

Introduction

In May of 1997, the National Research Council (NRC) released an extensive study on the impact of immigration on the United States. Entitled *The New Americans: Economic, Demographic, and Fiscal Effects of Immigration*, the study continues to be influential in the immigration debate. This *Report* contains revised reprints of three articles that summarized and analyzed the NRC study shortly after it was released. The articles are preceded by a listing of the study's highlights. The first, "Immigration's Effects on Jobs and Wages," looks at the effect immigration has on the nation's economy (Chapters 4 and 5). The second, "The Fiscal Effects of Immigration," examines both the current and future impacts of immigrants and their descendants on public coffers (Chapters 6 and 7). The third, "Population Growth and Immigration," focuses on the section of the study devoted to population size (Chapter 3). The articles originally appeared in the Center's former quarterly publication *Immigration Review*, which has been replaced by the monthly *Backgrounder* series.

Reflecting the tone of the press release that accompanied the NRC study, much of the press coverage emphasized the positive effects of immigration. The study itself, however, is not nearly so sanguine. Among the study's findings:

- Immigration was responsible for 44 percent of the decline in relative wages (compared to other workers) for high school dropouts from 1980 to 1994.
- The wage losses for high school dropouts, which amount to about 5 percent of their income, generate a net gain for more skilled workers and owners of capital of between \$1 billion and \$10 billion annually — about two tenths of one percent of their income.
- Due to the mobility of labor, capital, and goods, the effect of immigration on wages and employment is likely to be national in scope and not simply confined to high-immigrant areas.
- The education level (Table 1 on page 3), average earnings (Table 2 on page 5) and employment rates of each new wave of immigrants have steadily declined relative to those of natives from 1970 to 1990.
- The net current fiscal burden (taxes paid minus services used) imposed on all levels of government by immigrant households nationally is estimated to range from \$11.4 billion to \$20.2 billion annually. **This fiscal drain is larger than the \$1 billion to \$10 billion benefit estimated to accrue to natives from having immigrants in the labor market.**
- In California and New Jersey, the average immigrant-headed household currently uses \$3,463 and \$1,484 more, respectively, in services provided by state and local government than it pays in taxes. This translates into an added tax burden of \$1,178 imposed on each native household in California and \$232 in New Jersey (Table 3 on page 7)
- Given the skill and age profile of immigrants entering the United States today, the total net present value¹ of the lifetime fiscal impact of the average immigrant is negative \$3,000 (Table 4 on page 10).

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- If the descendants of today's immigrants follow the same pattern as the descendants of past immigrants, then 22 years after the original immigrant arrives, the taxes he and his descendants pay will begin to exceed the costs they impose on public services. It takes an additional 18 years for the immigrant and his descendants to pay back the fiscal burden they imposed for the first 22 years.
 - Projecting out over the next 300 years, the net present value created by the descendants of the average immigrant will be a positive \$83,000. Combining this 300-year projection for the descendants with the negative \$3,000 created by the original immigrant creates a positive net present value of \$80,000.
 - The nation's population will grow from 263 million in 1995 to nearly 400 million by 2050 if immigration continues at its current level.
 - Immigrants and their descendants who will arrive between now and 2050 will add 80 million people to the U.S. population. This will account for 65 percent of the growth in the U.S. population over the next 50 years.
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¹The term "net present value" refers to the total fiscal impact (tax revenues minus expenditures) of an immigrants and/or his descendants over his lifetime, with future dollars discounted at an annual rate of 3 percent. For a more detailed explanation see page 8 of the methodology section.

Copies of the NRC study (ISBN 0-309-06356-6) are available for \$45.95 from the National Academy Press at (800) 624-6242 or <http://www.nap.edu>

Immigration's Effects on Jobs and Wages

By Steven A. Camarota

Chapters 4 and 5 of the NRC study's eight chapters are devoted to immigration's effects on the nation's economy. These chapters focus primarily on immigrant performance in the labor market and the impact of immigration on the labor market opportunities available to natives. The chapters are not meant as original research. Instead, the authors (including some of the most prominent scholars in the field) have relied on basic theoretical concepts in economics to predict the likely impact of immigration on the labor market. The study also contains an extensive literature review of empirical work that has attempted to discern the actual impact of immigration on labor market outcomes for natives.

The study concludes that, while the wages of native-born high school dropouts fall as a result of immigrant competition, the *average* native gains very modestly from immigration. Based on a survey of the available literature, the authors estimate that immigration conveys a net benefit on natives in the labor market of between \$1 billion and \$10 billion dollars annually. The figure represents the balance between the loss in labor incomes experienced by high school dropouts, roughly the poorest 10 percent of the native workforce, and the benefit experienced by those natives who have more than a high school degree. The NRC study's estimates tell us two things: First, the overall impact of immigration is minuscule in an \$8 trillion economy. And second, the primary economic effect of immigration is to redistribute income from the poor and unskilled to skilled workers and owners of capital.

The study argues that the negative effect of immigrants on earnings is likely to be confined to only high school dropouts because such a large proportion of immigrants have not completed 12 years of schooling — about 35 percent in recent years (See Table 1 below). And it is only in this skill category that immigrants are a sufficiently large proportion of workers to exert a downward pressure on wages. The study points out that it is precisely because immigrants have a distribution across skill categories that is different from natives that immigration conveys a net benefit to natives in the labor market. If immigrants had the same skills as natives and capital stocks grew proportionately, immigrants would have no effect on per-capita GDP or the labor market opportunities available to natives.

The basic methodology used to obtain the above estimates is to examine the skill distribution of immigrants using Census or Current Population Survey data and compare it to that of natives. Estimates are then made of the increase brought about by immigration in the supply of one type of worker relative to other workers. An increase in the relative supply of one type of worker is assumed to lower wages for those natives in competition with immigrants. In contrast, those who tend not to be in competition with immigrants will see their

Table 1. Percentage of Immigrants and Natives Ages 25-64 With less Than a High School Diploma

	1970		1980		1990	
	Men	Women	Men	Women	Men	Women
Natives	40.2	40.7	22.7	26.0	14.4	16.7
Recent Arrivals*	46.0	52.8	37.5	42.2	36.2	37.4

* Recent arrivals are defined as foreign-born having lived in the United States for less than five years at the time of the Census.

Source: *The New Americans: Economic, Demographic, and Fiscal Effects of Immigration*.

wages rise. This method is called the factor-proportions approach. To illustrate how this method works, consider the following example: Assume that in an hypothetical economy there are only two types of workers, supervisors and unskilled laborers. Also assume that immigrants enter the economy and double the number of laborers. While the increase in the supply of laborers will reduce wages for native-born laborers, it will also increase the wages of supervisors because there will be an increase in demand for supervisory personnel. The wages of supervisors will also rise because they will be in charge of more laborers and are therefore being worked more intensively.

Of course, the real economy is much more complex than the highly simplified example above. As the study points out, there are other important inputs in addition to skilled and unskilled labor that go into creating GDP. It is possible that most of the benefits from immigration accrue to owners of capital as demand for capital rises in response to immigration. If this is the case, then immigration would still create a net benefit for the economy, except the winners would be those who own domestic capital and the losers would be all native-born workers, with unskilled workers losing more than skilled natives.

The study relies on changes in the relative supply of labor to determine the effects of immigration because the authors accept the argument that the effects of immigration are likely to be national in scope and not simply confined to high immigrant areas. The NRC study states:

“Labor, capital, and goods flow across localities and in doing so tend to equalize the price of labor (the wage rate). As long as native workers and firms respond to the entry of immigrants by moving to areas offering better opportunities, there may be no reason to expect much of a correlation between the wages of natives and the presence of immigrants” (Smith and Edmonston, 1997, 226).

The NRC study concludes that older research, which found little effect comparing cities with differing immigrant compositions, does not accurately reflect the integrated nature of the American economy. Some research, including my own (Camarota, 1998), indicates that the wage effects of immigration on workers with few years of schooling are larger than those reported in the NRC study. But if we accept the estimates in the study, it means that about 13 million workers, a group that roughly corresponds to the poorest 10 percent of the labor force, is experiencing an immigration-induced reduction in wages of roughly 5 percent (\$13 billion per year) so that the rest of society can be made two-tenths of one percent richer.

Methodological Questions

The factor-proportions approach relied on in the NRC study also has significant limitations. Estimates derived from this method are based on an existing body of literature, which has attempted to calculate what a change in the relative number of skilled to unskilled workers implies for the wages of both types of workers. Since there is no way to measure what wages would have been in the United States without immigrants, there is no way to verify that the estimated changes in wages in response to immigration are correct. Thus, this approach is entirely dependent on how accurately the existing literature reflects actual changes in wages from shifts in the relative supply of labor.

It is possible that the wage response to changes in the relative supply of labor is different for skilled and unskilled workers. For example, an increase in the relative supply of high school dropouts by 10 percent may have a very different effect on the wages of such workers than a similar increase in the supply of college graduates has on those with a college education. In an economy as large and complex as the United States, it is by no means certain how shifts in the relative supply of labor will affect wages. Different assumptions will produce different conclusions. It is partly the uncertainty surrounding such methods that explains why the net gain to natives is reported to vary from \$1 billion to \$10 billion.

Another issue raised by calculating the effect of shifts in the supply of labor on incomes is that it assumes that an additional worker will have the same effect on wages regardless of whether he is a native, a legal immigrant, or an illegal alien. However, there is a good deal of research to indicate that although immigrants eventually earn wages similar to natives with the same skills, *recent* immigrants earn significantly less than natives at the same skill level. This strongly suggests that, at least for the first few years after arrival, immigrants are willing to work for less than comparably educated natives. Thus, simply looking at how immigrants increase the supply of labor may not fully capture the effect immigrants have on the labor market. Additionally, unskilled immigrants may be seen as more desirable employees by some employers. There is certainly a good deal of anecdotal evidence and some systematic research to indicate that many small business owners often prefer immigrants over native-born blacks.² If this is the case, then immigrants may have an even greater effect on the labor market opportunities available to natives than their numbers suggest. The study makes a point of arguing that blacks generally do not live in high-immigrant areas and therefore are not forced to move in response to immigrant competition. However, since the study concludes that the negative effect on wages is likely to be national in scope and confined to dropouts, there is little doubt that a larger proportion of African Americans are affected by immigration. In 1998, native-born blacks in the workforce were 55 percent more likely to lack a high school degree than native-born whites.

Another question raised by the study is the displacement costs imposed on natives who have to move from high immigrant areas. While the study acknowledges that flight from immigrant competition seems to occur, especially by unskilled natives, the NRC study does not include any calculations for the cost of this relocation. A more comprehensive examination of the loss to unskilled natives would have to include a figure for these costs.

Finally, calculations of increases in the relative supply of labor assume that the most likely effect of immigration on unskilled natives will come in the form of lower wages. In low-wage jobs, however, which often pay at or near the minimum wage, there may be little room for wages to fall. Unless workers and employers circumvent minimum wage requirements, an increase in the supply of unskilled labor brought about by immigration may not only cause wages to fall, but may also increase unemployment. Those who lack a high school degree are among the most likely to be unemployed or to have stopped looking for work altogether. Thus, it is possible that because of the rigidity of the wage structure at the bottom of the labor market, immigration will not only harm natives by reducing wages, it may also increase unemployment.

Table 2. Socioeconomic Characteristics of Recent Immigrants and Natives in the United States, 1970-1990¹

Nativity and Gender	1970		1980		1990	
	Hourly Wages	Annual Earnings	Hourly Wages	Annual Earnings	Hourly Wages	Annual Earnings
Native Males	\$19.00	\$37,212	\$19.83	\$37,591	\$19.41	\$37,551
Recent Male Immigrants ²	\$17.08	\$30,156	\$16.18	\$27,107	\$15.17	\$24,318
Native Females	\$12.70	\$14,899	\$12.63	\$16,805	\$13.42	\$20,196
Recent Female Immigrants ²	\$11.82	\$13,894	\$11.71	\$14,606	\$11.64	\$15,157

¹ Average hourly wages and earnings of natives and immigrants in 1970, 1980, and 1990, civilian employed, ages 25-64, 1995 dollars.

² Recent arrivals are defined as foreign-born persons who arrived in the 10 years preceding the census year.

Source: *The New Americans: Economic, Demographic, and Fiscal Effects of Immigration*.

Equity Issues

The study makes a strong case that, putting aside the impact on native-born taxpayers, it can be shown that the total gain to those workers who are complements to immigrants will outweigh the loss to those who are competitors with immigrants. Thus, according to the NRC study, immigration produces a net gain for the U.S. economy as a whole. However, this does not mean that on the individual level those who benefit from immigration gain more than those who lose from immigration. It simply means that the *total* gain to winners is greater than the *total* loss to losers. As already pointed out, the study concludes that the loss to unskilled natives represents about 5 percent of their income. However, the gain to skilled immigrants is around two tenths of one percent of their income. Because the benefit is spread out over such a large proportion of the labor force (90 percent) and the loss concentrated on only high school dropouts (10 percent), the individual loss to each loser is much greater than is the benefit to each winner. Thus, as the study itself points out, immigration has a far greater effect on the distribution of income than it does on wage levels or per-capita GDP of natives.

It is also worth noting that the study does not consider the marginal utility of each dollar lost or gained by workers with differing income. Because unskilled workers earn so much less to begin with, each dollar lost to them must represent a more profound reduction in prosperity than does the benefit accruing to skilled workers from each dollar gained from immigration. If this had been included in the calculation, then the overall effect on the economic well-being of natives would likely be negative.

Using the estimates contained in the NRC study, one is left with what is ultimately an ethical question concerning immigration policy: Is it right to make the poorest 10 percent of the population 5 percent poorer so that the rest of society can be made roughly two tenths of one percent richer? How one answers this question will, to a large extent, determine one's view of immigration policy.

Conclusion

The NRC analysis of the labor market effects of immigration represents an important contribution to our understanding of the likely impact of immigration on the U.S. economy. Unlike the press release which accompanied the study, the report itself is for the most part reasonable and fair-minded, identifying both positive and negative effects from immigration. Probably the greatest strength of the study is that the authors carefully explain complex topics in an easy to understand manner. While the study does not contain any policy recommendations, it does represent a valuable addition to our knowledge of the impact of immigration on the United States.

²A 1995 study of the Harlem labor market by Katherine Newman and Chauncy Lennon of Harvard provides evidence that employers prefer immigrants to native-born blacks. Their study found that although immigrants were only 11 percent of the job candidates in the sample, they represented 26 percent of those hired. The authors conclude that immigrants fare better in the low-wage labor market because employers see immigrants as more desirable employees than low-skilled native-born African Americans.

The Fiscal Effects of Immigration

By Steven A. Camarota

Two of the NRC study's eight chapters are devoted to the fiscal effects of immigration. These chapters contain both a detailed discussion of theoretical and conceptual issues surrounding immigrant public service use and tax contributions, as well as a substantial body of original research. Chapter 6 deals with the current fiscal impact of immigrants. Chapter 7, written primarily by Ronald Lee and Timothy Miller of Berkeley, examines the lifetime public service use patterns of today's immigrants as well as their descendants.

Current Fiscal Impact of Immigrants

Based on Census and other government survey data, the NRC study concludes that immigrant-headed households currently consume more in public services than they pay in taxes. The current fiscal burden — tax revenue minus expenditures — imposed on all levels of government by immigrant households is estimated to range from \$11 billion to \$20 billion and is larger than the report's estimate of the net gain from having immigrants in the work force. While large in absolute terms, when one considers that total expenditures by all levels of government exceed \$2.6 trillion each year, the added fiscal burden is relatively small. However, the findings clearly show that immigrant households are a net drain on public coffers, at least at the present time. Moreover, as is the case with the wage effects of immigration, the negative fiscal consequences are not evenly distributed across the population.

Table 3 (below) provides a summary of the current net fiscal impact of immigrant-headed households on the state, local, and federal government in California and New Jersey, the two states examined in detail in Chapter 6 of the NRC study. It indicates that,

Table 3. Local, State, and Federal Expenditures , Revenues, and Average Fiscal Balance by Immigrant Households in New Jersey and California

	New Jersey	California
Expenditures		
Local	\$4,236	\$6,208
State	\$3,146	\$4,973
Federal	-	\$10,517
Revenues From All Sources		
Local	\$3,314	\$5,377
State	\$2,584	\$2,341
Federal	-	\$10,644
Fiscal Balance		
Local	-\$922	-\$831
State	-\$562	-\$2,632
Federal	\$520	\$127

Note: Figures for New Jersey are for FY 1990, figures for California are for FY 1995. Both are adjusted upward to reflect December 1996 prices.

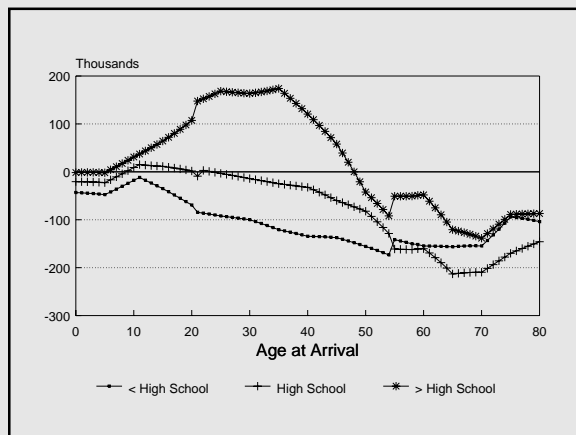
*Only the net effect of immigrants on the federal level is available from the study for California immigrants. The estimate is created by assuming that immigrants in New Jersey have the same fiscal effect at the federal level as their country-of-origin counterparts in California.

at the present time, immigrant-headed households use significantly more in public services than they pay in taxes on both the local and state level. In New Jersey, the average immigrant-headed household used \$1,484 more in state and locally provided public services than it paid in taxes each year. The figure was \$3,463 in California. Multiplying these averages by the total number of immigrant households in each state, and then dividing it by the number of native households, translates into an added tax burden of \$232 imposed on each native household in New Jersey and \$1,178 in California. In contrast, immigrant households in both states pay more in taxes than they use in services on the federal level. In New Jersey and California, the average immigrant household currently uses \$520 and \$127 less respectively in federally provided services than they pay in taxes. This translates into a net benefit of \$3 and \$4 to each native household in the United States. However, this positive effect on the federal budget is insufficient to offset the negative effects at the state and local level, hence the \$11 billion to 22 billion overall deficit. The study also finds significant variation between immigrant groups, with European and Canadian immigrants having positive effects and those from Asia and Latin America having negative effects. The differences are primarily due to the age, education profile, and family size of immigrants from different countries.

The authors conclude that the current negative effect of immigrant-headed households on public coffers is the result of three factors. First, immigrants have more children than natives on average and therefore consume more in educational services. Second, immigrant households are poorer than native households and therefore receive more in state and locally funded income transfers. Third, because immigrant households have lower incomes on average than native households, they pay less in taxes. The primary reason that immigrant households have a positive effect on the federal budget is that they are assumed to impose no additional costs on pure public goods such as defense. In other words, no matter how many immigrants enter, the U.S. defense budget is assumed to remain the same. Thus, the costs of defense are paid for only by natives.

The data in Table 3 are only a snapshot. They do not indicate immigrant tax contributions or public service use rates over the course of a lifetime. Nor do they provide any information about the U.S.-born children of immigrants. Chapter 7 of the study attempts to answer these questions.

Figure 1. Net Present Value of Total Fiscal Impact (Immigrants Only)*



* By age at arrival and education.

Source: *The New Americans: Economic, Demographic, and Fiscal Effects of Immigration*.

Future Fiscal Impacts of Immigrants and Their Descendants

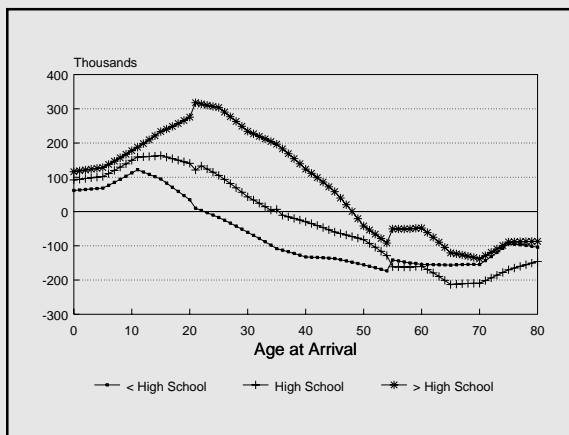
Figure 1 (below) reports the net present value (NPV) of an individual immigrant, controlling for education level and age at arrival. A single point on the curve summarizes the entire lifetime net fiscal impact of an immigrant arriving at that age. Only the costs of those services used and taxes paid by the original immigrant are included, not the costs associated with providing services to his U.S.-born descendants. The findings in Figure 1 indicate that an immigrant who lacks a high school degree is a net fiscal burden regardless of his or her age at arrival. An immigrant with only a high school degree must arrive during his teen age years to be a net benefit, while an immigrant with at least a college degree is a net benefit unless he arrives as a young child or after age 50.

Figure 2 (below) is the same as Figure 1 except that the impact of the immigrant's U.S.-born descendants over the next 300 years is also included. Both the costs associated with educating the U.S.-born descendants of immigrants as well as the tax contributions made by the second and succeeding generations are included in Figure 2. The combined effects indicate that when his descendants are included, an immigrant with less than a high school degree is a net benefit if he arrives before the age of 22. The figure also indicates that an immigrant with only a high school degree needs to arrive before the age of 35 and that immigrants with more than a high school degree have to arrive before age 49 for the combined effects to be positive.

Table 4 (next page) reports the total net NPV for immigrants and their descendants by education level assuming the average age of arrival. By using the average age of arrival for an immigrant from each educational category, the table collapses Figures 1 and 2. The first column shows the average fiscal benefit or burden created by the original immigrant during his lifetime. No public service use or tax payments by his descendants are included. The findings indicate that a dropout creates a fiscal burden of \$89,000 during his lifetime, while a high school graduate creates a \$31,000 burden. In contrast, an immigrant with more than a high school degree has a strong positive fiscal effect of \$105,000 on average. Combining the fiscal burden created by less-educated immigrants with the positive fiscal effect of more educated immigrants creates a fiscal burden of \$3,000 for the average immigrant.

The second column in Table 4 reports the NPV for the average immigrant and his descendants over the next 300 years. The results indicate that when the descendants of the immigrant are included, only a dropout remains a fiscal burden. This is because the huge fiscal

Figure 2. Net Present Value of Total Fiscal Impact (Immigrants and Their Descendants)*



* By age at arrival and education.

Source: *The New Americans: Economic, Demographic, and Fiscal Effects of Immigration.*

drain (-\$89,000) created by the original immigrant cannot be made up by his progeny, even over the course of 300 years. The table also shows that immigrants and their descendants with at least a high school degree are a fiscal benefit in the very long-term. Combining the fiscal burden created by a dropout and his descendants with the fiscal benefit created by an immigrant with more than a high school education and his descendants results in the fiscal benefit of \$80,000 found in the last row of the second column of Table 4.

Some advocacy groups have used these very long-term projections to make a case for high immigration on the grounds that immigration creates fiscal benefits. Some have even gone so far as to claim that the NPV of \$80,000 for immigrants and their descendants represents the actual benefit that will accrue to public coffers. The report itself, however, is very careful to avoid such a conclusion. It states, “The NPV calculations are based on projections that reach 300 years into the future, and it would be absurd to claim that the projections into the 23rd century are very reliable” (emphasis added, NRC study page, 342). What the study does indicate is that if the descendants of today’s immigrants follow the same pattern as the progeny of past immigrants, and if several other assumptions discussed below are met, then they should become a net benefit to public coffers over the very long term.

Methodology

The figures in Table 3 are based on public service use and tax payments estimated from the Census and the Current Population Survey (CPS), with average costs assumed to equal marginal costs. To arrive at the estimates in Figure 1, Figure 2, and Table 4, the authors employed a very complex methodology that can only be briefly summarized here. A combined sample of the March 1994 and 1995 CPS was the primary data source. The authors divided the immigrant population by duration of stay in the United States, education, and age at arrival. Based on what is revealed about tax contributions and public service use from those surveys, the authors generated the numbers found in Figure 1, Figure 2, and Table 4. For immigrants who arrive as children and the descendants of immigrants, education levels were assigned based on estimates drawn from other survey data on the educational attainment of children, controlling for parental education and ethnicity (Hispanics, Asians, and all others). If the results are disaggregated, immigrants and their descendants tend to have a net positive effect at the federal level and a net negative effect at the state and local level.

Since the current spending growth rate on Medicare, Medicaid, and Social Security is not sustainable in the long term, the authors assume that after 2016, the ratio of the federal debt to GDP will remain constant and that the entitlement crisis will be solved by a 50-50 combination of benefit cuts and tax increases. In Figure 1, Figure 2, and Table 4, no costs are assigned to immigrants or their descendants for national defense or interest payments on the national debt because these services are regarded as pure public goods. To create net present values, current dollar amounts are valued at their present value and, as is standard practice in

Education Level	Original Immigrant Only	Immigrant Plus Descendants Over the Next 300 Years*
< High School	-\$89,000	-\$13,000
High School	-\$31,000	\$51,000
>High School	\$105,000	\$198,000
Overall	-\$3,000	\$80,000

*Based on estimated educational transition probabilities.

studies of this kind, dollars received or lost in the future are discounted at an annual rate of 3 percent to reflect the fact that dollars lost or gained in the future are less valuable than today's dollars. This means, for example, that a net benefit or net burden to public coffers 25 years from now is discounted by a factor of 0.5.

Rather than select an arbitrary cut-off point for excluding immigrant descendants, the authors chose to include them all until the point at which discounting reduces the influence of the future to nothing, which is about 300 years. The positive net effect for immigrants and their descendants of \$80,000 is for a 300-year period. If shorter time frames are considered, then the total net present value shrinks accordingly until a 40-year time frame, before which the net present value is negative.

Questions Arising from Methodology

The method used to obtain the estimates for the current fiscal impact of immigrant households in Chapter 6 is straightforward and represents reasonable estimates of the fiscal impact of immigrant households. The only real problem is that the authors could have done more with the data. For example, in addition to dividing immigrant households by country of origin, it would also have been useful to divide them by education level or entering cohort. This would provide some insight into the fiscal impact of immigrant households over time or by education level. Even without this information, however, Chapter 6 provides a great deal of useful and up-to-date information.

Chapter 7, which looks at the effects future immigrants and their descendants will have, is more difficult to assess. Clearly, the research is cutting-edge. Furthermore, the authors' analysis of lifetime fiscal effects adds a much needed long-term perspective to the immigration debate. However, there are a number of serious methodological issues resulting from the approach used. The most important issue is the underlying assumption that past patterns of immigrant tax contributions and public service use can be used to predict future patterns. This approach, for example, assumes that a high school dropout immigrant who enters today at age 21 will use services and pay taxes in 20 years in a manner similar to a dropout who entered 20 years ago at the age of 21. This is a highly questionable assumption, especially because there are no country of origin controls in the study. That is, immigrants are lumped together by education and age at arrival regardless of where they came from. Furthermore, the structure of the economy has changed significantly in the last few decades, and this will no doubt continue to do so. The resulting changes in the economic opportunities available to workers with different skills makes predicting the future fiscal effects of immigrants highly speculative.

Even setting aside the difficulties associated with making projections about today's immigrants, there is even more uncertainty about the fiscal impact of the children of immigrants. One of the most important findings in Chapter 7 is that the second generation will do better in the labor market and thus produce positive fiscal effects that offset the negative effects of their parents. However, these projections are based on the social mobility experienced by the U.S.-born children of immigrants who arrived in the past, most of whom came to the United States 30 or more years ago. By definition, the children and grandchildren of immigrants in the available data are not the children of today's immigrants, but instead are the children of immigrants who entered a generation and more ago. There is simply no way to know how the children of today's immigrants will fare because their children are either not yet born or are still very young.

One of the problems, for instance, with assuming that the children of today's immigrants will do as well as the children of past immigrants is that this approach cannot deal with the kind of segmented assimilation observed by some sociologists, which indicates that a troublingly high percentage of the children born to Latino immigrants are assimilating into a rebellious, anti-intellectual minority youth culture. This may have serious implications for the future social mobility of this group. Given the lack of country-of-origin controls, it seems

inadequate to simply assume that the fiscal effects of the future generations can be predicted reliably based on the pattern followed by the offspring of past immigrants who entered many decades ago.

The authors are aware of the great uncertainty in making projections about the future, and they do make some adjustments. By necessity, however, they can only be very crude. For example, the authors realize that the average earnings and education level of recent immigrants has declined significantly, relative to that of natives, over the last 30 years. Thus, their baseline estimates assume that the trajectory of immigrant earnings growth after arrival will follow that of earlier immigrants for only the first 10 years, after which immigrant earnings are fixed relative to those of natives. This is not a very imprecise way of dealing with a complex problem.

It is also worth noting that the positive fiscal estimates for immigrants and their descendants found in Chapter 7 are dependent on how and when the entitlement crisis is solved. For example, alternative estimates reported in the study indicate that if the ratio of GDP to debt is not fixed in 2016 and instead is allowed to rise, immigrants and their descendants will have a net negative fiscal impact on the country. Moreover, the positive effects are totally dependent on the contributions made by the descendants of immigrants well into the distant future. As already indicated, it takes 40 years before the net present value turns positive. In fact, 86 percent of the \$80,000 positive net present value from immigrants and their descendants come after the immigrant and his descendants have been in the United States for 50 years.

None of this is to say that the authors of Chapter 7 are incorrect. Immigrants, or perhaps their descendants, may indeed have a positive fiscal impact in the long term. The authors make defensible assumptions and arrive at plausible estimates. However, in light of the fundamental limitations in the data as well as the great uncertainty about the future, it is best to view the estimates in Chapter 7 as one of many possible outcomes. It should also be added that in comparison to the uncertain benefits that come in the distant future, the fiscal costs currently being imposed by immigrant households are much more certain and are having a negative fiscal effect right now on taxpayers in states like California. The greater uncertainty associated with the long-term fiscal benefits of immigration compared to the much more certain current fiscal costs should figure prominently in any discussion of the fiscal impact of immigration.

Conclusion

The findings in Chapters 6 and 7 indicate that if we wish to increase the fiscal benefit or reduce the burden associated with immigration, then greater emphasis should be placed on immigrant skills as a criterion for admission, with fewer immigrants selected based on family relationships. This would increase income levels and tax contributions as well as reduce immigrant reliance on public services.

Adjusting immigration policy so that immigrants arrive during their prime working years would also improve the fiscal balance sheet. The best way to accomplish this would be to eliminate the very long waiting periods that now exist in the sibling and adult children categories. The U.S. Commission on Immigration Reform wisely recommended doing away with these categories of admission. Additionally, eliminating the category for the parents of U.S. citizens would help ensure that new immigrants have many working years ahead of them when they arrive.

As is the case with the discussion of the labor market impact of immigration, the chapters dealing with the fiscal effects of immigration are much more fair-minded than the press release that accompanied the study. The study identifies both positive and negative effects from immigration. The chapters on the fiscal effects of immigration clearly represent an important contribution to our understanding of the impact of immigrants on the United States.

Population Growth and Immigration

By Leon Bouvier

This article focuses on the section in Chapter 3 of the NRC study devoted to population size and composition (i.e. age, sex, and race). Before beginning, however, it is worth highlighting a few comments from leading newspapers regarding this study.

When one depends solely on information from the media to evaluate policies that will affect the future size of the U.S. population, particularly those regarding immigration, it is easy to be misinformed. *The New York Times* summarized the NRC study's findings with the headline: "Immigration Benefits the United States." The sub-heading read "No Huge Costs Are Cited." Whether or not the reader agrees with these rosy projections, he or she might well ask "What about population size?" The answer is provided — finally — on page 17, where the reader finds that immigration might well play "the dominant role" in U.S. population growth in the next half-century.

In an editorial on the same subject, no mention is devoted to the challenges population growth will bring; nothing is mentioned about the major changes in racial-ethnic composition this growth will cause and what those changes could mean for the United States. The *Times* allocated only 14 lines to this important shift and failed to address whether the United States can adequately support an additional 124 million people in a mere 52 years.

Unfortunately, the *Times* was not alone in such omissions. A *Chicago Tribune* article, titled "Benefits and Costs of Immigration," was somewhat less biased and did mention that, while the report "doesn't come close to justifying the drastic curbs on immigration advocated by some, it does argue for a more nuanced treatment of it in law and public policy." Still, however, not a single word on population growth was included. An Associated Press article, titled "Immigrants Benefit Economy," also did not mention population growth as a consequence of immigration.

The list of such oversights goes on and on. Why no mention of immigration's impact on population size? In this instance, the explanation appears to have been deadline pressure combined with a slanted press release, one that was strongly pro-immigration on all levels, especially economics. Out of five pages, only two paragraphs are devoted to population changes resulting from immigration.

Demography

But what about the demographic portion of the report itself? Overall, with some important omissions, this is a well-written survey of basic demography and the art of making demographic projections. The section begins with two very important questions: "How will the population of the United States change on the way to the middle of the 21st Century?" and "How will immigration — current and future — contribute to this change?" The authors seek to answer the second question in this section, which in turn helps to answer the first.

Following an excellent introduction to elementary demography, the authors introduce two important concepts that have seldom been used in the construction of population projections: exogamy and ethnic affiliation — the degree to which groups intermarry and the way the descendants of interracial marriages identify themselves.

By looking not only at native-born and foreign-born, this method allows the development of projections for three or four generations (rather than simply a time series) by age, race, and ethnicity. It also allows the development of more assumptions about changing fertility (as well as mortality) over the generations.

Assumptions

Irrespective of projection methodology or the level of detail or precision, the most important parts of any population projection are the assumptions it makes about fertility, mortality, and immigration.

The authors use five assumptions about annual net immigration, which they call zero, low, medium, high, and very high — in order: zero, 410,000, 820,000, 1.23 million, and 1.64 million (see Table 5 below). The medium assumption of 820,000 is close to the average for the period 1990-95 and includes the assumption of about 225,000 net annual illegal immigrants. The zero assumption implies no immigrants or emigrants, and provides a context for discussing the overall net impact of immigration on population change. The low assumption (410,000) assumes a decline to immigration levels that are close to net immigration during the 1980s. The high assumption represents possible expanded legal immigration through modifications in immigration law and the very high assumption suggests greatly expanded immigration. Net illegal immigration is assumed to be zero for the zero assumption, 115,000 for the low assumption, 320,000 for the high assumption, and 400,000 for the very high assumption. Again, regarding immigration, if sometimes indirectly, the researchers also make assumptions about exogamy and racial and ethnic attribution. These assumptions rest on somewhat shaky ground but are nevertheless useful in refining the final product.

Turning to fertility (see Table 6 on the next page), the starting point (1995) rates were 1.81 for the white population, 2.33 for Asians, 2.34 for Blacks, and 2.63 for Hispanics. With generational shifts, these rates change. For example, among third-generations, the respective rates are 1.81, 1.80, 2.31, and 2.04. The rate for Hispanics is surprisingly low and is not explained in any detail. Lower and higher fertility rates are also included for all groups and generations.

The authors “assume that mortality follows the trends specified in the medium series of the national population projections for 1995–2050 made by the Census Bureau.” Overall, life expectancy increases from 75.9 years in 1995 to 82.0 years in 2050 with some variations among groups.

Table 5. Population in the United States, 1995-2050

Immigration and Emigration (Thousands)	Immigration Assumption				
	Zero	Low	Medium	High	Very High
Assumed Gross Immigrants per Year	0	700	1,040	1,360	1,720
Assumed Emigration per Year	0	290	220	130	80
Assumed Net Immigrants per Year	0	410	820	1,230	1,640
Population (Millions)					
1995	263	263	263	263	263
2000	272	275	277	279	281
2010	287	295	302	310	318
2020	298	313	327	341	354
2030	308	330	351	373	393
2040	310	341	370	400	429
2050	307	349	387	426	463

Source: *The New Americans: Economic, Demographic, and Fiscal Effects of Immigration*.

Results

Now we turn to the results of these rather sophisticated techniques. Using the authors' medium demographic assumptions, the U.S. population is projected to increase from 263 million in 1995 to 387 million in 2050 — a gain of 124 million. The researchers conclude, not surprisingly, that “immigration can play a critical role in determining the future size of the U.S. population.” Indeed, with no migration and constant fertility and mortality rates, the U.S. population would be 307 million in 2050. The authors continue:

“Although the rate at which population is growing will decline, the absolute size of the American nation will continue to expand until, by the year 2050, the population will be 387 million. Allowing immigration to continue at its current levels for the next 55 years will produce a population that is 80 million people larger than it would have been if all net immigration ceased instantly. These additional people are the direct effect of the 45 million more immigrants over this period...Immigration, then, will obviously play the dominant role in our future population growth.”

The authors devote several paragraphs to the “implications of the size of the population.” Without going into any detail in their report, they mention the possible challenges for highways, parks, schools, and so forth, but not a word on the environment. To their credit, they include a footnote in the introduction admitting that they lack experience in environmental studies and were “not charged with examining the environmental repercussions of population growth,” therefore avoiding this difficult and controversial topic. They ask: “Should we care about whether the 2050 population of 387 million implied by current immigration levels as opposed to the 307 million implied by the absence of net immigration?” The answer: “Our reticence [to answer] rests in part on our conviction that knowledge about many of the crucial parameters on which an informed answer should rest is lacking.”

The authors also devote considerable space to age and sex structure as they will be affected by different levels of immigration. They project that the number of school-age children will expand rapidly. Under current immigration policy the K–8 enrollment will increase to 53.7 million in 2050, compared with 36.8 million in 1995 (an increase of about 17 million). The school-age population in 2050 will be 6.4 million lower if immigration flows are cut in half and 3.9 million greater if they are increased by 50 percent.

Turning to racial/ethnic categories, despite their sophisticated attempts to measure exogamy and racial identification, the authors' results for 2050 are quite familiar, especially when compared to the work of other demographers. They estimate that the population in

Table 6. Fertility Estimates for U.S. Population Projections by Race/Ethnicity and Immigrant Generation, 1995-2050

Race/Ethnicity	Immigrant Generation			
	Overall	First	Second	Third+
White	1.81	1.82	1.82	1.81
Asian	2.33	2.54	2.17	1.8
Black	2.34	2.76	2.53	2.31
Hispanic	2.63	3.23	2.63	2.04
Total	1.98			

Source: *The New Americans: Economic, Demographic, and Fiscal Effects of Immigration.*

2050 will be 51 percent white, 14 percent Black, 8 percent Asian, and 26 percent Hispanic. Of course, these rates depend a great deal on how people of mixed background define themselves. Indeed, the authors comment:

“The growing rate of intermarriage among whites, Blacks, Hispanics, and Asians (although most intermarriages are of whites with other groups) ensures that the future of the United States will not be a set of distinct cultures and languages, let alone a unique ethnic identification. If there are many intermarriages, then people will have multiethnic parental ties and more children will have multiple ancestry, possibly weakening traditional ethnic boundaries in the United States.”

Overall, as previously stated, this is an important and well-written demographic section of a larger report. It is unfortunate, however, that the publicity surrounding the report gave short shrift to its demographic findings. While the demographic portion was well done, it once again illustrated the reluctance of some demographers to “tell it like it is.” Is a population of 350 or 400 million “good” for America? What are the potential positive as well as negative impacts of a rapid change in the racial-ethnic makeup of the nation’s people? These are among the most important issues facing the nation as it enters the next millennium.