



The Hispanic population: 1990–2000 growth and change¹

BETSY GUZMÁN

U.S. Census Bureau, Washington, DC, USA

EILEEN DIAZ McCONNELL

Indiana University, Bloomington, IN, USA

Abstract. Data sources indicate that there were significant changes in the Hispanic population between 1990 and 2000. Using short-form data from the 1990 and 2000 censuses, we explore changes in the size and distribution of the Latino population. The most important shifts in the Hispanic population are the continued increase of the Latino population in the United States, the significant growth of Hispanic population who identify as ‘other’ Latino, and the growing importance of the Midwest and South as popular receiving areas for Latinos. Additionally, our comparison of household composition over the ten-year period shows little change. We offer potential explanations, both substantive and methodological, for these important transitions in the Latino population over the decade.

Keywords: Census, Hispanic, Latino

Introduction

Numerous data sources suggest that there were significant changes in the Hispanic population between 1990 and 2000.² First, Census 2000 results indicate that the Latino population grew 57.9 percent from 1990 to 2000, and now comprise 12.5 percent of the U.S. population (Guzmán 2001). The proportion of Hispanics that claimed Mexican, Puerto Rican or Cuban origin grew by 52.9 percent, 24.9 percent and 18.9 percent, respectively, over the ten year period. Most strikingly, census data show that the proportion of Latinos who reported that they were some ‘other’ Hispanic origin and not Mexican, Puerto Rican, or Cuban, increased by 96.9 percent between 1990 and 2000 (Guzmán 2001).

Second, native and foreign-born Latinos appear to have become more diffuse in their geographic distributions in recent years, as some have moved away from the Southwestern United States to other regions of the country (Aponte & Siles 1994, Charvat-Burke & Goudy 1999, Gouveia & Stull 1997, Passel & Zimmerman 2000). Indeed, Census 2000 data indicate that every region in the United States experienced large Latino population growth over

the decade: 81.0 percent in the Midwest, 71.2 percent in the South, 51.8 percent in the West, and 39.9 percent in the Northeast (Guzmán 2001, Table 2). Finally, Current Population Survey (CPS) data reveal that the characteristics of recent immigrants from Mexico and other Latin American countries are different than in earlier decades (Camarota 2001, Cornelius & Marcelli 2001), which has led to shifts in the composition of the Latino population generally.

This paper uses short-form data from the 1990 and 2000 decennial census to explore changes in the size and the distribution of the Latino population from 1990 to 2000.³ Documenting recent changes in this population is important. First, given the rapid growth of Hispanics in the United States, it is essential to understand changes in this population over time. Second, as mentioned earlier, researchers suggest that the attributes and regional distributions of Latinos have changed in recent years, perhaps due to changes in the Latin American migrant population. These changes impact the features of the Hispanic population generally. Third, shifts and growth in this population imply larger widespread changes occurring in the United States. Therefore, it is critical to identify potential explanations for changes in the Hispanic population over the last decade.

The analysis presented in this paper is based on 1990 and 2000 Census Summary File 1 (SF1) data limited to those who reported that they were Spanish/Hispanic/Latino, regardless of race. The 100-percent data from these sources aggregated to the national level are employed. General comparisons between 1990 and 2000 data are presented in the tables to document changes in the size and characteristics of the Hispanic population occurring during the decade. We then explore potential explanations for Hispanic growth and change.

Results

Table 1 shows that there was enormous growth in the Latino population between 1990 and 2000. More specifically, the Hispanic population grew by approximately 60 percent during the decade. As noted by Guzmán (2001), the largest group, the Mexican origin population, grew by approximately 52.9 percent, while the Puerto Rican and Cuban population increased by 24.9 percent and 18.9 percent respectively. Most notably, the proportion of the US population reporting 'other Hispanic' origins nearly doubled (96.9 percent) between 1990 and 2000.

Table 2 presents data on the responses of those who self-identified as 'other Hispanic' in Census 2000, derived from Guzmán's (2001) calculations.⁴ The table demonstrates that more than 10 million individuals who self-identify as Hispanic did not choose the Mexican, Puerto Rican,

Table 1. The Hispanic population in the United States, 1990 and 2000

	Number		Change, 1990-2000		Percent distribution	
	1990	2000	Number	Percent	1990	2000
Hispanic	22,354,059	35,305,818	12,951,759	57.9	100.0	100.0
Mexican	13,495,938	20,640,711	7,144,773	52.9	60.3	58.5
Puerto Rican	2,727,754	3,406,178	678,424	24.9	12.2	9.6
Cuban	1,043,932	1,241,685	197,753	18.9	4.7	3.5
Other Hispanic	5,086,435	10,017,244	4,930,809	96.9	22.8	28.4

Source: U.S. Census Bureau, 1990 Summary Tape File and 2000 Summary File 1, Guzmán (2001).

Table 2. All other Hispanic population by type, 2000

	2000	
	Number	Percent
Other Hispanic or Latino	10,017,244	100.0
All Other Hispanic or Latino	6,111,665	61.0
Checkbox only, other Hispanic	1,733,274	17.3
Write-in Spanish	686,004	6.8
Write-in Hispanic	2,454,529	24.5
Write-in Latino	450,769	4.5
Not elsewhere classified	787,089	7.9

Source: U.S. Census Bureau, 1990 Summary Tape File and 2000 Summary File 1, Guzmán (2001).

or Cuban categories. Of those who chose the ‘other’ category, 61.0 percent or approximately 6.1 million Latinos, did not identify with one of the specified Hispanic origin classifications.⁵ Of all Latinos who chose the ‘other Spanish/Hispanic/Latino’ category, 28.4 percent checked the box for other Hispanic, but did not write in a particular group. In contrast, 40.2 percent wrote in the term Hispanic, while an additional 18.6 percent wrote in the term ‘Spanish’ or ‘Latino’.⁶

Table 3 demonstrates that three of the four regions experienced more than 50 percent Latino population growth between 1990 and 2000.⁷ As in the past, the West experienced the largest numeric increase of Hispanics. However, greater proportional growth in the Latino population occurred in the Midwest and South (81.0 percent and 71.2 percent, respectively) compared to the North and West.

Table 3 also shows the percent of the total Latino population living in the United States that reside in each region. Again, as in the past, the largest

Table 3. The regional distribution of the Hispanic population, 1990 and 2000

	Number		Change, 1990-2000		Percent distribution	
	1990	2000	Number	Percent	1990	2000
Region						
Midwest	1,726,509	3,124,532	1,398,023	81.0	7.7	8.9
Northeast	3,754,389	5,254,087	1,499,698	39.9	16.8	14.9
South	6,767,021	11,586,696	4,819,675	71.2	30.3	32.8
West	10,106,140	15,340,503	5,234,363	51.8	45.2	43.5

Source: U.S. Census Bureau, 1990 Summary Tape File and 2000 Summary File 1, Guzmán (2001).

proportion of Latinos in the country (43.5 percent) lived in the West in 2000. However, the proportion of all Latinos in the United States who lived in the region decreased 1.7 percentage points between 1990 and 2000. Similarly, while 16.8 percent of all Latinos lived in the Northeast in 1990, by 2000, the proportion had dropped to 14.9 percent. In contrast, a higher proportion of all Latinos lived in the Midwest and South in 2000 than ten years earlier. More specifically, 8.9 percent of all Hispanics resided in the Midwest in 2000, up from 7.7 percent in 1990. Similarly, 32.8 percent of the total Hispanic population lived in the South in 2000, compared to 30.3 percent in 2000.

Table 4 presents information about the household composition of Latinos between 1990 and 2000. As would be expected, Hispanic households and families grew at rates (53.7 percent and 54.1 percent, respectively) that are similar to the overall Hispanic population growth in the United States between 1990 and 2000. Further, the results show minor variation in the household composition over the time period. For example, the proportion of Latinos in family households, defined as households in which at least one person related to the householder also resides in the residence, increased slightly (0.2 percentage points) between 1990 and 2000, while the percent of non-family households decreased by the same amount over the period.

The family household type of Hispanics also changed. For example, the number of Latino married couple households increased 50.8 percent between 1990 and 2000, but their proportion of total households dropped from 54.9 percent in 1990 to 53.9 percent ten years later. The number of male householder families increased 77.2 percent over the period but comprised 8.2 percent of all households, an increase of 1 percent from 1990. Finally, Table 4 demonstrates that the average household and family sizes increased slightly between 1990 and 2000. The size of the average household increased by 2.5 percent, from 3.53 in 1990 to 3.62 in 2000. The average family size increased 1.3 percent, from 3.88 to 3.93 over the decade. In general, though there was

Table 4. The Hispanic population by household type and size, 1990 and 2000

	Number		Change, 1990-2000		Percent distribution	
	1990	2000	Number	Percent	1990	2000
Total Latino households	6,001,718	9,222,402	3,220,684	53.7	100.0	100.0
Family households	4,789,261	7,381,950	2,592,689	54.1	79.8	80.0
Married-couple	3,297,572	4,973,284	1,675,712	50.8	54.9	53.9
Male, no wife present	429,225	760,798	93,834	77.2	7.2	8.2
Female, no husband present	1,062,464	1,645,968	583,504	54.9	17.7	17.8
Non-family households	1,212,457	1,840,452	627,995	51.8	20.2	20.0
Average household size	3.53	3.62	0.09	2.5	(x)	(x)
Average family size	3.88	3.93	0.05	1.3	(x)	(x)

Source: U.S. Census Bureau, 1990 Summary Tape File and 2000 Summary File 1.

(x) Not Applicable.

some change in Latino households by type and size, they remained quite similar between 1990 and 2000. These results suggest that much of the Latino population growth in the United States occurred through the addition of new members to households, rather than large changes in the types of Latino households themselves.

Discussion

There are numerous potential substantive and methodological reasons for the growth and change in the Latino population between 1990 and 2000.

Substantive Factors

Fertility

High fertility rates among Latinos most likely contributed to 1990-2000 Hispanic population change (del Pinal & Singer 1997). Indeed, fertility indicators from both the 1994 and 1998 CPS demonstrate that Hispanic women of any age had the highest fertility rate of other racial and ethnic group in the United States (Bachu 1995, Bachu & O'Connell 2000). For example, in 1998 there were 84.0 births per 1,000 Hispanic women aged 15 to 44, compared to 52.4 for Asian and Pacific Islander, 62.9 for Black, and 60.8 for non-Hispanic White women (Bachu & O'Connell 2000). Though the fertility rates for Latinas remain high, they decreased during the decade, from 99.2 births per 1,000 women aged 15 to 44 in 1994 to 84.0 in 1998 (Bachu 1995). Nevertheless, the large growth of the Hispanic population between 1990 and 2000 is partially due to the high fertility rates of Latinas.

Migration

High levels of migration from Latin America during the decade undoubtedly increased the size of the Latino population counted in the census generally. Current Population Survey data indicate that the majority of the foreign-born in 2000 were from Latin America, up to 51.0 percent (Lollock 2001) from 48.1 percent in 1995 (Ethnic and Hispanic Statistics Branch 1995). The Immigration and Naturalization Service (INS) reports greater diversity in the countries of origin for lawful immigrants during the 1990's than in earlier periods. For example, lawful migration for countries such as the Dominican Republic increased between 1990 and 1998 (INS 2000). Undocumented migration from Latin American countries also occurred during the decade (Durand et al. 1999). Statistics from the INS indicate that the majority of the

foreign-born removed from the country during the 1990's were from Latin America. Indeed, in 1999, 95.8 percent of all criminal and non-criminal removals from the country were people from Latin America (INS 2001). Thus, high rates of migration from Latin America help explain the growth of the Hispanic population during the 1990's.

Growing employment opportunities in the United States, especially in manufacturing, has been offered as one explanation for the increase of Latin American migration to the United States over the decade (Bustamante et al. 1997, del Pinal & Singer 1997, Stull et al. 1995). Though some manufacturing work can be dirty and dangerous (Stull et al. 1995), employment in manufacturing tends to be more stable (Martin et al. 1996) and pay more (Martin 1997) than work in agriculture or other sectors. Additionally, the tight labor market in recent years has led some manufacturing companies to increase the hiring bonuses and wages paid to employees (Gouveia & Saenz 1999). Expanding employment and recent increases in pay, benefits, and bonuses may make the industry attractive to Latin Americans, as well as native-born Latinos.

Indeed, recent statistics show that manufacturing employment opportunities expanded during the early part of the decade, increasing by 2.9 million jobs between 1988 and 1998 (Braddock 1999). Manufacturing opportunities also increased in particular regions such as the Midwest and South. Indeed, Economic Census data indicate that there were approximately 416,000 more jobs in manufacturing in the Midwest in 1992 than in 1997 (U.S. Department of Commerce 1996, 2001). The South and the Midwest have the largest regional shares of total manufacturing employment in the United States, accounting for 32.0 percent and 27.0 percent of all manufacturing in the country, respectively (*In Context* May 2000). In addition, large shares of the workforces in such regions are employed in manufacturing. Approximately 24 percent of all private nonagricultural workers in the Midwest were employed in manufacturing in 1999, the highest proportion of workers employed in manufacturing in the United States (U.S. Department of Labor 2001). Bureau of Labor Statistics (2001a) data forecasts that manufacturing industries, such as the meat products industry, will increase their workforce 15.4 percent by 2008. Growth in such industries helps explain increased Latin American migration between 1990 and 2000.

Recent legislation may have also promoted migration from Latin America. For example, the Immigration Reform and Control Act (IRCA) conferred legal status on the large number of undocumented workers in the United States, including those working in agriculture through the Special Agricultural Workers (SAW) program (Chavez 1992, Martin 1995).⁸ IRCA, passed in 1986, continued to affect the Latin American flow during the 1990's (Martin 1995, Massey 1998), as formerly undocumented individuals were able to

sponsor additional family members. Over three million Mexican individuals became legal residents as a result of IRCA (Alarcón 2000). Though IRCA decreased undocumented migration from Mexico between 1986 and 1989 (Donato et al. 1992), research demonstrates that undocumented migration rose to even greater levels after 1989 (Bean et al. 1990).

Proposition 187, legislation that would limit access to healthcare and education to undocumented immigrants, was passed in California in 1994. Though there is an injunction against most terms of Proposition 187, the passage of the law led many undocumented individuals to apply for citizenship (Massey 1998). The Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) of 1996 allowed certain unauthorized immigrants to apply for legal permanent residence if they had entered the United States before December 1, 1988, applied by January 14, 1998, and paid a \$1000 fee. Researchers note that IIRIRA has had the unintended effect of encouraging undocumented migrants to remain in the country, rather than risk apprehension by traveling between a home country and the United States (Binational Study 1997). Thus, undocumented migration from Latin America may have increased over the decade partially because more entered and remained in the country fearing that immigration policies would become stricter (Massey 1998). In sum, immigration policies are associated with a larger flow of undocumented Latin American migration to the United States during the 1990's.

Recent immigration policy is also associated with the changing geographic patterns of Latinos, especially the growth of the Hispanic population in the Midwest and South between 1990 and 2000. For example, IRCA encouraged the spread of migration to new areas of the United States, as unauthorized farm workers moved to the Midwest and elsewhere to escape detection (U.S. Commission on Agricultural Workers 1992). The passage of Proposition 187 in California in 1994 and the establishment of border enforcement programs such as Operation Gatekeeper in San Diego in 1996 may have had similar results, and led native and foreign-born Latinos alike to move to regions with different environments, such as the Midwest. Additionally, there is much higher INS surveillance in the Southwest (Bustamante et al. 1997), partly due to the focus of the California INS on 'the apprehension of criminal aliens', (Martin 1997: 207), than in other regions of the country.⁹ Immigration policies undoubtedly influenced the geographic distribution of foreign-born Latinos in the United States. Irrespective of the reasons for migration, the entry of documented and undocumented Latin Americans over the decade also contributed to the growth of the Hispanic population noted in Census 2000.

Growth of employment opportunities

Additionally, various shifts in the U.S. labor market occurred during the latter half of the century, which may also be related to the changing geographic distributions of Latinos between 1990 and 2000. For example, researchers note that the growth of manufacturing opportunities in the Midwest is associated with increases in the Latin American and Latino populations in the region (Charvat-Burke & Goudy 1999, del Pinal & Singer 1997, Gouveia & Saenz 1999, Gouveia & Stull 1995).¹⁰ Economic Census data demonstrate that jobs increased dramatically in the region over the decade, as noted in the Census Bureau (1998) publication, the 'Rust Belt Rebounds'. For example, the manufacturing industry in Iowa employed 14.6 percent, or 235,880, more people in 1997 than a decade earlier, when manufacturing employed 206,100 (U.S. Department of Commerce 1996). In other states such as Georgia, the manufacturing industry employed fewer individuals over the decade (down to 533,830 in 1997 compared to 569,000 in 1987), yet particular industries such as meat product manufacturing expanded between 1987 and 1997, from 20,800 employees in 1987 to approximately 34,200 in 1997 (U.S. Department of Commerce 1996).

The growth in manufacturing, particularly in meat packing, is partly due to the sector's 'rural industrialization strategy' of relocating urban plants to rural areas in the Midwest and South in order to cut costs (Broadway 1995). Increased plant mechanization limits the need for highly skilled or highly paid workers; however the pay and working conditions of such jobs results in high turnover of the local workforce (del Pinal & Singer 1997). Consequently, many companies recruit workers from other countries and from the border-states to fill the plant floors and reward them for bringing in other workers (Broadway 1995), which results in some plant workforces rapidly being dominated by Hispanic immigrants (Gouveia & Stull 1997). Thus, employment opportunities and recruiting may have drawn native and foreign-born Latinos away from the traditional areas of settlement to regions such as the Midwest (see Table 4). Future analyses will test whether such factors explain the increasingly diffuse spatial distribution of Latinos.

Changing self-identification

The self-identification of Hispanic-origin individuals may have changed over the decade, which would help explain the enormous growth in the number of individuals who chose the 'other Hispanic' label in 2000, instead of identifying as Mexican, Puerto Rican or Cuban. For example, the Latino National Political Survey, conducted in 1989 and 1990, found that the majority of Hispanics at that time preferred identifying with a particular country instead

of pan-ethnic terms (de la Garza et al. 1992). However, more individuals preferred to categorize themselves using broader ethnic terms in 2000, instead of identifying with a specific country of origin as in years past. For example, more than 5.3 million Latinos identified with a generic term, that is, checking the box for Hispanic origin only, or writing in 'Hispanic', 'Spanish', or 'Latino' in the 2000 census. This is a substantially larger group than those who identified as Puerto Rican or Cuban (4.6 million), the two largest national origin groups after Mexico. Further, this preference for a pan-ethnic identity is supported by the fact that 91.4 percent of the respondents who chose the 'Other' category did not identify with a particular country, instead writing in the terms, 'Spanish', 'Hispanic', 'Latino' or checking the box for other Hispanic without entering a more specific response.

The term 'Hispanic' was especially popular for those who did not indicate Mexican, Puerto Rican or Cuban origins, but rather some 'other Hispanic' group. Approximately 40 percent of those individuals who did not choose a specific origin (2,454,529 of 6,111,665) wrote in the term 'Hispanic' in the appropriate space. Past research confirms the majority of those who prefer pan-ethnic labels use the term Hispanic rather than the term Latino (del Pinal & Singer 1997, Granados 2000). Further, individuals of particular national origins are most likely to prefer the term over other pan-ethnic labels. For example, Cubans and Puerto Ricans are more likely to prefer the Hispanic label compared to other national origin groups (del Pinal & Singer 1997). The popularity of the label is not surprising, given the common usage of the term since its adoption by the U.S. Department of Health, Education and Welfare in 1973 (Flores-Hughes 1996). Much fewer individuals wrote in the term, 'Latino', approximately 451,000, compared to approximately 2.5 million individuals who wrote in 'Hispanic'. Identification with the Latino label is more likely to be found in different regional areas than the Hispanic label (Cuello 1998, del Pinal & Singer 1997). Finally, 686,004 people who wrote in the term 'Spanish' are another group. Past research suggests that they are mostly likely native-born (del Pinal & Singer 1997).

Perhaps Latinos have 'several overlapping or shifting identities that are used consciously and selectively' (Cuello 1998: 3), therefore, using a pan-ethnic identification in the decennial census reflects usage of one of several ethnic identities that Latinos choose when given the option. Indeed, the decision to identify as pan-Hispanic in the census may be a situational decision to use a political term in a survey that possesses political implications. Therefore, perhaps in other contexts such individuals would have chosen to identify with a national origin group.

Nevertheless, we argue that the act of *writing* in a pan-ethnic term on the Census form instead of simply checking a box to indicate 'Hispanic

Origin' suggests that pan-ethnicity may be a particularly salient identity for some individuals. In addition, the diversity of pan-ethnic labels, 'Hispanic', 'Spanish', and 'Latino', chosen by respondents provides further indication that the pan-ethnic label reflects a conscious choice. Moreover, the diversity suggests that the exact label used is substantively important. Indeed, use of the term 'Latino' may reflect a different variation of adherence to a pan-ethnic identity than using the more prevalent use of the term, 'Hispanic', for example, 'Latino' is a more recent term than 'Hispanic', tends to refer to the U.S. experience of those of Latin American descent, and has a different political implication than the term 'Hispanic' (Cuello 1998).

There are numerous potential explanations for the popularity of a pan-ethnic term. First, this preference might be more common among those who have long-established ties with the United States and who do not feel intimately tied with a particular Latin American country but may still retain particular cultural characteristics that are associated with Latin America. The popularity of a panethnic term among Latinos may reflect the fact that large proportions of Hispanics are U.S. born, a group that are more likely to use pan-ethnic terms than the foreign-born (de la Garza et al. 1992). For example, younger generations of Latinos who were born in the United States and see themselves as more American than affiliated with a particular country might prefer to identify as 'other Hispanic' rather than with a particular country of origin.

Second, panethnicity is a particularly useful unifying strategy for those individuals whose 'history involves racial subjugation' due to the 'continuing importance of race and the persistence of racial lumping in American society' (Espiritu 1992: 175). Consequently, some may choose a pan-ethnic label because it reflects the fact that Hispanics are often lumped together, despite their heterogeneity. Thus, as mentioned earlier, it may reflect a political choice. Another potential explanation is the 'Latino explosion', often noted by the mainstream press, occurring in popular culture during the 1990's may have made it more acceptable for a person who ordinarily would not have identified as Hispanic to choose this category. Given that respondents did not have to choose between race and Hispanic origin, those with a distant ancestor who was Hispanic may have felt more comfortable, and indeed, perhaps proud, of categorizing themselves as Hispanic. Such individuals may not have felt it necessary or appropriate to specify a particular country. Irrespective of the term preferred by Latinos, the growth of the 'Other Hispanic' group is striking.

Methodological factors

Changes in the survey

Methodological issues contribute to the changes in the Hispanic population noted in Census 2000. The way in which Hispanics have been classified in the decennial census has changed significantly over time. For example, the term 'Mexican' was included as a response category for the race question in the 1930 census. There was no direct measure of Hispanic ethnicity until 1970, and the 1980 census was the first to ask both race and Hispanic origin questions (Rodriguez 2000). Respondents in the 1980 and 1990 censuses could identify as 'Spanish/Hispanic origin or descent' and choose among the categories of Mexican, Puerto Rican, Cuban, or other. Starting in 1990, respondents could write in a specific label if they chose the 'Other Spanish/Hispanic' category. The term 'Latino' was added to the Hispanic origin question in Census 2000 in order to be more inclusive of the variety of terms that Hispanics use to identify themselves (Chapa 2000).¹¹ Thus, people could identify as Mexican, Puerto Rican, Cuban, or other Spanish/Hispanic/Latino. In addition, as in 1990, those who marked 'other Spanish/Hispanic/Latino' could write in a specific origin. Perhaps adding the term 'Latino' to the 2000 census Hispanic origin question contributed to differences noted between 1990 and 2000. Additionally, the Hispanic origin item in the 1990 census provided examples of other Spanish/Hispanic groups, such as Argentinean, Colombian, and Dominican. The examples were dropped from the Hispanic origin question in Census 2000, which may have allowed respondents to feel less restricted to report a particular national origin and reported a pan-ethnic term instead.

Improved coverage

Coverage error is typically due to mobility, language barriers, concealment, and irregular housing (Brownrigg & Martin 1989, de la Puente n.d.). All of these factors apply to Latinos, which makes it difficult to achieve an accurate count of the Hispanic population in the decennial census.¹² Indeed, Latinos of all races were estimated to be undercounted by 5.0 percent in the 1990 census compared to 4.4 percent of African-American and 0.7 percent of non-Hispanic Whites (U.S. Department of Commerce August 1997). In order to reduce the undercount of all groups, the operational plan for Census 2000 called for the development of formal partnerships with community organizations, local governments, other agencies, and private companies (Census 2000 Operational Plan 2000), a privately organized advertising campaign (U.S. Census Bureau n.d.), multiple contacts to encourage households to re-

turn the Census forms, and the distribution of ‘Be Counted’ forms at stores, malls, community centers, schools and elsewhere in order to enumerate those who had not filled out Census forms at home (U.S. Department of Commerce 1997). Other strategies were employed in Census 2000 to specifically reach Latinos and other groups. For example, language guides in over 20 languages, including Spanish, were available for those needing assistance with completing the English short and long-form versions of the questionnaire. Moreover, Latinos and Spanish speakers were targeted via a marketing program featuring artwork by a noted Latina artist and radio advertisements in Spanish.

These aggressive attempts to encourage participation of all groups resulted in Census 2000 being proclaimed a ‘better census’ than the 1990 census (U.S. Department of Commerce 2000). Indeed, the Final Response Rate for the United States was 67.0 percent in 2000, up 2 points from the 1990 response rate of 65.0 percent.¹³ Particular states with traditionally high Latino populations, such as California (70 percent) and Illinois (69 percent), exceeded the national response rates in 2000. The Hispanic undercount was estimated to be 2.9 percent in the Census 2000, a large improvement over the 1990 census where the rate was 5.0 percent, which indicates the strategies to increase the participation of Latinos and reduce Hispanic coverage were successful.¹⁴ Thus, part of the growth of the Hispanic population noted in Census 2000 may be due to the fact that the census reached more Latinos than in previous decades, and therefore, resulted in enumerating more Hispanics.

Ethnicity and self-identification

Another methodological explanation for the growth of the Hispanic population may have to do with the definitions of the terms race, ethnicity, Hispanic and Latino. For example, a study of the June 2000 administration of the CPS Race and Ethnicity Supplement finds that individuals of Hispanic origin are confused about what the term ‘Hispanic’ means (Fisher et al. 2000). Similarly, results from Census 2000 indicating that Hispanic origin individuals have higher item non-response rates for self-administered returns compared to interviewer-administered returns are explained as “difficulty understanding the difference between the two items (the race and Hispanic origin questions)”, (Treat & Stackhouse 2001: 6). Rodriguez (2000) notes that responses by Hispanics that do not fit the governmental categories (such as identifying as ‘other race’ instead of White or Black in the 1980 and 1990 censuses) are often characterized as ‘confusion’ over the meaning of the question. She argues that perhaps the decision by the federal government to treat race and ethnicity as separate entities and the assumption that racial categories are binary rather than located within a continuum simply do not apply to Latinos

(Rodriguez 2000). Thus, Latinos are not confused over what the terms mean, but rather that the terms are not applicable for groups in which the lines between race and ethnicity are blurred (Rodriguez 2000). Perhaps placing the 'Hispanic Origin' question before the 'Race' question in Census 2000 facilitated better collection of Hispanic origin data than in previous censuses, and consequently, captured more Latinos than in previous censuses.

The large growth of the 'other Hispanic' population captured in Census 2000 may also have methodological explanations. For example, the census allows respondents to self-identify their race and ethnicity; however, many surveys conducted by the Census Bureau do not allow as much flexibility in self-identification. For example, many surveys are administered by Computer Assisted Personal Interviews (CAPI) or Computer Assisted Telephone Interviews (CATI). In such surveys, interviewers are trained to elicit a specific group response for Hispanic origin, potentially dissuading individuals from selecting a pan-ethnic classification. However, the Census 2000 figures show that many respondents either wrote in terms such as 'Hispanic', 'Spanish', or 'Latino' or did not specify a detailed national origin group, even when given the option to be more specific about their Hispanic origin. These results hint that other surveys could be extracting responses that many Hispanics would not offer when given the option to choose their ethnic identity. Thus, the growth of the 'other Hispanic' category noted between 1990 and 2000 may reflect the fact that, unlike other surveys, the decennial census captures the ambiguity present in the ethnic identity of all individuals, including Latinos, and demonstrates how Latinos self-identify when given the option.

Methodological reasons also may explain the stability of Latino households between 1990 and 2000. Perhaps household types changed over the decade, yet the change was not reflected in Census 2000. For example, past research demonstrates that incomplete enumeration is likely to occur when census workers must rely on people other than residents of Latino households for information (Rodriguez & Hagan 1991, Romero 1992). Coupled with the preliminary undercount of approximately 2.9 percent in Census 2000 (U.S. Census Bureau 2001), the stability in household composition hints that perhaps the decennial census identified more native than foreign-born Latinos. These methodological issues might explain why migration from Latin America did not have as large of an impact on household composition as might have been expected. Comparisons of the sample data for Hispanics from Census 2000 with earlier censuses will address this issue.

Conclusion

Census 2000 results point to several significant transitions in the Hispanic population that occurred during the previous decade: large overall Hispanic population growth, enormous increases in the number of Hispanics who identify as 'other Hispanic', and the changing geographic distribution of Latinos in the United States. Another finding, that there was relatively little variation in Hispanic household type over the decade, is also illuminating. This paper identifies important substantive and methodological explanations for these important shifts in the Latino population between 1990 and 2000. For example, we employ the traditional demographic explanations such as fertility and migration, as well as explore the potential impacts of other explanations such as legislation, employment opportunities, and changing self-identification of Latinos. In addition, we note that methodological issues such as changes in the Hispanic origin question and the coverage of the Hispanic population may also help explain the transitions in the Hispanic population captured in Census 2000.

Shifts in the Latino population over the decade have important implications for the United States. For example, the continued growth of Latinos in the traditional regions of the United States, namely the Southwest and Northeast, may translate into increased political power for Latinos in those areas. However, the increasing importance of the South and Midwest also has significant demographic impacts. Indeed, the growth of Latinos in such regions has been labeled by researchers and the popular media as the 'Browning of the Midwest' (Aponte & Siles 1994). Documenting how the changing residential patterns of Latinos influences particular regions of the United States, and how Latinos fare in those areas, will be critical tasks. Similarly, the large growth of Hispanic origin individuals who identified simply as 'Spanish', 'Latino' and 'Hispanic' in 2000 hint at a transformation in the ethnic identities of many Hispanics. Finally, stability and changes in the sizes of Latino families and households may hold important housing, education, and general public policy implications. Research focusing on each of these areas will further our understanding about the changing nature of the American population at the beginning of the 21st Century.

Acknowledgments

We thank Jorge Chapa, Kevin Deardorff, Jorge del Pinal, Campbell Gibson, Judith W. Waldrop and anonymous reviewers for their feedback and suggestions on earlier versions of this paper. We also appreciate the statistical assistance of Marie Pees and are grateful for the map provided by Paul Voss.

Notes

1. This paper reports the results of research and analysis undertaken by U.S. Census Bureau staff. It has undergone a more limited review than official U.S. Census Bureau publications. This report is released to inform interested parties of research and to encourage discussion.
2. In this paper we use the terms Hispanic and Latinos interchangeably to refer to those who are of Mexican, Puerto Rican, Cuban, Central or South American, or some other Hispanic origin.
3. Hispanics living in the Commonwealth of Puerto Rico on Census Day (April 1, 1990 and April 1, 2000) are not included in these analyses.
4. More detail about the responses of those reporting Central American and South American origins is available in Guzmán (2001).
5. The remaining 39.0 percent of those who self-identified as 'Other Hispanic', wrote in specific countries of origin. The most common responses were Dominican, Salvadorean and Colombian. For more information, see Guzmán (2001).
6. Writing in the term "Spanish" is not considered the same as writing in "Spaniard".
7. The Northeast region includes Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. The Midwest region includes Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. The South region includes Alabama, Arkansas, Delaware, the District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. The West region includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.
8. IRCA also increased the penalties for employers who knowingly hired, recruited and referred individuals without legal permission to work in the United States.
9. However, recent INS efforts have specifically focused on the growing presence of undocumented Latino immigrants in the Midwest (Rural Migration News 2000) and other non-traditional areas of the United States, which may decrease future flows of migration to those areas.
10. Maps provided courtesy of the Applied Population Laboratory, University of Wisconsin-Madison also indicate that the Latino population in counties with beef, pork and poultry processing plants in the Midwest increased dramatically between 1990 and 2000.
11. As evidence of the change in the ethnic and racial diversity in the United States since the first standards for statistical classifications were published by the Office of Management and Budget (OMB) in 1977, the OMB issued revised standards for racial and ethnic classifications in 1997. This document is commonly known as Statistical Directive 15 (OMB 1997).
12. Researchers have examined the quality of data collected about the foreign born (Schmidley and Robinson 1998), migrant populations (Duany n.d., Salo 1996), and Latinos (Fernandez 1995), as well as American population generally (Ferrari 1998, Hainer et al., 1990, Hogan 1990, Symens Smith 1998).
13. The final response rate include questionnaires mailed back, Be Counted forms, telephone and Internet responses received after April 18, when the Census Bureau determined the non-response universe, those households that would require a visit by a census taker.

14. This estimate of the 2000 census undercount is subject to revision based on alternate demographic analyses (Executive Steering Committee for A.C.E. Policy 2001).

References

- Alarcón, Rafael (2000), Migrants of the information age: Indian and Mexican engineers and regional development in Silicon Valley, The Center for Comparative Immigration Studies Working Paper No. 16, University of California – San Diego. May.
- Aponte, Robert and Siles, Marcelo E. (1994), Latinos in the heartland: The Browning of the Midwest. JSRI Research Report #5, The Julian Samora Research Institute, Michigan State University, East Lansing, Michigan.
- Bachu, Amara (1995), Fertility of American Women: June 1994. Current Population Reports, P20-482. U.S. Census Bureau. Government Printing Office. Washington, D.C. <http://www.census.gov/prod/2/pop/p20/p20-482.pdf>
- Bachu, Amara and O'Connell, Martin (2000), Fertility of American Women: June 1998. Current Population Reports. P20-526. U.S. Census Bureau. Washington, D.C. <http://www.census.gov/prod/2000pubs/p20-526.pdf>
- Bean, Frank D., Passel, Jeffrey, and Edmonston, Barry (1990), Undocumented Migration to the United States: IRCA and the Experience of the 1980's. Washington D.C.: The Urban Institute Press.
- Binational Study: Migration Between Mexico and the United States (1997), A Report of the Binational Study on Migration. Commission on Immigration Reform.
- Braddock, Douglas (1999), Occupational employment projections to 2008, *Monthly Labor Review* 122(11): 51–77. <http://stats.bls.gov/opub/mlr/1999/11/art5full.pdf>
- Broadway, Michael J. (1995), From city to countryside: recent changes in the structure and location of the meat- and fish-processing industries, pp. 17–40 in D.D. Stull, M.J. Broadway, and D. Griffith (eds.), *Any Way You Cut It: Meat Processing and Small-Town America*. Lawrence: University Press of Kansas.
- Brownrigg, Leslie A. and Martin, Elizabeth A. (1989), Proposed study plan for ethnographic evaluation of the behavioral causes of undercount. Paper prepared for the Census Advisory Committee of the American Statistical Association and the Census Advisory Committee on Population Statistics at the Joint Advisory Committee meeting, April 13–14, Alexandria, Virginia.
- Bureau of Labor Statistics (2001), National Current Employment Statistics. <http://www.bls.gov/ceshome.htm>
- Bustamante, Jorge A., Guillermina Jasso, Edward J. Taylor, and Paz Trigueros (1997), Characteristics of Migrants. *Binational Study: Migration Between Mexico and The United States*. A Report of the Binational Study on Migration. Commission on Immigration Reform.
- Camarota, Steven A. (2001), Immigrants in the United States – 2000: A snapshot of America's foreign-born population. Backgrounder. Center for Immigration Studies, Washington D.C. (January). <http://www.cis.org/articles/2001/back101.html>
- Census 2000 Operational Plan (December 2000), United States Census 2000. <http://www.census.gov/dmd/www/pdf/Operational2000.pdf>
- Chapa, Jorge (2000), Hispanic/Latino ethnicity and identifiers in Margo J. Anderson (ed.), *Encyclopedia of the U.S. Census*. Congressional Quarterly Press, Washington, D.C.
- Charvat-Burke, Sandra and Goudy, Willis J. (1999), Immigration and community in Iowa: How many have come and what is the impact? Annual Meetings of the American Sociological Association, Chicago, IL.

- Chavez, Leo R. (1992), *Shadowed Lives: Undocumented Immigrants in American Society*. Orlando, FL: Harcourt Brace College Publishers.
- Cornelius, Wayne A. and Marcelli, Enrico A. (2001), The changing profile of Mexican migrants to the United States: New evidence from California and Mexico. Discussion paper no. 220 December 2000, *Latin American Research Review* 36(3): Forthcoming.
- Cuello, Jos (1998), *Latinos and Hispanics: A Primer on Terminology*. Detroit, MI: Wayne State, unpublished manuscript. Last revised 9/17/98.
- de la Garza, Rodolfo, Desipio, Louis, Garcia, F., Garcia, J., and Falcon, A. (1992), *Latino Voices: Mexican, Puerto Rican and Cuban Perspectives on American Politics*. Boulder, CO: Westview Press.
- de la Puente, Manuel (no date), Using ethnography to explain why people are missed or erroneously included by the census: Evidence from small area ethnographic studies, Center for Survey Methods Research, U.S. Census Bureau.
- del Pinal, Jorge and Singer, Audrey (October 1997), Generations of diversity: Latinos in The United States. *Population Bulletin*, Volume 52, no. 3. Population Reference Bureau. http://www.prb.org/pubs/population_bulletin/bu52-3/fertility.htm
- Donato, Katharine M., Durand, Jorge, and Massey, Douglas S. (1992), Stemming the tide? Assessing the deterrent effects of the immigration reform and control Act, *Demography* 29(2): 3–42.
- Durand, Jorge, Massey, Douglas S., and Parrado, Emilio A. (1999), The new era of Mexican migration to the United States, *Journal of American History* 86(2): 518–536.
- Duany, Jorge (n.d.). The census undercount, the underground economy and undocumented migration: The case of Dominicans in Santurce, Puerto Rico. Working Paper. <http://www.census.gov/srd/papers/pdf/ev92-17.pdf>
- Espiritu, Yen Lee (1992), *Asian American Panethnicity: Bridging Institutions and Identities*. Philadelphia: Temple University Press.
- Ethnic and Hispanic Statistics Branch. Population Division, U.S. Bureau of the Census Current Population Survey (March 1995), Internet Release date: September 12, 2000. <http://www.census.gov/population/socdemo/foreign/cps1995/tab0301.pdf>
- Executive Steering Committee for A.C.E. Policy (2001). Report of the executive Steering committee for accuracy and coverage evaluation policy. March. <http://www.census.gov/dmd/www/pdf/Escap2.pdf>
- Fernandez, Edward W. (1995), Using analytic techniques to evaluate the 1990 census coverage of young Hispanics. Population Division, U.S. Bureau of the Census. Technical Working Paper No. 11 (May). <http://www.census.gov/population/documentation/twps-011.txt>
- Ferrari, Pamela W. (1998), 1996 American community survey vs. 1990 decennial census: Household size and characteristics by response mode. Paper Presented to the American Community Survey Symposium, March 1998. http://www.census.gov/CMS/www/html/meth_doc/library/ferrari2/ferrari2.htm
- Fisher, Sylvia, Dixon, John, and Fricker, Scott (2000), Results of field interviewer debriefings about the Summer 2000 administration of the CPS race and ethnicity supplement. Office of Survey Methods Research, Bureau of Labor Statistics. September 13, 2000.
- Flores-Hughes, Grace (1996), Why the term 'Hispanic'? *Hispanic* 64.
- Gouveia, Loides and Saenz, Rogelio (1999), Latino/a immigrants and new social formations in the Great Plains: An assessment of population growth and multiple impacts. Paper presented at the 1999 Annual Meeting of the American Sociological Association. Chicago, IL. August.
- Gouveia, Lourdes and Stull, Donald D. (1995), Dances with cows: Beefpacking's impact on Garden City, Kansas and Lexington, Nebraska, in D.D. Stull, M.J. Broadway and D.

- Griffith (eds.), *Any Way You Cut It: Meat Processing and Small-Town America*. Lawrence, KS: University Press of Kansas.
- Granados, Christine (2000), 'Hispanic' vs 'Latino', *Hispanic Magazine*. December. <http://www.hispanicmagazine.com/2000/dec/Features/latino.html>.
- Guzmán, Betsy (2001), The Hispanic population: Census 2000 Brief. United States Census Bureau. May. <http://www.census.gov/prod/2001pubs/c2kbr01-3.pdf>
- Hainer, Peter, Hines, Catherine, Martin, Elizabeth, and Shapiro, Gary (1990), Research on improving coverage in household surveys. *Proceedings of the 4th Annual Research Conference*. Washington, DC: U.S. Bureau of the Census, pp. 513–539.
- Hogan, Howard (1990), The post enumeration survey: An overview. Paper Presented at the Population of Association of America meeting. Toronto, CA, May 1990.
- Immigration and Naturalization Service (2000), Statistical Yearbook of the Immigration and Naturalization Service. <http://www.ins.usdoj.gov/graphics/aboutins/statistics/1998yb.pdf>
- Immigration and Naturalization Service, (2001), Enforcement. 1999 Statistical Yearbook of the Immigration and Naturalization Service. <http://www.ins.usdoj.gov/graphics/aboutins/statistics/99excel/tbl63.xls>
- In Context* (May 2000), The Indiana Economy: Regional Employment Snapshot – May 2000. http://www.ibrc.indiana.edu/incontext/july2000/in_the_workforce.html
- Lollock, Lisa (2001), The foreign born population in the United States: March 2000. Current Population Survey Reports. P20-534. U.S. Census Bureau, Washington, D.C. <http://www.census.gov/prod/2000pubs/p20-534.pdf>
- Martin, Philip (1995), Proposition 187 in California, *International Migration Review* 29 (1).
- Martin, Philip (1997), Immigration and the changing face of rural America, Paper Presented at the 1997 National Public Policy Education Conference. Available at: <http://www.farmfoundation.org/pubs/increas/97/martin.pdf>.
- Martin, Phillip, Taylor, J. Edward, and Fix, Michael (1996), Immigration and the changing face of rural America: Focus on the Midwestern States, JSRI Occasional Paper #21, The Julian Samora Research Institute, Michigan State University, East Lansing, Michigan.
- Massey, Douglas S. (1998), March of folly: U.S. immigration policy after NAFTA, *The American Prospect*. 37 (March-April): 22–33.
- Office of Management and Budget (1997), Revisions to the standards for the classification of federal data on race and ethnicity, *Federal Register* 62, no. 210 (October 30, 1997): 58782-58790. <http://www.whitehouse.gov/omb/fedreg/ombdir15.html>
- Passel, Jeffrey S. and Fix, Michael (2001), U.S. Immigration at the Beginning of the 21st Century Testimony before the Subcommittee on Immigration and Claims Hearing on 'The U.S. Population and Immigration' Committee on the Judiciary U.S. House of Representatives.
- Passel, Jeffrey S. and Zimmerman, Wendy (2000), Are immigrants leaving California? Paper presented at the Annual Meetings of the Population Association of America. Los Angeles, CA.
- Rodriguez, Clara (2000), *Changing Race: Latinos, the Census, and the History of Ethnicity in the United States*. New York: New York University Press.
- Rodriguez, Nestor P. and Hagan, Jacqueline (1991), Investigating census coverage and content among the undocumented: An ethnographic study of Latin tenants in Houston, Texas, *Ethnographic Evaluation of the 1990 Decennial Census Report #3*.
- Romero, Mary (1992), Ethnic evaluation of behavioral causes of census undercount of undocumented immigrants and Salvadorans in the Mission District of San Francisco, California, *Ethnographic Evaluation of the 1990 Decennial Census Report #18*.

- Rural Migration News (2000), Vanguard and meat packing. October. 6 (4). <http://www.migration.ucdavis.edu>.
- Salo, Matt T. (1996), Summary report of four focus groups on migrant worker enumeration conducted in Bradenton, FL and Cornelius, OR, Ethnographic Exploratory Research Report Series #23. Statistical Research Division, U.S. Census Bureau.
- Schmidley, A. Diane and Robinson, J. Gregory (1998), How well does the current population survey measure the foreign born population in the United States? Population Division Working Paper No. 22, U.S. Bureau of the Census.
- Stull, Donald D., Broadway, Michael J., and Griffith, David (eds.). (1995), *Any Way You Cut It: Meat Processing and Small-Town America*. Lawrence: University Press of Kansas.
- Symens Smith, Amy (December 1998), The American community survey and intercensal population estimates: Where are the crossroads? Population Division Technical Working Paper No. 31. <http://www.census.gov/population/www/documentation/twps0031/twps0031.html>
- Treat, James B. and Stackhouse, Herbert F. (2001), Demographic comparison between self-response and personal visit interview in census 2000. Paper presented at the Annual Meetings of the Southern Demographic Association. Miami, FL.
- U.S. Census Bureau. (n.d.) 2000 Ad Campaign: Advertising and Promotion. (n.d.). <http://www.census.gov/dmd/www/advcampaign.htm>
- U.S. Census Bureau (1998), Rust belt rebounds. Census Brief. CENBR/98-7, December.
- U.S. Census Bureau (February 14, 2001), Preliminary estimated coverage of census 2000 based on the accuracy and coverage evaluation (A.C.E.) survey. <http://www.census.gov/Press-Release/www/2001/cn03attach.pdf>
- U.S. Commission on Agricultural Workers (1992), Report of the Commission on Agricultural Workers. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Commerce (October 1993), 1990 Census of population and housing: Programs to improve coverage in the 1990 census. Evaluation and Research Reports. <http://www.census.gov/prod/cen1990/cph-e/cph-e-3.pdf>
- U.S. Department of Commerce (October 1995), 1990 Census of population and housing. History, Part C (1990 CPH-R-2C.)
- U.S. Department of Commerce (January 1996), 1992 Census of manufactures: Iowa. Geographic Area Series. MC92-A-16. <http://www.census.gov/prod/1/manmin/92area/mca16f.pdf>
- U.S. Department of Commerce (August 1997), Report to Congress – The Plan for Census 2000. <http://www.census.gov/main/plans/plan2000.pdf>
- U.S. Department of Commerce (September 2000). News: Well Done, America! Released September 19, 2000. <http://www.census.gov/Press-Release/www/2000/cn57.html>.
- U.S. Department of Commerce (June 2001), 1997 Economic census. Manufacturing. <http://www.census.gov/prod/ec97/97m31s-gs.pdf>
- U.S. Department of Labor (2001), *Monthly Labor Review*. Manufacturing employment most prevalent in Midwest. July 25, 2001. <http://stats.bls.gov/opub/ted/2001/July/wk4/art03.htm>

Address for correspondence: Betsy Guzmán, Ethnic and Hispanic Statistics Branch, U.S. Census Bureau, Room 2385 FOB 3, Washington, DC 20233-8800
Phone: (301) 457-2403; E-mail: betsy.guzman@census.gov.