INVESTIGATING CENSUS COVERAGE AND CONTENT AMONG THE UNDOCUMENTED:
AN ETHNOGRAPHIC STUDY OF LATIN TENANTS IN HOUSTON, TEXAS.

by
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INTRODUCTION

The decade of the eighties witnessed large-scale undocumented immigration of Latinos throughout U.S. urban areas. By the mid-eighties Houston's undocumented Latino population numbered over 100,000 (Rodriguez, 1987). Many of the tens of thousands of newcomer Central Americans and Mexicans who migrated to Houston settled in the city's west side, miles away from the east-side established barrios of Mexican Americans and Mexican immigrants (see Figure 1). With their Latino ethnicities and predominant *campesino* and lower working-class origins, the Central American and other Latino settlers in the west side contrasted sharply with the area's established white, middle-class population.

While Mexican-American leaders in the city's east side vigorously encouraged Latino immigrants in the barrios to fill out and return census forms, new Latino immigrants in the west side received little or no Latino-community support to participate in the census. Living in the least acculturated Latino settlements in the city, Central American and other Latino newcomers in the west side had the fewest social and cultural resources among the city's Latinos to participate in the census.

In this report we present our study and findings of the Alternative Enumeration (AE) in one building of a large west-side apartment complex, which we fictitiously name "Greenwood." After presenting a description of the research site and of behavioral conditions during the fieldwork, we state our hypotheses concerning the census involvement of (undocumented) Latino immigrants in the apartment building. Next, we describe the research methods and activities of the study. We then present a qualitative analysis of our research results from the perspective of conditions and situations specified in the hypotheses. Finally, we conclude with an assessment of the census-related behavior proposed in the hypotheses.

PROFILE OF THE ETHNOGRAPHIC SITE

Greenwood, a large 645 unit apartment complex located in the west-side of Houston, was the ethnographic site we selected to examine the issue of undercount among Central American and Mexican undocumented immigrants. We selected Greenwood for two reasons. First, it is representative of the predominant housing pattern of new undocumented Latino immigrants in the city.

Greenwood is one of the many area complexes build in the late 1970's to house the growing number of African-American and Anglo professionals moving to Houston during the city's boom years. When the Houston economy began to plummet in the early 1980's, the rental industry was hit hard (Feagin, 1988; Feagin and Parker, 1990). The economy's five-year decline, which began in 1983 and lasted through 1987, translated into a loss of 200,000 jobs. The subsequent out-migration of almost a half a million persons left the city's apartment industry in crisis. From 1981 to 1985, the number of vacant residential units rose from 86,961 to 220,709, an increase of 154 percent (Smith, 1989). Many of these vacancies occurred in the city's west side. For many west-side apartment landlords and owners, salvation came in the form of the undocumented Latino immigrant.

The arrival of the Central American and Mexican immigrants enabled some complexes to implement a restructuring strategy to survive the city's depression. Along with other apartment owners and managers in the area, Greenwood's management responded to the crisis by re-composing its tenant populations with Central American and Mexican newcomers. Several strategies were implemented to facilitate this tenant re-composition. Greenwood management, for example, lowered rents, hired bilingual leasing agents, and provided English classes for the immigrant tenants.

The restructuring strategy produced a very heterogeneous tenant population at Greenwood. Today approximately 60 percent of the tenants residing in the complex are low-income Latino newcomers, mainly Central American and Mexican, who arrived during the early 1980's. An additional 30 percent of the tenant population consist of low and middle-income African-American, Anglo, and Mexican established residents. The remaining 10 percent of Greenwood's tenants include an ethnically diverse group of students, who attend a local art institute. The institute leases approximately 36 apartments from Greenwood management to house students.

The principal investigators' prior research experience in Greenwood was the second reason for the selection of this research site. Together the two principal investigators have accumulated about eight years of fieldwork in Greenwood and the surrounding area. One of the principal investigators, Jacqueline Hagan, actually was a tenant in Greenwood, in the apartment building enumerated, for almost three years. The prior research experience in Greenwood was seen as a significant advantage for carrying out the AE in the site. Both principal investigators were very familiar with the immigrant population in the site and were knowledgeable of factors that produced changes in the immigrant tenant households. Hagan in particular was very familiar with many immigrant households in Greenwood.

The Greenwood apartment consists of five adjacent and self-contained buildings; each has its own recreational area, laundry room and enclosed courtyard (see Figure 2). The majority of Latino newcomer tenants and art students reside in the rear sections of the apartment complex, buildings D and E, while the bulk of Anglo,

African-American and Mexican American residents live in Buildings A, B, and C. Our sample area included the 132 households comprising Building E.

PROFILE OF THE ETHNOGRAPHIC SAMPLE

Table 1 gives a breakdown of the ethnographic sample of the sample area. As the table indicates, the tenant population is heterogeneous. The tenants surveyed in the apartment building differ by race, ethnicity, and residential (U.S.-born vs immigrant) status. Racial variation consists of white (including Latino origin groups) and Black. While "White" is the racial term extended to Latinos by public bureaucracies, its use by this group is almost nonexistent, with the exception of Mexican Americans. Several years of observations in the apartment complex have not indicated that a common white racial classification promotes unity or other forms of social solidarity among the Latinos and other whites in the apartments. In fact, racial differentiation in the apartment building is acknowledged only in the immigrant Latinos' use of the term "*negros*" ("Blacks"), when referring to the Black tenants.

Ethnic variation in the sample area is as significant within sub-populations as it is between sub-populations. Our observations found, and as Table 1 indicates, the Latino sub-population consists of four different group categories: Central American, Mexican, Mexican American and other Latino (Caribbean and South American). In terms of different cultural expressions and preferences, the four Latino groups constitute different ethnic experiences. Furthermore, the Central American category contains a Guatemalan Mayan sub-population that to a significant degree varies culturally from other Central American groups (Rodriguez, 1987). Similar ethnic differences are found among the African American and African groups in the sample area.

Differences in residential status are prominent and marked in the apartment population. As Table 1 indicates, the majority of the Central American and Mexican tenants in the sample area are immigrants. The tenants born in the United States (Mexican Americans, Anglo Americans, and African Americans) constitute only about a fifth of the population at the sample area. Among the immigrant tenants, Central Americans constitute the largest number. The Latino presence and the larger number of Central American immigrants are typical of the tenant population pattern in many apartment complexes in the west side of the city.

According to the results of the AE, males predominate among the immigrants. In the Central American group, 74.0 percent of the population is male, and in the Mexican group, 67.5 percent is male (see Table 1). By comparison, 65.5 percent of the non-immigrant tenant population in sample area is male.

Years of fieldwork in the apartment site of the AE show that for many of the Central American immigrants the apartment building is their first home in the United States. The apartment building has also become an important central community location for

Mayan migrants from a township area in the western highlands of Guatemala. The transiency of new immigrants during their initial stages of settlement give the apartment building a dynamic and active atmosphere as recent arrivals come to stay temporarily with hometown friends and relatives and as other immigrants leave to settle closer to jobs or in otherwise more convenient housing.

BEHAVIORAL OBSERVATIONS

The Neighborhood

Greenwood is between two major commercial thoroughfares in southwest Houston. Recent economic and demographic changes have produced a multi-ethnic residential neighborhood and business sector in the area. Central American food markets and Mexican music stores are situated alongside Indian cafeterias and Anglo eating and drinking establishments. Middle-class homes and renovated luxury apartment buildings housing young Anglo and African-American professionals border apartment complexes which have become homogeneous islands of immigrant settlement. Perhaps the most common residential configuration emerging in the area is the multi-ethnic neighborhood, in which different ethnic groups cluster in the same apartment complex. Such is the case of Greenwood, our ethnographic site.

Similar to the situation found in many of the multi-ethnic apartment complexes in the area, Greenwood's newcomer population is concentrated in the back buildings of the complex, those located at the greatest distance from the main street and from the leasing office. As a consequence of their physical location in Greenwood, these newcomer tenants have the least interaction with management and staff. Moreover, to the passing pedestrian they are virtually an invisible population; i.e. there are few, if any, signs to suggest a Hispanic tenant concentration at Greenwood.

A visit to building E on a Sunday afternoon paints a very different picture. A mosaic of different groups crowd the laundry rooms and stairwells. Women dressed in colorful *huipils* and *cortes* (the traditional dress worn by the Maya women from Guatemala) share their ethnic food recipes with Anglo women while waiting patiently in line to use the apartment's barbecue grill. A Salvadoran resident goes door-to-door selling her home-made *pupusas* (a Salvadoran dish) to Anglo tenants. A group of Central American residents huddle together over a clothing catalogue written in Spanish, while a young Mexican takes orders. The sounds of heavy rock and rap blasting from the students apartments overtake the softer *merengue* melodies coming from the Guatemalan homes in the building.

By Monday morning the level of activity has diminished. The art students have returned to classes and will pass the long evening hours at their studios. The majority of Latino women have also left the complex and returned to their Monday-to-Friday jobs as live-in domestics in other areas of the city. Their male spouses, relatives, and friends, many of whom maintain two or more jobs, hold long and

irregular hours, keeping their presence at Greenwood at a minimum during the week. In short, the schedule maintained by residents at Greenwood is a diverse and irregular one, which led to some creative scheduling of interviews on our part. We will elaborate on this issue in greater detail in the methodology section of the report.

The Households

Upon entering an immigrant-occupied unit, the researcher typically encounters the following scene. A number of residents and visiting friends are camped in front of a large colored television watching either a Spanish-language video or one of the Spanish-language television stations. Beyond a television and cassette player, furniture in the living room is sparse, usually including little beyond a couch, a coffee table, and a pull-out bed or mattress. Double beds cover most of the bedroom(s). In most cases, the number of sleeping places observed exceeded the residents we enumerated, suggesting additional temporary residency of other family, friends and relatives.

The typical objects hanging from the walls included enlarged framed photographs, posters of places back home, and an occasional velvet tapestry depicting a religious scene such as the Last Supper. The built in book-cases, a feature of all Greenwood units, are cluttered with videos and picture frames. In a few immigrant households books were found on shelves; most of the books were either school books or Spanish comic books. Observations of reading and visual materials in the households indicate little knowledge of English and low levels of literacy among the undocumented Latino population at Greenwood.

RESEARCH METHODS

Field Methodology

The AE period began on June 7 and lasted through July 10. A total of four researchers conducted the interviews during this first stage of fieldwork: the two co-principal investigators and two research assistants. We worked in teams of two, with each team consisting of a principal investigator and a research assistant. We quickly learned that working in pairs was a more efficient method. While the principal investigator of the team engaged residents in conversation, the assistant double-checked the information being asked by the principal investigator and jotted down a number of behavioral observations. Upon leaving each household, team members cross-checked information to assure accuracy.

As we mentioned earlier in the report, many of the residents of building E work several jobs around the clock, so locating a respondent at home was difficult during the initial days of the AE. Although we had the teams go into the field site at different times of the day and on different days of the week, on average, we visited an apartment unit three times before we located someone at home. We found that the best time to reach the residents of immigrant households was on the weekends,

especially early Sunday mornings and late Sunday evenings.

In those few cases in which we were never able to locate a resident at home, we relied on information from neighbors and members of the maintenance crew. It was difficult to ascertain whether units were vacant or occupied since thickly-drawn curtains made it virtually impossible to see furniture. Units which were vacant on census day and during the AE period were identified by neighbors and confirmed by members of the maintenance crew.

Several methodological problems arose when we returned to the site in March of 1991 to resolve unmatched cases. We quickly discovered that a number of the residents we had interviewed in the summer of 1990 had since moved out. Moreover, many of their neighbors had also left the complex. We expected to encounter some residential mobility given the transient behavior of the undocumented population, but the rate of mobility was far greater than anticipated. Two factors contributed to unprecedented geographical mobility at Greenwood: the city's dramatic economic change during this period and the legalization of many of the immigrant tenants.

In 1990 Houston was still very much involved in an economic upturn from a drastic recession in the 1983-1987 period. The upturn involved the growth of the job market and the upgrading of apartment buildings. Both of these developments increased population mobility in the city and thus transiency in the apartment building. As new jobs attracted people to the city and as apartment upgrading brought higher rents (Houston Chronicle, 1990), tenant households shifted in composition and in size. This flux decreased the accuracy of the census and the AE.

The problem of household flux was especially true of immigrant households. Passage of the Immigration Reform and Control Act of 1986 (IRCA) enabled many of the undocumented immigrants who acquired legal status (through the law's amnesty provision) to travel back home, thus additionally increasing the transiency of this already highly mobile population. In March and April recently-legalized immigrants sometimes return home for Holy Week celebrations

Several of the Guatemalan immigrants households in the enumerated apartment building discussed plans to return to Guatemala for the celebration of their hometown patron saint in July. The principal investigators, however, completed the AE before the patron saint celebration and, in fact, joined the Guatemalan immigrants in their hometown visit.

QUALITATIVE ANALYSIS

This section discusses our hypotheses presented in the initial undercount proposal.

These include:

> Hypothesis 1. The census will miss disproportionately more undocumented recent immigrants from Mexico and Central America than other residents of this mixed neighborhood because undocumented immigrants fear the census and because the census is unlikely to over come the barriers of language, culture, and illiteracy that exist between census procedures and the Hispanic undocumented population.

> Hypothesis 2. The nature of the coverage difference is predicted to be that the census will miss persons within households based on respondents' partial reports.

> Hypothesis 3. Young adult women are predicted to be the age/sex cohort within the undocumented immigrant group to have the highest rate of undercount because of their transitory employment as live-in domestics.

> Hypothesis 4. Residential mobility and impermanence of household arrangements will also affect the count and will be most pronounced among the most recent arrivals attached to the households of well-established Hispanics.

Table 4 lists all individuals counted in the AE but not by the census. Persons who moved into the research site after Census Day and thus not counted by the census as Census Day residents of the site are also included in Table 4. For this reason we talk about discrepancies between the AE and the census and not about undercount. The data displayed in Table 4 is contrary to what we predicted in Hypothesis 1. The categories of Central Americans and Mexicans show the lowest discrepancy rate between the AE and the census, while the opposite holds true for U.S. born tenants. Given the small number of the U.S. tenants, it is not clear whether this difference is statistically significant. The Central American and Mexican newcomers are the largest group of tenants at Greenwood accounting for 76 percent of the total, while U.S. born residents comprise only 18.3 percent of the tenant population. For example, the discrepancy of 73.7 percent among Mexican Americans is based on a total of 14 individuals. On the other hand the discrepancy of 56.2 percent Central Americans is based on 82 individuals. Despite these disparities, a discrepancy of 56.2 percent is obviously high and warrants explanation.

The following discussion categorizes explanations of undercount into the following: 1) concealment/fear, 2) cultural differences, 3) illiteracy, 4) complex housing arrangements, 5) household impermanence, and mobility, and 6) inaccurate secondary reporting.

Concealment/Fear

Much to our surprise and contrary to our predictions, fear of census officials, and governmental officials in general, was not found to be a contributing factor in the undercount of the undocumented population at Greenwood. Observations of behavior and conversations with undocumented immigrants during the fieldwork did not indicate any resistance in responding to the census due to fear of detection by government officials. However, fear of a different nature was clearly present. Although not concerned with providing information on the size and composition of their households to census officials, they were very concerned about the apartment building's manager having access to this information. Most of the immigrant households contain more persons than are allowed under rules of their apartment leases. Rental policy at Greenwood is formulated on the restriction of two persons per bedroom. The management enforces this policy by limiting the number of security-gate passes to one per bedroom. Thus, a one-bedroom apartment should house two tenants, while a two-bedroom apartment should house 4 tenants. Our observations of household size (see Table 2) at Greenwood, however, found that immigrant households overwhelmingly violated this policy. For example, the undocumented largest household contained eight individuals in a one bedroom apartment unit. This undocumented apartment household did not mail in a census form. Several times during the AE immigrant respondents asked the researchers whether the information would be given to management. The lack of expressed fear for government officials can be partially explained by the fact that many of the immigrants at Greenwood had in recent months interacted substantially with INS officials during their attempts to gain legal status through IRCA.

Cultural Differences

Not having English language skills, many immigrants shy away from materials written in English. Nowhere is this more apparent than in their behavioral responses to the mounds of junk mail they receive daily. Many of the respondents who did not mail back a census form stated that the only mail they opened was that which either addressed them personally or was written in Spanish. An envelope addressed to "resident" has little meaning to the newcomer immigrant. This mass correspondence strategy which is so pervasive in the United States, is not practiced in the immigrants' home countries. Moreover, members of the apartment maintenance crew reported finding many unopened census materials in the trash cans during the month of April.

In four cases, immigrants did try to obtain Spanish-language census forms, but according to them, when they tried to call the number listed in the form to get assistance, they found it to be an incorrect number. This discouraged them from making any further attempts.

Another difference which influences census content is the cultural practice adopted by Latino women when they marry. Rather than taking their husband's surname, as is the case in American culture, their maiden name is followed by a hyphen and their husbands surname. In contrast, Latino men place their mother's surname after their

fathers. These gender differences led to considerable confusion when trying to identify household relationships during the matching phase of the study and no doubt affects the quality of census content.

Perhaps the most important cultural factor influencing undercount among Latino immigrants, undocumented and documented, is the perception that they are not as of yet part of American culture. Many of the immigrants maintain strong social and cultural ties with their home communities. The fact that friends and family continue to arrive from their home communities and the regular return migration of many to their home communities, reproduces their native cultural ties and inhibits the development of new ones in the United States. The implications of this are clear. Any civic responsibility they may feel is still attached to their home communities. They still see themselves as citizens of their native lands. Even those who have begun the process of citizenship in the United States (IRCA participants) see themselves as social and cultural citizens of their home countries. As citizens of another country, many immigrants do not feel obliged to respond to the U.S. census. Moreover, they demonstrate little knowledge regarding the implications of responding. Once the researcher explained the importance of the census, especially its indirect influence on their children's education and other basic rights, they expressed genuine interest and demonstrated a willingness to participate in the AE. These observations highlight the important of education awareness and personal inter-face communication in extracting information from a culturally different population.

Several of the undocumented immigrants find it ironic that the very same country that was intent in keeping them from entering its borders now wanted their cooperation.

Another culturally-related factor that led to partial enumeration of households was the view that only adults needed to be identified in the census forms. In several cases, children in the household were not listed in the census forms, but were counted in the AE. Ironically, most of these children were U.S.-born citizens.

Illiteracy

Prior research among the undocumented Central American population at Greenwood found that almost all Central Americans, especially Guatemalans, had only elementary level writing or reading skills, in Spanish only. The immigrant women had even fewer literacy skills, many of whom couldn't even write their name. The high levels of illiteracy found among Central Americans at Greenwood is partially related to their peasant origin, which in Central America translates into being poor with few opportunities for education. In the case of the Mayan immigrants in Greenwood, the issue of illiteracy is a more complicated one. Coming from a culture organized by an indigenous spoken dialect (Quiche), many of the Maya have weak literacy skills, even in the Spanish language.

The implications of illiteracy for census coverage became clear during the fieldwork.

In those households identified as having illiterate heads of households, we found that immigrants were unlikely to respond to the census. Members of several of these households also told the researches that they were hesitant to request assistance, feeling reluctant to show their poor literacy skills to a stranger and being openly intimidated by the complexity of the census form.

The influence of poor reading and writing skills on census content especially manifested itself during the matching phase of the study when the researchers were faced with matching an array of misspelled names and discrepant numbers.

Complex Housing Arrangements

Table 2 gives a breakdown of the tenant population in the sample area by ethnicity and household size. Household size ranged from one person per household to eight persons per household. Most of the households (86.6 percent), however, had less than five members. The Latino tenant groups of Central Americans and Mexicans had the most household-size variation, with a modal household size of 3-4 members. Mexican Americans, Anglo Americans, African Americans and Africans were concentrated in households of 1-2 members.

The association of ethnicity and household size indicated in Table 2 is actually the association between Latino immigrant status and household composition. Central Americans and Mexicans in the survey constitute immigrant categories. The variation of these immigrants' household sizes reflects their use of household strategies in the settlement process. Especially in the early part of their immigration and settlement processes, Latino immigrants, who come mostly as undocumented migrants with little or no money, rely heavily on the support of immigrant households already established in the United States. These immigrant households provide a host of resources to undocumented newcomers, e.g., food, a place to sleep, information about jobs, knowledge about how to get around and survive in the city, etc. Thus, as undocumented immigration continues, sizes of immigrant households will swell as new immigrants arrive and are sponsored by immigrant households in the apartment building.

To an extent, the immigrant household variation also reflects the strong ties immigrants have between their households and workplaces. Small groups of immigrants who work together also live together in the apartment building. This increases some household sizes in the apartment building beyond the model pattern of 1-2 persons per household. Fieldwork in the apartment building finds that immigrant co-workers who live together frequently have family ties or come from the same hometown or region.

According to our AE, only 5.3 percent of the 76 Latino immigrant households in the apartment building were of mixed Latino ethnicity. This finding, we believe, reflects the important role that ethnicity (Mayan, Mexican, etc.) plays as a base for organizing immigrant household survival strategies and immigrant worker networks. For the

household population of the apartment building (as well as for other sociologically similar apartment settings), the consequence of this cultural, social, and labor interrelationship is a dynamic state in which the number of (immigrant) households may remain stable but their composition remain in flux as household members shift through different household strategies and work statuses.

Table 3, developed from the AE shows the household composition of the different ethnic/immigrant groups in the sample area. Among the Central American tenants, the model household consists of related adult individuals, while among Mexican tenants, the model household is composed by a couple with children. Table 3, which lists the 15 household arrangements identified in the sample area, highlights the remarkable variation in the household arrangements of Central Americans and Mexicans.   Central Americans are found in 13 different household arrangements; Mexicans are found in 11 different household arrangements; the U.S.-origin groups of African Americans, Anglo Americans, and Mexican Americans are found in less than 5 different household arrangements.

Table 3 also shows some interesting contrast between the household arrangements of Central Americans and Mexicans and between the household arrangements of the U.S.-origin groups of African Americans, Anglo Americans, and Mexican Americans. For example, none of the Central Americans and less than 10 percent of Mexicans are found in households of single individuals, while sizeable proportions of African Americans, Anglo Americans, and Mexican Americans are found in this category. The most complex household arrangement in terms of household size, numbers of generations, and kinship relations, found in the apartment building, i.e., a household composed of a couple with children and related and non-related individuals, was found only among Central Americans and Mexicans. The second most complex level of household arrangement (couple with children and related individuals or non-related individuals, or related and non-related individuals with children) also only involved Central American and Mexican immigrant households.

Complex housing arrangements caused census enumeration problems among Latino immigrants in three ways. First, our AE found that some persons not reported in census forms were boarders or other persons not related or not closely related to the core family in the household. To some extent, this was a problem of concealment (from the apartment manager, not government officials), but in other cases it also represented the situation that heads of households did not view boarders or other non-related individuals as part of the core household and thus not sufficiently important to enumerate. In this case, and given previous family experiences with census enumeration back home, the census was seen as being more of a family (than a household) matter.

This type of enumeration problem centers around the immigrants' perception of the household as distinct from the family. For the vast majority of Latino immigrants in the apartment building, the previous household experience in their hometown is the

family household. Thus, the household is not perceived independent of the family. Indeed, the family is the household. In the Greenwood fieldwork this perception is illustrated in the comments of immigrants that refer to non-related individuals as "living with" a certain family in a certain family household. The boarder or other non-related individual is never given equal household standing with the family-related members of the household even though he or she contributes an equal share to the economic maintenance of the household.

A second perception affecting household enumeration is the determination of when one becomes a member of the household, beyond merely "staying with the household." Our long-term observations in Greenwood indicate that family ties speed the definition of related newcomers as household members. To an extent this is a function of the condition that immigrant households in the United States (Houston) are functionally considered to be (international) extensions of households back home. A household member back home, therefore, may be considered to be a household member in Houston almost immediately upon arrival. The same is not true for distantly related or non-related persons.

A boarder or other non-related person may not be considered to be a household member until after a lengthy period of time. Here the determining factor is the quality (and not the quantity) of residential presence. Until the boarder or non-related individual develops sufficient family-like ties to the core family group, he or she may not be considered part of the household.

Another problem with census enumeration related to the presence of immigrant complex housing arrangements involves the presence of multi-family households. Fieldwork observations indicated that while multi-family households shared considerable social relations, they also maintained considerable privacy in some areas, especially those involving personal matters. For example, rigid norms prevent asking members of a second family in the household how much money they save from their wage earnings or how much money they send to family back home. In conversations with immigrant household members it became clear that in more than one household these "rules of respect" deterred the head of one family from obtaining information from members of a second family to fill out the census form. Some persons were simply not used to acting as intermediaries in bureaucratic processes.

Household Impermanence and Residential Mobility

The main reason why the census did not match the AE was residential mobility. This factor accounted for 109 individuals counted in the AE but not in the census enumeration. Of these 76 (69.7 percent) were immigrants. Among the immigrants, the high degree of housing diversity represented a highly transient population. Indeed, the 15 housing arrangements found in the study represented more of a "snapshot" at one point in time than a stable housing topology. Several factors affected the residential mobility of the Greenwood population, including (1) the

continual arrival of new immigrants, (2) the return migration of some immigrants, (3) the settlement stages of immigrants, (4) the changing rental conditions at Greenwood, and (5) the economic change of the Houston area. These multiple factors contributing to residential mobility made it impossible to ascertain whether these 109 tenants were resident on census day or just missed by the census. Furthermore, relying on neighbors' observations and recollections also made it difficult to make this determination.

Even as we conducted the AE, undocumented immigrants from Central America and Mexico settled in Greenwood. In spite of the measures implemented under IRCA to deter illegal immigration, undocumented migration continues into the Houston area. As in many other large apartment complexes in the city's west side, Greenwood's population of Latino immigrant households acts as a magnet for Latino newcomers. Thus, for many Latino newcomers, Greenwood is the point of first settlement, which helps keep the apartment's Latino immigrant population in flux.

But while some immigrants arrive, other immigrants leave the apartment complex to return home, either temporarily or permanently. Throughout the fieldwork the Guatemalan immigrants especially were found discussing plans to journey home for annual celebrations, as we mentioned earlier. Some immigrants who return home for a short visit stay for longer periods, and some who come back to Houston move to other apartment projects as other newcomers settle in their former apartment households.

Among the unmatched individuals who appeared in the census count but not in the AE, or vice versa, were some who moved to, or moved from, another apartment complex. Here the reasons for moving between apartment complexes were mainly related to the immigrants' movements through settlement stages: some immigrants left Greenwood as they found jobs or better housing conditions away from the apartment project, and others moved to Greenwood because they found better living conditions in the apartment area. Interestingly, in only one case did we find an individual who moved from one apartment unit to another within the research apartment building.

The raising of rental rates at Greenwood stimulated some of the immigrant out-migration from the apartment. As in many other apartment projects in the west side, management at Greenwood raised rental prices when the city's economy continued a strong upturn in the late 1980's, after suffering through a severe economic recession in the mid-1980's.

Overall, much of the immigrant residential mobility at Greenwood seemed to be related to the area's economic change. The economic upturn created a dynamic business environment which produced the type of jobs that attracted immigrant workers to the area. In turn, job prosperity and security (and newly-gained legal status) enabled immigrants to make temporary home visits. Finally, an improving

economic climate encouraged apartment landlords to raise rental rates which pressured some immigrants to relocate.

Inaccurate Secondary (Proxy) Reporting

The factor of faulty information provided by secondary sources, i.e., by persons who are not members of the reported household was another source of unmatched individuals. In the census count these cases involved information given to census enumerators who visited the apartment building seeking households who had not returned the census forms. When persons were not located in the apartment units, the census enumerator obtained information about the persons in the apartment household from the apartment managers. Almost invariably, however, the household information obtained in this manner was incorrect. The information that the apartment managers provided the enumerator was taken from apartment lease contracts which did not provide an accurate household count. Because household sizes often violated lease agreements immigrants did not report current household memberships to management. The presence of boarder or other non-relatives and the presence of recently arrived relatives were not reported to management. Indeed, in several cases the household member who originally signed the lease contract no longer resided in the apartment. As other immigrants moved in the household they simply kept paying the rent (and utility bills) under the name of the original leaseholder. This was possible to do without raising suspicion because the immigrants pay their rents in cash (a facet of their participation in a cash economy). In a few cases none of the household names provided by managers to the enumerator resided in the apartment unit.

CONCLUSION AND RECOMMENDATIONS

We found that issues of concealment, cultural differences, complex housing arrangements, and residential mobility were among the most important causes of undercount, especially of incomplete household enumeration. No single factor explains the problems of obtaining an accurate census count in the sample area. Rather, it is the constellation of these factors operating simultaneously that explain why only some members of an immigrant household are enumerated or reported. It is to these issues that we address the following recommendations:

1) Provide educational material via grassroots Latino organizations so that recent Latino immigrants can be made more aware of the importance of the census. In Houston, census participation was encouraged in the established eastside Latino settlement zones, but little or no effort was made to facilitate such census participation in the newly established Latino settlement areas in the city's westside.

2) Use Spanish-speaking enumerators who are sensitive to the cultural subtleties of the different Latino immigrant subcultures. To a large extent we believe that part of the reason the census encountered problems in Greenwood is because for many immigrants census enumeration in their home country is a very personal process, in

which town leaders personally accompany census takers to the homes in the town. For example, in Xecanchvox, a Guatemalan village from which many Greenwood immigrants come, the local military commissioner accompanied the census enumerator to homes in the village.

3) When a census enumerator is forced to rely on apartment complex managers for information on a particular housing unit, verify this information via other residents.

4) Make more enumerator visits in neighborhood areas that have undergone substantial residential change which involves large-scale immigration of Latino newcomers. The combination of rapid residential change and Latino immigration presents one of the most problematic issues for accurate census undercount.

5) Send census enumerators on follow up visits to help increase the accuracy of census counts in complex household arrangements. Our research found that the majority of immigrants underreported the number of members in their respective households.

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Disclaimer: This is the final report for one of the 29 independent Joint Statistical Agreement projects which conducted an ethnographic evaluation of the behavioral causes of undercount. All 29 studies followed common methodological guidelines. This report is based on an analysis of the results of a match between the author(s)' Alternative Enumeration to data from the 1990 Decennial Census forms for the same site. Each ethnographic site contained about 100 housing units. Information was compiled from census forms that were recovered through October 10, 1990. The data on which this report is based should be considered preliminary for several reasons: Between October 10, 1990 and December 31, 1990, additional census forms may have been added to or deleted from the official enumeration of the site as a result of coverage improvement operations, local review, or other late census operations. Differences between October 10, 1990 and final census results as reported on the Unedited Detail File were incorporated in later analyses of data from this site. The consistency of the authors' coding of data has not been fully verified. Hypothesis tests and other analyses are original to the author. Therefore, the quantitative results contained in this final JSA report may differ from later reports issued by Census Bureau Staff referring to the same site.

The exact location of the area studied and the names of persons and addresses enumerated by the independent researchers and in the 1990 Decennial Census are Census confidential and cannot be revealed until the year 2062. The researchers who participated in this study were Special Sworn Employees (SSE) or staff of the Census Bureau.

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