

COSTS AND BENEFITS OF ILLEGAL IMMIGRATION: KEY ISSUES FOR GOVERNMENT POLICY¹

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ILLEGAL IMMIGRATION INTO THE UNITED STATES WOULD APPEAR TO HAVE increased at an explosive rate over the past decade. According to the Immigration and Naturalization Service (INS) records, 105,406 aliens were required to leave the country during fiscal 1965, whereas by fiscal 1976, this figure had grown to 793,092. In fact, the number of expulsions during fiscal 1976 actually exceeded the number of legal immigrants in the United States by a multiple of approximately two (U.S. Immigration and Naturalization Service, 1976). A portion of this large increase in expulsions may be attributed to the increased vigor with which INS enforces the U.S. immigration statutes. However, the largest share seems to be best explained by the rapidly increasing stock of illegal migrants available for apprehension.

Although this evidence is incomplete, considerable public pressure has been generated in favor of government action to reduce the inflow of illegal aliens. Academic attention has focused on researching the past history of U.S. immigration policy, and on determining the characteristics of illegal aliens and the reasons why they have come to the United States.² Such analyses provide a useful background for considering yet another important aspect of this complex situation: the consequences of greater immigration on the distribution of income in the United States.

The purpose of this paper is to build on these insights in order to develop a general equilibrium model that will highlight the often conflicting interests of different labor groups and capital owners. While the model presented below may seem overly technical and at the same time simplistic, a primary advantage of such an approach is that the relative importance of several factors that operate simultaneously can be readily assessed, and key trade-offs among these factors can be identified. The

¹ The authors thank William Schulze for constructive comments and Donna Lake for editorial assistance.

² Recent contributions to these two areas of the literature include the following: (1) the historical and institutional framework (Abrams and Abrams, 1975; Bustamante, 1972; Domestic Council Committee on Illegal Aliens, 1976; Fogel, 1977; and Zolberg, 1977) and (2) why they are coming and how many are really here (Goldberg, 1975; Frisbie, 1975; Ladman, 1976; Moore et al., 1975; Portes, 1978; and Stoddard, 1976).

economic repercussions that occur as resources are moved out of some industries and into others produce results that are by no means intuitively obvious. In fact, the conclusions drawn here suggest that intuition alone may be a poor foundation for predicting changes in wages and output.

The distributional consequences of greater immigration are also summarized below. Not surprisingly, workers whose skills are most similar to those possessed by illegal alien labor will suffer a decrease in their wage rate. However, the analysis also demonstrates that a change in the rate of illegal immigration will not have an unambiguously favorable or unfavorable impact on the economic interests of either the remaining members of the labor force or the owners of capital. This indeterminacy is particularly interesting because the nominal returns of the two groups move in the opposite direction. That result is relevant in explaining the way sides have been drawn in the heated congressional debate over public policy measures, such as Representative Rodino's proposal to fine employers of illegal aliens.

While distributional consequences would seem to dominate any analysis of government action taken to deal with illegal immigration, another relevant issue to be considered is the effect on total national output. That question will be dealt with very briefly. The focus on national welfare is also a useful standpoint from which to consider two alternative methods of restricting illegal entry, either through more vigorous border patrol activity, or through Rodino's proposed system of fines. Reasons for favoring one policy over the other will also be discussed.

MODELLING THE IMPACT OF ILLEGAL IMMIGRATION

Obviously, it would be desirable if this analysis were able to treat the entire illegal immigration question from a national viewpoint. Unfortunately, because of the extreme diversity in these individuals with respect to national origin, demographic characteristics and labor market skills, this objective is simply too ambitious. As a consequence, the model described below is applied only to questions involving illegal immigration from Mexico into the southwestern United States. This particular application was chosen for three reasons. First, Texas, New Mexico, Arizona and California appear to receive far more illegal immigrants than the remaining states combined. Second, the illegal entrants into these four states are largely, if not exclusively, of Mexican descent. Third, the Mexican illegals are a considerably more homogeneous socioeconomic group than is the total population of illegal migrants to the United States.

Recognizing the homogeneity of the illegal Mexican migrant population with respect to labor market skills is an especially useful starting point in modelling their impacts in the southwestern U.S. Empirical

justification for this characterization comes from studies by Samora (1971), North and Houston (1977), Cornelius (1977), Villalpando (1977) and Dagodag (1975). These studies indicate that illegal aliens from Mexico tend to be poorly educated young males from an agricultural background. These migrants generally do not reside in the U.S. permanently. Rather, they return to Mexico periodically to maintain contact with their families. Due to this combination of circumstances, illegal Mexican immigrants work largely in the agricultural, service and light manufacturing sectors of the economy, jobs that require relatively few skills and where turnover rates are high.

The formal model, which extends the work of Jones (1965, 1971), hypothesizes an economy that produces two final goods, X_1 and X_2 , using three factor inputs. One factor is assumed to be employed only in the production of X_1 , another factor is assumed to be employed only in the production of X_2 , while the third factor is utilized in the production of both goods. In Jones's work, the two industry-specific factors are assumed to be different types of land or capital, and the factor common to both sectors is labor. The relevant distinction here is between two different types of labor that are used with the common factor, capital. This distinction between labor markets might be interpreted as reflecting a difference in skills required in the two sectors, or as depending upon institutional differences more fully discussed in the dual labor market literature (see Cain, 1976). With respect to more explicit labels for these sectors and factors, one sector, X_1 , is assumed to represent the agricultural, service and light manufacturing segments of the economy, which generally requires less skilled workers. Illegal aliens work predominantly in this sector.

Production in both sectors of the economy is assumed to occur under constant returns to scale. In addition, each sector is assumed to be perfectly competitive, so that entrepreneurs earn zero profits and so that price equals marginal cost. Factor markets also are assumed to be perfectly competitive, which implies that there is no involuntary unemployment, and that all factor supplies are taken as fixed.³

The demand side of the model is not developed as thoroughly as the production side, since the latter effects are the more critical ones to be captured initially. All individuals are assumed to have similar tastes and are aggregated to give market-demand curves for output from the two sectors. No distinction is made between legal residents and illegal aliens, which implies that the combination of goods that illegal migrants consume in the U.S. and take back to Mexico are similar to what legal

³ A more complete analysis is available from the authors that allows all factor supply elasticities to be greater than zero. The qualitative results derived in that situation are similar to those explained here, but somewhat more complex since real wage changes must be calculated to project the various factor supply shifts and consequent output changes.

residents consume in the U.S.⁴ That condition can be relaxed quite easily if separate consumption patterns can be specified.

An important distinction is that no special attention is paid to demand and labor market conditions in Mexico. Obviously, such an approach would be inappropriate if the major focus of this paper were to explain why illegal aliens come to the United States. Even given the present objective of analyzing the economic implications of illegals once they are in the United States, this shortcut requires that emigration from Mexico will not create any labor shortages which would drive up Mexican wages and affect prices of goods produced in Mexico. If those price effects were to occur, then more traditional international trade analyses would be relevant, which consider terms of trade effects from labor migration, as well as the optimal combination of income tax and tariff policies to maximize national welfare (Kemp, 1969; Casas and Scully, 1972). The high levels of unemployment that have existed in Mexico make that approach less appropriate. Instead, the major price and redistributive effects that result from illegal immigration occur as a result of the greater production of nontraded goods in the U.S., a situation which is illustrated in the model developed here.

By setting quantity supplied equal to quantity demanded in all factor and output markets, and by imposing the full employment and marginal cost pricing conditions mentioned above, the model can be solved in terms of the following endogenous variables: output in both sectors, relative output prices, the returns to labor in both sectors and the return to capital.

PROJECTED EFFECTS OF INCREASED ILLEGAL IMMIGRATION

This section describes the effects on the model's endogenous variables that occur in response to a change in the rate of illegal immigration. In particular, the effect on the output of X_1 , the relative price of X_1 and the wage paid to Sector 1 labor are unambiguous and these results are reviewed first. However, the impact on the output of X_2 , the wages paid to Sector 2 labor and the return to the owners of capital cannot be predicted so conclusively. Consequently, the effects upon these three endogenous variables of a change in the rate of illegal immigration will be accorded somewhat more attention in order to show how these ambiguities arise. Finally, the appropriateness of the stances on the illegal alien question taken by various trade and labor groups will be analyzed in light of the model's projections.

Before discussing the distributional consequences of illegal immigration

⁴ This discussion of repatriated earnings may seem unfamiliar since immigrant remittances often are thought of as financial flows. The difference is more apparent than real, since those financial claims generally are traded for goods, a result which is useful in a model that has no monetary sector.

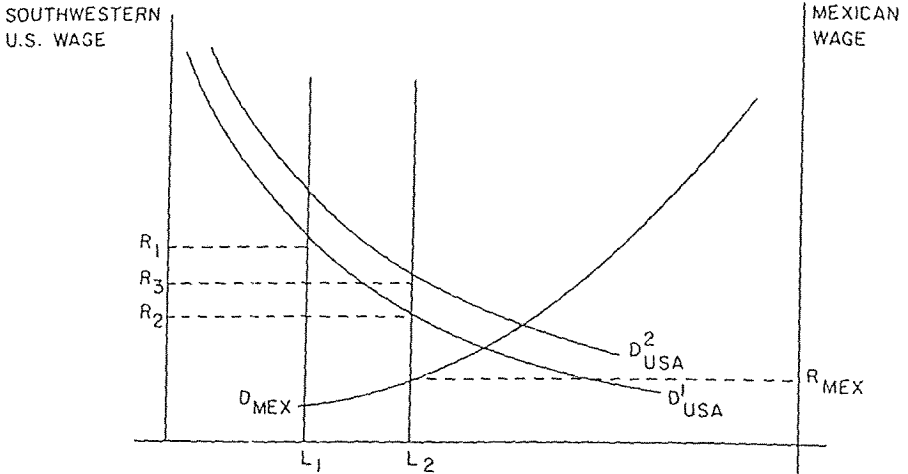
that are implied by this model, a benchmark can be established by summarizing the conclusions reached by previous writers on this subject. These conclusions can be classified according to whether they support one of two polar hypotheses. To illustrate, Briggs (1975a, 1975b) has articulated what might be termed the replacement hypothesis. He has asserted that illegal aliens take jobs that otherwise would be held by domestic workers. In addition, Hartley (1972: 66) has supported this view, which appears to be consistent with the position taken by the AFL-CIO, in arguing that illegal aliens work: ". . . as farm laborers and in factory 'sweatshops.' They displace low income American workers, hampering unionizing efforts, encourage employers to disregard wage, hours, and working conditions statutes and generally depress the labor market." Other writers, such as Abrams and Abrams (1975), Gordon (1975) and Nafziger (1975), have taken virtually the opposite view by arguing that jobs occupied by the illegal aliens are, by American standards, low-wage, periodic and relatively undesirable. Therefore, these jobs are not of the type that would be of interest to U.S. workers. The statement of Abrams and Abrams (1975: 25) is typical: "As to the assertion that illegal aliens take jobs away from Americans, there is a . . . lack of evidence. Certainly it is *not* logical to conclude that if they are actually employed they are taking a job away from one of our American citizens; the fact that a sizeable number of illegals have or could get labor certifications belies that 'logic' and indicates that many illegal aliens are filling shortages that even the Labor Department considers genuine." This argument, which might be called the segmentation hypothesis, assumes that American workers are insulated from the direct employment effects of illegal immigration.

Both the replacement and segmentation hypotheses stand in contrast to the implications of the model presented in the preceding section. The model suggests that when illegal immigration increases, the wage received both by illegal aliens and by competing legal workers in Sector 1 will fall. This decline in the cost of production X_1 gives entrepreneurs an incentive to expand output, although some reduction in the relative price of X_1 must occur in order for the increased output to be sold. Given the particular interest in distributional issues, a graphical analysis of this result is presented that allows the results of the model to be compared directly with the predictions of the replacement and segmentation hypotheses.

Figure 1 is an adaptation of MacDougall's (1960) analysis of international investment. The left-hand vertical axis shows the wage received by workers in Sector 1 and the right-hand vertical axis indicates the wages earned by their counterparts in Mexico. In addition, the two demand curves for unskilled labor are those for Mexico (D_{MEX}) and for the southwestern U.S. (D_{USA}). On the horizontal axis, the stock of unskilled labor is measured for the two areas combined; the original

FIGURE 1

The Market for Unskilled Labor in the Southwestern U.S. and Mexico



distribution of labor is shown by L_1 . Initially, this market is assumed to clear in the U.S. at wage rate R_1 while involuntary unemployment exists at the prevailing Mexican wage R_{MEX} .⁵ In response to this unemployment problem, Mexican migrants enter the U.S., shifting the distribution of unskilled labor from L_1 to L_2 . As Figure 1 indicates, this shift leaves the Mexican wage unchanged at R_{MEX} while the U.S. wage may at first appear to fall from R_1 to R_2 . However, because of the decline in the relative price of X_1 , output of X_1 rises, causing a shift in the demand

schedule from D_{USA}^1 to D_{USA}^2 . This implies that the equilibrium wage received by unskilled labor will be R_3 where $R_2 \leq R_3 \leq R_1$.

The segmentation hypothesis, that Americans cannot be found who are willing to perform the work done by illegals, is captured by this framework.⁶ Any increased demand for workers in Sector 1 cannot be met at

⁵ This assumption regarding the labor market in Mexico appears to be justified, since official estimates of the unemployment rate are in excess of 25%. In many rural areas, from which many of the illegal immigrants come, unemployment rates are often even higher.

⁶ A more extreme representation of the segmentation hypothesis would be to claim that there is no initial supply of competing unskilled workers in the United States. The situation represented in Figure 1 is no longer relevant, but the subsequent discussion of other economic effects experienced by U.S. capital and skilled labor still holds. In fact, the magnitudes of these other effects become even larger.

constant wages unless additional illegal aliens enter. Under these circumstances employers will complain that Congress must relax standards limiting the inflow of Mexicans. The replacement hypothesis, that illegal aliens take jobs that legal residents could fill instead, must be based on a radically different view of the situation. That possibility arises if the wage rate in Sector 1 is not determined as a result of competitive supply and demand forces, but instead is set at some higher rate, perhaps through union negotiations or minimum wage rate standards. In that case, greater illegal immigration may not reduce the wage rate at all, at least in the short run. One outcome is that legal workers become unemployed. The displacement of labor is plausible, but for reasons beyond the scope of this model: illegals may have better work habits than competing legal workers (the two may receive equal wages but they are not perfect substitutes); or illegals may be forced to accept lower wages, perhaps, through threats of deportation (there is not a uniform wage paid for the same work performed). Such rationalizations are necessary to extend the argument beyond the situation implied in the diagram. Either the legal or the illegal may become unemployed where unemployment occurs.

The present discussion is not intended to resolve the controversy over the effect of increased illegal immigration on the wages and employment prospects of competing legal workers. Interestingly enough, both polar cases give similar qualitative answers: either wages or employment of legal workers will be less than would have been the case in the absence of greater illegal immigration. Instead, the unresolved distinction between the two interpretations might rest on the assessment of how many competing legal workers there are.

This latter issue is especially relevant in the model utilized here, because explicit attention is paid to the wages received by labor in the other sector of the economy. If all other labor is also adversely affected by increased immigration, an exact labelling of who competes with illegal aliens may not be so important. Craft unions as well as the United Farm Workers may have an incentive to testify in favor of measures to reduce the inflow of illegal immigrants. On the other hand, if labor in Sector 2 actually becomes better off as a result of increased illegal immigration, the relative size and political strength of the two different groups of legal workers become important since their economic interests diverge.

The direction of change in the output of X_2 , the return to labor in Sector 2, and the return to capital cannot be predicted *a priori*. Rather, the results depend upon a critical condition involving the size of the elasticity of demand for the output of Sector 1, and the elasticity of substitution between capital and labor in Sector 1. The reason that these two parameters turn out to be so important can be illustrated most easily by examining Figure 2, which demonstrates whether Sector 1 releases or absorbs capital when illegal immigration increases. These

two possibilities are discussed in turn. Regardless of whether the return to capital rises or falls, the fall in the wage paid to unskilled labor will always be relatively greater in the new equilibrium after illegal immigration has increased.⁷ Consequently, there will be an incentive to substitute labor for capital in Sector 1, a result that is shown by a movement from A_1 to A_2 along the isoquant I_1 , which indicates the initial level of production in Sector 1. Capital is released to be utilized in Sector 2. The opposite effect is shown by a movement along the new expansion path through A_2 out to A_3 . This shift is caused by the increased demand for X_1 at the lower price, which will occur after illegal immigration has increased. The extent of this increase in demand will be greater, the larger the income-compensated elasticity of demand for Sector 1 output, Ψ , the greater the share of income spent on that output, Π_1 , and the greater the income elasticity of demand for it, η_1 . The expression that combines these terms is simply

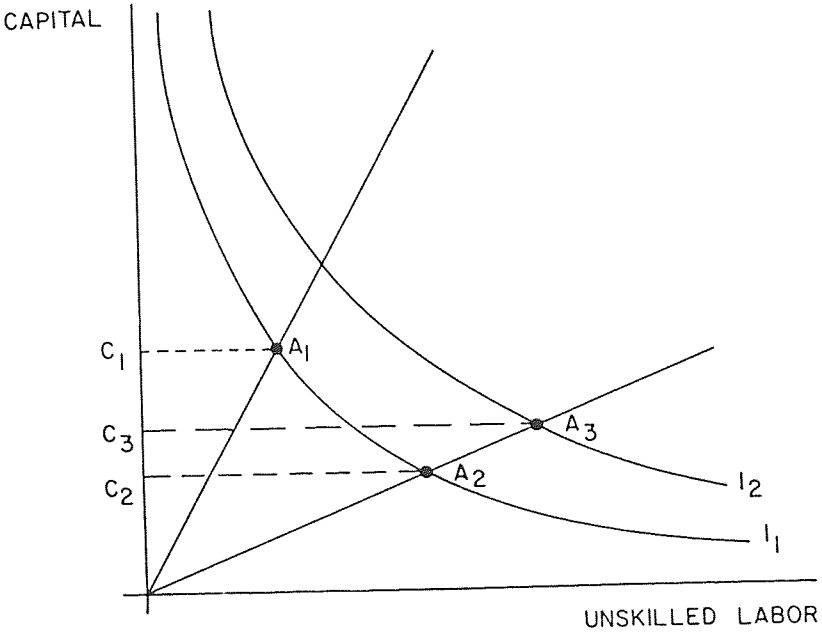
$$\alpha_{11} + \sigma_1 \begin{matrix} < \\ > \end{matrix} 0; \quad \alpha_{11} = \Psi_1 / (1 - \Pi_1 \eta_1) \quad (1)$$

where σ_1 is the elasticity of substitution between labor and capital in Sector 1. When the output-demand elasticity dominates, then capital must be transferred out of Sector 2 and into Sector 1. Since capital now is used with relatively more industry-specific labor in each sector, its return rises. Output in Sector 2 falls, as does the return to labor in that sector, since labor is used with less capital, causing its productivity to decline. In the converse situation, when the elasticity of substitution dominates, then capital is released from Sector 1, both output and the wage paid to labor in Sector 2 rise and the return to capital falls. This last case, where σ_1 dominates α_1 dominates α_{11} , is depicted in Figure 2. The new equilibrium position in Sector 1 is A_3 , where the quantity of capital in use has declined from C_1 to C_3 .

This analysis has shown that if illegal immigration continues, then wages of the industry-specific labor in Sector 2 will fall (rise) if the returns to capital rise (fall). As demonstrated above, the wage paid to labor in Sector 1 will fall unambiguously. Therefore, if α_{11} dominates σ_1 (which is just the condition under which Sector 2 labor is harmed) then groups representing either type of labor might be expected to join forces in support of proposals that would limit illegal immigration, while groups representing employers should find themselves taking the opposite stance. In reality, the battle lines on such proposals have been just this sharply drawn. On the one hand, organizations such as the National Restaurant Association, the National Council of Agricultural Employers and the American Farm Bureau have testified in opposition to measures that would force employers to police the labor market. In addition, the

⁷ A demonstration of this result, and others cited in the paper, is given in a technical appendix available from the authors.

FIGURE 2
The Absorption or Release of Capital from Sector 1



American Farm Bureau has taken the following stand in favor of relaxing current restrictions on employment of aliens (U.S. Senate, Committee on Judiciary, 1976: 174): "We favor reconsideration of a contract labor program under agreement between the United States and other countries, which would provide for legal and orderly entry of needed workers. . . ." On the other hand, labor organizations, such as the AFL-CIO, have lent strong support to restrictive entry legislation because, as Andrew J. Biemiller stated (U.S. Senate, Committee on Judiciary 1976: 149-50): "The net effect of the illegal's presence in the job market has been to depress and maintain low wage levels and substandard living conditions for American citizens. . . . Obviously too, the effectiveness of the rights of union organizations and collective bargaining are seriously undermined." Therefore, this model suggests that both groups envision only limited possibilities for substitution between unskilled labor and capital in the production of X_1 .

CHANGES IN COMMUNITY WELFARE

Is it possible to determine on balance whether the U.S. is better off when increased illegal immigration occurs? One approach that allows for economic efficiency effects alone, without any attention to changes

in the distribution of income, is to calculate the change in national output, and then to subtract the change in payments to illegal immigrants. The tendency for illegal aliens from Mexico to remain in the U.S. only temporarily was cited earlier, and because of this lack of permanent residence in the U.S., this measure excludes them from any national welfare calculation for the U.S. A contrary view is that the pool of illegals already in the U.S., irrespective of whether the individuals within the pool remain the same over time, should be included in any calculation of U.S. welfare. Under this latter standard greater illegal immigration is less likely to increase U.S. welfare, since one of the principal effects of greater immigration is likely to be the reduction of the wage received by illegals already in the U.S.⁸

Either measure will overstate the gains from greater immigration if negative externalities from it are substantial. Such externalities range from congested public facilities such as parks and schools, to higher crime rates and greater requirements for police and fire protection, to transfer programs that result in a net outflow of funds to individuals who are not part of the group of legal residents over which national welfare might be maximized. Clear evidence regarding these points is limited, although Cornelius estimates that the U.S. receives more in income and Social Security tax payments than it provides in benefits. Because of the ambiguity of current evidence, these issues were not incorporated in the model described earlier, nor are they given further consideration here. However, their potential importance should still be recognized.

Ignoring externalities, national welfare rises with increases in illegal immigration according to the previously described model. Real output available to legal residents increases because of the gain from paying less to illegals already here, a gain which dominates the terms-of-trade type loss from illegals being able to buy Sector 1 goods more cheaply. A second order effect is that capital becomes more productive since it now works with more labor. The latter factor is relevant only if all residents, legal and illegal, are regarded as the proper base for determining changes in U.S. welfare.

POLICY ISSUES FACING THE U.S.

Either an increase in Mexican unemployment at home or less stringent enforcement of U.S. border regulations has been assumed to lie behind the hypothetical increase of illegal immigrants into the U.S. Both factors are quite relevant, given the high and rising level of unemployment in Mexico and Congressional budgetary limitations imposed on INS,

⁸ For further discussion on the question of whether or not to include immigrants in domestic welfare calculations, see Reder (1963). Reder recommends exclusion because immigrants, provided they come voluntarily, always expect to benefit from the move.

which have adversely affected its ability to apprehend illegal aliens. While the situation in Mexico is beyond U.S. control, border enforcement is not the only policy dimension relevant to illegal immigration. For the last several sessions of the U.S. Congress, Peter Rodino has introduced bills that would impose fines on employers of illegal aliens. Although none of these proposals have become law, the State of California Labor Code, which recently withstood a U.S. Supreme Court challenge to its constitutionality, provides that an employer of illegal aliens can be fined up to \$500 for each offense.

In a model as simplified as the one described above, where all factor supplies are fixed and unresponsive to real wage rates, a tax (or fine) on employers of illegal aliens will have no effect on the number of illegal immigrants coming into the U.S. Rather, the result will be a transfer of the tax from illegal immigrants to the U.S. government, since the tax will be borne completely by the inelastically supplied factor. Under the more realistic case where the supply of labor is responsive to real wages, a portion of the fine will be borne by illegal aliens. Because of the reduced monetary incentive to come to the U.S., illegal immigration will fall and the pre-tax wage paid to unskilled labor must rise to some extent. The higher the tax, the greater the cut-back in illegal immigration and the greater the increase in Sector 1 production costs.

One particular advantage of the employer-fine solution is that the gap between the cost of labor to the employer and the amount received by labor is captured by the government. More stringent border enforcement could lead to the same gap between the U.S. wage paid and the amount that labor would be willing to accept. However, illegal aliens, or organizers who help them enter the United States, might be able to appreciate this rent instead of U.S. employers, and the net effect on U.S. welfare would not be as favorable as it would under the tax alternative.

A related issue to consider is the optimal size of any fine and degree of restriction of immigration. National welfare may rise when illegal immigration increases, but an even greater improvement in U.S. welfare might be obtained if the flow of illegal aliens were limited below the unrestricted level. While total output would fall, as would correspondingly the potential joint gain to the U.S. and Mexico, the share of the restricted output going to the U.S. might rise considerably if illegals were to receive sufficiently lower wages than their legal counterparts in the U.S. While this policy may sound highly exploitative, such a characterization is somewhat misdirected, since illegals who enter the U.S. do so voluntarily. More to the point, this same potential to discriminate between legal and illegal workers already exists, but the government simply collects no money in the present situation where entry into the U.S. is restricted.

Under a system of fines that raises the cost to employers of using illegal labor, some portion of the fine will be borne by the illegals, too. Both

the share passed back onto illegal aliens and the corresponding optimal fine at any point in time will be higher; when the elasticity of supply of illegal aliens is small, when both the elasticity of demand for Sector 1 output and the ability to substitute capital for labor in Sector 1 is large, when labor accounts for a large share of the value of Sector 1 output, and when the elasticity of supply of legal workers in Sector 1 is large. The elasticity of supply of illegals may appear to be fairly high on the basis of casual empiricism, but merely because there is little chance of finding employment in Mexico does not mean that all those who are unemployed will want to break personal and cultural ties to come to the U.S. This reticence is broken down as U.S. wages rise. For instance, the scheduled increase in the federal minimum wage to \$3.35 per hour by 1981 may make further illegal immigration attractive.

These comments are based on a rather static perception of the problem, since the supply function of illegals shifts over time as population trends and employment opportunities in Mexico change. While great hope has been focused on recent Mexican oil discoveries and their potential to spur Mexican economic development, any short-run analysis of the situation is likely to project a greater influx of illegal Mexicans. To pursue an optimal strategy of fines would call for an increase in the level of the fine over this time period.

This whole discussion reflects a simplified perception of the employer-fine alternative, because it assumes that employers are certain of being caught. Even in such circumstances, using illegals is still a rational policy for an employer. He may be fined and the illegal aliens deported, but the illegals may soon return and resume work for the same employer. In actuality, the expected cost of fines to be paid may be fairly small since inspection raids may be fairly infrequent.

In many respects the fine system would be comparable to a program where the employer bought a license from the government to hire illegal aliens, or alternatively where illegals bought green cards from the government. Again, the incentive for an employer to buy a license or the benefit to an illegal from having a green card would depend upon the likelihood of being caught without one. Therefore, irrespective of the exact administrative procedure by which the government gains revenue from the inflow of illegal aliens, effective enforcement of the system becomes a critical issue, and the cost of carrying out this enforcement cannot be ignored. Questions such as how large a border patrol to fund, or where immigration field investigators are best deployed to find illegal aliens already in the country, do not evaporate under the Rodino proposal. Rather, that proposal in part should be regarded as transferring income to the government from those who currently gain from the possibility to discriminate between legal and illegal workers—employers, organizers of the flow of illegals into the U.S., etc. Whether the flow of illegal aliens actually will be reduced as a result of such an

approach will depend upon the size of the fine imposed and the stringency with which employers of illegal aliens are detected and prosecuted.

SUMMARY AND CONCLUSION

This paper has attempted to model some consequences for domestic income distribution on an increase in the rate of illegal immigration into the southwestern U.S. Legal domestic workers who compete for employment directly with the incoming illegal aliens suffer a decline in their wage rate. However, the effects of such immigration on the rewards to the remaining members of the labor force as well as to the owners of capital are ambiguous. Nevertheless, the model indicates that if the reward to capital owners rises (falls), then the wage rate paid to the members of the labor force who compete only indirectly with illegal alien workers will necessarily fall (rise). This result explains why employer groups and employee groups have generally taken opposite stances on proposals to limit further illegal immigration. Due to conflicting interests of labor and capital owners, the effects of increased illegal immigration are also examined from the viewpoint of overall domestic welfare. If negative externalities, such as might arise through increased congestion in the consumption of public services, tend to be small, then illegal immigration will have a positive welfare effect in this country.

REFERENCES

- Abrams, E. and Abrams, F. 1975. "Immigration Policy—Who Gets in and Why?," *The Public Interest*, 41 (Winter): 3–29.
- Briggs, V. M. 1975. "Illegal Aliens: The Need for a More Restrictive Border Policy," *Social Science Quarterly*, 56 (December): 477–84.
- . 1975. "Mexican Workers in the United States Labour Market: A Contemporary Dilemma," *International Labour Review*, 112 (November): 351–68.
- Bustamante, J. A. 1972. "The Historical Context of the Undocumented Immigration from Mexico to the United States," *Aztlán*, (Fall): 257–82.
- Cain, G. C. 1976. "The Challenge of Segmented Labor Market Theories to Orthodox Theory: A Survey," *Journal of Economic Literature*, 14 (December): 1215–57.
- Casas, F. R. and Scully, G. S. 1972. "Temporary Labour Migration and the Theory of Optimal Intervention," *Oxford Economic Papers*, 24 (July): 166–79.
- Cornelius, W. A. 1977. "Illegal Mexican Migration to the United States: Recent Research Findings, Policy Implications and Research Priorities," mimeographed (Boston, Mass.: MIT.)
- Creagan, J. F. 1965. "Public Law 78: A Tangle of Domestic and International Relations," *Journal of Inter-American Studies*, 7 (October): 541–56.

- Dagodag, W. T. 1975. "Source Regions and Composition of Illegal Mexican Immigration to California," *International Migration Review*, 9 (Winter): 499-511.
- Dellon, H. N. 1966. "Foreign Agricultural Workers and the Prevention of Adverse Effect," *Labor Law Journal*, 17 (December): 739-48.
- Domestic Council Committee on Illegal Aliens. 1976. *Preliminary Report*. (Washington, D.C.).
- Fogel, W. 1977. "Illegal Alien Workers in the United States," *Industrial Relations*, 16 (October): 43-63.
- Fragomen, A. T. 1977. "1976 Amendments to Immigration and Nationality Act," *International Migration Review*, 11 (Spring): 95-100.
- Frisbie, P. 1976. "Illegal Migration from Mexico to the United States: A Longitudinal Analysis," *International Migration Review*, 9 (Spring): 3-13.
- Goldberg, H. 1975. "Estimates of Emigration from Mexico and Illegal Entry into the United States, 1960-1970, by the Residual Method," mimeographed (Washington, D.C.: Georgetown Univ. Center for Population Research).
- Gordon, W. 1975. "A Case for a Less Restrictive Border Policy," *Social Science Quarterly*, 56 (December): 485-91.
- Hartley, W. G. 1972. "United States Immigration Policy: The Case of the Western Hemisphere," *World Affairs*, 135 (Summer): 54-70.
- Jones, R. W. 1965. "The Structure of Simple General Equilibrium Models," *Journal of Political Economy*, 73 (December): 557-72.
- . 1971. "A Three-Factor Model in Theory, Trade, and History" in J. N. Bhagwati, ed., *Trade, the Balance of Payments, and Growth* (Amsterdam: North-Holland).
- Kemp, Murray C. 1969. *The Pure Theory of International Trade and Investment* (Englewood Cliffs, N. J.: Prentice-Hall).
- Ladman, J. R. 1975. "The Illegal Alien and Migration to the Northern Mexican Border States," mimeographed (Tempe: Arizona State Univ.).
- MacDougall, G. A. D. 1960. "The Benefits and Costs of Private Investment from Abroad: A Theoretical Approach," *Economic Record*, 36 (March): 13-35.
- Moore, J. W. et al., 1975. "The Role of Illegal Immigration in the Southern California Economy," mimeographed (Los Angeles: University of Southern Calif.).
- Nafziger, J. A. R. 1975. "Undocumented Aliens," mimeographed.
- North, D. S. and M. F. Houston. 1976. *The Characteristics and Role of Illegal Aliens in the U.S. Labor Market: An Exploratory Study* (Washington, D.C.: Linton and Co., Inc.).
- Portes, A. 1978. "Toward a Structural Analysis of Illegal (Undocumented) Immigration," *International Migration Review*, 12 (December): 469-84.
- Reder, M. W. 1963. "The Economic Consequences of Increased Immigration," *The Review of Economics and Statistics*, 45 (August): 221-30.
- Samora, J. 1971. *Los Mojados: The Wetback Story* (Notre Dame, Ind.: Notre Dame Univ. Press).

- Stoddard, E. R. 1976. "A Conceptual Analysis of the Illegal Alien Invasion: Institutionalized Support of Illegal Mexican Aliens in the U.S.," *International Migration Review*, 10 (Summer): 157-89.
- U.S. Immigration and Naturalization Service. 1977. *1976 Annual Report* (Washington, D. C.: U.S. Government Printing Office).
- U.S. Senate, Committee on the Judiciary. 1976. *Hearings on S. 3074: To Amend The Immigration and Nationality Act, and for Other Purposes* (Washington, D. C.: U.S. Government Printing Office).
- Villalpando, M. V. et al., 1977. "A Study of the Socioeconomic Impact of Illegal Aliens on the County of San Diego," mimeographed (San Diego: Human Resources Agency).
- Wise, D. E. 1974. "The Effect of the Bracero on Agricultural Production in California," *Economic Inquiry*, 12 (December): 547-58.
- Zolberg, A. R. 1977. "U.S. Policy Process in Regulating Immigration," mimeographed (Chicago: University of Chicago, Dept. of Political Science).