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THE LABOR MARKET AND ILLEGAL IMMIGRATION: THE OUTLOOK FOR THE 1980s

MICHAEL L. WACHTER*

This paper first develops a labor supply forecast for the U.S. labor market in the 1980s, focusing on the effects of the low fertility rates of recent years, and then compares that forecast with the BLS projection of employment demand in the next decade. The author attempts to isolate those occupations and age-sex groups that are likely to have a shortfall of workers and to match the characteristics of those shortage categories with the demographic characteristics of the illegal alien work force. He predicts a relative shortage of unskilled workers in the 1980s, a major departure from past trends, and suggests that an increased flow of immigrants to meet that shortage would benefit skilled older workers and, to a lesser extent, the owners of capital. He also argues, however, that increased immigration would harm domestic unskilled workers—who are increasingly minority group members—by lowering their relative income and raising their equilibrium unemployment rates.

THE purpose of this paper is to investigate the outlook for the United States labor market in the 1980s in terms of its implications for immigration policy. The basic technical element in the study is a labor supply forecast that focuses on the likely impact of the forthcoming demographic twist—the changeover in the younger age groups from the oversized baby boom cohort to the undersized baby bust cohort (that is, the cohort born during the late 1960s and 1970s when fertility rates were very low). This important development on the supply side of the labor market is compared with the Bureau of Labor Statistics projections for occupational employment to 1985.

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This study attempts to isolate those occupations and age-sex groups that are likely to have a shortfall of workers and to match the characteristics of the shortage categories with the demographic characteristics of the illegal alien work force. The results indicate an important reversal from usual patterns. If performed for past decades, this analysis would have yielded projections indicating a surplus of unskilled workers; the calculations now indicate a relative shortage of unskilled workers over the next decade.

There are several ways this projected gap might be filled. The market mechanism, if left alone, would be expected to alter the relative prices and wages of different skill groups and capital so as to reduce the supply and demand gap. Relatively large discrepancies, however, would make necessary large changes in relative wages and prices. To the extent that the market adjustments are politically painful, society may seek

other models of adjustment. Legalizing and attempting to control the level of immigration is one such method.

This study suggests that in the 1980s, as the rate of increase in the native labor force declines, an increased flow of immigrants would benefit skilled older workers and, to a lesser extent, the owners of capital. More specifically, it would benefit the baby boom cohort, as that group enters the thirty-and-over age categories in the 1980s, by allowing an increase in relative income levels and occupational attainment of that cohort. If immigration flows were reduced in the 1980s, however, their position would decline further.

Whereas skilled workers would benefit from increased immigration, unskilled workers would be likely to find their relative income lowered and their equilibrium unemployment rates raised. This economic trade-off between illegal immigrants and the unskilled—especially the disadvantaged work force—seems unavoidable. The domestic unskilled labor supply in the 1980s will be increasingly dominated, moreover, by minority workers. As a result, the trade-off between accepting more immigrant workers and improving the economic position of the domestic disadvantaged population is likely to become a critical public policy issue.

Labor Supply

The forecast of the potential role of illegal aliens in the United States labor market of the 1980s is based on comparing labor supply and demand projections for that period. The labor supply can be broken down into four components: population, labor-force participation rates, hours of work, and immigration. Of the three domestic basic components, future changes in participation rates is the key variable in determining the labor supply in the 1980s.

The size of the working-age population over the next decade is known with some reliability, with future changes in birth rates not affecting the working-age population until at least the year 1995. The hours-of-work component presents somewhat greater problems and, unfortunately, only limited

work has been done on its projection.¹ Since hours have been relatively constant over the postwar period, I shall assume for simplicity that they will remain constant over the next decade. The primary concern with this assumption is the potential for shifts between full- and part-time work among the young people who are disproportionately represented in the lower skilled labor markets. In addition, I shall assume that legal and illegal immigration flows remain constant at existing levels in constructing the basic labor-supply projections. This assumption is useful because my analysis is focused on the effects of immigration. Immigration flows can then be viewed as a policy variable dealing with imbalances that may develop in the labor market.

The labor-force participation equations utilized in this paper are updated versions of those published in one of my earlier studies.² Calculations are made for the fourteen standard BLS age-sex groups using annual data.³ Due to a lack of space, those equations will not be summarized here (but they are available on request). They differ from the standard participation equations by the inclusion of cohort-related variables. Traditional equations only capture age-specific effects (e.g., youths always have higher unemployment rates than older workers) and ignore cohort effects (e.g., youths in the baby boom cohort will do worse than youths in the baby bust cohort).

The major cohort variable is the percent-

¹For a discussion of the hours-of-work problem, see National Commission for Manpower Policy, *Work Time and Employment*, Special Report No. 28 (Washington: NCMP, October 1978).

²Michael L. Wachter, "Intermediate Swings in Labor-Force Participation Rates," *Brookings Papers on Economic Activity*, No. 2 (Washington, D.C.: The Brookings Institution, 1977), pp. 545-74.

³It is not possible to obtain reliable regional breakdowns for the various age-sex groups. Since illegal immigrants are concentrated geographically, disaggregation by region would be valuable to test for regional effects. The limited empirical evidence that exists to date, however, does not isolate a large regional effect. This suggests that geographic mobility is sufficiently great for both the native and illegal immigrant populations for the assumption of a national labor market to be reasonable. See, for example, Walter Fogel, *Mexican Illegal Workers in the United States* (Los Angeles: Institute of Industrial Relations, University of California, 1977).

age of persons age 16 to 34 relative to the total population age 16 and over. This variable measures the effects of the relative size of the younger cohort on labor-force behavior. The economic assumption underlying this variable, of course, is that the various age-sex groups are imperfect substitutes for one another. Young workers and new entrants into the labor market lack specific training and, therefore, cannot compete effectively with prime-age males who have acquired training due to their ongoing labor market attachment. An imbalance of inexperienced workers, caused by the entry of the baby boom cohort into the labor force, results in an increase in the relative unemployment rate and a decrease in the relative income of the younger workers.⁴ Therefore, a surfeit of young workers (as is the case today) results in adverse labor market conditions for these groups. The result is an increase in the participation rate, especially of females, to compensate for the reduction in the income of the younger prime-age male workers.

The data support the relative cohort size variable as a determinant of behavior. For example, since 1960 the sharp increase in female participation rates is heavily concentrated in the younger age group. These are the groups that have experienced a decline in their relative income position. Older females, with rising relative family income since 1960, have only slightly increased their participation rates over the past two decades.

The labor supply forecast is dependent, of course, upon the assumed values for the explanatory variables. The future movements of two key variables are known. The trend variable increases along its predetermined rate of growth and the level of the cohort variable is given by the official U.S. popula-

tion projections. For the remaining variables, I have assumed the following: (1) unemployment remains at its equilibrium level over the entire period; (2) school enrollment rates recover from their current low levels and return close to their previous peak rates; (3) the armed forces remain a constant percentage of the population; and (4) the current birth rate increases to the zero population growth level in 1981 and remains constant thereafter.

The number of workers projected to be in the labor force in 1985 and 1990 is shown in Table 1. These figures are obtained by multiplying the predicted labor-force participa-

Table 1. Actual and Project Levels
for Civilian Labor Force,
1970 to 1990.
(in thousands)

Sex and Age	Actual Levels		Projected Levels	
	1970	1977	1985	1990
Male				
16-19	4005	4987	4751	4665
20-24	5709	7872	7952	6883
25-34	11911	14886	18130	18834
35-44	10464	10618	14281	16753
45-54	10418	10187	9714	10983
55-64	7124	7042	7345	7172
65+	2164	1826	1720	1584
Total	51195	57418	63893	66874
Female				
16-19	3241	4268	4302	4402
20-24	4874	6555	7037	6255
25-34	5968	9850	13018	14136
35-44	5967	7153	10868	13022
45-54	6531	6697	7118	8899
55-64	4153	4367	5124	5548
65+	1056	1065	1258	1466
Total	31520	39955	48725	53728
Total	82715	97373	112618	120602

Source: The actual data for 1970 and 1977 are from Bureau of Labor Statistics, *Employment and Earnings*. The projected levels are derived by the author. The methodology is discussed in the text and in Michael L. Wachter, "Intermediate Swings in Labor-Force Participation Rates," *Brookings Papers on Economic Activity*, No. 2 (Washington, D.C.: The Brookings Institution, 1977), pp. 545-74.

⁴For a detailed discussion of this argument, see Michael L. Wachter, "The Demographic Impact on Unemployment: Past Experience and the Outlook for the Future," *Demographic Trends and Full Employment*, National Commission for Manpower Policy, Special Report No. 12 (Washington: NCMP, December 1976), pp. 27-99. For empirical estimates of elasticities of substitution, see Daniel S. Hamermesh and James Grant, "Econometric Studies of Labor-Labor Substitution and Their Implications for Policy," mimeo, Michigan State University, 1978.

Table 2. Compounded Annual Rates of Change for the Civilian Labor Force.

Sex and Age	1970 - 1977	1977 - 1985	1985 - 1990
Male			
16 - 19	3.18	- 0.60	- 0.36
20 - 24	4.70	0.13	- 2.85
25 - 34	4.00	2.49	0.76
35 - 44	0.21	3.77	3.24
45 - 54	- 0.32	- 0.59	2.49
55 - 64	- 0.17	0.53	- 0.48
65+	- 2.40	- 0.74	- 1.63
Total	1.65	1.34	0.92
Female			
16 - 19	4.01	0.10	0.46
20 - 24	4.32	0.89	- 2.33
25 - 34	7.42	3.55	1.66
35 - 44	2.62	5.37	3.68
45 - 54	0.36	0.77	4.57
55 - 64	0.72	2.02	1.60
65+	0.12	2.10	3.11
Total	3.44	2.51	1.97
Total	2.36	1.83	1.38

Source: Derived from the data in Table 1.

tion rates by the population figures for each of the age-sex groups. The annualized rates of labor-force growth between 1970 and 1977, 1977 and 1985, and 1985 and 1990 are presented in Table 2.

The central development projected for the labor markets of the 1980-90 period is depicted clearly in Table 2. In the 1970-77 period, the labor force grows rapidly for males age 16 to 24 and for females age 16 to 34. This is the result of the passage of the baby boom cohort through that age group and the associated increase in female participation rates. For the 1977 to 1985 period, the baby boom group begins to enter the age 25 to 44 categories with the result that these categories have the largest growth rates. By the 1985-90 period, the absolute number of young workers is actually declining for male workers age 16 to 24 and for females age 20 to 24. The major growth occurs for males age 35 to 54 and almost all older female groups.

During the decade of the 1980s the num-

ber of young workers in the labor force should be declining. The population in the younger age groups will be falling, and their participation rates—as opposed to the unprecedented increases during the 1970s—will be largely flat. Comparing the period 1970-77 with the period 1985-90 indicates a demographic transition of immense proportions. The changing outlook for immigration policy is largely a function of this twist in the demographic age structure of the labor force.

Labor Demand Projections

The 1985 demand projections used in this paper are the official Bureau of Labor Statistics calculations.⁵ They are shown in Table 3. The BLS foresees a continuation of the shift toward white-collar (except sales) and service (except private household) workers and away from blue-collar workers. The largest negative shifts are away from private household workers and farm workers. Since these are two occupations that tend to attract relatively large numbers of illegal aliens, this could signal a slowdown in the demand-pull forces for illegal aliens in the 1980s. I will argue below, however, that these projections may be in error precisely because illegal aliens have already become an important component in these two occupations.

The approach of this paper is to compare the 1985 BLS occupational projections with my labor supply projections for the same year. In adopting this strategy, I label the BLS occupational projections as determined by demand factors and my participation or labor-force projections as determined by supply factors.⁶

⁵See Max Carey, "Revised Occupational Projections to 1985," *Monthly Labor Review*, Vol. 99, No. 11 (November 1976), pp. 10-22 for a detailed summary of the methodology. The approach adopted in this section for projecting age-sex requirements is similar to that used by Arvil V. Adams and Garth Mangum, *The Lingering Crisis of Youth Unemployment* (Kalamazoo, Mich.: The Upjohn Institute, 1978).

⁶The fact that the BLS constrains total employment in its occupational projections to conform to its own labor supply estimates does not compromise the notion that the model is demand driven. The BLS occupational projections may be viewed as demand oriented because the relative employment by occupation is determined by demand factors with little re-

Table 3. Projected Requirements and Job Openings for Major Occupational Groups, 1974 to 1985.

<i>Occupational Group</i>	<i>1974 Employment</i>	<i>Projected 1985 Requirements</i>	<i>Percent Change (Average)</i>
<u>White-collar workers</u>			
Professional and technical workers	12,338	16,000	29.4
Managers and administrators	8,941	10,900	21.6
Sales workers	5,117	6,300	15.7
Clerical workers	15,043	20,100	33.8
Subtotal ^a	41,739	53,200	(27.5)
<u>Blue-collar workers</u>			
Craft and kindred workers	11,477	18,800	19.9
Operatives	13,919	15,200	9.0
Nonfarm laborers	4,380	4,800	8.8
Subtotal	29,776	38,700	(13.2)
<u>Service workers</u>			
Private household workers	1,228	900	- 26.7
Other service workers	10,145	13,700	34.7
Subtotal	11,373	14,600	(28.0)
<u>Farm workers</u>	3,048	1,900	- 39.0
Total	85,986	103,400	20.3

^a Details may not add to totals because of rounding. Percentages were calculated using unrounded numbers.

Source: Max L. Carey, "Revised Occupational Projections to 1985," *Monthly Labor Review*, Vol. 99, No. 11 (November 1976), pp. 10-22.

In order to compare the demand and supply oriented models it is assumed, for demand, that the 1970 age-sex requirements of a job are rigid and, for supply, that the 1970 occupational percentage distribution for each age-sex group does not change.⁷ These

assumptions are adopted as expositional, rather than forecasting, devices because they yield the maximum potential differences between the two models. The purpose

gard to the likely age-sex composition of the labor force in 1985. On the other hand, my labor supply projections may be viewed as supply oriented because the age-sex composition of the labor force is determined without regard to the demand factors related to the occupational structure.

attitudes, and discrimination. Again, the assumption of zero flexibility is adopted for expositional purposes and to highlight those areas where supply and demand projections may differ.

If the age-sex requirements of an occupation are perfectly flexible, there should not be any discrepancy between the demand and supply projections. Most researchers, however, believe that age-sex barriers are not perfectly flexible because of such factors as the degree of specific training, job attachment, social

It is not correct to assume that total age-sex ratios in the demand projections should remain equivalent to the 1970 ratios. Although the 1970 occupational mix is the only input of age-sex groups into the projections, changes in the relative occupation mix will have an effect on total age-sex ratios. If employment in an industry with a high female concentration increases relative to other industries, then the total male-female ratio will shift in favor of females. What remains constant are the 1970 age-sex ratios for each occupation.

Table 4. Projections of 1985 Relative Employment by Occupation and Sex.
(Percentages)^a

Occupation Group	BLS Occupational Demand Model		Labor Supply Model	
	Male	Female	Male	Female
Professional and technical workers	9.0	6.1	8.5	7.0
Managers and administrators except farm	9.0	1.8	6.1	1.5
Sales workers	3.8	2.4	3.9	3.0
Clerical workers	5.1	11.1	4.4	15.2
Craft and kindred workers	12.5	0.6	12.0	0.8
Operatives	10.3	4.6	11.3	6.1
Nonfarm laborers	4.2	0.3	3.8	0.4
Service workers	5.6	8.6	4.5	8.5
Farmers and farm laborers	1.6	0.2	2.4	0.3
Total	61.2	38.8	57.1	42.9

^aThese figures represent percentages of total employment and labor supply.

Source: See footnotes 8 and 9.

is to isolate the areas in which discrepancies are likely to arise and analyze the potential "fit" of illegal aliens before market and other forces adjust to equilibrate supply and demand.

Table 4 presents the 1985 projections, including a sex breakdown by occupation. Columns 1 and 2 indicate the male and female occupational or demand projections as calculated by the Bureau of Labor Statistics.⁸ Columns 3 and 4 indicate the labor-force or supply projections of Table 1 allocated across occupations.⁹

⁸The sex breakdown for each occupation is obtained by multiplying the BLS demand projection for it by the 1970 proportion of total employment in the occupation that was accounted for by each of the 14 age-sex groups. Total labor demand by sex for each occupation is obtained by summing across the age-sex groups.

⁹Column 3 indicates the occupational distribution based on the Table 1 age-sex labor-force supply projections for 1985. Each of the figures is determined by multiplying the supply projections for each of the 14 age-sex demographic groups by the 1970 ratios of occupation to total employment for each demographic group. This yields the projected occupational break-

The largest single imbalance is not for unskilled workers, but for managers and administrators. This is due to the large projected growth of this occupation and an existing age-sex pattern of employment in it that utilizes few women and younger workers.¹⁰ It is likely, however, that females will experience occupational upgrading and be integrated into managerial positions without much dislocation. In any case, this area is not likely to provide an incentive for

down for each age-sex group. Total labor supply for each occupation is then obtained by summing over the demographic groups.

¹⁰As would be expected, the demand driven model, using 1978 age-sex occupational requirements, indicates a larger need for male workers than is available from the labor supply projections. Specifically, the BLS occupational mix, projected to 1985, needs a labor force that is 61.2 percent male. My labor projections suggest a labor force that is only 57.1 percent male. I do not draw any conclusions from these sex differences, however, because of the ease of substituting male for female workers within an occupation. The major difficulties in substituting workers exist across occupations and age groups.

significant immigration from abroad. The skilled workers who do migrate are a small percentage of the total and tend to be professionals rather than managers.

Comparing the supply estimates with the demand projections of Table 4 for blue-collar trades illustrates the potential shortage of male craft, nonfarm laborers, and service workers. For example, whereas in the demand model, 5.6 percent of the work force should be male service workers, the supply model only provides 4.5 percent. Adding together the nonfarm laborers and service workers—on average the two least-skilled occupations—yields a demand for 9.8 percent male workers and a supply of 8.4 percent; hence a shortfall of 1.4 percent. With projected total employment of 107.5 million in 1985, the size of the discrepancy for unskilled males is 1.5 million workers. Since the female supply and demand figures are approximately equal for those two occupations, potential substitution of female for male workers is not large. Presumably, females could be drawn from higher skilled occupations to fill the shortage; however, this will be limited by the favorable labor market for females in the more skilled jobs.

Although the numbers from the demand and supply models do not diverge sharply for most occupational groups, significant problems may still emerge. First, if the number of illegal aliens in an occupation has been increasing, causing an undermeasurement of employment in it, the BLS may be currently understating the growth rate for that occupation and understating projected demand for it, as well, since its demand projections largely assume a continuation of recent rates of growth.

A potential example of this understatement phenomenon appears in the BLS projections for farm workers and domestic workers. Table 4 shows a significant decline in the relative labor demand for farm labor in 1985. But this is exactly what would be expected if illegal aliens have been taking an increasing percentage of the jobs in an occupation, because the occupational projections of the BLS are based largely on native employment. In occupations in which illegal aliens have already made quantitatively important gains (relative to the size

of the overall occupation), the projection methodology may seriously understate the gap between the number of jobs and the number of native workers. Furthermore, since the demand projections also understate the future growth of employment in these occupations, this gap can be expected to grow.

Second, the transition from a baby boom to a baby bust cohort in the younger age groups is only beginning in the early 1980s. Since the birth rate peaked in 1957 and then remained at a high plateau through 1961, the peak of the baby boom cohort is still between 24 and 28 years of age in 1985. The gap between the demand and supply projections shown in Table 4 should continue to widen between 1985 and 1995. Indeed, even the rate at which the gap widens grows until after 1985.

Third, the 16–19 and 20–24 age groups are difficult to evaluate because their labor-force participation rates are particularly sensitive to exogenous changes in school enrollment rates and to the level of the armed forces. My underlying assumptions on these latter two variables are somewhat optimistic in terms of their implications for the likely size of the youth labor force in 1985. This is particularly true given the increasing percentage of youths who are part-time workers. In this sense, the growth in their labor force overstates the growth in their available manhours.

Closing the Shortfall

As shown above, employment projections based on supply (labor force) and demand (occupation) models indicate a gap or shortfall of the male labor force in the lowest skilled occupations. The size of this gap varies over a large range depending upon the particular assumptions used in generating the projections. These projections are developed on the assumption of occupational rigidity between male and female workers of different ages.

This occupational rigidity is not an accurate description of the labor market. Rather, the extreme assumption of no occupational adjustment among age-sex groups is designed to foresee where the ex-ante shortfalls in the labor market are likely to develop. It

is not designed to forecast the actual or expected age-sex levels of employment by occupation in the future. This is an important distinction. Since the economy adjusts to shortfalls between supply and demand, projected discrepancies are unlikely to persist. The question is: What mechanism will be adopted to adjust the supply and demand pressures?

In response to relative wage and price changes, there are numerous market adjustments that can yield a balance between supply and demand in the labor market of the 1980s without altering the immigration flow. These include: a slower growth rate of lower skilled jobs due to changes in the demand for labor; a slower upgrading of the baby boom generation so that more of them are available to fill the lower skilled jobs; and changes in the supply of manhours among those willing to work in lower skilled markets.¹¹

Clearly, occupational employment need not grow along the exponential path predicted by the BLS. Although exogenous shocks could cause departures from the predicted path in either direction, the endogenous labor market mechanism should systematically push labor supply and demand factors into equilibrium. A favorable endogenous response would likely occur because any shortage of workers in a particular job would cause firms to substitute against the scarce input by shifting toward more abundant inputs. A similar adjustment would be made by consumers, who would shift away from relatively expensive goods, that is, those that used relatively greater supplies of the scarce input.¹²

In terms of economic costs, it is always easier to bump workers downward or reduce their promotion than it is to upgrade them quickly. As a result, the hypothesized shortage of entry level workers may be reduced because enough members of the baby boom cohort will be held back (in terms of promotions) to fill the lower skilled jobs typically filled by younger workers. The utilization of older and more experienced workers to perform unskilled tasks traditionally held by younger and less experienced workers, however, can have large social costs for this group and, perhaps, for society as a whole.

An important issue in evaluating the response of the labor market to an influx of illegal aliens relates to the ability of the monetary and fiscal authorities to use stimulative policies to create new jobs for the new entrants. It is obvious that when the economy is in a recession an increase in the labor supply due to additional illegal aliens or domestic workers will, *ceteris paribus*, lead to an increase in the unemployment rate. The cyclical unemployment that exists during a recession can be erased by appropriate monetary and fiscal policies. The more difficult but interesting question is whether the presence of illegal aliens alters the full-employment or equilibrium unemployment rate.¹³

The type of labor market model I have adopted suggests that an increase in illegal aliens would not increase the cyclical component of unemployment but would cause the equilibrium unemployment rate to rise. The mechanism, which is explored in greater detail below, is due to the adverse

¹¹That demographic shifts in supply can cause large changes in relative wages has been documented for the experience of the baby boom cohort over the past two decades. See Michael L. Wachter, "Intermediate Swings in Labor-Force Participation Rates," and Finis Welch, "Effects of Cohort Size on Earnings: The Baby Boom Babies' Financial Bust," mimeo, University of California at Los Angeles, January 1979.

¹²The adjustments of firms and consumers to changing relative prices and wages would not only cause the BLS occupational assessment to overstate differences with the actual labor force but would also result in changes in the occupational input matrix. Firms would use relatively increasing numbers of females and older males by molding the available workers to fit the demand or by molding the jobs to fit the skills of

the workers. Both adjustments are likely to take place with the more malleable factors absorbing the largest change.

¹³The equilibrium level of unemployment is the level of unemployment that cannot be reduced through general, stimulative monetary and fiscal policies without accelerating inflation. My estimates of the equilibrium rate are derived in "The Changing Cyclical Responsiveness of Wage Inflation Over the Postwar Period," *Brookings Papers on Economic Activity*, No. 1 (Washington, D.C.: The Brookings Institution, 1976), pp. 115-19. Also see Franco Modigliano and Lucas Papademas, "Target for Monetary Policy in the Coming Year," *Brookings Papers on Economic Activity*, No. 1 (Washington, D.C.: The Brookings Institution, 1975), pp. 141-63.

effect of illegal aliens on the market wage of lower skilled workers. To the extent that market wages decline relative to the level of welfare benefits and similar alternatives, the "cost of being unemployed" would therefore be reduced. To the extent that market wages decline relative to minimum wages, or to unionized wages in the high-wage sectors, workers would either be displaced or unemployed longer, awaiting a job opening in the high-wage sector. The result of these adjustments would be an increase in the equilibrium level of unemployment.

The Distribution of Benefits and Costs

The distribution of benefits and costs of illegal aliens, for the native population, depends not upon whether the immigration is legal or illegal but rather upon the demographic characteristics of the immigrants. In this analysis, I assume that the great bulk of immigrants are unskilled and are likely to be employed rather than unemployed or out of the labor force.¹⁴ My approach is to treat the flow of illegal aliens as equivalent to an increase in the supply of unskilled workers. This view omits important topics including the economic vulnerability of illegal aliens due to their ineligibility for most social welfare programs and a lack of protection under FLSA and collective bargaining statutes.¹⁵

In theory, the distributional impact of

illegal aliens depends largely on the various elasticities of substitution and scale effects in the production process. It can be argued that, as a rule of thumb, complementary inputs benefit and substitute inputs suffer from immigration. Unfortunately, however, the empirical evidence on which factors of production are complements and which are substitutes is far from definitive. The results depend heavily on the manner in which the inputs are defined and the number included in the particular production function analysis. Including materials or energy (or both) as inputs, as well as capital and labor, for example, changes the results as to which factors are complements and which are substitutes. It is possible, however, to reach certain tentative conclusions as to the relative magnitudes among inputs.¹⁶

Given the above qualifications it can be assumed that capital and labor are complements. The strongest complementarity is between capital and skilled workers. The relationship between capital and unskilled labor is closer to the borderline so that any effects are likely to be small. Among different labor groups, workers become increasingly complementary the greater the divergence in skill levels. For example, whereas all unskilled production workers can be classified as substitutes for each other, production and managerial workers are assumed to be complements.

Given this framework, the impact of illegal aliens, at least in today's labor market, seems indisputable. Although the magnitude of the effect would vary depending upon the actual number of illegal aliens in this country who are working, the direction of the impact is known. First, illegal aliens depress the wages of the lower skilled native American work force. Second, given existing levels of minimum wages and welfare, for which the Americans but not the aliens are eligible, the wage reduction resulting

¹⁴See, for example, David North and Marion F. Houston, *The Characteristics and Role of Illegal Aliens in the U.S. Labor Market: An Explanatory Study*, prepared for the Employment and Training Administration (Washington, D.C.: U.S. Department of Labor, 1976).

¹⁵For more general treatment of the economic issues, see Wayne A. Cornelius, "Illegal Mexican Migration to the United States: A Summary of Recent Research Findings and Policy Implications," mimeo, MIT, 1977; Walter Fogel, "Illegal Alien Workers in the United States," *Industrial Relations*, Vol. 16, No. 2 (October 1977), pp. 243-63; Michael J. Piore, "The New Immigration and the Presumptions of Social Policy," in *Industrial Relations Research Association, Proceedings of the Twenty-Seventh Annual Winter Meeting, San Francisco, December 28-29, 1974* (James L. Stern and Barbara D. Dennis, eds.), pp. 350-58; Edwin P. Reubens, "Policy Dimensions of the H-2 Program," prepared for the National Commission for Manpower Policy (December 1978); and North and Houston, *The Characteristics and Role of Illegal Aliens in the U.S. Labor Market*.

¹⁶See, for example, E. R. Berndt and D. V. Wood, "Technology, Prices and the Derived Demand for Energy," *Review of Economics and Statistics*, Vol. 57, No. 3 (August 1975), pp. 259-68 and Ernst Berndt, "Reconciling Alternative Estimates of the Elasticity of Substitution," *Review of Economics and Statistics*, Vol. 58, No. 1 (February 1976), pp. 59-68.

from illegal immigration may also cause higher unemployment rates for lower skilled native workers. This increase in the unemployment rate would be an increase in the equilibrium rate and, therefore, could not be offset by expansionary monetary and fiscal policies without causing accelerating inflation.

It is sometimes argued in rebuttal that illegal aliens take jobs that native Americans would not be willing to accept and, hence, that there is little or no employment displacement or wage effect. This argument, however, is more complicated than it appears, as can be seen by differentiating between direct and indirect displacement effects.¹⁷

In its simplest form, direct displacement means that an illegal alien accepts a job that is currently held or would be acceptable to native workers. For expositional purposes, assume that the low-skilled domestic labor force is reluctant to take on steady jobs at or below the minimum wage. Then, jobs held by illegal aliens that pay minimum wages or below would not cause a direct displacement of domestic workers. But, the Immigration and Naturalization Service found in a 1975 survey that 35 percent of the illegal aliens that were apprehended were earning wages above \$2.50 per hour. This figure was well above the minimum wage, which in 1975 varied from \$1.50 for farm workers to \$2.10 for nonfarm workers.¹⁸

That many jobs otherwise attractive to American workers are still given to illegal aliens is not surprising. Although these jobs are "acceptable" to United States citizens, they represent otherwise unattainably high wages to aliens. Attitudes are likely to reflect this difference. The illegal alien is an eager and pliant worker, not only because of the fear of deportation but also because the wage is special, not merely acceptable. An employer who does not discriminate by race,

sex, or illegal alien status is thus likely to hire numerous illegal aliens for lower skilled jobs.

But even if domestic workers refuse to accept employment because the jobs are unattractive and the wages are marginally above public assistance levels, illegal aliens may cause an indirect displacement effect. To show this, it is useful to construct a rough hypothetical picture of the low-skilled labor market under the assumption that the illegal alien workers are forced to return to their home countries tomorrow.

In 1978 there were approximately fifteen million full-time equivalent domestic workers who were earning \$3.00 per hour or less. Assuming an additional six million illegal aliens, that group constituted 30 percent of the work force employed that year in the lowest skilled labor markets. If all those workers were forced to leave tomorrow and the supply of low wage workers in this country were thereby reduced by 30 percent, wages at the bottom of the job ladder would be driven up significantly.¹⁹

A further assumption of this scenario is that the supply of "available" domestic workers would increase substantially as wages increased 10 to 20 percent above both the minimum wage of \$2.90 and the welfare wage for the nonworking poor. This implies an increase in the wage rate of low wage jobs to an average of \$3.40 per hour (in constant money terms). With the illegal immigrants out of the competition and with wages at \$3.40 per hour, many domestic workers would now be interested in the previously "menial" jobs.

The next question, however, is how many of these jobs would still be available. Since demand curves for labor slope downward, an increase in wages means fewer jobs. Assuming an elasticity of unity, that is, for every one percent increase in wages, one percent of the jobs are scrapped, approximately 2 million of the 6 million jobs held by the illegal aliens could vanish. The job loss might be even higher if the favorable "attitude" of the aliens were a more impor-

¹⁷These views were originally presented in Michael L. Wachter, "Second Thoughts About Illegal Immigration," *Fortune* (May 22, 1978), pp. 80-87.

¹⁸See David North and Allen LeBel, *Manpower and Immigration Policies in the United States*, A special report of the National Commission for Manpower Policy, Special Report No. 24, February 1978, pp. 137 and 139.

¹⁹These figures were obtained from a tape of unpublished data for the May 1978 *Current Population Survey*.

tant consideration than the wage rate. Hazardous a guess, perhaps another 1.5 million jobs would disappear for this reason. Thus, of the 6 million jobs filled by aliens, approximately 2.5 million would still be open at the higher wages demanded by the domestic low-skilled workers.

Even if these assumptions are off, it is clear that there would still be potential for a dramatic improvement in the wages and jobs available to the domestic labor force. This optimistic report on wages and jobs would also translate into a large reduction in the equilibrium unemployment rate. As wages increased, it is likely that more individuals would be drawn into the labor force. If one-half of the jobs were filled by currently unemployed workers and the other half by new entrants into the labor market, the unemployment rate would still fall by approximately 1.25 percent. This reduction in the unemployment rate is of added significance because it is the full-employment or equilibrium rate that would be favorably affected.

The economic gains accruing to the low-skilled domestic labor force by sending the illegal aliens back to their home countries would be dramatic. The cost, however, would also be high. Perhaps the major cost would be to the aliens themselves and their home countries. Just as wages in the United States would increase, wages in the poor countries of Latin America, especially Mexico, would fall.

Domestically, the repatriation would presumably end numerous service and agricultural jobs and increase the relative prices of the associated consumer products.²⁰ Although short-run effects of a sudden departure of illegal aliens might be dramatic, either a slower departure or the longer-run effects of the quick exit could be easily handled. Many of the nonservice jobs could be mechanized and would become new job opportunities for the domestic population. The low-skilled service jobs might well disappear permanently due to the absence of workers willing to take on this em-

ployment. The economy, however, could do without these service functions. Indeed, there is a built-in mechanism that prevents serious disruption: For any job that is "vital," real wages will be bid up in the absence of illegal aliens to ensure the availability of domestic workers.

Perhaps the biggest domestic impact, however, would be the improvement in the status of the low-skilled workers relative to both higher skilled workers and capital. Since illegal aliens are substitutes for the lower skilled workers but complements to skilled workers, the middle and upper classes might suffer an absolute—as well as relative—decline in income. The relative decline might be significant, but the absolute decline is unlikely to be large enough to cause much discomfort. The exceptions to this, of course, are the skilled workers who work directly with, and the firms that hire, illegal aliens. These individuals and firms would suffer important losses as the wages of the low-skilled workers rose.

In contrasting the labor market of the 1980s with that of the 1970s, it appears that the major differences will be a shift from a relative surplus to a relative shortage of lower skilled, entry-level workers. That is, the illegal immigrants would remain a substitute for unskilled workers, but the percentage of native workers who are unskilled will decrease. As a result, the distributional effect of this demographic twist should be similar to the above scenario of a reduction in the number of illegal aliens. Both represent a decline in the percentage and absolute number of young, unskilled workers. But as the baby boom cohort ages, it will shift from a substitute to a complement in terms of its relationship with illegal aliens. That is, by the late 1980s and 1990s, those labor groups that were most hurt by competition from illegal aliens in the 1970s will have the most to gain from an increase in the number of (unskilled) illegal aliens.

In the battle over income shares among generations or skill groups, the political context may play an important role. In the demographic twist model, the oversized baby boom generation can "outvote" the undersized baby bust cohort. This former group can be expected to search for political

²⁰For simplicity, I assume that only relative wages and prices are forced to adjust. The inflation rate itself is assumed to be constant.

solutions to its problems. They may vote to prevent either actual shortages of unskilled workers from developing or important relative wage adjustments from occurring. One approach to attain their objectives would be to vote for a more liberal immigration policy, legalizing and increasing today's flow of illegal immigrants and allowing them to become permanent residents.

Policy Dilemmas

Immigration policy has historically posed a significant dilemma due to the uneven distributional impact on different income classes. As indicated above, skilled workers tend to gain from increased immigration while unskilled workers lose. But while immigration has negative effects on the domestic lower income groups, it has strong benefits for the even lower income groups from neighboring foreign countries.

One aspect of this distributional dilemma that has not received sufficient attention is that, due to differential birth rates, the new entrant baby bust cohort of the 1980s will have a much higher percentage of minority workers than the current cohort. If faced by continuing pre-labor market discrimination that reduces their market skills, these workers may be hard pressed to face the competition of a large influx of low-skilled immigrants who are eager to work at or below United States minimum wage standards. Faced with a tight labor market for young unskilled workers, however, the disadvantaged workers over the 1980s may be able to make important gains. These potential gains would be blunted by legalizing and increasing the flow of foreign workers.

In discussing policy options three representative types can be identified: increasing the flow of legal immigration in an attempt to reduce the illegal component; adopting a "guest worker" approach similar to that used in Europe; or continuing the more laissez-faire "nonpolicy" that is currently in effect.²¹ The lack of interest in dealing with

the immigration question is in part a reflection of the significant political dilemma posed by this problem. But with the onset of the demographic twist in the 1980s, it will be increasingly difficult to avoid a conscious policy to control the number of new immigrants.

For numerous political and moral reasons, there is much to be said for allowing an increased flow of legal immigrants.²² This approach deals with the problems of the potential shortage by augmenting the baby bust cohort with immigrants, but it has some significant problems. Already mentioned is the notion that any increase in immigration would have adverse distributional effects for the domestic low-income workers. In addition, there are reasons to believe that such a policy would not reduce the demand for illegal aliens. If new immigrants had the same welfare benefits as native workers, their work pattern might change and become similar to that of the native unskilled population. Presumably, their labor-force participation rates would then decline and they might be as unwilling to work in those "bottom rung" jobs as are native workers. The result would be renewed interest in illegal aliens who would be willing to work at the jobs that were unattractive to legal immigrants.

Due to opposition to both the *status quo* and increases in the annual quota of author-

now unpopular, however, only provides information on the current political views of the native population toward illegal aliens. That is, the illegal aliens are not perceived as being a "threat" that would necessitate the development of a stricter policy or prevent illegal entry. If the environment changes, and illegal aliens are perceived as posing a threat to the voting population in the United States, an enforcement mechanism could be developed. A policy to restrict illegal immigration would likely be composed of three elements: a requirement that workers be able to prove their citizenship by carrying working papers or a "work eligibility card"; costly economic penalties assessed against employers who hire illegal aliens; and a strengthening of the policing function of the Immigration and Naturalization Service.

²²The political and moral issues are stressed by Wayne A. Cornelius, "Illegal Mexican Migration to the United States"; Michael J. Piore, "The New Immigration and the Presumptions of Social Policy"; and Bruno Stein, "Immigration as a Social Issue," in IRRA, *Proceedings of the Twenty-Seventh Annual Winter Meeting*, pp. 341-42.

²¹Major policy innovations in the immigration area are not currently popular in Washington or, indeed, elsewhere in the country. That such measures are

ized immigrants, numerous variants of a "guest worker" policy have been suggested. Such a program would have greater flexibility than alternative programs since, in theory, the stock of guest workers can be adjusted, to some extent, in either direction.²³ This is particularly important with respect to the adverse impact of increased immigration on the economic gains of disadvantaged native workers. In addition, the availability of a "guest worker" policy is likely to make it much easier to enforce the laws against illegal aliens. The guest workers would satisfy the need (whether valid or not) of employers for an assured low-wage

labor force in areas such as agriculture. If there were no pull from employers within the United States, the flow of illegal aliens would be likely to decline significantly.

The guest worker approach raises important social and political questions due to the unequal rights accorded these workers. Although guest workers would presumably be covered by minimum wages, they would not be eligible for many social welfare programs, especially those that affect the "cost of being unemployed." Indeed, the basis for the guest-worker approach is that individuals (and their families) remain in the United States only as long as they are working or actively searching for work. It is precisely this status inequality that provides protection to the native work force and makes guest workers an alternative to illegal immigration.

²³But see the Martin and Miller article in this symposium for a discussion of the generally unfavorable experience of Western European nations in adjusting their stocks of guest workers.