
COMING TO STAY: AN ANALYSIS OF THE U.S. CENSUS QUESTION ON IMMIGRANTS' YEAR OF ARRIVAL*

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Using the New Immigrant Survey Pilot, we compare answers to the census question on year of arrival in the United States with answers to questions about the dates and durations of earlier U.S. trips. We show that the year identified by the census does not correspond to the year of either the first or the last U.S. trip. Because many immigrants enter and leave the United States several times before becoming legal immigrants, the census question produces estimates of U.S. experience that are quite different from those produced by direct questions about trip durations.

A fundamental attribute of all immigrants is the amount of time they have spent in the host country. Whatever theory of immigrant absorption one favors—whether classical assimilation theory, ethnic pluralism, human capital theory, segmented assimilation, or ethnic stratification—an adequate empirical test requires measuring the time spent in the receiving country, either as an independent variable or, at least, as a control. Hence, most national censuses and surveys contain questions to ascertain the place of birth and year of arrival of foreign-born persons; and most analyses based on such data include a variable labeled “time since arrival” in statistical models involving immigrants.

Virtually all theories of immigrant adaptation hypothesize a process of adjustment to the host society that unfolds over time. Where theories differ is with respect to nature and pace of that adjustment, not its occurrence. As foreigners accumulate time in the host country and learn its language, social conventions, and cultural practices, behaviors and outcomes are altered in systematic ways. The more time an immigrant spends in the host society, the more acculturated he or she is likely to become and the more similar to natives with respect to structural variables such as income and occupational status (Alba and Nee 2003; Gordon 1964). At the same time, however, the more that immigrants come into contact with and compete with natives, the more they potentially encounter prejudice and discrimination, leading to stratification and the formation of reactive identities (Portes and Rumbaut 1990, 2001).

Despite its centrality to the process of immigrant adaptation, measuring the amount of host-country experience an immigrant has accumulated is far from straightforward. A question on the year of arrival works well in a world in which all immigrants arrive once and only once to settle permanently in the host society. Under these circumstances, subtracting the year of arrival from the year of the census or survey exactly yields the years of host-country experience, and there is no ambiguity.

If migrants move back and forth in multiple trips, however, this methodology breaks down because it begs two crucial questions: on which of the several U.S. trips did a respondent “arrive” and when did he or she decide to remain permanently? More important is that no matter how one defines “settlement,” either objectively or subjectively,

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subtracting the year of arrival from the year of the census or survey will not equal the total amount of time the migrant has accumulated in the host society. Inevitably, picking one year to define "arrival" out of a series of entries and exits will either over- or understate the total amount of host-country experience the migrant has accumulated.

Although the sentimental hagiography of immigration offered by Handlin (1951) and others portrays immigrants as people uprooted from their native soil, never to return, this image is more myth than fact. Of all immigrants who arrived in the United States between 1815 and 1915, 30% eventually returned to their native lands (Gould 1980). Although the rate of return migration was close to zero for Jews from the Russian Pale (who were fleeing systematic persecution), it was much higher for other groups and rose substantially over the course of the late nineteenth and early twentieth centuries (Hatton and Williamson 1998). The rate of return was 20% for Scandinavians, above 30% for Poles, 40% for the British, and almost 50% for Italians (Hatton and Williamson 1994).

Likewise, in the late twentieth century, the rate of emigration from the United States among the foreign born was estimated to be on the order of 30%–35% (U.S. Immigration and Naturalization Service 2001; Warren and Kraly 1985). This rate of return migration, however, conceals much more coming and going in a variety of legal statuses. Indeed, Massey and Malone (2003) reported that two thirds of all legal immigrants to the United States have already been in the country at least once before their official arrival as legal immigrants.

These facts render estimates of host-country experience derived from questions about the year of arrival ambiguous at best. To ascertain year of arrival for U.S. immigrants, censuses up through 1990 and the Current Population Survey (CPS) since 1994 have asked all respondents born outside the United States, "When did this person come to the United States to stay?" In the Spanish-language version of the questionnaire, the item was "¿Cuándo entró esta persona a los Estados Unidos para permanecer en el país?" In the 2000 census, the words "to stay" were changed to "to live" and moved earlier in the question, which came to read, "When did this person come to live in the United States?" or in Spanish, "¿Cuándo vino esta persona a vivir en los Estados Unidos?"

Under either wording, the question does not ask about a concrete event that can be objectively reported, the usual practice in demographic surveys. Unlike questions about dates of birth, marriage, and death, queries about current characteristics (e.g., occupation, income, or education), or even inquiries about past states (e.g., place of residence at a given point in time), the census question on year of arrival does not inquire about a simple occurrence or condition that can be objectively located in space and time. Rather, it relies on a subjective judgment about when the person "came to stay" ("entró para permanecer") or "came to live" ("vino a vivir") in the United States.

In a world characterized by high levels of return migration and multiple entries in the course of a migratory career, it is not clear whether "come to the United States" in the English version of the question refers to the physical act of arrival in the United States or the mental act of coming to a decision. Although the Spanish wording was fairly clear in 1990 (it asked about "entering to remain permanently"), the Spanish wording in 2000 suffers from the same ambiguity as the English version.

The fundamental problem is that the date of the decision to stay or live in the United States may be quite different from the date of any particular arrival. For example, a young Mexican man might enter the United States with no intention of staying, make several trips in and out of the country, and then meet and marry a U.S. citizen, whereupon he decides to stay. Does the migrant report the year he first entered the United States, the year he entered on what would become his final trip, or the year in which he decided to stay long term? Given the wording of the question, there is no objectively correct answer.

Moreover, the census question presumes that a decision to stay has, indeed, been made; but many foreigners enumerated in the census and CPS have made no such

decision. As long as the United States is the place of usual residence, foreigners are supposed to participate in the census and CPS; they need not be legal permanent residents or citizens. Thus, long-term residents of the United States who hold temporary employment visas, business visas, exchange visas, student visas, or diplomatic visas are enumerated in the census and CPS, and many of these people have never made any decision to stay (Massey and Bartley forthcoming).

In addition, with emigration running at about a third of legal immigration, it is clear that even many permanent resident aliens are not here to stay, despite the title of their visa (Jasso et al. 1999). Indeed, it is well-documented that many legal U.S. immigrants use their green cards simply to facilitate regular border crossing, rather than to undertake a permanent settlement in the United States (see Massey et al. 1987; Massey and Malone 2003; Reichert and Massey 1979). How do such people, who have no intention of “staying” in the United States, but who are nonetheless long-term residents of the country, answer the census question on the time of arrival? Again, the answer is not obvious.

Finally, even among those immigrants who have decided to stay in the United States, answering the question requires reconstructing a psychological state from the past, a mental operation that most people find difficult (Sudman, Bradburn, and Schwartz 1996). Unlike the reconstruction of past behaviors, assessing the timing and occurrence of prior attitudes is notoriously unreliable (Sudman and Bradburn 1982). Depending on intervening events and their consequences, people shift attributions of past psychological states backward or forward in time and often suppress them altogether. As a result, in addition to whatever systematic or random error occurs in judging the year of a specific past event, there is the difficulty of deciding exactly when the psychological scales tipped and the respondent decided to stay.

To overcome these ambiguities, investigators associated with the New Immigrant Survey Pilot (NISP) developed an alternative approach based on questions about concrete behavior, rather than past mental states (see Jasso et al. 1999). These questions permit a direct estimate of the total time spent in the host country, whether accumulated on one trip or many. In the study presented here, we considered the degree to which responses to the census question on the year of arrival correspond to specific salient events in the migratory career: the dates of first and last entry into the United States. We then combined responses to questions about first and last entries with self-reports of total migratory experience to derive an alternative measure of U.S. experience and compared this measure with that derived from the census question. After estimating multivariate models to predict the direction and the size of differences between the two measurement strategies, we considered how the alternative estimates might affect earnings regressions, the most commonly estimated model of immigrant assimilation.

SOURCE OF DATA

We used data drawn from the NISP, which was funded by the National Institute of Child Health and Human Development in partnership with other federal agencies to assess the feasibility of implementing a longitudinal survey of immigrants to the United States. (At the time of this writing, the survey was just out of the field.) The target population was the cohort of immigrants admitted during July and August 1996, some 148,987 people. Because children are relatively numerous among immigrants and because employment-based immigrants are relatively rare, the NISP used a stratified design that undersampled children and oversampled immigrants entering through employment categories (see Jasso et al. 1999).

This sampling strategy yielded a target sample of 1,982 immigrants, of whom 1,837 were over age 18. Baseline interviews were conducted primarily by telephone and began in October 1996 and continued through mid-November 1997. In cases in which respondents lacked a telephone or had a number that could not be determined, interviewers tracked down the respondents and completed the surveys in person. Interviews were conducted in

whatever language the respondent preferred: 43% were in English; 27% were in Spanish, and 30% were carried out in 1 of 16 languages other than English or Spanish.

The present analysis is based on the adult portion of the survey. In all, 1,134 adults completed the survey, for a response rate of 61.7%. The completion rate was much higher among respondents who were actually contacted by the interviewers. Once contact had been established, only 15% of selected respondents refused to participate. Most of the nonresponse stemmed from the inability to locate respondents, owing to mistaken or missing contact information. There were, however, few differences between respondents and nonrespondents with respect to age, sex, marital status, visa type, and state of U.S. residence (see Jasso et al. 1999).

The baseline survey did not ask the standard census question on the year of arrival. Rather, it asked for the year that the respondent entered the United States for the first time in any status. It then asked whether the respondent had ever left the United States after that first entry and, if so, the date of the last or most recent entry, the total number of U.S. trips ever made, and the total amount of time spent in the United States across all trips.

Of the 1,129 adult respondents who provided usable data on the number of trips (99.6% of the sample), 690 (61%) reported making just one trip, 247 (22%) said they had made two trips, and 192 (17%) reported three or more visits to the United States. For those with one trip, total U.S. experience is simply the duration of that trip; for those with two trips, U.S. experience is the sum of the two trip durations; and for those with three or more trips, we relied on the respondent's report of the total time he or she had spent in the United States, yielding direct information on total U.S. experience for a total of 934 respondents (82.7%) from the baseline survey. In 79 cases (7.6% of the total), information on total duration was missing, but we were able to determine the total U.S. experience indirectly using other information provided by the respondent.

To test the practicality of undertaking a longitudinal survey of immigrants, NISP investigators followed the baseline respondents over time and reinterviewed them after 3, 6, and 12 months. The 12-month follow-up survey included the standard census question on the year of arrival. By cross tabulating answers to this question with answers to baseline questions about the first and last U.S. trips, we gained valuable clues about how immigrants interpret and perceive the question about coming to stay.

RELATION TO THE YEAR OF THE FIRST TRIP

In an effort to link "year came to stay" to a concrete event, we created a matrix that cross referenced answers to the census question on the year of arrival with respondents' reports of the year of their first trip to the United States. This matrix, expressed in terms of cell percentages, is shown in Table 1. The diagonal is shown in boxes for ease of interpretation and indicates those cases in which the year of the first U.S. trip and the year of arrival coincide. If all immigrants entered the United States only once and reported the date of this event accurately, then the diagonal would contain 100% of the sample. Of course, all questions are subject to measurement error, and discrepancies could reflect such errors, as well as systematic differences in perceptions and meanings.

Nonetheless, only 55% of the cases fell along the diagonal, which would appear to be far too large to reflect random measurement error alone. If measurement error were trivial, the discrepancy would imply that about 45% of the respondents were *not planning to stay* when they entered the United States for the first time. Indeed, about 40% of those on the diagonal said they had only come "to stay" in 1996. In general, immigrants located on the diagonal have taken few trips (the average is 1.5 and the mode is 1.0), and most began migrating relatively recently. Although one respondent reported making a first trip and deciding to stay as early as 1981, the average year was 1993, and the modal year was 1996. As expected, therefore, the wording of the census question on coming to stay works

Table 1. Relationship Between the Year Immigrants Came to Stay and the Year of Their First U.S. Trip: NISP Respondents

Year They Came to Stay	Year of the First U.S. Trip																			
	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	
1980	0.09						0.09													
1981			0.09																	
1982				0.09				0.09												
1983					0.09															
1984							0.81													
1985					0.09			0.99												0.27
1986									1.27											
1987										0.54										
1988	0.27		0.18		0.09		0.27	0.18			2.08									
1989	0.36											2.71								
1990	0.27												2.7							
1991	0.54													3.80						
1992															3.35					0.09
1993																4.07				
1994	0.27	0.63															0.36			6.42
1995	0.27																	0.45		4.79
1996	2.71	0.63	0.45	0.63	0.54	0.45	0.72	0.81	0.90	1.18	0.99	1.08	2.26	2.17	1.36	1.63	2.35	2.71		26.76

best for recent immigrants who have taken only one trip, although it is not without ambiguities even for them.

Cases lying *above* the diagonal (around 9% of the total) indicate respondents who said that they came to stay *before* the date of their first U.S. trip. Although it seems nonsensical, such a pattern could result if respondents interpreted "coming to stay" as meaning "realized you wanted to stay permanently." Under this circumstance, they might report the date they first made the decision to emigrate or filled out papers to become a permanent resident alien, which would be *before* the date they achieved their aspiration and entered the United States to settle permanently. Indeed, the average year these respondents reported coming to stay was 1988, some four years before the average year of their first U.S. trip (1992). The mean number of trips taken by those above the diagonal was 2.4, and the mode was 2.0.

These data suggest the following about immigrants who reported a year they came to stay that occurred before the year of their first trip: they decided to emigrate to the United States before arriving in the country and reported the year they first applied for permanent residence or decided to do so as the year they came to stay. Then, while waiting for approval of their application by U.S. immigration authorities, they migrated to the United States for the first time in some other legal status (e.g., undocumented, tourist, student). They returned to their country of origin and, once they were approved for permanent residence, they finally entered as legal immigrants, reporting a total of two trips.

The remaining 36% of the respondents fell below the diagonal, meaning they reported a year they came to stay that occurred *after* their first U.S. trip and, hence, must have spent one or more periods of time in the United States before they elected to remain permanently. Respondents below the diagonal made an average of 4.4 trips, with the first one occurring, on average, in 1985; the average year they came to stay was 1994. Thus, these respondents appear to be circular migrants with multiple entries and exits who began migrating early, later decided to settle in the United States, and were finally able to arrange the legal papers to do so in 1996. Although the average date they said they came to settle permanently was 1994, the modal year was 1996, when 53% reported coming to stay.

RELATION TO THE YEAR OF THE LAST TRIP

To examine how the year immigrants came to stay relates to the year of their last U.S. entry, we again cross tabulated the two variables, this time for respondents with two or more U.S. trips (39% of the sample). The resulting matrix is presented in Table 2; again, the diagonal is shown in boxes. Summing across the diagonal, we found that 46% of all respondents with at least two U.S. trips reported a year of their last U.S. trip that coincided with the year they came to stay. For these circular migrants, therefore, the reported date they came to stay appears to be the date they arrived to pick up their green cards.

Most of the remaining respondents with multiple trips reported a last U.S. trip that was *after* the date they came to stay. Indeed, 47% of all cases were above the diagonal, compared with just 7% below it (indicating a last entry *before* they came to stay). Among respondents above the diagonal, the mean year of their last entry was 1988 and these people made a rather large number of trips (4.9) before and after deciding to stay, on average, in 1990. For these recurrent migrants, the date of legal immigration was (1996) clearly separate from either deciding to stay or coming most recently.

For immigrants located below the diagonal, who reported a year of entry on their last U.S. trip that occurred *before* the year they came to stay, there was a long gap between the two dates. Whereas the average year of their last entry was 1983, the year of their decision to stay averaged 1995, implying they had accumulated one or more of their average of 5.8 U.S. trips *after* making the decision to settle permanently. This finding suggests that in the context of increasing cross-border mobility and the growing fluidity of international

Table 2. Relationship Between the Year Immigrants Came to Stay and the Year of Their Last U.S. Trip: NISP Respondents

Year They Came to Stay	Year of the First U.S. Trip															
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996		
1980		0.25							0.25							
1981															0.25	
1982															0.25	
1983	0.25															
1984		0.25		0.25											1.98	
1985			0.00												0.99	
1986				0.49						0.25					1.73	
1987					0.25				0.25						0.99	
1988						0.74		0.25	0.25	0.49	0.49			0.25	0.74	
1989							1.23	0.49			0.49			0.74	3.21	
1990								0.25	1.23					0.74	4.20	
1991	0.25								0.00	0.99	0.49			1.23	2.47	
1992							0.25			0.00	0.99	0.49	0.49	2.96		
1993											0.00	1.73	0.49	2.72		
1994												0.00	0.49	4.94		
1995													2.47	4.69		
1996				0.25		0.25	0.74	0.25	0.25	0.25	0.99	1.48	2.47	39.75		

frontiers, for many immigrants, the decision “to settle” has become divorced from any particular visit to the United States.

ESTIMATING U.S. EXPERIENCE

The foregoing results reflect the subjective nature of the census question on the year of arrival and reveal substantial interpersonal variation in how the question is interpreted by immigrants. Some report coming to stay on the date they first entered the United States, but many do not. Among those with multiple trips, some immigrants provide the year of their last entry as when they came to stay, but most offer some other date. For a substantial share of U.S. immigrants, the date they came to stay is the year of neither their first nor their last entry. As we already pointed out, the crux of the problem is that coming to stay is not a concrete event that can be objectively isolated in space and time, but a psychological construct that respondents are asked to recover retrospectively. As a result, reconstructions of the corresponding date are only loosely related to the two most salient events in a migratory career: first and last trips.

However ambiguous the meaning of the census question on the year of arrival is, one thing is certain: it can be expected to yield considerable interpersonal variation in the measurement of U.S. experience, the core independent variable in any study of immigrant adaptation and incorporation. To explore the size and direction of this variation, we directly compared the amount of U.S. experience calculated using the usual census-based procedure (subtracting the year immigrants came to stay from the year of the census or survey) with immigrants' reports of their total time spent in the United States.

Again, both estimates are subject to measurement error; but in only 59% of all cases did we find that these two methods yielded the same estimate of U.S. experience, suggesting that something more systematic than random error is at work. Among 31% of the respondents, the census measure *understated* the total amount of U.S. experience by an average of 3.5 years as determined by our alternative method; and in 10% of cases, it *overestimated* it by an average of 3.9 years.

Table 3 shows selected social, economic, and demographic characteristics of respondents whose experience was understated, equaled, and overstated by the census procedure compared with the NISP alternative. Significant differences between the category “overestimated” or “underestimated” and the middle category “equaled” are noted. As can be seen, people for whom census-based procedures yield an apparent understatement of U.S. experience are disproportionately those who made multiple U.S. trips and, hence, were very likely to have been in the United States before receiving their green cards. Consistent with the large amount of accumulated experience in the United States, they were more likely to speak English well and, consequently, to have been interviewed in English. They were also more likely to be married at the time of the survey and to own property abroad, but were less likely to be in good health or to be enrolled in school. These characteristics typify those of a recurrent migrant who frequently shuttles back and forth between home and abroad.

Those whose U.S. experience was overstated by the census-based approximation likewise tended to report multiple trips, to have been present in the country prior to receiving their green cards, to be married, and to speak English well. They were also more likely to be employed and to own property abroad. The principal differences between these immigrants and those whose experience was understated are that immigrants with overstated experience are disproportionately male and more likely to own property in the United States as well as at home.

Finally, respondents for whom census-based procedures accurately estimate U.S. experience tended to have few U.S. trips, not to have been in the United States before getting their green cards, not to speak English well, and to be in very good health but to exhibit a slightly lower rate of labor-force participation and a lower rate of U.S. property

Table 3. Mean Characteristics of Respondents Whose Total U.S. Experience Is Overestimated, Underestimated, and Approximated by Subtracting the Year They Came to Stay From the Survey Date

Variable	Total U.S. Experience		
	Underestimated	Equaled	Overestimated
Demographic Background			
Age	37.7	35.0	36.4
Male	46.3	45.5	54.6 [†]
Currently married	74.9 [†]	69.1	76.2 [†]
Has children in the United States	49.1	48.7	49.5
Migratory Background			
In the United States before green card	72.5***	50.7	71.9***
Ever overstayed visa	13.3	14.6	20.3
Ever apprehended by the INS	2.4	2.8	4.2
Total number of trips	3.8***	1.5	3.3***
Language Ability			
Speaks English well or very well	54.9***	42.7	52.6*
Interviewed in English	49.8***	42.2	45.4
Education			
Years of schooling	13.7	13.4	13.7
Enrolled in school	25.1 [†]	30.5	24.7
Health			
Excellent or very good health	42.0*	53.7	45.8
Property			
Owns property abroad	28.1*	17.9	25.3*
Owns property in the United States	26.2	22.5	31.6 [†]
Employment			
Currently employed	64.8	63.9	73.2 [†]
Number of Cases	287	550	97

[†]Significantly different from the “equaled” category at $p < .10$; *Significantly different from the “equaled” category at $p < .05$; ***Significantly different from the “equaled” category at $p < .001$

ownership. In sum, the census question on the year of arrival seems to function best for immigrants who are making their first trip to the United States. The problem is that such U.S. immigrants have become rare (Massey and Malone 2003).

In Table 4, we consider the national origins of immigrants whose U.S. experience is understated, equaled, and overstated by the census question on the year of arrival compared with the NISP measure. Those countries whose percentages in the “underestimated” and “overestimated” categories are significantly different from that in the “equaled” category are noted. Among those whose total experience was understated, notable sources include Mexico, Peru, and Latin America generally; Hong Kong, Japan, and Taiwan; Other European nations; and Canada. These are all countries whose citizens are likely to have made multiple trips to the United States by virtue of their proximity to the United States (Mexico, Latin America, Canada), their relatively easy access to tourist and other nonimmigrant visas (Hong Kong, Japan, Taiwan, Canada), or the existence of well-established networks and migratory circuits (Mexico, Peru, and Latin America generally). Significantly

Table 4. Regional and National Origins of Respondents Whose Total U.S. Experience Is Overestimated, Underestimated, and Approximated by Subtracting the Year They Came to Stay From the Survey Date

Region and Country	Total U.S. Experience		
	Underestimated	Equaled	Overestimated
Latin America			
Colombia	1.4	1.1	4.2*
Dominican Republic	2.1	2.2	4.2
Ecuador	1.4	1.5	3.2
El Salvador	1.1 [†]	2.6	2.1
Guatemala	0.4	0.9	0.0
Mexico	15.0***	9.0	14.7***
Peru	3.2*	1.3	0.0
Other	5.4	4.3	10.5***
Total	30.0*	22.8	38.9***
Caribbean			
Haiti	1.4	1.1	0.0
Jamaica	0.7 [†]	2.4	4.2
Trinidad and Tobago	0.7	1.1	1.1
Other	1.4 [†]	0.4	0.0
Total	4.3	5.0	5.3
Asia			
Bangladesh	1.1	0.4	1.1
China	3.2***	8.2	1.1***
Hong Kong	2.9***	0.4	0.0
India	2.5	3.6	2.1
Japan	2.9*	0.9	1.1
Korea	1.1	0.9	3.2*
Pakistan	1.1	1.5	1.1
Philippines	6.4	7.5	5.3
Taiwan	5.0***	0.9	4.2***
Vietnam	0.4***	4.9	2.1
Other	2.9	2.6	2.1
Total	29.3	31.8	23.2*

(continued)

underrepresented (relative to their share of the total immigrant population) among those whose total experience is understated by census-based procedures are Jamaica, China, Vietnam, and the former USSR. With the exception of Jamaica, these countries are characterized either by refugee migration or high costs of travel.

Those source countries and regions whose experience tends to be overstated by census-based procedures include Colombia, Mexico, and Latin America generally, along with Korea, Taiwan, and Poland. Nations notably underrepresented in this category include China and Asia generally, along with the United Kingdom, Africa, and the former USSR. Thus, countries and regions for whom migratory experience is likely to be underestimated are also likely to have it overestimated as well. That the national origins of those whose

(Table 4, continued)

Region and Country	Total U.S. Experience		
	Underestimated	Equaled	Overestimated
Europe			
Poland	2.1	4.1	7.4*
United Kingdom	3.9	3.6	0.0*
Former Yugoslavia	0.7	0.6	1.1
Former USSR	2.9***	10.5	3.2*
Other	11.8*	7.9	8.4
Total	21.4 [†]	26.5	20.0 [†]
Other Regions			
Middle East	3.9	3.7	4.2
Africa	4.3	6.4	2.1 [†]
Australia	0.7	0.6	1.1
Canada	6.1*	3.2	5.3
Total	15.0	13.8	12.6

[†]Significantly different from the "equaled" category at $p < .10$; *Significantly different from the "equaled" category at $p < .05$; ***Significantly different from the "equaled" category at $p < .001$

experience is over- or understated by the census question differs from the set of people whose experience is replicated by census procedures is clear. What is not clear is what these differences mean.

To model the selection of respondents into categories of under- and overstatement more systematically, we used the foregoing variables as predictors in a multinomial logit equation to estimate the likelihood of ending up in each category (compared with the likelihood of having consistent estimates of U.S. experience). We combined indicators of whether the respondent reported having overstayed a visa or having been apprehended by INS into a single indicator of prior experience as an illegal immigrant. Rather than include a dummy variable indicating presence in the United States before the receipt of a green card, we entered the year of the first U.S. trip.

As indicated in Table 5, by far the strongest predictors of understatement are those associated with the respondent's migratory career. As one would expect from the earlier tabulations, the odds of understatement rose substantially with each trip taken. Moreover, the earlier the year of the first trip, the greater the likelihood that census-based estimates understated the total U.S. experience. In addition, controlling for English-language ability, the odds of understatement were increased by being interviewed in English, suggesting potential effects of translation. It may be that nonnative English speakers, even those who are comfortable enough to be interviewed in English, interpret "coming to stay" differently than they would if they had been interviewed in their native tongues. Finally, the likelihood of understating the time spent in the United States is raised by owning property abroad.

In sum, the profile for migrants whose U.S. experience is likely to be underestimated by the standard census question on the year of arrival is that of migrants with much experience entering and exiting the country, especially if they are interviewed in English and own property abroad. Such migrants tend to report the year they came to stay as being relatively recent (the year of their last entry, the year they got their green cards, or some other recent date), so that subtracting this reported year from the year of the census or survey yields a substantial understatement of their total migratory experience.

Table 5. Multinomial Logistic Regression Equations Predicting Whether U.S. Experience Is Over- or Underestimated by Census-Based Procedures

Independent Variable	Direction of Bias Using Census-Based Estimate of Total U.S. Experience			
	Underestimated		Overestimated	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Demographic Background				
Age	0.001	0.008	0.001	0.011
Male	-0.228	0.178	0.061	0.255
Currently married	0.273	0.216	0.308	0.321
Has children in the United States	0.148	0.188	0.104	0.270
Migratory Background				
Total number of trips	0.204**	0.056	0.194**	0.058
Prior illegal experience	0.235	0.195	0.273	0.289
Year of the first trip	-0.154**	0.021	-0.139**	0.025
Language Ability				
Speaks English well or very well	0.056	0.207	-0.022	0.301
Interviewed in English	0.395*	0.183	0.319	0.266
Education				
Years of schooling	-0.021	0.020	-0.030	0.028
Currently enrolled	-0.044	0.199	0.055	0.288
Health				
Health excellent or very good	-0.250	0.188	0.007	0.273
Property				
Owens property abroad	0.571**	0.205	0.232	0.304
Owens property in the United States	-0.292	0.214	-0.031	0.298
Employment				
Currently employed	-0.136	0.220	0.449	0.355
Intercept	12.929**	2.015	9.843**	2.468
Log-Likelihood		-698.847**		
Chi-square		226.050**		
Pseudo <i>R</i> ²		0.139**		
<i>N</i>		900		

p* < .05; *p* < .01

A similar profile characterizes those whose U.S. experience is overestimated, with two notable exceptions: neither being interviewed in English nor owning property abroad predicts membership in this category. Like those whose experience is underestimated, they are likely to have accumulated multiple trips over a prolonged period, but difficulties with English comprehension do not seem to be as much of a problem, and they are less rooted to their home countries (given that they lack property ties).

We selected respondents whose reported experience differed from that determined by the census procedure and assessed the effect of different variables in determining the *size*

Table 6. OLS Regression Coefficients Predicting the Amount by Which the Total U.S. Experience is Over- or Underestimated by Census-Based Procedures

Independent Variable	<i>B</i>	<i>SE</i>
Demographic Background		
Age	-0.013	0.021
Male	0.314	0.503
Currently married	-0.497	0.607
Has children in the United States	-0.522	0.509
Migratory Background		
Number of trips	-0.089**	0.041
Prior illegal experience	-0.198	0.576
Year of the first trip	-0.328***	0.034
Language Ability		
Speaks English well or very well	0.018	0.577
Interviewed in English	0.164	0.500
Education		
Years of schooling	-0.043	0.050
Currently enrolled	-0.249	0.567
Health		
Health excellent or very good	-0.021	0.523
Property		
Owens property abroad	0.518	0.536
Owens property in the United States	-0.039	0.577
Employment		
Currently employed	0.268	0.615
Intercept	34.310***	3.660
<i>R</i> ²		0.221***
<i>N</i>		369

p* < .01; *p* < .001

of the apparent misstatement. As shown in Table 6, the size of the error is almost entirely determined by the year of first entry and the number of trips made. The negative coefficient for the year of the first trip indicates that the size of the error is smaller for recent years than for earlier years. In other words, the size of the discrepancies increases as the year of the first trip recedes into the past, adding roughly a third of a year of differential measurement for each additional year earlier that the trip was taken.

EFFECT ON STATISTICAL ESTIMATES

To this point, we have shown that the census-based procedure for estimating total immigrant experience often yields results that are too high or too low compared with the alternative we developed from questions about concrete migratory behavior, rather than judgments of past intentions; and the size of the discrepancy is mostly a function of when the first trip occurred and the number of trips taken between that date and the year of the census or survey.

Table 7. Results of Regression of Earnings on U.S. Experience and Selected Independent Variables

Independent Variable	NISP-Based Measure of U.S. Experience		Census-Based Measure of U.S. Experience	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Migratory Background				
Total U.S. experience	0.023***	0.007	0.030***	0.008
Demographic Background				
Age	-0.002	0.003	-0.002	0.003
Male	0.368**	0.057	0.357***	0.057
Currently married	0.056	0.072	0.053	0.072
Has children in the United States	-0.066	0.065	-0.069	0.064
Language Ability				
Speaks English well or very well	0.287***	0.066	0.304***	0.065
Interviewed in English	-0.072	0.061	-0.075	0.060
Education				
Years of schooling	0.057***	0.007	0.057***	0.007
Currently enrolled	-0.153	0.065	-0.160*	0.065
Property				
Owns property in the United States	0.322***	0.069	0.315**	0.068
Intercept	8.820***	0.150	8.824***	0.149
<i>R</i> ² (adjusted)	0.309***		0.313***	
<i>N</i>	623		623	

p* < .05; *p* < .01; ****p* < .001

The most commonly estimated model of immigrant assimilation is a regression equation that expresses immigrants' wages as a function of U.S. experience while controlling for other socioeconomic and demographic background characteristics. The resulting coefficient is interpreted as a measure of the wage-experience elasticity (the rate at which U.S. experience is converted into higher wages), a measure of the pace of economic assimilation.

Given that a large share legal immigrants to the United States already have prior U.S. experience in some other status, U.S. experience will tend, on average, to be underestimated by the census procedure. If this is true, then observed wages will be higher than they should be for the amount of experience included in the equation because earnings reflect the full effect of experience, not just the time since the worker decided to stay. Thus, on average, wage elasticities will be biased upward, possibly overestimating the rate of economic assimilation. This bias should be greater for immigrants from countries that are characterized by significant circular migration, such as Mexico.

We found support for this hypothesis by comparing two regression equations: one estimated using the standard census-based measure of U.S. experience and the other using experience as measured by direct reports from the NISP. The dependent variable is the log of monthly earnings, and both equations include as control variables factors that are normally available in the census and CPS (e.g., age, sex, education, marital status), allowing us to assess the amount of error introduced into earnings regressions by the inaccurate measurement of U.S. experience in these data sources.

As shown in Table 7, the census-based estimate of U.S. experience yields an experience-earnings elasticity of .030, implying that each additional year of U.S. experience

Table 8. Comparison of Country Effects and Earnings-Experience Elasticities Estimated Using Direct and Census-Based Estimates of U.S. Experience

Country	NISP Estimate	Census Estimate
Country Effects		
Mexico	-0.218	-0.155
Other Latin America	-0.188	-0.195
Caribbean	-0.350	-0.379
Asia	-0.128	-0.135
Africa/Middle East	-0.060	-0.077
Australia/Canada	0.080	0.087
Europe (reference)	—	—
Earnings-Experience Elasticities		
Mexico	0.002	0.007
Other Latin American/Caribbean	0.023	0.026
Asia	0.019	0.033
Europe	0.042	0.036

boosts wages by 3%. But in many cases, this estimate is based on a measure of experience that does not reflect the total amount of time accumulated in the United States. When the NISP’s direct estimate of U.S. experience is substituted instead, the size of the elasticity coefficient is cut by 23% to a value of .023. Although this shift is in the expected direction, it is not statistically significant, possibly reflecting the limited degrees of freedom (there were 623 cases).

Another potential source of error stems from the fact that the likelihood, size, and direction of mismeasurement are likely to vary significantly from country to country and region to region, making comparative analyses of immigrant assimilation problematic. Errors in the estimation and interpretation of country effects in earnings regressions are likely to manifest themselves in two ways.

First, when dichotomous country indicators are added to standard wage regressions to capture fixed national effects, the resulting coefficients estimate the relative earnings advantage or disadvantage experienced by people of different national origins, holding constant the differences in socioeconomic and demographic background. As we already mentioned, we expect the understatement of the earnings disadvantage to be greatest among immigrants from countries and regions that are characterized by a high degree of circular migration.

The top panel of Table 8 shows fixed country and regional effects, which we estimated by inserting dummy variables into the regression displayed in Table 7. Compared with immigrants from Europe, the reference category, those from other regions generally earn less money. Only immigrants from Australia and Canada earn more (8%–9%); all other country coefficients are negative.

For the most part, the NISP and census-based estimates agree rather closely, and none of the observed differences are statistically significant from each another, though owing to small group sizes, the degrees of freedom are often limited. It is interesting that the largest difference is observed for Mexico, and the difference is in the expected direction. Whereas census-based estimates suggest that Mexicans earn about 15.5% less than Europeans after other variables are controlled, the NISP measure increases the apparent earnings difference by 22%, a figure nearly half as large. With a larger sample, this difference might be significant, but for now we can only warn of the *possibility* of

systematic bias in estimating the “cost of being Mexican” using census and survey data (see Poston, Alvarez, and Tienda 1976).

Second, biases can manifest themselves in earnings regressions in estimates of earnings-experience elasticities, the slope coefficient indicating returns to U.S. experience in country-specific wage regressions. In the lower panel of Table 8, we present elasticity coefficients estimated separately for different countries and regions using the census-based measure versus the NISP-based measure of U.S. experience. Although, again, generalization of the results is hampered by the limited degrees of freedom in some groups, the two sets of estimates coincide rather closely.

CONCLUSION

The baseline wave of the NISP asked randomly selected members of the immigrant cohort of 1996 the dates of their first and last U.S. entries, their total number of trips, and the total time they had spent in the United States. The 12-month follow-up survey of the NISP asked the standard census question on date of arrival: “When did you come to the United States to stay?” We argue that “coming to stay” is not an objective event that respondents can readily isolate in time, thereby introducing potential error into the measurement of a crucial variable in models of immigrant assimilation.

By cross tabulating data across the first and last waves of the NISP, we sought to consider how immigrants interpret the census question on year of arrival; how answers to it relate to concrete events in the migratory career; the degree to which its use in estimating U.S. experience produces under- and overstatements of total U.S. experience; what determines the direction and size of these misestimations; and how they might bias estimates of earnings elasticity in earnings regressions. Our analyses have established several findings that should be of interest to investigators who use and interpret census data on immigrants and immigration:

1. The census question on year of arrival does not readily correspond to the two most salient events in the migrant career. Roughly 45% of all legal immigrants to the United States report a year they came to stay that is not the year of their first U.S. trip; and among those with multiple trips, 54% report a year they came to stay that is not the year of their last trip.

2. A substantial share of migrants enter and leave the United States several times before they decided to stay. Among those whose year of their first U.S. trip was different from the year they came to stay, the average lag between the first trip and the year they came to stay was eight years.

3. Estimates of the total amount of U.S. experience that are based on answers to the census question on the year of arrival produce numbers that are quite different from those that are produced by asking about U.S. experience directly. Only 59% of immigrants had their total U.S. experience accurately estimated by the usual census-based procedure. In contrast, 31% of immigrants had their experience understated and 10% had it overstated, with an average difference of about four years.

4. Whether total U.S. experience is under- or overestimated depends on the year of the first trip and the number of trips taken between the first trip and the survey date. Immigrants whose prior trips were in undocumented status tend to have their experience underestimated by the census procedure, whereas those whose trips are in documented status tend to have their experience overestimated. The size of the error is likewise determined by the year of the first trip and the number of trips taken.

5. Across all immigrants, estimates of U.S. experience based on the census question on the year of arrival yield an overestimate of the effect of migratory experience on earnings in wage regressions. When immigrants’ experience is more accurately measured, earnings are found to rise at a rate of 2.3% per year, rather than the 3% estimated using the census indicator of U.S. experience.

6. Despite bias in the measurement of earnings-experience elasticities, estimates of the effects of other variables typically included in earnings regressions do not seem to be sensitive to the measure of experience that is used.

7. Although results are far from conclusive, the size of the foregoing bias is likely to vary across countries and regions, rendering comparative analyses of immigrant assimilation tenuous. Although only suggestive, our results indicate that the usual census procedure yields an underestimate of the cost of being Mexican, at least with respect to earnings.

We are thus left with a conundrum. Space on the census and CPS is limited, and estimating U.S. experience with a single question on the year they came to stay is cost effective and efficient; but it is also likely to lead to a misstatement of the total amount of U.S. experience. Asking for dates and durations of U.S. trips requires more space on the questionnaire, even if it produces more-accurate estimates of accumulated U.S. experience. Given hard limits to the length of the long form, it may not be possible to include multiple questions on the decennial census. Because of the importance of immigration to the growth and composition of the U.S. population, however, we believe that more questions should be included in the CPS. For example, in addition to asking the usual question on the year immigrants came to stay, additional questions on the date of the first U.S. trip, the date of the last U.S. trip, the total number of U.S. trips, and the total amount of U.S. experience could also be included on the CPS. This operation would enable a systematic evaluation of the census question on a large sample of respondents. It would also enable demographers to consider more definitively whether a single question on the total time spent in the United States across all visits yields better results than a single question on the year the respondent came to stay or live in the United States. Given the centrality of measures of U.S. experience in all models of immigrant adaptation and assimilation, undertaking such an evaluation is of great importance.

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