share of the District's population that is foreign-born also remained the same. Meanwhile, the percentage of adults with a college degree increased over this period. Net changes in the city's racial and ethnic makeup can result from natural change (births and deaths) while net changes in educational attainment levels can also develop from residents gaining more education over time.

However, migration can also play a part in these socio-demographic changes. The 2006 ACS PUMS indicates that 2005–2006 migration flows in and out of the city were roughly the same size. The small sample size of this dataset does not allow for detailed statistics on race/ethnicity. Still, an analysis of these data indicate that over half of the individuals moving into the District between 2005 and 2006 were non-Hispanic whites while a slight majority of those moving out of the city were of a racial or ethnic minority group. The 2006 ACS data also show that a larger proportion of adults ages 25 and older moving into the city between 2005 and 2006 had a college degree compared to those leaving, though both groups had high levels of education.[24] Since these data are only available for one year, these findings do not constitute a trend. However, they do imply that migration has contributed to the city's changing demographics in terms of racial and ethnic composition, as well as educational attainment.

B. From 2000 to 2004, the District experienced the largest real increase in median adjusted gross income compared to nearby jurisdictions and the region.

Household income trends are based on an analysis of IRS tax return data, which contain information on taxpayer adjusted gross income (AGI), a measure different than total income. Median AGI is the "middle" adjusted gross income—half of households have incomes below the median and half have incomes above it. At $33,181, median AGI in the District increased by five percent from 2000 to 2004 after adjusting for inflation—the largest increase of any of the inner core or suburban jurisdictions (Table 3). Still, the District's median AGI was lower than those of surrounding counties in both periods. And even at its high point in 2004, the District's median AGI was only 78 percent

Figure 2. Share of Adults with a College Degree, 2000 and 2006



Source: Brookings analysis of 2000 Census and 2006 American Community Survey data
Note: Jurisdictions' 2000 and 2006 estimates are statistically significantly different at the 90 percent confidence level. Adults are defined as individuals 25 years old or older.

Table 3. Median Adjusted Gross Income (AGI), 2000 and 2004 (in 2004 dollars)

Jurisdiction	Median AGI (2004 $) 2000	2004	Percent Change, 2000-2004
District of Columbia	31,537	33,181	5.2%
Prince George's	36,063	36,613	1.5%
Montgomery	45,375	44,342	-2.3%
Alexandria	44,302	45,360	2.4%
Arlington	46,664	46,732	0.1%
Fairfax	51,943	50,656	-2.5%
Washington Metro Area	***42,094***	***42,778***	***1.6%***

Source: Brookings analysis of IRS data
Note: Median AGI computed using linear interpolation

of the Washington metro area's median.

At 31 percent, Washington also had a relatively high share of households in the lowest income category (less than $20,000) in 2004 while its neighboring jurisdictions had larger proportions of households in the upper-middle income category ($60,000 to $100,000 AGI) (Figure 3). Of all the jurisdictions, the District also had the smallest percentage of households (29 percent) in the middle-income range of $40,000 to $100,000.

Income categories for 2004 also reveal the region's east-west income disparities. Twenty percent or more of households in counties directly to the west and north of Washington, D.C. had AGIs of over $100,000. By contrast, only 13 and 10 percent of households in the District and Prince George's respectively were in the highest income category, though both places have affluent neighborhoods.

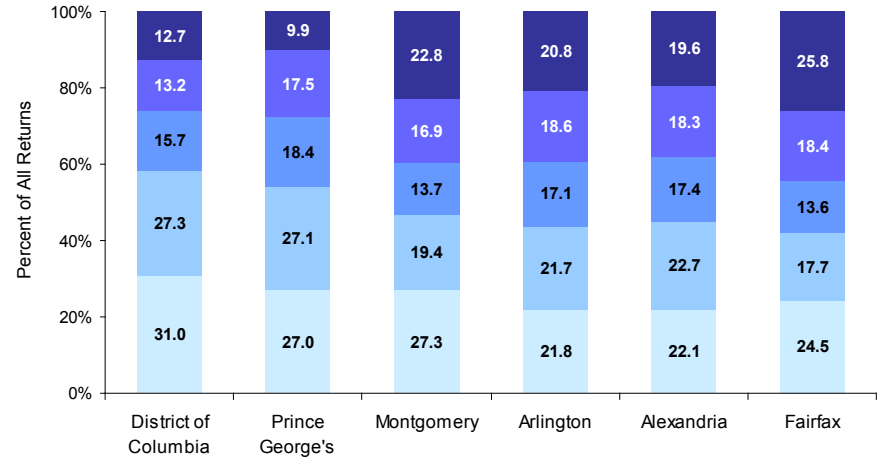
The city's tilt toward low and lower-middle income households may partially reflect the composition of households living there since households headed by single adults may have fewer earners than those headed by married couples. The filing status for income taxpayers provides some information on the composition of households reflected in the city's AGI distribution. "Married" tax filers include those who are married (filing jointly or separately) and qualifying widow(ers).[25] According to this definition, only 19 percent of the city's tax filers were married in 2004. By contrast, 28 percent or more of taxpayers were married in Alexandria, Arlington, and Prince George's and over 40 percent of those filing in Fairfax and Montgomery counties were married.

The relatively larger percentage of low-income households in Washington also reflects its high poverty rate. The 2006 ACS estimates the District's poverty rate at 19.6 percent, which is not statistically significantly different from the 1999 rate of 20.2 percent. The District's estimated 2006 rate is roughly two to four times those of the jurisdictions that border it. In short, although D.C. is in the midst of an economic resurgence, it is still home to a considerable number of low-income households and its poverty rate remains stubbornly high. As is the case with many large American cities and their suburbs, sharp economic disparities persist between the District

C. An analysis of tax returns suggests that interest in District living was renewed by the 2000s.

From 1995 to 1997, the District consistently lost more taxpaying households than it gained through annual migration (Figure 4). However, the gap between in-migrant and out-migrant household flows narrowed over this three year period, as the number of households moving into

Figure 3. Tax Returns by Adjusted Gross Income Category, 2004



Source: Brookings analysis of IRS data
Note: Percentages may not add to 100 due to rounding

the city increased and the number moving out decreased. From 1998 on, the city experienced more of a balance between the number of taxpaying households moving into the city and the number moving out. Throughout the 2000s, annual net household migration, or the total number of households moving into the District minus the total number moving out oscillated between negative and positive.

From 2000 to 2004, households moving into the District were typically smaller than those moving out, and while the average size of out-migrant households remained generally steady at around 1.63–1.65, the average household size of in-migrants decreased from 1.41 in 2000 to 1.35 in 2004. While the IRS data do not provide information on family type for households, this trend suggests that the city has attracted single and childless-couple households in greater numbers than children with families over the past half decade.

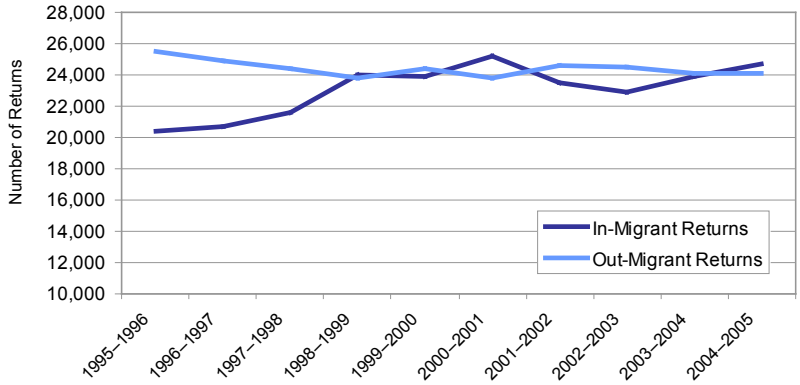
Households coming into the District tended to have lower typical incomes than those moving out of the city. Expressed in 2004 dollars, median AGIs of in-migrant households ranged from the mid- to high-$20,000s from 2000 to 2004, and were, on average, 19 percent lower than the median AGIs of out-migrant households per year, which were in the low $30,000s (Figure 5).

Although households leaving the city had higher median incomes than those moving in, out-migrants were not necessarily economically better off than in-migrants due to differences in household size. Per capita income is the mean or average income per person in a given population (in this case, in-migrants or out-migrants). On average, per capita income of in-migrants and out-migrants differed by less than a $1,000 per year from 2000 to 2004 (Figure 6). Thus, individuals moving into the city had resources similar to those leaving D.C. in terms of average income per person.

In any given year, most people do not move. Analyzing non-movers could shed some light on what kind of households stay in the District and why. For example, do those with the lowest incomes stay because they do not have the resources to move, or do higher income households stay because they are doing well and have less reason to leave? Analysis of the IRS data reveals that throughout the period, the median incomes of non-migrant households were higher than the median incomes of in-migrants and were similar to those of out-migrants. This finding suggests that residents staying in the city are not solely those with the lowest incomes.

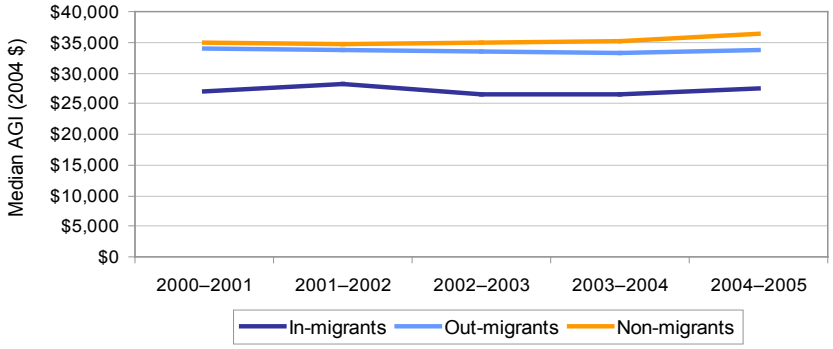
However, there can still be income disparities among those staying in the city. Recall that median AGI is the "middle" income: half of households have incomes above it and half have incomes below it. When large

Figure 4. In-Migrant and Out-Migrant Tax Returns, Washington, D.C., 1995–2004



Source: Brookings analysis of IRS data

Figure 5. Median AGI of In, Out, and Non-Migrant Households, Washington, D.C., 2000 to 2004



Source: Brookings analysis of IRS data
Note: Households estimated by tax returns

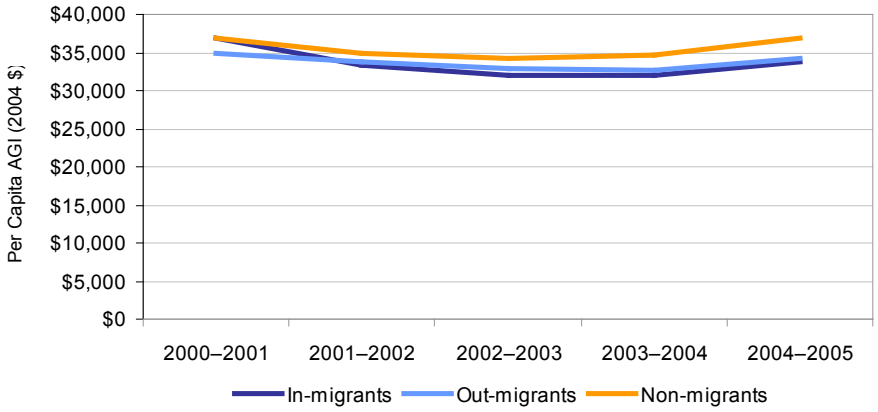
portions of a population are at the extremes, the median can mask that income divide.[26] Relative to the inner core and inner suburban jurisdictions in 2004, the District had the smallest share of taxpayer households with AGIs between $40,000 and $100,000. Additionally, a number of recent studies have noted D.C.'s income divide. If the income distribution among non-mover households reflects that of the city, then non-movers could be comprised of "haves" on the one end and "have-nots" on the other.

Socio-demographic indicators may also help explain some of the income trends revealed by the IRS data. For example, it is common to hear speculations that the city's newcomers are affluent individuals who can take advantage of new luxury housing and urban living, yet the IRS data show that in-migrant households have lower median AGIs than out-migrant and non-migrant households. These income differences could be factors of age, marital status, and educational attainment. If those moving to D.C. are young relative to out-migrants and non-migrants, then they may have lower earnings because they are just starting their careers. Additionally, if relatively young in-migrants are not yet married, they may be less likely to live in a two-earner household than out-migrants and non-migrants.

To gain more insight on how in-migrants, out-migrants, and non-migrants differ in terms of socio-demographic measures, we turn to the Census 2000 5-percent PUMS, which allows us to identify individuals who moved or did not move between 1995 and 2000.[27] Indeed, this analysis reveals differences in age, marital status, and education levels among in-migrants, out-migrants, and non-migrants. Those moving into the District were younger than those leaving, with a larger percentage of individuals aged 18 to 34. Non-movers were older than both in-migrants and out-migrants with a much larger percentage of people aged 45 or more. This finding is consistent with migration research that shows that people move in the earlier stages of their adult lives. Compared to both out-migrants and non-migrants, newcomers to the District were less likely to be married with a spouse present. In regard to educational attainment, in-migrants were more likely to have a college degree than out-migrants though more than half of the individuals in each group had at least a Bachelor's degree. Those moving in and out of the city had higher levels of education than nonmovers—a difference that held true even among those aged 18 to 34.

This Census analysis indicates that differences in age and marital status may partially explain why the median adjusted gross incomes of in-migrant households were lower than those of out-migrant and non-migrant households. Despite high levels of education, those moving into the city tend to be younger, and in turn, may be at the beginning of their lifetime earnings curve. Marital status might also explain the income difference, as in-migrants are less likely to be married with a spouse present than out-migrants and non-migrants and may therefore have only one earner in the household.

Figure 6. Per Capita AGI for In, Out, and Non-Migrants, Washington, D.C. 2000 to 2004



Source: Brookings analysis of IRS migration data

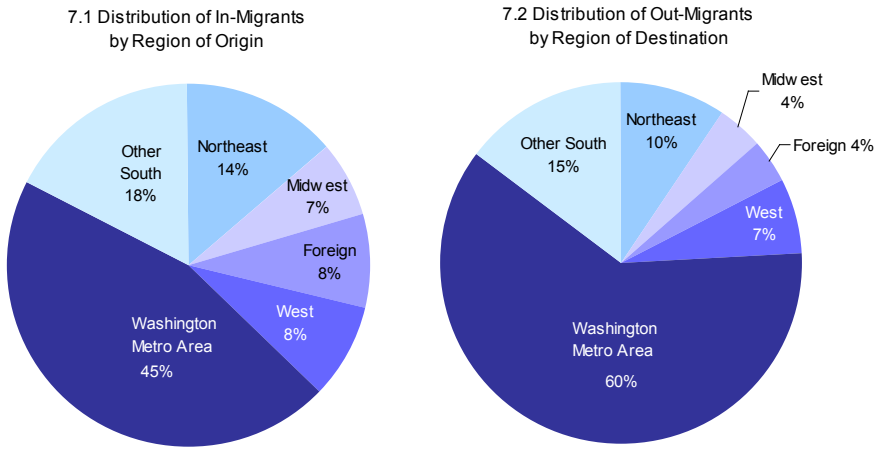
D. From 2000 to 2004, 55 percent of the city's newcomers came from places outside of the Washington metropolitan area.

On average, over half of D.C.'s in-migrants came from outside of the Washington metropolitan area from 2000 to 2004 (Figure 7.1). The South provided the largest share of D.C.'s newcomers from outside of the metro area, followed by the Northeast. In-migrants from across the country may be drawn to the District by the area's strong job market and the city's unique position as the seat of the federal government. Of all U.S. metropolitan areas in 2005, the Washington metro area had the fourth highest number of jobs even though it was ranked eighth in terms

of population size.[28] Average inflows from abroad were as large as those from the West and the Midwest. Rather than reflecting annual immigration, foreign inflows are comprised of U.S-born citizens who moved to D.C. from abroad in addition to some foreign-born persons.[29] This movement reflects the District's position as a hub for international affairs, as well as its status as a cosmopolitan city. The IRS data indicate that the District experienced an average net gain of nearly 3,000 individuals each year through total migration exchanges with places outside of the Washington metro area.

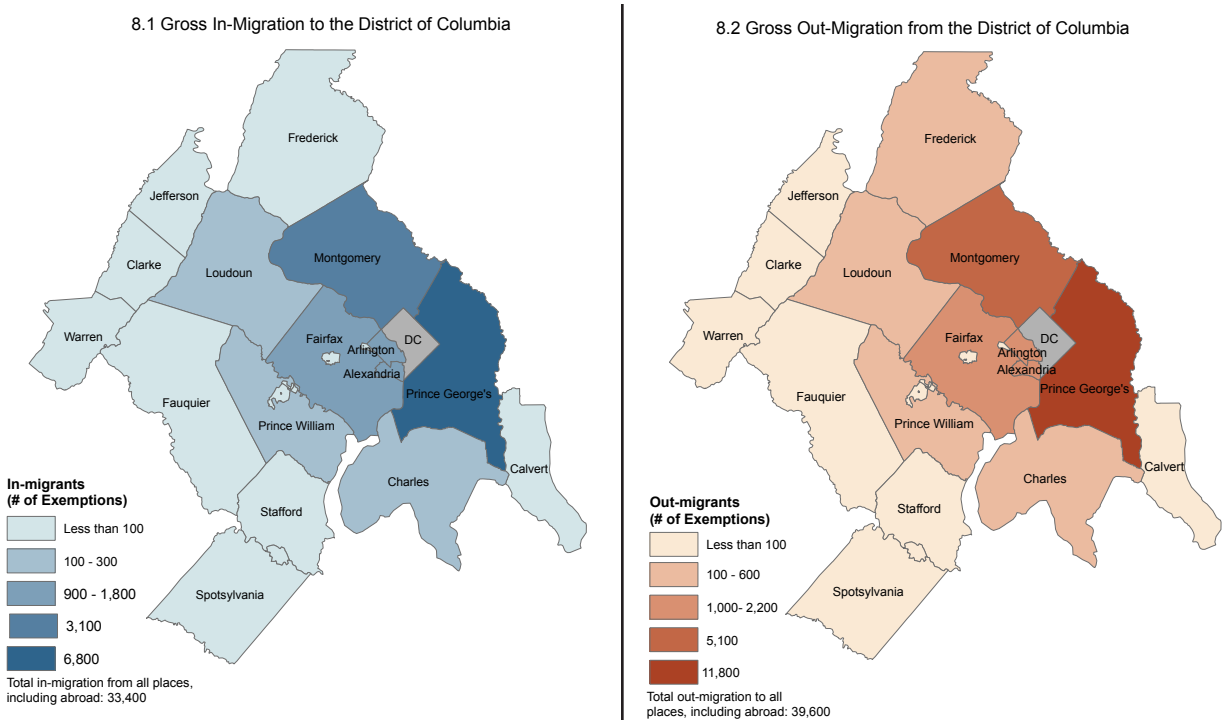
On average, while 55 percent of those moving into the District each year came from outside of the metro area, only 40 percent of those moving out of the city each year left the metro area (Figure 7.2). The other 60 percent of individuals leaving D.C. from 2000 to 2004 settled somewhere else within the region. In other words, a substantial portion of those leaving the District remained residents of the Washington area

Figure 7. Average Annual Gross Migration Flows, 2000 to 2004



Note: Migration flows of individuals estimated by exemptions; foreign inflows do not fully capture immigration flows
Source: Brookings analysis of IRS migration data

Figure 8. Average Annual Migration Flows between the District of Columbia and Other Washington Metro Area Jurisdictions, 2000 to 2004



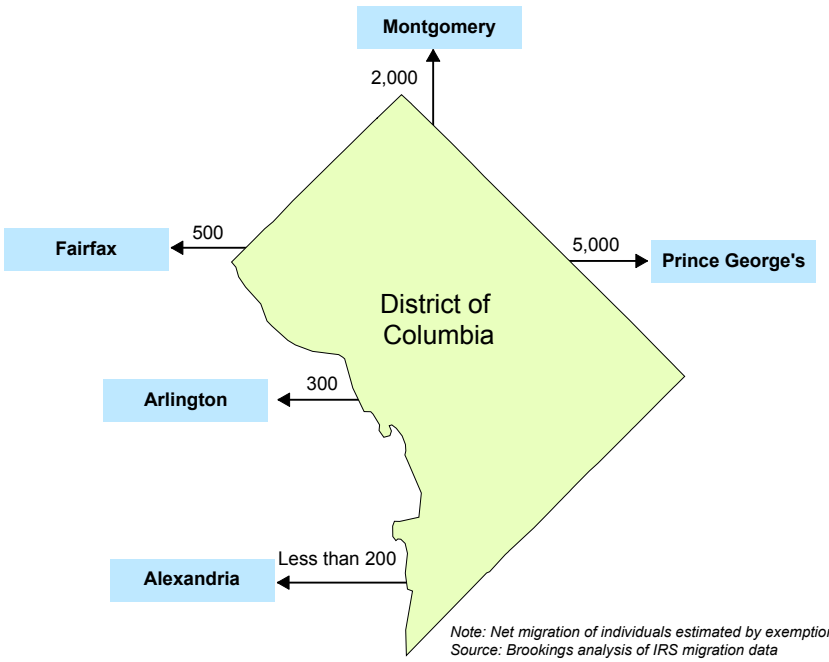
Source: Brookings analysis of IRS migration data

by moving to the suburbs or inner core. The IRS data show that, on balance, the District lost more residents than it gained through migration exchanges within the Washington region, resulting in an average net loss of over 9,000 individuals per year from 2000 to 2004.

The District's largest annual regional migration flows were with its surrounding suburban jurisdictions (Figure 8). Average exchanges between the city and Prince George's County were much larger than the District's migration flows with any other nearby jurisdiction. On average, 20 percent of all newcomers to the District came from Prince George's County each year while nearly one-third of all individuals leaving the city went to Prince George's. Flows between Montgomery County and the city were the second largest, with Montgomery providing 9 percent of all D.C. in-migrants and capturing 13 percent of all D.C. out-migrants. Smaller flows between Washington and the northern Virginia jurisdictions of Arlington, Alexandria, and Fairfax County accounted for 3 to 5 percent of all in-migration and 3 to 6 percent of all out-migration while flows between the city and the outer and far suburbs were less than 2 percent of all migration. Given these relative sizes, we limit the rest of our analysis to the District's flows with the inner suburbs and the inner core.

From 2000 to 2004, the District lost more residents than it gained in average exchanges with its neighboring jurisdictions (Figure 9). Average net losses per year to Prince George's County were the largest at 5,000 individuals, followed by a net loss of about 2,000 individuals to Montgomery County. Average net losses to Alexandria, Arlington, and Fairfax counties were much smaller—each consisting of less than 500 people.

Figure 9. Average Annual Net Migration Out of the District of Columbia to Surrounding Jurisdictions, 2000 to 2004



Note: Net migration of individuals estimated by exemptions
Source: Brookings analysis of IRS migration data

E. Migration between the District and its surrounding counties echoed the division between the prosperous western side of the region and the less affluent eastern side.

Migration between the District and the Inner Suburbs

On balance, relatively larger households moved out of the District to the inner suburbs of Prince George's, Montgomery, and Fairfax counties, though outflows to the neighboring Maryland counties were substantially larger than those to Fairfax. A closer examination of outflows from the District to each of its inner suburbs reveals two different types of suburbanization.

Tables 4 and 5 list average household sizes and median AGIs for in and out-migrant households moving between the District and its bordering jurisdictions for the most recent period of 2004–2005. Though there was some variation in average household size and median AGI over the period, this most recent year of data is indicative of the differences between D.C.– Prince George's migration flows and flows between the city and the other jurisdictions.

In each year from 2000 to 2004, households moving from Washington to Prince George's County were, on average, bigger than households moving to the other inner suburbs. Each year, the average size of households moving into Prince George's from the District was at least 2.02 persons. Meanwhile, households leaving the city for Montgomery and Fairfax counties each year had an average size of no more than 1.72 persons.

Table 4. Average Household Size and Median AGI, In-Migrant Households to Washington, D.C. by Place of Origin, 2004–2005

Place of Origin	Average Number of Exemptions Per Return	Median AGI
Prince George's	1.96	$23,819
Montgomery	1.36	$37,664
Fairfax	1.35	$43,192
Arlington	1.19	$44,983
Alexandria	1.30	$42,041

Source: Brookings analysis of IRS migration data

Table 5. Average Household Size and Median AGI, Out-Migrant Households from Washington, D.C. by Place of Destination, 2004–2005

Place of Destination	Average Number of Exemptions Per Return	Median AGI
Prince George's	2.06	$28,617
Montgomery	1.70	$38,822
Fairfax	1.69	$39,753
Arlington	1.26	$41,626
Alexandria	1.37	$44,452

Source: Brookings analysis of IRS migration data

Income also differentiated out-migrant households moving to Prince George's from those moving to the other inner suburbs. The households that moved from D.C. to Prince George's County each year had median AGIs of $27,600 to $28,600 (in 2004 dollars). These median AGIs are substantially lower than the Washington metro area's median AGI, which was over $40,000 in each year since 2000. By contrast, the median AGIs of those moving from Washington to Montgomery County were in the high $30,000s while the median AGIs of households moving to Fairfax County were typically close to $40,000. These findings suggest that Prince George's County is a destination for many of the District's lower-income households aspiring to the middle class whereas Montgomery and Fairfax counties are destinations for many D.C. households that are already middle-income.

There are a variety of factors that influence people's choices to move, and we do not have direct evidence of why people move. However, it is reasonable to suspect that out-migrants moving to the inner suburbs may be searching for more affordable housing or homes that accommodate larger families. Home sales prices have increased dramatically in all of the inner suburbs and the inner core, but the District experienced the largest rate of increase with the median home sales price rising by 65 percent from 2001 to 2004 after adjusting for inflation.[30] Low and moderate-income District residents looking to become homeowners have more affordable options in Prince George's County than in the other inner suburbs. At $226,900, Prince George's County had a lower median sales price than any of the other jurisdictions, including the District, in 2004.[31] Furthermore, an Urban Institute analysis revealed that 29 percent of all affordable home sales (defined as sales priced below $250,000) in the Washington region in 2004 were located in Prince George's County compared to only 15 percent in the other inner suburbs, the inner core, and the District combined.[32] Lower-income renters looking to move out of the city also may turn to Prince George's County. Although the county's median gross rent was higher than the District's, it was lower than median gross rents in the other inner suburban jurisdictions in both 2000 and 2005.[33]

The type of housing available in the city compared to the inner suburbs also likely influences families' decisions to move. While the median sales price of homes in Montgomery and Fairfax counties exceeded the District's from 2001 to 2004, single family homes accounted for more than three out of four sales in these suburbs each year.[34] Single family homes made up an even larger percentage of all sales in Prince George's County. By contrast, single family homes were only 64 percent of all sales in the District in 2001, a share that dropped to 59 percent in 2004. Condominiums, which along with co-ops accounted for the rest of the sales market in D.C., are less likely to house families with children enrolled in public school than single-family housing and rental housing.[35] Moreover, data from the 2005 ACS indicate that the inner suburbs had larger percentages of both owner-occupied and rental units with three or more bedrooms compared to the District.

Schools are also a likely factor influencing a family's decision to leave the District for the suburbs. It is difficult to measure

school quality, and even more difficult to compare the quality of one school system to another across state lines. Still, the National Assessment of Educational Progress (NAEP) indicates that in both 2000 and 2005, the District's public schools had poor performances relative to those in Maryland and Virginia, as well as in comparison to other urban schools districts in the country.[36] And although Prince George's public schools do not perform as well as other suburban Maryland school districts, Washington residents may perceive the county's schools as better than the city's.

The previous discussion focused on those leaving the District for the inner suburbs. We now turn our attention to those moving in the opposite direction. Though inflows to the District from the inner suburbs were smaller than outflows, it is still worth noting that households moving to the city from Prince George's County each year differed from those coming from Montgomery and Fairfax counties. Households moving into the District from Prince George's County were larger, with an average size each year of at least 1.91 persons. Their typical incomes were also lower with median AGIs ranging from $23,500 to $24,400. By contrast, households moving to D.C. from Montgomery and Fairfax counties between 2000 and 2004 were smaller, with average sizes ranging from 1.35 to 1.50, and had median AGIs ranging from the mid $30,000s to low $40,000s. These trends reveal two different patterns of in-migration to the District from the inner suburbs: smaller, middle-income households from Montgomery and Fairfax counties are moving to the District while larger, relatively lower-income households are moving in from Prince George's.

Migration between the District and the Inner Core

Annual flows between the District and the inner core jurisdictions of Alexandria and Arlington in both directions were characterized by small, affluent households. The small average size of households moving between the District and the inner core jurisdictions of Alexandria and Arlington annually (less than 1.30 for D.C.–Arlington flows and less than 1.40 for D.C.–Alexandria flows) likely reflects the large percentage of unmarried singles in these jurisdictions. Despite their small size, households moving between the District and the inner core in both directions had median AGIs at or slightly above $40,000. These data suggest that well-off singles and childless couples may view Arlington and Alexandria as an extension of the Washington area's urban core.

Summary of Migration between the District and Neighboring Jurisdictions

In sum, the District's migration flows with its neighboring jurisdictions echo the region's income differences. The typical incomes of households moving between D.C. and Prince George's County were lower than the typical incomes of those moving between the city and the counties on its northern and western borders, and the latter tend to be much closer to the metro area median income. These migration flows also likely reflect the region's racial divide.

The 2006 ACS does not provide a large enough sample to review migration flows between the city and its neighbors. However, data from the Census 2000 5- percent PUMS indicates that individuals moving between the District and Prince George's County from 1995 to 2000 were much more likely to be black than those moving between the city and the other jurisdictions.[37]

Conclusion

The District's fiscal stability, rapid commercial and residential development, and modest population growth suggest that the city is in the midst of a revival that was underway by 2000. Though disparities between the District and its neighbors persist, median income increased among the District's taxpayers from 2000 to 2004 after adjusting for inflation.

During this period, the District of Columbia set the goal of growing its population by attracting new residents and retaining those who already live here. Evidence from a variety of sources indicates that there is renewed interest in city living. Movement in and out of the city has likely contributed to the District's net socio-demographic changes from 2000 to 2006, including change in its racial and ethnic composition as well as increases in the already high education levels of its adult population.

The majority of the city's newcomers moved to D.C. from beyond the Washington metropolitan area, likely drawn by the region's strong economy, Washington's unique role as the nation's capital, and the city's revitalization. However, the small and declining average household size among those moving into the

city suggests that these newcomers are mostly singles and childless couples. Meanwhile, the average household size of those leaving the District was larger and remained constant over the period, signifying that many out-migrants are likely to be families. Though the city's revitalization has attracted newcomers who are interested in urban living, it is yet to be seen if these residents remain in the District once they have children.

The District is losing the majority of its out-migrants to other jurisdictions in the Washington metropolitan area. Of all counties in the region, those that border the city captured the largest shares of out-migrants, with bigger households moving to the inner suburbs and smaller households moving to the inner core jurisdictions. While people choose to move for a variety of reasons, quality schools and housing may influence families' decisions to leave the city for the inner suburbs.

The implications of out-migration from Washington are not limited to the city, but also extend to the region. Migration patterns between the District and its neighbors reflect the region's east-west income disparities, as well as its racial divide. These regional divisions may inform and in turn be reinforced by out-migration from the city.

Appendix- Geographic Areas

Census Bureau Regions of the United States

Northeast	Midwest	South	West
Connecticut	Indiana	Alabama	Alaska
Maine	Illinois	Arkansas	Arizona
Massachusetts	Iowa	Delaware	California
New Hampshire	Kansas	District of Columbia	Colorado
New Jersey	Michigan	Florida	Hawaii
New York	Minnesota	Georgia	Idaho
Pennsylvania	Missouri	Kentucky	Montana
Rhode Island	Nebraska	Louisiana	Nevada
Vermont	North Dakota	Maryland	New Mexico
	Ohio	Mississippi	Oregon
	South Dakota	North Carolina	Utah
	Wisconsin	Oklahoma	Washington
		South Carolina	Wyoming
		Tennessee	
		Texas	
		Virginia	
		West Virginia	

Source: U.S. Census Bureau

December 2005 Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area

District of Columbia

Inner Core
- Arlington County, VA
- Alexandria city, VA

Inner Suburbs
- Montgomery County, MD
- Prince George's County, MD
- Fairfax County, VA
- Fairfax city, VA
- Falls church city, VA

Outer Suburbs
- Calvert County, MD
- Charles County, MD
- Frederick County, MD
- Loudon County, VA
- Prince William County, VA
- Stafford County, VA
- Manassas city, VA
- Manassas Park city, VA

Far Suburbs
- Clarke County, VA
- Fauqier County, VA
- Spottsylvania County, VA
- Warren County, VA
- Fredericksburg city, VA
- Jefferson County, WV

Source: Urban Institute's classification of data from the Office of Management and Budget

Discussion of Data

Census 2000 SF3 and 2006 American Community Survey

The Census 2000 SF3 file provides statistics based on the long-form questionnaire, which was sent on average to 1-in-6 housing units to produce a sample. The SF3 estimates represent a point-in-time, and are interpreted as describing the characteristics of the April 1, 2000 population. The ACS is the Census Bureau's new annual survey that has replaced the decennial census long form. The estimates from the 2006 ACS describe population characteristics throughout the calendar year 2006. In contrast to the SF3 estimates, the ACS estimates can be thought of as representing the average population characteristics of a given geography during the time period of January 1, 2006 through December 31, 2006.

IRS Migration Data

The IRS migration data are derived from the IRS Individual Master File and are believed to include 95 to 98 percent of the individual tax filing population nationally.[38] Still, there are a number of limitations that prevent the IRS migration data from providing a full population count of migrants and non-migrants. For one, the IRS data exclude those who do not file U.S. income tax returns for two consecutive years, and thus do not capture households filing U.S. income tax returns for the first time.[39] Moreover, the IRS data do not fully depict annual immigration flows to the District, as the data only capture inflows from abroad if the taxpayer filed a U.S. tax return while they lived abroad, filed from an APO or FPO address, or if the taxpayer filed a nonresident alien income tax return (1040NR) with a U.S. address. Likewise, outflows to foreign countries are only captured if the taxpayer filed a return the year they lived abroad.

Certain populations typically found in Washington, D.C., like diplomats, NGO workers, and college students, may also be underrepresented by the migration data. For example, foreign citizens who live in the District but work for foreign governments and international organizations are generally exempt from U.S. income tax, and therefore may not file a U.S. income return.[40] College students moving to the District for school would not be included in these data if they are claimed as exemptions on another household's tax return, like their parents, or if they file using a home address outside of D.C. Moreover, those who live here on a temporary basis may choose not to use their D.C. address on income tax returns.

The data are also likely to undercount those who do not file or those who are not required to file a U.S. income tax return, such as the elderly and the poor, although the Earned Income Tax Credit, a refundable tax credit for which many workers with incomes below the filing threshold are eligible, mitigates the problem of undercounting low-income, working households. In 2000, the IRS area-to-area migration data included about 391,100 exemptions for the District of Columbia even though the total population count was 572,000.

It is also important to note that data on the median AGI of in-migrants, out-migrants, and non-migrants could be biased if one of the comparison groups has a disproportionate number of individuals likely undercounted by the IRS data, such as the elderly and the non-working poor. To examine this bias, we turn to Census 2000 data. This Census data indicate that non-movers in the District had larger proportions of individuals 65 and older compared to mover groups. Of individuals ages 18 to 64 living in poverty, the proportion with no wage and salary income in 1999 was also slightly larger among non-movers, although these individuals could certainly live with other adults who were working. If non-movers in the District do indeed have disproportionate numbers of elderly and non-working poor households compared to movers, then the differences in median adjusted gross income may not reflect true income differences between migrants and non-migrants.

2000 Census 5-Percent Public Use Microdata Sample (PUMS)

As noted in the data and methods section, the 5-percent PUMS allows us to identify where people lived at two points in time: April 1, 1995 and April 1, 2000. Technically, a person could have lived in the District in 1995, moved out during the following year, and then moved back in 2000. This person would be labeled as a "non-migrant" even though he/she left the city and returned. Since the data do not capture these types of interim moves made between the 1995 place of residence and the 2000 place of residence, there is a possibility that some of those in the "non-migrant" group did not live in the city for the entire five-year

period. Moreover, since characteristics available on this dataset are as of April 1, 2000, those that can change over time, like age, education, and marital status, were not necessarily the same at the time of the move.

As discussed in the data and methods section, the five-year migration period covered by the 2000 PUMS is earlier than the period of focus of this report, and the characteristics of those moving in and out of the city since 2000 may be different. However, IRS migration data for the period 1995–1996 to 1999–2000 reveal the same income trends observed in IRS data for the 2000s: in-migrants had lower median AGIs than out-migrants and non-migrants while the median AGIs of out-migrants and non-migrants were similar.

Endnotes

1. Brookings analysis of all non-farm employees in the District of Columbia, The Bureau of Labor Statistics' Current Employment Statistics program available at www.bls.gov/sae/home.htm (Accessed August 27, 2007).
2. Margery Austin Turner and others, "Housing in the Nation's Capital 2006" (Washington: Fannie Mae Foundation and The Urban Institute, 2006).
3. Brookings analysis of data from the Metropolitan Regional Information Systems, Inc (MRIS) "The Real Estate Trend Indicator," available at www.mris.com/reports/stats/ (Accessed August 1, 2007)
4. Censuses 1950, 1960, 1970, 1980, 1990, and 2000.
5. For more on Census estimate methodology, see U.S. Census Bureau, "State and County Total Resident Population Estimates Method: July 1, 2006" available at www.census.gov/popest/topics/methodology/2006_st_co_meth.html (Accessed August 27, 2007); Original 2005 Census estimate from U.S. Census Bureau, Population Division, "Accepted Challenges to Vintage 2005 Population Estimates," available at www.census.gov/popest/archives/2000s/2005/05s_challenges.html (Accessed August 2006).
6. Mainly, the city demonstrated an increase in the population through a housing count method, which combines estimates of net residential construction (the number of new residential units built less the number of units demolished), vacancy rates, and average household size. The city supported this estimate by citing a number of other indicators of population growth, including an increase in the number of residential units served by PEPCO; school enrollment figures that suggest that many students who left traditional D.C. public schools did not move out of the city, but instead enrolled in D.C. public charter schools or private schools; and a steady number of D.C. income tax filers in 2000 and 2004. Personal communication from Joy Phillips, associate director, State Data Center, D.C. Office of Planning, August 22, 2007.
7. U.S. Census Bureau, Population Division, "Accepted Challenges to Vintage 2005 Population Estimates."
8. U.S. Census Bureau, Population Division, "Annual Estimates of the Population for the United States, Regions, and States and for Puerto Rico: April 1, 2000 to July 1, 2006," available at www.census.gov/popest/states/tables/NST-EST2006-01.xls (Accessed October 1, 2007).
9. The Washington Post reported has reported that much of the city's revitalization has focused on singles and childless couples, while those leaving largely have been families with children. Debbi Wilgoren, "Census Reports Decline in D.C. Population" The Washington Post, December 22, 2005, p.B04. D'Vera Cohn, "Leadership, Tax Issues Hamper Growth" The Washington Post, November 10, 2003, p.A01.
10. We use "z-tests" to test the difference between estimates from Census 2000 and the 2006 ACS for statistical significance. If the absolute value of the z-score is greater than 1.645, we conclude that the difference between the estimates is statistically significant at the 90 percent confidence level. Standard errors used in computing z-scores are calculated according to methods recommended in the following U.S. Census Bureau publications: "2006 ACS Accuracy of the Data" available at www.census.gov/acs/www/UseData/Accuracy/Accuracy1.htm and the "Summary File 3 2000 Technical Documentation" available at www.census.gov/prod/cen2000/doc/sf3.pdf.
11. U.S. Census Bureau, "Using Data from the 2005 American Community Survey" available at www.census.gov/acs/www/UseData/advance_copy_user_guide.pdf" (Accessed August 27, 2007).
12. In Tax Year 2005, Adjusted gross income was line 37 on form 1040.

Taxable income sources include wages, salaries, tips, taxable interest, ordinary dividends, taxable refunds, credits, or offsets of state and local income taxes, alimony received, business income or loss, capital gains or losses, other gains or losses, taxable IRA distributions, taxable pensions and annuities, rental real estate, royalties, farm income or losses, unemployment compensation, taxable social security benefits, and other income.Specific adjustments include deductions for educator expenses, the IRA deduction, student loan interest deduction, tuition and fees deduction, Archer MSA deduction, moving expenses, one-half of self-employment tax, self-employed health insurance deduction, self-employed SEP, SIMPLE, and qualified plans, penalty on early withdrawal of savings, and alimony paid out.

13. The 2006 ACS PUMS are approximately a 1 percent sample of housing units and the people within them based on a subset of the full 2006 ACS sample.
14. The 2006 ACS out-migrant universe does not capture those who moved from D.C. to a destination outside of the United States because the 2006 ACS is a national survey.
15. Emily Gross, "Internal Revenue Service Area-to-Area Migration Data: Strengths, Limitations, and Current Trends" (Washington: U.S. Internal Revenue Service, 2005).
16. Adjusted gross income values are adjusted to 2004 dollars using the CPI-U.
17. The Census 2000 five-percent PUMS is a 5 percent sample of the population based on a subset of the full Census 2000 long-form sample. This data was accessed through the Integrated Public Use Microdata Series (IPUMS USA) at the Minnesota Population Center, University of Minnesota available at usa.ipums.org/usa/
18. Given the smaller sample size of the five-percent PUMS, we test all differences between migrants and non-migrants for statistical significance at the 90 percent confidence level.
19. It is not easy to identify migrant and non-migrant households in the Census 2000 data that would be comparable to the "households" represented by the IRS county-to-county migration files. The Census 2000 data identify moves made by individual people, not households. Therefore, Census households in 2000 can be comprised of movers and non-movers. Moreover "households" in Census include all persons living in the same housing unit while "households" in the IRS county-to-county migration data are proxied by tax returns. Finally, the IRS data measure moves from one year to the next while Census measures one move over a five-year period without capturing interim moves between.
20. While Census captures in-migrants who lived in the U.S. in 2000, but abroad in 1995, it does not capture out-migrants who moved to a destination outside of the United States because it is a national survey.
21. Audrey Singer, "The Rise of New Immigrant Gateways" (Washington: Brookings Institution, 2004).
22. Meghan McNally, "Washington: Number One in College Degrees" (Washington, Brookings Institution, 2003).
23. Note that while the concept of educational attainment is the same between Census 2000 and the 2006 ACS, the reference period for the former is April 1, 2000 while the ACS reference period is the survey month. The approximate margins of error associated with these estimates are (+/-) 0.3 percentage points and (+/-) 1.5 percentage points at the 90 percent confidence level for 2000 and 2006 respectively. The District's increase from 2000 to 2006 is statistically significantly larger than the national increase and the increases experienced by the inner suburbs.
24. We define adults here as individuals aged 25 or older in 2006.
25. Qualifying widowers are individuals who have lost a spouse in the past two years, have not remarried, and have one or more dependent.
26. Alan Berube and Thacher Tiffany, "The Shape of the Curve: Household Income Distributions in U.S. Cities, 1979–1999" (Washington: Brookings Institution, 2004); Ed Lazere, "D.C.'s Two Economies: Many Residents are Falling Behind Despite the City's Revitalization" (Washington: D.C. Fiscal Policy Institute, 2007).
27. Since we are using Census data to better understand median income trends among income tax filers, we limit our analysis to individuals who as of April 1, 2000 did not live in group quarters, were between the ages of 18 and 64, and had wage and salary income in 1999, as these individuals are likely taxpayers.
28. Jobs ranking from Bureau of Economic Analysis 2005 Wage and Salary Employment. Population ranking from Population Division, U.S. Census Bureau, "Table 5. Estimates of Population Change for Metropolitan Statistical Areas and Rankings: July 1, 2005 to July 1, 2006" available at www.census.gov/population/www/estimates/metro_general/2006/CBSA-EST2006-05.xls (Accessed October 29, 2007).
29. The IRS migration data on foreign inflows only captures the following migrants: those who moved to D.C. from a foreign country, Puerto Rico, or the Virgin Islands, but filed a U.S. income tax return while living abroad (likely citizens, green card holders, or other resident immigrants); those who filed a U.S. income tax return from a military post office (APO/FPO); or those who completed a non-resident alien income tax return during their year in the U.S.
30. Brookings analysis of MRIS data.
31. Ibid.
32. Note that the definition of the metropolitan area used in this analysis is in accordance with 1999 Office of Management and Budget and includes the following counties not included in the 2005 definition: Culpepper, VA; King George, VA; Berkeley, WV.

Margery Austin Turner and others, "Housing in the Nation's Capital 2005" (Washington: Fannie Mae Foundation and The Urban Institute, 2005).

33. Median gross rent is among renters paying cash rent. Brookings analysis of data from Census 2000 and the 2005 American Community Survey.
34. Brookings analysis of MRIS data,
35. Turner and others, "Housing in the Nation's Capital, 2006."
36. Comparisons between the District, Maryland, and Virginia are made based on the State NAEP and comparisons between the District and other urban school districts are based on the NAEP Trial Urban District Assessment. The analysis compared the percent of students at or above proficient for grade 4 and grade 8 mathematics and reading.
37. In-migrants to the District include all individuals ages five or older who lived in the city in 2000 but lived in one of the neighboring jurisdictions (Prince George's, Montgomery, Fairfax, Arlington, and Alexandria) in 1995. Out-migrants include all individuals ages five or older who lived in the District in 1995 but lived in one of the neighboring jurisdictions in 2000. Since the Census 2000 data does not capture interim moves, there is a possibility that these individuals did not move directly from the identified place of origin to the identified place of destination.
38. Gross, "Internal Revenue Service Area-to-Area Migration Data."
39. The only tax returns included in the data that do not require a consecutive two-year match are 1040NRs filed in year two. These returns are included in the foreign in-migration flow.
40. "How to Report Wage Income Paid by Foreign Governments or International Organizations for Work Performed in the United States," available at www.irs.gov/businesses/small/international/article/0,,id=156499,00.html (Accessed September 28, 2007).

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