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The Employment and Wages of Legalized Immigrants[1]

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This article analyzes the employment and wages of recently legalized immigrants using the Legalization Application Processing System (LAPS) file, an administrative file based on the individual records of amnesty applicants, and draws comparisons with a sample of the foreign-born population from the Current Population Surveys of 1983, 1986 and 1988. Compared to the total foreign-born population, the legalized immigrant population differs in four important respects that bear on labor market position: 1) a younger age structure; 2) a less balanced gender composition; 3) a greater representation of Latin Americans; and 4) few years of U.S. residence. LAPS data reveal high rates of labor force participation among legalized immigrants, which exceeded the rates of the foreign-born population by approximately 5 and 17 percent for men and women, respectively. Legal immigrants earn approximately 30 percent more than their undocumented counterparts from the same regional origins. National origin alone accounts for about half of the wage gap between legal and undocumented migrants. In addition, the wage disadvantage of undocumented immigrants actually increases with age. Cross-section-

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al data preclude an unambiguous interpretation of this result, which requires longitudinal data.

Research about undocumented immigration burgeoned since the mid-1970s, when General L. F. Chapman, then head of the Immigration and Naturalization Service, publicized an unfounded and exaggerated estimate of 12 million illegal aliens residing in the United States at the time (DiMarzio and Papademetriou, 1988). Predictably, the ensuing decade witnessed a number of influential studies investigating the dimensions and consequences of immigration. This occurred despite widespread recognition that the data base required to assess the consequences of undocumented immigration was woefully inadequate (*see* National Research Council, 1985; GAO, 1988b).

Motivated by Chapman's characterization of Mexican immigration as a "silent invasion," early studies focused on establishing the size of the undocumented population (*e.g.*, Lesko Associates, 1975). The original estimates and profiles of undocumented migrants were based largely on surveys with detainees (North and Houstoun, 1976; Chiswick, 1984) or other incidental sample surveys conducted within specific establishments where undocumented migrants were known to work or congregate. A consensus emerged about the undocumented immigrant population: it consisted largely of young single men (aged 18 to 34), predominantly from Mexico, with limited formal schooling (6 to 8 years), who were concentrated in California and Texas. Profiles based on incidental samples subsequently received some validation from census analyses using residual methods (*e.g.*, Passel and Woodrow, 1984; 1985), although more recent studies highlighted the changing age, gender and national origin composition of recent undocumented immigration (*see* Bean, *et al.*, 1987).

The enactment of the Immigration Reform and Control Act (IRCA) of 1986 temporarily abated the policy debate about the need for immigration reform and refocused the policy and academic community toward an assessment of the effectiveness of its key provisions. Precipitated in large measure by a desire to reduce the entry and prohibit the employment of undocumented immigrants to the United States, IRCA included provisions to: 1) tighten control of the border; 2) impose sanctions on employers who knowingly and willingly hire undocumented workers; and 3) grant amnesty to undocumented immigrants who met specific eligibility requirements.

The amnesty program, which began in May 1987, provided an opportunity for undocumented immigrants to adjust their lawful status under two programs. Persons who resided continuously in the United States since January 1, 1982, could apply first for temporary resident status and even-

tually for permanent resident status under the general amnesty program. Eligibility requirements for agricultural workers were considerably more lenient. For these workers, evidence of employment in agricultural industries for at least 90 days during 1986 was sufficient to qualify for Special Agricultural Worker status (SAW). As of May 16, 1990, over 1.7 million undocumented migrants had applied for amnesty under the Legally Authorized Workers (LAWS) program, and nearly 1.3 million did so under the SAW program (INS, 1990). The approval rate for LAW applicants was about 94.5 percent and for SAW applicants 92.5 percent (INS, 1990).[2]

In the general absence of microdata about the legalized population, there has been much speculation about the consequences of the amnesty program (Vernez and Ronfeldt, 1991; Massey, 1990; Passel, 1986). While the number of immigrants admitted under the provisions of the amnesty program were sizable by any measure, the net impact of the program cannot be assessed solely in numerical terms. Rather, the impact of the program will ultimately depend on the significance of legal status in shaping employment, migration and welfare program participation behavior among amnestied immigrants.

This article describes the demographic and labor market characteristics of recently legalized immigrants based on information they submitted to the INS upon applying for amnesty. It describes the administrative data and provides a demographic profile of the study population. The labor market profile of legalized immigrants is presented, which also provides a general assessment of the sources of wage differentials between documented and undocumented immigrants. The conclusion ferrets research and policy issues requiring further scrutiny.

DESCRIPTION OF DATA

This study of the labor market characteristics of amnestied immigrants is based on an administrative file known as the Legalization Application Processing System (LAPS). Information available in the LAPS file was solicited on the I-687 and I-700 forms completed by all applicants for LAW and SAW status, respectively. Because the agricultural data are of generally lower quality than those obtained under the general amnesty program, the analyses are restricted to a 15 percent random sample of the LAW population (*see* Martin, 1988).

[2] The general expectation is that most individuals granted temporary resident status will be granted permanent status. Prior to becoming permanent residents, applicants must demonstrate basic English language skills and knowledge of U.S. civics. Five years after receiving temporary residence status, legalized aliens will be eligible to participate in means-tested income programs.

One important advantage of the large LAPS sample is the ability to disaggregate the sample according to major national origin groups. Although 70 percent of LAW applicants were from Mexico, the large sample permits separate analyses of undocumented immigrants from Asia, Africa, Europe and other locations. Applicants under IRCA's LAW program, however, were required to prove continuous residence in the United States since at least January 1, 1982. Therefore, short-term and seasonal, or "sojourner," migrants have been largely selected out. This means that the results are generalizable to only a subset of undocumented immigrants. We have no way of assessing what share of all undocumented immigrants residing in the United States in 1986 were eligible for amnesty and, of those who qualified, what share did not apply.

The LAPS file provides basic demographic information about applicants, such as place of residence, country of citizenship and birth, date and place of the most recent entry, and some information about family members living in the United States (for a detailed discussion of data quality *see* Tienda, *et al.*, 1991). An abridged employment history obtained for LAW applicants solicited information about occupation, annual wages and/or hourly wages, and dates (months and years) of employment. Up to five most recent jobs were keyed for applicants, but start and end dates were keyed only for the current job. This administrative decision precludes us from estimating duration models of any type.

One major limitation of the LAPS data is the absence of information about educational attainment. Our comparison of amnestied immigrants with a sample of legal immigrants from the Current Population Survey (CPS) provides some perspective on the appropriateness of national or regional origin as a proxy for this omission. Furthermore, the available measure of length of U.S. residence in an undocumented status—a key variable for testing hypotheses about permanent settlement and assimilation—is imprecise. The application form solicited the date of most recent entry, which for applicants with prior migration experiences involving numerous (and possibly frequent) trips to the source countries, understates the cumulative time spent in the United States in an undocumented status. Although this information can be recovered partly by using the residential history data, measurement error remains a serious problem.

Finally, the wage data is not of exceptionally high quality. Current wages (*i.e.*, wage rates at time of application) were available for about three fourths of men and over half of all women who were in the labor force. Although nearly half of the LAW sample reported both hourly wage and annual earnings, no information about usual hours worked per week was obtained,

making it difficult to evaluate the accuracy of the data. Current wage data were generally superior to wages reported for prior jobs.

We also constructed a special extract of immigrants from the CPS as a benchmark against which to assess the significance of legal status. In so doing, the presumption is that foreign-born respondents surveyed in the Current Population Survey entered the United States legally, which is not entirely accurate. Woodrow and Passel (1990) used the CPS survey data from 1986 to 1988 to estimate the size of the nonlegalizing undocumented immigrant population. Because several analysts have established the presence of undocumented migrants in the U.S. Censuses and Current Population Surveys, our comparisons between the LAPS and CPS samples as proxies for undocumented and legal immigrants, respectively, are conservative.

The CPS file is a pooled extract of all foreign-born individuals surveyed in the April 1983, June 1986 and June 1988 Current Population Surveys. The total weighted number of cases is 34,642 for persons of all ages. This pooled sample includes both noncitizens and naturalized citizens, but excludes individuals born abroad of U.S. parents. Like the LAPS file, the CPS extract we analyze has several noteworthy limitations. Although the file provides educational attainment data for respondents, as well as information about region of origin, cost-cutting measures implemented by the Bureau of Labor Statistics and the Census resulted in randomly coding place of birth for only a subset of the entire sample. Consequently, of the total sample of 34,642 individuals, 31.8 percent of the cases had a missing place-of-birth variable (though they had valid codes for indexing foreign birth). Although this missing information is random, this feature of the file results in a loss of a significant number of observations for analyses requiring information on national origin. Furthermore, in another cost-cutting measure, wages are only available for another (random) subsample of the entire file.

For the analyses of employment status and occupation, we divided the sample into six national origin groups.[3] Mexicans were treated separately because of their relatively large numbers; Central and South Americans make up a second group. The third, fourth and fifth groups consist of Asians, Africans and Europeans, respectively; the sixth group, labeled "Other", is a residual category containing applicants from remaining countries, mainly

[3] The LAPS data contain information about country of birth and country of citizenship, or nationality. A cross tabulation of these two variables confirmed a high degree of consistency in these two variables. Country of citizenship was used here to portray the regional origins of legalized immigrants because this distribution avoids misclassification of the tiny share of individuals who entered the U.S. via a country other than their birthplace.

the non-Spanish-speaking Caribbean, Oceania and Canada. Although these broad categories conceal variation across individual countries, the regional groupings provide a meaningful benchmark for presenting the heterogeneity of the undocumented population granted amnesty under IRCA.

SAMPLE CHARACTERISTICS

Table 1 summarizes the comparability of our sample with the universe of applicants for amnesty under the general amnesty provisions of IRCA. The indices of dissimilarity indicate a close correspondence between our sample and the universe from which the sample was drawn, hence our results are generalizable to the immigrant population amnestied under the LAW program.

The general consensus about the demographic characteristics of undocumented immigrants that emerged over the 1980s is partly corroborated by the characteristics reported in Table 1. For example, most studies reported that over half of undocumented migrants were men and that the modal age range of undocumented migrants was 15 to 30 years of age, with 60 to 70 percent falling into this range (Warren and Passel, 1987; Bean *et al.*, 1987; Borjas, 1990; Vernez and Ronfeldt, 1991; Chavez *et al.*, 1990). While this is an accurate description of the age composition of the Special Agricultural Worker (SAW) population, 65 percent of which fell into this age range, it is a less accurate representation of the LAW population (*see* Tienda *et al.*, 1991). The LAPS data reveals that over 80 percent of amnestied immigrants were under the age of 40, with the modal age group at 20 to 34 years.

The summary statistics also indicate that the undocumented population is heavily concentrated in the Southwest, with nearly three out of four immigrants legalized under the LAW program residing in California and Texas. Finally, Mexicans account for approximately 70 percent of the LAW population, and undocumented migrants from other Central and South American countries represent an additional 18 percent. Why the share of Mexicans legalized under the LAW program is much higher than indicated by previous estimates based on census data is unclear, but this could reflect systematic differences in eligibility for status adjustment according to national origin, as well as distortions in the profiles generated by residual methods (*see* Passell, 198; Warren and Passel, 1987).

In short, while the demographic profile of recently legalized immigrants conforms reasonably well with prior accounts based on incidental samples, the image of undocumented migrants as young, unmarried men from Mexico is not entirely accurate. Warren and Passel (1987) reported that the

TABLE 1

COMPARISON OF LAPS SAMPLE AND UNIVERSE OF DOCUMENTED IMMIGRANTS: SELECTED CHARACTERISTICS OF I-687 AMNESTY ADJUSTMENT GROUPS (Percents)

Characteristics	Sample	Universe
Age		
<15	9.7	9.0
15–19	8.4	8.0
20–24	12.8	15.0
25–29	19.8	21.0
30–34	18.7	18.0
35–39	12.2	11.0
40–44	7.3	7.0
45–64	10.1	9.0
65+	1.0	1.0
I.D.[a]	3.9	—
Sex		
Males	55.0	57.0
Females	45.0	43.0
Marital Status		
Never Married	47.8	49.0
Married	43.4	41.0
Ever Married	8.7	10.0
State of Residence		
California	58.9	54.4
Texas	14.6	17.7
New York/New Jersey	7.9	8.4
Illinois	6.8	6.9
Florida	2.3	2.8
Other West	4.9	4.8
Other South	0.9	1.3
Other Midwest	1.3	1.0
Other Northeast	2.3	2.4
Other[b]	0.2	0.3
I.D.	4.8	—
Region of Origin		
Mexico	70.9	69.8
El Salvador	8.6	8.1
Other Central America	4.4	5.3
South America[c]	4.5	5.3
Asia	4.3	4.6
Africa	1.3	1.8
Europe	1.9	2.0
Others	4.1	3.2
I.D.	2.6	—
[N][d]	[259,494]	[1,762,143]

Source: Legalization Application Processing System file and INS, Provisional Legalization Appliation Statistics, Office of Plans and Analysis, May 16, 1990.

Notes: [a] Index of Dissimilarity with Universe

[b] Includes Puerto Rico, Guam and Virgin Islands

[c] Includes Spanish-speaking Caribbean

[d] Sample Ns do not reflect missing data which varies from 0 to 1 percent missing for each variable.

age-sex distribution of undocumented migrants has remained stable over time, but the data reported in Table 2 provides only mixed support for this claim. Also, the share of LAWS who were married at the time of application exceeded 40 percent, and an additional 9 to 10 percent had been married previously. Finally, recent studies have acknowledged that the national origin composition of the undocumented population has been changing, as Central and South Americans increased their share of the total (Chavez, 1991).

In contrast to the stable gender composition of the U.S. foreign-born population enumerated in the Current Population Survey, the share of male undocumented immigrants actually increased. This deviates from the secular trend in legal migration (Donato, 1992; Stier and Tienda, 1992), and also contradicts recent claims that women have become an increasing share of all undocumented immigrants. A comparison of the marital status composition of migrants who entered after 1979 versus those who entered during the prior decade suggests that single persons increased as a share of the total, but it is also likely that the higher proportions married among earlier cohorts wed after arriving in the United States. Lacking information on the timing of marriage, we are unable to assess whether and how the marital status distribution of undocumented migrants remained stable during the 1970s and 1980s.[4]

Unlike marital status, region of origin is a fixed attribute, hence the cohort comparisons reflect real changes in the characteristics of undocumented migrants who entered at different periods. The Mexican share of all undocumented migrants declined over time, while the shares of Central and South Americans increased. Among applicants for LAW status, three of every four who entered between 1970 and 1979 were from Mexico compared to approximately 66 percent of those who entered after 1980. LAW applicants from Central and South America rose from 13 percent among those who entered during the 1970s to 21 percent among those arriving during the early 1980s, reinforcing claims about the increased representation of other Latin Americans among recent undocumented immigrants (Chavez, 1991). By contrast, the shares of LAW applicants from Asia, Africa, Europe and other locations (including Canada) remained fairly stable.

A comparison of the country of origin distributions from the CPS, which roughly approximates the universe of "documented immigrants," and the

[4] Unfortunately the LAPS data do not solicit date of marriage. However, individuals who married U.S. citizens or legal residents would be eligible to adjust their status under the family reunification guidelines of the 1965 Amendments of the Immigration and Nationality Act, as amended to prevent marriage fraud. Therefore, we have reason to believe that a substantial share of undocumented immigrants were married before arriving in the United States.

TABLE 2

AGE, SEX AND MARITAL STATUS DISTRIBUTION OF UNDOCUMENTED AND DOCUMENTED IMMIGRANTS BY PERIOD OF ARRIVAL

Characteristics	LAWS			U.S. Foreign Born		
	Pre-1970	1970–1979	Post-1979	Pre-1970	1970–1979	Post-1979
Age						
< 15	0.0	11.9	11.2	9.5	3.2	3.5
16–24	7.8	16.8	21.7	13.6	22.4	18.3
25–64	84.2	70.1	66.3	60.5	69.4	59.7
65+	7.9	1.2	0.8	16.4	5.0	18.5
[N]	[1,790]	[117,627]	[139,592]	[29,012]	[2,192]	[3,438]
I.D. with CPS	26.5	8.5	18.4			
Gender						
Male	47.9	52.9	56.8	46.8	48.5	47.1
[N]	[1,794]	[117,806]	[139,784]	[29,012]	[2,192]	[3,438]
Marital Status[a]						
Never Married	32.0	45.4	50.1	23.6	26.9	29.9
Married	47.7	45.4	41.7	57.9	61.6	50.8
Ever Married	20.3	9.2	8.2	18.5	11.5	19.3
[N]	[1,784]	[117,113]	[138,798]	[26,914]	[2,332]	[4,004]
I.D. with CPS	29.1	33.8	22.7			
Region of Origin[b]						
Mexico	72.4	75.2	67.3	20.7	23.2	16 .2
Central/South America[c]	10.3	13.0	21.2	16.1	16.1	15.8
Asia	5.5	4.8	3.9	23.3	36.5	33.1
Africa	0.9	1.2	1.4	1.1	2.1	2.3
Europe	2.7	1.7	2.1	24.6	14.6	24.5
Other	8.2	4.1	4.1	9.1	7.4	8.0
I. D. with CPS	49.2	53.2	56.4			
[N]	[1,795]	[117,820]	[139,807]	[20,288]	[2,125]	[1,202]

Sources: Legalization Application Processing System (LAPS) File and Current Population Survey for April, 1983; June, 1986; and June 1988 (Pooled)

Notes: [a] 2,098 observations with marital status missing on LAPS file.

[b] 11,027 observations with missing place of birth codes on CPS file. These cases are randomly distributed and arose because of cost-saving coding measures.

[c] Includes Spanish-speaking Caribbean.

LAPS, a random sample of the universe of recently legalized immigrants, revealed appreciable differences. Most salient is the disparity in the representation of Mexicans, which among all foreign born is 21.4 percent, but approaches 70 percent in the LAW sample. Salvadorans, the next largest single country group represented among recently legalized aliens (*see* Table 1), comprises less than 2 percent of the U.S. foreign-born population. The CPS and LAPS samples are similar in percentage born in Africa, but other origin places are more highly represented among the foreign born than among amnestied aliens. For example, Europeans and Asians comprise approximately 2 and 5 percent of the LAW population, respectively, but roughly one quarter of legal immigrants. Changes in the country of origin composition of documented immigrants indicate fewer Mexicans as a share of all legal admissions and a stable share of migrants from Central and South America among the U.S. foreign-born population.[5] But the documented immigrant population differs from the legalized population in another important respect: immigrants who arrived after 1970 represent a small share of the total foreign-born population—under 20 percent of the immigrant stock—while undocumented immigrants are relatively recent arrivals to the United States.

Unfortunately, the LAPS data lacks information on educational attainment, but prior research showed that the educational attainment of Mexicans and Central Americans was appreciably lower than that of migrants originating in other countries, particularly Europe, Africa and Asia (Bach and Tienda, 1984). Chiswick (1984) showed that schooling levels of undocumented migrants were typically lower than their foreign-born counterparts. Recent studies also have shown that the educational gap between legal and undocumented migrants, on the one hand, and among national origin immigrant groups, on the other hand, has been widening over time (Borjas, 1990). For example, Vernez and Ronfeldt (1991) report that in 1960 82 percent of Mexican immigrants had eight years of schooling or less, whereas in 1980 only 62.6 percent of Mexican immigrants completed eight years of schooling or less. Preliminary tabulations from the Legalized Population Survey (conducted by WESTAT) also confirm low levels of education for the LAW population, which hovered around seven years for the entire applicant pool, but varied widely according to region of origin. Specifically, median years of schooling range from six years for undocumented migrants from Mexico to twelve or more years for migrants from Europe and the Eastern Hemisphere.

[5] These tabulations exclude individuals who may have returned to their source countries. Because of longer exposure to the risk of returning, emigration rates are likely to be higher for earlier arrivals, but mortality may be a stronger competing risk for them.

To summarize, the U.S. foreign-born population differs from the legalized population in its older age structure, more balanced gender composition, and lesser representation of Latin Americans. Differences in the regional origins of the LAW population vis-à-vis the foreign-born population residing in the United States during the mid-to-late 1980s are significant not only because other immigrant characteristics, such as age composition, proportion female, family structure, education and employment status differ systematically by region of origin (Keely 1974; Massey 1981; Passel 1986), but also because social and economic integration processes have been shown to differ markedly according to country of origin and time of arrival.

LABOR MARKET STATUS

The controversy about the causes and consequences of undocumented (as well as documented) migration centers on economic issues. Predominant concerns include whether push factors are more salient than pull factors in drawing migrants to the United States; whether immigrants "take jobs away" from U.S. natives and disadvantaged minority groups in particular; whether immigrants drive down the wages of natives; and whether immigrants consume more in public services than they contribute through taxes. It is not surprising, then, that most empirical research about immigration has focused on assessing labor market impacts. In contrast to the general consensus about the demographic characteristics of legal immigrants, disagreement about the causes and consequences of undocumented migration persists (Borjas, 1986, 1990; Vernez and Ronfeldt, 1991; White *et al.*, 1990).

We begin with a description of the employment status of the LAW population at the time of application and proceed to a description of occupational profiles according to region of origin, gender and period of arrival. Subsequently, we examine the average wages associated with broad occupational categories and conclude with analyses of the sources of wage inequality between "legal" and undocumented immigrants and an assessment of the different age-earnings profiles according to lawful status.

Employment Status Profile

Table 3 displays the employment status distribution of undocumented immigrants who were 18 to 64 years old at the time they applied for amnesty according to arrival cohorts. The participation rates of the foreign-born

TABLE 3

EMPLOYMENT STATUS DISTRIBUTION OF UNDOCUMENTED IMMIGRANTS: TOTAL LAW POPULATION AGED 18–64 BY REGION OF ORIGIN, SEX, AND PERIOD OF ARRIVAL[a]

	Total		Mexico		Central/South America		Asia		Africa		Europe		Other	
Period	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Arrived Pre-1980														
In Labor Force	91.3	74.1	91.1	70.3	92.5	84.1	92.3	80.3	93.3	91.2	92.3	83.2	89.4	85.5
Out of Labor Force														
Student	1.6	2.1	1.7	2.4	1.4	1.3	1.6	1.4	.7	1.1	1.5	1.5	1.7	1.9
Housewife	.1	10.7	.1	12.8	.1	5.8	—[c]	5.7	—[c]	2.4	—[c]	5.9	—[c]	2.8
Unemployed														
Retired	1.7	8.3	1.7	9.3	1.2	4.9	2.4	8.3	1.3	2.2	1.6	5.7	3.6	6.1
Not Reported	5.2	4.8	5.4	5.2	4.8	4.0	3.7	4.3	4.7	3.0	4.7	3.7	5.3	3.8
[N]	[52,379]	[44,496]	[38,542]	[32,029]	[7,107]	[7,521]	[3,266]	[1,922]	[855]	[536]	[1,007]	[790]	[1,602]	[1,698]
CPS LFP[b]	87.5	60.1	92.6	47.9	89.9	63.1	83.1	60.3	86.6	54.3	88.4	58.8	89.3	68.9
Arrived Post-1979														
In Labor Force	92.2	77.4	92.1	73.1	92.5	85.0	92.6	80.2	94.1	91.7	93.5	86.5	90.1	86.2
Out of Labor Force														
Student	.9	1.3	.8	1.3	1.2	1.3	1.6	1.9	.9	1.8	1.2	1.3	1.9	1.4
Housewife	.1	9.1	.1	11.7	.1	4.8	—[c]	4.4	—[c]	2.4	—[c]	4.0	.1	2.6
Unemloyed														
Retired	1.0	7.4	.9	8.8	.9	4.4	2.4	9.7	1.2	2.0	1.1	4.7	2.2	5.2
Not Reorted	5.8	4.8	6.1	5.1	5.3	4.5	3.4	3.7	3.8	2.1	4.2	3.5	5.7	4.6
[N]	[68,656]	[48,853]	[47,080]	[31,247]	[14,379]	[11,952]	[2,893]	[1,826]	[1,140]	[714]	[1,415]	[1,117]	[1,749]	[1,997]
CPS LFP[b]	80.0	50.7	85.1	37.6	95.4	51.5	66.0	47.9	51.4	22.4	87.9	49.5	84.6	69.4

Source: Legalized Alien Processing System.

Notes: [a] Percentages do not include missing cases.

[b] Includes only those that reported this country as their region of origin.

[c] No observations.

population (evaluated in the CPS) is presented below each panel as a benchmark against which to evaluate the labor force activity of undocumented immigrants. Our estimates of labor force participation are conservative for two reasons. First, because the LAPS data was gathered for administrative rather than research purposes, we could not adhere to the conventional employment status recodes used by the Bureau of Labor Statistics. Hence, the retired and unemployed were classified as a single category in the LAPS data, even though the former are technically in the labor force while the latter are not.

Second, the estimates of labor force participation presented in the first row of each panel exclude cases for which occupations were not reported, even though many of these respondents were likely to be in the labor force. Because we could not determine their labor force status with certainty, cases with unreported occupational codes were reported separately. As such, the lower bound of participation reported in the first row of each panel excludes the unemployed and those with missing occupational codes; the upper bound of labor force participation is the sum of those with valid occupational codes (designated as in the labor force), those who reported being unemployed (including a handful of retired individuals), and persons for whom occupational codes were unknown.

The view of undocumented migration as a "worker" flow finds strong support in the high rates of labor force participation of both men and women, even when a highly restrictive definition of labor force activity is used. Undocumented immigrant men participated in the labor force at rates 4 to 12 percent higher than foreign-born men who presumably entered the United States through authorized means, depending on time of arrival. Among women, the participation differential by legal status was much greater, roughly 14 percentage points for pre-1980 arrivals and 27 percentage points for later arrivals. Differences in labor force activity rates of undocumented men were minimal according to time of arrival, but undocumented immigrant women who arrived before 1980 exhibited slightly lower rates of labor market activity compared to those who arrived in 1980 or later. The differentials observed among documented immigrants are exactly the opposite: earlier arrivals participated in the labor force at rates approximately 10 percentage points below those of later arrivals. Hence, the participation differentials observed among legal immigrants are consistent with assimilation theory inasmuch as the higher rates observed among earlier arrivals may result from accumulated experience with the U.S. labor market, but the experience of undocumented migrants challenges a simple assimilation explanation of economic integration. This theme resurfaces in the analysis of wage differentials according to legal status reported below.

Labor force activity rates among legalized men varied somewhat according to national origin, ranging from a high of 94 percent for undocumented immigrants from Africa to a low of 90 percent for the residual "Other" category, but the variation in labor force activity among women was much greater. Whereas women from Africa participated at a rate of nearly 92 percent (using our conservative estimate), only 72 percent of undocumented immigrant women from Mexico were in the labor force at the time they applied for amnesty. Nonetheless, this rate exceeds that of legal immigrant women from Mexico by 20 to 35 percent points, depending on arrival cohort. For African origin women, the differential in labor force participation according to legal status was 30 to 69 percent, respectively, for early and later arrivals. Among most regional origin groups, legal immigrant women exhibited participation rates between 20 and 25 percentage points below those of undocumented immigrant women.

Because of the measurement difficulties noted at the outset, the reported differentials in labor force activity represent the lower bounds of inequities between legal and undocumented migrants. This comparability problem does not apply to gender comparisons within the LAW population. Equally striking are the gender differences in shares unemployed, which put women at a distinct disadvantage relative to men. Given the nature of the data, we cannot be certain that self-reports of unemployment entail active job search as required by the standard labor force approach, therefore we do not dwell on these differences. However, differentials in participation are but one aspect of labor market inequality among immigrants according to legal status, gender and country of origin. As illustrated in the following sections, occupational and wage inequities between legal and undocumented migrants also vary along national origin and gender lines.

Occupational Profile

Consistent with prior research, the occupational profile of the working-age LAW population reported in Table 4 reveals a high concentration in blue collar occupations, but primarily production operative and service jobs (*e.g.*, Bean *et al.*, 1987; Borjas, 1990, Chavez *et al.*, 1990; Chiswick, 1984; Vernez and Ronfeldt, 1991). Yet, despite their irregular legal status, nontrivial shares of undocumented workers also found employment in white collar jobs. Occupational profiles of undocumented immigrants did not differ appreciably according to time of arrival, but country of origin variation was both striking and highly consistent with prior research based on local or incidental samples.

TABLE 4

OCCUPATIONAL DISTRIBUTION OF UNDOCUMENTED IMMIGRANTS: TOTAL LAW POPULATION AGED 18–64 BY REGION OF ORIGIN, SEX AND PERIOD OF ARRIVAL[a]

Occupational/	Total		Mexico		Central/South America		Asia		Africa		Europe		Other	
Job Status	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Arrived Pre-1980														
Upper White	8.1	6.2	4.2	3.5	9.0	6.5	37.3	30.0	26.8	20.4	21.9	14.0	16.5	14.1
Lower White	9.9	15.6	8.1	13.2	12.8	15.2	19.1	36.3	22.2	29.7	7.5	18.7	16.8	26.7
Upper Blue	20.2	6.6	20.6	7.4	24.2	5.6	7.8	4.1	5.8	2.9	27.7	6.1	20.8	2.1
Lower Blue-Production	36.2	33.7	40.5	41.3	31.5	22.6	9.6	5.6	20.7	7.2	22.0	20.2	25.6	7.8
Lower Blue-Service	19.3	35.5	18.4	31.1	20.8	49.8	25.5	23.8	24.6	39.8	19.5	40.6	17.2	49.1
Lower Blue-Farming	6.3	2.5	8.1	3.5	1.7	.2	.7	.3	—[b]	—[b]	1.5	.3	3.1	.3
[N]	[47,844]	[32,978]	[35,098]	[22,514]	[6,573]	[6,323]	[3,014]	[1,544]	[798]	[489]	[929]	[657]	[1,432]	[1,451]
Arrived Post-1979														
Upper White	5.4	4.5	3.0	2.2	5.8	4.3	27.0	25.4	16.2	12.3	18.1	14.1	16.4	9.4
Lower White	7.4	11.2	5.0	7.6	10.2	12.0	21.1	38.6	22.4	32.7	9.7	15.4	13.2	18.7
Upper Blue	20.4	5.8	20.2	6.5	23.2	5.5	8.8	3.5	8.0	1.4	32.1	5.2	19.4	2.8
Lower Blue-Production	36.2	29.7	39.5	36.7	33.7	22.9	12.9	6.6	22.4	5.6	23.1	16.6	26.3	12.1
Lower Blue-Service	22.6	46.7	21.6	43.6	24.5	54.8	29.4	26.8	30.8	47.5	15.7	48.2	21.8	56.5
Lower Blue-Farming	8.0	2.1	10.7	3.3	2.6	.4	.9	—[b]	.3	.5 1	.3	.3	3.0	.4
[N]	[63,315]	[37,802]	[43,368]	[22,832]	[13,296]	[10,163]	[2,679]	[1,465]	[1,073]	[655]	[1,323]	[966]	[1,576]	[1,721]

Source: Legalized Alien Processing System.

Notes: [a] Excludes cases with missing occupational codes

[b] No observations

Approximately 60 percent of undocumented Mexican men and between 72 and 80 percent of women from Mexico who were economically active held blue collar service or production jobs at the time they applied for amnesty, while 52 to 58 percent of Latin American men and approximately three fourths of Latin American women were so employed. By contrast, over half of undocumented immigrant men from Asia and nearly two thirds of undocumented Asian women reported employment in white collar occupations upon legalization. This pattern of occupational bifurcation according to region of origin mirrors the occupational profile of legal immigration after 1965 (Massey, 1981; Bach and Tienda, 1984; Keely, 1974). Thus, undocumented migrants from Mexico and Latin America fit the image of unskilled workers, while Asians do not.

Also of interest, but less well known, are the occupational profiles for undocumented immigrants from Africa, Europe or other places. Undocumented migrants from Africa and the residual category were approximately evenly divided between the high and low extremes of the occupational hierarchy. More concretely, for all time periods, 43 percent of undocumented African men held white collar occupations when they applied for amnesty, while approximately another 50 percent reported working in lower blue collar occupations. A bifurcated occupational profile also characterized undocumented men and women from the residual category, which includes Canada, Oceania and the English-speaking Caribbean. By contrast, the occupational profile of undocumented migrants from Europe is more balanced among the broad groupings. Just under one quarter of undocumented European men held lower blue collar production occupations as compared to 20 percent in the upper white collar category. A similar profile characterized undocumented European women, except that the share of upper white collar workers was lower.

In summary, Asians stand apart from undocumented migrants from other origins and as a group—they do not fit the "typical" image of this population as a poorly educated labor flow working in low-status jobs. Over half of all undocumented Asian men and women held white collar jobs when they adjusted their lawful status. Although the LAPS file lacks information on educational attainment, auxiliary information from the survey of legalized immigrants confirms that undocumented migrants from Asia have higher skill levels than migrants deriving from Latin America. Less subject to speculation are the income consequences of the occupational profiles, which should place Asians at an advantage relative to undocumented migrants from other countries. Table 5, which presents mean (hourly) occupational wages for the LAW population according to region of origin and gender,

TABLE 5

MEAN OCCUPATIONAL WAGES OF UNDOCUMENTED IMMIGRANTS AGED 18 AND OVER AT TIME OF APPLICATION FOR AMNESTY BY REGION OF ORIGIN, GENDER AND PERIOD OF ARRIVAL (Standard Deviation)

	Total		Mexico		Central/South America		Asia		Africa		Europe		Other	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Arrived Pre-1980														
Average	5.86 (6.49)	4.22 (3.18)	5.65 (3.32)	3.97 (1.60)	6.25 (14.48)	4.25 (2.82)	7.02 (11.38)	6.54 (12.95)	6.78 (4.75)	5.05 (2.23)	8.10 (3.81)	5.36 (3.45)	7.25 (4.85)	5.25 (4.12)
Upper White	8.27 (12.57)	6.44 (11.27)	6.84 (3.93)	4.97 (2.45)	8.11 (13.69)	5.64 (2.94)	10.95 (22.79)	10.41 (25.29)	9.80 (6.15)	6.88 (3.53)	9.66 (4.33)	7.07 (4.01)	8.70 (4.21)	7.19 (3.38)
Lower White	6.49 (16.13)	4.79 (3.16)	6.07 (2.50)	4.34 (1.69)	7.77 (38.65)	5.09 (4.38)	6.58 (3.05)	6.09 (4.78)	6.55 (2.56)	5.34 (1.91)	8.90 (5.46)	5.77 (3.06)	7.34 (5.70)	6.11 (5.92)
Upper Blue	6.94 (4.50)	4.20 (1.67)	6.71 (4.04)	4.13 (1.63)	7.19 (6.04)	4.22 (1.55)	7.49 (3.32)	5.50 (2.62)	9.57 (11.13)	—[b]	9.66 (3.90)	5.40 (2.13)	9.06 (4.86)	—[b]
Lower Blue-Production	5.70 (3.25)	3.94 (1.51)	5.65 (3.35)	3.89 (1.28)	5.60 (2.28)	4.04 (2.94)	6.37 (3.00)	5.03 (2.02)	6.09 (2.32)	—[b] (1.20)	7.26 (2.53)	4.82 (1.55)	7.10 (4.10)	4.88 (2.11)
Lower Blue-Service	4.59 (2.41)	4.00 (2.17)	4.79 (1.81)	3.80 (1.93)	4.95 (3.98)	4.30 (2.16)	4.51 (2.77)	4.06 (1.85)	4.96 (2.00)	4.23 (1.45)	5.87 (2.89)	5.17 (4.47)	5.21 (4.61)	4.46 (3.09)
Lower Blue-Farming	4.77 (3.95)	3.62 (1.02)	4.73 (3.33)	3.62 (1.00)	5.73 (4.97)	—[b]	—[b]	—[b]	—[c]	—[c]	—[b]	—[c]	—[b]	—[b]
[N]	[35,081]	[23,538]	[27,506]	[17,267]	[4,635]	[3,876]	[1,243]	[800]	[433]	[323]	[489]	[404]	[765]	[868]

TABLE 5
(continued)

	Total		Mexico		Central/South America		Asia		Africa		Europe		Other	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Arrived Post-1979														
Average	5.13	3.99	4.98	3.77	5.18	3.99	5.86	5.98	5.58	4.86	7.78	5.36	6.50	4.67
	(2.96)	(2.99)	(2.62)	(3.08)	(2.87)	(2.31)	(3.22)	(3.66)	(3.66)	(2.35)	(4.11)	(5.17)	(7.99)	(2.27)
Upper White	7.10	5.87	6.39	4.25	6.22	5.21	7.70	8.26	8.74	7.32	11.16	7.25	11.66	7.53
	(7.18)	(4.38)	(3.60)	(1.76)	(2.91)	(5.71)	(4.15)	(3.78)	(7.39)	(4.72)	(7.77)	(3.07)	(26.58)	(4.60)
Lower White	5.76	4.52	5.64	4.01	5.53	4.32	6.31	6.37	5.71	4.82	9.05	5.70	6.14	5.30
	(2.61)	(2.27)	(2.24)	(1.76)	(2.38)	(1.84)	(3.56)	(4.13)	(2.96)	(1.64)	(4.57)	(2.56)	(2.73)	(2.39)
Upper Blue	6.19	3.92	6.03	3.80	6.14	3.93	7.16	—[b]	6.54	—[b]	8.53	6.06	7.98	5.03
	(3.85)	(1.60)	(3.67)	(1.53)	(4.22)	(1.44)	(3.19)		(4.21)		(3.74)	(2.45)	(4.18)	(2.37)
Lower Blue Production	4.98	3.72	4.94	3.69	4.97	3.72	5.20	4.40	5.27	3.98	6.89	4.64	4.77	3.91
	(2.23)	(2.52)	(2.16)	(2.79)	(2.35)	(1.24)	(2.05)	(1.77)	(2.06)	(1.07)	(2.83)	(1.32)	(1.62)	(1.56)
Lower Blue-Service	4.26	3.94	4.18	3.80	4.37	3.97	4.40	4.20	4.48	4.42	5.49	5.12	5.83	4.32
	(2.08)	(3.64)	(2.17)	(4.13)	(1.79)	(2.53)	(1.95)	(1.73)	(1.71)	(1.64)	(2.87)	(7.22)	(2.90)	(1.36)
Lower Blue-Farming	4.28	3.44	4.25	3.44	4.48	—[b]	—[b]	—[c]	—[b]	—[b]	—[b]	—[b]	—[b]	—[b]
	(1.59)	(.90)	(1.58)	(.91)	(1.41)									
[N]	[46,915]	[24,688]	[33,383]	[15,642]	[9,821]	[6,221]	[1,274]	[743]	[693]	[481]	[749]	[573]	[895]	[1,028]

Source: Legalized Alien Processing System

Notes: [a] Excludes cases with missing occupational codes and missing wage codes.

[b] Number of cases is less than or equal to 25.

[c] No observations.

provides insight into the sources of wage disparities among undocumented migrants along gender and origin lines.

Wage differentials among undocumented migrants conform to prior expectations inasmuch as 1) earlier arrivals earn higher wages than later arrivals; 2) women earn less than men in similar occupational categories; and 3) incumbents of higher status jobs earn more than their regional and gender counterparts engaged in lower status jobs. There are, however, some departures from these generalizations. The observed differentials in average wage rates by national origin arise partly from the differing occupational profiles of the groups (as reported in Table 4) and partly from intra-occupation wage disparities according to origin.[6]

Gender and period differentials in wage rates of undocumented migrants also reveal differentiation by region of origin. For the sample as a whole, men received higher hourly wages than their female counterparts. However, there was appreciable variation in the size of the gender wage gap by time of arrival and country of origin. For example, undocumented European men earned between $2.42 and $2.74 more per hour than European women. Hourly wage rates received by undocumented men and women from Asia were much smaller, ranging from a 48 cents male advantage to a 12 cents female advantage. Among migrants originating in Latin America, women earned roughly $1.19 to $2.00 less on an hourly bases than their male counterparts. In general, gender gaps in wage rates were greater among earlier arrivals than among later arrivals. Specifically, among undocumented migrants who arrived before 1980, men received $1.64 per hour more than women, on average, but among those who arrived in 1980 or later, the male advantage in hourly wages was about 50 cents an hour less, or approximately $1.14. This pattern obtains for all regional origin groups except Africans, among whom women enjoyed a slight wage advantage over men if they arrived after 1979.

Wage Inequality and Legal Status

This empirical analysis of the wage determination process of undocumented immigrants begins by summarizing the wage data available in the CPS and LAPS files. Table 6 reports the basic socioeconomic characteristics of male and female immigrants. These tabulations reveal a key finding in our study:

[6] Because our occupational categories are very broad, differences in wage rates within occupational categories also result from the intra-occupational distribution of groups among high and low wage jobs. However, given prior work on native populations showing the persistence of wage differentials among comparably endowed gender or ethnic/race groups, unequal intra-occupational distributions are unlikely to explain entirely the observed occupation-specific wage gaps among origin and gender groups.

TABLE 6

DESCRIPTIVE STATISTICS OF IMMIGRANT MEN AND WOMEN IN THE WAGE SAMPLES BY LEGAL STATUS AND MEXICAN NON-MEXICAN ORIGIN

(means or percents)

	Men						Women					
	Documented[a]			Undocumented			Documented[a]			Undocumented		
	All	Mexican	Non-Mexican	All	Mexican	Non-Mexican	All	Mexican	Non-Mexican	All	Mexican	Non-Mexican
Log (wage)	1.997	1.691	2.061	1.657	1.640	1.708	1.790	1.523	1.815	1.419	1.381	1.500
Age	36.57	31.92	37.55	32.15	31.39	34.30	37.77	34.45	38.07	32.13	31.00	34.59
Married = 1	.64	.65	.64	.51	.53	.45	.58	.61	.58	.48	.52	.40
Residenced												
Calif. = 1	.20	.42	.16	.60	.66	.45	.18	.51	.15	.71	.71	.47
Texas = 1	.09	.29	.04	.15	.17	.09	.05	.19	.03	.12	.20	.07
Origin												
El Salvador = 1	.02	—	—	.09	—	—	.02	—	—	.11	—	—
Other Latin Amer. = 1	.08	—	—	.09	—	—	.08	—	—	.10	—	—
Asia = 1	.17	—	—	.03	—	—	.18	—	—	.03	—	—
Africa = 1	.02	—	—	.01	—	—	.01	—	—	.02	—	—
Europe = 1	.16	—	—	.01	—	—	.01	—	—	.02	—	—
Other = 1	—	—	—	.02	—	—	.08	—	—	.04	—	—
Unknown	.33	—	—	—	—	—	.38	—	—	—	—	—
YSM				7.54	7.54	7.54	—	—	—	8.03	8.13	7.82
[N][b]	[1,771]	[308]	[1,463]	[53,114]	[31,318]	[21,796]	[1,656]	[140]	[1,516]	[33,075	[17,159]	[15,916]

Source: Legalization Application Processing System (LAPS) and Current Population Survey (CPS) for 1983, 1986 and 1988.

Notes: [a] Documented immigrants represented in the CPS include an unknown fraction of undocumented workers.

[b] CPS samples exclude all foreign born observations for whom national origin was not keyed.

undocumented immigrants earn less than legal immigrants. Specifically, legal immigrants, whether male or female, earn about 30 percent more than their undocumented counterparts.

In view of the limited nature of the data (particularly the lack of data on educational attainment for undocumented workers), we cannot assess what fraction of this wage gap is due to differences in socioeconomic characteristics and what fraction is due to other reasons (such as discrimination or employer exploitation of the lawful status of immigrants). Nevertheless, the data suggest that much of the wage differential might be attributed to a single factor, namely the different national origin composition of the documented and undocumented flows. Over 75 percent of the (male) undocumented population is of Mexican origin, as compared to only 17 percent of the foreign-born population represented in the CPS data. It is well known that Mexican immigrants do not exhibit favorable labor market outcomes in the United States, and hence the differences in the sample composition of immigrants according to legal status will unavoidably create wage differentials.

TABLE 7
AVERAGE (log) WAGE OF IMMIGRANT MEN AND WOMEN IN THE WAGE SAMPLES BY LEGAL STATUS AND REGION OR COUNTRY OF ORIGIN

	Men		Women	
	Documented	Undocumented	Documented	Undocumented
Mexico	1.691	1.638	1.523	1.381
El Salvador	1.706	1.621	1.393	1.392
Other Latin Amer.	1.897	1.705	1.676	1.475
Asia	2.019	1.748	1.830	1.733
Africa	1.886	1.725	1.628	1.581
Europe	2.217	2.000	1.858	1.629
Other	2.078	1.824	1.857	1.568
Unknown	2.070	—[a]	1.833	—[a]

Source: Legalization Application Processing System and CPS for 1983; 1986 and 1988.

Note: [a] Not applicable.

To assess the importance of national origin differentials between the legal and the undocumented immigrants, Table 7 presents the mean (log) wages for both men and women according to legal status. Legal immigrant groups that tend to do well in the U.S. labor market have undocumented counterparts that also tend to do well. Conversely, legal immigrant groups that tend to perform poorly in the U.S. labor market have undocumented counterparts that also perform poorly. For instance, legal immigrant men originating in Europe have about 50 percent higher earnings than legal immigrant men originating in Mexico, while undocumented immigrant men originating in Europe have about 40 percent higher earnings than undocumented immigrant men originating in Mexico.

The summary statistics in Table 7 also indicate that, for the most part, legal immigrants have higher wage rates than undocumented immigrants even within national origin groups. For instance, legal (male) Mexican immigrants earn about 6 percent more than undocumented Mexican immigrants, while legal European immigrants earn about 20 percent more than undocumented European immigrants. Hence differences in national origin composition, though important, will not entirely explain the different labor market performance of immigrants according to lawful status. Nevertheless, as we show below, national origin differentials go a long way towards explaining the wage gap between legally authorized and unauthorized immigrants.

Let $\bar{y}_{lj}$ be the average (log) wage observed in the legal immigrant population originating in country (or region) j. Similarly, let $\bar{y}_{ij}$ be the average (log) wage observed in the undocumented alien population originating in country j. By definition,

$$(1)\ \bar{y}_l = \Sigma_j\, p_{lj}\, y_{lj}\ ,$$

$$(2)\ \bar{y}\, i = \Sigma_j\, p_{ij}\, y_{ij}\ ,$$

where $\bar{y}_l$ is the average log wage observed among legal immigrants; $\bar{y}_i$ is the average log wage observed among undocumented immigrants; p_{lj} is the fraction of the legal immigrant flow originating in country j; and p_{ij} is the fraction of the undocumented immigrant flow originating in country j.

It is instructive to calculate the (log) wage that would have been observed if legal immigrants had the same national origin mix as the undocumented pool. This is given by:

$$(3)\ \bar{w}_l = \Sigma_j\, p_{ij}\, y_{ij}\ ,$$

TABLE 8
COMPOSITIONAL EFFECT OF NATIONAL ORIGIN ON WAGE DIFFERENTIALS BY LEGAL STATUS BY GENDER[a]

	Men	Women
Average Wage of Documented Immigrants	1.966	1.764
Predicted Wage if Documented had National Origin Mix of Undocumented Immigrants	1.736	1.555
Average Undocumented Wage	1.657	1.419
Predicted Undocumented Wage if Immigrants had National Origin Mix of Documented Immigrants	1.779	1.591

Source: Legalization Application Processing System and CPS for 1983, 1986 and 1988.

Note: [a] Average legal wage is computed excluding observations with origin status not reported. Because these observations are randomly chosen, the large number of missing codes should not bias the decomposition.

It is also possible to calculate the (log) wage that would have been observed if the national origin mix of undocumented immigrants had been the same as that of the legal immigrant flow. This is given by:

$$(4)\ \overline{w}_i = \Sigma_j\, p_{lj}\, y_{ij},$$

Table 8 reports the relevant calculations using the (log) wage data reported in Table 7 and the national origin proportions reported in Table 6. Differences in national origin between the legal and undocumented populations apparently account for a large fraction of the observed (log) wage differential between the two groups. For instance, the mean wage of (male) legal immigrants is $1.97. Applying equation (3) reveals that if the national origin mix of legal immigrants had been identical to that of the undocumented flow, their average wage would have been $1.74. Similarly, the mean wage of (male) undocumented immigrants is $1.66. The use of equation (4) reveals that if the national origin mix of undocumented immigrants had been that of the legal immigrant flow, their average wage would have been $1.78. In effect, national origin alone accounts for about half of the wage gap between legal and undocumented immigrants.

The rest of the gap, of course, is due to the fact (illustrated in Table 7) that undocumented immigrants have lower wages than legal immigrants

even within national origin groups. Table 6, for instance, clearly shows that legal immigrants are about 5 years older than their undocumented counterparts. If wages grow at about 1 percent a year, this would account for an additional one quarter of the wage differential between legal and undocumented immigrants. In effect, we can easily account for at least three-quarters of the wage differential between legal and undocumented immigrants without resorting to any type of hypothesis about how U.S. firms differentially treat workers according to their legal status.

Age-earnings Profiles and Legal Status

To further analyze the process of wage determination among immigrants who differ in their lawful status, we estimated multivariate regression models using the log wage as the dependent variable. To simplify the exposition, we discuss the results estimated in the sample of immigrants pooling across national origin groups. Table 9 presents the regressions estimated separately in the sample of legal and undocumented immigrant men and women.[7]

Several suggestive findings emerge from these results. First, the qualitative impact of the vector of socioeconomic variables (though not the magnitude of the coefficients) is approximately similar for both legal and undocumented immigrants. Workers in both groups, for instance, tend to earn more the older they are; marital status has a positive impact on the earnings of both legal immigrant and undocumented immigrant men; and country-of-origin differences in labor market performance work in roughly the same direction for both groups. In particular, Mexican immigrants (indexed by the omitted dummy variable) earn substantially less than every national origin group (except for undocumented immigrants from El Salvador, who earn about the same as Mexicans in the legal sample and substantially less in the undocumented sample).

Although the sign of the coefficients of the socioeconomic variables is roughly comparable in both the CPS and LAPS data sets, the magnitude of some of the regression coefficients is quite different. Most revealing is the difference in the magnitude of the age coefficient, which is substantially

[7] The regressions discussed in this section differ from those that dominate the literature in one important respect: they do not include an educational attainment variable. We reestimated the wage regressions in the CPS data to ascertain the extent to which the estimated slope of the age/earnings profile would change after controlling for education. It turns out that the change in the coefficients of age and age squared is minimal (on the order of less than 5%). Therefore, the conclusions reported below regarding the differences in (the slopes of) age/earnings profiles between legal and undocumented immigrants are not likely to be seriously biased by the omission of the education variable.

TABLE 9

WAGE FUNCTIONS FOR IMMIGRANT MEN AND WOMEN BY LEGAL STATUS: DEPENDENT VARIABLE = (log) WAGE (t - statistics)

	Men					Women				
	Documented		Undocumented			Documented		Undocumented		
	(1)	(2)	(1)	(2)	(3)	(1)	(2)	(1)	(2)	(3)
Age	.0664	.0642	.0476	.0459	.0443	..0508	.0511	.0247	.0217	.0217
	(10.41)	(10.40)	(40.90)	(39.46)	(38.32)	(7.59)	(.780)	(20.07)	(17.96)	(18.06)
Age Squared	-.0007	-.0007	-.0006	-.0006	-.0006	-.0006	-.0006	-.0003	-.0003	-.0000
	(-8.76)	(-9.04)	(-39.82)	(-39.34)	(-39.09)	(-6.78)	(-7.04)	(-18.84)	(-17.89)	(-18.47)
Married	.0995	.1227	.0810	.0888	.0896	-.0183	-.0201	-.0117	-.0017	-.0012
	(3.82)	(4.87)	(23.34)	(25.57)	(25.94)	(-.74)	(-.83)	(-3.29)	(-.49)	(-.36)
Residence										
California	-.0185	.0793	.0036	.0462	.0443	.0223	.1007	-.0469	-.0158	.0154
	(-.67)	(2.82)	(.95)	(11.28)	(10.88)	(.74)	(3.19)	(-11.51)	(3.58)	(3.56)
Texas	-.2251	-.0504	-.1534	-.1087	-.1003	-.1364	-.0101	-.1875	-.1202	-.1153
	(-5.68)	(-1.21)	(-20.97)	(-19.80)	(-18.35)	(-2.46)	(-.18)	(-28.95)	(-18.16)	(-17.48)
Origin		.0684		-.0227	-.0134		.1322		.0061	.0161
El Salvador		(.82)		(-4.08)	(-2.42)		(-1.42)		(1.08)	(2.84)
Other Latin Am.		.1618		.0572	.0630		.1977		.0859	.0911
		(3.38)		(9.60)	(10.68)		(3.44)		(14.56)	(15.48)
Asia		.2619		.0967	.0968		.3060		.3371	.3423
		(6.93)		(10.27)	(10.30)		(6.32)		(34.04)	(34.70)
Africa		.1514		.0857	.8440		.1311		.1939	.1972
		(1.71)		(6.19)	(6.13)		(.91)		(44.08)	(14.40)
Europe		.4449		.3645	x.3747		.3473		.2541	.2658
		(11.05)		(26.99)	(27.89)		(6.81)		(19.84)	(20.84)
Other		.3166		.1821	.1797		.3502		.1785	.1806
		(5.94)		(15.62)	(15.50)		(6.07)		(18.83)	(19.15)
Unknown		.3428			.0057		.3410			.0025
		(9.93)			(4.55)		(7.47)			(1.82)
YSM					-.0004					.0004
					(5.68)					(5.21)
Constant	.5461	.3156	.7954	.7890	.7601	.7655	.4669	1.0331	1.0184	.9776
	(4.72)	(2.78)	(38.90)	(38.90)	(36.63)	(6.26)	(3.69)	(48.34)	(48.73)	(44.93)
R2	.190	.256	.076	.094	.105	.054	.104	.038	.088	.097
[N]	[1,771]		[53,114]			[1,656]		[33,075]		

Source: Legalization Application Processing System and CPS for 1983, 1986 and 1988.

smaller in the undocumented immigrant sample. For instance, in the male regression the age coefficient is .066 for legal immigrants and .048 for the undocumented; in the female regression, the age coefficients are .051 and .025, respectively. These results clearly indicate that cross-section age/earnings profiles are flatter for undocumented immigrants. The substantive importance of the difference in the magnitudes of the age coefficients is illustrated in Figures Ia and Ib, which plot the age/earnings profile for legal and undocumented immigrants based on the regressions in columns (1) of Table 9. In view of the evidence presented in Tables 7 and 8, it is not surprising that undocumented immigrants have lower wages than their legal counterparts. What is surprising is that this wage disadvantage actually increases with age.

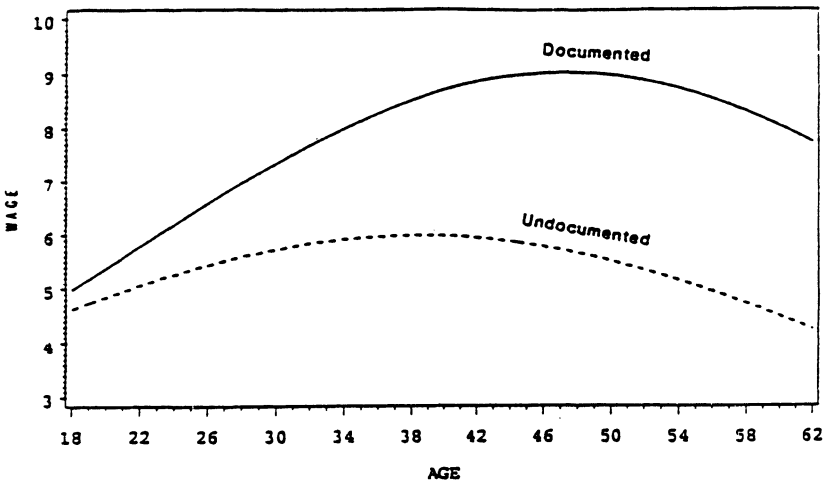
The nature of the CPS and LAPS data does not allow us to provide an unambiguous interpretation of this finding. In particular, the difference in the slopes of the age/earnings profiles between legal and undocumented immigrants lends itself to two distinct interpretations. For example, the traditional hypothesis would imply that legal immigrants have an easier time adapting to the U.S. labor market than undocumented immigrants, and hence they undergo an easier assimilation process. This might occur, for instance, because legal immigrants have an easier time switching jobs and "trying out" the U.S. labor market. In addition, legal immigrants can improve their earnings opportunities by freely moving to cities with rapidly growing labor markets without fear of detection, apprehension and deportation. Over time, the easier access that legal immigrants have to U.S. labor market opportunities would imply that they have accumulated more human capital, and hence their earnings would be expected to grow at a faster rate than the earnings of undocumented immigrants. As a result, the wage gap would widen rather than narrow as the two immigrant groups age.

An alternative interpretation focuses on differences in skills among the various immigrant cohorts (as suggested by the work of Borjas, 1985). Suppose, for concreteness, that neither group experiences any adaptation or assimilation in the labor market. This assumption implies that if one could track earnings over time for particular groups, the age/earnings profile would be flat (after accounting for inflation and other period effects). Under these assumptions, therefore, the cross-section finding that more recently-arrived immigrants earn less than immigrants who have been in the United States for longer periods implies that the more recent cohorts (who tend to be younger) are less skilled than earlier cohorts. This interpretation implies that there is a "spurious" correlation between age and earnings in the cross-section that has nothing to do with assimilation.

FIGURE I

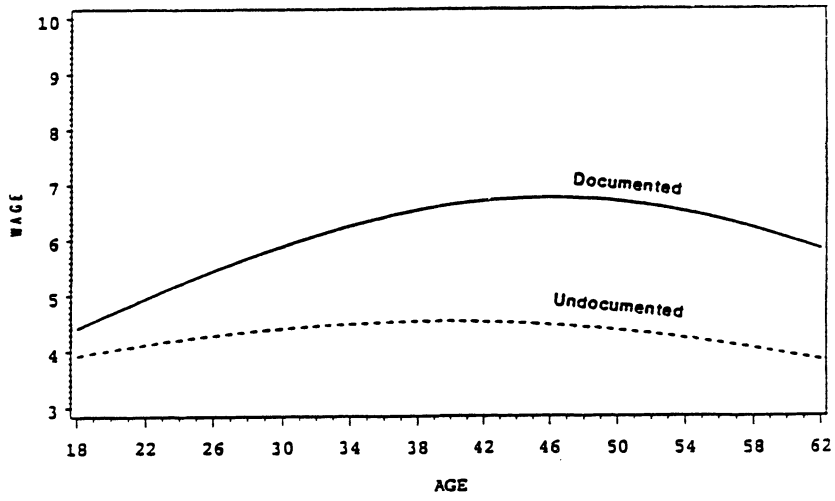
WAGE PROFILES OF FOREIGN BORN MEN BY LEGAL STATUS

1a



WAGE PROFILES OF FOREGN BORN WOMEN BY LEGAL STATUS

1b



Source: LAPS and CPS, for 1983, 1986 and 1988

section age/earnings profile is flatter for undocumented workers implies that the skill decline across successive cohorts is steeper for legal immigrants. A differential rate of decline in skills among successive immigrant cohorts could, in principle, be responsible for the systematic differences in labor market experiences documented in this section.

In view of the quality of the LAPS data and of the absence of longitudinal data for legal immigrants, we cannot test precisely which of these two hypotheses is most consistent with the data. Nevertheless, there is a hint in the data that undocumented immigrants do experience less economic assimilation than legal immigrants. We draw this inference from the age/earnings profiles that we estimated within national origin groups. The evidence from these regressions (similar to those reported in Table 9) is illustrated in Figures II to V. For almost all national origin groups, cross-section age/earnings profiles for undocumented immigrants are flatter than those of their legal counterparts.

Empirical evidence from the U.S. Censuses reported in Borjas (1987), which presumably is dominated by legal immigrants, indicates that not all national origin groups (particularly Europeans) experienced skill declines across successive cohorts. In view of this fact, it is unlikely that the skills of immigrants across cohorts declined faster for undocumented than for legal immigrants for every national origin group. This is basically the assumption that is required in order to interpret the results in Figures II to V in terms of cohort skill changes. The empirical analysis, therefore, hints at a major differences in the wage determination process of legal and undocumented immigrants. Simply put, it seems that undocumented immigrants do not experience as much economic mobility as legal immigrants in the United States, but it remains to be seen whether a change in lawful status actually accelerates their economic mobility, if it alters it at all.

CONCLUSION

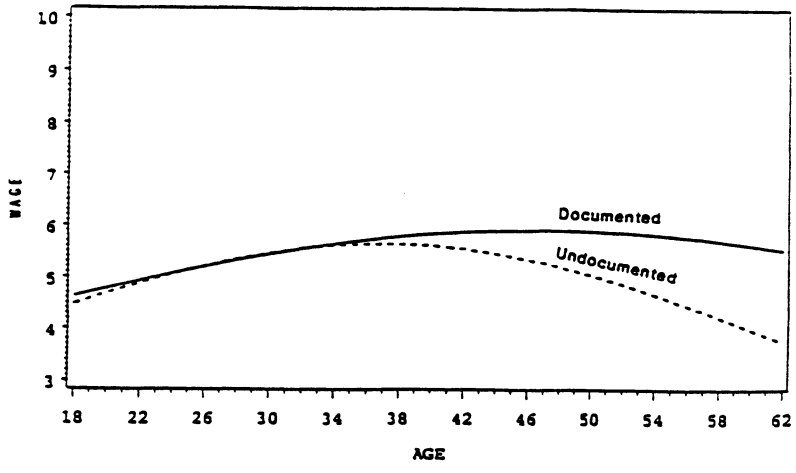
Despite limitations inherent in the LAPS file, this analysis of administrative records produced various insights that should interest researchers seeking a better understanding of the significance legal status for likely changes in economic behavior and policy analysts concerned with the short- and long-term implications of the amnesty program. It comes as no surprise that the legalized population is quite heterogeneous with respect to demographic characteristics, but the LAPS data reveal some flux in the age, sex and national origin composition of undocumented immigration over the 1970s and through the 1980s.

That undocumented migration is primarily a flow of workers is clearly evident in the high rates of labor force participation of undocumented

FIGURE II

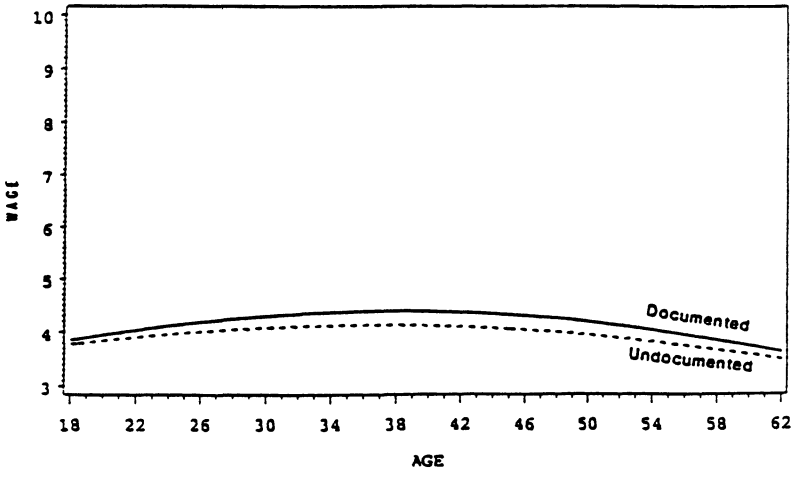
WAGE PROFILES OF MEXICAN BORN MEN BY LEGAL STATUS

2a



WAGE PROFILES OF MEXICAN BORN WOMEN BY LEGAL STATUS

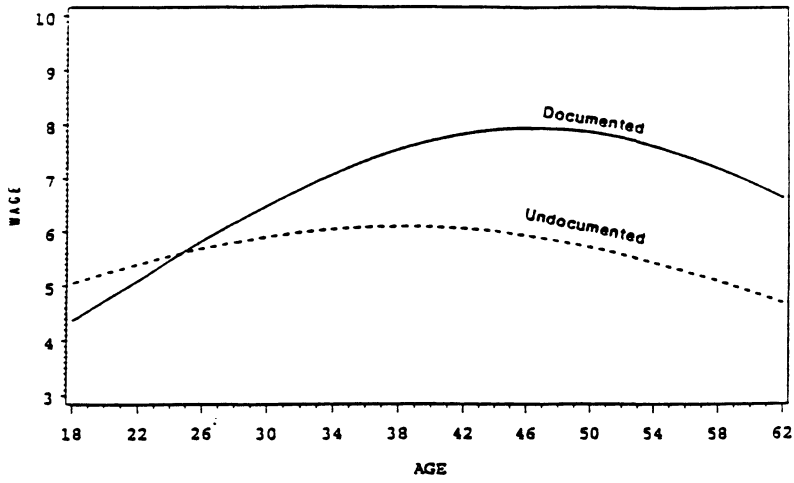
2b



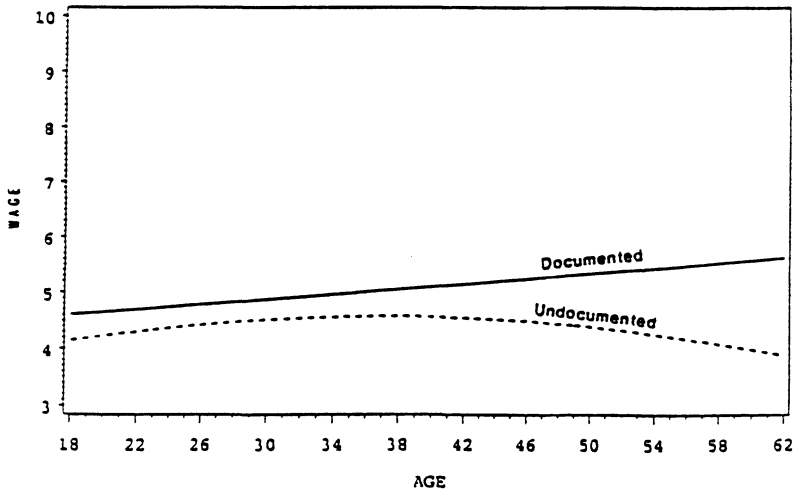
Source: LAPS and CPS, for 1983, 1986 and 1988

FIGURE III
WAGE PROFILES OF CENTRAL AND SOUTH AMERICAN BORN MEN BY LEGAL STATUS

3a

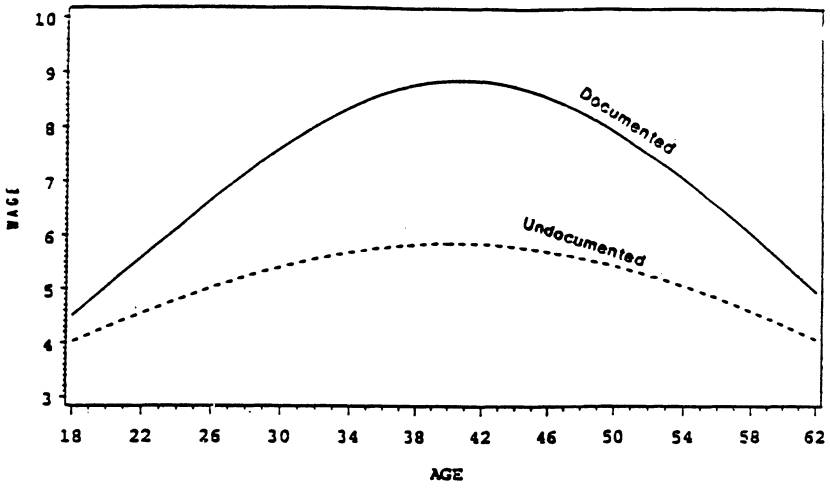


3b
WAGE PROFILES OF CENTRAL AND SOUTH AMERICAN BORN WOMEN BY LEGAL STATUS

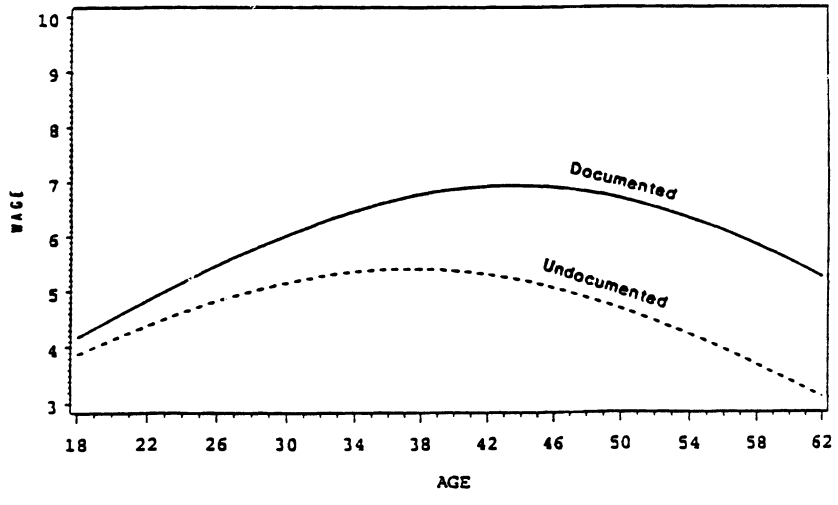


Source: LAPS and CPS, for 1983, 1986 and 1988

FIGURE IV
WAGE PROFILES OF ASIAN BORN MEN BY LEGAL STATUS
4a



WAGE PROFILES OF ASIAN BORN WOMERN BY LEGAL STATUS
4b

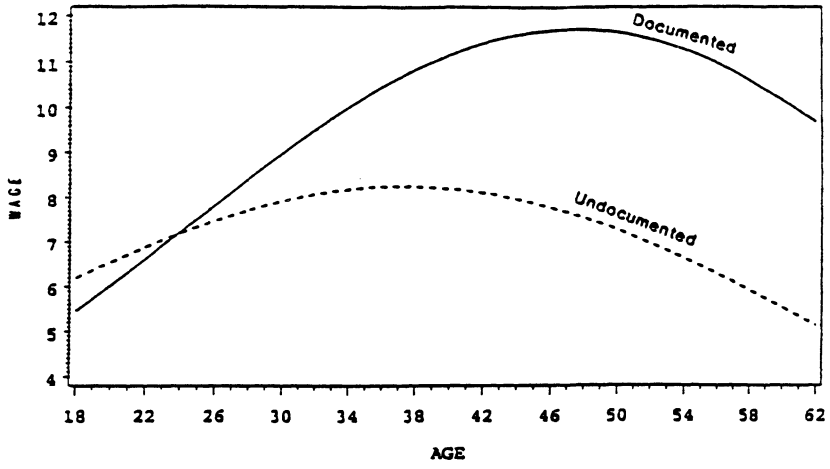


Source: LAPS and CPS, for 1983, 1986 and 1988

FIGURE V

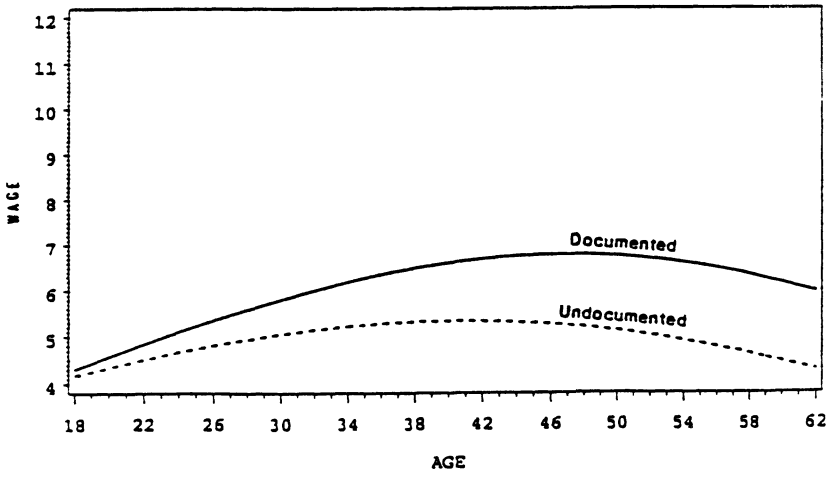
WAGE PROFILES OF EUROPEAN BORN MEN BY LEGAL STATUS

5a



WAGE PROFILES OF EUROPEAN BORN WOMEN BY LEGAL STATUS

5b



Source: LAPS and CPS, for 1983, 1986 and 1988

migrants at the time of application for amnesty. But a static representation of labor market activity cannot address many questions that are crucial for understanding employment and wage differentials according to legal status. A looming policy question is whether the labor force participation rates of undocumented workers will remain higher than those of authorized immigrants after the process of legalization is complete or whether public assistance utilization will become an alternative to employment at low wages. On these issues there has been a good deal of speculation, but a definitive answer requires systematic analysis using longitudinal data.

The LAPS data lack information about the educational background of amnestied immigrants, but the occupational data provide an alternative measure of status differences in current standing. Based on this indicator, LAW applicants from Latin America occupy lower status occupations than those originating in Asia, Europe and Oceania. Africans exhibit a bifurcated occupational profile, with skilled and unskilled represented among the undocumented stream. A comparison of occupational wages showed appreciable intra-occupational wage inequality along gender and regional origin lines. Furthermore, a decomposition analysis of the wage gap between documented and undocumented immigrant men and women revealed that national origin alone accounts for about half of the wage gap. This finding still begs the question as to why origin differences exist in the first place. One compelling interpretation of this effect (consistent with evidence available for legal immigrant flows) is that regional origin is a rough proxy for differences in human capital. Our multivariate analyses of wage growth produced a disturbing finding, namely that the disadvantages of undocumented relative to documented immigrants increase with age. Further insights about these important issues—that is, whether the wage gap according to legal status converges or diverges over time and the influence of education in producing large wage gaps according to legal status—require longitudinal data with reasonably detailed employment history data.

Obviously, the LAPS data are inadequate to investigate many important aspects of the social and economic well-being of the legalized population or, more importantly, the long-term integration prospects of this large immigrant cohort. However, our study furnishes useful baseline information against which subsequent changes in labor market standing and economic behavior can be assessed.

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