

1992

The Welfare Economics of Immigration Law: A Theoretical Survey With An Analysis of U.S. Policy

Alan O. Sykes

Follow this and additional works at: https://chicagounbound.uchicago.edu/law_and_economics



Part of the [Law Commons](#)

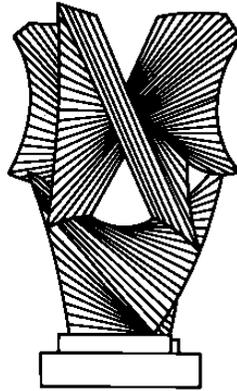
Recommended Citation

Alan O. Sykes, "The Welfare Economics of Immigration Law: A Theoretical Survey With An Analysis of U.S. Policy" (Coase-Sandor Institute for Law & Economics Working Paper No. 10, 1992).

This Working Paper is brought to you for free and open access by the Coase-Sandor Institute for Law and Economics at Chicago Unbound. It has been accepted for inclusion in Coase-Sandor Working Paper Series in Law and Economics by an authorized administrator of Chicago Unbound. For more information, please contact unbound@law.uchicago.edu.

CHICAGO

JOHN M. OLIN LAW & ECONOMICS WORKING PAPER No. 10
(2D SERIES)



THE WELFARE ECONOMICS OF IMMIGRATION LAW:
A THEORETICAL SURVEY WITH AN ANALYSIS OF U.S. POLICY

Alan O. Sykes

The Welfare Economics of Immigration Law: A Theoretical Survey with an Analysis of U.S. Policy

*Alan O. Sykes**

Much like tariffs and quotas, immigration restrictions are a form of protectionism, insulating domestic workers from competition in the labor market. Yet, even the most ardent supporters of open markets usually stop short of advocating the abolition of immigration controls. Efforts to reduce barriers to the migration of labor are conspicuously absent, for example, from the ongoing Uruguay Round of GATT negotiations.¹ For the foreseeable future, immigration policy will remain a bastion of national sovereignty in international economic relations,² ensuring the persistence of a wide range of uncoordinated and often restrictive national regimes.

This paper inquires whether restrictive national immigration policies have sound economic justification. The heart of the inquiry is normative, embracing the conventional tools and assumptions of modern welfare economics to analyze the efficiency of immigration controls. An ancillary aspect of the inquiry is positive, exploring whether current policy can be understood as an effort by unconstrained sovereigns to pursue the national economic advantage, perhaps at the expense of other nations. The current immigration policy of the United States receives close attention.

The economic issues are difficult to resolve, though more at an empirical than a theoretical level. Ultimately, any economic justification for immigration restrictions must rest on the presence of adverse external effects upon the world as a whole or the country of immigration. Theory identifies a variety of possibilities, though many are at best conjectural and fail to provide compelling

*Frank and Bernice J. Greenberg Professor of Law, University of Chicago. I have had useful conversations during the preparation of this paper with a number of individuals, including Lucian Bebchuk, Alan Deardorff, David Friedman and Warren Schwartz. I am grateful to the Olin Foundation for financial support.

¹An agreement on trade in services may have ancillary implications for the temporary immigration of professionals in covered sectors, but is not likely to affect the ability of foreign workers to obtain employment from domestic employers, or their ability to obtain permanent residence or citizenship. See GATT Secretariat, Draft Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Annex II (Trade in Services) at 34 (December 20, 1991) (“annex on movement of natural persons providing services under the agreement”).

²Recent developments within the European Community afford an exception. See N. Green, T. Hartley and J. Usher, *The Legal Foundations of the Single European Market* 91-196 (1991).

support for a restrictive policy. Perhaps the most plausible argument for restrictions rests on the existence of entitlement programs in wealthier nations that may, depending upon how they are structured, induce inefficient migration from poorer nations. The most direct solution to such problems lies with changes to entitlement programs rather than with immigration policy, but legal constraints may in some cases make immigration restrictions the only alternative. There is little basis for barring the immigration of those who are not allowed to participate in entitlement programs, however, or to vote themselves a right of participation.

This proposition has implications for, *inter alia*, the perceived problem of “illegal aliens” in the United States. The curtailment of the temporary workers program in the United States may have much to do with the growth of illegal immigration. It is difficult to fashion a persuasive economic argument against an open door policy toward temporary workers with employer sponsorship, and thus illegal immigration may be in large part the result of economically unsound U.S. policies. Further, because illegal aliens participate only minimally in entitlement programs, do not vote, and usually pay taxes much like other workers, it is by no means clear that their presence should be viewed as a “problem.” Absent an appropriate policy regarding the admission of temporary workers, illegal immigration may be a “second best” response to the resulting economic inefficiencies.

Section I of the paper surveys the theory, raises the key empirical questions, and notes the existing empirical evidence. Section II then examines U.S. policies toward permanent immigration, temporary workers, and undocumented aliens, and offers a tentative assessment of their economic soundness from the global and national perspectives. It also suggests some options for reform. Section III collects the central conclusions.

I. The Efficiency of International Migration: Theoretical and Empirical Issues

The migration decision is no different from any other—migration occurs because the expected gains exceed the costs. Barring misinformation that exaggerates the quality of life abroad, therefore, it follows that migrants benefit from the opportunity to migrate, and that government restrictions upon migration in the home country or the country of immigration can only lower their welfare. Hence, the economic justification for such restrictions, if any is to be found, must rest upon some adverse consequence of migration for non-migrants.

The simplest economic models of migration, drawn from standard models of international trade, suggest that migration is a net benefit to the world as a whole and to the country of immigration—any adverse consequences for nonmigrants

are limited to the country of emigration. This proposition is at odds with the observation that restrictions upon immigration are more common than restrictions upon emigration. The disparity is perhaps less a failing of policy than a failing of the simple models, which omit potentially important external consequences of migration, as well as some other complications. Once these considerations are incorporated, the possibility of inefficient migration from the world perspective and especially the national perspective emerges.

The inquiry then moves to empirics. Some empirical research has been done, and the results tend to suggest that migration is frequently a source of gains to the world and to the country of immigration, though assuredly not always. Further, one cannot assume that the historical experience with immigration necessarily serves as an accurate predictor of the future, especially if immigration policies change. In particular, complete abolition of immigration restrictions would likely be inefficient for many countries, including the United States. The optimal immigration policy from the national perspective is more difficult to characterize, however, partly because the set of feasible alternatives is unclear, partly because the empirical issues are difficult and unresolved, and partly because the unabashed pursuit of national self interest likely collides with substantial moral objections.

A. A Preliminary Note on the Normative Significance of Efficiency Analysis

The analysis in this paper is concerned with the “efficiency” of immigration policy. The term “efficiency” here refers to Hicks-Kaldor efficiency, defined in the familiar way: Policy A is Hicks-Kaldor superior to policy B if those who benefit from switching to policy A from policy B could in principle compensate those who suffer from the switch, and still remain better off themselves. The term “in principle” is used because compensation is not actually paid, and indeed the transaction costs of providing compensation might well dissipate the aggregate gains. Thus, efficiency in the Hicks-Kaldor sense rests upon aggregate cost-benefit analysis, without regard to the impact of policy alternatives upon the distribution of wealth.

The normative relevance of this efficiency concept has been debated extensively in many settings, and I have no desire to rehash that debate at length here. In my view, the strongest argument for attaching normative significance to Hicks-Kaldor efficiency lies in an old-fashioned utilitarian instinct—if aggregate “wealth” measured in monetary units increases, it is often imminently plausible that human happiness increases because most of us prefer greater wealth, other things being equal. The standard caution is that some policy changes may cause redistribution from poor to rich, and thus even if aggregate wealth rises we may suspect that human happiness has diminished because the marginal utility of

wealth is greater for poor people.³ Nothing in this defense of Hicks-Kaldor analysis indulges the fiction that compensation will actually be paid to the losers, however, or that if it is not, the reason lies in a high-minded decision by a benevolent government to withhold compensation on grounds of distributional equity. Rather, all that is required is an increase in aggregate wealth, coupled with the absence of *systematic* redistribution from poor to rich.

Further, it is not necessary to suppose that Hicks-Kaldor efficiency is the sole criterion of normative interest to find its welfare implications normatively useful. One need only assume that aggregate wealth is of some interest in policy making, possibly among quite a number of other things. Put differently, even if one may favor inefficient policies at times, it would be quite peculiar to assert that the aggregate economic costs of such policies are irrelevant to assessing their wisdom.

Some additional comfort may be taken from the fact that arguments from the Hicks-Kaldor perspective are widely used and widely accepted by many. The economist's argument for free trade, for example, rests on the fact that protectionism is detrimental to the economy as a whole—it can hardly be denied that it benefits certain import competing groups. Likewise, it can hardly be denied that those who suffer as a result of trade liberalization are not in general compensated, or that the failure to compensate them does not reflect a thoughtful decision against compensation by some benign central authority.

With particular reference to immigration policy, there are yet additional arguments as to why any adverse impact of efficient immigration policies on the wealth of particular individuals or sub-populations may not provide a convincing argument against such policies. First, the most substantial costs and benefits of policy changes often tend to be borne by similarly situated individuals. An inefficient restriction on the immigration of inexpensive labor from abroad may benefit certain low wage laborers domestically, for example, but much of the burden will be borne by low wage workers abroad who are likely even poorer. More generally, as long as one cares about all individuals affected by immigration policy, there is little reason to suppose that efficient policies systematically redistribute wealth from poor to rich. And, even if one cares more about citizens of one's own country than about foreigners, other means of preserving an acceptable domestic wealth distribution may well exist that are less costly than inefficient immigration restrictions.⁴ Finally, empirical

³An extended discussion of the ethical significance of "efficiency," developing the utilitarian argument and its caveats, may be found in D. Friedman, *Price Theory* 440-45 (1990).

⁴A useful general reference on the choice between inefficient legal rules and tax policy for achieving redistribution is Shavell, *A Note on Efficiency vs. Distributional Equity in Legal*

studies of the effect of immigration on wage rates (the likely source of any adverse distributional impact) tend to suggest, with some exceptions, that even at the considerable levels of immigration experienced in the United States in recent decades, downward pressure on wages has been minimal.⁵ Thus, the effects of changes in immigration policy upon the wealth distribution may well be fairly modest, at least as long as any such changes are not too drastic.

A troubling ethical question on which the analysis to follow takes no position is suggested by the reference to poor foreign workers above—is it acceptable, in the formulation of national policy, to give more weight (or even exclusive weight) to the welfare of one’s own citizens or residents? If so, does a would-be immigrant count as a “foreigner” until after his arrival, or even longer (say, until naturalization)? On the one hand, it seems perfectly coherent and high-minded to claim that citizenship or residency ought have no moral significance. But on the other hand, it is clear that in the formulation of many public policies, nations do appear to prefer their own people quite strongly over people who are not presently citizens or residents (the United States government gives much greater assistance to the domestic poor, for example, than to the more destitute poor in Ethiopia). To avoid the need to consider the ethics of such preferences, the analysis below simply addresses the welfare of three groups—migrants, original residents of the country of immigration, and those individuals left behind in the country of emigration. It discusses the welfare consequences of immigration from both the “global” perspective (aggregating all three groups) and the “national” perspective (focusing only on nonmigrants in each country). I leave to the reader the choice between these perspectives, noting only that both have a long and distinguished tradition in the discussion of international economic policy.⁶

I also note that any ambivalence over the choice between the “national” and “global” perspectives is not fatal to our ability to draw some firm conclusions from the welfare economic analysis. In particular, the two perspectives overlap to a considerable degree on one potentially important source of inefficiency in the incentive to migrate—cross-national variations in the public sector.

Rulemaking: Should Distributional Equity Matter Given Optimal Income Taxation?, 71 Am. Econ. Rev. 414 (1981).

⁵See G. Borjas, *Friends or Strangers* 79-96 (1990); *Immigration, Trade and the Labor Market* 167-320 (J. Abowd & R. Freeman eds. 1991).

⁶The argument for free trade is again illustrative—Hicks-Kaldor efficiency from the global perspective generally supports free trade, while Hicks-Kaldor efficiency from the national perspective may support such measures as the “optimal tariff,” a device for the exploitation of national monopsony power by large trading nations at the expense of trading partners.

B. Immigration in Traditional Trade Models

The possible benefits of migration to a migrant fall into two categories: (a) the labor market in the country of immigration provides better opportunities; and (b) the country of immigration is more attractive because of psychic considerations (for example, migration permits family reunification, or allows the migrant to escape one or another forms of persecution or social unrest in the home country). Of course, both types of gains may be present in a given instance, and these categories to some degree overlap (for example, persecution may reduce labor market opportunities at home). Most economic discussions of migration focus on the first source of gains, and the discussion to follow is written with that emphasis as well. It will note in due course, however, why the analysis does not change when the gains to the migrant are psychic rather than monetary.

International trade theory devotes considerable attention to the reasons why factor returns in general, and returns to labor in particular, may vary across countries. The formal conditions required for international “factor price equalization” have been studied in models of increasing sophistication, and are shown in the end to be fairly complex.⁷ Intuitively, when goods and services are exchanged freely in international trade with no trade barriers or transport costs, their prices equalize across countries. If countries also have access to the same technologies, then the productivity of the various factors of production, and their associated compensation in real terms, can (though by no means must) converge. By the same reasoning, differences across countries in factor returns can be attributed to differences in technology, to governmental barriers to trade, to transport costs and the related fact that some goods and services are not “tradable” (certain perishables, haircuts), and to the possibility that in some countries but not others particular factors may be in surplus.

These observations suggest one reason why migration may be inefficient, at least in a “first best” sense. Suppose, for example, that a tariff in one country artificially raises the returns to some type of labor, and depresses the return to that type of labor abroad. Not only may the pattern of human capital investment around the world be distorted as a consequence, but an artificial incentive to migrate may arise under conditions where, but for the tariff, the costs of migration would exceed the benefits. The world could gain if the tariff were removed and the migration did not occur. The problem might arise for other reasons as well, such as an inefficient restriction on technology transfer.

⁷For a factor price equalization result in the simplest of Heckscher-Ohlin models, see P. Kenen, *The International Economy* 73-77 (1985). More complex models with many factors and commodities are discussed in A. Dixit & V. Norman, *Theory of International Trade* 110-25 (1980); Ethier, *Higher Dimensional Issues in Trade Theory*, in *Handbook of International Economics*, Volume I, at 131 (R. Jones & P. Kenen eds. 1984).

If such distortions are taken to be immutable, however, migration can be a “second-best” adaptation to them. The product price distortion across countries because of a tariff, for example, can diminish as factors move from the country with the low price to the country with the high price. Indeed, the flip side of factor price equalization brought about by trade in end products is end product price equalization brought about by factor flows.⁸ Inefficient incentives for human capital investment can diminish as well.

Thus, whenever the incentive to migrate is the product of a distortion, the “efficiency” of migration in response to it turns in one sense on whether elimination of the distortion is feasible. If migrants have rational expectations about the likelihood of the distortion persisting, perhaps the occurrence of migration suggests that it is indeed a second-best adaptation. But even this proposition is open to challenge. Conceivably, for example, if the incentive to migrate arises because of protectionist trade policies, restrictions on migration might increase political pressure for the elimination of protection and thereby promote the first best outcome. Alternatively, in the case of migration driven by persecution in the home country, it is conceivable that restrictions on the ability of people to flee would heighten the prospects for reform. In the discussion to follow, however, I generally put such possibilities to one side on the plausible assumption that they are not very important, and treat the source of the incentive to migrate as “exogenous” to immigration policy.⁹

On this assumption, it is possible to adapt standard trade models to the study of migration. The simplest of these models suggest that migration is a source of net gains to the world as a whole, and generally suggest that migration either benefits or leaves unharmed the original residents of the country of immigration.

We begin with migration in the *absence* of trade. Consider first a “Ricardian” model, in which countries differ in their technologies. There is only one factor of production (call it labor), constant returns to scale (CRS), and competition. Because trade between countries is of no interest at the moment, suppose that there is only one end product (call it a widget).¹⁰ Let workers enjoy utility from widget consumption, and from leisure. Workers everywhere have one unit of

⁸Models in which the distorting effects of a tariff are undone by factor flows are well known in the literature. See, e.g., J. Bhagwati & T.N. Srinivasan, Lectures on International Trade 291-92 (1983).

⁹The exception is Section I.D below, in which I discuss the possibility that certain public sector policies, some of which are distorting, may be endogenous to migration policy.

¹⁰Of course, in Ricardian trade models, two or more end products exist and trade occurs to allow each nation to exploit its technological comparative advantage. The single end product assumption would make no sense in a trade model, but does no violence here where trade is not at issue.

labor, and its price in the home currency is 1. An incentive to migrate will arise in this model because one country has superior technology. A unit of labor might produce two widgets in country A and three in country B, for example. The price of widgets in country A would then be .50, while it would be only .33 in country B. Workers in country B would then enjoy a larger consumption possibilities set, and a higher level of welfare for any utility function that led them to consume positive amounts of widgets. Thus, workers in country A would like to move to country B.

In this simplest of models, the only individual affected by migration is the migrant. Workers who remain behind in country A can still purchase widgets for a price of .5, and attain the level of welfare that they attained before. Likewise, the consumption possibilities of workers in country B are unaffected. Migration has simply allowed the migrants to gain access to the superior technology used in country B, and thereby to enhance their consumption opportunities. Worldwide welfare thus rises by the amount of the gain to migrants, and the welfare of nonmigrants is unaffected.

Although this model is plainly lacking in generality, it is useful to establish a benchmark case. When technology in a competitive economy exhibits CRS, migration *may* simply shift the locus of production from country to country without having an impact on nonmigrants. More precisely, if all factors are paid their marginal product (which exhausts total output exactly under CRS), and if migration does not affect the marginal products of factors owned by nonmigrants (as it cannot in the one factor CRS model above), then the only individuals affected by migration are the migrants.

This proposition immediately suggests two reasons why migration can affect the welfare of nonmigrants. First, if technology is not CRS over the “relevant range,” it is well known that factors cannot be paid their marginal products because the sum of payments no longer adds up to the value of output. With increasing returns to scale (marginal products above average products), factors must on average receive less than their marginal products. If immigrants are paid in this fashion, they will add more to national output in the country of immigration than they receive in compensation, and thus confer a benefit on the original residents. The reverse condition holds if technology exhibits decreasing returns to scale (average products above marginal products) so that factors on average are paid more than their marginal products. Perhaps one can dismiss these possibilities as unimportant to immigration policy on the premise that the assumption of CRS “over the relevant range” is a plausible approximation to reality in most industries, or on the premise that it is impossible to observe departures from marginal product factor pricing attributable to the shape of the production function and thus impossible to fashion an acceptable policy

response. Some authors suggest, however, that scale economies are in fact quite important in trade, and such models dominate much of the modern trade literature. In a number of these models, consistent with the result noted here, an inflow of any factor is potentially beneficial to the nation that experiences the inflow because it allows greater scale economies to be realized.¹¹ The claim has also been advanced that such benefits of immigration are empirically demonstrable, though the evidence is not entirely convincing.¹²

Another departure from the assumptions of the simple model above relates to the possibility that migration affects the marginal productivity of factors owned by nonmigrants even under CRS. Consider the simplest of “Heckscher-Ohlin” models, for example, in which technology is assumed for simplicity to be the same across countries, as are consumer tastes. Two factors of production exist (call them “labor” and “capital”), which are used to produce two end products under CRS. Factors everywhere are paid their marginal product, but factor endowments differ across countries. The country with the higher capital/labor ratio is “capital abundant” and the other “labor abundant” The central insight of these Heckscher-Ohlin models is that when trade begins between the two countries, the capital abundant country can specialize in the capital intensive good and export it, and the labor abundant country can specialize in the labor intensive good and export it. The world production possibility set expands, and the consumption possibilities set expands for residents in each country (hence, gains from trade), raising the welfare of both.¹³ In this model, however, trade

¹¹See E. Helpman & P. Krugman, *Market Structure and foreign Trade* 204-05 (1985); P. Krugman, *Rethinking International Trade* 20-21 (1990). In Krugman’s model, however, the “wrong” country may grow to the detriment of world welfare. *Id.*

¹²See J. Simon, *The Economic Consequences of Immigration* 167-82 (1990). Simon argues that population increase allows economies of scale to be realized through greater specialization of the work force, but his empirical evidence is, in my view, weak. He first argues that more populous developing countries have higher labor productivity rates, but this fact is consistent with causation running in the other direction, or with the explanation relating to a number of omitted variables (e.g., large countries may have more liberal trading regimes because they have participated to a greater extent in reciprocal trade negotiations, and they may also have attracted considerably greater foreign investment per capita). He also shows that productivity in the developed world has grown over time along with population, but again the causal relation is hardly clear—technical progress may have raised living standards and encouraged population growth, or may have occurred at much the same rate irrespective of population growth. Finally, he refers to the well-documented learning by doing phenomenon in certain industries, but the cases he mentions (airplanes, color televisions, air conditioners) are all exportables, so that demand will be much the same regardless of the number of domestic consumers. Likewise, there is no reason to suppose that any desirable expansion of the labor force in these industries could not occur through a contraction of other domestic industries where scale economies are absent.

¹³See Kenen, *supra* note 7, at 65-77 for an elementary exposition.

does influence factor prices, as it causes the real price of labor in the labor abundant country to rise and the real price of capital in the capital abundant country to rise, while the price of the scarce factor in each country falls (the Stolper-Samuelson theorem).¹⁴

A moment's reflection suggests that these results apply directly to the analysis of immigration. Continuing for now with the assumption that the countries of emigration and immigration do not engage in trade, simply define the group of immigrants as "country A," and let the original residents of the country of immigration be "country B." Suppose that the immigrants bring with them their "labor," but relatively little "capital," so that country A is labor abundant and country B capital abundant. Immigration is then equivalent to the opening of trade between countries that differ in their factor endowments. Both nations will enjoy gains from trade, although the real returns to labor fall in country B, and rise in country A, with the opposite pattern in the returns to capital.

But what about those left behind in the country of emigration (call them "country C")? Precisely the same reasoning allows us to view immigration as the cessation of trade between country A and country C. If those "countries" differed in relative factor abundance, gains from trade were present, and the cessation of trade causes those gains to disappear. Country C is then unambiguously hurt by emigration. As for the immigrants (country A), they have losses from their cessation of trade with country C, and gains from the opening of trade with country B—on balance the gains must exceed the losses or immigration would not occur. Thus, we have the result that immigration benefits the immigrants, benefits the original residents of the country of immigration (in the aggregate), and hurts the residents who stay behind in the country of emigration (in the aggregate). It should also be intuitive that the effect on world welfare is positive by the opportunity for the immigrants to locate where the gains from trade are greatest.¹⁵

A special case of this model, in which migrants own "labor" only and all returns to "capital" are captured by nonmigrants in the countries of emigration and immigration, has been discussed widely. Migration occurs because the marginal product of labor is higher in the country of immigration. A non-infinitesimal amount of migration then causes the marginal product of labor to fall in the country of immigration, and to rise in the country of emigration.

¹⁴See *id.* at 75-77.

¹⁵Though the exposition here differs, the result is a standard one from the economic literature on immigration. See, e.g., Berry & Soligo, *Some Welfare Aspects of International Migration*, 77 *J. Pol. Econ.* 778 (1969); Usher, *Public Property and the Effects of Migration upon Other Residents of the Migrants' Countries of Origin and Destination*, 85 *J. Pol. Econ.* 1001 (1977).

Returns to capital move oppositely. Original residents in the country of immigration experience a net gain because the marginal product of the last immigrant, equal to the wage paid to all immigrants, is below the average product of the immigrants. All the gains (and then some), of course, are captured by the owners of capital, and any nonmigrant who owns labor only would be hurt as the price of labor falls.

The situation in the country of emigration is exactly the opposite. Owners of labor, who formerly competed with the emigrants, benefit, and owners of capital suffer. The net effect is adverse, because the wage formerly paid to the immigrants (their marginal product) was below their average product. The net effect on the world is favorable, however, because migration allows workers to locate where their marginal product is the highest, and thus world production expands.¹⁶

Such analysis implies that for a nation interested in maximizing its national advantage, emigration is a source of concern.¹⁷ Immigration, by contrast, is to be welcomed as long as aggregate economic welfare affords the proper metric for evaluating alternative policies.

As noted at the outset, the conclusions do not change when the gains to the migrant are psychic rather than monetary. Psychic gains to the immigrant may simply be regarded as a “fringe benefit” to employment that is part of the total compensation package in the country of immigration, and may likewise be regarded as part of the social marginal product of the immigrant. Thus, they are simply a social gain that is captured in full by the immigrant, and there is no reason to suppose that their existence will affect the returns to factors owned by nonmigrants.

The analysis does change materially, however, when migration occurs in the presence of international trade. Intuitively, migration alters world demand patterns, in part because of the attendant population shifts, and in part because migrants do not in general have the same tastes in consumption as the indigenous population. It also alters the factor endowments of affected countries. All of these changes can alter the pattern of trade, and the terms of trade—the relative prices of imports and exports. The result that factor mobility is beneficial to the world as a whole is not changed, but the net impact upon the welfare of

¹⁶A simple diagrammatic exposition of this argument may be found in J. Bhagwati & T.N. Srinivasan, *supra* note 8, at 304-07.

¹⁷The extensive literature on the “brain drain,” inquiring whether the emigration of skilled professionals from the developing world may injure those nations, began as an outgrowth of this simple model. A number of essays on the brain drain may be found in J. Bhagwati, *Essays in International Economic Theory*, Volume 2: *International Factor Mobility* (R. Feenstra ed. 1983), and in *The Brain Drain and Taxation* (J. Bhagwati ed. 1976).

nonmigrants can change because of terms of trade effects. In general, however, an inflow of (or exogenous internal growth in the supply of) a factor that is used intensively in the import-competing sectors rather than the export sectors, will tend to benefit the country that experiences the factor growth. The reason is that an increase in such a factor makes import competing goods cheaper to produce at home, and thus lowers demand for imports and their price, improving the terms of trade.¹⁸ The country of emigration then experiences a worsening in terms of trade. It is possible to posit settings in which other forms of immigration occur, however, that might worsen the terms of trade for the country of immigration. For example, the migration of skilled labor to a country that exports high technology goods might well cause a fall in the relative price of its exports. No general conclusion is possible, therefore, although the models with trade included arguably tend to reinforce the conclusions of the models without it, and certainly do not provide any reason to suppose that the residents of the country of immigration would *systematically* lose as a consequence.¹⁹

Still further complications can arise if the returns to nonmigrating factors of production are owned by foreigners. In the simple Heckscher-Ohlin illustration above, for example, where labor migrates but not capital, suppose that a significant percentage of the capital in the country of immigration is owned by foreigners. Then, the result that the country of immigration benefits can easily be reversed—the gains are realized by the owners of capital, and if a significant number of those individuals are foreign, the original residents can plainly lose. The problem would be compounded if residents of the country of immigration held capital investments in the country of emigration, because emigration lowers the returns to capital abroad.

A parallel concern arises because of the mobility of domestic capital. Suppose that the most efficient location for a new factory is domestic, with many workers at the factory coming from abroad. But if immigration restrictions prevent foreign workers from migrating to work at the factory, investors may choose to build it in a foreign country. A loss of global welfare occurs because investment does not occur at its most efficient location. A loss of national welfare may also occur because domestic investors are not able to maximize their returns. That problem may compound once the public sector is introduced, as noted below.

¹⁸The original insights on these matters stem from the literature on “immiserizing growth.” See J. Bhagwati & T.N. Srinivasan, *supra* note 8, at 249-60; A. Dixit & V. Norman, *supra* note 7, at 133-37.

¹⁹A survey of much of the pertinent literature may be found in Bhagwati & Rodriguez, *Welfare Theoretical Analyses of the Brain Drain*, 2 *J. Dev. Econ.* 195 (1975), reprinted in J. Bhagwati, *supra* note 17. A model of migration with terms of trade effects is also developed in A. Dixit & V. Norman, *supra* note 7, at 146-49.

In summary, therefore, the theoretical picture is fairly complex, although the analysis does permit a few generalizations. First, any adverse effect of immigration on aggregate *global* welfare must rest on the existence of consequences omitted from the simple models of conventional trade theory—most likely, the existence of nonpecuniary externalities.²⁰ The basic theorem of welfare economics that competitive equilibria are efficient survives in the presence of international boundaries as long as its assumptions continue to hold, a claim that is hardly startling.

The welfare effects of migration upon individual countries need not be strictly favorable even in the competitive model without nonpecuniary externalities, however, because the pecuniary externalities do not affect them uniformly. The simplest theoretical models suggest that the country of immigration benefits and the country of emigration loses, but these propositions are not always robust to complicating assumptions. Terms of trade effects and foreign ownership of non-migrating factors, perhaps among other things, have the potential to change the conclusions.

Conceivably, all of these effects are empirically unimportant. It is often argued that the gains and losses that the models without trade identify are likely to be very small,²¹ and the likely significance of terms of trade effects and foreign ownership of capital are quite unclear. In any case, the models discussed to this point, coupled with the current state of empirical knowledge, do not make a convincing case for immigration restrictions even on the part of a nation that is concerned solely with the welfare of current residents or citizens. At best, they identify some possible adverse consequences, but are equally adept at identifying possible favorable consequences.

C. Externalities and the Public Sector

Nonpecuniary externalities from migration can arise for a variety of reasons. An inflow of population can exacerbate common pool problems when property rights are incomplete, for example, or result in greater pollution of the local environment when transaction costs impede the formation of markets to correct the problem. If first best corrections for such externalities are infeasible for some reason, one cannot exclude a priori the possibility that immigration restrictions are a second best response from the perspective of the country of immigration, or that emigration may generate significant positive externalities for those left

²⁰Nonconvexities in production are another possibility. See P. Krugman, *supra* note 11. Likewise, one can no doubt imagine various scenarios involving the exercise of monopoly power by a nation in which either immigration or emigration might affect its ability to earn monopoly rents.

²¹See, e.g., Usher, *supra* note 15.

behind. These familiar types of negative externalities tend not to be emphasized in most discussions of migration, however, perhaps because they are thought to be relatively insignificant empirically (or impossible to measure), perhaps because other policy instruments are assumed adequate to address them, or perhaps because they relate more to population growth in general than to migration in particular.

Negative externalities may also arise if the labor market, or some portion of it, does not clear. When involuntary unemployment exists as a disequilibrium phenomenon, an influx of new workers can reduce the probability of existing workers finding a job.²² The externality arises because some of the expected returns to migration here are a transfer from existing workers to the new workers. An obvious source of this problem is the minimum wage, which may create a pool of unemployed workers that may simply grow with the immigration of less skilled workers. Of course, an influx of new immigrants also raises aggregate demand, which ameliorates unemployment problems, other things being equal. Thus, even in an economy where disequilibrium involuntary unemployment is significant, immigration is by no means clearly undesirable. But the immigration of workers who are close substitutes for groups of workers that already suffer high unemployment may well be detrimental both from the national and global perspectives.

It is also possible to imagine positive externalities from migration. Perhaps the most obvious are associated with family reunification. These externalities are social gains from the world perspective, and gains from the perspective of the country of immigration if all existing residents “count” in the national welfare function. Some authors have argued that other positive externalities arise because migrants enrich the lives of original residents by exposing them to different cultures, and that migrants may bring specialized knowledge to the labor market that would not transfer as quickly absent migration.²³ These externalities are clearly extraordinarily difficult to quantify, and it is difficult to say more about them than simply to note their existence.

One class of externalities that seems especially likely to be significant, however, and with respect to which some empirical evidence may be assembled, arises from the activities of the public sector. There can be little doubt that tax policies and entitlement policies can affect the incentive to migrate significantly, and perhaps inefficiently. Indeed, these externalities lie at the center of many popular and academic discussions of immigration policy. In this section, I

²²On the possible explanations for “involuntary” unemployment, see G. Akerlof & J. Yellen, *Efficiency Wage Models of the Labor Market* (1986); L. Summers, *Understanding Unemployment* (1990).

²³See J. Simon, *supra* note 12, at 182-83.

consider the theoretical issues raised by different aspects of public sector activity, and note as appropriate the existing empirical knowledge.

As above, the discussion in this section treats public sector policies that affect the incentive to migrate as exogenous, and migration decisions as endogenous. This assumption is perhaps realistic when the level of immigration is modest, but becomes increasingly suspect as the immigration flow increases and the balance of political power between new immigrants and original residents changes. Accordingly, it will be relaxed below in Section I.D for the area of policy that is perhaps most likely to be affected by immigration—redistribution policy.

1. Taxation

Putting aside the fictional device of “lump sum” taxation, all methods of taxation create distortions of one sort or another. The possibility of migration simply adds some further possible distortions to an already lengthy list.

Return for a moment to the simple Ricardian model of Section A, in which migration is beneficial because it allows the migrant to expand his consumption possibilities set after moving to the country with superior technology (country B). Suppose, however, that this country now imposes a tax on the production of widgets, and suppose further for a moment that tax collections are wasted by the sovereign with no benefit to the citizenry. The effect is to create the conventional labor/leisure choice distortion for all workers because the private marginal product of labor falls below the social marginal product, and also to reduce the returns to migration, other things being equal. Plainly, if the tax becomes high enough, migration will not occur.

Of course, country A may also impose a tax on widget production, and if the tax rate is the same in the two countries, labor will always do better in the country with the superior technology and some incentive to migrate will survive for any tax rate. But because migration in reality is costly, taxation clearly has the potential to destroy the incentive to migrate even when the increment in social marginal product exceeds the costs of migration. The problem is compounded if the country with the higher social marginal product of labor imposes a higher tax rate. Indeed, one can easily construct scenarios in which differences in tax policy cause migration to flow in the wrong direction.

The assumption that government provides no benefits to its citizens is obviously too strong, however, and it remains to consider what the migrant will receive back from the government in reality. Although the manner in which the benefits of public sector activity are distributed in practice is not likely to solve the problem of the labor/leisure choice distortion, it may assuredly diminish any distortion in the incentive to migrate attributable to taxes, and even reverse it.

Consideration of government expenditures will also suggest other ways that migration may impose positive or negative externalities upon nonmigrants.

2. Government Expenditures, Assets and Obligations

If there are no other distortions in the incentive to migrate, the existence of the public sector will create such a distortion if what a migrant must pay in taxes²⁴ (at the privately optimal level of work effort) does not equal what the migrant will receive back from the government in the form of benefits from government programs, either in the home country or the destination country.²⁵ When taxes paid exceed benefits received (and perhaps even when they do not—see the discussion of public goods below), the presence of the migrant confers an external benefit upon nonmigrants. In the reverse case, an external cost may be present. Thus, consider the most important likely sources of divergence between taxes and government benefits.

Variation in the Earning Capacity of Migrants. Regardless of how the benefits from government programs are distributed to residents, the balance of taxes and government benefits will likely vary among them because taxes are invariably related to ability to pay. If one imagines that government expenditures and revenues over the long run will be approximately equal, for example, it is plausible to suppose on the basis of tax rate progressivity alone that low income individuals will receive more in benefits than they pay in taxes, and high income individuals will receive less. Indeed, even proportional taxation can produce such a result.

This possibility is reinforced by the fact that many government programs afford benefits only to low income individuals by design. Income support, medical assistance, and other public safety net programs exist in the United States and elsewhere, funded by the relatively more affluent for the benefit of the relatively less affluent. It is certainly plausible that unrestricted migration into developed countries such as the United States, coupled with full entitlement for all immigrants to the public safety net programs, would create a sizable incentive for migration quite apart from any labor market opportunities, particularly for residents of countries with low standards of living and few safety net programs. Such migration could assuredly be inefficient from the world perspective (the

²⁴These taxes include those nominally paid by employers of a migrant, such as payroll taxes.

²⁵Even when taxes and government benefits balance, of course, the incentive to migrate will not be “first best” because of the labor/leisure choice distortion and any other distortions attributable to the method of raising government revenue. I put such complications to one side on the assumption that any appropriate policy responses lie elsewhere.

gains to the migrant being a transfer rather than a social gain), and inefficient from the perspective of the country of immigration.²⁶

International Variation in Other Entitlement Programs. Safety net programs are not the only possible source of inefficient incentives to migrate due to entitlement programs. Even relatively affluent individuals might be induced to migrate by the opportunity to receive benefits under a national health care system, for example, if they are ill and their home country provides no comparable program. Programs for the elderly, both for income maintenance and health care, can produce similar inefficient incentives depending upon their design. An older person might be induced to migrate to the United States inefficiently, for example, if the entitlement to Social Security benefits vested after a few years in the work force and the return on contributions paid into the system is actuarially unfair in favor the retiree.²⁷

Education. Many countries provide “public education” to children up to a point. They also subsidize higher education to some degree. If such educational subsidies were financed in full by taxes on parents while the student is in school, then subsequent emigration of a public school graduate would impose no cost on any other residents except the members of the immediate family of the migrant. But if one imagines instead that the educational subsidy is repaid by the public school graduate through taxation after graduation, then emigration appears potentially disadvantageous to all those left behind. To be sure, it may remain efficient from the world perspective to the degree that the migrant maximizes the returns to human capital and the incentives for governments to invest in human capital accumulation (assuming such investment to be desirable) are not diminished too much.

For the most part, this observation suggests reasons why countries might seek to restrict emigration to promote the national advantage, but does nothing to

²⁶The question whether medical care that is provided charitably might be a source of a negative externality is an interesting one. Although the burden of the poor on charitable hospitals may be considerable, the fact that care is provided at no charge perhaps suggests that the care providers (medical personnel who work for free or who are supported by charitable donors) gain more psychically from the provision of care than it costs them to provide it. Thus, any extra burden of immigrants upon charitable providers of medical care and other benefits seems to be a source of positive rather than negative externalities. The only counter argument, rather unseemly at that, is that the providers of charitable services do not care about anyone except those who they encounter personally or who are local residents, so that suffering abroad has no psychic cost to them.

²⁷There is good reason to believe that this circumstance has arisen at times in the past for the Social Security system as a whole, and especially for lower income participants. See generally *Social Security: Beyond the Rhetoric of Crisis* (T. Marmor & J. Mashaw eds. 1988); *Social Security's Looming Surpluses* (C. Weaver ed. 1990).

justify restrictions on immigration. Thus, in particular, the much celebrated U.S. Supreme Court decision in *Plyler v. Doe*,²⁸ which held that states cannot discriminate against undocumented aliens in the provision of public primary and secondary education, need not be contrary to the pursuit of the national advantage. Only to the extent that children of undocumented aliens may be expected to leave the country subsequently would the provision of an educational subsidy become worrisome. And, although some such children may by choice leave the country, perhaps the greatest danger is that they will be deported at some point along with their parents, a form of emigration that need not occur at all.

The possibility that an immigrant may stay only long enough to take advantage of an educational subsidy is perhaps greater with respect to temporary residents in subsidized portions of the higher educational system. Even here, however, the cultural and educational benefits to permanent residents from the opportunity to interact with foreign nationals affords an offsetting consideration.

Public Goods. With true public goods (perhaps national defense is an example), consumption is nonexclusive and the presence of additional residents does not diminish the value of the public good to others. Thus, to the degree that a migrant contributes to the funding of public goods through taxation, migration is a loss to the country of emigration and a gain to the country of immigration.

Congestion of Public Facilities. Related and opposite, access to many publicly owned facilities is underpriced (national parks, beaches, highways), resulting in the presence of congestion externalities. Additional residents exacerbate the problem. Of course, congestion externalities may arise in the use of privately owned property as well if access is underpriced but such underpricing is perhaps rare enough that the problem is not very significant.

Returns to Net Public Assets. More generally, one must inquire who earns the returns to publicly owned assets, sometimes termed “public capital” in the literature. As a first approximation, one might suppose that those returns accrue pro rata to the citizenry, so that an immigrant imposes a negative externality on those already present by capturing a pro rata share immediately. Upon reflection, however, the issue is much more complicated.

A “pro rata” share of the returns to public goods, as noted, creates no negative externality because consumption is nonexclusive. For facilities subject to a congestion problem, by contrast, the negative externality is clearly present. Many public facilities do not fall neatly into either category, however, and the

²⁸457 U.S. 202 (1982).

proper allocation of “returns” to such facilities, and even the conceptual measurement of those “returns,” is problematic.

Consider, for example, the postal system. Who earns the returns to the investment in post offices, airplanes, trucks, and so on? Perhaps those returns are captured by the postal workers union, or by politicians who influence the location of post offices and hiring. At the other extreme, the returns might be realized by postal consumers, who pay a lower price for service because the cost of capital is not reflected in the price (equivalently, the price is lower than it would be if the service were supplied privately).

Similar conceptual issues arise with respect to police stations, fire stations, the Department of Commerce building in Washington, and on and on. Consider a representative Federal building. First, who paid for it? Was it financed by earlier taxpayers, so that the returns to its operation (think of them as savings on rent that the government would have to pay currently if it was renting a privately owned building) are passed through to current taxpayers in the form of lower rates? Or should we think of it as financed by a bond issue that is repaid over the life of the building out of current tax revenue, so that there is no intertemporal transfer reflected in the tax burden? Depending on the answers, a new immigrant, paying taxes currently but not in the past, might or might not be viewed as contributing to the cost of its construction. And there remains the problem of determining who receives the returns presently from its existence—government employees? politicians? all current taxpayers on a pro rata basis? some current taxpayers? beneficiaries of the programs that the agency sponsors? Depending upon how these questions are answered, and they are no doubt unanswerable in practice, the immigrant’s presence could have a favorable or unfavorable effect on the rest of the populace with respect to a given facility.

The reference to intertemporal transfers suggests a more general point. Just as the value of publicly owned assets can be considerable, so can the value of public debt. And the migrant who captures a share of returns to public assets may likewise be viewed as capturing a share of the obligation to repay public debt. Thus, for example, if the value of public assets were equal to the national debt, and if the rate of return on public assets were equal to the rate of interest on the debt, a pro rata share of the returns to *net* public assets would be worth nothing.

With these remarks as background, a paper by Usher²⁹ argues that immigration may be quite harmful to the country of immigration (and by implication quite beneficial to the country of emigration) because of the ability of immigrants to capture a share of the returns to public capital and “mixed” capital, the latter being all capital the returns to which are subject to tax. His

²⁹See Usher, *supra* note 15.

“back of the envelope” calculations for the United Kingdom are quite peculiar, however, because he assumes that all workers capture the marginal product of their labor (no tax on labor), and that each member of the population receives a pro rata share of the returns to public capital (estimated as its net value times a market rate of return) and revenue from taxes on privately owned capital. As a result, migrants who arrive with labor and no “capital” almost inevitably reduce the welfare of prior residents because they pay no taxes yet capture a pro rata share of the returns to all government activity.³⁰

Simon³¹ takes a different approach to the problem, abandoning any effort to allocate directly the returns to public assets. Using data for the United States, he estimates the tax payments made by immigrants, and compares them to their readily measurable consumption of public services (payments to them under entitlement programs, but excluding their use of public education,³² national parks, and so on). He then concludes that immigrants on average pay more in taxes than they receive in public services, so that their net effect on the rest of the population through the activities of the public sector is positive rather than negative. The exception is the immigrant who is *employed* by the government, as government employees are assumed to capture the returns to the capital with which they work (the postal workers union example above). But because the number of immigrants so employed is small, Simon argues, this appropriation of returns to public capital from prior residents is quite small, and vastly smaller than the effect calculated by Usher.

Neither approach is entirely satisfactory in light of the remarks above, although Simon’s approach seems far closer to the mark. A proper accounting of the effect of immigrants on natives through the activities of the public sector would account for all taxes paid by immigrants over their life span, and value all services received by them through the public sector over their life span at their proper economic cost (including imputations for congestion externalities, ordinary economic returns foregone by the government when it sells goods or services at a subsidized price, the value of public education, and so on). Simon’s analysis, putting aside any objections to his data, plainly understates the typical

³⁰The only offsetting benefit to the original residents in Usher’s framework is that mentioned in Section A—the marginal product of labor falls due to immigration, and the rest of the population gains something because immigrants are paid their marginal product which is less than their average product. But this gain is dwarfed by the migrants’ ability to appropriate a share of returns to capital.

³¹See J. Simon, *supra* note 12, at 143-64.

³²The exclusion of public education might seem a glaring omission, except that if immigrant children are expected to remain in the country and to pay back their educational subsidy in future years through taxes, the education subsidy will later be recovered.

immigrants' draw upon public services and facilities for failure to include the imputations noted above, but arguably overstates the effect of immigrants who are public employees on the rest of the population.

Other Considerations. The introduction of government taxation and expenditures not only affects the analysis of the efficiency of migration by workers, but also the efficiency of migration by other factors. Some of these effects have direct bearing upon immigration policy.

Return to the earlier example of a factory that, from a global welfare perspective, is best located domestically, but is best staffed with foreign workers. Assume also that immigration restrictions prevent foreign workers from migrating to work at the factory, and that as a consequence the factory is built abroad. Suppose further that if the factory were built domestically, the taxes that would be paid on the returns to investors in the factory would exceed the incremental costs of government services necessitated by its presence. Then, immigration restrictions impose a net loss on the domestic economy, other things being equal, because they induce capital investment abroad with a resultant loss of net government revenues.

3. Summary and Further Note on the Empirical Literature

The theoretical discussion suggests difficult empirical issues, only a few of which have been examined closely, and some of which are likely impossible to examine in practice. If one assumes away the general problem of allocating returns to public assets, however, and focuses only on direct payments to migrants in relation to the taxes that they pay, then the available evidence for the United States suggests that migrants *on average* pay their way, and then some.³³ This conclusion is reinforced by the fact that immigrants are often young adults (although they may bring their children) who have received their education at the expense of someone abroad, and who will not participate in entitlement programs for the elderly for many years.

Of course, the available empirical information reflects the national experience with migration under past immigration policies. One cannot infer that the same conclusions would necessarily hold had immigration been less restrictive or based upon different criteria. Quite clearly, for example, an open door policy, coupled with immediate right to full participation in public entitlement programs, might well become a source of considerable financial drain on the national treasury. Likewise, the fact that immigrants on average pay their way does not establish that all of them do, and one must inquire whether policies to

³³Useful review of the empirical evidence, with further citations to the literature, may be found in J. Simon, *supra* note 12, at 105-42. A brief discussion of the effect of immigrants upon net public revenues may also be found in Lindert, *International Economics* 541-42 (9th ed. 1991).

minimize immigration driven by a desire to participate in transfer programs are adequate.

It is important to remember, however, that immigration law is not the only policy instrument available to address externality problems. If externalities arise because of entitlement programs, for example, changes to those programs may dominate any change in immigration policy. Yet, that perspective on the problem may be naive, as it presupposes that the appropriate modifications to entitlement programs are legally feasible, and that the political system will be equally adept at effectuating the needed changes irrespective of the level of migration. Indeed, the assumption that public sector decisions in general are exogenous to migration policy is generally somewhat suspect. These issues warrant further attention.

D. Entitlement Programs Revisited—Of Public Choice and Altruism

Even if immigrants cannot participate in the political process, a substantial influx of immigrants can affect the allocation of resources in the public sector—witness current U.S. policies toward illegal immigrants. The potential impact of immigration upon public policy is far greater, of course, if immigrants have the power to influence policy directly. In the democracies, that power comes largely through the voting franchise.³⁴

It has been argued that full political membership for immigrants with socio-political backgrounds that differ from those of existing residents may threaten the possibly fragile and poorly understood institutional structure that makes the country of immigration more successful than the country of emigration.³⁵ This possibility perhaps cannot be excluded, but it seems equally plausible that the participation of immigrants in the political system will strengthen the commitment of the polity to preserve the vital institutions of the country of immigration. Individuals who have abandoned one country in favor of another may well have greater appreciation for the differences between the two that make their new country a source of greater economic opportunity, and a greater commitment to preserving the sources of that opportunity.

Likewise, with respect to the political resolution of most specific policy issues, there seems little reason to suppose that the franchise for immigrants will have an adverse impact upon the rest of the population. The preferences of the “median voter” may shift a bit, to be sure, and decisive new coalitions may emerge on some issues. But in the end, it seems quite unlikely that important

³⁴The right to vote in the United States, for example, is typically restricted to citizens. Permanent residents are allowed to become citizens, however, and thus under current U.S. policy, all permanent immigrants can obtain the franchise if they so choose in reasonably short order. See L. Tribe, *Constitutional Law* 1545 (2d ed. 1988).

³⁵See Buchanan, *A Two Country Parable*.

national defense programs will be undermined, or that valuable highway construction, police and fire services will grind to a halt. Rather, as long as immigrants pay their way—returning to the issues discussed in the last section—their right to vote on many matters of mutual concern need not concern the rest of the citizenry.

The most obvious caveat again relates to transfer and entitlement programs. A wave of new, poor immigrants, for example, may well gain the capacity to vote themselves a substantial transfer from original residents. The problem here of course is nothing but a slight variant of the one discussed earlier. Because the generosity of entitlement programs is in reality endogenous to immigration policy, any distortion that they create can grow with immigration if the composition of the immigrant flow is such that immigrants benefit from entitlement programs more on average than original residents.

The issue becomes more complex if one views entitlement programs not simply as coerced transfers to organized interest groups, but as the product at least to a degree of altruism on the part of more affluent residents. One possibility of relevance here, modeled in the public finance literature that addresses redistribution within a federal system,³⁶ is that citizens “care” more about local poor than distant poor. Precisely why this should be so is not clear, though perhaps the affluent gain more utility from helping those with whom they have more frequent encounters, or perhaps ethnic and racial biases are present. In any event, this structure of preferences coupled with legal constraints on the exclusion of new residents from redistribution programs may justify immigration restrictions as a second best means to facilitate “efficient redistribution.”

To illustrate using a simple model adapted from the work of Pauly,³⁷ suppose that a country is initially composed of a single affluent altruist and a number of identical poor residents. The altruist contemplates a program of redistribution. Assume further that redistribution will induce immigration unless it is prohibited, that legal constraints require equal transfers to all poor people, and that they preclude the exclusion of immigrants from the transfer system. Let the altruist have total income I , and utility function $u(y,w,p)$, where y is the altruist’s own consumption, w is the transfer payment to each poor resident, and p is the number of poor residents who receive transfers. The altruist’s budget constraint is thus $y + pw = I$.

To keep the analysis as simple as possible while developing the essential points, assume that the initial population of local poor is p^* , and inquire whether

³⁶See Pauly, *Income Redistribution as a Local Public Good*, 2 J. Pub. Econ. 35 (1978).

³⁷*Id.*

the altruist would prefer to restrict p to p^* by prohibiting *any* immigration of additional poor people.³⁸ This question may be answered by solving the problem in which the altruist chooses y , w and p to maximize utility subject to the budget constraint and to the constraint $p \geq p^*$. Let γ be the Lagrange multiplier associated with the latter constraint. The altruist will prefer to prohibit immigration if γ is positive at the optimum.

The pertinent first order conditions, which I assume to be sufficient, can be written:

$$(1) u_w = u_y p$$

$$(2) u_p = u_y w - \gamma$$

Assuming that a positive amount of redistribution is to occur, equation (2) confirms the obvious point that γ will be positive if u_p is sufficiently small. That is, if the marginal utility of adding another person to the transfer rolls is small enough at the population level p^* , the altruist will prefer to exclude any new recipients. The possibility that the altruist may not care much about the non-resident poor is conceptually similar to the situation in which u_p is small or zero (though concededly the discontinuity implicit in that description of preferences would require a more elaborate set of first order conditions).

Further, on the assumption that the marginal utilities of y , p , and w are diminishing, equations (1) and (2) imply that allowing the altruist to limit p to p^* when that outcome is preferred by the altruist leads to a larger transfer payment w than if immigration could not be restricted and redistribution had to be undertaken over a larger population. Thus, the use of immigration restrictions will benefit the existing poor residents who will receive greater transfers. It follows that immigration restrictions can enhance national economic welfare (that of the altruist and the original poor residents)—indeed, such restrictions can yield a Pareto improvement for them.

Even if altruists care equally about local and distant poor, an argument for limiting redistribution to the current domestic poor might be based upon transaction costs. It is certainly plausible that the transaction costs of redistribution rise as the number of transferees rises, other things being equal, and that the transaction costs of redistribution domestically are lower than the costs of redistribution abroad.³⁹ Quite plausibly, altruists would then prefer both

³⁸A more general formulation of the problem might specify that $p = p(w)$ without immigration restrictions, and model immigration controls as the altruist's choice of p subject to the constraints $p^* \leq p \leq p(w)$.

³⁹I have also encountered a number of arguments for domestic redistribution to a limited population that seem fallacious. For example, it is possible that the affluent would prefer that a certain minimum standard of living be achieved by the beneficiaries of transfer programs. A plausible basis for this preference would be a belief that the marginal utility of wealth to the poor

to limit transfers to domestic residents, and to limit the number of eligible transferees domestically to reduce the proportion of the redistributive budget consumed by administrative costs. Once again, if transfers induce immigration and legal constraints preclude the exclusion of new immigrants from transfer programs, a case for immigration restrictions might again emerge.

Of course, it remains to inquire whether immigration restrictions are in fact the only viable way to limit participation in transfer programs. As noted earlier, the more direct solution to the problems identified above would be to allow immigration but to deny transfer payments to those who immigrate, at least for some considerable period of time. This solution would have the advantage of eliminating the source of the distortion in the incentive to migrate without concurrently generating the labor market inefficiencies that likely attend immigration controls.

As a practical matter, however, appropriate corrections to entitlement programs may be infeasible or of limited effectiveness. In the United States, for example, the courts have been quite hostile on constitutional grounds to substantial residency requirements as a condition for participation in entitlement programs.⁴⁰ The exclusion of resident aliens from welfare programs has also been struck down, with alienage now treated as a suspect classification.⁴¹ The fact that resident aliens can quite easily become citizens further constrains efforts to exclude them in any way.⁴² Not only is it impermissible to exclude citizens from entitlement programs, but an influx of new, disadvantaged aliens who become citizens might well develop the political power to force an increase in payments under such programs. Hence, there is considerable reason to believe that immigration restrictions may be useful for preventing inefficient migration by those who would avail themselves of transfers, at least in the United States.

Summarizing, the assumption that important aspects of the entitlement programs are “endogenous” to immigration policy because of the voting power of immigrants, the preferences of those who wish to engage in redistribution, or the transaction costs of assisting an increasing population of beneficiaries simply strengthens the conclusions developed earlier about the dangers of an open door policy in nations that are relatively generous to the disadvantaged. To the extent

is locally increasing—perhaps it does more good to give 10 poor families \$100 than to give 10,000 families a penny. If so, a case could be made for restricting the size of the transferee population. But an argument for immigration restrictions does not follow, because on this information alone, it would do just as well to give the \$100 to 10 foreign families as to 10 domestic families.

⁴⁰See L. Tribe, *supra* note 34, at 1380-84.

⁴¹*Id.* at 1544-45.

⁴²Most legally resident aliens may become citizens after five years by taking an oath of allegiance and demonstrating English language proficiency. See generally 8 U.S.C. § 1421 et. seq.

that political or legal constraints preclude the exclusion of immigrants from these programs, respectable arguments can be formulated from both the national and global welfare perspectives for immigration policies designed to ensure that immigrants can pay their way.

E. Some Further Notes on Pursuit of the National Advantage and Efficient Rationing of the Right to Immigrate

Whatever the net impact of immigrants upon the country of immigration under current immigration policies, it is interesting to explore further the question of how a nation can employ immigration controls to maximize its national advantage. For example, various devices might be employed to tax away some of the rents earned by immigrants, a policy that is feasible for nations with a degree of "monopsony power." Alternatively, even if the permissible level of immigration is set without reference to any monopsony power of the country of immigration, the manner in which a limited number of entry permits is rationed among those who desire to immigrate can have important efficiency implications both from the national and global perspectives.

1. Monopsony Power

In mentioning devices for the extraction of rents from immigrants, I do not mean to advocate them, and in fact some appear quite unseemly. But a discussion of them is nevertheless useful to an understanding of how a nation can maximize its gains from immigration and, as it turns out, these devices are not altogether dissimilar to policies that are in effect today in some countries. Even the United States today uses a crude rent extraction device as the basis for allocating a few of its visas for permanent immigrants.⁴³

A question that surfaces here once again is whether the welfare of immigrants "counts" in the computation of national welfare immediately upon their arrival, or whether a rent extracted from a prospective immigrant is instead a gain for the nation because the immigrant is excluded from national welfare until some time after any tax or charge is paid. Without advocating any particular position in response, I shall simply proceed on the assumption that a plausible view of the national advantage excludes prospective immigrants until such time as they have actually arrived and "paid the price of admission," if any.

On this assumption, one device for enhancing the national advantage is analogous to the "optimal tariff" in international trade.⁴⁴ Because the supply of immigrant labor to a large country like the United States is unlikely to be perfectly elastic, large countries have a degree of monopsony power in the

⁴³See Section II.A *infra*.

⁴⁴On the use of optimal tariffs, see, e.g., A. Dixit & V. Norman, *supra* note 7, at 168-75.

international labor market, which they may choose to exploit. This monopsony power is further enhanced if immigration is restricted by other countries, so that potential immigrants cannot readily go elsewhere because of legal impediments. For the simplest case, suppose that immigrant labor is homogeneous, that immigrants supply nothing but labor, and that discrimination across immigrants is infeasible. The private demand for immigrant labor, reflecting the value of its marginal product under competition, is downward sloping. In the presence of any externalities from immigration, this private demand relation can in principle be adjusted to reflect them, thereby to create a “social demand” curve indicating at each point the wage payment at which the welfare of original residents is unaffected by another immigrant (the social marginal product of immigrant labor). With an upward sloping supply curve, a marginal cost of labor function lies above the labor supply function, and a monopsony optimum exists where the marginal cost of labor function intersects the social demand function. To reach it, a tax equal to the difference between the supply price of immigrant labor and the marginal cost of immigrant labor at the monopsony optimum might be imposed.⁴⁵ Of course, if immigration yields sufficiently large positive externalities, the optimal tax might be negative (a subsidy).

The assumption that immigrant labor is homogeneous is surely incorrect, however, and thus a model involving single uniform tax on all immigrant workers is too simplistic. Rather, the exercise above would at a minimum have to be repeated for different types of immigrant labor, just as the optimal tariff varies across imported goods.

In addition, even greater gains for original residents can be obtained through price discrimination. In the limit, if it were possible to observe the gains to immigration for each immigrant, the optimal tax on each (from the perspective of the original residents) would extract those gains but stop short of discouraging immigration altogether.

These taxes could be imposed in various ways. A tax on wages paid to immigrant workers would suffice, although such a tax regime would have the quality of a discriminatory wage tax based on alienage or national origin, and thus appear particularly unseemly.⁴⁶ A charge for “admission” to the country could serve much the same function, and such charges are not unknown in

⁴⁵The diagram is so familiar that I omit it. A discussion of a labor market monopsonist may be found in J. Henderson & R. Quandt, *Microeconomic Theory* 190-92 (3d ed. 1980).

⁴⁶Indeed, under U.S. law, such a tax would no doubt be unconstitutional. See generally L. Tribe, *supra* note 34, at 1544 et. seq. The legal difficulties would be compounded for immigrants who subsequently became naturalized.

practice.⁴⁷ Even a discriminatory charge might be structured in such a way as to avoid offending sensibilities. For example, the immigrant doctor might be charged more than the immigrant farm worker.

Another device is the auction, which has been advocated by some economists in the past (though not necessarily for the purpose of extracting monopsony rents).⁴⁸ By computing the number of immigrants that maximizes national welfare, and then auctioning that number of entry permits, an auction could roughly replicate the effects of an entry tax. Depending upon how the auction was conducted (whether there are separate entry permits for different categories of immigrants, whether some bidders pay more than others within a category), it might also allow price discrimination.

Of course, just as with the use of optimal tariffs in trade, the strategic reaction of foreign countries must be considered. Here, however, the likelihood of retaliation seems modest. Earlier analysis suggests that those left behind by emigrants may well lose from emigration, and to that extent they would be unlikely to object to policies that discouraged it. The rents extracted here come mainly at the expense of actual immigrants, and at the expense of a limited group of foreign nationals who would choose to immigrate absent rent extraction policies.

Nevertheless, all these strategies for extracting monopsony rents (save perfect price discrimination), if successful, are potentially⁴⁹ detrimental to global welfare notwithstanding their benefits to the country of immigration. Explicit or implicit agreements to eschew such behavior might well be in the global interest. Short of such agreements, however, these policies may indeed promote the national advantage defined as above, and as noted some nations already employ them in one variation or another.

2. Efficient Allocation of a Fixed Supply of Entry Permits

There may well be good reasons not to engage in calculated policies to extract rents from immigrants, both moral and economic. But there may be equally good reasons, associated with negative externalities, for eschewing an open door

⁴⁷See G. Borjas, *supra* note 5, at 226. The nation of Belize, for example, at one time allowed the purchase of citizenship through the posting of a \$25,000 bond, half nonrefundable. See J. Simon, *supra* note 5, at 146. And, a number of countries (including the United States) allow immigration based on the prospect of the immigrant making a substantial investment in the domestic economy. This device for rationing entry bears a close relation to charging for admission, as discussed further below.

⁴⁸See, e.g., J. Simon, *supra* note 12, at 329-35. An early auction proposal was made in unpublished work by Gary Becker.

⁴⁹I say potentially, because it is by no means self evident that such schemes would be worse than existing policies.

policy. And in any case, most countries in practice limit immigration. It may not be a bad first approximation at times, therefore, to suppose that the amount of immigration is fixed by exogenous political considerations, and to explore the problem of how to ration the fixed number of entry permits as efficiently as possible from the national and global perspectives.

The auction has possible virtue here as well. Even if the number of entry permits to be auctioned is set by noneconomic criteria, the auction mechanism nevertheless distributes them to potential immigrants who are willing to pay the most. In turn, these individuals have the most to gain from immigration and, other things being equal, allowing them to immigrate will tend to maximize global welfare in a “second best” sense, taking the possibly inefficient restrictions on the total volume of immigration as given. As noted, an auction also allows existing residents to extract rents from immigrants, which may well make them more willing to accept immigration and lead to a relaxation of restrictions that might otherwise hold the volume of immigration to an inefficiently low level.

As before, a fixed charge in lieu of an auction can in principle achieve much the same result. Such a charge need not be calculated to achieve the monopsony optimum, but can instead be set to clear the market at any desired level of immigration. And, as with an auction, such a system tends to admit those willing to pay the most, and to provide a payment to original residents that may make them more tolerant of immigration. Whether such transfers are viewed as an independent benefit from the national perspective again depends on whether new immigrants “count” in the computation of national welfare prior to payment of the entry fee.⁵⁰

To be sure, some imperfections would persist under either an auction system or a fixed charge system. If some of the gains to the migrant are a transfer rather than a social gain, for example, willingness to pay for entry can be distorted upward just as the incentive to migrate is excessive. At least with payment for entry, however, some of the anticipated transfer is recaptured and the problem is ameliorated. Alternatively, if immigration yields a positive externality to original

⁵⁰If the concept of payments for entry seems peculiar, note that the argument in their favor is analogous to the argument for the use of tariffs or auctioned quotas in international trade instead of conventional quotas. When a market is protected from foreign competition, price rises and a “rent” exists relative to the competitive price. A quota system, administered so that foreign suppliers hold the right to import a limited quantity, allows them to capture this rent. A tariff or auctioned quota, by contrast, allows the domestic treasury to capture the rent, and thus the adverse effect of protection upon national welfare diminishes.

Similarly, immigration restrictions likely exist in part as protection for factors of production that are close substitutes for those supplied by immigrants, and a policy of rationing entry allows those who immigrate to collect the resulting rent. An auction or other system that charges for entry can capture part or all of that rent for the national treasury.

residents that varies across potential immigrants, the possibility arises that a payment system may discourage the immigration of those who would benefit the country of immigration the most. In addition, any payment system may exhibit the usual tension between Hicks-Kaldor efficiency and utilitarianism—those who might appear to have the most to gain from immigration to a utilitarian (perhaps a close family member of an existing resident, or a poor refugee) may not exhibit the greatest willingness to pay. These problems might be addressed within an auction or price system by distinguishing categories of immigrants and maintaining a separate auction or price system for each. Categories of immigrants whose immigration is deemed especially desirable for humanitarian reasons might be excluded from the pricing mechanism altogether.

Notwithstanding the possible virtues of a pricing mechanism, however, such devices are fairly uncommon. Most nations nevertheless retain limits upon immigration, and thus some other means for rationing entry must be devised. It is instructive to conclude this section by asking what criteria, other than willingness to pay for entry, will most efficiently ration entry.

Possible considerations in the design of such criteria plainly include the likely earnings capacity of the immigrants. For nations with a progressive tax structure and public safety net programs, immigrants with greater earnings capacity are more likely to be a net benefit to other residents, other things being equal. Greater earnings capacity may be inferred from information about the immigrant's occupation, and from other variables such as education and accumulated wealth.

Another pertinent consideration is age. The young adult, who has been educated abroad and who is many years away from participation in any entitlement programs for the elderly, is more likely to afford a net benefit to other residents as well, other things being equal.

Family reunification and refugee cases suggest two other factors that are clearly important. Family reunification affords substantial psychic benefits to existing residents, and entry for refugees allows existing residents the satisfaction of an altruistic policy. Although these benefits are difficult to weigh against conventional pecuniary considerations, it is clear that the immigration of family members and refugees confers more benefit upon other residents than the immigration of individuals in neither category, other things being equal.

II. An Analysis of U.S. Immigration Policy

Immigration policy includes not only the law affecting the immigration of permanent residents, but also laws granting temporary resident status to workers, students and others. Policies toward "illegal" immigration are also at issue. Finally, laws that govern the taxation of immigrants and their rights to

participate in public safety net and other entitlement programs must be understood as part of the overall immigration policy.

A. Permanent Immigration

Although the numerical limits changed significantly with the Immigration Act of 1990, the basic structure of U.S. immigration law has remained largely the same for some time. Under U.S. law, an “immigrant” is a person who comes to the United States with permanent resident status. Such persons may elect to become citizens thereafter (“naturalization”), but no commitment to naturalization is required. Although the rights of citizens and permanent resident aliens differ, they are treated similarly by the public sector on most matters of interest here (taxation, public education, participation in entitlement programs). The major qualification in this regard is that family-sponsored immigrants are for a time treated as part of the sponsoring family for purposes of qualifying for some means-tested assistance programs.⁵¹

After the 1990 Act, the nominal ceiling on annual immigration is 700,000 per year through 1994. Of this total, 520,000 visas are for family reunification according to a kinship priority system, 140,000 are for employment based immigration, and 40,000 are for a miscellany of “transition” programs. The allowable immigration level falls to 675,000 in 1995, with 480,000 family reunification visas, 140,000 employment-related visas, and 55,000 “diversity” visas for residents of countries that have been underrepresented in the flow of U.S. immigrants previously.⁵² The actual level of immigration will exceed these ceilings, however, because refugees are not counted against the ceiling, and spouses, minor children and parents of U.S. citizens are allowed to enter the country in unlimited numbers that count against the family reunification ceiling only up to a point.⁵³

The “diversity” system is new, and in any event modest in size. Consequently, the 1990 Act will not significantly change the fundamental system of immigration that has prevailed for many years: The great majority of immigrants will be relatives of current citizens and permanent residents. And, while the employment-based category was expanded significantly, and often said to have been the primary impetus for the Act,⁵⁴ employment based immigration will nevertheless represent only about 20% of total immigration.

⁵¹See G. Borjas, *supra* note 5, at 155.

⁵²See generally *Understanding the Immigration Act of 1990* 1-1–1-4 (S. Yale Loehr ed. 1991).

⁵³*Id.*

⁵⁴See H. Sklar & S. Flinsky, *The Immigration Act of 1990 Handbook* 3-1 (1991).

Indeed, total employment-based immigration will exceed only modestly the average number of refugee and asylee immigrants during the 1980's.⁵⁵

1. Family Reunification and Refugee Immigration

The emphasis upon family reunification and the absence of formal restrictions upon refugee admissions under U.S. law may be questioned, but arguments against them are hardly conclusive. Plainly, a system that allows immigration without regard to any of the factors that reflect the earnings capacity of the immigrants, their propensity to participate in entitlement programs, and the like, ignores the most important indicators of possibly inefficient immigration. Recent work by Borjas indicates that under an immigration policy dominated by family reunification for several decades, the average educational skills of U.S. immigrants have declined, and immigrants rely increasingly upon public safety net programs.⁵⁶ He further argues that other nations do more to pursue immigrants with greater earnings capacity, and thus do better at promoting the national advantage than the United States.

Unquestionably, a policy that allocated the fixed number of visas with greater attention to educational background and similar factors could enhance the skill composition and earnings capacity of immigrants, increase their tax payments and reduce their welfare participation rate. Focusing exclusively on dollar returns from immigration to original residents, therefore, there can be little doubt that an alternative system of priorities would yield higher returns.

Borjas' own work indicates, however, that welfare participation rates are not dramatically higher for immigrants than for natives (about 1 percent higher for immigrants as a whole). Total welfare payments to all immigrants in 1988 were only about \$2.3 billion.⁵⁷ Nothing in his work is inconsistent with the empirical proposition advanced by Simon and others that immigrants as a whole are a source of net gains to the rest of the nation even if those gains might be increased through alternative policies.

Further, and surely most importantly, any failure to pursue the national advantage measured narrowly in dollars may well be offset by the psychic gains to existing residents from the admission of refugees and family members. This possibility is certainly not subject to disproof.

Over the longer term, to be sure, the possibility arises that the family preference system may allow immigrant groups with high participation rates in

⁵⁵From 1981-88, the average number of refugee/asylee immigrants per annum was approximately 108,000. See Statistical Yearbook of the Immigration and Naturalization Service at 63 (1988) [hereafter INS Yearbook].

⁵⁶See G. Borjas, *supra* note 5, at 156-62.

⁵⁷*Id* at 160.

transfer programs to grow rapidly through family reunification once they establish a “toehold.” The evidence that this problem is now significant is scant, however, and it probably warrants no more than continued monitoring. If the problem grows and some reform appears desirable, perhaps family reunification visas might be conditioned upon satisfactory employment status for current family residents or, in the alternative, satisfactory employer sponsorship (see below) for prospective new immigrants of working age.

2. Employment-Based Immigration

The 1990 Act increases the number of employment-based visas to 140,000 per annum, from its previous level of 54,000. The total includes dependents. Out of the 140,000 limit, 40,000 visas are allocated to “priority workers.” These include persons of “extraordinary ability,” who can demonstrate through substantial documentation that they have enjoyed “sustained international acclaim.” The legislative history generously allows that sufficient recognition can result from a one time achievement, such as “receipt of the Nobel prize.”⁵⁸ “Priority workers” also include “outstanding professors and researchers” who are recognized internationally, and executives and managers who have been employed overseas by an affiliate of a U.S. company. Admission of an individual in the latter two groups requires a petition from the prospective employer. Nobel prize winners and others of “extraordinary ability” are allowed to look for a job after they arrive.⁵⁹

Another 40,000 visas are available for “immigrants with advanced degrees” (beyond the bachelor’s level) and others of “exceptional ability in the sciences, arts or business.” These visas too include a requirement that a job offer be extended prior to immigration, subject to a waiver in exceptional cases. Because of the fairly stringent requirements under these first two categories, the anticipation is that the visa ceilings here will not be a binding constraint.

The third category of workers, with an allocation of 40,000 visas plus the number of unused visas in the first two categories, is “skilled and unskilled workers.” A “skilled worker” must have a bachelor’s degree or the ability to perform a job that requires at least two years of training. Only 10,000 visas may be used for “unskilled” workers. All workers in this category require an employer sponsor, and a “labor certification.” The labor certification is a determination by the Department of Labor that there “are not sufficient workers who are able, willing, qualified,...and available” at the place where the alien

⁵⁸See H.R. Rep. 101-723, Part I, 101st Cong. 2d Sess., at 59 (1990).

⁵⁹See 8 U.S.C. §1153.

seeks to work to perform the work in question, and that employment of the alien will not adversely affect the wages and working conditions of other workers.⁶⁰

A fourth category, with 10,000 visas, is reserved for special workers, such as ministers, employees of the embassy in Hong Kong, and several other groups. The fifth category, also with 10,000 visas, is for “foreign investors,” who must invest at least \$1 million in starting a new enterprise, and must thereby create at least ten jobs. Permanent residence in this instance is conditional on maintenance of the investment for at least two years after arrival.⁶¹

Aside from the few special preferences in the fourth category, the structure of the preference system is plainly aimed at workers that are relatively skilled or, as in the last category, relatively wealthy. Because such workers are likely to pay higher taxes, and are probably less likely to participate in public safety net programs, such an allocation system seems a reasonable method of allocating a fixed number of employment-based visas. The employer sponsorship requirement further reduces the chances that the immigrant will become a drain on other citizens.

The labor certification process, by contrast, has little to commend it. Unless the local labor market is characterized by significant involuntary unemployment, there seems to be little reason to second guess the judgment of an employer that an alien is best qualified for a position. And, in the presence of substantial unemployment, the likelihood that an employer would be inclined to hire someone from abroad seems minimal, since the employer can draw upon a local pool of labor populated with individuals who can be interviewed personally and whose language skills and work history, for example, are readily verifiable. Nevertheless, the law requires direct notice to affected unions, and provides that nonunion employers must post conspicuous notice of the intent to hire an alien so that interested third parties may supply information to the Department of Labor.⁶² Thus, the likely effect of labor certification is simply to allow domestic workers to exclude competition.

In addition, it is certainly questionable whether *any* ceiling on the number of visas for skilled immigrants with employer sponsorship is in the national interest. As noted, the most obvious concerns about the immigrants’ ability to pay their way are allayed for this group, and the case for immigration restrictions then becomes highly conjectural. To a lesser degree, one may question whether limitations upon the permanent immigration of unskilled workers with employer sponsorship are desirable.

⁶⁰See 8 U.S.C. §1182(a)(5).

⁶¹See 8 U.S.C. §1153(b)(5).

⁶²See Understanding the Immigration Act of 1990, *supra* note 52, at 3-9.

The investor category, added to U.S. law for the first time by the 1990 Act, is quite intriguing. Because the ability to invest \$1 million perhaps signals scant likelihood that the immigrant will end up on welfare, this criterion for admission has some resonance with the concerns about educational attainment and employer sponsorship that dominate employment-based immigration. The requirement that the immigrant invest considerable sums domestically in a new enterprise, however, is the key feature of this category. From a global welfare perspective, conditioning immigration upon a particular investment pattern seems inefficient—greater gains arise from allowing all factors to migrate to their best use. From the national welfare perspective, however, a requirement of domestic investment as a condition of immigration, given that the returns to capital are taxed (doubly in some instances under the corporate form), may be an implicit device for taxing away some of the rents from immigration and will no doubt yield added benefits to original residents for reasons discussed earlier.

The further requirement that a “new enterprise” be formed with at least ten new jobs, however, is more difficult to justify even from the national welfare perspective. Indeed, it would seem that the domestic tax on the immigrant’s returns to capital would be maximized by allowing the immigrant to invest domestically wherever the returns are highest. Still greater gains might be realized by simply charging the immigrant a fee for admission, and allowing him to select the best investment opportunity whether foreign or domestic. Thus, although this category arguably reflects some movement toward an effort to tax away some of the returns to migration, the particular method it employs is suspect and seems impossible to justify short of political constraints that make the superior options infeasible.

B. Temporary Workers

U.S. immigration policy is not as restrictive of the ability of employers to purchase labor services from abroad as a focus solely on permanent immigration would suggest. In fact, prior to the 1990 Act, the number of temporary or “non-immigrant” workers admitted annually regularly exceeded the number of permanent residents admitted under employment-based criteria.⁶³

The visa options for nonimmigrant workers are too complex to permit a full description here. The most important categories, however, are three: The E category encompasses treaty traders and investors, the former defined as employees of entities present to conduct “substantial trade” with the United States, and the latter encompassing individuals needed to direct the operations of an enterprise in which the qualifying entity has invested substantial capital.⁶⁴

⁶³See INS Yearbook, Table 44.

⁶⁴8 U.S.C. §1101(a)(15)(E).

These individuals must be from a country with a friendship, commerce and navigation treaty with the United States, or its equivalent, and by definition are sponsored by an existing enterprise. The law imposes no ceiling on the number of such admissions, and in recent years they have considerably exceeded 100,000 per year (including dependents).⁶⁵

The second category of importance is the L category for intracompany transferees, working as managers or executives or having specialized knowledge. These visas allow employees of companies with U.S. operations to bring employees from their foreign operations to the United States for up to six years. Again, the law imposes no ceiling, and on the order of 100,000 new category L visas are issued annually (including dependents).⁶⁶

The third and largest category of nonimmigrant workers prior to the 1990 Act is the H category, for “temporary workers.” Prior to the 1990 changes, admissions in this category exceeded 100,000 workers (not including dependents) annually.⁶⁷ The 1990 changes will likely reduce this number. They divide the category into four components: H-1A—nurses, covered by a separate set of statutory provisions; H-1B—workers in specialty occupations, having a bachelor’s degree or higher; H-2A—seasonal agricultural workers; and H-2B—temporary nonagricultural workers in positions that no unemployed residents are capable of performing. The act imposes a ceiling of 65,000 for H-1B visas and 66,000 for H-2B visas. It also creates a new requirement for Labor Department certification in the H-1B category, pursuant to which the employer must certify that it will pay aliens the same wage as paid to other workers of like skill and authority, and that no labor strike or lockout is in progress.⁶⁸ A requirement for labor shortage certification was already present for the agricultural subcategory. Obviously, all of these categories require employer sponsorship. The H-1B visa is limited to six years, and the H-2 visas are limited to the duration of the temporary or seasonal work. Admissions under the H-2 categories have been modest in recent years, on the order of 30,000.

Taken as a whole, the temporary worker visas are heavily weighted toward highly skilled or educated workers, and in practice leave few opportunities for the admission of unskilled workers. Admissions in the latter category are for short term employment, and because of the transaction costs of obtaining a visa coupled with the limited certifications for labor shortages in the agricultural sec-

⁶⁵See INS Yearbook, Table 44.

⁶⁶Id.

⁶⁷Id.

⁶⁸8 U.S.C. §1184.

tor, employers usually find that these visas are not worth the effort to procure.⁶⁹ This was not always so, and in the heyday of the temporary worker program many hundreds of thousands of such workers entered the United States annually. A rather dramatic correlation exists between the decline in the admission of temporary agricultural workers (from over 430,000 in the late 1950's to only about 10,000 in 1988) and the rise in the estimated number of undocumented aliens.⁷⁰

Because all of these worker categories require employer sponsorship, it is again difficult to fashion compelling justification for explicit or implicit ceilings (in the form of labor certification and high approval costs) on the number of admissions. Temporary workers are even less likely than permanent immigrants to be a net drain on the public sector given that these workers pay taxes just like anyone else, federal funds cannot be used to provide them with public safety net benefits,⁷¹ and their right to remain in the country generally depends upon continuing employment. Further, for reasons noted earlier in the discussion of permanent immigration, the likelihood that temporary workers would enter in substantial numbers in competition with unemployed domestic workers seems minimal—other things being equal, employers are likely to prefer an unemployed domestic worker whose skills are more readily verifiable and for whom the transaction costs of obtaining a visa are avoidable.⁷² Finally, as discussed below, temporary worker status is likely preferable to undocumented status from the national perspective. If current restrictions upon temporary visas are indeed producing larger numbers of undocumented workers, an even stronger argument can be made for eliminating those restrictions.

⁶⁹See generally Hearing on Proposal to Amend the Immigration and Nationality Act, House Committee on Education and Labor, Subcommittee on Labor Standards, 98th Cong., 1st Sess., April 13, 1983.

⁷⁰See *id.* at 27-28; INS Yearbook, Table 44.

⁷¹See note 78 *infra*. The exception is unemployment insurance.

⁷²This argument rests on an assumption that the legal requirements affecting employers of domestic workers—such as the minimum wage—would apply equally to employers of temporary immigrants.

The argument here is not undermined by the possibility that temporary immigrant workers may have a lower reservation wage than domestic workers who might fill the same positions. If so, it is in general efficient from both the national and global perspectives for the domestic workers to seek employment elsewhere. The caveat is that inefficiency may arise where the higher reservation wage for domestic workers is attributable to some distortion of the labor/leisure choice decision, such as subsidized unemployment insurance.

C. Undocumented Aliens

Estimates of the number of undocumented aliens in the United States vary, but all agree that several million are present. The debate is whether the range is 3-4 million, or 5-10 million.⁷³ Interestingly, a hefty number of undocumented aliens are not Mexican, but are individuals from other nations who entered legally but overstayed their visas. The majority are from Mexico, however, and despite the efforts of the Immigration Reform and Control Act of 1986 to sanction employers who hire undocumented workers, the market for their services remains strong. Apprehensions of individuals attempting to enter illegally along the Mexican border remain on the order of 1 million per year.⁷⁴

Undocumented workers tend to be considerably less skilled than workers who enter legally, and are no doubt considerably less skilled than those who enter under existing permanent or temporary employment-based visas.⁷⁵ Not surprisingly, the concern most often expressed about undocumented aliens is that they will in one way or another overwhelm the social services system.

The effects of illegal immigration upon the welfare of those legally residing in the United States, however, is by no means clearly unfavorable. Indeed, it is impossible to rule out the possibility that undocumented workers often contribute more to the rest of the population than legal immigrants. Studies reviewed by the Select Commission on Immigration in 1981 concluded that roughly three-fourths of undocumented workers pay social security taxes and have Federal taxes withheld,⁷⁶ and of course as consumers they pay sales taxes. Other studies report even higher percentages of tax withholding and social security tax payments by undocumented workers, on the order of 80-90%.⁷⁷ This is not surprising, since the tax laws make no exception to the obligation of employers to pay payroll taxes or withhold income tax when their workers are undocumented.

In addition, the participation of undocumented workers in old-age entitlement programs is negligible, and indeed any such participation would have to be based on social security numbers fraudulently obtained. Likewise, undocumented workers are ineligible for public safety net programs that are

⁷³A review of the empirical estimates and estimating techniques may be found in G. Borjas, *supra* note 5, at 61-66.

⁷⁴See Annual Report of the Attorney General of the United States 36 (1990).

⁷⁵See J. Simon, *supra* note 12, at 287; G. Borjas, *supra* note 5, at 69.

⁷⁶See Staff Report, Select Commission on Immigration and Refugee Policy (1981). The evidence is also reviewed in J. Simon, *supra* note 12, at 289.

⁷⁷See Hearing on Immigration Reform and Control Act of 1983, House Committee on Energy and Commerce, Subcommittee on Health and the Environment, 98th Cong., 1st Sess., at 116 et. seq. (1983).

supported by Federal funds, save for emergency medical care under Medicaid.⁷⁸ States are free to provide such assistance on their own, of course, and no doubt some instances of fraud arise. Also, physicians at publicly supported facilities may well provide health care to undocumented workers regardless of the prospect of reimbursement, and in fact medical ethics may require it.⁷⁹ But in the end, there is no persuasive evidence that undocumented aliens as a group are a net drain on the public treasury once their contributions to tax revenues are taken into account.⁸⁰

Even if undocumented workers are a source of net benefit to other residents, however, it does not follow that illegal entry into the United States is not in some ways costly. At a minimum, considerable resources are devoted to the apprehension and deportation of illegals along the Mexican border, and to the detection of undocumented workers in the work place. These expenditures could be reduced if workers desiring employment in the United States could enter readily as temporary workers. An expansion of the temporary workers program would also likely facilitate better matching of employer needs with employee skills. One can readily imagine the emergence of employment agencies around the globe to perform this function. By contrast, when employers hire illegals, they must search in a potentially thin and possibly clandestine local market in which workers' background, experience and work history are likely unverifiable.

As noted, the fact that temporary workers are ineligible for participation in public safety net programs is by itself perhaps sufficient to eliminate any inefficient incentive to migrate that these programs might otherwise create. If not, a system of employer sponsorship without the need for labor shortage certifications as under current temporary worker programs would provide a high level of comfort that the worker will be gainfully employed. An expanded temporary worker program would also make it easier to ensure that migrant workers paid taxes on the same terms as permanent residents. Presently, in cases where employers have knowledge that they are hiring undocumented workers

⁷⁸See 42 U.S.C. §1396b(v) (Medicaid benefits limited to emergency care); 42 U.S.C. §602(a)(33) (Aid to Families with Dependent Children); 42 U.S.C. §1436a (public housing assistance); 26 U.S.C. §3304(14)(A) (unemployment insurance limited to legal aliens, permanent or temporary); 7 U.S.C. §2015(t) (Food Stamps).

⁷⁹Expenditures on health care for undocumented workers are likely the greatest component of social expenditures on their behalf, and are sometimes said to be quite large. See, e.g., Statement of Dr. Martin Finn, in Hearing, *supra* note 77, at 110-11. Finn asserts that in fiscal year 1982-83, the Los Angeles County Department of Health Services incurred unreimbursed costs of \$99.5 million for health care to undocumented aliens. The basis for this assertion is not made clear. On the question whether the consumption of charitable services by aliens should be viewed as a negative externality, see note 26 *supra*.

⁸⁰The literature is reviewed at some length in J. Simon, *supra* note 12, at 288-96.

but are nevertheless willing to hire them despite the threat of sanctions, they may also be willing to risk the consequences of omitting them from the payroll for purposes of the payroll tax and tax withholding. The studies noted above suggests that this behavior occurs to some extent, and the consequence is a tax subsidy for hiring the undocumented worker to the extent that the anticipated sanction falls short of the tax savings (as it must or the employer would prefer to comply with the tax laws). A distortion in the hiring decision will then arise.⁸¹

Concededly, as in the past, temporary workers might be tempted to overstay their visas, then becoming illegal immigrants. It is surely naive to suppose that an expanded temporary worker program would eliminate illegal immigration. Nevertheless, by allowing employers access to a pool of foreign workers who can be employed legally to perform the tasks now performed by illegals, presumably at comparable wage rates, the demand for illegals' services would decline considerably, and their incentive to come to or remain in the United States would diminish accordingly. Indeed, there is real doubt that existing policies to control the *supply* of illegal workers have any significant impact—particularly with respect to illegal Mexican immigrants, those deported incur little cost by returning at their earliest opportunity. Thus, if illegal immigration is to be reduced, policies to reduce the demand for illegals likely hold far greater promise.

In sum, although many argue persuasively that permanent immigration ought be allowed to expand, an even stronger case can be made for the enhanced availability of nonimmigrant visas for individuals who seek work in the United States. Such expansion might begin by continuing the employer sponsorship feature of current policy while abolishing “labor shortage” and other labor certification requirements. Even employer sponsorship might prove dispensable in the end given the inability of temporary workers to participate in most of the public safety net programs.

If changes along these lines are politically infeasible, then perhaps a reallocation of enforcement resources is in order as an alternative. Rather than devoting so much energy to the apprehension of workers at the border and to punishing employers who hire them, enforcement efforts might be better directed at preventing welfare fraud and fraud by employers in relation to their tax obligations. As long as undocumented workers are paying taxes and

⁸¹Of course, if undocumented workers presently pay considerably more in taxes than they receive in benefits, the argument can be made that some reduction in their tax burden is desirable, and that without it too few of them will be hired. But the current system, under which many of them pay taxes at the usual rates while others pay none, is hardly an appropriate correction. Further, from the national perspective, a requirement that they pay taxes in excess of public benefits received may be beneficial as a device for rent extraction.

excluded from entitlement programs, as noted, there is no reason to suppose that they are less desirable than other immigrants. Likewise, the analysis here provides no support for increased expenditures on apprehension and deportation.

III. Conclusion

By far the most convincing argument against free immigration from the global efficiency perspective relates to cross-national variation in entitlement programs. There can be no doubt that if wealthy nations extend these programs to new immigrants from poor nations, inefficient migration can result. That inefficiency is compounded at the national level in the country of immigration, where what appears as a transfer from the global perspective is an efficiency loss from the perspective of the original residents.

Other concerns arise if one embraces the national perspective. The simplest models of immigration suggest that the country of immigration benefits from a finite inflow of immigrants who can then be hired for their marginal product, because their average product will be greater. But terms of trade effects and cross national ownership of other factors make this conclusion uncertain, and the complications increase greatly once the public sector is taken into account. Little can be said with certainty in the end, although in my view a convincing case that immigration is injurious to national economic welfare arises only in the case where immigration also raises concerns from the global perspective—again, when it is driven by cross-national differences in entitlement programs.

It does not follow, however, that an open door to all except prospective welfare recipients is the *best* that a nation can do for itself. Just as trade theory suggests ways that individual nations may intervene to promote their selfish interests at the expense of others through devices like the optimal tariff, so does it suggest opportunities for them to do so in factor markets. Immigrants earn rents that can be taken from them without destroying the incentive to migrate.

Yet, although devices for the extraction of rents from immigrants are observed occasionally, the right to immigrate is more often rationed in such a way that allows immigrants to keep most of the rents. That approach is certainly dominant under U.S. law. Hence, it does not appear that one can explain most immigration restrictions, such as those in place in the United States, as a purely selfish pursuit of the national advantage. The explanation instead no doubt lies with interest group politics and a set of positive considerations omitted altogether from the discussion here.

Further, if U.S. immigration policy is to remain a system that allows immigrants to retain the gains from immigration, a strong suspicion arises that higher levels of immigration, particularly of workers with substantial educational

attainment or employer sponsorship, would enhance the economic welfare of existing U.S. residents in the aggregate. Taking the current numerical limits on permanent immigration as fixed, however, it is possible that the visa allocation system in the United States does reasonably well at rationing entry in accordance with the national interest. This conclusion requires only that one attach considerable weight to the psychic gains associated with family reunification and refugees, not an implausible judgment.

Finally, putting aside changes in policy toward permanent immigration, the expanded use of temporary workers could yield substantial benefits to the United States economy. As it stands, the tight limits on permanent immigration and the admission of temporary workers have apparently contributed significantly to the growth in the population of undocumented aliens. Although there is no convincing evidence that undocumented workers are a net drain on the rest of the nation, a policy to allow more legal, temporary workers would have considerable merit. Not only would such a policy ameliorate labor market inefficiencies caused by existing restrictions on legal immigration, but it would reduce the demand for the services of illegals and perhaps facilitate a significant reduction in the enforcement resources devoted to the perceived problem of illegal immigration.

This paper was presented at a conference on "Justice in Immigration" sponsored by the Olin Foundation, and will appear in a forthcoming conference volume. Readers with comments should address them to:

Alan O. Sykes
Frank and Bernice J. Greenberg Professor of Law
The Law School
The University of Chicago
1111 E. 60th Street
Chicago, IL 60637

Chicago Working Papers in Law and Economics
(Second Series)

1. William M. Landes, Copyright Protection of Letters, Diaries and Other Unpublished Works: An Economic Approach (July 1991).
2. Richard A. Epstein, The Path to *The T. J. Hooper*. The Theory and History of Custom in the Law of Tort (August 1991).
3. Cass R. Sunstein, On Property and Constitutionalism (September 1991).
4. Richard A. Posner, Blackmail, Privacy, and Freedom of Contract (February 1992).
5. Randal C. Picker, Security Interests, Misbehavior, and Common Pools (February 1992).
6. Tomas J. Philipson & Richard A. Posner, Optimal Regulation of AIDS (April 1992).
7. Douglas G. Baird, Revisiting Auctions in Chapter 11 (April 1992).
8. William M. Landes, Sequential versus Unitary Trials: An Economic Analysis (July 1992).
9. William M. Landes & Richard A. Posner, The Influence of Economics on Law: A Quantitative Study (August 1992).
10. Alan O. Sykes, The Welfare Economics of Immigration Law: A Theoretical Survey With An Analysis of U.S. Policy (September 1992).