



## Resettling New Orleans: The First Full Picture from the Census

William H. Frey, Audrey Singer and David Park

New 2006 American Community Survey data from the US Census Bureau provides a detailed picture of the socio-demographic composition of New Orleans and its surrounding region, including who moved in and out of the area, approximately one full year after the impacts of hurricanes Katrina and Rita. Drawing on this survey as well as other Census Bureau estimates and Internal Revenue Service migration data, this report finds:

- **One year after the storms, the city of New Orleans black population declined by 57 percent, while its white population decreased by 36 percent.** Yet the city remained a majority minority community, with blacks making up 58 percent of its population. Meanwhile, as a whole, the seven parishes surrounding New Orleans lost a greater share of their white population.
- **New Orleans' 2006 post-storm population was smaller, older, more educated, less poor, with fewer renters, and fewer households with children than was recorded in Census 2000.** To a lesser extent, this was also the case within the entire metropolitan area, suggesting that many with these characteristics have left, rather than relocated within the region.
- **Compared with "stayers" in the city of New Orleans, out-migrants were younger, poorer, more likely to be black, and more likely to have children.** On the other hand in-migrants were more highly educated, more likely to be childless, and more likely to be white.
- **One year after the storm, black New Orleanians were most likely to have moved to the Houston metro area, whereas whites mostly moved elsewhere in the New Orleans metropolitan area.** Low-income "displaced" residents were living in far flung metropolitan areas like Houston, Dallas, and Atlanta one year after Katrina. In-migrants to New Orleans were more likely to arrive from suburban parishes, which were also home to higher-income New Orleanians right after the storm.

While there have been many efforts to identify the number of people living in greater New Orleans after Hurricane Katrina, this report provides the "first full picture" of who lived in the city and region after the storm, and what types of residents moved in, stayed, or remain displaced one year after the storm. This analysis is critical for moving beyond speculation to informed assessments about how best to serve both existing and displaced households in the aftermath of Katrina and Rita.



## Introduction

It has now been over two years since Hurricanes Katrina and Rita devastated the Gulf Coast, and especially the city of New Orleans. While painstaking efforts toward resettlement of this city and its region have been made, little solid information exists on how the storm affected its demographic make-up as well as who left the region and where they went.

Recent efforts by a number of organizations, such as the Greater New Orleans Community Data Center ([www.gnocdc.org](http://www.gnocdc.org)), its partnership with Brookings on the New Orleans Index (Liu and Plyer, 2007), and several government, university, and private sector studies, have served to close this informational gap to a degree.<sup>1</sup> Yet these data sources have not provided a full picture of the demographic composition of New Orleans, in comparison to the situation before the storms.

The 2006 American Community Survey (ACS), a nationwide survey taken by the US Census Bureau represents the first large scale probability sample for New Orleans, and its metropolitan area. The ACS provides a statistically reliable assessment of these areas' 2006 demographic profiles that can be compared directly with similar information collected at the 2000 Census.

This report utilizes the 2006 ACS to assess how New Orleans has changed since the storms. It makes Census 2000/2006 ACS comparisons on a range of social and demographic measures. It also utilizes ACS data to examine selective migration both out of, and into the city of New Orleans over the 2005–2006 period in order to get a fuller picture on “who moved out” and “who is coming back.” This is supplemented with additional analyses of migration flows into and out of New Orleans with other parts of the country, using Internal Revenue Service county to county migration data.

## Background: General Population Change since Hurricanes Katrina and Rita

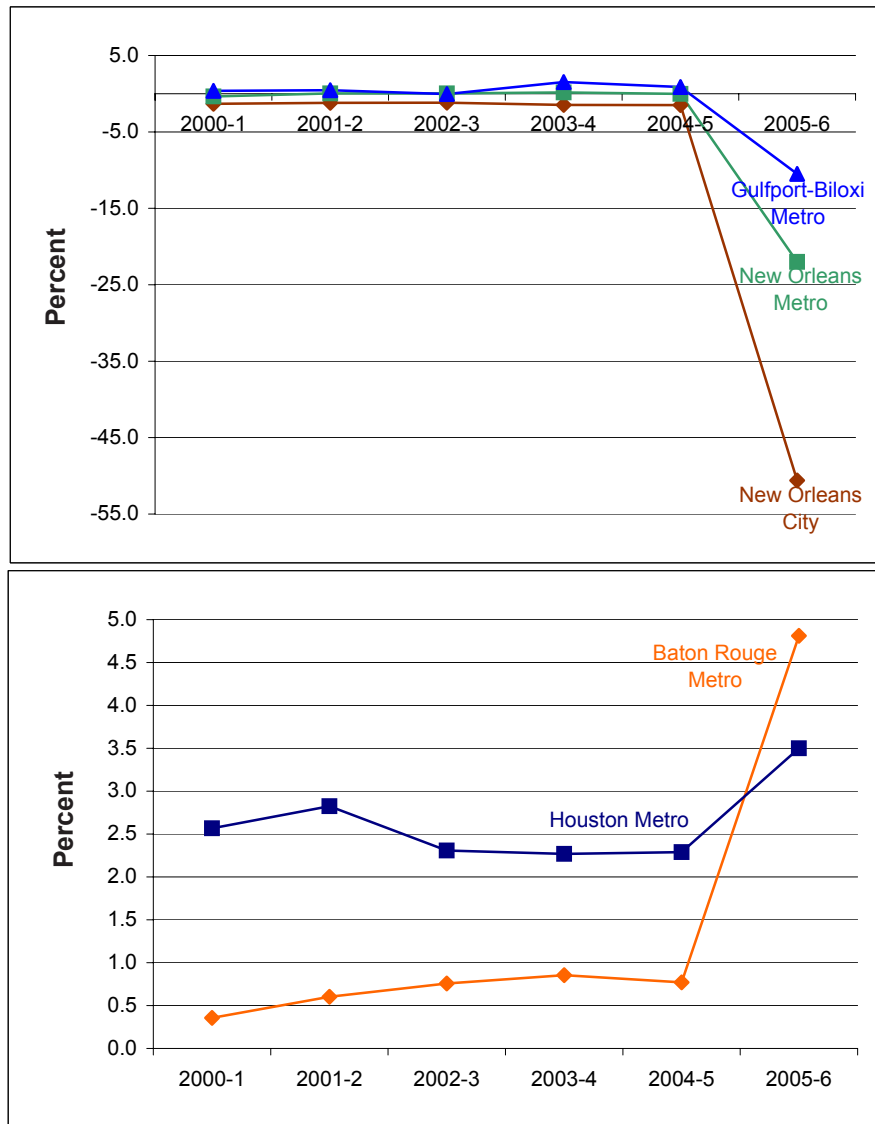
Before proceeding with our analyses of how the population of New Orleans and other Gulf Coast communities changed by race, income, age and other characteristics, we provide an overview of what we know to date about the size of the population there one year after the 2005 hurricanes. These data are drawn from the Census Bureau's population estimate program with the most recent estimates through July 2006 (shown in Figure 1 and Map 1).

It is clear that the first year after the storm had a sharp impact on what were relatively consistent growth patterns for both New Orleans itself and the metropolitan area. Between 2000 and 2005, the city experienced annual population declines of a little more than 1 per cent. Nearly one year after the storm, in July 2006, the city population was only about half of what it was in 2005 (from 452,000 to 223,000). The 2006 estimate reflects first the severe decline in the month immediately after the storm as well as the return of some evacuees up until July 1, 2006.

Similarly, the metropolitan area lost about 22 percent of its population over the 2005–2006 period, after experiencing only negligible growth for the earlier part of the decade. This population loss was primarily attributable to the loss from the city of New Orleans, but also due to significant losses to nearby parishes of St Bernard, Jefferson, and Plaquemines.

The city New Orleans' population losses were the greatest in the overall panorama of affected Gulf Coast metropolitan areas, counties, and parishes designated by FEMA as assistance recipients in October 2005 and depicted on Map 1. Hurricanes Katrina and Rita affected 2005–2006 losses in other metropolitan areas, including Gulfport-Biloxi and Pascagoula in Mississippi, Lake Charles, LA, and Beaumont-

**Figure 1. Annual Growth, New Orleans City and Selected Metros, 2000–2001 to 2005–2006**



Source: Authors' analysis of US Census Bureau Population Estimates

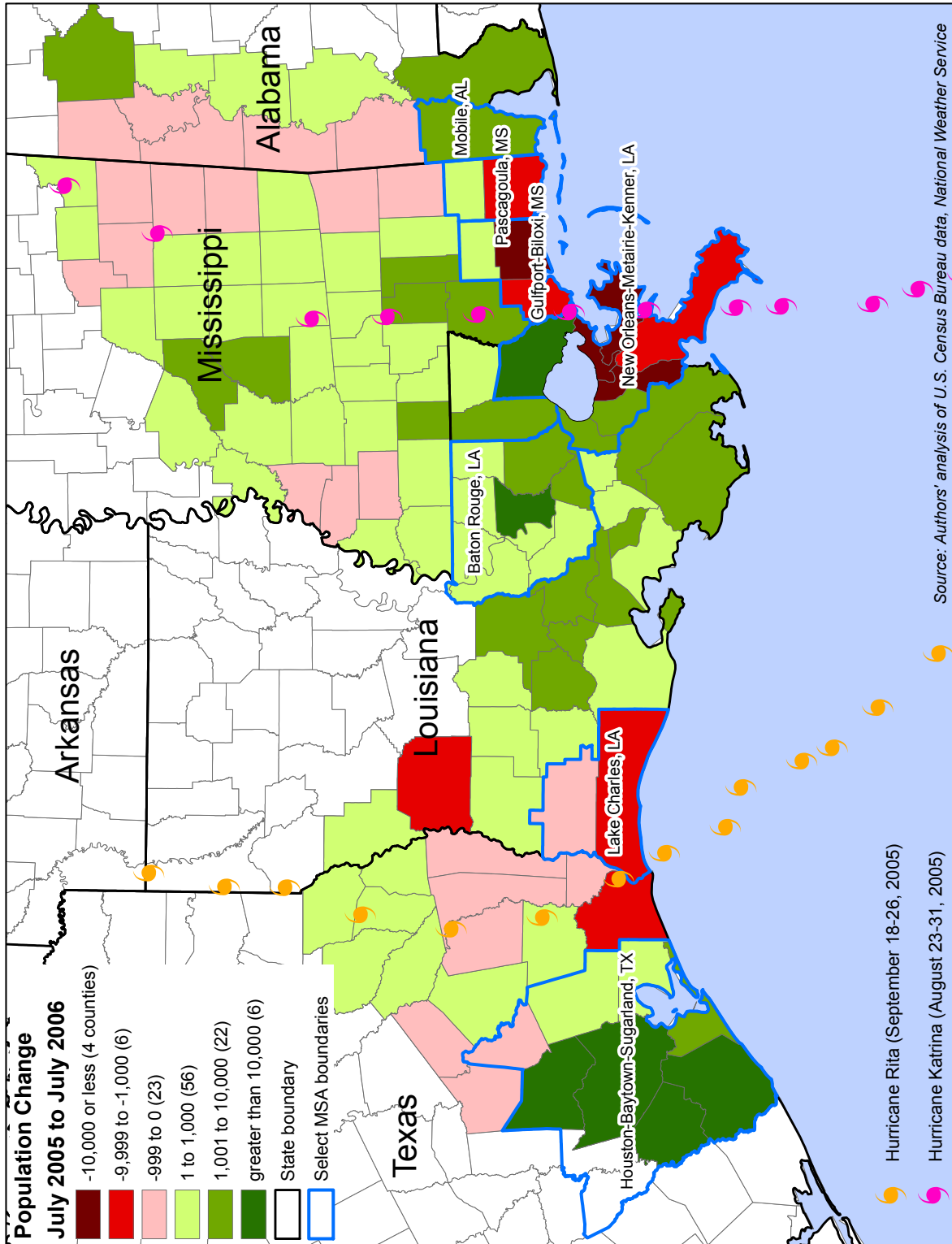
Port Arthur, TX. Yet the map depicts other areas which experienced extraordinary population gains, as recipients of evacuees and out-migrants of hurricane-impacted areas.

Two metropolitan areas with the greatest gains were Baton Rouge and Houston (See Figure 1). Baton Rouge's population which grew negligibly for most of this decade shot up by nearly 5 percent in the period 2005–2006; and Houston's larger metropolitan population, which grew at a healthy 2 to 3 percent annual pace prior

to 2005, shot up to 3.5 percent in 2005–2006. Harris County, TX, within metropolitan Houston, saw its growth surge 123,000 in 2005–2006 compared with 67,000 in the previous year. Of course, many New Orleans evacuees went to more far flung parts of the country, including elsewhere in the South and beyond.

This overview provides a backdrop of how ongoing population shifts in New Orleans and the broader region were disrupted by the hurricanes. The present report builds on this, by

Map 1. New Orleans and Gulf Region Population Shifts, 2005–2006



focusing on the changed socio-demographic profile of the city of New Orleans and its metropolitan area, and how migration appears to be affecting this change. Following a discussion of the data and methods, we present sections on the race-ethnic shifts that the city and region have undergone and how other socio-economic and household attributes of these areas have been altered. These will be followed by sections on how migration has impacted these shifts: What are the racial and socio-economic attributes of out-migrants, non-migrants and in-migrants; and what destinations were most prominent among out-migrants and which origins were most prominent among in-migrants.

### Data and Methodology

This analysis is based on several new official data sources. We begin with recently published population estimates for the total resident population by parish and county from the Census Bureau's Population Estimates Program. These are used in assessing annual population changes between 2000 and 2006 for New Orleans and selected metropolitan areas in Figure 1, population changes for counties in the Gulf Region depicted in Map 1 for the period, 2005–2006, and for metropolitan area counties and parishes in this region, over the periods 2004–2005 and 2005–2006, in the Appendix. They are also used for our analysis of race-ethnic change 2005–2006 in the city of New Orleans, its suburbs, and metropolitan area in Table 1 and Figure 2. The reference dates for the estimates presented refer to July 1 of each year. Further information on the Census Bureau's population estimates can be found at <http://www.census.gov/popest/estimates.php>

We use the Census Bureau's annual nationwide sample survey, the American Community Survey (ACS) to analyze characteristics of the population for 2006. The 2006 ACS, released in September 2007, is the first nationwide survey

to be completed since the storms of 2005, providing benchmark demographic, social, housing, and economic characteristics of U.S. communities, including the Gulf Coast population. In this analysis we compare 2006 ACS estimates with long-form estimates from Census 2000.

The one-year estimates from the 2006 ACS describe characteristics during calendar year 2006. These estimates can be thought of as representing the average characteristics of the hurricane affected area during the time period of January 1, 2006 through December 31, 2006, when the area was experiencing significant population flux. In contrast, the long form estimates in Census 2000 represent a point-in-time, specifically April 1, 2000. They are interpreted as describing the characteristics of the April 1st population and housing.

Comparisons of 2006 ACS to Census 2000 tabulations are based on a statistical test for the difference between two estimates. The test requires having both estimates and their standard errors. We followed guidelines published by the Census Bureau on their website. We followed the 2006 ACS Accuracy of the Data documentation (<http://www.census.gov/acs/www/UseData/Accuracy/Accuracy1.htm>), to obtain the standard error from the published 90 percent margin of error. Similarly, we calculated standard errors for estimates from Census 2000 sample or long form tabulations as put forth in Chapter 8 of the SF-3 Technical Documentation (<http://www.census.gov/prod/cen2000/doc/sf3.pdf#page=933>). Statistical tests to determine which estimates from 2000 and 2006 were statistically different from each other at the 90 percent confidence level, according to guidelines found in the 2006 ACS Accuracy of the Data document.

We use Census 2000 data to reflect baseline population characteristics prior to the storms, and 2006 ACS to show the characteristics of

the population after the storms. We focus the analysis primarily on Orleans parish (city of New Orleans) and New Orleans Metropolitan area (Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. John the Baptist, and St. Tammany parishes). However, we also include selected metros in the Gulf Coast region (Baton Rouge, LA, Lake Charles, LA, Gulfport-Biloxi, MS; Pascagoula, MS, Houston, TX ) where appropriate.

Our analysis of migration using the 2006 ACS requires special mention. For this, we employed special tabulations of the ACS question “Where did this person live one year ago” for 2006 respondents in order to determine the moves between 2005 and 2006 of persons who were one year of age or older. Since the ACS respondents are spread across the calendar year, it is the case that those New Orleans residents who relocated between September and December 2005 will not be reported as out-migrants, if they were interviewed during September–December 2006. For some of the latter their residence one year ago would be outside of New Orleans. In like manner, we will understate in-migrants to New Orleans for some respondents who had lived in New Orleans between January and August 2005, moved out during September 2005–December 2005, and returned in 2006. If such respondents were interviewed between January and August 2006, they will report living in New Orleans at both points even if they had left and moved back. There is no exact way to gauge the level of underreporting of out-migrants or in migrants. However, since our main purpose is to compare the socio-demographic attributes among in migrants, out-migrants, and non-migrants, rather than to track the exact number of moves, these data can be used for such an analysis.

To get a sense of specific origin and destination patterns of recent migration in and out of New Orleans city, we turn to area-to-area migration data within the United States from the Internal

Revenue Service (IRS) which maintains records of all Individual Income Tax forms filed in each year (Gross 2005).

The data is compiled and organized by county for each state. For each state, there is an inflow and an outflow extract, which shows the following information about the returns in each county: the number of migrant returns (used to estimate households); the number of exemptions attached to these returns (used to estimate individuals); the aggregate adjusted gross income of the migrating returns; and the median adjusted gross income of these returns. (Adjusted gross income (AGI) is the amount of total annual income that is taxable.) There is also a line item for non-migrants with their relative incomes (Gross 2005).

For a migrant or non-migrant to be captured in year-to-year migration counts, households or individuals must have filed tax returns in consecutive years. For example, an individual who filed in tax years 2005 and 2006 would appear in the 2005 to 2006 migration data while an individual who filed only in tax year 2005 would not. In addition, households or individuals with low incomes with little or no tax liability that typically are not required to file and do not file also may not appear in the counts.

In the case of our New Orleans migration analysis, there are limitations to using the IRS data. As mentioned earlier, those tax filers who did not file returns in consecutive years do not appear in our analysis. Although nationally tax returns may represent roughly 90 percent of the population, at smaller levels of geography such as a county this may vary greatly. In the case of New Orleans and the catastrophic impact of the levee failures, many residents of the city and the surrounding metropolitan area were affected not only physically in their damaged homes and neighborhoods, but financially as well, in the permanent or temporary loss of a wage earning

job. These great losses may have pushed some residents into the little or no tax liability non-filing category, thus excluding them from the IRS migration counts and our analysis.

## Findings

### **A. In the year after the hurricane hit, the New Orleans black population declined by 57 percent, while its white population decreased by 36 percent.**

One of the most talked about demographic impacts of Katrina's evacuation was the impact that it would have on the city's racial and ethnic composition. Speculation that the city might shift from its traditional black majority to a minority black population was voiced by analysts and politicians, with important implications for the city's economic, social, and political fabric. Yet, earlier surveys could not make an accurate assessment of this composition until August 2007 when census released race and ethnic estimates for July 2006.

These results, shown in Table 1 make plain that the city of New Orleans did, in fact, show a disproportionate loss of blacks by July 2006, with the population reduced to 129,000 from 303,000 in July 2005. This 57 percent decline outpaced the 36 percent decline of whites. However, it was not enough to reduce the city's black population below majority status. The 2006 after-storm race-ethnic composition, shown in Figure 2 indicates that the city of New Orleans' black share decreased to 58 percent from 67 percent the year before. At the same time the white population share increased to 34 percent, up from 26 percent, while the Hispanic population increased by 1 percent, and all other race-ethnic groups remained the same.

Turning to the suburbs, however, we find a very different picture. While the suburbs, like the city of New Orleans, sustained an overall population decline between 2000 and 2006, the suburban white population declined at a faster rate than blacks. This reflects hurricane related out movement from the primarily white St. Bernard and Jefferson Parishes. The result, however, was a very small change in the overall racial composition of the six parishes surrounding Orleans Parish, which remained approximately two-thirds white in both 2005 and 2006.

In its entirety, the metropolitan area did show a noticeable decline in its black population share from 38 percent in 2005 to 31 percent in 2006, as the white share increased from 53 percent to 65 percent.<sup>2</sup> Thus both the city and metropolitan area showed a substantial decline in their black populations and proportions over the course of a single year, even after the return of many evacuees.

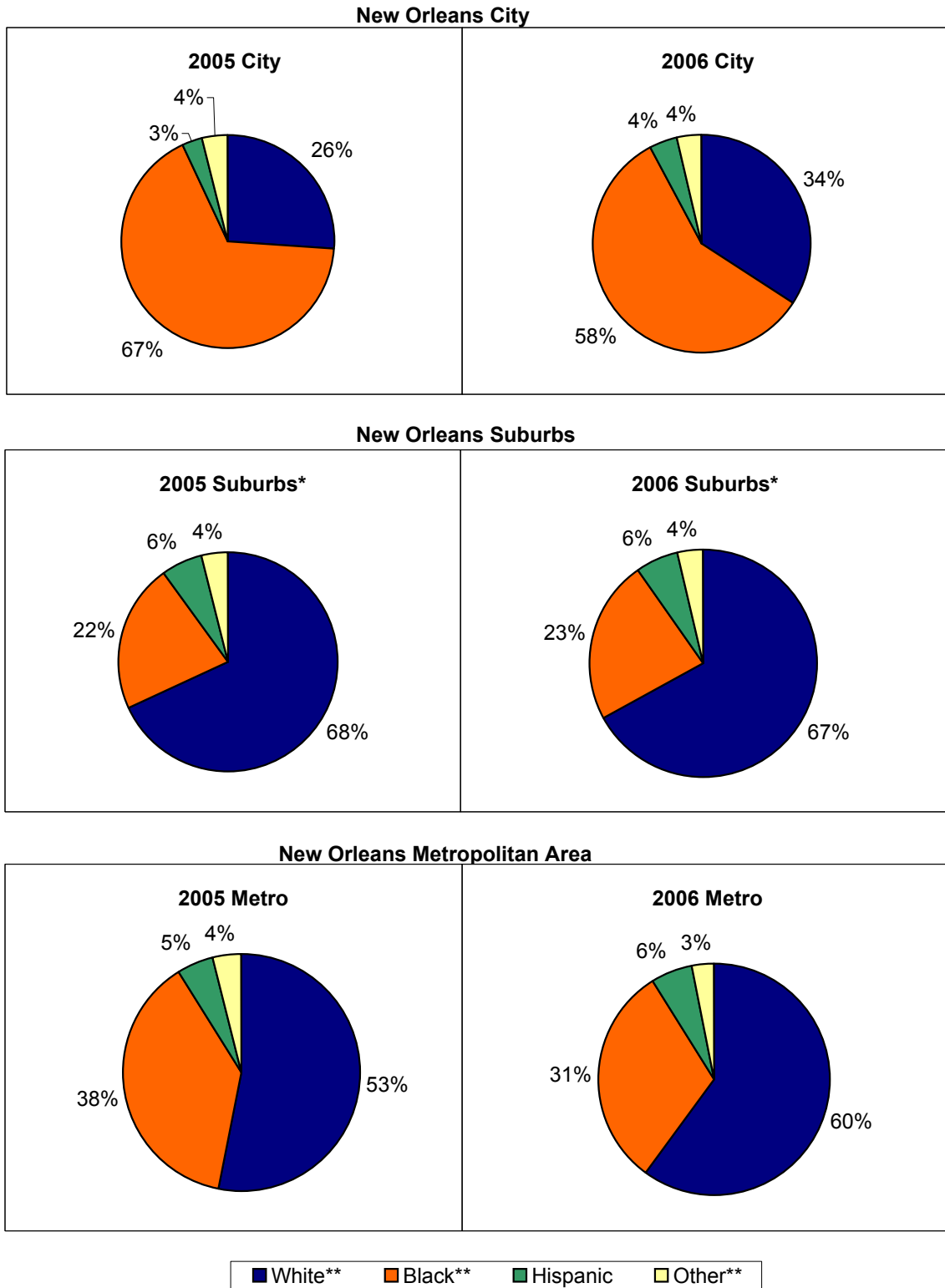
**Table 1. Race-Ethnic Change: New Orleans City, Suburbs, and Metro**

	2005	Percent 2006	Change	Change
<b>New Orleans City</b>				
Whites	119,620	76,422	-43,198	-36.1
Blacks	302,580	129,192	-173,388	-57.3
Hispanics	14,536	9,140	-5,396	-37.1
<b>New Orleans Suburbs</b>				
Whites	583,316	536,880	-46,436	-8.0
Blacks	193,092	183,424	-9,668	-5.0
Hispanics	51,916	49,165	-2,751	-5.3
<b>New Orleans Metro</b>				
Whites	702,936	613,302	-89,634	-12.8
Blacks	495,672	312,616	-183,056	-36.9
Hispanics	66,452	58,305	-8,147	-12.3

Source: Authors' analysis of US Census Bureau Population Estimates



Figure 2. New Orleans Race and Ethnicity, 2005 and 2006



\*includes the parishes of Jefferson, Plaquemines, St. Bernard, St. Charles, St. John the Baptist, and St. Tammany

\*\*Non-Hispanic members of race

Source: Authors' analysis of U.S. Bureau Population Estimates



One aspect of these estimates that may appear surprising in light of many news accounts over the post hurricane period is the relatively small Hispanic population that appears in the Census Bureau's 2006 estimates for New Orleans city and its metropolitan areas. According to these estimates, the Hispanic population declined in both areas between 2005 and 2006 and represents only a small 4–6 percent share of both populations. Hispanic shares in this range were reported in both the Census Bureau's 2006 population estimates as well as the 2006 American Community Survey. This is the case, despite the fact that both data sources included group quarter populations as well as household populations living in permanent residences. However, any group quarters that were established after the ACS sampling frame was established were not included in the survey. To the extent that Latino workers moved to New Orleans after the storm and lived in hastily arranged housing, it is very likely, that the transitory nature of temporary working conditions of primarily Hispanic construction and service workers has eluded traditional estimation and survey techniques.<sup>3</sup>

Overall, however, the census estimates make plain that the city of New Orleans sustained a much more substantial loss of its black population than of its whites, such that large numbers had not returned by July 2006. The black loss, however, was not sufficient to shift the racial composition of the city enough to affect its "majority minority" status. The fact that the bulk of the black loss occurred in the city rather than the suburbs, left the suburban racial composition relatively unchanged.

***B. New Orleans' 2006 post-storm population was smaller, older, more educated, less poor, with fewer renters, and fewer households with children than was recorded in Census 2000.***

Having established that both the city and met-

ropolitan area of New Orleans were both substantially smaller and more white in 2006 than before the hurricane, we now turn to examining how other aspects of their socioeconomic profiles were altered in the first year after the storm. Much speculation has been given about the income profile of the population in Orleans Parish, since Hurricane Katrina and subsequent flooding flattened homes in the Lower Ninth Ward and other low-income neighborhoods, and officials have yet to re-open many of the public housing developments in the city. Does this mean the smaller post-hurricane population is somewhat better off financially? There is also concern about the presence or return of households with children, given the slow rebuilding of the city's school system.

As discussed above, the 2006 ACS allows us to look at the "after" population of 2006 on these and other dimensions, and compare it with the demographic snapshot that was taken with the 2000 Census. We first look at the city of New Orleans with respect to the before and after age composition shown in Figure 3. What is clear is that post-storm New Orleans was an older city. The "under 45" population became smaller, from 67 percent of the population in 2000 to just 56 percent in 2006, with children and young adults comprising a significantly lower share of the population. This reflects a smaller return of young people and families with children, a phenomenon which will be addressed more fully later.

Beyond the changing age distribution, the measures shown in Table 2 reveal that the city is also more highly educated with a significantly higher percentage of adults who are college graduates and a lower share who have not graduated from high school. This reflects the out-migration of people with fewer resources. Nonetheless, the "after" population has a higher share of adults with only high school diplomas than was the case in 2000.

A more direct measure of income is an assessment of the poverty population. By 2006, the share of the population in New Orleans that is poor dropped by nearly 6 percentage points from 2000. The poverty percentages are lower for whites as well as blacks, though only the former is statistically significant. Further, it is clear that homeowners were more likely to have stayed or returned one year after Katrina.

Aside from these measures of social well being, we also examine which household types lived in the city and region. The measures on Table 2 make plain that households with children, both married couples and female-headed households, were less represented in the city in 2006 than before the hurricane. This reflects the reluctant in-movement of households with children. More represented in the post-hurricane population are married couples without children and persons living alone.

One additional attribute that we looked at was

pre- and post-storm labor force participation, and we found that there were similar levels of participation in 2006 as in 2000.

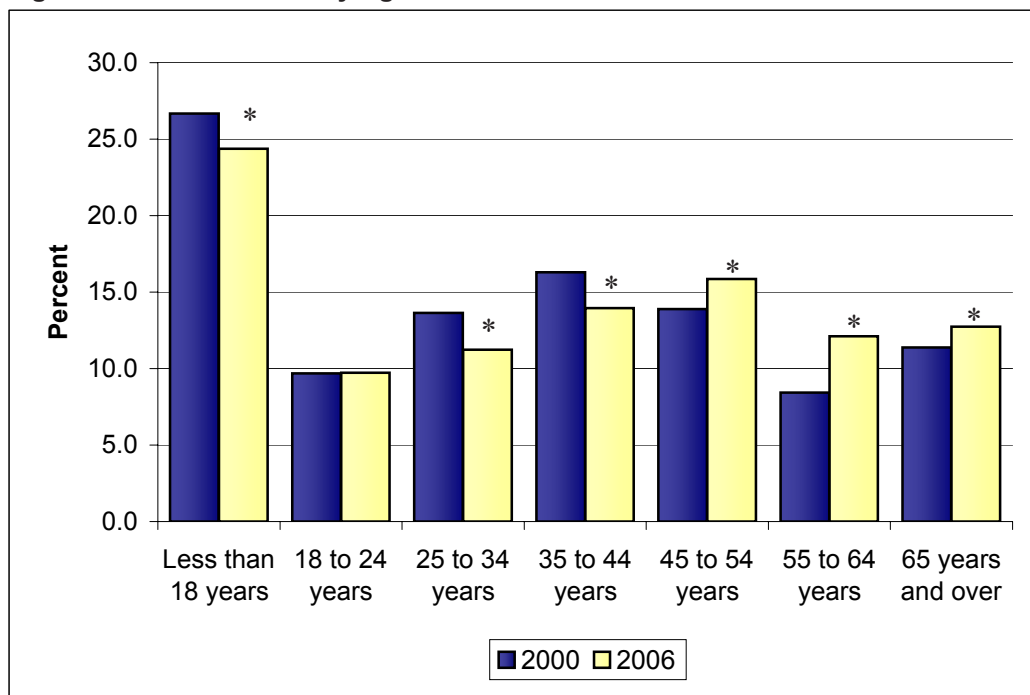
It is clear that the migration flows, both out and in, impacted the city of New Orleans in ways that made the post-Katrina population somewhat older, better educated, and less poor, with a higher share of homeowners and households without children. And while some of these attributes—higher education, greater home ownership and fewer low income people—could be taken as a positive sign for development, it is troubling that those more dynamic segments of the community—younger people and families with children are less well represented in the post-storm city.

A similar comparison of 2006 with 2000 attributes for New Orleans metropolitan area is presented in Table 3. For the most part, the same post-hurricane demographic changes seen for the city are evident for the metropolitan area.

The metropolitan area was also somewhat older

in 2006 such that its under 45 population was reduced from 65 percent to 59 percent (data not shown) As with the city, the post-hurricane metro area is left with a population that is more highly educated, less poor, with higher shares of homeowners and childless households. This suggests that a good part of the city's outmigrating population

**Figure 3. New Orleans City Age Distribution**



\*Statistically different from 2000 value at 90% confidence level

Source: Authors' analysis of U.S. Census Bureau 2006 American Community Survey

**Table 2. Selected Characteristics for New Orleans City: 2000 Census and 2006 ACS**

Person and Household Characteristics	(% unless otherwise noted)		
	2000 Census	2006 ACS	Difference
<b>Education Attainment (population 25 years and older)</b>			
Less than High School	25.3	18.9	-6.4*
High School	23.5	27.4	3.9*
Some College	25.5	22.0	-3.5*
Bachelors or higher	25.8	31.7	5.9*
TOTAL**	100.0	100.0	
<b>Employment Status (population 16 and over)</b>			
In labor force	57.8	59.0	1.2
Not in labor force	42.2	41.0	-1.2
TOTAL**	100.0	100.0	
<b>Unemployed (civilian labor force)</b>	9.4	12.0	2.5*
<b>Households by Type</b>			
<i>Family Households (families)</i>	60.5	54.6	-5.9*
With own children under 18 years	30.1	17.7	-12.4*
Married-couple families	31.7	33.5	1.8
With own children under 18 years	13.8	10.0	-3.8*
Female householder, no husband present	24.3	17.0	-7.3*
With own children under 18 years	14.3	6.9	-7.4*
<i>Non-family households</i>	39.5	45.4	5.9*
Household living alone	33.1	37.8	4.7*
65 years and over	9.4	10.9	1.5
TOTAL	100.0	100.0	
<b>Individuals Below Poverty by Race/Ethnicity</b>			
White (Non-Hispanic)	11.0	9.0	-2.0*
Black (overlap with Hispanic)	35.0	30.6	-4.4
Hispanic	22.1	N/A	N/A
All individuals	27.9	22.2	-5.7*
<b>Home Ownership by Race/Ethnicity</b>			
White (Non-Hispanic)	55.9	61.5	5.6*
Black (overlap with Hispanic)	41.9	41.4	-0.5
Hispanic	40.0	47.4	7.4
All individuals	46.5	50.7	4.2*

\*Significant at 90% confidence level

\*\*Totals may not add up to 100 due to rounding

Source: Authors' analysis of U.S. Census Bureau data



**Table 3. Selected Characteristics for the New Orleans Metropolitan Area: 2000 Census and 2006 ACS**

Person and Household Characteristics	(% unless otherwise noted)		
	2000 Census	2006 ACS	Difference
<b>Education Attainment (population 25 years and older)</b>			
Less than High School	22.3	17.4	-4.9*
High School	28.1	31.1	3.0*
Some College	26.9	26.2	-0.7
Bachelors or higher	22.8	25.3	2.5*
TOTAL**	100.0	100.0	
<b>Employment Status (population 16 and over)</b>			
In labor force	61.3	61.8	0.5
Not in labor force	38.7	38.3	-0.4
TOTAL**	100.0	100.0	
<b>Unemployed (civilian labor force)</b>	6.7	7.9	1.1
<b>Households by Type</b>			
<i>Family Households (families)</i>	67.7	68.0	0.3
With own children under 18 years	33.5	28.0	-5.5*
Married-couple families	45.4	48.8	3.4*
With own children under 18 years	21.0	19.0	-1.9*
Female householder, no husband present	17.9	13.8	-4.1*
With own children under 18 years	10.4	6.6	-3.7*
<i>Non-family households</i>	32.3	32.0	-0.3
Household living alone	27.2	26.7	-0.5
65 years and over	8.5	8.7	0.2
TOTAL	100.0	100.0	
<b>Individuals Below Poverty by Race/Ethnicity</b>			
White (Non-Hispanic)	8.7	7.9	-0.8
Black (overlap with Hispanic)	33.0	27.8	-5.2*
Hispanic	16.2	14.1	-2.1
All individuals	18.3	14.8	-3.5*
<b>Home Ownership by Race/Ethnicity</b>			
White (Non-Hispanic)	71.5	76.5	5.0*
Black (overlap with Hispanic)	45.4	49.8	4.4*
Hispanic	50.6	58.5	7.9*
All households	61.5	68.3	6.8*

\*Significant at 90% confidence level

\*\*Totals may not add up to 100 due to rounding

Source: Authors' analysis of U.S. Census Bureau data

left the entire region rather than moving to the suburbs—a subject taken up in a later section.

**C. Compared with “stayers” in the city of New Orleans, out-migrants were younger, poorer, more likely to be black, and more likely to have children.**

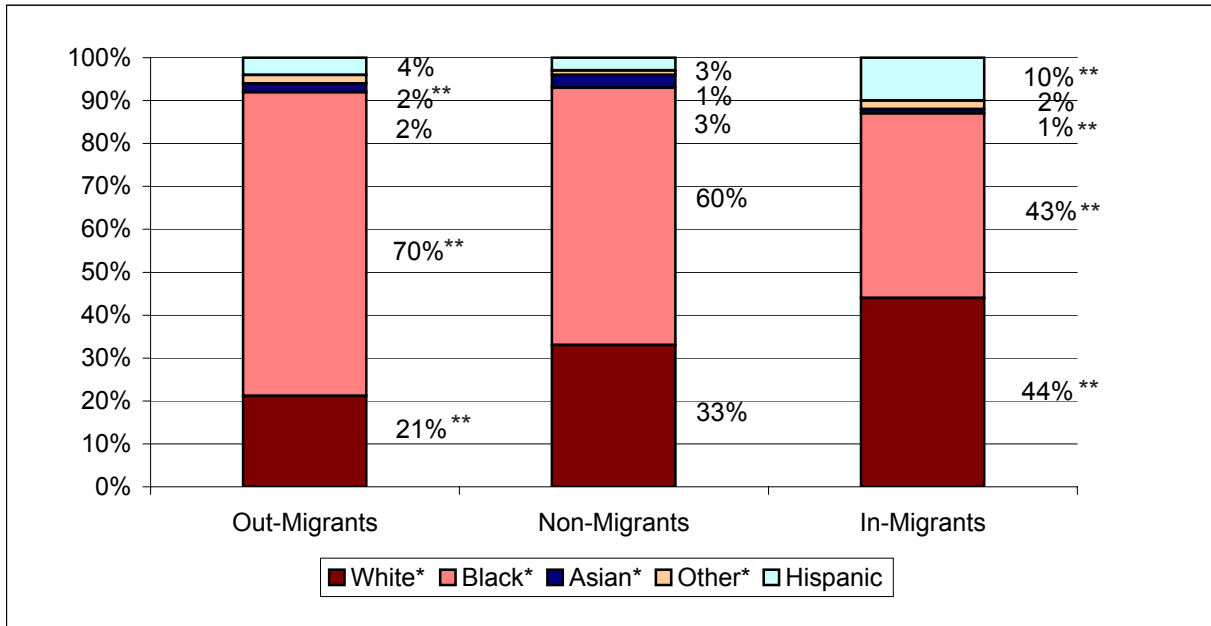
In this section we focus on the city of New Orleans, and turn from a static “before and after” the storm comparison of its sociodemographic profile toward a look at the migration dynamics that contributed to this change. This is possible with the 2006 American Community Survey because it queries residents on where they resided exactly one year earlier. As discussed in the Data and Methodology section, this survey misses a subset of moves because of the timing of interviews over the course of the year. However, it should give a good sense of how socio-demographic attributes differ between movers and stayers/returnees.

Specifically, we look at attributes of out-movers from New Orleans in 2005–2006 and compare them with those who stayed in the city over that period. We also make a comparison between these stayers and the much smaller number of persons who moved into the city in 2005–2006. The data for these comparisons are presented in Figures 4 and 5 and Tables 4 and 5.

The race-ethnic selectivity of migration for New Orleans is depicted in Figure 4, which shows that out-migrants from New Orleans were more likely to be black and less likely to be white than non-migrants. Equally important is that the in-migrants to the city are made up of a flow where blacks and whites are equally represented. In addition, compared with non-migrants there is a higher percentage of Hispanics among the in-migrants.

In terms of scale, the estimate of the number of migrants who left the city is similar in size to the population that stayed; whereas the in-migrant

**Figure 4. Race-Ethnicity of New Orleans In-Migrants, Non-Migrants and Out-Migrants, 2005–2006**



\*Non-Hispanic members of race group

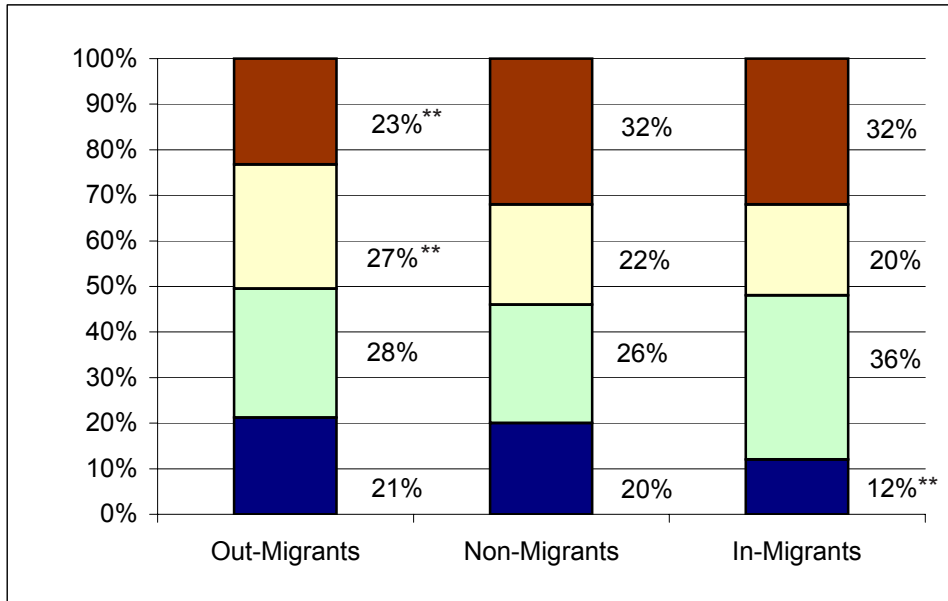
\*\*Significantly different from nonmigrants at 90% confidence level

Source: Authors' analysis of U.S. Census Bureau 2006 American Community Survey data

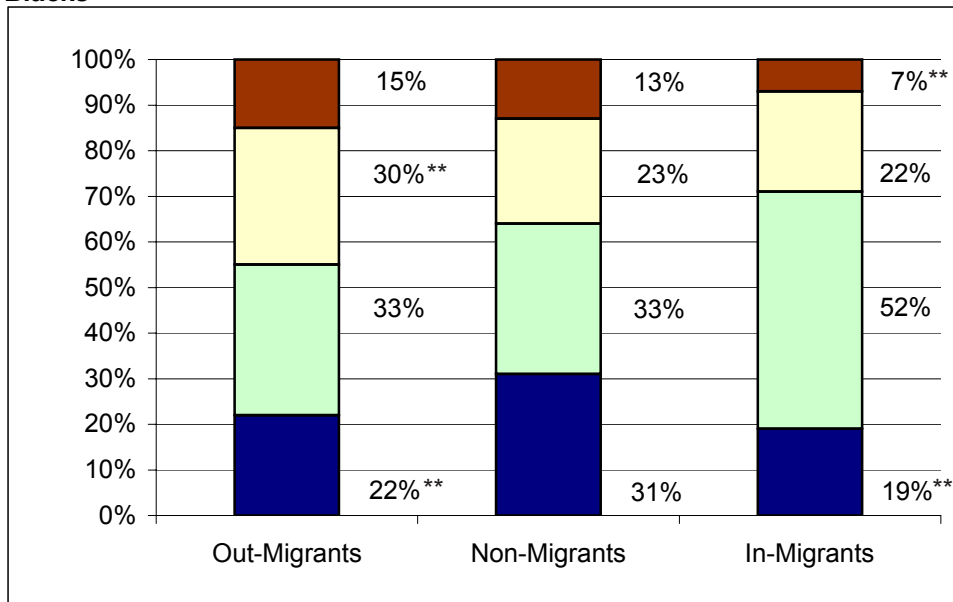


Figure 5. Education of New Orleans In-Migrants\*\*, Non-Migrants and Out-Migrants, 2005–2006

Total



Blacks



■ Less than High School   ■ High School Grad   ■ Some College   ■ College Grad

\*Non-Hispanic members of race group

\*\*Significantly different from nonmigrants at 90% confidence level

Source: Authors' analysis of U.S. Census Bureau 2006 American Community Survey data

**Table 4. New Orleans: Profiles of Out-Migrants, Non-Migrants, and In-Migrants, 2005–2006**

Profiles	Out Migrants	Non-Migrants	In-Migrants	Out-Migrants minus Non-Migrants	In-Migrants minus Non-Migrants
<b>Age**</b>					
1 to 14 years	19.4	18.2	10.3	1.2	-7.9*
15 to 24 years	17.9	13.8	31.0	4.1*	17.3*
25 to 34 years	15.6	9.1	12.7	6.6*	3.6*
35 to 44 years	14.6	12.7	13.5	1.9*	0.8
45 to 54 years	13.6	17.4	9.9	-3.8*	-7.4*
55 to 64 years	8.9	13.8	12.3	-4.8*	-1.4
65 years and over	10.0	15.1	10.1	-5.2*	-5.0*
Total	100.0	100.0	100.0		
<b>Household Type***</b>					
Married couple, with children	13.9	12.1	4.3	1.8	-7.8*
Married couple, no children	13.6	22.7	29.3	-9.1*	6.6
Single householder with children	21.9	11.3	12.0	10.6*	0.8
Single householder, no children	8.1	10.7	8.3	-2.6	-2.3
Nonfamily household	42.4	43.2	45.9	-0.8	2.7
Total	100.0	100.0	100.0		
<b>Income to Poverty Ratio****</b>					
Under 1.0	37.7	21.0	26.8	16.7*	5.9
1.0 to 1.49	12.0	13.1	11.4	-1.2	-1.8
1.5 to 1.99	8.8	8.6	7.8	0.2	-0.8
2.0 to 2.99	13.2	13.6	13.0	-0.4	-0.6
3.0 and above	28.4	43.7	41.0	-15.3*	-2.7
Total	100.0	100.0	100.0		
<b>Total Population**</b>	197,130	195,690	23,730		
(90% margin of error)	(+/-12,310)	(+/-4,062)	(+/-3,663)		

\*Statistically significant at 90% confidence level

\*\*Persons age 1 and above

\*\*\*Householders classed by household type

\*\*\*\*Persons age 1 and above, for whom poverty status is determined. Those with a ratio under 1.0 are under the official poverty line.

Source: Authors' analysis of US Census Bureau 2006 American Community Survey

**Table 5. New Orleans: Profiles of Black Out-Migrants, Non-Migrants, and In-Migrants, 2005–2006**

Profiles	Out Migrants	Non-Migrants	In-Migrants	Out-Migrants minus Non-Migrants	In-Migrants minus Non-Migrants
<b>Age**</b>					
1 to 14 years	22.3	23.8	17.1	-1.4	-6.6
15 to 24 years	20.0	14.3	28.0	5.7*	13.7*
25 to 34 years	13.7	8.4	5.1	5.3*	-3.4*
35 to 44 years	13.0	10.8	13.3	2.3*	2.5
45 to 54 years	14.7	18.0	9.1	-3.2*	-8.8*
55 to 64 years	8.6	13.2	15.7	-4.5*	2.5
65 years and over	7.5	11.6	11.7	-4.0*	0.1
Total	100.0	100.0	100.0		
<b>Household Type***</b>					
Married couple, with children	13.8	10.6	3.9	3.2	-6.7*
Married couple, no children	10.9	15.9	30.5	-5.0*	14.6
Single householder with children	26.8	18.7	25.6	8.1*	6.9
Single householder, no children	9.5	16.9	16.7	-7.4*	-0.2
Nonfamily household	39.0	38.0	23.3	1.0	-14.7
Total	100.0	100.0	100.0		
<b>Income to Poverty Ratio****</b>					
Under 1.0	44.9	29.3	34.5	15.6*	5.1
1.0 to 1.49	12.3	14.8	14.1	-2.5	-0.7
1.5 to 1.99	8.9	10.4	7.2	-1.4	-3.2
2.0 to 2.99	11.7	15.2	16.8	-3.5	1.6
3.0 and above	22.2	30.3	27.5	-8.1*	-2.8
Total	100.0	100.0	100.0		
<b>Black Population**</b>					
(90% margin of error)	138,505 (+/-10,535)	117,315 (+/-3,512)	10,175 (+/-3,186)		

\*Statistically significant at 90% confidence level

\*\*Persons age 1 and above

\*\*\*Householders classed by household type

\*\*\*\*Persons age 1 and above, for whom poverty status is determined.

Source: Authors' analysis of US Census Bureau 2006 American Community Survey

population is roughly one-eighth of the non-migrant population (See bottom panel of Table 4). Thus the in-migration flow over the 2005–2006 period had a small impact.

Figure 5 makes a similar comparison for the education attainment of adult movers and stayers, ages 25 and over. Overall out-migrants are somewhat less well educated than the non-

migrant population in the sense that a larger share are not college graduates. In-migrants have a similar level of college graduates as the non-migrating population but a significantly smaller share of high school dropouts. As a result of both flows, migration had the impact of “upgrading” the educational attainment of the population, at least as captured in the 2005–2006 period.



The pattern for blacks, also shown in Figure 5, is somewhat different. Black out-migrants differ from non-migrants in that they are overrepresented by persons with some college, and underrepresented by high school dropouts. Black in-migrants are overrepresented by those who only hold a high school diploma. Overall these data show that black out-migration was not as selective of the least-well educated as is commonly perceived.

The attributes for migrants and non-migrants for the overall population are shown in Table 4. These data make plain why our earlier comparisons showed the city became older, more childless, and less poor after the storm. That is, compared with non-migrants, out-migrants are disproportionately younger, single parent householders with children, and more likely to be poor. As compared with nonmigrants, a smaller number of in-migrants are less likely to be married couples with children. In-migrants are more likely to be teens and young adults than the non-migrating population; however the much larger numbers of young out-migrants dwarfs this effect.

Table 5 shows a similar analysis restricted to black movers and stayers for the city of New Orleans. As with whites, black-out-migrants were most likely to be young and poor, and not childless and in-migrants were more likely to be childless couples. It is clear that these patterns for blacks drive the overall patterns for the city.

***D. The primary metropolitan destination for black New Orleans out-migrants was Houston, whereas for whites, most moved elsewhere in the New Orleans metropolitan area.***

While the previous section discussed the sociodemographic attributes of all in-migrants and out-migrants to New Orleans city, this section examines the origins and destinations of migrants to and from New Orleans. This is

especially relevant to speculation that some of the less well off and minority populations were transported to far flung areas, via evacuee assistance programs or to live with relatives. It was suggested that these migrants, in particular, would be less likely to receive information about returning to New Orleans and would have fewer resources to make a move back to the city.

To begin, we examine Internal Revenue Service migration flow patterns for out-migrants from the city in New Orleans for 2004–2005, the year before the hurricane, and 2005–2006 to capture the out-migrants. The latter out-migration flow is more than six times as large and, as shown in Figure 6, and the destinations are quite different. While pre-Katrina, nearly two thirds of city out-migrants went to other parishes within the New Orleans metropolitan area, less than one fifth of 2005–2006 out-migrant destinations relocated within the metro area. Instead, 82 percent of migrants located outside the New Orleans metro area, with 37 percent locating somewhere in Texas.

Table 6 lists the top destination parishes and counties for each of these two periods. In 2004–2005, nearby Jefferson parish was the top destination for New Orleans out-migrants while in 2005–2006, Harris County in the Houston metropolitan area was the primary migrant destination. The next most popular destinations the year before Katrina were Jefferson Parish and East Baton Rouge Parish in the Baton Rouge metropolitan area. But the year after Katrina, the destinations were far more scattered with counties in the Dallas, San Antonio, Atlanta, Memphis, and Austin regions among the top 15 destinations.

A more complete view of hurricane year destinations is displayed in Map 2 which shows the breadth of moves taken throughout nearby states. Also depicted in this map, are average



**Table 6. New Orleans City Greatest Out Migration Counties, 2004–2005 and 2005–2006**

Rank	County/Parish	State	Metropolitan Area	Percentage of All Out-Migrants	Average Household AGI (2005 \$)	Average Household Size
<b>Greatest Out- Migration Destinations 2004–2005</b>						
1	Jefferson Parish	LA	New Orleans	40.1	31,382	2.08
2	St Tammany Parish	LA	New Orleans	8.8	49,477	2.14
3	St Bernard Parish	LA	New Orleans	4.0	25,168	2.24
4	Harris County	TX	Houston	2.4	61,757	1.90
5	East Baton Rouge Parish	LA	Baton Rouge	2.2	30,342	1.75
6	St John The Baptist	LA	New Orleans	1.5	32,109	2.30
7	Dallas County	TX	Dallas-Fort Worth	1.2	32,075	2.10
8	St Charles Parish	LA	New Orleans	1.1	32,517	2.37
9	Plaquemines Parish	LA	New Orleans	0.9	38,480	2.19
10	Los Angeles County	CA	Los Angeles	0.7	26,642	1.31
11	Tarrant County	TX	Dallas-Fort Worth	0.7	35,987	2.01
12	Fulton County	GA	Atlanta	0.7	45,207	1.76
13	De Kalb County	GA	Atlanta	0.6	32,101	1.73
14	Cook County	IL	Chicago	0.6	30,366	1.42
15	Tangipahoa Parish	LA	Hammond, LA	0.6	28,526	2.08
<b>Greatest Out- Migration Destinations - 2005–2006</b>						
1	Harris County	TX	Houston	19.5	19,602	2.35
2	Jefferson Parish	LA	New Orleans	13.2	33,304	2.00
3	East Baton Rouge Parish	LA	Baton Rouge	6.8	28,149	2.13
4	Dallas County	TX	Dallas-Fort Worth	5.1	19,856	2.29
5	St Tammany Parish	LA	New Orleans	2.6	42,675	1.97
6	Tarrant County	TX	Dallas-Fort Worth	2.6	21,679	2.34
7	Bexar County	TX	San Antonio	1.6	18,606	2.23
8	Fulton County	GA	Atlanta	1.5	26,126	2.14
9	De Kalb County	GA	Atlanta	1.4	23,867	2.18
10	Shelby County	TN	Memphis	1.2	26,571	2.17
11	Cobb County	GA	Atlanta	1.1	23,174	2.30
12	Travis County	TX	Austin	1.1	29,640	2.07
13	Lafayette Parish	LA	Lafayette, LA	1.0	31,177	2.02
14	Collin County	TX	Dallas-Fort Worth	1.0	25,349	2.24
15	St John The Baptist	LA	New Orleans	1.0	31,309	2.17

Source: Authors' analyses of Internal Revenue Service migration data

incomes of New Orleans migrant flows to various county destinations. It is clear from this that it more distant moves were most likely associated with lower income IRS filers, whereas close in moves to New Orleans metro and Baton Rouge showed higher incomes. For the top ten 2005–2006 destinations in Table 6, for example, only movers to the Louisiana parishes have household incomes greater than the average of all out-migrant streams (\$26,815). Movers to Jefferson Parish and East Baton Rouge Parish had household incomes of \$33,304 and \$28,149, respectively. In contrast, movers to farther away Texas counties of Harris and Dallas had average household incomes of \$19,602 and \$19,856. In particular, Harris County's migrant average household income went from the highest, \$61,757 of the destinations in 2004–2005 to the lowest in 2005–2006. Movers to out of state counties also had more dependents per household than those who moved nearby. Thus, the speculation that less well off movers were locating further afield are supported by this data.

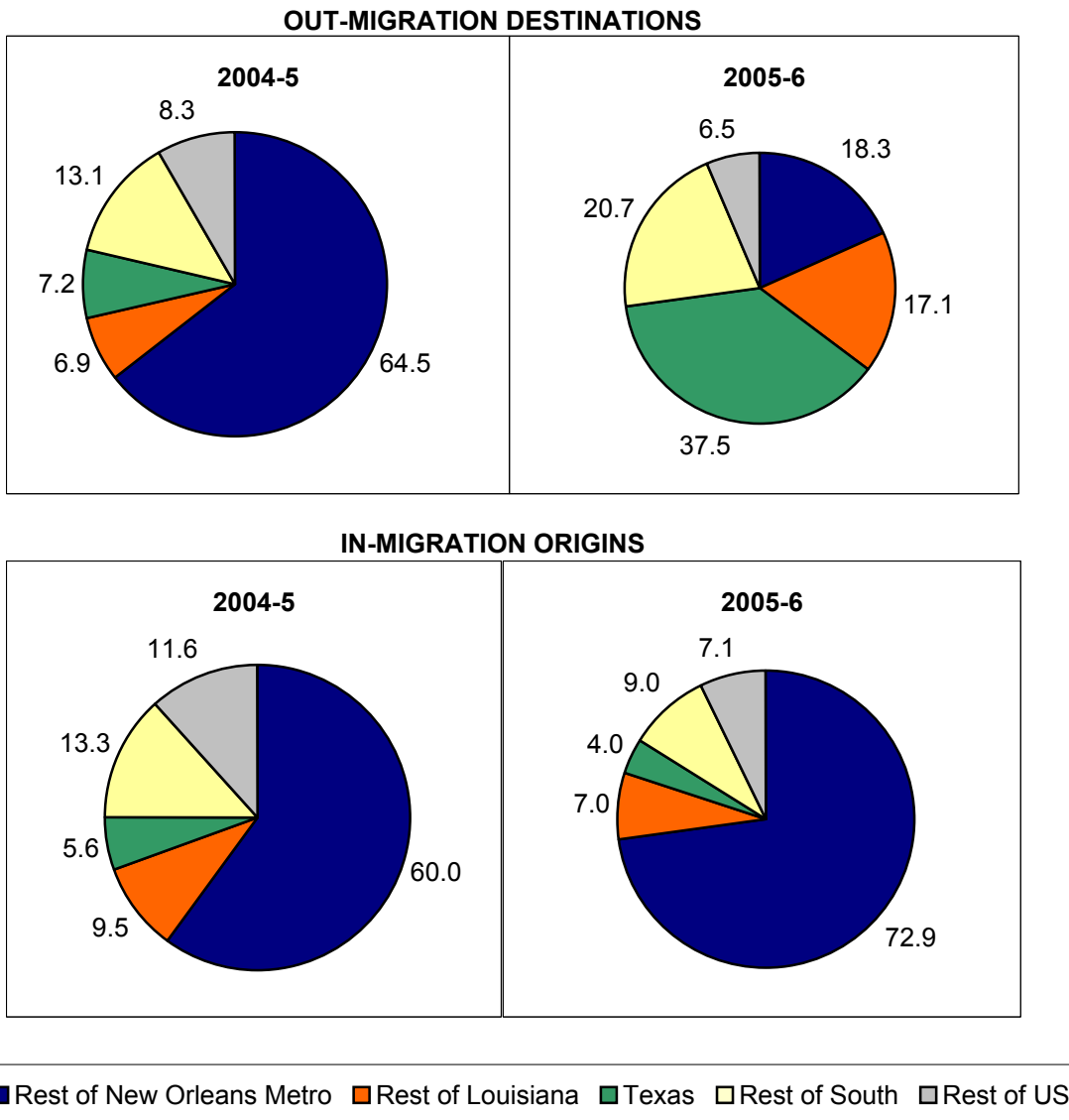
It is the case that the primary destinations of whites were more likely to be close in areas than was the case for blacks. This is shown in Table 7, based on the 2006 ACS migration data, which lists the most prominent metropolitan area destinations of whites and blacks for the 2005–2006 period. For whites, moving to the rest of the New Orleans metropolitan area was by far the most prominent location of out-migrants, followed by moves to nearby Baton Rouge. For blacks, in contrast, the primary destination was the Houston metropolitan area, followed also by nearby Baton Rouge. But Dallas and Atlanta are also significantly more prominent than destinations further down the list. This, coupled with the lower incomes of movers who located to these more distant destinations, may explain why blacks were less networked into the recov-

ery process and less likely to be represented in 2005–2006 New Orleans in-migrant population as shown above.

Finally, we turn more specifically to the origins of in-migrants to the city of New Orleans based as registered with the IRS migration data. It is clear from Figure 6 (lower panel) that the origins of 2005–2006 in-migrants are more prone to be from the rest of New Orleans metropolitan area than was the case in 2004–2005. In fact, nearly 4 out of 5 moves back to the city in 2005–2006 were either from the rest of the metro or the rest of Louisiana. In contrast, only 7 percent of arrivals came from Texas. It is certainly likely, as discussed in the Data and Methodology section that the far off in-moves might be underreported with the IRS data. But the overall magnitude of close-in moves from local origins suggest this is the dominant type of in move, and contrasts markedly from the distribution of out-migrants. The primary origin counties for these moves (data not shown) were the parishes of Jefferson, St Bernard, St. Tammany, and Plaquemines parishes in the New Orleans metro, and East Baton Rouge Parish in the Baton Rouge metro area. Together, these five parishes represented 55 percent of 2005–2006 in migrants to the city. Moreover, the income data show that each of these in-migrant flows had average household incomes well above the average incomes of the average out-migration flows from the city.

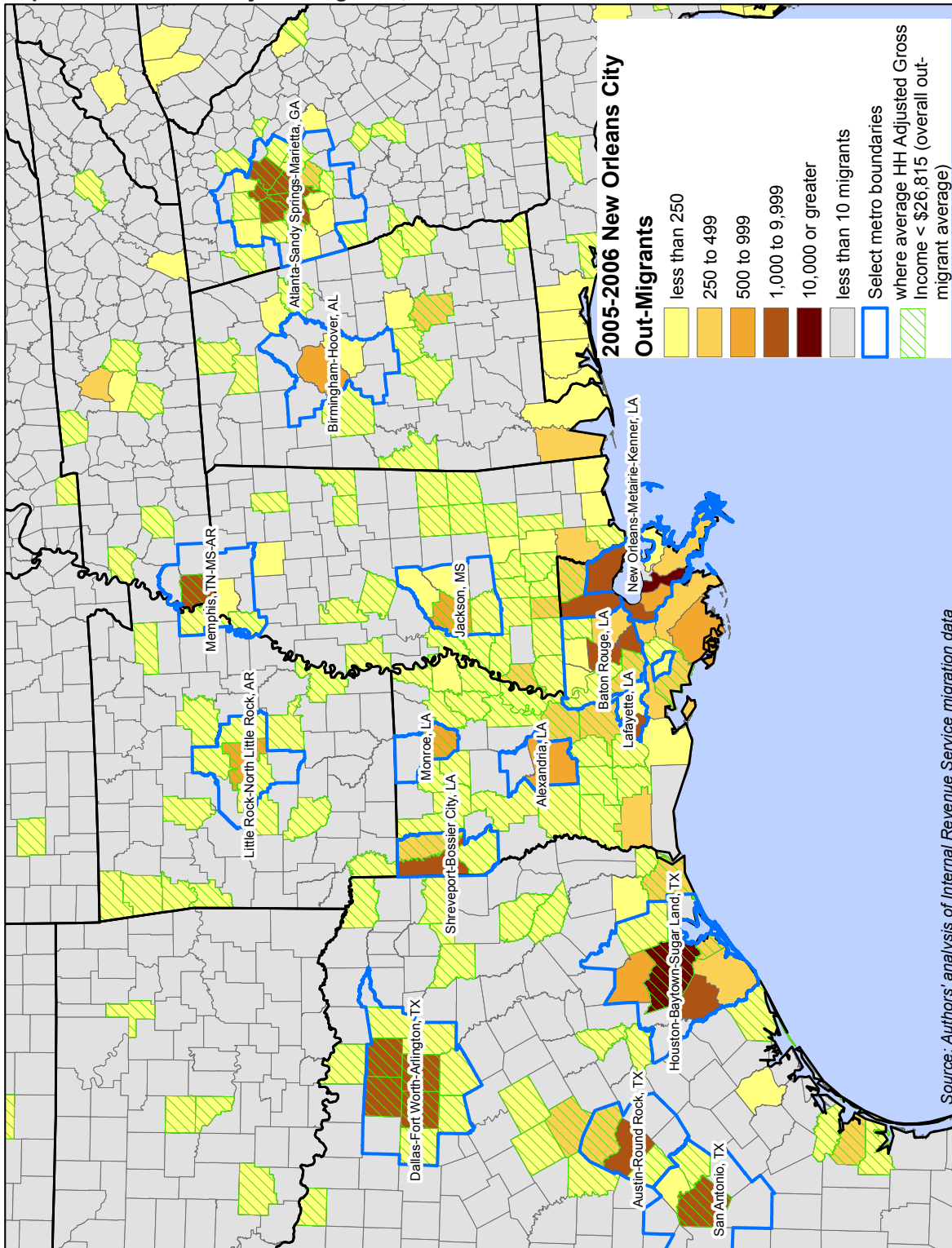
In sum, this analysis of migration flows is consistent with the view that black and low income city out-migrants were more prone to locate in distant destinations than whites and higher-income movers. The latter were more likely to move to the rest of the New Orleans metropolitan area or Baton Rouge, and were more represented among 2005–2006 in migrants back to the city.

**Figure 6. New Orleans Migrant Destination and Origin Distributions, 2004–2005 and 2005–2006**



Source: Authors' analysis of IRS Migration data

Map 2. New Orleans City Out-Migrants, 2005–2006



**Table 7. New Orleans City Greatest 2005–2006 Out-Migration Metros, Whites and Blacks**

Rank	Metro Area	Share of Out-Migrants
<b>Destinations for Whites</b>		
1	Rest of New Orleans Metro	28.6*
2	Baton Rouge	8.0
3	Dallas-Fort Worth	5.2
4	Houston	3.6
5	Shreveport LA	3.3
6	Austin	2.8
7	Pensacola, FL	2.0
8	Los Angeles	1.9
9	Miami	1.7
	All White Out-Migrants	42,000 (+/-5,499)**
<b>Destinations for Blacks</b>		
1	Houston	24.5*
2	Rest of New Orleans	13.4
3	Baton Rouge	11.6
4	Dallas-Fort Worth	8.7
5	Atlanta	7.2*
6	Shreveport, LA	2.6
7	Lafayette, LA	1.2
8	San Antonio, TX	1.1
9	Washington DC	1.0
	All Black Out-Migrants	138,505(+/-10,535)**
	Total Out-Migrants (all races)	197,130(+/-12,310)**

\*Significantly different from destinations below at 90% confidence level

\*\* margin of error

Source: Authors' analyses 2006 American Community Survey

## Conclusion

There is no doubt that the city of New Orleans looks different today than it did one year ago, as represented by the data analysis here. However, examining the one-year period straddling the storm and its aftermath marks an important moment of change for New Orleans and surrounding parishes. This report gives a first full picture—one year after the storm—of how the socio-demographic profile of the region has changed as a result of population shifts that occurred after hurricanes Katrina and Rita hit in August and September of 2005.

The findings of this study show that the significant post-hurricane population shift greatly altered the race-ethnic composition of the city and region by 2006. While the city of New Orleans is still majority black, nearly a year after the hurricane it had lost almost three-fifths of its original black population, as well as more than a third of its whites. Thus the city's black share was reduced from 67 percent in 2005 to 58 percent in 2006. The metropolitan area also became less black than was the case before the hurricane, but this was predominantly due to the loss of blacks from New Orleans itself. The racial composition of the suburbs changed minimally over the course of the year.

The “before and after” comparisons on other socio-demographic attributes showed that the city of New Orleans' population became older, more well educated, less poor, and had a higher percentage of homeowners and childless households as a result of the 2005–2006 population shifts. The fact that the metropolitan area evidenced similar

changes reflected the fact that lower income and black migrants moved to locations outside the metropolitan area, whereas the higher income and white in-migrants were more apt to move within the metropolitan area

Out-migrants during the 2005–2006 period were more likely to be black, younger, poorer, less well educated, and households with children than those who did not migrate. Concurrently the much smaller in-migration flows were more likely to be white, childless, better educated, and also younger than the non migrating population. However the much larger volume of younger out-migrants is what has contributed to the city's 2006 older age structure. It is clear that New Orleans lost a good share of its young people, and especially young families—populations which are necessary to energize and sustain communities.

It is also apparent that a large segment of less well off and black movers moved to Texas and other far away places, and seem less likely to have returned to the city by 2006. While pre-hurricane New Orleans has long been noted as an exceptionally rooted population, there is some question about how many of these long distance evacuees have returned in 2007 or will eventually return if they become established in their new locales.

Many questions remain about the future of the population of New Orleans. Going forward it will become harder to track the movements of those displaced by Katrina, simply because the data to do so will not be available. However we will still be able to see the net effect of the Katrina diaspora in the demographic composition of the city and its surrounding suburbs.

## References

Claritas, 2007, "New Katrina Adjusted Population and Household Estimates."  
[http://www.claritas.com/claritas/Default.jsp?ci=1&pn=hurricane\\_katrina\\_data](http://www.claritas.com/claritas/Default.jsp?ci=1&pn=hurricane_katrina_data) [ Accessed Sept, 2007]

Frey, William H. and Audrey Singer, 2006 "Katrina and Rita Impacts on Gulf Coast Populations: First Census Findings" Washington DC: The Brookings Institution Metropolitan Policy Program. [http://www.brookings.edu/metro/pubs/20060607\\_hurricanes.htm](http://www.brookings.edu/metro/pubs/20060607_hurricanes.htm) [Accessed Sept 2007]

Frey, William H. 2007. "New Orleans: A 'Whole Other City'?" *The Times-Picayune*, August 28. <http://www.brookings.edu/views/op-ed/wfrey/20070828.htm> [Accessed Sept 2007]

Gross, E. Internal Revenue Service Area-to-Area Migration Data: Strengths, Limitations, and Current Trends. IRS. 2005.

Liu, Amy and Allison Plyer. 2007. "The New Orleans Index: A Review of Key Indicators of Recovery Two Years After Katrina" Washington DC: The Brookings Institution Metropolitan Policy Program and Greater New Orleans Community Data Center. <http://www.gnocdc.org/KI/KatrinaIndex.pdf> [Accessed Sept 2007]

Singer, Audrey and Katharine Donato, 2005. "In Katrina's Wake, Who Will Return?" [http://www.brookings.edu/views/op-ed/20050927\\_singer.htm](http://www.brookings.edu/views/op-ed/20050927_singer.htm) [Accessed Sept 2007]

## Endnotes

1. See for example, Louisiana Recovery Authority and Louisiana Department of Health and Hospitals, "Migration Patterns: Estimates of Parish Level Migrations due to Hurricanes Katrina and Rita" August 2007 and Claritas, 2007, "New Katrina Adjusted Population and Household Estimates."
2. In an earlier report (Frey and Singer, 2006) which examined shifts between pre and post hurricane conditions between January–August 2005, and September–December 2005, a much greater shift in the metropolitan area's race-ethnic composition was reported, with the black share reduced to 21 percent. This could reflect the fact that some black evacuees would later return, as well as the inadequacies from a survey that was taken in the midst of the immediate recovery period.
3. See Katharine M. Donato, Nicole Trujillo-Pagan, Carl L. Bankston III, and Audrey Singer, "Reconstructing New Orleans After Katrina: The Emergence of an Immigrant Labor Market," in David L. Brunsma, David Overfelt, and J. Steven Picou (eds), *The Sociology of Katrina: Perspectives on a Modern Catastrophe*, (Lanham: Rowman and Littlefield, 2007).



**Appendix A. Population Change, Hurricane-Impacted Metropolitan Parishes and Counties, July 2004 to July 2006**

Metropolitan Area and County/Parish	Population			July 2004–July 2005 Change		July 2005–July 2006 Change	
	July 2004	July 2005	July 2006	Numeric Change	Percent Change	Numeric Change	Percent Change
<b>Alabama</b>							
Mobile, AL MSA (1 component)	398,945	399,851	404,157	906	0.2	4,306	1.1
Mobile (Central City: Mobile)	398,945	399,851	404,157	906	0.2	4,306	1.1
Tuscaloosa, AL MSA (3)	194,567	196,259	198,769	1,692	0.9	2,510	1.3
Greene	9,676	9,663	9,374	-13	-0.1	-289	-3.0
Hale	18,109	18,200	18,236	91	0.5	36	0.2
Tuscaloosa (Central City: Tuscaloosa)	166,782	168,396	171,159	1,614	1.0	2,763	1.6
<b>Louisiana</b>							
Baton Rouge, LA MSA (9)	725,725	731,322	766,514	5,597	0.8	35,192	4.8
Ascension	86,926	90,447	97,335	3,521	4.1	6,888	7.6
East Baton Rouge (Central City: Baton Rouge)	410,410	409,809	429,073	-601	-0.1	19,264	4.7
East Feliciana	20,834	20,703	20,922	-131	-0.6	219	1.1
Iberville	32,317	32,160	32,974	-157	-0.5	814	2.5
Livingston	105,707	108,958	114,805	3,251	3.1	5,847	5.4
Pointe Coupee	22,378	22,288	22,648	-90	-0.4	360	1.6
St. Helena	10,256	10,138	10,759	-118	-1.2	621	6.1
West Baton Rouge	21,826	21,634	22,463	-192	-0.9	829	3.8
West Feliciana	15,071	15,185	15,535	114	0.8	350	2.3
Houma, LA MSA (2)	198,083	199,004	202,902	921	0.5	3,898	2.0
Lafourche	91,801	91,910	93,554	109	0.1	1,644	1.8
Terrebonne (Central City: Houma)	106,282	107,094	109,348	812	0.8	2,254	2.1
Lafayette, LA MSA (2)	245,143	246,855	254,432	1,712	0.7	7,577	3.1
St. Martin	194,943	196,627	203,091	1,684	0.9	6,464	3.3
Lafayette (Central City: Lafayette)	50,200	50,228	51,341	28	0.1	1,113	2.2
Lake Charles, LA MSA (2)	193,832	194,319	192,316	487	0.3	-2,003	-1.0
Calcasieu	184,187	184,708	184,524	521	0.3	-184	-0.1
Cameron (Central City: Lake Charles)	9,645	9,611	7,792	-34	-0.4	-1,819	-18.9
New Orleans, LA MSA (7)	1,314,229	1,313,787	1,024,678	-442	0.0	-289,109	-22.0
Jefferson	452,083	451,049	431,361	-1,034	-0.2	-19,688	-4.4
Orleans (Central City: New Orleans)	459,048	452,170	223,388	-6,878	-1.5	-228,782	-50.6
Plaquemines	28,933	28,903	22,512	-30	-0.1	-6,391	-22.1
St. Bernard	65,536	65,147	15,514	-389	-0.6	-49,633	-76.2
St. Charles	49,886	50,554	52,761	668	1.3	2,207	4.4
St. John the Baptist	45,394	46,150	48,537	756	1.7	2,387	5.2
St. Tammany	213,349	219,814	230,605	6,465	3.0	10,791	4.9
<b>Mississippi</b>							
Gulfport-Biloxi, MS MSA (3)	252,408	254,616	227,904	2,208	0.9	-26,712	-10.5
Hancock	45,821	46,546	40,421	725	1.6	-6,125	-13.2
Harrison (Central City: Gulfport-Biloxi)	192,129	193,187	171,875	1,058	0.6	-21,312	-11.0
Stone	14,458	14,883	15,608	425	2.9	725	4.9
Hattiesburg, MS MSA (3)	129,629	131,402	134,744	1,773	1.4	3,342	2.5
Forrest (Central City: Hattiesburg)	74,269	74,915	76,372	646	0.9	1,457	1.9
Lamar	43,166	44,429	46,240	1,263	2.9	1,811	4.1
Perry	12,194	12,058	12,132	-136	-1.1	74	0.6
Jackson MSA, MS (5)	515,384	520,680	529,456	5,296	1.0	8,776	1.7
Copiah	28,998	28,932	29,223	-66	-0.2	291	1.0
Hinds (Central City: Jackson)	248,731	248,124	249,012	-607	-0.2	888	0.4
Madison	81,696	84,169	87,419	2,473	3.0	3,250	3.9
Rankin	128,416	131,521	135,830	3,105	2.4	4,309	3.3
Simpson	27,543	27,934	27,972	391	1.4	38	0.1
Pascagoula, MS MSA (2)	155,646	156,742	152,405	1,096	0.7	-4,337	-2.8



**Appendix A. Population Change, Hurricane-Impacted Metropolitan Parishes and Counties, July 2004 to July 2006 – Continued**

Metropolitan Area and County/Parish	Population			July 2004–July 2005 Change		July 2005–July 2006 Change	
	July 2004	July 2005	July 2006	Numeric Change	Percent Change	Numeric Change	Percent Change
George	20,711	21,171	21,828	460	2.2	657	3.1
Jackson (Central City: Pascagoula)	134,935	135,571	130,577	636	0.5	-4,994	-3.7
<b>Texas</b>							
Beaumont-Port Arthur, TX MSA (3)	382,661	383,140	379,640	479	0.1	-3,500	-0.9
Jefferson (Central City: Beaumont-Port Arthur)	50,232	50,958	51,483	726	1.4	525	1.0
Orange	247,811	247,185	243,914	-626	-0.3	-3,271	-1.3
Hardin	84,618	84,997	84,243	379	0.4	-754	-0.9
Houston, TX MSA	5,232,777	5,352,569	5,539,949	119,792	2.3	187,380	3.5
Austin	25,656	26,018	26,407	362	1.4	389	1.5
Brazoria	270,772	277,821	287,898	7,049	2.6	10,077	3.6
Chambers	28,121	28,491	28,779	370	1.3	288	1.0
Fort Bend	444,141	466,231	493,187	22,090	5.0	26,956	5.8
Galveston	271,654	277,330	283,551	5,676	2.1	6,221	2.2
Harris (Central City: Houston)	3,695,348	3,762,844	3,886,207	67,496	1.8	123,363	3.3
Liberty	74,939	75,221	75,685	282	0.4	464	0.6
Montgomery	362,981	379,028	398,290	16,047	4.4	19,262	5.1
San Jacinto	24,504	24,784	24,760	280	1.1	-24	-0.1
Waller	34,661	34,801	35,185	140	0.4	384	1.1

\*Hurricane-impacted areas are those receiving FEMA Assistance on October 7, 2005 for Hurricane Katrina or October 20, 2005 for Hurricane Rita.  
 Source: Authors' analysis of U.S. Census Bureau Population Estimates

**Acknowledgments:**

The authors are indebted to many colleagues at The Brookings Institution Metropolitan Policy Program for their assistance: Brooke DeRenzis, David Jackson, Amy Liu, Elena Sheridan, and Jill Wilson. We also owe a debt of gratitude to Allison Plyer of the Greater New Orleans Community Data Center for her insights and advice. We are also grateful to Cathy Sun of the University of Michigan Population Studies Center for her advice and assistance in formulating migration tabulations from the American Community Survey and Internal Revenue Service data. Most importantly, we wish to acknowledge the cooperation of and assistance of Susan Schechter, Lisa Blumberman and Douglas Hillmer and their colleagues at the US Census Bureau American Community Survey Office for their cooperation in giving us access and advice in guiding us through the ACS data.

The Brookings Metropolitan Policy Program thanks The Fannie Mae Foundation, The George Gund Foundation, The Heinz Endowments, The John D. and Catherine T. MacArthur Foundation, and The Rockefeller Foundation for their general operating support. In addition, Brookings would like to thank The Annie E. Casey Foundation for its support of our research on concentrated poverty, and Living Cities, Inc.: The National Community Development Initiative, for its support of analyses of key demographic trends throughout the U.S.

**For More Information:**

William H. Frey  
Senior Fellow  
The Brookings Institution Metropolitan Policy Program  
(202) 797-6292 or 888-257-7244  
[wfrey@brookings.edu](mailto:wfrey@brookings.edu)

Audrey Singer  
Senior Fellow  
The Brookings Institution Metropolitan Policy Program  
(202) 797-6241  
[asinger@brookings.edu](mailto:asinger@brookings.edu)

**For General Information**

The Brookings Institution Metropolitan Policy Program  
(202) 797-6139  
[www.brookings.edu/metro](http://www.brookings.edu/metro)



# THE BROOKINGS INSTITUTION

1775 Massachusetts Avenue, NW • Washington, DC 20036-2188  
Tel: 202-797-6000 Fax: 202-797-6004  
[www.brookings.edu](http://www.brookings.edu)



**METROPOLITAN POLICY PROGRAM**

DIRECT: 202-797-6139 • FAX/DIRECT: 202-797-2965  
[www.brookings.edu/metro](http://www.brookings.edu/metro)