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Poverty among minorities in the United States: Explaining the racial poverty gap for Blacks and Latinos*

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Abstract

The two largest minorities in the United States, African Americans and people of Hispanic origin, show official poverty rates that are at least twice as high as those among non-Hispanic Whites. These similarly high poverty rates among minorities are, however, the result of different combinations of factors, due to the specific characteristics of these two groups. In this paper, we analyze the role of demographic and labor-related variables in explaining the current differential in poverty rates among racial and ethnic groups in the United States and its recent evolution. Our results show, first, that these differentials were largely explained by differing family characteristics of the ethnic groups. Furthermore, we show that while labor market activity of family members and a preponderance of single mothers played a more significant role in explaining the higher poverty rates of Blacks, a larger number of dependent children is more closely associated with higher poverty among Latinos, who also suffer from a larger educational attainment gap and higher immigration rates. Finally, we show that both racial poverty gaps declined during the 1990s, and, in the case of Latinos, the downward trend has continued through the present decade. This reduction in the differentials was fully explained by characteristics, mainly the labor market performance of family heads, while the unexplained differential (conditional racial poverty gap) proved to be more persistent across time.

Keywords: poverty, gap, race, decomposition, Oaxaca-Blinder, United States, CPS, labor market, participation, education, family characteristics.
JEL Classification: D31, D63, J15, J82, O15

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Introduction

Most ethnic minorities in the United States have historically shown a low performance in a number of socioeconomic indicators, when compared with majoritary non-Hispanic Whites. Their share of the population is increasing, such that nowadays more than one in four Americans belongs to either of the two largest minorities, Blacks and Latinos. But the median per capita family income for these two groups is below 60 percent of levels for non-Hispanic Whites, and their poverty rate is at least twice as high. These minorities, which comprise half of all poor Americans, share similar socioeconomic and demographic patterns of deprivation in several other dimensions: they have lower education, health care insurance coverage, and a larger risk of being prison inmates, unemployed, or low-paid workers.[1] Furthermore, they share several demographic characteristics typically associated with disadvantaged groups, like having more dependent children in their families or a larger share of female-headed families, especially single mothers. However, both minorities also differ in a number of relevant aspects.

Non-Hispanic Blacks account for a steady 13 percent of the overall population, most being descendents of Africans enslaved in North America between the 1600s and 1800s. However, 8 percent of non-Hispanic African Americans are foreign born, a percentage still below the 13 percent level observed among the overall population. After slavery was officially abolished in 1865, Blacks suffered from legal segregation and direct discrimination policies, which were removed after the Civil Rights Movement, although other forms of indirect discrimination persisted. They appear to have a larger incarceration rate than any other group, as well as a larger proportion of female-headed families and of young males out of work. It is a well-known fact that almost 70 percent of all Black children are born to unmarried mothers (US DHHS, 2004) and, consequently, about half of all Black children live with a single mother. Additionally, more than 11 percent of Black males aged 25 to 34 were incarcerated as of June, 2006 (US DJOJP, 2007). Indeed, it comes as no surprise that these factors appear among the most common explanations for their higher poverty rates.

On the other side, Hispanics have also a long history in the United States due to the annexation of half of the Mexican territory in the 1800s, but most are immigrants who arrived

[1] As a matter of fact, 20 percent of Blacks and 34 percent of Hispanics had no health care insurance in 2007, compared with 11 percent of non-Hispanic Whites (US CB, 2007). According to our own estimations, unemployment rates in the same year were respectively 8.4 and 5.7 percent of the active population, compared with 4 percent of Whites; and 19 and 13 percent respectively of Black and Latino adults older than 25 went to college compared with 32 percent of Whites. An estimated 4.8 percent of Black men were in prison or jail in midyear 2006, compared with 1.9 percent of Hispanic men and 0.7 percent of White men (US DJOJP, 2007).

after the 1980's from Latin America, especially Mexico, settling in the South and East portions of the country. As a consequence of rapid population growth, the number of Latinos passed from 10 to 45 million between 1970 and 2007 (from 5 to 15 percent of the total population), recently becoming the largest minority group in the country, with a population still growing faster than any other ethnic group's.[2] The result of this recent migration process is that two in five Latinos are foreign born, and they have a higher fertility rate and a larger educational gap than any other group.

In this paper, we aim to identify the nature and evolution of higher poverty rates among African Americans and Latinos in the United States, and to asses to what extent they are associated with the poor endowments that these groups have in terms of their demographic characteristics, their education attainment, or their labor market performance. Alternatively, higher poverty rates may be the result of these characteristics being less effective in pushing their families above the poverty line. Furthermore, we want to identify how the distinct features of Blacks and Latinos affect their poverty risks in different ways. In order to answer these questions, we estimated Logit poverty regressions and used an Oaxaca-Blinder approach adapted to this specific framework to decompose the racial difference in poverty rates into characteristics and coefficients' effects. This decomposition was undertaken at two different levels: at the *aggregate* level, we estimated the joint contribution of all characteristics and all coefficients respectively, while at the *detailed* level we identified the individual contributions of each set of characteristics and coefficients.

The structure of the paper is as follows. In the following sections, we first describe the data and main definitions, then review and compare the main socioeconomic patterns between racial groups in the United States. After this, we introduce the decomposition technique and present our empirical results. The final section summarizes the main conclusions.

Data and some definitions

The data used for the analysis come from the *Current Population Survey*, 1994–2007 Annual Social and Economic (ASEC) March Supplement, conducted by the U.S. Census Bureau. The universe of this survey was the civilian noninstitutional population of the United States living in housing units, and members of the armed forces living in civilian housing units on a

[2] The U.S. Bureau of Census estimates a growth of 24 percent for the Hispanic population between 2000 and 2006 (compared with 6 percent for the overall population), with a projection of 102.6 million Latinos by 2050, nearly a quarter of the whole population (US CB, 2008).

military base or in a household not on a military base. This data source provides comprehensive monthly labor force data for persons 15 years old and over, as well as the families' main characteristics. While demographic data refer to the time of the survey, data on employment and income refer to the preceding year.[3]

In this survey, people are asked to answer questions about their race and Hispanic origin. Since 2003, respondents have been allowed to report more than one race, making selections from six distinct race groups: White, Black, American Indian or Alaskan Native, Asian, Native Hawaiin other Pacific Islander, and other race. Further, this survey inquires whether the origin of each person is Spanish, Hispanic, or Latino.[4] On the basis of these questions, we broke up the population into five non-overlapping groups: non-Hispanic Whites (those who only declared this race), non-Hispanic Blacks or African Americans (identifying themselves as non-Hispanic and Black, either alone or in combination with other races), Hispanics or Latinos (of any race)[5], Asian Americans (who further did not identify themselves as being Black or Hispanic), and others, even if we will focus the main analysis on the first three groups. For the sake of simplicity in what follows, we will refer to Blacks, Whites, or Asians while omitting their "non-Hispanic" origin.

The definition of poverty used in this paper corresponds to the official poverty definition employed by the U.S. Census Bureau following the Office of Management and Budget's (OMB) Statistical Policy Directive 14 (May 1978). It consists of a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than that family's threshold, then that family and every individual in it is considered to live in poverty. The official poverty definition uses money income before taxes, and does not include capital gains or noncash benefits.[6] These thresholds are updated annually for inflation using the Consumer Price Index (CPI-U). For 2006, for example, these

[3] In order to be consistent with Census Bureau publications, our income and poverty estimates refer to the year in which income was obtained, with characteristics as of March of the following year (the survey's year).

[4] Until 2002, respondents could choose only one of five race categories (Asian and Pacific Islander were combined in one), and the Hispanic origin was determined according to a more specific question indicating the country of Hispanic origin. These changes make year-to-year comparisons more complex.

[5] About 0.5 percent of the entire population in 2007 identified themselves as being both Black and Latino, which means 4.5 percent of Blacks and 3.7 percent of Latinos. In this study, we classified them according to their origin (Latino), but given their relatively small size, the alternative of classifying them according to their race (Blacks) does not significantly change the results presented below.

[6] These absolute poverty thresholds were formulated in the mid 1960's, with only minor adjustments since, and have been widely criticized not only for the limited notion of income used, but also because they have not reflected any changes in lifestyle or in consumption standards since they were established. However, they still constitute the main reference for all poverty analysis in the United States.

limits were $10,488 for one person under 65 years old and $20,444 for a family of two adults with two related children under 18.

Racial profiles in the United States

Persistence of high poverty rates in the United States, with levels higher than those of the majority of the developed world, has been so far well documented, as has the fact that that the distribution of income has become more unequal and polarized.[7] Additionally, there is also a large differential in wellbeing across U.S. ethnic and racial groups, as well as increasing racial polarization resulting from the growing proportion of American minorities at the bottom of United States' income distribution. On average, Black and Latino minorities are poorer than Whites in the United States, as Table 1 reports. The median family incomes of Blacks and Latinos in 2006 were respectively $35,629 and 38,600, or in other words, around twice the poverty threshold, below two thirds of the level reported by Whites, $60,000 (or 3.7 times the poverty line). Dividing family income by the corresponding poverty threshold, it turns out that the income of the median Black and Latino families are around twice that level, compared with 3.7 times in the case of Whites. Furthermore, there is no doubt that races are unevenly distributed across family income classes in the United States.[8] In 2006, American minorities outnumbered Whites at the lower tail of the distribution, as evidenced in Figure 1b. Among them, Blacks and Latinos accounted for between 40 and 50 percent of the population in the bottom three deciles, compared with only 10 to 20 percent in the upper four deciles. Comparing Figures 1a and 1b, it can be observed that there was an increase between 1993 and 2006 in the number of Hispanics all along the distribution, but especially below the median, mostly replacing Blacks in the first decile and Whites in the next ones. It does not come as a surprise that poverty rates among African American and Hispanic minorities in the United States, 24.3 and 20.8 percent respectively, were between 2.5 and 3 times higher than among Whites (8.3 percent) in 2006.[9] What is more, not only was the incidence of poverty higher, but

[7] Only Mexico and Russia report higher poverty, inequality, and polarization levels than the United States. See LIS key figures for Gini index of inequality and relative poverty around 2000, and Duclos, Esteban, and Ray (2004) for polarization around 1995.

[8] This is family income divided by the poverty line, in order to take into account implicit equivalence scales in the official poverty definition.

[9] Examples of recent detailed analysis of poverty in the United States are Iceland (2006) or Rodgers (2006).

the median poverty gaps of Black and Latino poor exceeded the Whites' level by 26 and 15 percent, respectively.[10]

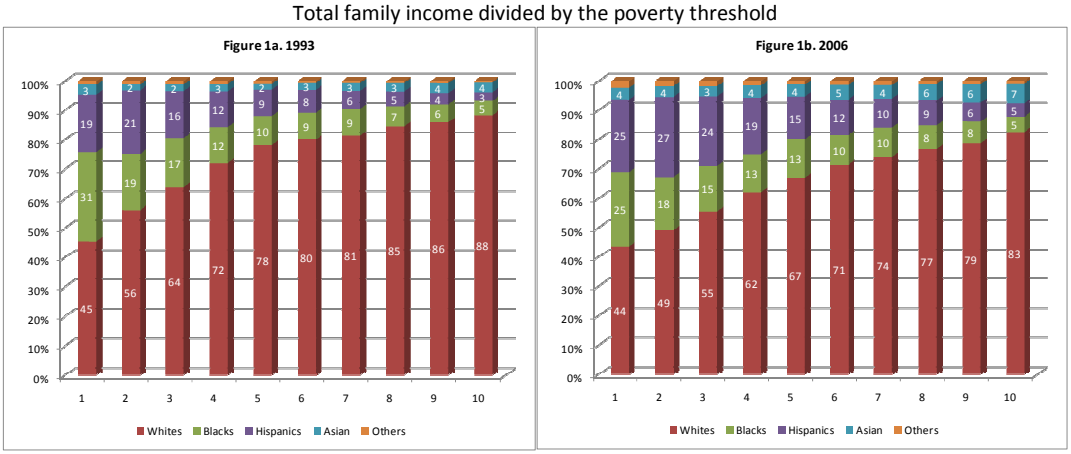
Table 1. Income and poverty by racial and ethnic groups in the United States

Race	All				Poor							
	Popul. %	Median Income US$	Rel. to White %	Gini	H%	Racial Poverty Gap	Median Income US$	Rel. to White %	Median Poverty Threshold US$	Rel. to White %	Median Gap US$	Rel. to White %
Whites	66.1	60,324	100	0.452	8.3		7,776	100	13,500	100	6,444	100
	(0.12)	(331)		(0.001)	(0.09)		(90)		(79)		(78)	
Blacks	12.6	35,629	59.1	0.488	24.2	15.9	8,512	109.5	16,242	120.3	8,134	126.2
	(0.09)	(544)		(0.003)	(0.32)	(0.23)	(140)		(128)		(124)	
Hispanics	15.1	38,600	64.0	0.446	20.8	12.5	11,000	141.5	20,444	151.4	7,388	114.6
	(0.09)	(395)		(0.002)	(0.25)	(0.37)	(127)		(117)		(110)	
Asians	4.7	71,002	117.7	0.459	9.9	1.6	8,051	103.5	16,227	120.2	8,444	131.0
	(0.05)	(1,382)		(0.004)	(0.37)	(0.38)	(381)		(376)		(357)	
Others	1.5	42,550	70.5	0.475	19.8	11.6	8,753	112.6	16,242	120.3	8,342	129.5
	(0.03)	(1,385)		(0.007)	(0.68)	(0.68)	(444)		(437)		(311)	
All	**100**	**52,693**	**87.3**	**0.467**	**12.4**		**8,643**	**111.1**	**16,227**	**120.2**	**7,188**	**111.5**
		(**249**)		(**0.001**)	(**0.09**)		(**65**)		(**61**)		(**56**)	

Linearized standard errors in parentheses

Figures 1a-1b. Racial and ethnic distribution by family income deciles

Total family income divided by the poverty threshold

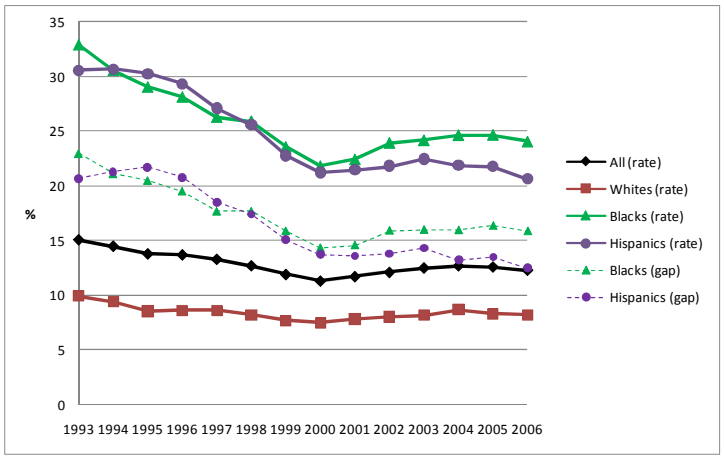


The official poverty rate in the United States declined during the 1990's economic boom, as Figure 2 shows, from 15.1 percent of the overall population in 1993, the highest level in many years, to 11.3 percent in 2000. This downward poverty trend was reversed after the economic recession in 2000, climbing to a level of 12.7 percent in 2004. Noteworthy was the fact that American minorities witnessed the largest decline in poverty rates during the 1990s: from 32.9 percent to 21.8 among Blacks (1993-2000), and from 30.6 to 21.2 among Latinos

[10] Regarding the other minorities, American Indians, who accounted for less than 1 percent of the population, performed worse than the largest minorities, while Pacific Islanders had a poverty rate similar to the average of the population, and Asian Americans faced a risk that was only slightly higher than that of the majoritarian group, even if the intensity of poverty was the largest (the median gap was 30 percent above that of Whites).

(1993-2001), compared with a more moderate reduction from 9.9 to 7.5 among Whites. As a consequence, the difference between the poverty rates of each minority and the majoritarian group, referred here as the *raw racial poverty gap*, substantially declined in both cases: from 23.0 percentage points in 1993 to 14.4 in 2000 in the case of Blacks, and from 20.7 to 13.6 in 2001 in the case of Hispanics. After the recession, the performance of the two minorities diverged, however; the racial poverty gap continued declining in the case of Americans of Hispanic origin after 2003, but steadily increased for Blacks, with rising poverty rates among this group between 2000 and 2005.

Figure 2. Poverty rates and racial poverty gaps in the United States



What are the reasons for these differences in poverty rates among racial and ethnic groups? Obviously, they may be the result of the specific characteristics of the families they live in. Clearly, these differentials may be explained to some extent by the fact that minorities are more likely to live in the poorest areas, to have more children, to live in single-mother-headed families, work fewer hours, or be employed in low-paid occupations. Let us briefly review some of these differences in the relevant attributes.

First, ethnic minorities are unevenly distributed across the U.S. geography and are overrepresented in regions with the highest poverty levels, even if this is not expected to substantially increase their poverty risk due to the low range of variation of poverty across regions in the United States. Indeed, as Table 2 reports, both minorities were more likely to live in the south-central eastern region, where the poverty rate was 16 percent in 2006, and Hispanics were also more likely to live in the south-central western region, where the poverty rate was 17 percent. However, most Hispanics and Blacks actually lived in regions with poverty

rates between 10 and 12 percent.[11] Furthermore, these minorities were also more likely to live in the largest metropolitan areas (more than 2.5 million inhabitants) than in the non-metropolitan ones, which actually had the highest poverty rates.[12]

Table 2. Geographical distribution of U.S. population by race and Hispanic origin

	Median Family income 2006 US$	Poverty Rate 2006	Distribution of population (%) 2007			
			Whites	Blacks	Hispanics	All
New England	65,100	10.1	5.9	2.3	2.2	4.8
	(1,197)	(0.31)	(0.06)	(0.10)	(0.1)	(0.05)
Middle Atlantic	57,799	12.2	13.7	14.1	11.5	13.5
	(817)	(0.25)	(0.12)	(0.27)	(0.21)	(0.10)
East North Central	54,454	11.6	18.1	15.2	6.6	15.4
	(559)	(0.22)	(0.13)	(0.27)	(0.15)	(0.10)
West North Central	54,697	10.6	8.5	3.4	2.1	6.7
	(713)	(0.24)	(0.07)	(0.11)	(0.06)	(0.05)
South Atlantic	51,000	11.6	18.3	33.3	14.5	19.2
	(548)	(0.19)	(0.13)	(0.34)	(0.22)	(0.10)
East South Central	43,438	16.2	6.6	9.7	1.2	5.9
	(883)	(0.40)	(0.08)	(0.22)	(0.07)	(0.06)
West South Central	45,010	16.7	9.4	12.7	19.9	11.4
	(772)	(0.29)	(0.10)	(0.26)	(0.25)	(0.09)
Mountain	51,472	12.0	7.2	1.9	10.8	7.1
	(739)	(0.27)	(0.07)	(0.09)	(0.17)	(0.06)
Pacific	56,460	11.7	12.4	7.4	31.3	16.2
	(669)	(0.20)	(0.11)	(0.20)	(0.28)	(0.10)
Non Metropolitan	56,287	14.9	23.9	13.4	8.2	19.5
	(373)	(0.19)	(0.13)	(0.24)	(0.15)	(0.10)
Metropolitan						
100,000 - 249,999	64,470	12.3	8.2	6.2	5.5	7.3
	(736)	(0.31)	(0.09)	(0.18)	(0.13)	(0.07)
250,000 - 499,999	67,294	12.6	10.5	9.1	8.1	9.6
	(715)	(0.28)	(0.10)	(0.21)	(0.17)	(0.08)
500,000 - 999,999	70,082	12.3	9.5	7.6	10.2	9.5
	(673)	(0.27)	(0.10)	(0.19)	(0.18)	(0.07)
1,000,000 - 2,499,999	76,361	11.1	17.6	18.5	13.2	16.8
	(629)	(0.20)	(0.13)	(0.28)	(0.20)	(0.10)
2,500,000 - 4,999,999	83,911	10.6	15.8	22.0	19.6	17.6
	(672)	(0.20)	(0.12)	(0.30)	(0.24)	(0.10)
More than 5,000,000	81,821	12.7	14.5	23.2	35.3	19.6
	(704)	(0.21)	(0.12)	(0.32)	(0.30)	(0.11)

Linearized standard errors in parentheses

Blacks and Latinos are also characterized by having different living arrangements than Whites, as Table 3 demonstrates, and this is expected to have an impact on their higher poverty rates. Both populations were less likely to live in married-couple families in 2007: 62 percent of Hispanics and only 40 percent of Blacks, compared with 68 percent of Whites; only 6 percent

[11] Blacks were more likely to live in Georgia, Florida, or Maryland (south Atlantic), in Mississippi, Alabama, or Tennessee (eastern south central), and in Louisiana (western south central). Latinos were more likely to live in California (Pacific), Texas (western south central), and Florida (south Atlantic).

[12] Note, however, that we cannot consider here the effect on poverty caused by residential segregation within metropolitan areas, with minorities living in poor inner cities and Whites in rich suburbs.

of those living in this type of family were poor in 2006. On the contrary, Blacks were more likely to live in a female-headed family without a spouse present (45 percent), compared with the other main groups (respectively 20 percent for Whites and 24 for Latinos). The single-female headed type of family faced a poverty risk 10 percentage points higher than that of male-headed families without a spouse present. More specifically, minorities had also a larger share of people living in single-mother families: 15.6 percent among Hispanics and 26.5 among Blacks, compared with only 6.6 among Whites.[13] These families reported a higher poverty rate than any other type (38 percent). Furthermore, Latinos, and to a lesser extent Blacks, are more likely to have larger families, as shown at the bottom of Table 3: their families had 3.5 members on average in 2007 (compared with 3.0 in the case of Blacks and 2.9 of Whites), with more dependents of all ages among them, but especially children (1.25 compared with 1 and 0.76 respectively). As a consequence, 43 percent of Hispanic family members were economically dependent, compared with 38 percent among Blacks and only 25 percent among Whites.

Poverty risk among people in families headed by a non-American citizen was 22 percent, twice as high as in the other cases, including those headed by either naturalized foreign-born or second-generation immigrants. This appears to be particularly relevant for the Hispanic population, given that 40 percent were thus situated, compared with only 2 percent of Whites and 5 percent of Blacks. Family heads, and the general population, tend to be younger among Hispanics and Blacks than among Whites, and this is another factor that might increase the poverty levels of minorities, considering that poverty risk declines with the age of the family head, and was especially high for young-headed families (32 percent were poor when the head was below 24 years old); this group comprised 10 percent of Hispanics, 8 percent of Blacks, and only 5 percent of Whites. Another characteristic that clearly is distinctive of minorities is the level of attained education. Only 11 percent of Hispanics family reference persons went to college, compared to 18 percent of Blacks and 33 percent of Whites. A similar gap was found amongst the population as a whole.

[13] There is no consensus about the causes of changes in marriage, divorce, and nonmarital childbearing that occurred during past decades leading to this situation. Changes in social norms, declining wages among low-skilled men, and the unintended incentives of the welfare system have been pointed out among the possible explanations (MacLanahan, 2007).

Table 3. Family characteristics of American population

Family characteristics	Median Family Income 2006 US$	Poverty Rate 2006	Distribution of population (%) 2007			
			Whites	Blacks	Hispanics	All
Family type						
Couple	71,500	5.7	67.9	40.0	61.9	63.6
	(341)	(0.07)	(0.16)	(0.36)	(0.30)	(0.13)
Male without spouse	31,542	17.1	12.3	14.5	13.9	12.8
	(476)	(0.29)	(0.12)	(0.27)	(0.23)	(0.09)
Female without spouse	25,557	27.9	19.9	45.5	24.2	23.6
	(277)	(0.24)	(0.14)	(0.37)	(0.26)	(0.11)
without children	26,000	19.8	13.3	19.0	8.6	13.2
	(403)	(0.30)	(0.12)	(0.29)	(0.18)	(0.10)
with children	25,000	38.2	6.6	26.5	15.6	10.5
	(366)	(0.37)	(0.07)	(0.33)	(0.22)	(0.08)
Sex (reference person)						
Male	60,338	8.1	54.0	36.9	50.6	51.6
	(361)	(0.10)	(0.16)	(0.35)	(0.30)	(0.13)
Female	44,524	17.0	46.0	63.1	49.4	48.4
	(340)	(0.14)	(0.16)	(0.35)	(0.30)	(0.13)
Citizenship (reference person)						
Native, native parents	55,200	11.5	88.4	87.1	23.9	74.9
	(291)	(0.10)	(0.11)	(0.25)	(0.26)	(0.11)
Native, foreign parents	50,500	11.8	6.6	2.3	20.4	8.5
	(842)	(0.28)	(0.08)	(0.11)	(0.24)	(0.07)
Foreigner, naturalized	58,616	10.0	3.0	5.7	15.8	7.1
	(1,065)	(0.28)	(0.06)	(0.17)	(0.22)	(0.07)
Foreigner, non-naturalized	37,440	21.8	2.1	4.9	39.9	9.6
	(645)	(0.33)	(0.05)	(0.17)	(0.30)	(0.07)
Age (reference person)						
15-24	23,154	31.9	5.1	8.1	9.9	6.2
	(533)	(0.52)	(0.08)	(0.21)	(0.19)	(0.07)
25-55	60,000	11.7	65.8	71.3	77.0	68.6
	(306)	(0.10)	(0.16)	(0.33)	(0.26)	(0.13)
56+	43,448	9.23	29.1	20.5	13.2	25.2
	(497)	(0.16)	(0.16)	(0.29)	(0.21)	(0.12)
Educational attainment (reference person)						
Primary	27,000	29.78	9.0	17.2	39.1	14.7
	(308)	(0.30)	(0.10)	(0.27)	(0.30)	(0.09)
Secondary	48,000	12.37	58.2	65.2	49.4	56.8
	(312)	(0.17)	(0.15)	(0.35)	(0.27)	(0.12)
College	90,400	3.53	32.9	17.7	11.5	28.4
	(391)	(0.09)	(0.16)	(0.37)	(0.28)	(0.13)
			Average values			
Dependents			**Whites**	**Blacks**	**Hispanics**	**All**
No. of members			2.88	3.03	3.52	3.01
			(0.005)	(0.012)	(0.010)	(0.004)
No. of dependents			0.99	1.42	1.79	1.19
			(0.004)	(0.011)	(0.009)	(0.003)
Aged <15 years			0.76	1.01	1.25	0.87
			(0.003)	(0.009)	(0.008)	(0.003)
Aged 16+			0.23	0.41	0.54	0.32
			(0.002)	0.005)	0.005)	0.002)
Family dependency ratio (%)			25.3	37.6	42.9	30.0
			(0.09)	(0.23)	(0.19)	(0.08)

Linearized standard errors in parentheses

Labor Market performance

Labor market performance varies greatly across ethnic and racial subpopulations, as is shown in Table 4. Latinos and Whites participate in the labor market at a higher rate than Blacks. The employment rate of Hispanic and White adults (15 years or older) was 63 and 62 percent respectively in 2006, compared with 57 percent of Blacks. A similar pattern can be found for family reference persons, even if in this case, the differential in employment rates was smaller: 70 and 69 percent for respectively Latinos and Whites compared to 65 percent for

Blacks. However, these aggregate figures concealed several specific features of each group. Hispanic males had the largest employment rates: 74 percent compared with 68 of Whites and 57 of Blacks; while Hispanic females, on the contrary, had the lowest employment rate, 52 percent compared with about 56 percent of Blacks and Whites.[14] Further, there was substantial occupational segregation by ethnic groups in the labor market, where Whites were more likely than any other group to work in managerial and professional jobs in the private sector or to be self-employed. Note also that Blacks were more likely than Hispanics to work in skilled jobs or in the public sector, as well as to be unemployed, but were less likely to be self-employed. Despite the fact that there was no significant difference in the average number of hours and weeks worked by employed adults, the earnings of Black and Hispanic workers were, respectively, 70 and 65 percent of the Whites' level, as shown in Table 5. Several reasons, including wage discrimination, have been pointed out for explaining these racial and ethnic gaps in earnings. For example, Antecol and Bedard (2004) have emphasized the role of labor market attachment differences among young males, as have Carneiro, Heckman, while Masterov (2005) argued that the major source of economic disparity by race and ethnicity in U.S. labor markets was to be found in pre-labor factors.

[14] The highest employment rate of Hispanic males was intimately related to their large immigration rate. Indeed, the employment rate of Hispanic males born in a foreign country was 88 percent, in contrast with 71 percent of those born in the United States, similar to the 73 percent level of non-Hispanic White males in the same situation.

Table 4. Population by labor status in 2006

Labor market status and occupation	Labor status (family reference person)						Labor status (adults 15+)				
	Median Family Income US$	Poverty Rate %	Distribution of population (%)				Poverty Rate %	Distribution of population (%)			
			White	Black	Hispanic	All		White	Black	Hispanic	All
Inactive	31,202	23.2	28.9	29.8	25.9	28.4	18.8	35.3	38.2	33.0	35.3
	(395)	(0.21)	(0.15)	(0.33)	(0.27)	(0.12)	(0.20)	(0.18)	(0.41)	(0.33)	(0.14)
Unemployed	31,628	31.4	2.3	5.0	3.8	2.9	23.5	2.6	5.2	3.8	3.1
	(1,070)	(0.71)	(0.05)	(0.16)	(0.12)	(0.04)	(0.07)	(0.06)	(0.20)	(0.15)	(0.05)
Employed	64,300	7.2	68.8	65.2	70.3	68.7	5.6	62.1	56.6	63.2	61.6
	(311)	(0.08)	(0.16)	(0.35)	(0.28)	(0.12)	(0.09)	(0.18)	(0.42)	(0.35)	(0.15)
full-time private sector, MP	93,480	1.9	15.2	10.6	7.1	13.8	1.7	12.7	8.6	6.2	11.6
	(837)	(0.10)	(0.12)	(0.23)	(0.15)	(0.09)	(0.12)	(0.12)	(0.24)	(0.17)	(0.10)
part-time private sector, MP	81,200	6.2	3.2	1.9	1.2	2.7	5.0	2.8	1.5	1.0	2.4
	(1,799)	(0.40)	(0.06)	(0.10)	(0.06)	(0.04)	(0.44)	(0.06)	(0.10)	(0.07)	(0.05)
full-time private sector, non MP	51,000	7.9	22.6	28.3	40.0	25.9	6.1	20.9	24.8	36.2	23.4
	(360)	(0.13)	(0.14)	(0.33)	(0.30)	(0.11)	(0.15)	(0.15)	(0.37)	(0.36)	(0.12)
part-time private sector, non MP	38,271	20.0	6.7	7.8	8.6	7.0	12.5	8.6	7.9	9.4	8.5
	(660)	(0.39)	(0.08)	(0.21)	(0.17)	(0.07)	(0.34)	(0.10)	(0.24)	(0.21)	(0.08)
public sector, MP	85,502	2.3	6.1	5.6	3.1	5.5	1.9	5.4	4.6	2.7	4.9
	(1,032)	(0.16)	(0.08)	(0.16)	(0.10)	(0.06)	(0.17)	(0.08)	(0.17)	(0.11)	(0.07)
public sector, non MP	64,212	5.0	4.6	7.4	3.9	4.9	3.7	3.8	6.3	3.1	4.0
	(714)	(0.24)	(0.07)	(0.19)	(0.11)	(0.05)	(0.27)	(0.07)	(0.20)	(0.12)	(0.06)
self-employed	74,845	6.2	10.4	3.6	6.5	8.9	6.1	7.8	3.0	4.6	6.8
	(1,184)	(0.20)	(0.10)	(0.13)	(0.15)	(0.07)	(0.27)	(0.10)	(0.14)	(0.15)	(0.07)

MP= managerial or professional. Linearized standard errors in parentheses

Table 5. Employed population: average time worked and earnings

	Reference person				All			
	Whites	Blacks	Hispanics	All	Whites	Blacks	Hispanics	All
Weeks	47.8	47.5	47.8	47.8	46.7	46.2	46.9	46.7
	(0.06)	(0.15)	(0.13)	(0.05)	(0.09)	(0.26)	(0.17)	(0.04)
Weekly hours	40.4	39.9	40.1	40.3	39.0	38.8	39.1	39.0
	(0.07)	(0.14)	(0.11)	(0.05)	(0.09)	(0.19)	(0.14)	(0.04)
Annual earnings	47,930	33,863	31,504	44,248	43,928	32,011	28,777	40,615
	(332)	(516)	(442)	(255)	(332)	(688)	(395)	(184)

Linearized standard errors in parentheses

During the economic expansion of the 1990's, the employment rate of Blacks and Latinos (but not of Whites) increased for most subgroups according to gender, age, and education, as reported in Table 6 for those not enrolled in further education. However, the increase was especially marked for females below 55 years old with no college studies, amounting to between 7 and 12 percentage points, depending on age and minority. The 2000's did not significantly reverse these improvements. The fact that the employment rates of low-educated young Black males did not witness any significant progress during the last economic booms has been a big academic issue to date. Among the possible explanations for this phenomenon were mentioned the direct and indirect consequences of large and

increasing incarceration rates (even in a context of decreasing criminality), and the migration of jobs from inner cities to suburbs.[15]

Table 6. Employment rate by age, gender, and attained education (adults 15 years old or over, not enrolled in further education)

	Male									Female								
	White			Black			Hispanic			White			Black			Hispanic		
	1993	2001	2006	1993	2001	2006	1993	2001	2006	1993	2001	2006	1993	2001	2006	1993	2001	2006
non College	60.5	60.1	60.5	50.6	52.3	51.3	67.6	71.5	75.2	44.4	44.7	44.2	41.0	45.6	47.4	39.1	46.4	46.3
	(0.40)	(0.40)	(0.42)	(1.17)	(0.87)	(0.91)	(0.81)	(0.63)	(0.57)	(0.37)	(0.38)	(0.41)	(0.94)	(0.76)	(0.80)	(0.78)	(0.68)	(0.64)
15-24	56.7	53.7	53.1	37.5	39.6	38.7	62.6	64.1	65.2	45.4	45.6	42.8	29.7	36.9	35.6	30.8	42.8	39.7
	(1.13)	(1.05)	(1.10)	(2.57)	(2.07)	(2.16)	(1.80)	(1.44)	(1.36)	(1.18)	(1.06)	(1.19)	(2.46)	(2.03)	(2.11)	(1.77)	(1.66)	(1.59)
25-55	81.7	81.1	80.9	64.1	66.6	66.1	78.5	82.5	85.5	67.0	68.9	67.6	54.7	61.7	64.3	48.4	56.4	56.5
	(0.45)	(0.45)	(0.48)	(1.57)	(1.14)	(1.20)	(0.94)	(0.70)	(0.61)	(0.51)	(0.50)	(0.57)	(1.26)	(1.00)	(1.06)	(1.02)	(0.86)	(0.81)
56+	27.4	28.9	31.7	24.2	27.6	25.6	29.1	32.6	40.1	17.4	19.5	22.5	19.9	20.0	23.7	19.0	18.9	21.6
	(0.63)	(0.67)	(0.70)	(1.85)	(1.42)	(1.45)	(1.91)	(1.66)	(1.59)	(0.44)	(0.48)	(0.54)	(1.40)	(1.06)	(1.16)	(1.36)	(1.13)	(1.14)
College	80.4	78.6	78.5	75.0	76.3	76.4	81.2	82.4	84.0	69.5	68.1	67.9	74.3	73.9	73.6	68.2	72.5	71.7
	(0.33)	(0.31)	(0.32)	(1.46)	(0.89)	(0.92)	(1.13)	(0.89)	(0.78)	(0.38)	(0.34)	(0.33)	(1.11)	(0.75)	(0.76)	(1.29)	(0.98)	(0.84)
15-24	85.4	84.3	87.3	71.4	69.6	78.6	79.2	82.1	80.9	86.5	85.0	83.9	75.0	76.5	71.9	72.3	75.4	77.8
	(1.32)	(1.40)	(1.28)	(5.48)	(4.42)	(3.86)	(4.15)	(3.14)	(2.82)	(1.18)	(1.23)	(1.32)	(3.84)	(3.09)	(3.50)	(4.05)	(3.53)	(2.82)
25-55	90.6	90.2	90.8	79.7	82.0	84.0	85.4	87.2	89.7	79.4	78.8	78.6	79.9	80.6	81.6	71.2	75.2	76.0
	(0.29)	(0.27)	(0.28)	(1.55)	(0.93)	(0.97)	(1.14)	(0.89)	(0.78)	(0.39)	(0.33)	(0.34)	(1.15)	(0.79)	(0.79)	(1.41)	(1.05)	(0.90)
56+	43.7	46.1	51.3	44.6	47.2	45.5	45.8	48.0	55.2	29.4	34.0	41.0	37.0	39.7	42.6	38.6	46.8	42.9
	(0.88)	(0.78)	(0.70)	(4.38)	(2.48)	(2.23)	(4.49)	(3.38)	(2.64)	(0.80)	(0.74)	(0.70)	(3.34)	(2.00)	(1.83)	(4.32)	(3.49)	(2.46)
All	**70.4**	**70.1**	**70.5**	**58.6**	**62.0**	**61.5**	**71.0**	**74.3**	**77.6**	**55.8**	**57.1**	**57.7**	**53.2**	**57.9**	**59.4**	**46.3**	**53.5**	**54.4**
	(**0.27**)	(**0.26**)	(**0.26**)	(**0.94**)	(**0.65**)	(**0.68**)	(**0.68**)	(**0.53**)	(**0.47**)	(**0.27**)	(**0.26**)	(**0.27**)	(**0.76**)	(**0.56**)	(**0.58**)	(**0.69**)	(**0.58**)	(**0.53**)

Linearized standard errors in parentheses

Another remarkable feature of labor force participation that is expected to have an impact on poverty is the dramatic increase of employment rates for single mothers during the 1990s' economic boom. This was especially important for Blacks and Hispanics, as they showed, respectively, 14 and 22 percentage-point increases as shown in Table 7. This unprecedented shift into work was the result of drastic changes in economic incentives faced after the mid 1990's by welfare beneficiaries, mainly single mothers, combined with the strong economic boom that allowed welfare reform to be implemented thanks to low unemployment and readily available jobs (Blank, 2002).[16]

[15] For example Holzer, Raphael and Stoll (2006) argued that the high rates of crime and incarceration among young Black males limit the employment opportunities not only of those directly engaged in such behavior, but also of those not engaged in crime due to statistical discrimination by employers. Further, Foster-Bey (2006) found evidence supporting that spatial mismatch in the blue-collar sector affected labor participation of young males residing in the urban core of metropolitan areas.

[16] In particular, as the result of reforms in the social assistance programs through the 1996 Personal Responsibility and Work Opportunity Act, and increases in the Earned Income Tax Credit and minimum

Table 7. Employment rate of family heads

	White			Black			Hispanic		
	1993	**2001**	**2006**	**1993**	**2001**	**2006**	**1993**	**2001**	**2006**
Married couple	71.2	67.8	67.4	64.5	67.1	68.0	71.9	69.8	70.4
	(0.32)	(0.32)	(0.33)	(1.27)	(0.92)	(0.94)	(0.87)	(0.74)	(0.69)
Male without spouse	70.4	68.6	69.9	62.1	64.1	62.6	76.3	75.8	81.1
	(0.56)	(0.53)	(0.52)	(1.68)	(1.09)	(1.12)	(1.33)	(1.06)	(0.84)
Female without spouse									
without children	49.3	50.4	51.7	49.3	51.0	55.6	52.0	55.3	55.9
	(0.54)	(0.53)	(0.54)	(1.38)	(0.97)	(0.98)	(1.58)	(1.34)	(1.24)
with children	67.8	78.3	75.0	54.1	68.5	69.4	45.1	67.2	68.8
	(1.11)	(0.78)	(0.86)	(1.61)	(1.22)	(1.31)	(1.90)	(1.63)	(1.45)

Linearized standard errors in parentheses

Methodology

We examined the contribution of a number of family characteristics to the differential in poverty rates among racial groups in the United States by applying an extension of the well-known regression-based Oaxaca-Blinder decomposition approach to the probability of being poor.[17] In our framework, the *i*th person in group *g* is considered poor when his or her family income y_i^g falls below the poverty line *z*. Then, under a Logit probabilistic model, the likelihood of this person being poor (P_i^g) is given by

$$P_i^g = \Pr\left(y_i^g < z\right) = F(X_i^g \hat{\beta}^g) = \frac{\exp\left(X_i^g \hat{\beta}^g\right)}{1+\exp\left(X_i^g \hat{\beta}^g\right)}, \qquad \textbf{(1)}$$

where *F* represents the logistic probabilistic cumulative distribution, X_i^g is a vector of characteristics describing *i*'s family, and $\hat{\beta}^g$ is the associated vector of coefficient estimates. We estimated regressions separately for Whites, Blacks, and Hispanics.

Given that being officially poor means that a family lacks enough income to make ends meet, we included among the explanatory variables a number of characteristics of the family reference person that may influence his or her ability to earn income: demographic variables such as gender**,** age, attained education (primary, secondary, or college), citizenship (native with/without foreign born parents, foreign born naturalized, or not naturalized), and mover status (change of residence in the previous year), as well as a set of variables describing the

wage "cash assistance became far less available, welfare recipients were pushed much harder to employment and leave the rolls, the returns to low-wage work rose, and the availability of work supports (child care and health insurance) increased to low-income families" (Blank, 2002, 1108).

[17] See Oaxaca (1973) and Blinder (1973).

labor force participation of the head and, in the case of those employed, the characteristics of the job. These variables included several types of occupation according to the sector (private or public), contract (part or full-time), required skills (managerial/professional occupation or not), employment status (self-employed or employee), and the number of weeks and average weekly hours worked. We also included the type of family, as this may also affect the ability of the family head to get a job: we distinguished among families composed of a married couple, with additional distinction according to the sex of the head, and those composed by a male or a female without a spouse present. In the case of female heads, we additionally distinguished whether or not there are children in order to identify single mothers, with an interaction variable indicating whether she is employed or not. Given that family income can also be provided by other family members and that the presence of dependents may increase family needs but not income, we included the number of other family members as well, distinguishing the number of dependents (of different ages) from the number of labor and nonlabor income receivers (by education attained and gender, and in the case of employed, also by age and characteristics of the job). Other variables included were the geographic region of residence and the size of the metropolitan area, in order to take into account potential differences in economic opportunities. Since we estimated the probability of a person being poor with all explanatory variables collected at the family level, our estimated robust standard errors took into account individuals being "clustered" across families.[18]

This simple econometric specification allows us to identify the statistical association between the probability of being poor and each family attribute, when the other characteristics are controlled for. However, we should be cautious in interpreting the results, as no control for possible endogeneity sources was made, and no causal relationship can be assessed.[19] Thus, these regressions have to be understood in the context of poverty decompositions by subpopulations where, unlike standard poverty decomposition techniques, we identify the statistical association between each characteristic and the probability of being poor while controlling for the rest of attributes.

An interesting property of the logit specification in our framework is that the head-count ratio of poverty in group *g*, H^g, is equal to the average predicted probability for this group (with population N^g):

[18] See, for example, Cappellari and Jenkins (2004) for a justification of this.

[19] For example, consider the potential double causality in the case of the number of dependent children in the family. A large number of children directly affects the probability of being poor by increasing family needs (through the official poverty line) while not providing additional income. However, this characteristic could also be interpreted as a consequence of living in a poor, less-educated family.

$$H^g = \overline{P^g} = \overline{F(X_i^g \hat{\beta}^g)} = \frac{1}{N^g} \sum_{i=1}^{N^g} F(X_i^g \hat{\beta}^g). \quad \textbf{(2)}$$

This property allows us to use the average estimated probabilities to break the observed differential in poverty rates among two given groups 0 (Whites) and 1 (Blacks or Hispanics),

$$H^1 - H^0 = \overline{P^1} - \overline{P^0} = \overline{F(X^1\beta^1)} - \overline{F(X^0\beta^0)}, \quad \textbf{(3)}$$

into two distinct terms, when the characteristics of group 0 are taken as reference:

$$H^1 - H^0 = \left[\overline{F(X^1\beta^1)} - \overline{F(X^0\beta^1)} \right] + \left[\overline{F(X^0\beta^1)} - \overline{F(X^0\beta^0)} \right], \quad \textbf{(4)}$$

The first term is the *aggregate characteristics effect,* and the second one is the *aggregate coefficients effect*. There is wide consensus on this type of decomposition in the case of non-linear probability regressions.[20]

To evaluate the individual contribution of each variable (or set of variables) to the total explained difference, which is usually referred to as the *detailed decomposition*, we follow the method proposed by Yun (2004), which is valid for any nonlinear function *F* and is a generalization of the decomposition of Even and Macpherson (1990, 1993), of only the characteristics effect.[21] The detailed decomposition of Yun (2004) is given by

$$H^1 - H^0 = \sum_{k=1}^{K} W_{\Delta X}^k \left[\overline{F(X^1\beta^1)} - \overline{F(X^0\beta^1)} \right] + \sum_{k=1}^{K} W_{\Delta\beta}^k \left[\overline{F(X^0\beta^1)} - \overline{F(X^0\beta^0)} \right], \quad \textbf{(5)}$$

where $W_{\Delta X}^k$ and $W_{\Delta\beta}^k$ are, respectively, the individual relative contributions of characteristic *k* (*k*=1,…, *K*) to the overall characteristics and coefficients effects such that:

[20] See, for instance, Gang *et al.* (2006) and Bhaumik *et al.* (2006) for the analysis of intergroup poverty rates in India and Kosovo, or Biewen and Jenkins (2005) and Quintano and D'Agostino (2006) who examined intercountry differences in poverty levels. A similar decomposition is found in other (nonlinear) contexts: Gomulka and Stern (1990) analyzed changes in the employment of married women; Ham *et al.* (1998) analyzed intercountry differences in the duration of unemployment; Farlie (1999, 2005) analyzed racial discrepancies in the transition rate into self-employment and in computer ownership; Nielsen (1998, 2000) analyzed the gender discrepancy in formal sector employment and child labor incidence; Bevelander and Nielsen (2000) analyzed the employment success of immigrants; and Gang *et al.* (2002) analyzed attitudes toward foreigners in the European Union. Alternative decomposition strategies of the aggregate effects can be found in Borooah (2005), Borooah and Iyer (2005a,b) and Even and Macpherson (1990, 1993).

[21] This approach was used, among others, by Gang *et al.* (2006), Bhaumik *et al.* (2006), and Gang *et al.* (2002).

$$W_{\Delta X}^{k} = \frac{\left(\bar{X}_k^1 - \bar{X}_k^0\right)\beta_k^1}{\left(\bar{X}^1 - \bar{X}^0\right)\beta^1}\ ,\ \sum_{k=1}^{K} W_{\Delta X}^{k} = 1\ ;\ W_{\Delta\beta}^{k} = \frac{\bar{X}_k^0\left(\beta_k^1 - \beta_k^0\right)}{\bar{X}^0\left(\beta^1 - \beta^0\right)},\ \sum_{k=1}^{K} W_{\Delta\beta}^{k} = 1. \quad \textbf{(6)}$$

These weights were obtained in Yun (2004) in two stages: (i) the value of the average of *F*, $\overline{F(X^g\beta^g)}$, was approximated with that of the function evaluated at the sample average of the exogenous variables, $F(\overline{X^g\beta^g})$, and then (ii) a first-order Taylor-series expansion was used to linearize the characteristics and the effects of coefficients around the sample mean.[22]

This technique has a few advantages over other proposed methods that appear in the literature. First, the weights are quite transparent and simple to compute, because this only requires estimates of the coefficients and sample means for the characteristics. Second, this procedure overrides the problem of path dependency that is common to all sequential approaches to nonlinear models, in which values of characteristics and/or coefficients of one group need to be switched with those of the other group.[23] Third, unlike these sequential approaches, the detailed characteristics effect can be obtained without making any assumptions to match individuals of one group with the characteristics of another.[24] Finally, the original Oaxaca-Blinder approach is shown to be a particular case of this decomposition when *F* is a linear function.

However, an additional and well-known problem which needs to be addressed is that detailed decompositions of the coefficients effects suffer from severe identification difficulties.[25] This is because the contribution of a dummy variable to this effect will vary with the choice of reference group, and this applies to any set of dummy variables.[26] For this

[22] An alternative linearization strategy can be found in Doiron and Riddell (1994).

[23] Sequential approaches have been applied, for instance, to detailed decompositions of both effects (Gomulka and Stern, 1990) and of only the characteristics effect (Farlie, 1999, 2005; Ham *et al.*, 1998). The latter involves computing an average of all possible permutations of characteristics to override path dependency.

[24] Sequential approaches require that a matching assumption be imposed. For instance, Fairlie (1999, 2005) drew a random subsample from the largest group, equal in size to the smallest group. Both groups of observations were ranked according to their predicted probabilities and matched by their respective rankings when computing the change in the characteristics effect. The final estimate was produced by computing the mean effect after repeating this exercise a large number of times.

[25] Jones (1983) pointed out the problem of identifying the contribution of the intercept using the approach of Blinder (1973) in the presence of a set of dummy variables. Oaxaca and Ransom (1999) showed, more generally, that conventional decompositions cannot identify the separate contribution of dummy variables because it is only possible to estimate the *relative* effect of a dummy variable. However, Gelbach (2002) argued that the problem is not of identification, but of population heterogeneity in parameter estimates.

[26] However, as Oaxaca and Ransom (1999) stressed, the combined estimated contributions of all sets of dummy variables – including the constant term – to the overall coefficients effect are invariant with respect to the reference group.

reason, several researchers have undertaken detailed decompositions of only the characteristics effect, which is not affected by this problem.[27] To tackle this difficulty, we use *normalized regressions* in computing weights in **(5)**, as proposed by Suits (1984), Gardeazabal and Ugidos (2005) and Yun (2005a, b). This method has the advantage of being invariant with respect to the "left-out" reference category in computing the contribution of dummy variables to the coefficients effect. Further, it alters neither the detailed characteristics effect, nor the contribution of continuous variables to the coefficients effect.

After suppressing group superscripts for simplicity, we can rewrite our model in **(1)** as:

$$P_i = F\left(\alpha + \sum_{l=1}^{L} X_l \delta_l + \sum_{m=1}^{M} \sum_{k_m=2}^{K_m} D_{mk_m} \beta_{mk_m} \right), \qquad \textbf{(7)}$$

where there are *L* continuous variables *X, M* sets of categorical variables *D*, and where the *m*th set has K_m categories and K_m–1 dummy variables in the equation, with the reference group being the first category of each set of dummy variables. Then, the normalized equation is given by:

$$P_i^* = F\left(\alpha^* + \sum_{l=1}^{L} X_l \delta_i^* + \sum_{m=1}^{M} \sum_{k_m=1}^{K_m} D_{mk_m} \beta_{mk_m}^* \right), \qquad \textbf{(8)}$$

where the parameters for the intercept, continuous variables, and dummy variables are, respectively,

$$\begin{aligned} &\hat{\alpha}^* = \hat{\alpha} + \sum_{m=1}^{M} \bar{\hat{\beta}}_m; \\ &\hat{\delta}_i^* = \hat{\delta}_l, i = 1,...,L; \\ &\hat{\beta}_{mk_m}^* = \hat{\beta}_{mk_m} - \bar{\hat{\beta}}_m, k_m = 1,...,K_m, m = 1,...,M. \end{aligned} \qquad \textbf{(9)}$$

For the omitted categories in the original regression, it holds that $\hat{\beta}_{m1} = 0, \quad \forall m = 1,...,M$. In this way, we can compute the decomposition to identify characteristics and coefficient effects for each category, including the reference group, in the original equation.[28]

[27] Fairlie (1999, 2005) and Ham *et al.* (1998) are good examples of this in the nonlinear case.

[28] A similar problem affects affine transformations of continuous regressors that involve a location parameter. As Yun (2005a) pointed out, unlike categorical variables, the problem related to a continuous variable cannot be resolved, because there are infinitely many transformations. Therefore, one has to rely on specifications that make sense and are widely accepted in the literature.

Finally, in order to provide information about the statistical significance of our results, standard errors will be provided following the Delta method sketched in Yun (2005b).

Regression results

The analysis of decomposition of the racial poverty gap is based on the estimation of multivariate Logit regressions explaining the likelihood of a person being poor conditioned by family characteristics. The results for all racial and ethnic groups using three different surveys, 1994, 2002, and 2007 (with results referring respectively to poverty in 1993, 2001, and 2006) are presented in the Appendix. In general, these results suggest that, in 2006, the coefficients are similar in sign for all groups, although they may differ in magnitude and statistical significance. Due to the necessity of omitting one category in each set of dummies, the benchmark person was someone who lived in a large city (5 million or more inhabitants) in the middle Atlantic region, in a married-couple family, where the head was a 15–24 years old male, born in the United States with American parents, with only primary school education, working full-time in the private sector in a non-managerial or professional occupation, who did not change residence in the previous year. Compared with this reference case, living in the Pacific region had a significant and negative effect on the risk of being poor in all groups, even if its magnitude was higher for Blacks. The lowest risk of being poor was achieved living in New England in the case of Blacks, in east north central in the case of Latinos, and in mountain and Pacific regions for Whites. Noteworthy is the fact that living in the south central regions, which showed the largest poverty rates, only increased the risk of being poor for Latinos (west south central region). Living in non-metropolitan areas increased the chances of being poor for Blacks and Whites, while for the latter, poverty risk was also increased by living in small metropolitan areas (with populations of less than half a million). Families other than married couples were more likely to be poor in all three groups, with the effect being more intense in the case of Whites, for whom those families were less common, and less in the case of Blacks, who were more likely to have those living arrangements. Families with many dependents (especially adults) faced a higher risk of being poor. The older and more educated the family head, the lower the probability of being poor in all cases. Note, however, that while the effect associated with age was higher among Whites, the impact of college education was larger among both minorities. The effect associated with high school was similar in all three groups, however. The risk of falling into poverty increased for Blacks and Latinos when the head of the family was a non citizen, while this characteristic appeared to be non significant in the case of

Whites, for whom the poverty risk was, however, lower for second-generation immigrant family heads. It is also interesting to note that those families who had changed their residence during the previous year were also more likely to be poor in all cases.

The risk of poverty increased when the head of the family was unemployed or worked in a part-time job, while it decreased when he or she worked in managerial or professional occupations in the private sector. The effect was especially strong for Latinos if they worked as managers or professionals in the public sector, while it was not significant for the other groups in the same situation. The effect of working in the public sector in a non-managerial job or as a self-employed worker was only significantly positive in the case of Whites. The more weeks and the more weekly hours worked by the family head, the lower the poverty risk, with the effect of weeks being larger in the case of Whites and Blacks, and hours in the case of Latinos. The presence of more employed adults in the family was generally associated with lower poverty. This latter effect increased with their attained education and was higher in more skilled occupations and lower in the case of females and the self-employed. Interestingly, the presence of young workers without college studies had a significant effect on reducing poverty in the case of Latinos, but not in the case of Blacks. More weeks worked by other family members also reduced poverty risk, while the average of weekly hours worked was only significant and negative in the case of Blacks. The effect of other nonlabor income receivers was large and significant in all groups.

Explaining the racial poverty gap

Poverty rates among Blacks were 15.9 percentage points higher than among Whites in 2006, and the decomposition analysis of this differential, presented in Table 8, shows that this could be largely explained by the *characteristics effect*. That is, 12.2 percentage points (76.6 percent) of this *raw* racial poverty gap for Blacks can be attributed to differences in the observed family characteristics of both groups, which means that the *conditional* racial poverty gap—that prevailing if Blacks shared the characteristics of Whites—was 3.7 percentage points (the remaining 23.4 percent), as shown in Table 9.

Table 8. Racial poverty gap: aggregate and detailed characteristics effects

	Blacks						Hispanics					
	1993	**%**	**2001**	**%**	**2006**	**%**	**1993**	**%**	**2001**	**%**	**2006**	**%**
RAW GAP	23.0	100	14.6	100	15.9	100	20.7	100	13.6	100	12.5	100
	(0.45)		(0.31)		(0.23)		(0.39)		(0.29)		(0.37)	
AGGREGATE CHARACTERISTICS EFFECT	19.5	84.6	10.8	74.1	12.2	76.6	19.0	91.8	11.1	81.5	9.5	76.0
DETAILED:	(0.53)		(0.45)		(0.39)		(0.81)		(0.59)		(0.54)	
1. Geographic	0.3	1.2	-0.2	-1.5	-0.1	-0.6	-0.2	-0.8	-0.1	-0.6	-0.4	-2.9
	(0.51)		(0.36)		(0.31)		(0.81)		(0.36)		(0.34)	
1.1 State	0.8	3.4	0.6	3.8	0.4	2.5	0.7	3.4	0.2	1.5	0.0	0.0
	(0.43)		(0.27)		(0.22)		(0.76)		(0.30)		(0.28)	
1.2 Metropolitan area size	-0.5	-2.1	-0.8	-5.2	-0.5	-3.0	-0.9	-4.2	-0.3	-2.1	-0.4	-2.9
	(0.20)		(0.20)		(0.18)		(0.37)		(0.23)		(0.24)	
2. Sociodemographic	8.5	36.8	5.2	35.3	5.6	35.3	11.9	57.7	8.1	59.8	6.5	51.9
	(0.93)		(0.54)		(0.50)		(0.91)		(0.66)		(0.58)	
2.1 Family type	3.3	14.4	1.8	12.6	1.8	11.2	0.4	2.2	0.3	2.1	0.4	3.2
	(0.80)		(0.45)		(0.45)		(0.23)		(0.13)		(0.13)	
2.2 Mobility	0.8	3.7	-0.1	-0.5	0.4	2.4	5.0	24.3	3.4	24.7	1.9	15.1
	(0.33)		(0.19)		(0.15)		(0.82)		(0.56)		(0.52)	
2.3 Age of head	0.9	4.1	0.9	6.2	1.1	7.0	1.4	6.7	0.9	6.7	0.9	7.1
	(0.12)		(0.10)		(0.11)		(0.22)		(0.18)		(0.18)	
2.4 Dependents	3.4	14.6	2.5	16.9	2.3	14.7	5.1	24.5	3.6	26.3	3.3	26.5
	(0.33)		(0.21)		(0.19)		(0.44)		(0.32)		(0.28)	
2.4.1 Aged 0–15 years	3.2	13.8	2.3	15.6	2.1	13.5	4.8	23.2	3.3	24.0	3.1	25.0
	(0.32)		(0.20)		(0.19)		(0.42)		(0.30)		(0.27)	
2.4.2 Aged 16–45 years	0.1	0.6	0.1	1.0	0.1	0.9	0.3	1.2	0.2	1.6	0.2	1.3
	(0.04)		(0.02)		(0.02)		(0.07)		(0.04)		(0.04)	
2.4.3 Aged 46+ years	0.0	0.2	0.0	0.3	0.1	0.4	0.0	0.1	0.1	0.7	0.0	0.2
	(0.02)		(0.02)		(0.01)		(0.03)		(0.02)		(0.02)	
3. Education and labor activity	9.4	41.1	5.4	37.1	6.0	37.6	6.8	32.8	2.5	18.7	2.5	19.9
	(0.76)		(0.41)		(0.38)		(0.59)		(0.49)		(0.40)	
3.1. Family Head	6.8	29.6	2.8	18.9	2.3	14.4	5.8	28.3	2.3	16.8	2.6	20.9
	(0.76)		(0.44)		(0.38)		(0.55)		(0.38)		(0.33)	
3.1.1 Education of head	1.7	7.4	1.1	7.4	0.9	5.5	3.5	16.8	1.6	12.1	2.2	17.8
	(0.27)		(0.13)		(0.12)		(0.46)		(0.32)		(0.29)	
3.1.2 Labor activity of head	5.1	22.1	1.7	11.5	1.4	8.9	2.4	11.4	0.6	4.7	0.4	3.1
	(0.75)		(0.42)		(0.37)		(0.41)		(0.29)		(0.24)	
3.1.2.a Inactive	0.1	0.4	0.0	-0.2	0.0	-0.1	0.0	0.0	0.1	0.6	0.0	0.0
	(0.24)		(0.02)		(0.01)		(0.02)		(0.04)		(0.04)	
3.1.2.b Unemployed	0.2	0.7	0.1	0.9	0.2	1.2	0.2	1.2	0.1	0.6	0.1	0.7
	(0.11)		(0.07)		(0.05)		(0.07)		(0.04)		(0.02)	
3.1.2.c Employed (by occupation)	-0.1	-0.6	0.4	2.9	0.3	1.8	0.6	2.8	0.6	4.1	0.7	5.6
	(0.62)		(0.39)		(0.34)		(0.37)		(0.29)		(0.25)	
3.1.2.d Average weeks and weekly hours worked	5.0	21.6	1.1	7.8	1.0	6.0	1.5	7.5	-0.1	-0.6	-0.4	-3.2
	(0.35)		(0.07)		(0.06)		(0.14)		(0.01)		(0.03)	
3.2 Other members	2.6	11.5	2.7	18.2	3.7	23.2	0.9	4.5	0.3	1.9	-0.1	-1.0
	(0.67)		(0.37)		(0.34)		(0.55)		(0.44)		(0.36)	
3.2.1 Employed (by occupation, education, sex and age)	0.4	1.7	0.4	2.6	1.3	8.2	-0.1	-0.5	0.3	1.9	-0.2	-1.7
	(0.71)		(0.40)		(0.39)		(0.56)		(0.44)		(0.36)	
3.2.2 Average weeks and weekly hours worked	2.3	9.8	2.3	15.6	2.4	15.0	1.0	5.0	0.0	0.0	0.1	0.8
	(0.53)		(0.34)		(0.36)		(0.17)		(0.01)		(0.01)	
4. Nonlabor incomes: other nonworking family members Receiving nonlabor income (by education and sex)	1.3	5.5	0.5	3.2	0.7	4.2	0.4	2.2	0.5	3.6	0.9	7.0
	(0.31)		(0.13)		(0.11)		(0.21)		(0.16)		(0.16)	

Standard error in parentheses: Linearized standard errors (Raw Gap), and Delta standard errors (aggregate and detailed effects).

Table 9. Racial poverty gap: aggregate and detailed coefficients effects

	Blacks						Hispanics					
	1993	**%**	**2001**	**%**	**2006**	**%**	**1993**	**%**	**2001**	**%**	**2006**	**%**
RAW GAP	23.0	100	14.6	100	15.9	100	20.7	100	13.6	100	12.5	100
	(0.45)		(0.31)		(0.23)		(0.39)		(0.29)		(0.37)	
AGGREGATE COEFFICIENTS EFFECT	3.5	15.4	3.8	25.9	3.7	23.4	1.7	8.2	2.5	18.5	3.0	24.0
DETAILED:	(0.58)		(0.48)		(0.40)		(0.74)		(0.53)		(0.51)	
1. Geographic	-2.7	-11.9	0.2	1.4	0.3	2.0	1.3	6.1	-0.4	-2.9	-0.2	-1.9
	(1.27)		(0.21)		(0.22)		(0.98)		(0.17)		(0.12)	
1.1 State	-0.1	-0.4	0.2	1.1	0.3	2.1	0.1	0.5	-0.2	-1.6	-0.2	-1.2
	(0.22)		(0.14)		(0.17)		(0.26)		(0.11)		(0.09)	
1.2 Metropolitan area size	-2.6	-11.5	0.0	0.3	0.0	-0.1	1.2	5.6	-0.2	-1.3	-0.1	-0.7
	(1.22)		(0.14)		(0.13)		(0.92)		(0.10)		(0.06)	
2. Sociodemographic	3.5	15.2	2.1	14.1	1.7	10.4	-1.1	-5.3	-0.4	-3.2	0.9	7.1
	(1.84)		(0.97)		(1.08)		(0.87)		(0.52)		(0.50)	
2.1 Family type	-0.5	-2.4	0.3	2.2	0.7	4.6	-0.1	-0.6	0.1	0.6	0.4	3.4
	(0.73)		(0.34)		(0.39)		(0.43)		(0.20)		(0.18)	
2.2 Mobility	3.2	14.0	1.1	7.6	-0.6	-4.1	-1.6	-7.5	-1.0	-7.7	-0.1	-0.9
	(1.47)		(0.76)		(0.91)		(0.82)		(0.49)		(0.40)	
2.3 Age of head	0.9	4.0	0.1	0.9	1.0	6.2	0.6	2.9	0.5	3.6	0.7	5.4
	(0.53)		(0.29)		(0.38)		(0.34)		(0.20)		(0.18)	
2.4 Dependents	-0.1	-0.4	0.5	3.4	0.6	3.6	0.0	-0.1	0.0	0.2	-0.1	-0.7
	(0.49)		(0.35)		(0.45)		(0.31)		(0.19)		(0.18)	
2.4.1 Aged 0–15 years	0.0	-0.1	0.6	3.8	0.7	4.5	0.0	0.2	0.1	0.8	0.1	0.4
	(0.48)		(0.35)		(0.46)		(0.31)		(0.19)		(0.17)	
2.4.2 Aged 16–45 years	0.0	-0.2	0.0	-0.1	-0.1	-0.7	0.0	-0.1	-0.1	-0.4	-0.1	-0.8
	(0.04)		(0.03)		(0.05)		(0.03)		(0.02)		(0.03)	
2.4.3 Aged 46+ years	0.0	-0.1	0.0	-0.3	0.0	-0.2	0.0	-0.2	0.0	-0.2	0.0	-0.3
	(0.02)		(0.01)		(0.01)		(0.01)		(0.01)		(0.01)	
3. Education and labor activity	0.7	2.9	-1.3	-9.2	-1.6	-10.3	3.5	16.8	1.3	9.6	1.9	15.2
	(2.06)		(1.62)		(2.02)		(1.30)		(0.93)		(0.77)	
3.1. Family Head	0.7	3.0	-2.2	-15.3	-0.6	-3.9	2.9	14.0	1.1	7.9	1.4	11.3
	(1.74)		(1.40)		(1.53)		(1.31)		(0.85)		(0.70)	
3.1.1 Education of head	0.0	-0.1	-0.3	-2.0	-0.4	-2.3	-0.2	-1.1	0.1	0.9	-0.2	-1.6
	(0.23)		(0.19)		(0.26)		(0.18)		(0.13)		(0.13)	
3.1.2 Labor activity of head	0.7	3.1	-1.9	-13.2	-0.3	-1.6	3.1	15.2	1.0	7.0	1.6	12.9
	(1.72)		(1.35)		(1.49)		(1.35)		(0.84)		(0.69)	
3.1.2.a Inactive	0.8	3.3	0.0	-0.2	0.5	3.1	0.4	2.0	0.0	-0.1	0.5	3.7
	(0.51)		(0.34)		(0.43)		(0.32)		(0.22)		(0.21)	
3.1.2.b Unemployed	0.0	0.0	0.0	0.2	0.1	0.4	0.0	0.2	0.0	0.2	0.0	0.2
	(0.07)		(0.04)		(0.04)		(0.04)		(0.03)		(0.02)	
3.1.2.c Employed (by occupation)	-0.6	-2.5	-1.1	-7.3	-0.9	-5.8	0.0	0.0	0.2	1.6	-0.5	-3.9
	(1.29)		(0.95)		(1.07)		(0.83)		(0.58)		(0.53)	
3.1.2.e Average weeks and weekly hours worked	0.5	2.3	-0.9	-6.0	0.1	0.8	2.7	12.9	0.7	5.3	1.6	12.9
	(1.34)		(0.95)		(1.09)		(1.09)		(0.60)		(0.51)	
3.2 Other members	0.0	-0.1	0.9	6.1	-1.0	-6.4	0.6	2.8	0.2	1.7	0.5	3.9
	(1.06)		(0.71)		(1.06)		(0.56)		(0.46)		(0.39)	
3.2.1 Employed (by occupation, education, sex and age)	1.4	6.2	0.3	1.9	-1.8	-11.1	0.8	4.0	-1.3	-9.8	0.2	1.5
	(1.37)		(0.89)		(1.17)		(0.81)		(0.63)		(0.45)	
3.2.2 Average weeks and weekly hours worked	-1.4	-6.3	0.6	4.1	0.8	4.8	-0.2	-1.2	1.6	11.5	0.3	2.4
	(1.62)		(1.01)		(1.21)		(0.77)		(0.51)		(0.50)	
4. Nonlabor incomes: other nonworking family members Receiving nonlabor income (by education and sex)	-0.2	-0.7	0.1	0.6	-0.5	-2.9	0.2	0.8	0.1	0.9	-0.3	-2.4
	(0.57)		(0.32)		(0.34)		(0.29)		(0.20)		(0.18)	
5. Constant	2.3	10.0	2.8	19.0	3.8	24.1	-2.1	-10.3	1.9	14.1	0.8	6.0
	(2.61)		(1.65)		(2.05)		(1.71)		(1.04)		(0.83)	

Standard error in parentheses: Linearized standard errors (Raw Gap), and Delta standard errors (aggregate and detailed effects).

More specifically, as shown in Table 8, about 37.6 percent of the raw poverty gap was explained by differences in education attainment and the labor-market-related variables of all family members. As a matter of fact, the level of education and labor activity of the family head explained 14.4 percent of the gap, mainly due to lower numbers of weeks and hours worked (6 percent) and to the educational gap (5.5 percent). The gap in education and the labor activity of other family members explained an additional 23.2 percent. In this last case, the lower number of hours worked (15 percent) appears to be especially important, together with low participation and segregation of those actually employed in low paid occupations (8.2 percent). An additional 4.2 percent was explained by non-labor incomes received by other members in the family (taking into account their education).

Other non-labor related factors were crucial in explaining the higher poverty rates of Blacks compared with Whites. In fact, 35.3 percent of the raw gap was explained by differences in demographic characteristics, namely the larger number of dependent children in Black families (13.5 percent), the lower proportion of married couples and the higher proportion of female-headed families (jointly explaining 11.2 percent), and the generally younger age of family heads (7 percent). The geographical area of residence appears to be irrelevant because the effect of the higher concentration of Blacks in the poorest states was statistically insignificant at 95 percent of confidence; farther, it was overcompensated for by the fact that Blacks were more likely to live in the largest metropolitan areas (which, in fact, has a negative contribution to the gap). This result strongly contrasts with the case of African Americans in Brazil, where almost 17 percent of their higher poverty rate compared with Brazilian Whites can be explained by the concentration of Blacks in the poorest states in the north and northeast of the country (Gradín, 2009).

Among our other target group, the difference in poverty rates among Hispanics and Whites in 2006 was 12.5 percentage points, and observed family attributes explained a proportion of the raw gap which was globally similar to the case of Blacks. Indeed, the characteristics effect accounted for 9.5 percentage points (76 percent of the total difference among Hispanics and Whites), resulting in a conditional poverty gap of 3.0 percent (24 percent). Nevertheless, the underlying reasons for the higher poverty among Latinos are substantially different from those explaining the higher incidence among Blacks. For example, the sociodemographic characteristics of Hispanics were even more important and explained more than a half the overall racial poverty gap (51.9 percent), mainly due to a larger number of dependent children in Hispanic families, accounting for 25 percent, and to their immigration profile, which explained another 15.1 percent. The contribution of the young age of the family

head to explaining the racial poverty gap was similar for Latinos and Blacks (7.1 percent), but not the type of family, which barely contributed 3.2 percent.

Furthermore, achieved education and labor activity among all family members jointly explained about 20 percent of the raw poverty gap, way below the overall contribution of these variables for Blacks. Additionally, the driving factors were also different for the two groups. The main contribution for Latinos in this case came from the lower level of education attained by Hispanic family heads, which explained almost 18 percent of the total gap (compared with only 5 percent for Blacks). An additional 5.1 percent was attributable to the labor participation of family heads due to segregation into low-paid occupations; but, unlike Blacks, the larger number of hours these heads worked helped to partially compensate for this segregation (with a negative contribution of 3.2 percent). The participation of other family members in the labor market did not explain much of the gap in the case of Hispanics, due to the high employment rates of males, but non-labor incomes did explain a non-negligible 7 percent. Finally, the geographical area where Latinos were living played no significant role, just as in the case of Blacks.

Despite the fact that observed characteristics explained a large share of the racial poverty gap for Blacks and Latinos, our results also suggest that the impact of certain attributes on poverty risk might be different for these groups compared with Whites, as is shown in Table 9. The aggregate coefficient effect is in all cases significant, even if most of the effects of grouped variables are not. Some of these significant differential effects appear to be particularly interesting. For example, the number of hours worked by Hispanic family heads was less effective than those worked by Whites in protecting their respective families from being poor, as it explained about 1.6 percentage points of the raw gap in poverty rates (13 percent of the gap). Similarly, it appears that some demographic factors might be less effective in preventing poverty among Blacks and Latinos than among Whites, such as belonging to a married couple (3.4 percent of the gap for Latinos) or having an older family head (about 6 percent of the gap for both minorities).

Changing patterns across time

The racial poverty gap experienced a sharp decline in the United States during the economic boom of the 1990's due to larger decreases in the poverty rate among U.S. minorities than among Whites, as was shown above. This reduction in the raw racial poverty gaps was driven by the characteristics effect in both cases, with conditional racial poverty gaps being near 4 percent in the case of Blacks, and increasing from 1.7 to 3 percentage points in

the case of Latinos for the whole period 1993–2006. In the case of Blacks, the main responsibility for the reduction of almost 9 percentage points in the characteristics effect between 1993 and 2001 (from 19.5 to 10.8), came from the lower contribution of the number of hours worked by the family head (from 5 to 1.1 percentage points), but demographics also played a role, with reductions due to family type and the number of dependent children (respectively from 3.3 to 1.8, and from 3.2 to 2.3 percentage points). This was directly related to the increasing employment rate of single mothers and an ongoing decline in the number of children in Black families. In the case of Latinos, the cause for a 7.9 percentage points' reduction in the characteristics effect between 1993 and 2001 was more diversified, but was mainly related to the labor market performance of Latinos. In this last case, responsibility for the reduction was shared by the lower contribution of education, and the number of hours worked by the head (jointly explaining a 3.5 percentage points' cut), and hours worked by other family members (about 1 percentage point). Nonetheless, the mobility status of the family head (1.6 percentage points), and the number of dependent children (1.5 percentage points) were important as well. Note, however, that since the beginning of the 2000s, the evolution of the racial poverty gap has been different for Blacks and Latinos. The trend in the gap was slightly reversed in the case of Blacks, increasing 1.3 percentage points between 2001 and 2006 (from 14. 6 to 15.9), due to the higher contribution of employment of non-head family members (0.9 percentage points). At the same time, the gap for Latinos continued to decrease 1.1 percentage points, pushed mainly by the continuously lower effect of family head's mobility (1.5 percentage points).

Despite the break imposed by the recession at the beginning of the 2000's, it is interesting to highlight certain long run trends that continued during both periods and thus seem to be less affected by the economic cycle. There was a continuous decline in the contribution of characteristics such as the family type and education of the head in the case of Blacks, and a catch-up in mobility in the case of Latinos, as well as the number of dependents and hours worked by the head for both groups. The only continuous increase observed was the contribution of other members' employment for Blacks, and non-labor incomes for Latinos.

Conclusions

Family income in the United States is more unequally distributed and polarized than in most of the developed world, a situation partly due to a large gap in wellbeing among ethnic and racial groups. In this paper, we have analyzed the gap in poverty rates by ethnic and racial

groups in this country, and found that it can be largely explained by their different family characteristics. We have also shown that the main reasons diverge when explaining why Blacks and Latinos are more likely to be poor than Whites. Almost half of what explains the higher poverty of Blacks (37 percent of the overall gap) can be attributed to their demographic characteristics, especially the large number of dependent children, the family type, and the age of the family head. Of similar relevance is their education and performance in the labor market, especially the low labor market participation of family members other than the family head. On the contrary, in the case of people of Hispanic origin, at least two-thirds of what can be explained (more than half the raw gap) is attributable to the demographic characteristics of their families, with even more relevance of the number of children than in the case of Blacks, and with a special (even if decreasing) role played by their predominant immigration status, and with the younger age of their family heads being similar in relevance to the case of Blacks. As a consequence of the high employment rates of Hispanic males, the labor-market-related characteristics played a less fundamental role than in the case of Blacks, one almost fully accounted for by their larger educational gap. The state or region where minorities live played no role in explaining their higher poverty rates. Further, certain demographic characteristics, like the type of family or the age of the family head, and other labor variables, like the number of hours worked, were shown to have a different impact on the risk of being poor among minorities compared with Whites.

Finally, we have shown that the reduction in the racial poverty gap during the 1990's can be fully accounted for by the lower role played by differences in characteristics, especially those labor-related ones, while the conditional racial poverty gap has remained at a constant level among Blacks and is increasing among Latinos. Nevertheless, it is important to note that the fact that characteristics account for the largest part of the racial poverty gap does not mean that discrimination is no longer relevant in explaining poverty among minorities in the United States, as the poorer characteristics of Blacks and Latinos could be partly the result of different opportunities in access to education and well-paid jobs, and additionally there remain some significant coefficients effects.

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Logit coefficients of the probability of being poor	1993						2001						2006					
	Whites		Blacks		Hispanics		Whites		Blacks		Hispanics		Whites		Blacks		Hispanics	
New England	-0.183	(.09)	-0.136	(.30)	0.368	(.25)	-0.266	(.09)	-0.263	(.25)	0.026	(.20)	-0.082	(.10)	-0.729	(.30)	0.205	(.22)
East North Central	-0.036	(.08)	0.067	(.17)	-0.135	(.22)	-0.279	(.08)	-0.152	(.14)	-0.494	(.17)	-0.236	(.09)	0.053	(.17)	-0.407	(.18)
West North Central	0.178	(.10)	0.177	(.28)	-0.131	(.55)	-0.081	(.09)	-0.306	(.20)	0.224	(.24)	-0.103	(.10)	-0.177	(.22)	0.027	(.21)
South Atlantic	-0.008	(.09)	-0.006	(.18)	0.267	(.20)	-0.037	(.08)	-0.181	(.13)	-0.070	(.17)	-0.262	(.09)	-0.219	(.16)	-0.128	(.15)
East South Central	0.250	(.11)	0.461	(.21)	-0.571	(.77)	0.037	(.10)	-0.144	(.17)	0.183	(.32)	0.140	(.11)	0.001	(.20)	0.160	(.29)
West South Central	0.161	(.10)	0.548	(.19)	0.399	(.17)	-0.008	(.09)	0.115	(.16)	0.446	(.15)	-0.135	(.10)	0.226	(.18)	0.259	(.14)
Mountain	0.017	(.10)	-0.076	(.35)	0.162	(.21)	-0.014	(.09)	-0.498	(.33)	-0.159	(.16)	-0.394	(.10)	-0.150	(.25)	-0.088	(.16)
Pacific	-0.128	(.10)	-0.360	(.26)	-0.050	(.14)	-0.138	(.09)	-0.501	(.22)	-0.287	(.12)	-0.372	(.10)	-0.489	(.21)	-0.304	(.13)
non metropolitan area	0.119	(.10)	0.179	(.18)	-0.417	(.15)	0.393	(.10)	0.584	(.18)	0.118	(.17)	0.468	(.09)	0.376	(.17)	0.196	(.14)
0.1-0.25 million inhabitants	-0.047	(.15)	0.062	(.45)	-0.070	(.27)	0.105	(.12)	0.204	(.23)	0.110	(.19)	0.205	(.11)	-0.037	(.23)	0.103	(.15)
0.25-0.5 million inhabitants	0.056	(.19)	0.511	(.33)	-0.046	(.35)	-0.033	(.11)	0.482	(.17)	-0.200	(.16)	0.224	(.10)	0.184	(.18)	-0.066	(.15)
0.5-1 million inhabitants	0.420	(.23)	1.758	(.56)	-1.475	(.70)	0.058	(.11)	-0.054	(.17)	-0.003	(.15)	0.000	(.11)	0.116	(.18)	0.089	(.13)
1-2.5 million inhabitants+	0.410	(.09)	0.288	(.16)	0.211	(.14)	0.024	(.10)	0.097	(.14)	-0.288	(.13)	0.071	(.10)	0.044	(.15)	-0.060	(.12)
2.5-5 million inhabitants+	-		-		-		-0.161	(.12)	-0.056	(.16)	-0.708	(.17)	0.093	(.10)	-0.096	(.16)	-0.273	(.12)
Family: female-headed married couple	-0.402	(.17)	-0.045	(.30)	-0.207	(.25)	-0.035	(.15)	-0.201	(.29)	-0.372	(.20)	-0.102	(.16)	0.239	(.25)	0.027	(.18)
Family: Male (no spouse)	0.459	(.10)	0.479	(.23)	0.192	(.19)	0.589	(.10)	0.438	(.20)	0.435	(.14)	0.705	(.10)	0.490	(.19)	0.431	(.14)
Family: Female (no spouse, no children)	0.940	(.10)	0.858	(.21)	1.129	(.16)	0.939	(.10)	0.770	(.19)	0.915	(.15)	1.036	(.10)	0.975	(.18)	0.668	(.15)
Family: Female (no spouse, with children	0.696	(.14)	0.946	(.24)	0.790	(.22)	0.853	(.14)	0.611	(.22)	0.740	(.20)	1.179	(.14)	0.687	(.22)	0.764	(.17)
Head: Native, foreign parents	-0.227	(.08)	-0.886	(.37)	0.391	(.14)	-0.184	(.08)	0.339	(.31)	0.275	(.12)	-0.160	(.10)	-0.099	(.27)	-0.005	(.11)
Head: Naturalized American	-0.102	(.13)	-0.487	(.41)	0.383	(.19)	0.168	(.13)	-0.278	(.25)	0.375	(.14)	-0.121	(.14)	0.107	(.23)	-0.003	(.12)
Head: Foreigner	0.762	(.16)	0.284	(.29)	0.875	(.14)	0.538	(.15)	-0.062	(.21)	0.693	(.12)	0.191	(.16)	0.454	(.20)	0.514	(.10)
Head: moved within same county	0.387	(.07)	-0.041	(.14)	0.344	(.13)	0.277	(.07)	0.443	(.13)	0.617	(.13)	0.459	(.08)	0.317	(.13)	0.293	(.12)
Head: moved from different county	0.261	(.09)	0.196	(.21)	0.494	(.22)	0.468	(.08)	0.161	(.17)	0.455	(.16)	0.367	(.10)	0.404	(.20)	0.176	(.16)
Head: employed lone-mother	0.039	(.16)	0.155	(.25)	-0.129	(.24)	-0.036	(.15)	0.379	(.22)	-0.072	(.22)	-0.179	(.15)	0.103	(.22)	0.115	(.19)
Head: 25-55 years old	-0.911	(.09)	-0.398	(.19)	-0.367	(.15)	-0.814	(.07)	-0.592	(.15)	-0.191	(.12)	-0.825	(.07)	-0.273	(.14)	-0.069	(.11)
Head: 56+ years old	-2.392	(.11)	-1.555	(.23)	-1.279	(.20)	-2.298	(.10)	-1.508	(.18)	-0.858	(.17)	-2.350	(.09)	-1.515	(.17)	-0.653	(.15)
Head: secondary education	-0.507	(.06)	-0.351	(.13)	-0.315	(.12)	-0.388	(.06)	-0.276	(.10)	-0.258	(.10)	-0.323	(.07)	-0.362	(.11)	-0.407	(.09)
Head: College	-0.900	(.07)	-0.913	(.15)	-1.127	(.14)	-0.721	(.06)	-0.914	(.11)	-0.596	(.11)	-0.627	(.07)	-0.822	(.12)	-0.826	(.10)
Head: inactive	-0.124	(.15)	0.364	(.25)	0.168	(.20)	-0.180	(.13)	-0.294	(.22)	-0.422	(.18)	-0.285	(.14)	-0.170	(.23)	0.008	(.17)
Head: unemployed	0.560	(.14)	0.609	(.27)	0.796	(.21)	0.366	(.13)	0.407	(.23)	0.302	(.19)	0.495	(.15)	0.730	(.24)	0.622	(.20)
Head: pv, mp	-0.476	(.15)	0.004	(.30)	-0.875	(.33)	-0.396	(.13)	-0.520	(.26)	-0.491	(.26)	-0.392	(.14)	-0.472	(.20)	-0.280	(.18)
Head: pv, p-t, non mp	0.781	(.11)	1.201	(.20)	0.759	(.17)	0.727	(.11)	0.447	(.16)	0.612	(.15)	0.764	(.12)	0.615	(.18)	0.757	(.14)
Head: pb, mp	-0.122	(.25)	-0.430	(.51)	-0.004	(.51)	-0.541	(.21)	-0.700	(.34)	-0.754	(.45)	-0.256	(.18)	-0.438	(.36)	-1.180	(.35)
Head: pb, non mp	-0.281	(.18)	-0.471	(.27)	-0.354	(.30)	0.232	(.16)	0.128	(.21)	-0.197	(.23)	0.364	(.20)	-0.326	(.21)	0.057	(.24)
Head: self-employed	1.154	(.12)	0.937	(.48)	0.915	(.23)	1.031	(.12)	0.961	(.32)	0.341	(.23)	0.494	(.13)	0.186	(.30)	0.221	(.18)
Head: No. of weeks worked	-0.058	(.00)	-0.050	(.01)	-0.039	(.00)	-0.048	(.00)	-0.048	(.00)	-0.046	(.00)	-0.048	(.00)	-0.046	(.00)	-0.037	(.00)
Head: No. of hours worked	-0.005	(.00)	-0.011	(.01)	-0.011	(.00)	-0.016	(.00)	-0.021	(.00	-0.013	(.00)	-0.017	(.00)	-0.019	(.00)	-0.016	(.00)
No. children below 10 years old	0.525	(.04)	0.497	(.07)	0.521	(.06)	0.474	(.04)	0.546	(.06)	0.441	(.05)	0.463	(.04)	0.585	(.07)	0.418	(.05)
No. children 10-15 years old	0.524	(.05)	0.539	(.10)	0.503	(.08)	0.397	(.05)	0.525	(.07)	0.530	(.07)	0.288	(.05)	0.477	(.07)	0.491	(.06)
No. dependents 16-45 years old	0.508	(.07)	0.566	(.10)	0.632	(.08)	0.468	(.06)	0.584	(.09)	0.488	(.08)	0.566	(.05)	0.536	(.08)	0.469	(.06)
No. dependents 46-64 years old	1.040	(.12)	0.790	(.22)	0.767	(.22)	1.222	(.12)	1.123	(.16)	0.742	(.15)	1.366	(.10)	0.907	(.16)	0.613	(.14)
No. dependents 65+ years old	1.726	(.20)	0.709	(.48)	0.205	(.34)	2.198	(.27)	0.775	(.31)	0.960	(.26)	1.904	(.16)	1.224	(.24)	0.230	(.21)
No. other employed, 15-45, primary	-0.379	(.19)	-0.650	(.41)	-0.780	(.23)	-0.003	(.16)	-0.175	(.33)	-0.119	(.19)	-0.234	(.20)	-0.252	(.33)	-0.332	(.18)
No. other employed, 15-45, secondary	-0.727	(.19)	-0.760	(.31)	-1.092	(.27)	-0.470	(.17)	-0.235	(.31)	-0.280	(.22)	-0.378	(.18)	-0.408	(.30)	-0.387	(.19)
No. other employed, 15-45, College	-0.983	(.20)	-0.784	(.35)	-1.478	(.31)	-0.916	(.19)	-0.588	(.30)	-0.437	(.26)	-0.730	(.18)	-1.506	(.37)	-0.832	(.23)
No. other employed, 46+, primary	-0.369	(.29)	-0.672	(.52)	-1.557	(.51)	0.335	(.34)	0.818	(.54)	-0.045	(.30)	-0.779	(.55)	0.108	(.46)	-0.492	(.27)
No. other employed, 46+, sec-College	-0.873	(.17)	-1.029	(.38)	-1.213	(.31)	-0.617	(.13)	-0.877	(.29)	-1.002	(.26)	-0.849	(.14)	-1.062	(.31)	-1.043	(.22)
No. other employed, pv, mp	-0.865	(.21)	0.322	(.44)	0.418	(.42)	-0.891	(.16)	-0.337	(.35)	-1.325	(.37)	-0.468	(.15)	-0.387	(.28)	-0.416	(.26)
No. other employed, pv, f-t, non mp	-0.393	(.13)	0.276	(.23)	-0.048	(.18)	-0.391	(.11)	-0.279	(.20)	-0.707	(.15)	-0.161	(.11)	-0.283	(.18)	-0.247	(.14)
No. other employed, pv, p-t, non mp	0.135	(.13)	0.653	(.27)	0.793	(.23)	-0.045	(.12)	0.353	(.24)	-0.386	(.18)	0.138	(.14)	0.215	(.22)	0.248	(.17)
No. other employed, pb, mp	-0.581	(.27)	-1.655	(.70)	-1.824	(.91)	-0.574	(.26)	-1.074	(.64)	-1.127	(.60)	-0.500	(.21)	-2.029	(.51)	-0.593	(.40)
No. other employed, pb, non mp	-0.084	(.22)	-0.863	(.37)	0.264	(.33)	-0.200	(.19)	-0.343	(.29)	-0.294	(.29)	-0.912	(.25)	-0.492	(.29)	0.070	(.33)
No. other self-employed,	0.592	(.14)	-0.381	(.50)	0.880	(.33)	0.487	(.13)	0.883	(.36)	0.190	(.26)	0.472	(.15)	0.039	(.38)	0.608	(.23)
No. of other female employed	0.214	(.15)	0.116	(.27)	0.373	(.20)	0.531	(.16)	-0.063	(.26)	0.115	(.17)	0.266	(.16)	0.473	(.23)	0.388	(.16)
Weeks worked by others	-0.023	(.00)	-0.023	(.01)	-0.034	(.01)	-0.029	(.01)	-0.028	(.01)	-0.021	(.01)	-0.035	(.01)	-0.020	(.01)	-0.031	(.01)
Hours worked by others	0.002	(.01)	-0.009	(.02)	0.013	(.01)	-0.016	(.01)	-0.012	(.01)	-0.009	(.01)	-0.008	(.01)	-0.020	(.01)	-0.008	(.01)
No. other nonlabor income, primary	0.045	(.12)	0.072	(.17)	-0.624	(.18)	-0.171	(.12)	-0.456	(.19)	-0.438	(.16)	-0.364	(.16)	-0.259	(.19)	-0.583	(.16)
No. other nonlabor income, secondary	-0.436	(.15)	-0.274	(.26)	-1.013	(.24)	-0.800	(.14)	-0.857	(.23)	-0.643	(.20)	-0.787	(.17)	-1.058	(.23)	-1.131	(.28)
No. other nonlabor income, College	-0.802	(.17)	-0.674	(.32)	-0.899	(.27)	-1.126	(.17)	-0.846	(.33)	-0.580	(.30)	-0.805	(.19)	-0.948	(.24)	-0.683	(.23)
N. other income female receivers	-0.436	(.15)	-0.657	(.25)	0.235	(.21)	-0.215	(.14)	-0.142	(.22)	-0.341	(.21)	-0.135	(.17)	-0.330	(.23)	-0.391	(.20)
Constant	0.692	(.23)	0.429	(.39)	-0.103	(.34)	0.721	(.21)	1.093	(.34)	0.586	(.30)	0.669	(.21)	0.890	(.36)	0.295	(.28)

Notes: Robust standard errors in parenthesis. Observations are all individuals with full information, clustered by family.

Abbreviations: pv=private sector, pb=public sector, p-t=part-time, f-t=full-time, p=managerial or professional occupation.

[+] In 1993 the last category of the size of Metropolitan area used in the regression was: 1-3 million, and the omitted value: more than 3 million.

Summary of regressions	1993			2001			2006		
	Whites	Blacks	Hispanics	Whites	Blacks	Hispanics	Whites	Blacks	Hispanics
No. of unweighted observations	109,642	14,916	19,452	149,032	24,874	29,327	132,853	23,840	34,125
Log-likelihood	-20,976	-4,753	-6,940	-24,639	-7,284	-9,245	-21,969	-7,057	-10,802
Pseudo R^2	40.7	49.7	42.1	39.9	45.0	39.3	41.6	46.4	37.9
Wald $\chi^2(60)$	3,998	1,043	1,268	4,509	1,417	1,361	4,089	1,305	1,628
Probability ($> \chi^2$)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0