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In recent years there has been a great public policy interest in illegal aliens. In nearly every session of Congress for the past decade one house or the other has enacted legislation, although no major of legislation regarding illegal aliens has successfully passed both houses. Each legislative attempt either follows or is accompanied by a study of a Commission or Task Force, or some comparable effort.

This public interest and legislative activity arises from the belief that (a) there is a large and growing population of illegal aliens in the United States and (b) that the effects of these illegal aliens are not "neutral," that is, that they do have effects that are perceived by at least some to be undesirable.

What is perhaps most unique about the public policy debate is the relative absence of systematic social science research. It has not been possible to estimate with precision the size of the illegal alien population or to measure the characteristics of this population. The reason is that illegal aliens have an obvious incentive to avoid contact with survey or census interviewers and, if interviewed, to avoid revealing their status. In the absence of a data base, competing hypothesis regarding the size, characteristics and impact of the illegal alien population can persist. Their persistence may be responsible for the lack of emergence of concensus in the public policy debate and in Congress.

This paper reports on the survey methodology developed and implemented for a study focusing on the illegal alien labor market.

I-Illegal Aliens and the Policy Interest

Illegal aliens are individuals whose presence in the U.S. is in violation of U.S. immigration law. They include individuals who entered the U.S. in violation of the law, such as by avoiding border inspection ("entry without inspection" or EWI) or by gaining admission with fraudulent documents. They also include individuals who violate a condition of a legal entry ("visa abusers"), such as working in violation of a student or tourist visa or staying for a longer period than is allowed by a visa.

The large increase in public concern with illegal immigration in the past decade can be related to the perception that the number of illegal aliens has increased many fold. Estimates of the number of illegal aliens in the United States vary widely. The more careful evaluations suggest a number in the neighborhood of 3 to 5 million, of whom perhaps 2 million were enumerated in the 1980 decennial census. It is believed that about half of the resident illegal alien population are Mexican nationals. Since 1977 the annual number of apprehensions of illegal aliens has been at least about one million, and the number has increased sharply in the past two years. Over 90 percent of the apprehensions occur at or near the Mexican border, with nearly all of the aliens accepting "voluntary departure." Many illegal aliens are apprehended several times in a year but because there are no records on multiple apprehensions of the same individual, the number of different individuals apprehended in a year is not known.

It is, however, not merely the number of illegal aliens that is relevant, but also their characteristics and impact on the U.S. economy. The economic impact of an illegal alien population comprising young adult low-skilled workers, locked into dead-end jobs, who move freely and frequently between the U.S. and their home country may be very different from that of a highly skilled, upwardly mobile illegal alien population that is permanently settled in the U.S.

There are many unanswered questions regarding illegal aliens. Are illegal aliens in jobs that are so undesirable that native workers would not take them and hence there is no direct competition in the labor market between illegal aliens and individuals with legal rights to work in this country? At another extreme, is there such direct competition in the labor market between illegal and legal workers that illegal aliens depress wage and employment opportunities for legal workers with comparable skills? Are illegal aliens in low-wage, dead-end, non-union jobs with little opportunity for on-the-job training or, given their initial skill level, are they in jobs that provide high wages and training opportunities? Are the employers of illegal aliens small, non-unionized, ethnic enclave employers? Out of a fear of deportation are illegal aliens held in a virtual bondage by their employers that is little different from slavery? Or do illegal aliens experience considerable voluntary job mobility and are their employers little different from employers in the same region and industry that do not hire illegal workers?

These questions about the employment of illegal aliens cannot be answered merely by analytical reasoning. They are essentially empirical issues. One approach would be to do a survey of employers and to ask them about their employment of illegal aliens, as well as the characteristics of the workplace. This approach, however, would suffer from two major problems. One is that employers might not cooperate in a survey that asked direct questions about illegal aliens employment. It is not against Federal law or the law in most states to knowingly employ an illegal alien and in the few states in which it is illegal the law is not enforced. Yet, many employers, including those who employ illegal aliens,

appear to be under the false impression that it is illegal. Even if they know it is not illegal, employers who consider it a "socially undesirable" practice, or who believe others hold this view, might be reluctant to respond truthfully. Similarly, employers skeptical of promises of confidentiality may also be reluctant to respond truthfully out of fear of an Immigration and Naturalization Service (INS) raid.

The second problem with direct inquiries is that employers may not know the legal status of individual workers. With no legal requirement to identify an applicant's legal right to work in this country employers may not wish to incur the expenses of obtaining this knowledge, particularly since direct responses by job applicants may be false. And, employer perceptions of the legal status of their workforce may be quite different from the reality.

A direct survey of illegal aliens themselves would be equally trouble-prone. There is no unbiased sampling frame for illegal aliens. Illegal aliens have an incentive to be non-respondents in a survey or census for fear of inadvertently revealing their status. Without administrative record checks, even indirect questions on legal status are not likely to generate truthful responses. Moreover, workers may not be able to provide information about many of the employer and workplace characteristics that may be relevant for analytical purposes.

II-The Survey Methodology

Whenever an illegal alien is apprehended by the Immigration and Naturalization Service (INS) a form is completed called a Record of Deportable Alien, better known by its form number I-213. The I-213 is an administrative record kept in the local INS office, although summary statistics are transmitted to INS headquarters in Washington, D.C. for management purposes and publication in the INS Statistical Yearbook. The I-213 includes questions on the name and address of the alien as well as questions on the alien's demographic characteristics (date of birth, sex, marital status, number of children), immigrant chracteristics (when and where last entered the U.S., immigrant status at entry, method of location of alien, country of last permanent residence, and nationality as well as the nationality of spouse, parents and children), and labor market characteristics (name and address of the current or most recent employer in the U.S., period of employment, and wage rate). The I-213 forms filed in the interior, as distinct from the border area, are nearly always completed in full, although the degree of truthfulness of the responses is open to question. The information on the I-213 regarding the current or most recent employer permits these forms to be used as a sampling frame for a survey of the employers of apprehended illegal aliens.

Results from a survey of employers of illegal aliens cannot be interpreted in

isolation. The distinguishing characteristics of their employers can be determined only by knowing how employers that either do not employ illegal aliens or who are randomly selected from the population of employers respond to the same questions. It is not possible to develop a sample of employers who do not employ illegal aliens. Indeed, even an employer cannot be certain that there are no illegal aliens in the workforce. On the other hand, randomly selected employers from lists of establishments can be used if it is assumed that (a) not all employers hire illegal aliens, or (b) that the number of illegal aliens in the workforce is larger among those establishments identified by an illegal alien.

Thus, the survey methodology of this project is to draw a stratified random sample of I-213 forms filed in an INS District Office (interior) and to transcribe on an "abstract form" the relevant demographic, immigrant and labor market data, including the identity of the alien's employer. The employers identified in this manner are referred to as the "INS Sample." A "General Sample" of employers is identified by drawing a random sample from standard lists or directories of establishments in the same geographic area.

The methodology was implemented for the Chicago SMSA using the I-213 forms filed in the Chicago Distict Office of INS during 1983. A pilot study indicated that greater statistical efficiency could be achieved for the same budget by using stratified sampling for the I-213 forms. Three industry categories (manufacturing, restaurant and other services) and two country-of-origin categories (Mexican and non-Mexican) resulted in six cells. The stratification was done because of the greater homogeneity of some of the key study variables in the restaurant sector and the overwhelming number of I-213 forms for Mexican nationals in the INS Chicago files. For each month in 1983, the I-213 forms for male illegal aliens with an "identifiable" employer were separated into the six strata and systematic sampling was employed. For employers identified by more than one sampled alien, random sampling was used to select only one identifying alien.

The general sample of employers was developed by systematic random sampling of directories within each of the three industries. The sources for establishments in the Chicago SMSA were the Illinois Manufacturers Directory (1984), the Illinois Services Directory (1984), and restaurant listings in the telephone directories for the Chicago SMSA.

A double-blind interviewing procedure was used. The interviewers were told that the purpose of the study was to learn about the hiring needs and practices of employers in different types of industries, and that the employers had been randomly selected from various directories and listings for the Chicago metropolitan area. The specific directories and listings were not mentioned and at no time were the interviewers informed that a portion of the sample had been taken from INS records. The establishments were provided the same information as the interviewers regarding the nature of the study and the source of the sample cases.

The questionnaire was designed to obtain a wide range of data regarding the characteristics of the establishment and the workforce. The survey instrument began with general questions regarding ownership, member of employees, their racial and ethnic composition, schooling level, provision of on-the-job training, unionization and wage rates, among other variables. A set of questions on hires, number employed, and reasons for terminations were then asked for several demographic groups--young workers, older workers, adult males, adult females and "recent immigrants." Recent immigrants were defined as individuals in the U.S. less than five years. There were no direct questions about the hiring or employment of illegal aliens. Among other questions on hiring requirements, the employers were asked whether newly hired workers are required to show their "green card" (immigrant visa) if they are immigrants or to report their social security number. Among the categories for why recent immigrants left the establishment was apprehension by the INS. Otherwise the questionnaire did not indicate an interest in illegal aliens.

The interviewers were instructed to seek a face-to-face interview.² If the respondent seemed hesitant, the interviewer was to offer the respondent a summary of the survey findings.³ A second procedure to avoid a refusal was to offer to conduct the interview by telephone if the interviewer thought that a telephone interview was feasible. Lastly, a monetary incentive of \$15 for the establishment could be offered as a token compensation for the respondent's time. Interviewers were instructed to offer the stipend only after having exhausted all other alternatives for gaining cooperation and and only when the respondent indicated he or she was "too busy to spare the time," "could not waste company time" or gave similar reasons for refusing to be interviewed. To discourage interviewers from offering the stipend too readily and because of the potentially high cost of such an open-ended offer, the interviewers knew in advance that each had a maximum limit of 6 stipends that could be given.

III-Evaluation of the Survey Methodology

In this section the survey methodology is evaluated to determine the effectiveness of the procedures, and insights that would be useful for future employer surveys, particularly on potentially sensitive topics.

(a) Eligible Establishments

The INS Record of Deportable Alien (I-213) was used to identify establishments known to have employed an apprehended illegal alien. The probability that an establishment is in this sample is directly related to the proportion of illegal aliens in its workforce and the number of employees. Both factors are relevant if the probability of an illegal alien being apprehended is purely random, but they are even more important if INS targets its enforcement activities towards establishments believed to be employing a larger number of illegal aliens.

The other employers were randomly selected from industry-based directories of establishments. For these establishments the probability of being sampled is independent of the number of employees, except to the extent that size may influence inclusion in the directory listing.

Therefore, the two sampling frames offer different probabilities of selection as a function of the establishment's size. This influenced the proportion of sample cases classified as ineligible because they had five or fewer employees. In the INS sample, 19 establishments out of the 292 sample cases (6.5 percent) were identified as having 5 or fewer employees, in contrast with the 67 establishments out of 371 sample cases (18.1 percent) in the general sample. This same phenomenon undoubtedly influenced the finding that the average number of employeees in the INS sample exceeds that in the directory sample.

The general sample also included a larger proportion of cases where, in spite of a name and address, it was not possible to locate the establishment. This may have arisen because of the greater proportion of smaller firms (some of which may have closed or moved without leaving an easily obtained forwarding address) and because the "current" directory listings were older than the INS arrest records.

(b) Locating the INS Sample of Establishments in Directories

The INS sample included only employers for whom sufficient information was provided by the alien so that the employer might reasonably be located. Through telephone listings and interviewer visits to the address it was possible to locate nearly all of the employers. Yet, for various reasons, relying on telephone listings alone would have proved inadequate. It was not possible to locate in telephone directories a surprising 31.2 percent of the establishments. Nearly all of the restaurants were identified in phone directories (only 1 percent not identified), but 29 percent of the manufacturing establishments and a surprising 61 percent of the "other service" establishments could not be located in telephone directories. Within industry categories there was no significant difference between establishments identified by a Mexican or a non-Mexican illegal alien in the proportion located in phone directories.

In some instances the respondent may have provided a different company name than is used in the phone listing. In service industries, such as lawn care, the establishment's "location" may be ambiguous and hence the greater difficulty in locating the establishment.

These findings suggest potential difficulties in using phone directories as a sampling frame for employer surveys in manufacturing and especially in service industries other than restaurants. They also suggest the difficulty of trying to computer-match establishments identified from two separate sources based on surveys or administrative records. Supplementing telephone listings with interviewer visits was responsible for the final high match rate.

(c) Interview Completion Rates

Among the 497 establishments deemed eligible for an interview and for whom interview attempts were made, 76 were classified as refusals and 421 were actually interviewed. This is an interview rate of 85 percent overall, 84 percent in the INS sample and 85 percent in the general (directory) sample. No interviews were terminated before the final questions.

Of the 421 interviews, 15 were classified as "partial interviews" because of the large amount of missing data. Interviews were classified as partial if 20 percent or more of the responses were "don't know," blanks or invalid codes. Excluding partial interviews, the "completion rate," defined as complete interviews (406) divided by total interviews and refusals (497), was 82 percent. The rate is 79 percent in the INS sample and 84 percent in the general sample.

The completion rate may also be defined very conservatively as the number of completed (non-partial) interviews (406) divided by the total number of cases not deemed to be ineligible (524). For a variety of reasons, a dispositon of interviewed, ineligible or refused could not be given at the close of the field period for 27 establishments. Some of these establishments had been contacted but requested a scheduling of the interview beyond the field period, others requested to be called back, and for some others the appropriate respondent had not yet been identified. Calculating the conservative completion rate, 77 percent of the establishments were completed interviews, 76 percent in the INS sample and 79 percent in the general sample.

Although it had been expected that employers of illegal aliens would be much more hesitant about participating in a survey of hiring practices than randomly selected employers, the very small (and statistically insignificant) difference in each of the measures of completion and interview rates suggests that this was not the case.

(d) The Incentive Stipend

An "incentive stipend" was one method used by the interviewers to encourage respondent cooperation. Interviewers were instructed to offer the establishment a \$15 stipend for the time of the respondent as a last ditch effort to prevent a refusal. For many small firms this would in effect be a direct payment by check to the respondent/owner. The open-ended nature of the potential financial obligation was a considerable concern. In addition to emphasizing to the interviewers that the incentive was to be only as a last resort, each interviewer was given a survey maximum of only 6 stipends that could be accepted by employers.

Of the 601 applicable situations, the stipend was offered in only 32 instances. The interviewers were far more cautious than had been expected. With this caution it is reasonable to assume that among these 32 establishments interviews would not have taken place if not for the offer of the stipend. Interestingly, 17 of the 32 establishments (53 percent) offered the incentive consented to be interviewed and resulted in a completed questionnaire. Most surpising, however, was the fact that 14 of the 17 who consented declined to accept the funds. The stipend was actually granted in only three instances.

The stipend was accepted by two small manufacturing establishments (average size 16 employees) and one large service establishment (197 employees). On average there was no difference in firm size between the 3 establishments that accepted the stipend and the 14 influenced by the incentive but who did not accept it. There was also no pattern between acceptance of the stipend and whether the establishment was privately owned or part of a (non-family) corporation. There was, however, an effect of whether the respondent was an owner (sole owner or partner) or an employee. Of the 4 owner-respondents, two accepted the stipend, whereas of the 13 employee-respondents only one accepted the stipend.

The interviewers reported that the offer of a stipend seemed to convey to the respondent a greater sense of seriousness or professionalism regarding the survey, thereby eliciting a more favorable response. The magnitude of the stipend was presumably sufficiently small that the actual receipt of the funds was generally not a consideration. The combination of offering a modest financial incentive as a last-ditch effort to prevent a refusal and the limit on the number of stipends each interviewer could grant appears to have been a successful low-cost technique for discouraging refusals.

(e) Reworking Refusals

The procedures developed for reworking initial refusals also appear to have been successful. Of the 126 initial refusals it was concluded that 24 were not likely to be converted, primarily because the respondent indicated that it was against company policy or the company's attorney advised against participating. Based on their characteristics, the other establishments were assigned to be reworked either by another one of the Chicago-based face-to-face interviewers, by an Urbana telephone interviewer, or by the Chicago coordinating staff.

Overall, 45 of the 102 establishments assigned for reworking consented to an interview. This resulted in a refusal conversion rate of 36 percent (45 out of 126). As there were 4 partial interviews, the refusal conversion rate for complete interviews was 33 percent (41 out of 126).

Although the sample size is small, the ratio of partial interviews to all interviews was higher in the refusal conversion than in the full sample, 8.9 percent as compared to 3.6 percent. This is not surprising since these establishments were initially less inclined to grant an interview.

It is not possible to evaluate the separate effectiveness of the three procedures for reworking refusals since the assignments were not random. For example, although the Chicago coordinating staff had the lowest conversion rate, they were also assigned the establishments that were viewed as the most difficult to interview. Overall, however, the refusal conversion procedures appear to have been successful and worth the additional effort.

(f) Item Non-Response

Item non-response can be a serious limitation on the usefulness of survey data. Beyond some point, extensive item non-response is functionally equivalent to refusing to participate. Although some surveys and censuses impute values for non-response, this was not done for this survey.

Item non-response may arise for two fundamental reasons. One is that the respondent, in truth, does not know the answer or has only such vague information that the respondent does not wish to offer a specific response. These are the truthful "Don't know." The other is that the respondent knows the answer but refuses to reveal the data. It is difficult to disentangle reasons for item non-response. Although both types of item non-response are evident in this survey, in general the response rate to individual questions was very high.

Partial Interviews--On the basis of item non-response, 15 of the 421 interviews were classified as partial interviews. This classification was done without regard for the sample from which the employer was selected and was based on pre-determined criteria.

The 15 partial interviews included 11 from the illegal alien sample (7 manufacturing firms, of which 5 were identified by a Mexican alien, and 4 in other services identified by a Mexican alien) and 4 from the general sample of employers (1 manufacturing, 3 other services). The proportion of partial interviews, that is, partial interviews as a percent of all interviews, was 5.4 percent for the illegal alien sample, 6.9 percent for the Mexican aliens and 2.7 percent for the non-Mexican illegal aliens. The rate was 1.8 percent for the general sample. Although these differences are small, they are suggestive of greater difficulty in eliciting responses from the employers of Mexican illegal aliens, even though neither they nor the interviewers knew the source for the indentification of the employers or the survey interest in illegal aliens. Partial interviews were nearly equally frequent in manufacturing and other services,

but did not arise in the restaurant sector. <u>Completed Interviews</u>—Among the 406 interviews classified as complete, the item non-response rates were very low for nearly all questions.

The establishments had the greatest difficulty responding to the question on the educational distribution of those currently employed. The non-response rate for the educational distribution of current employees was 12.3 percent overall, 16.6 percent for the INS sample of employers and 8.5 percent for the general sample. It is not obvious that this is reflecting a reluctance to answer the question. It is to be expected that employers, particularly with a large immigrant component of the workforce, would be less knowledgeable about the level of formal schooling of their workers than many other characteristics. Both sets of employers had some difficulty, although less so, responding to the question on wages paid by educational level. The non-response rate for this set of questions was about 5 percent in each sample.

The number of days of training required for a newly hired worker to learn to do well the most common male non-supervisory job also generated some difficulty, particularly if the worker did not have prior experience. The non-response rate was 5 percent if the worker was experienced in the job and 10 percent if the worker had no previous experience. This may reflect the greater difficulty in specifying the number of days of training required for workers with greater variation in prior work experience. The reasons why adult men and women left the establishment also had high item non-response rates, but these too may reflect truthful answers.

Perhaps the most important difference in item non-response rates between the sample of illegal alien employers and the general sample is the greater proportion of the former who did not respond to the question on the current employment of recent immigrants (i.e., immigrants in the U.S. less than five years). The rates were 8 percent and 4 percent, respectively. Item non-response rates were lower for the question on the number of recent immigrants hired in the past year. The high non-response rates in the general sample for why male and female recent immigrants left the establishment in the past year are not statistically reliable because of the very small number of these establishments that reported the departure of any recent immigrant workers. Part of the difficulty employers had with the "recent immigrant" questions may be a consequence of their not knowing how long their foreign born workers have been in the U.S.

IV. Summary and Conclusions

This paper discussed the rationale for a survey of the employers of illegal aliens. These employers were identified by an apprehended illegal alien on the INS Record of Deportable Alien (I-213) completed in the INS Chicago District Office in 1983. A parallel sample of establishments was selected from standard directories. Stratified random sampling was used.

The resulting research data file is unique. It includes matched employee-employer data--data on the employee (illegal alien) from the I-213 and on the employer from the establishment survey. It also includes establishment data obtained in an identical manner from establishements identified by an illegal alien and those randomly selected from standard directories.

The survey methodology for interviewing was no difficulty in obtaining the target of at least 400 completed interviews from the 663 establishments selected in the sampling procedures. There were 406 completed interviews, excluding 15 interviews classified as partial interviews because of missing information.

The conservative completion rate, that is, completed interviews as a percent of all cases not known to be ineligible, was 77 percent overall. It was 76 percent in the INS sample and 79 percent in the general sample. Thus, the samples did not differ in the interview completion rate.

The probability that an establishment would be in the INS sample is a positive function of the number of employees, but this is not the case for the general sample. As a result, the number of ineligible establisments (fewer than 5 employees) is greater in the general sample, and the average number of employees in the eligible establishments is larger in the INS sample.

An attempt to locate establishments indentified on the INS I-213 forms solely by telephone directories demonstrated the difficulty of matching establishments identified in separate administrative records. Supplementing telephone listings with interviewer visits was responsible for the very high final match rate.

Although partial interviews and item nonresponse were more common in the INS sample, the differences were very small. Item non-response rates were generally very low, although establishments had some difficulty with certain questions. These included reporting the level of schooling of their current workers, wages by schooling level, reasons why employees left the establishments, and current employment of persons who were "recent" immigrants.

Offering a small (\$15) stipend to the establishment if it seemed that a refusal was likely appears to have been a successful low cost procedure. The quota on the number of stipends each interviewer could grant encouraged the interviewers to use it selectively. The offer seems to have conveyed a greater sense of seriousness and professionalism, even though 14 of the 17 establishments who consented to the interview only after the offer of the stipend declined the funds. Acceptance of the funds was more likely if the respondent was also the owner. The survey procedures developed for this project appear to have been very successful for generating a unique data file that has led to many insightful research findings on the illegal alien labor market. The survey methodology could be applied elsewhere for the study of illegal aliens. In addition, many features of the methodology could be used fruitfully for surveys of employers on other sensitive issues.

Notes

¹This paper is based on the University of Illinois Survey Research Laboratory (SRL) project, Illegal Alien Employer Survey. Invaluable project support was provided by Diane Binson (project coordination and data reduction supervisor), Johnny Blair (sampling) and Karen Corrigan (field coordinator). The survey and analysis were funded by a grant from the Sloan Foundation, with supplementary support made available by the Hoover Institution during my appointment as a Visiting Scholar. For a more detailed discussion of the procedures and the analysis of the data, see Chiswick (1985a). For a few highlights see Chiswick (1985b). The data file is available upon request from the Social Science Data Archive, University of Illinois at Chicago.

²Preference was to be given to face-to-face interviewing, although in certain circumstances telephone interviews were conducted. Initial contacts were by a letter from the Principal Investigator, followed by either a telephone or in-person contact by the interviewer. The interviews were to be conducted with the person at the establishment who was in charge of hiring for the most typical male non-supervisory job. Since most of the initial contact of the employers by the interviewers was to be by telephone, the face-to-face interviewers were chosen for their skills in face-to-face and telephone interviewing.

³Offering a summary of findings written in non-technical terms that would be relevant for the respondent's industry generated considerable interest. Of the 421 employers interviewed, 155 requested a summary of findings. The specially prepared summary included cross-tabulations of wages, unionization and other variables by industry and size of establishment, without reference to illegal aliens.

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