FINDING GOOD OPPORTUNITIES
WITHIN UNDOCUMENTED MARKETS:
US OCCUPATIONAL MOBILITY FOR
LATINO WORKERS

Sherrie A. Kossoudji and Deborah A. Cobb-Clark

DISCUSSION PAPER NO. 331
July 1995
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ISBN: 0 7315 1659 1
ISSN: 0725 430X

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ABSTRACT

Undocumented migration to the United States continues to be an important demographic phenomenon despite the intervention of U.S. policy makers. Still, the long-term implications of the presence of undocumented migrants in the U.S. labor market is unclear because little is known about the labor market behavior of these workers after they enter the United States. Undocumented workers have constrained opportunities in U.S. labor markets because of their lack of legal status and it is important to understand how these constraints might condition subsequent behavior. To address these issues, we analyze the labor market adaptation of undocumented Latino men, by focusing on the factors associated with U.S. labor market mobility.

While the early research on assimilation focused on the result of assimilation, i.e., earnings parity with the native born, we have chosen to focus on the process whereby migrants become assimilated. Specifically, we examine the determinants of occupational mobility for a sample of undocumented Latinos who applied for amnesty under the 1986 Immigration Reform and Control Act. In order to determine whether there has been "upward" occupational mobility, we develop a method of ranking occupations based on the expected wage in that occupation. (See the appendix for more details.)

Estimates from mobility equations show that human capital investment, the risk of being apprehended on the job, a realized apprehension, migrant networks, and the wage penalty for undocumented workers all play specific and significant roles in determining the upward and downward occupational mobility of undocumented workers. This mobility does not appear consistent with traditional notions of migrant assimilation, however. Although three-quarters of our sample changed occupations at least once between the time they first entered the United States and the time they applied for legalization, they remained clustered in traditional migrant occupations. Thus, it appears that this continued occupational clustering is the result of mobility which is not assimilative, but rather represents the workers' attempts to make the most out of their opportunities within the undocumented labor market.
Introduction

Despite U.S. policy makers' best efforts to the contrary, undocumented\(^1\) migration continues to be an important source of economic and demographic change. It is not known exactly how many undocumented migrants cross the border illegally each year or how many are currently residing and working in the United States, but the numbers appear sizable. In fiscal year 1992 for example, the Immigration and Naturalization Service (INS) apprehended over 1.2 million individuals attempting to enter the United States illegally (US INS, 1992) and recent estimates place the population of undocumented migrants in the United States between two and three million (Woodrow and Passel, 1990). Moreover, migration—both legal and illegal—is an important labor market phenomenon, accounting for more than twenty percent of new labor market growth each year (USDOL, 1989).\(^2\) In spite of their importance, the long-term implications of the presence of undocumented workers for the U.S. labor market remain unclear, because little is known about how they respond to changing economic incentives, like the acquisition of U.S.-specific human capital or labor market information, after entering the United States. To address these issues, we analyze the labor market adaptation of undocumented Latino men, by focusing on the factors associated with U.S. labor market mobility.

While the typical measure of assimilation is wage mobility, we focus on occupational mobility for both substantive and technical reasons. While the early research on assimilation focused on the result of assimilation, i.e., earnings parity (Chiswick 1978a; Borjas, 1985), more recent research has begun to focus on the process whereby migrants become assimilated (Daneshvar, et al., 1992). For immigrants as for natives, earnings mobility is closely related to occupational mobility and the process of becoming assimilated. Topel and Ward (1992:460), for example, argue that for natives "about one third of total earnings growth during the first ten years of labor market experience is attributable to job changing activity." Chiswick (1978b) points to the importance of occupational mobility for the assimilation of immigrants. Our data contain information on work histories over varying lengths of time up to fifteen years. Exact wage rates are difficult to recall over this long time horizon and real wage rates over time and place are difficult to construct with accuracy. For these reasons, we believe that occupation and occupational mobility are a more reliable indicator of labor market assimilation.

\(^1\)In this paper undocumented, unauthorized, and illegal migration are used interchangeably.

\(^2\)Approximately one-third of this may be due to undocumented migration alone.
Understanding the process of assimilation for undocumented workers is important because previous estimates of the impact of immigration on the wage and employment opportunities of U.S. workers have focused on legal immigrants (Grossman, 1982; Borjas, 1987; Altonji and Card, 1991; Lalonde and Topel, 1991; Espenshade, 1992; Greenwood and McDowell, 1986 for a review). These studies generally conclude that inflows of legal immigrants are not associated with large long-term employment effects on the native born, and while estimated wage effects are negative, they are small and confined to workers who are close substitutes. Lalonde and Topel (1991), for example, find that recent immigrants are substitutes with young blacks, and tend to have a small negative effect on wages. Over time, however, the effects of cohort size diminish, a finding that authors attribute to immigrant assimilation. While this provides a convenient explanation for the dissipation of competitive pressures from legal immigrants, it is not at all clear that even long-term undocumented workers will assimilate.

Finally, analyzing those characteristics which promote occupational mobility is important because undocumented migrants have recently been the focus of a unique public policy experiment. In 1986, the Immigration Reform and Control Act (IRCA) was passed after more than 15 years of legislative debate about the ability of labor market regulation to control illegal migration to the United States. IRCA was the first major immigration legislation in two decades and consists of two primary provisions: employer sanctions and legalization. The politically unpopular passage of employer sanctions was negotiated by simultaneously legalizing many undocumented workers already present in the U.S. labor market. While many complex issues motivated the political debate, Congress’ decision to include a legalization provision in IRCA was also an attempt to “bring out of the shadows” this group of U.S. workers (Baker 1990), ultimately improving labor market opportunities. Assessing the success of this change in public policy will require a better understanding of the labor market adaptation of undocumented workers.

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3Previously, while it was unlawful for illegal migrants to work in the United States, it was not unlawful for firms to hire them. Employer sanctions are monetary fines that can be imposed upon employers who fail to ensure that their newly hired employees are authorized to work in the United States.
Occupational Mobility, Legal Status and Assimilation

Economists have traditionally drawn on the human capital literature in visualizing occupational choice as an intervening variable associated with maximizing lifetime earnings or utility (see Freeman, 1971; Boskin, 1974; Brown et al., 1980; Polacheck, 1980). More schooling and changes in other human capital skills are typically related to occupational change and, as a result, higher earnings. More recent studies have attempted to come to grips with a specific supply theory of mobility by merging the theoretical premise of the human capital literature with the information theoretic notion of job matching (or occupational matching). Often, the studies are motivated by the acknowledgement that a worker's lifetime career may encompass several jobs and/or occupations, particularly in the early years. Jovanovic (1979), for example, concentrates on the relationship between job matching and turnover. Johnson (1978:262) posits a theoretical model of job shopping which concentrates on "those causes of job mobility, such as workers' ignorance of their own job-specific or general abilities and preferences, or working conditions, which lead them to 'try out' jobs". Extensions of these models attempt to account for differences in life-cycle careers by predicting an optimal sequence of jobs. Two standard predictions arising from these extensions are that more highly educated workers will experience less mobility and that young workers will try high wage variance (riskier jobs) first and move to low wage variance jobs (see for example, Miller 1984). These models assume that experience in a particular job produces two outcomes: pecuniary rewards, like wages, and specific information about that particular job that may help the worker determine whether to move to another job. Implicitly, all job change is voluntary and mobility is upward (Sicherman and Galor 1990).

The literature specific to immigrant mobility is thin and focuses on assimilation issues. Traditionally, economic assimilation takes place as immigrants, who initially earn less and are in less remunerative occupations than similarly skilled natives, accumulate the human capital that is rewarded in the U.S. labor market. Due to this rapid accumulation of U.S. specific capital, immigrants begin to "catch up" as measured by wage mobility. Upward mobility means that these workers move to higher paying jobs and assimilation means that an immigrant group's occupation and wage structure begins to mirror that of natives. The results of early assimilation research have been challenged on at least two grounds. The first deals with the inconsistent patterns of assimilation across country, region, gender, or race (see Kossoudji 1989; Borjas 1982; Tienda 1983; DeFreitas 1981; Long 1980). The
second focuses on the use of cross sectional data that confounds the effects of assimilation with changing cohort characteristics over time (Borjas 1985). The theoretical ideas of assimilation remain, however, and are integrally tied into the concept of occupational mobility.

Chiswick (1978b) offers the hypothesis that assimilation often begins with downward mobility between last job in the home country and first job in the United States. With time in the United States, however, assimilation will result in upward occupational mobility. This U-shaped pattern will be stronger when the labor market in the home country is radically different from that in the United States. Jasso and Rosenzweig (1985) note that the effect of experience on mobility may vary by the worker's legal status. In particular, they point out that the effect of U.S. experience will be much lower for undocumented workers than for other immigrants because they must remain officially "out of sight".

To provide a framework for this study, we focus on several issues, some of which pertain only to the specific case of undocumented workers in the United States. The first issue is the propensity for migrants to experience upward occupational mobility as an assimilative process that comes about as a result of more experience in the United States and acquiring more human capital skills relevant to U.S. labor markets. Undocumented migrants typically have much less human capital than do natives, and so the differential returns to human capital (across occupations) will play an important role in occupational mobility as these workers invest in U.S.-specific human capital over time.

The second issue is the propensity to experience upward occupational mobility as a result of information received while on a specific job. Of particular importance in this case, is information about any wage penalty associated with being undocumented. The expected earnings of undocumented workers are likely to be systematically different from the expected earnings of documented workers, because undocumented workers may be less productive than otherwise similar documented workers. In particular, there is some probability of losing these workers if they are apprehended, and production may be slowed or halted if a firm is raided. Additionally, the probability of being apprehended at work differs by occupation and changes the expected earnings accordingly. To compensate, employers may penalize undocumented workers by paying them less than other workers. Employers may also pay undocumented workers less because they are not covered by U.S. labor laws (USGAO, 1988). The degree to which undocumented workers know about these possibilities depends on their information about various occupations. Initially they may have little or no information about the true size of this penalty. They acquire this
information through learning and experience.\textsuperscript{4}

The third issue is the fact that undocumented workers are at high risk of involuntary mobility. These workers, who are subject to apprehension, may experience involuntary occupational mobility if they are apprehended, sent home, and then return to the United States to a different job. If continuous experience in the United States is important to upward mobility, then being apprehended will be associated with less upward mobility. At the same time, they may lose their jobs if employers find out about their lack of legal status. They may switch jobs if their employer gets raided by the INS but they, themselves, are not apprehended. Like other workers, they may lose jobs because their firms are closing, because of recessionary cutbacks, or because of industrial shifts that have taken place in the United States in the past decade. For these, and many other reasons, we might expect undocumented workers in the United States to experience many job changes while in the United States, some of which will be measured as upward and some as downward mobility. In spite of this involuntary mobility, it is likely that their legal status keeps undocumented workers confined to certain segments of U.S. labor markets. Traditional assimilation may simply be less of an option for undocumented workers.

**Occupational Mobility and the Methodology of Ranking Occupations**

In another paper we have proposed a simple model of occupational mobility for undocumented workers (Cobb-Clark and Kossoudji, 1995). We begin by assuming that undocumented workers are short term earnings maximizers who choose occupations (jobs) by comparing occupation specific earnings. Occupational choices are determined when a worker compares two jobs based on the average and standard deviation of wages, the relationship between his or her human capital and the average for all workers in an occupation, and the occupation specific penalty for being undocumented. The occupation specific penalty for being undocumented depends on the probability of being apprehended on the job, any direct wage penalties imposed by employers, and the level of information about wages and the probability of apprehension. We assume that undocumented workers have little or no information initially about the true size of the undocumented penalty. They acquire this information through learning and experience.

\textsuperscript{4}One effect of IRCA's amnesty provision was to eliminate the penalty associated with being undocumented. This suggests that the determinants of occupational mobility may be fundamentally different in the post-legalization period.
Workers choose to change occupations (jobs) when the relative return to any two occupations changes over time. Incentives to switch occupations occur when the relative undocumented penalties change, or when the worker invests in human capital. That is, in our model, mobility is not necessarily propelled by human capital investment. Some of this mobility will be considered upward mobility and some of it will be considered downward mobility. We examine both in our empirical analysis, but we’re particularly interested in occupation moves that coincide with upward mobility and the traditional notion of assimilation.

In order to determine whether there has been upward occupational mobility, we need a method of ranking occupations. The assessment of occupational mobility has always been methodologically tricky. Occupations, by their very nature, are complex entities with many facets. As a result, it is difficult to use a single index to determine which occupations are better and which are worse. Yet we all have perceptions about “good” and “bad” occupations. Being a lawyer is a “good” occupation while being a sweatshop sewing machine operator is a “bad” occupation. Sociologists have historically used survey methods, mean schooling in an occupation or mean wages, to rank occupations from better to worse (see the Duncan Index or the Siegel Prestige Index, documented in Hauser and Featherman, 1977, for two examples). Economists have historically avoided the problem of ranking by looking at occupational choice as a result of lifetime utility maximization (based on earnings, for example). More recent work by economists has taken one of two paths—ranking grouped occupations on the basis of the human capital investment required to enter an occupation (see Sicherman and Galor, 1990), or considering occupation to be the result of a series of discrete choices and empirically examining movement across those choices without ranking them explicitly (see Kossoudji, 1988, for one example).

Our specific ranking procedure is detailed in the appendix. We experimented with several ranking schemes. Our final ranking was based on the lower value of the 90 percent confidence interval of the expected wage. We call this the earnings power of an occupation. A person with the average characteristics of someone working that occupation would be predicted to earn at least that wage with a 90 percent probability.

We then ranked occupations two ways. We first assigned a unique rank to each occupation, based on the earnings power. Using this scheme, dentists had the highest ranking (1) and office copy machine operators had the lowest ranking (179).\footnote{Even though we used census data, there were still some occupations (like funeral director)
having the direction of mobility be determined by very small differences in wages, we also developed an alternative ranking; we allowed close occupations (in terms of earnings power) to have the same rank.\textsuperscript{6}

This ranking permits us to have a concrete and easily interpretable measure of occupational assimilation for the interval between a worker’s first job in the United States and the job he was working in the week before he applied for amnesty. What distinguished those who moved “up” from those who moved down or didn’t move at all?

\textbf{Latino Legalization Applicants}

Along with the legalization provision, Congress included in IRCA a provision authorizing (and providing funds for) INS to survey a random sample of those illegal aliens applying for the general legalization program.\textsuperscript{7} More than 6,000 legalization applicants (over 83 percent of eligible respondents) were interviewed. Information was collected on demographic background, and on employment in the home country prior to migration, the first job in the United States, and the job one week before the amnesty application. In addition, the survey collected information regarding household status, migration history, English language ability, and the use of public assistance.\textsuperscript{8}

Undocumented migrants exhibit varying degrees of commitment to remaining in the United States, and as a result migration experts often classify the population into three

\begin{footnotesize}
\begin{itemize}
\item that had too few workers to reliably estimate wage equations. Some occupations in our ranking are small aggregates of three digit occupations.
\item To create the second rank, we separately ranked only those occupations when the earnings power was more than 1 percent greater than the next closest occupation. Under this alternative, there were 59 separate rankings.
\item Just over five percent of those individuals applying were denied amnesty and approximately two-thirds of those who appear to have been eligible for amnesty actually applied (Woodrow and Passel, 1990). There is no evidence that the sample has any bias. All reports suggest that length of time in the United States and the ability to document residence filtered amnesty applicants. Fear of the INS and the U.S. government hampered many from applying in the first place.
\item The U.S. Department of Labor has also conducted a follow-up survey of the individuals in the first survey. Many questions from the first survey are repeated in the second survey. The use of these data is not yet permitted for publication.
\end{itemize}
\end{footnotesize}
groups: "settlers" who intend to remain in the United States, "sojourners" who do not, and "commuters" who do not live in the United States but cross the border frequently to work (Bean, et al., 1990). The general legalization program included a continuous residency requirement specifically to ensure that amnesty was granted to settlers rather than sojourners or commuters (Passel, et al., 1990). As a result, while these data are not representative of the undocumented population as a whole, they do provide the first representative sample of those long-term illegal aliens who chose to settle in the United States. These individuals represent an important component of the undocumented population, because of their large number—approximately 1.7 million individuals received amnesty under the general legalization program—and because of the policy experiment that resulted in their change of legal status.

Our analysis focuses on the probability of experiencing occupational mobility between a migrant's first job and his job the week before applying for legalization. We restrict the analysis to Latino men who initially entered the United States between 1973 and 1982 and who report information about their first and last pre-legalization jobs. The sample size resulting from these restrictions is 2,110.

The descriptive characteristics of these legalization applicants are similar to those of the population of temporary undocumented migrants to the United States (see Kossoudji and Ranney, 1984, and Massey et al., 1987) and of apprehended undocumented workers (see North and Houston, 1976). Table 1 presents these characteristics for the entire sample and by the direction of occupational mobility as measured by our occupational ranking. Approximately 78 percent of the entire sample is Mexican (see column one) and it is their characteristics that dominate.

---

8As a result of the difficulties in acquiring information, it has been difficult to develop a random sample of undocumented migrants. Researchers studying the labor market behavior of undocumented workers have relied on samples of apprehended aliens (Chiswick 1988, North and Houston 1976), undocumented workers who have returned to Mexico (Jones and Murray, 1986; Kossoudji and Ranney 1984), or drawn inferences from groups of legal immigrants (Bean et al. 1987). Sample size and sample selection problems have made it difficult to know whether the results apply to the entire undocumented population or are due to the process which generated the sample, e.g., a propensity to return to Mexico or to be apprehended. A very few studies have used snowball techniques to interview Mexicans in both the United States and Mexico (Massey et al. 1987).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Sample</th>
<th>Upward Mobility</th>
<th>Downward Mobility</th>
<th>No Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEXICAN</td>
<td>0.782</td>
<td>0.775</td>
<td>0.784</td>
<td>0.791</td>
</tr>
<tr>
<td>CENTRAL AM</td>
<td>0.167</td>
<td>0.177</td>
<td>0.164</td>
<td>0.153</td>
</tr>
<tr>
<td>SOUTH AM</td>
<td>0.051</td>
<td>0.048</td>
<td>0.053</td>
<td>0.056</td>
</tr>
<tr>
<td>CALIFORNIA</td>
<td>0.578</td>
<td>0.596</td>
<td>0.548</td>
<td>0.570</td>
</tr>
<tr>
<td>TEXAS</td>
<td>0.177</td>
<td>0.166</td>
<td>0.196</td>
<td>0.179</td>
</tr>
<tr>
<td>ILLINOIS</td>
<td>0.096</td>
<td>0.092</td>
<td>0.089</td>
<td>0.090</td>
</tr>
<tr>
<td>NEW YORK</td>
<td>0.044</td>
<td>0.042</td>
<td>0.040</td>
<td>0.050</td>
</tr>
<tr>
<td>FLORIDA</td>
<td>0.010</td>
<td>0.015</td>
<td>0.002</td>
<td>0.005</td>
</tr>
<tr>
<td>SCHOOL 0-3</td>
<td>0.156</td>
<td>0.143</td>
<td>0.167</td>
<td>0.168</td>
</tr>
<tr>
<td>SCHOOL 4-6</td>
<td>0.351</td>
<td>0.325</td>
<td>0.345</td>
<td>0.404</td>
</tr>
<tr>
<td>SCHOOL 7-11</td>
<td>0.378</td>
<td>0.296</td>
<td>0.221</td>
<td>0.256</td>
</tr>
<tr>
<td>SCHOOL 12</td>
<td>0.215</td>
<td>0.237</td>
<td>0.217</td>
<td>0.177</td>
</tr>
<tr>
<td>SCHOOL IN U.S.</td>
<td>0.120</td>
<td>0.117</td>
<td>0.123</td>
<td>0.124</td>
</tr>
<tr>
<td>U.S. EXPERIENCE</td>
<td>10.0</td>
<td>10.1</td>
<td>10.0</td>
<td>9.6</td>
</tr>
<tr>
<td>(average)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGLISH GREAT</td>
<td>0.066</td>
<td>0.105</td>
<td>0.088</td>
<td>0.086</td>
</tr>
<tr>
<td>ENGLISH OK</td>
<td>0.431</td>
<td>0.388</td>
<td>0.400</td>
<td>0.358</td>
</tr>
<tr>
<td>ENGLISH POOR</td>
<td>0.195</td>
<td>0.178</td>
<td>0.247</td>
<td>0.186</td>
</tr>
<tr>
<td>ENGLISH NO</td>
<td>0.278</td>
<td>0.229</td>
<td>0.265</td>
<td>0.370</td>
</tr>
<tr>
<td>MULTITRIP</td>
<td>0.334</td>
<td>0.329</td>
<td>0.349</td>
<td>0.330</td>
</tr>
<tr>
<td># of Migrants</td>
<td>2110</td>
<td>1034</td>
<td>462</td>
<td>614</td>
</tr>
</tbody>
</table>
Legalization applicants have much less education than the U.S. population in general. Approximately 16 percent had less than four years of schooling, 35 percent had four to six years of schooling, 28 percent had seven to eleven years of schooling, and only 22 percent had a high school degree or more. Most of this education took place in the country of origin—only 12 percent completed their last year of schooling in the United States. This distinction is important both because we expect that the labor market returns to education acquired in the home country are less than the returns to education acquired in the United States and because these migrants have typically migrated to the United States to work. Education acquired in the United States is a change in human capital that takes place after the acquisition of the first job. Furthermore, it is also likely that other human capital characteristics, e.g., English language ability, differ for those individuals who received at least some of their education in the United States.

The vast majority of these undocumented migrants reported making only one trip to the United States. More than a third, however, had made multiple trips back and forth before applying for legalization. Given that Congress targeted the legalization program to long-term illegal aliens who could demonstrate continuous residence in the United States since 1982, it is not surprising that these legalization applicants have many years of U.S. work experience—on average approximately 10.0 years. In spite of this, and the fact that English language ability is a skill typically acquired over time in the United States, many legalization applicants still had only a rudimentary grasp of the English language at the time they applied for legalization. Fully 27.8 percent of the sample reported being unable to communicate in English, in spite of their long-term U.S. residence.

Nearly three-quarters of the sample changed jobs between their initial entry into the United States and the week before legalization application. According to our ranking, about half of all workers experienced upward mobility. (Table 1 also presents these demographic characteristics by the measured direction of occupational mobility.) The choice of ranking strategy had little effect on these descriptive characteristics and only the change based on unique rankings is presented here. There are, however, interesting differences in the characteristics of those experiencing upward, downward, and no occupational mobility. Country of origin appeared to play little role in mobility. Upward mobility did appear to be somewhat more common for those workers who found their first job in California.

Unusually, the survey did not assess overall English ability. Our measure, therefore, is somewhat crude and is based on a series of questions about specific language skills.
and somewhat less common for workers first employed in Texas. These relationships may point to the importance of local labor market conditions, especially in those sectors where migrants have traditionally found employment. Alternatively, they may simply reflect different probabilities of apprehension by location.

Human capital characteristics also appear to be related to the probability of experiencing upward mobility. In particular, those workers in the highest educational categories and those workers reporting having good English language skills are overrepresented in the group of workers moving up in the ranking. It is interesting, however, that U.S. labor market experience does not vary across these groups, and those workers who received schooling in the United States are overrepresented in the group of workers experiencing no mobility. This may be due to a higher starting position in the occupational hierarchy for those workers who had at least some U.S. schooling.

Occupational Mobility for Legalization Applicants

The migrant's high degree of occupational concentration immediately after migration to the United States is striking. Even with the differences in labor market experience, human capital characteristics, and geographic locations of these workers, only 20 of the 179 ranked occupations account for approximately 75 percent of all first jobs held. (See Table 2.) Most of these jobs are traditional for undocumented workers and, as expected, restaurant and agricultural work dominates. About 15.3 percent were food preparers and another 3.0 percent were cooks. Both of these are "behind the scenes" occupations, where workers are unlikely to encounter the public. Agriculture was also an important source of employment. Nearly 12.4 percent of migrants found their first jobs as farm workers, while another 9.1 percent worked for the first time in the United States as groundskeepers. These occupations generally ranked at the bottom of our ranking scale. More than one-third of the sample found their first job after migration in an occupation ranked in the bottom ten.

This occupational concentration was also evident at the time that these migrants applied for legalization. Even though half of these applicants experienced upward mobility between the time they first entered the United States and the time they filed their legalization applications and nearly three-quarters had changed jobs in the interval, the top twenty occupations still employed 62 percent of these workers. Notably, agricultural work declined precipitously over the 1980s. Only 4.0 percent were farm workers and only 5.4 percent were groundskeepers the week before application. Undocumented workers experience
### Table 2

Major Occupations of Legalization Applicants
First Job in U.S. and Job One Week Before Legalization
(Percentages in Each Occupation)

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Rank</th>
<th>First Job</th>
<th>Week Before</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Preparers</td>
<td>171</td>
<td>15.3</td>
<td>7.2</td>
</tr>
<tr>
<td>Farm Workers</td>
<td>170</td>
<td>12.4</td>
<td>4.0</td>
</tr>
<tr>
<td>Groundskeepers</td>
<td>176</td>
<td>9.1</td>
<td>5.4</td>
</tr>
<tr>
<td>Janitors</td>
<td>136</td>
<td>5.2</td>
<td>5.0</td>
</tr>
<tr>
<td>Misc Machine Operators</td>
<td>95</td>
<td>4.0</td>
<td>4.6</td>
</tr>
<tr>
<td>Construction Laborers</td>
<td>131</td>
<td>3.4</td>
<td>2.8</td>
</tr>
<tr>
<td>Textile Machine Op</td>
<td>142</td>
<td>3.2</td>
<td>2.9</td>
</tr>
<tr>
<td>Non-Construct Laborers</td>
<td>115</td>
<td>3.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Cooks</td>
<td>138</td>
<td>3.0</td>
<td>7.8</td>
</tr>
<tr>
<td>Handlers and Helpers</td>
<td>137</td>
<td>2.7</td>
<td>2.1</td>
</tr>
<tr>
<td>Assemblers</td>
<td>86</td>
<td>2.2</td>
<td>2.7</td>
</tr>
<tr>
<td>Band Packers</td>
<td>158</td>
<td>1.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Oth Metal Machine Op</td>
<td>104</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Vehicle Washers</td>
<td>169</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>Construction Painters</td>
<td>197</td>
<td>1.2</td>
<td>1.8</td>
</tr>
<tr>
<td>Punch Press Operators</td>
<td>91</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Oth Construct Trades</td>
<td>103</td>
<td>1.1</td>
<td>1.7</td>
</tr>
<tr>
<td>Freight Handlers</td>
<td>124</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Auto Mechanics</td>
<td>120</td>
<td>1.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Welders and Solderers</td>
<td>74</td>
<td>1.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Carpenters</td>
<td>108</td>
<td></td>
<td>2.2</td>
</tr>
<tr>
<td>Production Supervisors</td>
<td>31</td>
<td></td>
<td>1.8</td>
</tr>
<tr>
<td>Shipping Clerks</td>
<td>119</td>
<td></td>
<td>1.7</td>
</tr>
<tr>
<td>Brickmasons and Tile Set</td>
<td>80</td>
<td></td>
<td>1.7</td>
</tr>
</tbody>
</table>

Percentage of Sample    | 74.9 | 62.9 |

12
mobility, but appear to do so within a confined set of occupations.

The opportunity for upward mobility while in the United States is linked to the original ranking of an occupation. A person who is a dentist in his first job in the U.S. (although there are none in this sample) could not experience upward mobility because he is already in the highest ranked occupation. Any job change by a person in the lowest ranked occupation, office copy machine operator, would be measured as upward mobility. In fact, if occupation changes were completely random, we would observe individuals who started lower in the ranking having a higher probability of upward movement, while those starting higher in the ranking would have a higher probability of downward movement.

Table 3 illustrates these relationships by presenting the average occupational rank for the first U.S. job as well as the last pre-legalization job for all applicants and by the direction of occupational mobility. If first jobs in the United States are ranked by the direction of mobility, then those who experienced downward mobility over their tenure in the U.S. labor market were originally ranked the highest (122, using the unique rank), followed by those who experienced no mobility (138), and trailed by those who experienced upward mobility (159). In part, then, the original ranking of the job is inversely linked to the probability of mobility later on.

Occupational rankings change radically with mobility. Upwardly mobile applicants now have an average occupational rank of 117 almost 42 occupations higher than their original ranking. This is higher than the rank of those who were originally ranked the highest. Those who experience no mobility are again in the middle of the ranking (138), while those who have experienced downward mobility have fallen dramatically in the ranks to 153. Upwardly mobile and downwardly mobile applicants have effectively switched places in the rankings.

*Estimating the Probability of Upward Mobility*

Are these occupational changes consistent with assimilation? If not, what determines a worker’s probability of occupational mobility in the United States? In order to address these questions, we estimate the effects of human capital acquisition, the undocumented penalties associated with occupations, and the ranking of the first job on the probability of experiencing mobility as one accumulates tenure in the U.S. labor market. All of these factors may propel a worker to switch occupations.

First we measure changes in human capital after the acquisition of the first job in the United States by whether any education was obtained in the United States, and by English
Table 3
Average Rankings of Occupations by Mobility*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Nonunique Rank</th>
<th>Unique Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank First U.S. Job</td>
<td>43.9</td>
<td>144.9</td>
</tr>
<tr>
<td>Rank Before Application</td>
<td>39.2</td>
<td>131.0</td>
</tr>
<tr>
<td>UP MOBILITY (n)</td>
<td>1019</td>
<td>1034</td>
</tr>
<tr>
<td>Rank First U.S. Job</td>
<td>49.0</td>
<td>159.4</td>
</tr>
<tr>
<td>Rank Before Application</td>
<td>34.7</td>
<td>117.0</td>
</tr>
<tr>
<td>DOWN MOBILITY (n)</td>
<td>439</td>
<td>462</td>
</tr>
<tr>
<td>Rank First U.S. Job</td>
<td>35.2</td>
<td>122.0</td>
</tr>
<tr>
<td>Rank Before Application</td>
<td>45.8</td>
<td>152.7</td>
</tr>
<tr>
<td>NO MOBILITY (n)</td>
<td>632</td>
<td>614</td>
</tr>
<tr>
<td>Rank First U.S. Job</td>
<td>41.8</td>
<td>137.9</td>
</tr>
<tr>
<td>Rank Before Application</td>
<td>41.8</td>
<td>137.9</td>
</tr>
</tbody>
</table>

* See the Appendix for a discussion of the rankings.
language ability the week before applying for legalization. The ability to communicate in English during the week before legalization application is, at best, a rough indicator of changes in English language ability that occur with time in the United States. We also include a series of experience variables; potential experience in the United States, whether or not the applicant made multiple trips across the border—usually because of apprehension—which may increase the probability of some kind of job change, and whether the applicant experienced downward mobility when arriving in the United States. We allow for the possibility that occupational mobility is random by controlling for the rank number of the original occupation.

The last set of variables provides information about the extent to which the penalty for being undocumented affects mobility. The variable INS is a crude measure of the probability of apprehension in an occupation. It is based on the industry and geographic location of first employment and on INS statistics on the frequency of apprehension by industry and location. The variable NETWORK, derived from the proportion of the sample that initially worked in any occupation, measures the extent to which undocumented workers are represented in an occupation and attempts to control for the amount of information that workers have about various jobs. WAGERATIO reflects our attempt to measure the wage penalty directly associated with being undocumented. It was calculated by dividing the real average wage of all undocumented workers in each occupation by the expected wage for all men in that occupation. A lower wage ratio suggests a higher undocumented penalty. This variable is undeniably a rough measure of the undocumented wage penalty.

While ideally these variables relating to the penalty for being undocumented would all be measured as changes over time, there is simply no way to construct such refined measures of these hidden values. For our analysis, they are all based on the first occupation. At the same time, if undocumented workers initially have no information about these values, and ignore them in the first period, then our hypotheses are still testable. A higher probability of being apprehended in the first job or a lower wage ratio should lead to more mobility as measured by our rankings. A larger network should lead to less.

Table 4 presents the coefficients from our logit regression on mobility for the entire

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11 The undocumented sample included all jobs occurring between 1979 and 1981. The expected wage was calculated from the 1980 census wage regressions.

12 Ignoring these values in the first period is equivalent to setting them to zero in the first period. In the second period, then, comparisons are made based on what the migrant has learned about each of these values in the interim.
sample. These coefficients are based on a variable that measures upward, downward, or no mobility. The first two columns display the coefficient estimates when the unique ranking is used. The second two columns document the same for the ranking that allows ties. The two rankings produced, qualitatively, the same results. Columns one and three present the estimated determinants of the probability of moving upward in the occupational ranking versus experiencing no mobility at all. The determinants of the probability of moving downward versus experiencing no change are presented in columns two and four. Undocumented workers may experience mobility as a result of investing in their own human capital, whenever the conditions of their first jobs in the United States imply a high penalty to being undocumented, or when their own experiences have indicated early bad luck.

Even our poor measures of English language ability show up as significant determinants of mobility. When compared with those who do not communicate in English at all (the omitted category), workers who are more fluent in English are more likely to be upwardly mobile. The size of the coefficients is consistent with the degree of fluency. The less one is able to communicate in English, the lower is the probability of upward mobility relative to a worker who does not speak English at all.

The effects of English language ability are, however, not restricted to upward mobility. Having more ability to communicate in English can also lead to what is measured downward mobility (see column 2). Undoubtedly, this results from the fact that our ranking is based on the entire male labor force, where the simple ability to communicate in English is not a distinguishable human capital skill. Undocumented migrants (and perhaps other immigrants whose native language is not English) may make very different job choices than native workers because of the differences in potential returns to English language ability. Another factor may be in play with English language ability. The ability to communicate effectively in English may simply enhance mobility overall. It permits a worker to broaden his job search horizon and to use more methods for job search.

The propensity to experience upward as opposed to downward mobility is sharpest for fluent English speakers but then blurs as workers' English skills are less than adequate. Comparing the two coefficients (up/same and down/same) reveals that at the bottom of the fluency scale, downward mobility is slightly more probable.

Interestingly, increasing ones education while in the United States does not have any impact on mobility. While this is contrary to expectations, we must emphasize that an important skill acquired when receiving some education in the United States is likely to be an enhanced ability to communicate in English, and the English language variables may
Table 4
Occupational Mobility Equations
Logits on Moving Up/Down in Occupational Rank
(numbers in parentheses are t-stats)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unique Rank Up/Same</th>
<th>Down/Same</th>
<th>Tie Rank Up/Same</th>
<th>Down/Same</th>
<th>Any Change Up/Same</th>
<th>Down/Same</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH</td>
<td>0.816*</td>
<td>0.603</td>
<td>0.873*</td>
<td>0.098</td>
<td>0.573*</td>
<td></td>
</tr>
<tr>
<td>(3.962)</td>
<td>(0.363)</td>
<td></td>
<td>(4.159)</td>
<td>(0.379)</td>
<td>(2.987)</td>
<td></td>
</tr>
<tr>
<td>BEST</td>
<td>0.827*</td>
<td>0.331*</td>
<td>0.834*</td>
<td>0.325*</td>
<td>0.629*</td>
<td></td>
</tr>
<tr>
<td>(6.025)</td>
<td>(2.061)</td>
<td></td>
<td>(6.137)</td>
<td>(2.009)</td>
<td>(5.157)</td>
<td></td>
</tr>
<tr>
<td>ENGLISH</td>
<td>0.405*</td>
<td>0.246*</td>
<td>0.425*</td>
<td>0.572*</td>
<td>0.453*</td>
<td></td>
</tr>
<tr>
<td>(2.456)</td>
<td>(2.955)</td>
<td></td>
<td>(2.593)</td>
<td>(3.085)</td>
<td>(3.111)</td>
<td></td>
</tr>
<tr>
<td>NOT GOOD</td>
<td>0.151</td>
<td>0.007</td>
<td>-0.183</td>
<td>-0.145</td>
<td>-0.101</td>
<td></td>
</tr>
<tr>
<td>(U.S.)</td>
<td>(0.003)</td>
<td></td>
<td>(0.099)</td>
<td>(0.050)</td>
<td>(0.096)</td>
<td></td>
</tr>
<tr>
<td>EDUCATION</td>
<td>-0.125</td>
<td>0.048</td>
<td>0.143*</td>
<td>0.030</td>
<td>0.105*</td>
<td></td>
</tr>
<tr>
<td>(1.940)</td>
<td>(1.184)</td>
<td></td>
<td>(3.775)</td>
<td>(0.725)</td>
<td>(3.142)</td>
<td></td>
</tr>
<tr>
<td>EXPERIENCE</td>
<td>0.152*</td>
<td>0.202</td>
<td>0.023*</td>
<td>-0.017</td>
<td>0.072</td>
<td></td>
</tr>
<tr>
<td>(2.133)</td>
<td>(0.303)</td>
<td></td>
<td>(0.033)</td>
<td>(0.033)</td>
<td>(1.643)</td>
<td></td>
</tr>
<tr>
<td>FIRST JOB</td>
<td>-0.077</td>
<td>-0.013</td>
<td>-0.079</td>
<td>0.012</td>
<td>-0.045</td>
<td></td>
</tr>
<tr>
<td>USEXP*DOWN</td>
<td>(1.099)</td>
<td>(0.259)</td>
<td>(1.576)</td>
<td>(0.288)</td>
<td>(1.988)</td>
<td></td>
</tr>
<tr>
<td>INS</td>
<td>0.020*</td>
<td>-0.006</td>
<td>0.022*</td>
<td>-0.007</td>
<td>0.007</td>
<td></td>
</tr>
<tr>
<td>(1.961)</td>
<td>(1.347)</td>
<td></td>
<td>(2.189)</td>
<td>(0.682)</td>
<td>(0.797)</td>
<td></td>
</tr>
<tr>
<td>NETWORK</td>
<td>0.228</td>
<td>4.377*</td>
<td>-2.003</td>
<td>4.234</td>
<td>1.292</td>
<td></td>
</tr>
<tr>
<td>(0.145)</td>
<td>(2.234)</td>
<td></td>
<td>(1.243)</td>
<td>(1.751)</td>
<td>(0.098)</td>
<td></td>
</tr>
<tr>
<td>WAGERATIO</td>
<td>-0.954*</td>
<td>-1.020*</td>
<td>-0.964*</td>
<td>0.934*</td>
<td>0.565</td>
<td></td>
</tr>
<tr>
<td>(2.016)</td>
<td>(2.234)</td>
<td></td>
<td>(2.037)</td>
<td>(2.020)</td>
<td>(1.563)</td>
<td></td>
</tr>
<tr>
<td>MULTTRIP</td>
<td>-0.954*</td>
<td>0.103</td>
<td>-0.263*</td>
<td>0.159</td>
<td>0.111</td>
<td></td>
</tr>
<tr>
<td>(2.254)</td>
<td>(0.704)</td>
<td></td>
<td>(2.250)</td>
<td>(1.017)</td>
<td>(0.978)</td>
<td></td>
</tr>
<tr>
<td>RANK</td>
<td>0.032*</td>
<td>-0.005*</td>
<td>0.091*</td>
<td>-0.034*</td>
<td>0.009*</td>
<td></td>
</tr>
<tr>
<td>(9.872)</td>
<td>(2.089)</td>
<td></td>
<td>(3.261)</td>
<td>(3.316)</td>
<td>(4.174)</td>
<td></td>
</tr>
<tr>
<td>CONSTANT</td>
<td>-3.714*</td>
<td>0.756</td>
<td>1.467*</td>
<td>1.375*</td>
<td>-1.598*</td>
<td></td>
</tr>
<tr>
<td>(9.713)</td>
<td>(1.377)</td>
<td></td>
<td>(3.314)</td>
<td>(2.304)</td>
<td>(3.572)</td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>0.179</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.187</td>
</tr>
</tbody>
</table>

* See the Appendix for a discussion of the rankings.
be picking up all the effects of education. Over 92 percent of those who received some U.S. education were in the top two English language categories.

In preliminary estimations (not reported here) we also included dummies for the level of education received in the home country, even though the effect of education at the time of entry should have washed out with the choice of first job. None of the education dummies showed up as mobility determinants. Since the omitted dummy in those regressions was less than four years of schooling, these coefficients imply that someone with a high school degree is no more likely to experience mobility than someone with no schooling whatsoever. Note that this does not imply that they are not higher in the occupational hierarchy, only that they are not more likely to be mobile. In a regression predicting the rank of the first job in the United States, these education indicators were strongly associated with a higher ranked occupation.

This analysis seems to suggest that neither education received in the home country nor additional education received in the United States (except as it improves English skills), is helpful in advancing in the U.S. labor market. Home country education may not be easily transferable, and any gains to home country education are reaped by starting out in a higher ranked first job in the United States. Education in the United States may influence mobility, but since a principal outcome is improved English, it is difficult to disentangle any separate effect of the additional schooling, itself. It is important to remember, however, that this analysis concerns undocumented workers only, and the effects may not be the same for legal immigrants.

Experience in the United States does contribute positively to upward mobility, although the effect of a single additional year in the United States is relatively small. For someone with the average mobility probabilities in the sample, the experience effect of an extra year in the United States translates into a 3.5 percent increase in the probability of upward mobility. There are two interpretations of this small experience effect. If the returns to experience are higher in occupation $j$ than $k$, then we would not expect upward mobility to result from extra years of experience. Alternatively, experience, itself, may be of little value when the worker continues to be at risk of apprehension. Employers have few incentives to provide on-the-job training or to place undocumented workers in jobs where the specific experience returns are high when they could lose those workers at any time.

There is strong confirmation of the hypothesis that undocumented migrants correct an occupational transition from the home country to the United States that is measured
as downward mobility. Initial downward mobility is significantly correlated with later upward mobility. Rather counterintuitively, however, there is no significant change in the experience effect when the first job in the United States was associated with downward mobility from the home country. In addition, the sign is negative, indicating that initial downward mobility may reduce the impact of experience in the United States. Recall that traditional assimilation theories would predict that initial downward mobility would be associated with a stronger (not weaker or non-existent) effect of experience in the United States. It may be that downward mobility is corrected quickly if it is to be corrected at all (this interpretation could be corroborated by the strong coefficient on the dummy on initial downward mobility). Alternatively, given that these are retrospective data, this pattern could also reflect the fact that more recent arrivals, say, those who came after the debates on amnesty were already made public, felt freer to pursue job changes when their skills and their initial jobs were mismatched.

The last set of variables deal with characteristics unique to undocumented migrants. It is clear, from these coefficients, that undocumented migrants experience mobility in U.S. labor markets for reasons that are tied to their specific legal identity. The higher the probability of apprehension on the first job (INS), the higher the probability of upward mobility. This could be happening for two reasons; actual INS raids may precipitate mobility that would not otherwise occur or knowledge about a higher expected probability of apprehension on the job convinces the undocumented worker to move on. It was expected that this variable would influence the probability of measured downward mobility as well, but it does not.

The undocumented wage penalty induces, as expected, both kinds of mobility. The higher the undocumented wage relative to the average occupational wage (the lower the undocumented penalty), the lower is the probability of any movement out of an occupation. The size and significance of this wage penalty coefficient for both upward and downward mobility suggests that undocumented workers respond to wage penalties based on their undocumented status by changing jobs. Some of this mobility would be measured as upward (and, hence, assimilative), but even more would be measured as downward mobility. Yet all of these moves could maximize expected earnings for the undocumented worker.

One might ask why these wage penalties aren’t arbitrated away by the market. It is important to remember that secrecy is the currency of undocumented employment. Even though it was not illegal to hire undocumented workers before the 1986 Act, it was illegal for an undocumented migrant to work. Firms hiring undocumented workers were subject
to the raids of the INS (leading to production disruption) and to the general instability of undocumented workers. Reducing their wages by an amount related to their riskiness as employees (which would be based, perhaps on industry and occupation), may have been a normal course of business.

Multiple trips across the border reduce the probability of upward mobility and but do not make downward mobility more likely than staying in the same occupation. If mobility results from an apprehension, it is more likely to be measured as downward mobility.\(^\text{13}\) It may be that short absences from the job are expected in the undocumented market or that apprehended workers return to the job they already know, and so an apprehension doesn’t imply mobility. One possibility that is sometimes advanced is that workers who are apprehended have less savvy than those who are not, implying that their lack of upward mobility as a result of apprehension is due to other underlying attributes.

The NETWORK variable was included to act as a control for the level of information about various jobs. More undocumented workers in an occupation implies more accurate information about the opportunities and penalties for undocumented workers in that occupation. More information, in this case, acts as a stabilizer, inhibiting mobility on its own. If mobility occurs, it is more likely to be measured as upward mobility.\(^\text{14}\) In another paper (Cobb–Clark and Kossoudji, 1994), we hypothesize that the social conditions of employment may be interfering with the informational aspects of this variable. Working around other undocumented people who speak the same language and who have experienced the same cultural backgrounds may confer advantages to some jobs that outweigh their economic disadvantages.

Many researchers feel uncomfortable with any attempt to rank occupations. In the final column of Table 4, we abandon our ranking scheme and simply estimate the probability of occupational mobility. This table can be interpreted as separating “movers” from “non movers”. While the significance of the English language and experience variables are robust to this change in specification, indicating again that these informal credentials widen an undocumented worker’s horizons, the informational and wage variables disappear when mobility alone, and not its direction, is the dependent variable.

\(^{\text{13}}\) To see these relative probabilities, subtract the DOWN coefficient from the UP coefficient.

\(^{\text{14}}\) Again, subtract the DOWN coefficient from the UP coefficient.
Conclusions

It is a commonly held perception that immigration may initially involve downward occupational mobility, but as immigrants acquire U.S.-specific labor market experience they are rewarded with upward occupational mobility. Eventually, as immigrants become assimilated into the U.S. labor market, they “catch up” to natives. In the aggregate, the undocumented migrants in our sample appear to follow this pattern. Almost two-thirds of the sample may have suffered downward mobility immediately after migrating to the United States, while half of the sample experienced upward mobility during the period leading up to their application for legalization. These aggregate statistics do not tell the whole story, however.

In general, for these undocumented workers, future upward mobility is positively correlated with initial downward mobility upon entering the United States. It is also correlated with improved English skills and with experience in U.S. labor markets. Undocumented workers, however, also respond to incentives or constraints that are specific to their legal status.

The variables related specifically to the legal status of these workers enhanced the explanatory power of the estimating equation. In addition, when these variables are omitted from the equation, the predicted probability of upward mobility is significantly reduced, even for those undocumented workers who are most likely to experience mobility (those who initially experienced downward mobility and spoke English fluently, for example).

While the traditional assimilation story predicts voluntary upward mobility, the additional considerations of undocumented workers (particularly a wage penalty for undocumented workers) may make measured downward mobility sometimes equally attractive. These imperfections in the undocumented labor market, however, may be keeping these undocumented workers from moving into the mainstream of U.S. labor markets.

This lack of assimilation is also suggested by the continued concentration of these workers in relatively few occupations. The Latino men in our sample of legalization applicants showed very little variation in the occupations they held immediately after entering the United States. And, although nearly three-quarters of them would change occupations before they applied for legalization, they remained clustered in traditional migrant occupations. In part, this continued clustering is the result of mobility that is not assimilative in the traditional sense, but represents the workers’ attempts to make the most out of their opportunities within the undocumented market. Undocumented workers move out of jobs
where the probability of apprehension or the wage penalty to being undocumented is high. The average wage for undocumented groundskeepers (an occupation that lost workers), for example, was only 88 percent that of the average census wage for all groundskeepers. Undocumented cooks (an occupation that gained workers), on the other hand, were at parity with cooks as a whole.

The relatively small contribution of U.S. labor market experience and the lack of significance of education in explaining the probability of moving upward in the occupational rankings along with the negative correlation between receiving some U.S. schooling and upward mobility also point toward a well defined, but differently determined undocumented labor market. The upward mobility we are observing appears to be driven by factors in addition to those traditionally thought of as being related to migrant assimilation.

One counter argument to the notion of separate markets could be made by the strong and consistent effect of English language ability on upward mobility. But even here the evidence suggests that English language ability only promotes mobility, not upward mobility. Although inverse in order, the effect of English language ability is nearly as strong in promoting downward mobility as in assimilating undocumented workers.

In order to gain insight into these results, it would be interesting to compare these results to those estimated for legal immigrants. Unfortunately, similar longitudinal data which document the transition of legal immigrants into the U.S. labor market do not exist. Furthermore, many of the theoretical issues surrounding the relationship between assimilation and occupational mobility are simply not relevant for native-born workers.15 Still, it perhaps is not surprising that we do not observe a great deal of assimilation. These migrants were, after all, working illegally in the United States. Additionally, a large proportion of these workers made repeated trips between the U.S. labor market and their home countries. As a result of their illegality and mobility, their U.S. labor market opportunities appear to have been constrained to a few specific occupations in a few locations. Many of them do not appear to have acquired the one human capital.

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15 Additionally, it is not clear that it is possible to conduct a similar analysis for a comparable group of native-born new labor market entrants. The Panel Study of Income Dynamics, for example, asks detailed labor market questions only of heads of households and their wives. It is not particularly useful for documenting the entry of young workers into the labor market. Similarly, unlike our case the National Longitudinal captures the labor market entry of a single cohort of individuals.
characteristic, English language ability, which could have promoted occupational mobility.

Of course the key question remains: Will legalization allow these newly-legalized workers to follow occupational paths commonly associated with the notion of assimilation? The degree to which IRCA's legalization program is perceived as being successful in achieving its goals will certainly depend on the answers to this question.
APPENDIX

We rank occupations by pecuniary returns rather than the more difficult to measure non-pecuniary characteristics, relying on past work establishing the presence of compensating wage differentials and recognizing the uniqueness of our undocumented immigrant population. (Those workers are more likely, when compared with any other identifiable group, to be pure earnings maximizers.) Our decision to create a single ranking—rather than individual rankings—implicitly assumes that there is an exogenous structure to the U.S. labor market that we can use to evaluate immigrants' occupational mobility. We adopt the single ranking scheme the data necessary for an individual based ranking are nonexistent and because we believe that the spirit of the assimilation hypothesis is that there exists an occupational structure (whose rankings may change slowly over time) into which immigrants assimilate.

While expected wages are often used for ranking occupations (see for example Topel and Ward 1992), they have some features that make them unsuitable for our purposes. In particular, expected wages include the wages of individuals who have spent many years in an occupation. They also include returns brought about by occupation specific investment that goes along with years in an occupation. Finally, expected wages don't take into account the variability in earnings associated with different occupations. Since conceptually we want a measure that reflects an occupation's minimum skill and entry requirements, we used data from the one in one thousand 1980 U.S. census sample, to estimate three digit specific earnings equations for approximately 115,000 men between the ages of 18 and 64 who reported working at least 25 hours in 1979. Some three digit occupations were bundled together because some occupations have very few people in them even in U.S. census samples (like funeral directors or auctioneers) and because some three digit occupations represent tasks that are effectively indistinguishable (like order clerks and billing clerks).

If a person didn't work in 1979, there was no occupation information available. Although Census data do not provide detailed human capital characteristics, these regressions included the following variables: education, potential work experience and its square, marital status, SMSA residence, presence of work disabilities, veteran status, government versus private employment, whether or not the individual worked fewer than 30 weeks out of the year, race and hispanic ethnicity. The dependent variable was the log of hourly earnings.
To determine an occupation's rank, we first calculated the expected wage in each occupation, then subtracted the standard deviation of the expected wage from the expected wage in the occupation. The expected, rather than the actual, standard deviation was used to mitigate the effects of unobservable characteristics that drive occupational wages at the top and bottom of the wage distribution.

High wage variation could be the result of a host of influences from segmented markets to specialized talents. Our goal was to prudently measure the realistic rankings assessed by workers facing labor market options and to minimize highly ranking occupations where a very few people earn exceptionally high wages. Although many of these occupations are effectively closed to undocumented workers (like judgeships), occupations as diverse as architects, musicians, and labor relations personnel had exceptionally high variances.

This ranking scheme has several attractive features. All else equal, high expected wage occupations are ranked higher than low expected wage occupations. If two occupations have the same expected wage, the riskier occupation (in terms of the wage distribution) will be ranked lower. Occupations that have looser entry requirements (empirically measured by the mean square deviation of human capital characteristics) are ranked lower than those with tighter entry requirements. Finally, if there is no discernable difference in the values of occupations, there is no difference in their rankings. For comparative purposes, we also calculated the rankings that would result from using mean wages. These different rankings made intuitive and economic sense. For example, dentists, whose hourly wages are very high and have little variance, were ranked (highest) using both ranking schemes. Alternatively athletes, whose wages are highly variable, were ranked 172nd using the our ranking, and 103rd using the mean rank. Finally, child care workers, whose wages are low and have little variance, were ranked 177th using the our ranking and 176th using the mean rank.
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