



State and Local Fiscal Effects of Immigration

Kim Rueben and Sarah Gault

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In the aftermath of the 2016 presidential election, immigrants and immigration are at the forefront of the national conversation. Although much of the discussion has focused on national security and who should be able to live in the United States, a key aspect of the issue is what immigrants contribute to or cost this country. The National Academies of Sciences, Engineering, and Medicine (NAS) commissioned a panel of experts to examine this issue and released *The Economic and Fiscal Consequences of Immigration* (NAS 2016) summarizing what we know about this multifaceted topic.¹

The study found many important benefits of immigration in the United States, including positive effects on economic growth, innovation, and entrepreneurship, with few to no negative effects on the overall wages or employment of native-born workers in the longer term. As immigration's role in American society continues to evolve, several recent significant changes in immigration patterns are worth noting. Growth in the undocumented population has stopped, and immigrant education has risen. Moreover, as US labor force growth has slowed with the aging of the native population, immigrants and their children will account for the vast majority of new entrants into the labor force going forward.² The study also found that immigrants are moving to a larger number of places, with the largest growth in the share of recent immigrants going to new destinations including Georgia, North Carolina, Michigan, Minnesota, and other states in the South and Midwest.

Orrenius (2017) briefly describes the overall fiscal effects from the NAS report. The study found that over time, immigrants largely benefit our federal coffers but generally cost state and local governments more than they contribute. These results in part depend on how we measure costs and benefits. Our intent in this brief is to examine more closely how immigration affects the fiscal picture in states and localities and how the costs and benefits vary across places. We served as a panel member and a consultant to the NAS panel, and the findings presented here are based on our full analysis in chapter 9 of the 2016 NAS report and highlight cross-state differences.³

Understanding the contribution of immigrants to state and local finances is important when considering the economic growth and fiscal health of communities. The fiscal impacts of immigrants and natives at the state and local level depend on the balance between their contribution to revenues by paying taxes and their draw on expenditures by consuming public services. We found the following:

- The net fiscal effects for 2011–13 were largely related to how we measured and attributed the costs of government services, particularly how we allocated the costs of public goods that do not increase with new entrants to the population.
- Fiscal impacts at the state and local level varied across place depending on the demographic characteristics of immigrants and native adults, with their relative numbers of dependent children (and their associated education costs) having the most effect.
- Relative fiscal impacts also relate to state and local decisions on how they raise revenues (their tax system) and what level of spending they choose for specific services.
- Because public education makes up the largest part of state and local budgets, these costs explained much of the differences across places when we attributed the costs of educating children to their parents. However, these costs are an investment in the future, contributing to the skills and abilities of our future labor force, and estimates for a point in time do not capture students' future tax contributions.

Estimation Approach

Many issues must be considered when empirically estimating the fiscal effects of immigration. First, how are public goods treated? Some expenditures, such as education and health care, increase with each additional person; others, such as national defense, are not affected when a person is added to the population. To account for this difference, we used both an average-cost approach for public-good expenditures, which allocates the costs of each service equally to immigrants and natives on a per capita basis, and a marginal-cost approach, which assumes each additional immigrant does not add to the costs of administering the subset of state and local government services categorized as public goods. It makes a big difference whether we assign public-good expenditures, which make up about half of total expenditures, to all persons, or assume they are fixed amounts and assign no portion of these costs to new entrants. The validity of assigning or not assigning these additional costs to immigrants in part depends on when immigrants arrive. It is less justifiable to assign these costs to immigrants who have arrived in the past 5 or 10 years, but it is more justifiable when immigrants have been part of the community for decades. Thus, readers may want to consider the true cost as being somewhere in between our reported figures. In states where newer immigrants make up a larger share of the immigrant population, the marginal estimates would be more appropriate. For states with long-standing immigrant populations, such as California and Texas, different estimates would be appropriate if thinking about all immigrants versus new arrivals.

A second issue is how the costs of dependent children are treated. One approach is to bundle their costs with their parents' costs. Immigrants typically come to this country as working-age adults—that is, their own

education has been paid for by a foreign government and they often immediately begin working and paying taxes. When this is the case, the costs of education we attribute to immigrants are the costs of educating their children, both those born abroad and those who were born in this country. Dependent children increase government expenditures on education, but considering education purely as a “cost” does not take into account that education is an investment in future productivity. Society will reap the rewards of education when children grow up and contribute to state and local coffers. Although our estimates attributed the cost of kindergarten through grade 12 (K–12) education fully to the parents of the dependent children being educated, we also present alternatives that consider the public benefit to education.

Another consideration is the accounting method used. We used a static approach for our state and local estimates, focusing on a snapshot in time from 2011 to 2013. Other fiscal impact studies have implemented a dynamic approach that captures taxpayers’ fiscal impact over the course of their lifetimes and often includes the future benefits of taxes paid by them and their children. The NAS report has estimates of this type on an aggregate basis across all levels of government, and in these dynamic estimates the children of immigrants often end up contributing the largest per capita share to the country’s (federal, state and local) fiscal bottom line.⁴ Economic impacts of immigration can also affect states’ fiscal pictures. Regarding the impact of immigrant inflows on the wages and employment of natives or overall economic growth, we followed the standard approach and did not take these effects into account in the fiscal impact estimates presented here. Thus, given other findings in the NAS study that immigrants add to economic growth, our estimates are conservative—that is, they overstate the costs of immigration and understate the benefits.

Measurement Methods

Our analysis examined the state and local government fiscal effects of immigration for each of the 50 states and the District of Columbia (DC) over the three-year period from 2011 through 2013. We focused on the independent individual—whom we refer to here as an adult—as the unit of analysis, rolling up the fiscal costs of (and any taxes received from) dependents to their parents. Thus, when we discuss the fiscal contribution or burden of adults, those amounts include the education costs of their dependent children. Appendix A describes how we differentiated between adults and dependent children. This adult-person concept acknowledges that children’s costs are a result of their parents’ decisions independent of the children’s immigrant status. We examined fiscal effects for immigrants and natives, who were defined as follows:

- *Immigrants* were born abroad to parents who were not US citizens.
- *Natives* were born in the United States (or born abroad to American parents).

We constructed our samples of individuals in each state in each group from the Current Population Survey Annual Social and Economic Supplement (CPS ASEC)⁵ data covering 2011–13 to achieve a sufficient sample size. Our sample represented, on a weighted basis, about 223 million independent adults per year, of whom 16 percent were immigrants. The remaining 84 percent were natives. The native group included not only individuals whose parents may have been immigrants but also individuals whose families had been in the United States for many generations. We sometimes distinguish natives with immigrant parents (the adult

children of immigrants) from other natives as a way of highlighting the future benefits of some current incurred public costs. This group, natives with immigrant parents, made up 8 percent of all adults, or about 10 percent of the native adult population. Residing with the 223 million independent adults represented by our sample were about 85 million dependent children.⁶ The CPS samples were not explicitly chosen to be representative of immigrants at the state level.⁷ Thus our results should be considered indicative of general patterns, but actual fiscal impacts may vary, especially in states with relatively few immigrants in the sample.

We paired this information with data on revenues and spending from Census of Governments Annual Survey of State and Local Government Finances.⁸ These data include income, sales, and property taxes paid to state and local governments and the costs of providing public education as well as the costs of building and maintaining roads and providing police and fire protection. We averaged three years of financial data to smooth out payments. Total state and local government revenues averaged \$3.3 trillion per year in 2011–13, and total state and local government expenditures averaged \$3.17 trillion, nearly balancing out. We included all state and local revenue and expenditure amounts except for Medicaid spending on health care services in nursing homes and other institutions such as mental health facilities (\$72 billion) because individuals in institutions were not represented in the CPS. Immigrants are much less likely to be part of this institutional population because they have lower probabilities of being in nursing homes (because of age differences with natives but also because, even considering age, immigrants are less likely to be in nursing homes).⁹ Immigrants also make up smaller shares of other institutionalized populations, including those incarcerated.¹⁰ Excluding the institutional portion of Medicaid spending widened the gap between aggregate US revenues and expenditures in 2011–13, leaving all but two states with positive budget balances. We assigned costs incurred and revenues received from the Census of Governments data based on information reported in the CPS ASEC either directly (e.g., income or property taxes paid) or indirectly based on individual characteristics (e.g., costs of education based on number of school-age children within the family), but other costs were assigned per capita, representing services used or payments made indirectly. Appendix A provides detailed information on both revenues and spending across state and local governments and how we allocated them across adults.

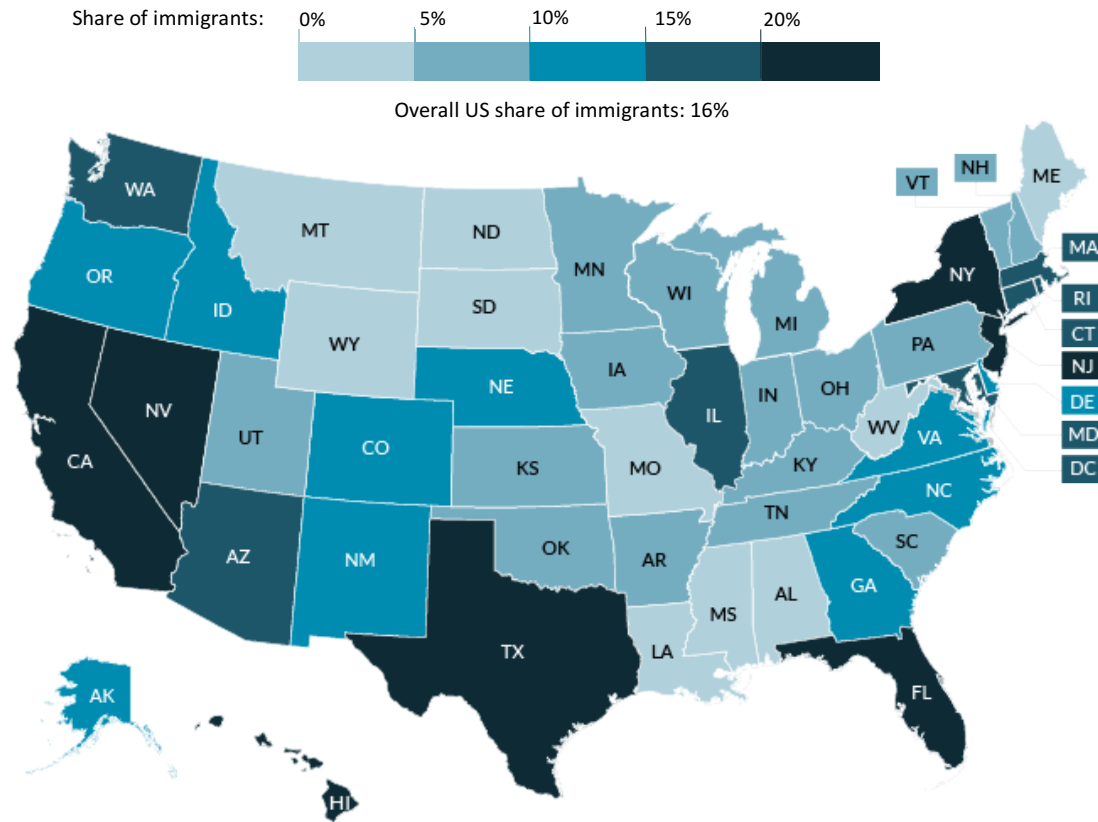
Geographic Distribution by Immigrant Status

The immigrant share of the population differs widely across states, and state and local governments differ in their fiscal policies generally and in their policies toward immigrants specifically.¹¹ Consequently, any examination of the fiscal effects of immigration at the state and local levels—and the extent to which immigrants are a net fiscal burden or benefit—has to consider the individual circumstances of each jurisdiction. Figure 1 shows immigrants as a percentage of each state’s adult population.

FIGURE 1

Share of Immigrants in the Adult Population, by State

CPS ASEC, 2011–13



Source: Panel tabulations of the Current Population Survey—Annual Social and Economic Supplement for 2011–13.

Note: The percentages displayed here have been rounded to the nearest 1 percent.

By state, West Virginia had the lowest proportion of immigrants (1 percent), and California had the highest proportion (35 percent). Seven states had adult immigrant populations that constituted at least 20 percent of their total adult population (table 1). These states and the other states at the top of table 1 (and in the darker shades of blue in figure 1) with immigrant shares above the national average of 16 percent were more represented in the immigrant population than in the overall population nationwide. Conversely, the states with immigrant shares below 16 percent were less represented in the immigrant population nationwide than in the overall population. Ten states had adult immigrant populations that made up less than 5 percent of the state’s total adult population. Extreme caution should be taken when looking at the fiscal impact estimates for these states in particular (found at the bottom of table 1 and in the lightest shade of blue in figure 1) because they had the lowest number of unweighted sample cases of immigrant adults and therefore might not fairly represent the actual immigrants within the state.¹²

TABLE 1

States with Highest and Lowest Percentages of Immigrant Adults, 2011–13

	Immigrant (%)	Native (%)
Top 15 states and jurisdictions by % immigrant		
California	35	65
New Jersey	28	72
New York	27	73
Nevada	25	75
Florida	23	77
Texas	21	79
Hawaii	21	79
Maryland	19	81
Arizona	18	82
District of Columbia	17	83
Massachusetts	17	83
Illinois	17	83
Washington	17	83
Connecticut	16	84
Rhode Island	16	84
United States	16	84
Bottom 10 states by % immigrant		
Louisiana	4	96
Missouri	4	96
South Dakota	4	96
Alabama	4	96
Maine	3	97
North Dakota	3	97
Wyoming	3	97
Montana	3	97
Mississippi	3	97
West Virginia	1	99

Source: Panel tabulations of the Current Population Survey—Annual Social and Economic Supplement for 2011–13.

Note: See text for definitions of adult and immigrant status.

Fiscal Effects on State and Local Budgets

The net fiscal impact estimates presented here reflect annual amounts for a recent snapshot in time rather than the overall fiscal impacts over the course of a lifetime, and thus they cannot tell us about the contribution or burden of immigrants and natives over time. As noted above, some of the costs borne now, most notably for education, can translate into higher tax payments in later years. In theory, and if balanced budget rules held, the net difference in revenues contributed and expenditures received across all individuals in each state in each year would be zero. In fact, because certain state and local funds run surpluses and deficits, no state has state and local revenues precisely equal to state and local expenditures in a given year, and as noted, states generally ran surpluses, especially after excluding institutional Medicaid spending.

Nationwide, an average net difference in revenues and expenditures of \$900 was assigned per adult.¹³ By jurisdiction, average net differences resulting from fiscal imbalances varied from a deficit of \$850 per adult in the District of Columbia to a surplus of \$6,450 per adult in Alaska. In figure 2 we show the differences in net fiscal impact (revenues less expenditures) between immigrant and native adults assuming average and marginal cost allocations. By presenting immigrant-native differences, we eliminate variation from whether a particular state was running a surplus or deficit. Estimates are presented for all states in figure 2, but readers should exercise caution in interpreting these results, especially when examining differences for states with limited sample sizes.

Average Cost Allocation

When the costs of public goods were allocated across all individuals equally, immigrant adults were estimated to be costlier to state and local budgets than native adults. Nationwide there was a -\$2,950 average gap in net fiscal impact between immigrants and natives for the 2011–13 period. Immigrant adults incurred a net cost of \$1,600 per year on average, compared to a net benefit of \$1,350 for native adults. Among the 15 jurisdictions with the largest share of immigrants in their adult population, California had the largest difference (-\$4,800), between the fiscal shortfall of immigrant adults (-\$2,050) and the fiscal benefit of native adults (\$2,750), and Maryland had the smallest difference (-\$750). Because many of the states with small numbers of immigrant adults also had lower taxes and spending, the spending per native adult was lower for these states than for the states where immigrants often settle.

With an aging native-born US population, these estimates could look very different in coming years as natives retire and require more social services. Recently arrived immigrant adults had small net fiscal burdens relative to other immigrant adults who had been in the United States longer because new immigrants tended to be younger and had more education and fewer dependent children during the observation period.¹⁴

Because our estimates are static, they capture education expenditures on school-age children without accounting for future fiscal benefits from higher tax payments once they have completed their education. Thus, we found that dependent children were costly for both immigrant and native parents. For adults who had dependent children (44 percent of immigrants and 30 percent of natives), immigrants and natives both had net fiscal burdens (-\$7,900 and -\$5,650 per adult, respectively). Looking at the 68 percent of adults in our sample with no dependent children, both immigrants and natives were net contributors to state and local governments on average (contributing \$3,350 and \$4,400 per adult, respectively).

Native adults with immigrant parents, defined as the second generation in the NAS report, contributed the most to state and local government coffers in 2011–13. As highlighted in the NAS report, their higher average contribution relative to other natives was in part because native adults with immigrant parents had fewer dependent children and higher education levels on average. Most states followed the national pattern and saw these second-generation adults contributing the most, but the pattern varied across states. In some states, including California and Illinois, natives with native parents made higher average fiscal contributions than natives with immigrant parents.

Marginal Cost Allocation

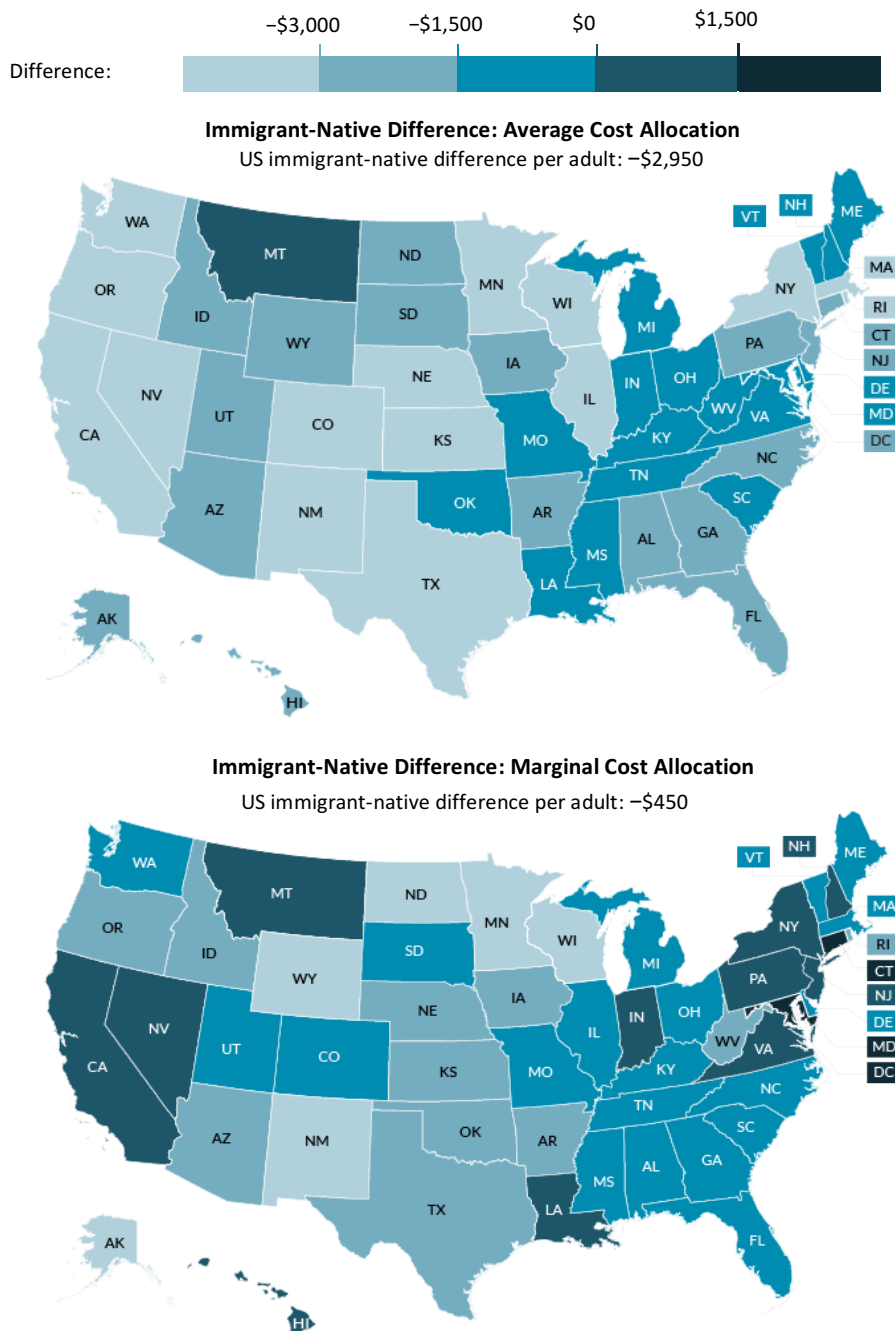
Although total public spending no doubt increases with the size of the population, some categories of spending are likely to be unaffected, at least for a small increase in immigrant population and in the short run. For these analyses, about half of all spending (and revenues) was allocated based on personal or family attributes. But for many spending categories, such as public safety, hospitals, and libraries, the costs were allocated across all persons (both adults and dependents) equally. Similarly, some revenue sources, such as transfers from the federal government for roads and those from natural resource extraction, were allocated on a per capita basis. Although we did not specify which particular expenditures were public goods, some state and local expenditures are fixed amounts that are not higher because of the presence of immigrants. Under an average cost allocation, the fixed-cost amounts assigned to natives are lower than they otherwise would be because the costs are spread across a larger population with more immigrant arrivals, even while the marginal cost to the state does not change.¹⁵ For some communities, especially those facing declining populations, the influx of new immigrants can help lower their fixed costs. And for some government spending—notably bond repayments and public pension obligations—the benefits may have been received by earlier generations, so having a larger population to pay off these debts benefits the existing population. But if new immigrants are not adding to these costs, it may not be appropriate for them to share equally in the burden.

Thus, if we assign these fixed revenues and expenditures only to native adults and their dependents on a per person basis instead of assigning them evenly to all persons, we assume a marginal amount of zero for immigrant adults and their dependents.¹⁶ The $-\$1,600$ average net fiscal burden of immigrant adults across the United States under an average cost allocation turned to a $\$500$ net fiscal contribution under a marginal allocation.¹⁷ Thus, the higher fiscal costs for immigrants in our average cost allocation estimates came largely from these fixed costs. Under the assumption that immigrant adults do not bear these costs, net positive fiscal impacts decreased for native adults. Unsurprisingly, these cost increases for natives (and the corresponding cost decreases for immigrants) were largest in the states with more immigrants. As the immigrant share of a state's adult population composed of declines, the impact of shifting from an average to a marginal allocation of these fixed revenues and expenditures will diminish. Across the United States, the negative gap in net fiscal impact between immigrant and native adults narrowed from $-\$2,950$ to $-\$450$ under the marginal cost allocation (figure 2).

FIGURE 2

Difference in Net Fiscal Impact between Immigrants and Natives Using Average and Marginal Cost Allocations, by State

CPS ASEC, 2011–13



Source: Panel tabulations of the Current Population Survey—Annual Social and Economic Supplement for 2011–13.

Note: The fiscal impact amounts for individual states displayed here have been rounded to the nearest dollar.

Moving from an average to marginal cost allocation for the 15 jurisdictions with the largest share of immigrants in their adult population narrowed the fiscal cost gap between immigrants and natives in these areas from $-\$3,400$ to $-\$150$. Nine of these top 15 jurisdictions had the net fiscal impact of their immigrant adults go from negative to positive by switching to a marginal cost allocation. In California, for example, immigrant adults went from generating a large net negative burden for the state ($-\$2,050$) to making a net positive contribution ($\$1,050$). Going from an average cost allocation to a marginal cost allocation also had a major impact in New York: immigrants went from contributing $\$4,350$ less than natives to contributing $\$100$ more, on average. In a few states, including Texas, the net fiscal impact gap between immigrant and native adults closed but remained fairly large and negative ($-\$2,050$). In Florida, a marginal cost allocation brought the estimated net fiscal impacts of the two groups within $\$100$ of one another, and the difference in estimated fiscal impacts of the immigrants and natives virtually disappeared in Illinois under a marginal cost allocation.

However, many immigrants have been in the United States for decades. If we were to only shift the fixed costs (and revenues) currently being borne by new immigrants who have arrived since 2006 (rather than all immigrants) to the remaining population (including other immigrants previously resident), the fixed costs for the rest of the population would increase by about $\$50$ per adult. Under this allocation, recent immigrants would provide a net fiscal benefit in most states. Again, the size of the shift in costs depends on the number and make-up of recent immigrant families. This alternative approach recognizes that, in many states, immigrants are long-term residents of this country.

Demographic Differences

Demographic differences between immigrants and natives across states played a major role in the differences in net fiscal impact. The two groups differed among themselves within and across states on demographic characteristics, especially the number of dependent children per adult. Although in this brief we focus on differences in the average number of dependent children per adult, we also considered differences in average age, income, and education level in chapter 9 of the NAS report (NAS 2016).

In our sample, immigrant adults had an average of 0.52 dependent children and natives had an average of 0.36 dependent children. Although there was some variation, this pattern held across most states (table 2), with the notable exception of DC, Louisiana, and Montana. Before they reach working age and begin to contribute taxes, all dependent children are a net cost to state and local budgets. Education expenditures for school-age children are often the largest or second-largest items in state and local budgets (23 percent on average), which means that for people with children, these costs were larger. Additionally, adults with more dependent children were assigned larger amounts for expenditures that were allocated to all persons (about half of all state and local spending).¹⁸ Thus, if we allocate fixed costs on an average basis across all individuals (both adults and dependent children) and assign the costs of public education to the parents of those being educated, a higher share of education spending and overall expenditures would be allocated to immigrant adults. In states such as Texas and Washington, the differences in average number of children help explain the differences in net fiscal effects.

TABLE 2

Average Number of Dependent Children per Adult, by Immigrant Status, 2011–13*Top 15 states and jurisdictions with the highest percentages of immigrant adults*

	Immigrants	Natives
California	0.52	0.35
New Jersey	0.48	0.35
New York	0.44	0.34
Nevada	0.56	0.34
Florida	0.39	0.31
Texas	0.64	0.39
Hawaii	0.44	0.35
Maryland	0.47	0.34
Arizona	0.59	0.36
District of Columbia	0.28	0.27
Massachusetts	0.44	0.33
Illinois	0.54	0.36
Washington	0.56	0.33
Connecticut	0.46	0.36
Rhode Island	0.47	0.31
United States	0.52	0.36

Source: Panel tabulations of the Current Population Survey—Annual Social and Economic Supplement for 2011–13.

Notes: These numbers reflect the average number of dependent children per adult and do not include an individual's adult children. Dependent children are split equally between parents in two-parent households.

In addition to differences in the number of dependents, immigrant and native adults differed in their age, income, and education distributions. On average, immigrant adults were younger, largely because a smaller share were elderly (age 65 or older), and they had lower income and education levels (although the share of immigrant adults with a bachelor's degree or more was comparable to that of natives). These general patterns, however, varied across states. In Michigan, for example, a high percentage of immigrant adults relative to native adults had a bachelor's degree or more. To highlight the relationship of demographic and economic factors and net fiscal impact, we examined how differences in characteristics like age structure and number of dependents across the two groups affected their average net contributions (or burdens) by using multiple regression analyses.¹⁹ We regressed the net fiscal impact per adult at the state and local level from our average cost allocation estimates on immigrant status. With controls for age group, year, sex, education, race and ethnicity, and number of dependents, the negative gap in net fiscal impact between immigrant and native adults was significantly diminished, going from –\$2,950 to just –\$800.

State Choices

State and Local Revenues and Expenditures

Differences in net fiscal impacts come from both differences in spending across groups and taxes paid. To examine these differences, we decomposed the average cost allocation estimates of net fiscal impacts. On average across the United States, the annual revenue contribution per adult immigrant was about \$450 below

that of native adults (\$14,350 for immigrants and \$14,800 for natives) for 2011–13. However, for many states, immigrant and native adults made similar revenue contributions to their state and local governments, and immigrants paid more than natives on average in taxes and other charges in 16 states. Immigrant-native differences in revenue contributions for particular states reflect differences in their tax systems. Tax systems in California and New York, for example, rely primarily on individual income taxes. Florida and Texas, in contrast, do not collect an individual income tax and instead rely heavily on sales and excise taxes. This difference results in regressive tax systems in Florida and Texas that place high relative burdens on low-income taxpayers compared with New York and California, which raise more of their funds from higher-income residents. In states with more regressive tax systems, although their overall tax bills are lower than in other states, immigrants pay a considerably higher portion of their income to state taxes relative to natives, contributing to smaller differences in average revenue payments between immigrants and natives despite their disparate income levels. So, although on average taxes and other revenues paid in California varied from \$15,600 for immigrants to \$19,000 for natives with an average difference in revenues of \$3,400, the average difference between the two groups in Florida was only \$900, with an average revenue per adult of \$11,800.

Average annual expenditures per adult were about \$2,500 higher for immigrants than natives across the United States (\$15,950 for immigrants and \$13,400 for natives) for 2011–13. The fact that immigrant adults had more dependent children on average relative to native adults accounted for much of the expenditure gap between immigrants and natives (largely because of education costs). In DC and the 14 states with the highest share of immigrant adults, average expenditures per adult immigrant ranged from being \$3,250 higher than natives in Washington State to being \$1,150 less than natives in DC (where the number of dependents was effectively the same for immigrants and natives). For the majority of states, higher expenditures rather than much lower revenues drove the immigrant-native differences in overall net fiscal impact. But this was not the case in all states, with revenue differences being larger in some states with more progressive tax systems. In California, for example, the average revenue gap between immigrants and natives was \$3,400 compared to an expenditure gap of \$1,400.

Education Costs

Much of the expenditure burden for immigrant adults comes from the cost of educating their dependent children, but these dependent children will grow up to be contributors to state and local budgets. Public expenditures on K–12 education averaged roughly \$11,000 per student in the United States for the 2013–14 school year, but these costs varied greatly across states and localities, with some governments spending significantly more than others (NCES 2016). For DC and the 14 states with the highest share of immigrants, per student education spending ranged from over \$20,000 in DC and New York to about \$7,500 in Arizona (table 3). Over half of these 15 jurisdictions also ranked in the top 15 in terms of education expenditures per student in 2013–14.

TABLE 3

Current Expenditures per Student in Public Elementary and Secondary Schools, 2013–14

Top 15 states and jurisdictions with the highest percentages of immigrant adults

Location	Current expenditures per student (\$)
California	9,671
New Jersey	18,780
New York	20,156
Nevada	8,275
Florida	8,955
Texas	8,602
Hawaii	12,400
Maryland	14,217
Arizona	7,457
District of Columbia	20,577
Massachusetts	15,886
Illinois	13,213
Washington	10,305
Connecticut	18,401
Rhode Island	15,372
United States	11,066

Source: Table 236.75 of NCES (2016).

In our fiscal impact estimates presented above, we assigned the cost of education to families with children attending school.²⁰ But this allocation ignores the future public benefit of education to those with and without children and the benefit to society of a better-educated population. Education is costly for all children, regardless of immigrant status, but it is also an investment in a better-educated population and children's future earning potential (and tax contributions) as adults. To examine the possible public benefit spillovers from school spending, we examined how these fiscal impacts varied with alternative assumptions about who receives the benefit (or would be responsible for the cost) of K–12 education. When we assigned half the costs for K–12 spending to all adults, recognizing the contribution these children will make to future budgets, and the remaining half to students (and their parents), the net fiscal impact of immigrant adults under an average cost allocation became –\$1,250, and natives had small increases in their costs. This cost assignment reduced the difference in net costs between immigrants and natives from –\$2,950 to –\$2,550.

Conclusion

When public education costs were assigned to the parents of children in school and the cost of public goods was shared equally across the population, immigrant adults were estimated to be costlier to state and local budgets relative to natives for the 2011–13 period for most states. Using a marginal cost allocation, under which an additional immigrant is presumed not to add to or incur the costs of administering the subset of state and local government services categorized as public goods, led to more similar estimates of per adult fiscal impacts across the two groups, with net fiscal benefits being higher for immigrants than natives in 14 states.

The relative contribution or burden of any adult is driven largely by that person's demographic and economic characteristics. Having more dependents on average relative to native adults means that immigrants

are costlier to state and local governments. Decisions made by state and local governments about the level and structure of taxes and services provided also affect relative burden or contributions. In places with higher spending on K–12 schools, for example, the relative cost differences will be higher. But society benefits from a more educated population, and it may be more appropriate to allocate some portion of education costs to all state residents as a public good. When we did this, the disparities between immigrants and natives also declined.

Under static estimates like those presented here, families with children in school are costly to state and local governments. But those children will go on to contribute to government coffers through higher tax payments when they reach working age. As highlighted in the NAS report, the children of immigrants were the most positive fiscal contributors to most states' fiscal health in their adult years. In national estimates of the fiscal returns of these adult children of immigrants, their incomes and fiscal contributions were larger than those of immigrants or of natives with native parents. These higher contributions persisted even when controlling for age and education levels.

In the NAS report we also highlighted that the returns to investments in education of higher future tax contributions disproportionately benefit federal coffers because of the federal government's reliance on a progressive income tax. One state's investment in public education leads to higher returns to the federal government and potentially to the future taxes of other states if a child is educated in one state but lives in a different state as an adult. Thus, there may be an argument for a larger federal role in providing a larger share of the funds used to fund our schools.

As states and the country assess their fiscal health and the role different populations play, it is important to consider how different programs contribute to future productivity and provide returns to their residents.

Appendix A. Methodology

Definitions of Independent Adults and Dependent Children

Focusing on independent adults as our unit of analysis, we assigned the fiscal costs and benefits of dependent children to their parents or adults in their household as follows.

We considered dependent children to be anyone under 18 as well as anyone ages 18 through 23 in school with income below half of the poverty level for one person. We also considered individuals ages 18 through 23 who were not in school but had income below half the poverty level to be dependents if they lived with at least one independent adult (typically a parent).

We considered any person (mostly individuals age 18 and older) who was not a dependent child to be an independent adult, with a few exceptions. We considered individuals ages 18 through 23 in school and working more than part time to be adults regardless of their income level. Married individuals were considered adults irrespective of their age, as were single individuals with children earning above half the poverty level and living with no other relatives. In households in which no one satisfied the above criteria, we considered any household member with income above the average household amount and age 18 and above (or 16 and above if all household members were under 18) to be adult(s).

An adult's fiscal contributions to and benefits received from state and local governments were calculated as the total of their revenue and expenditure flows plus those of any dependent children assigned to them. Dependent children and their flows were split between parents in two-parent households or assigned fully to the resident parent in single-parent households. They were assigned to the grandparent(s) if their parents were dependents or not present. Dependents not living with parents or grandparents were assigned to the highest-earning adult relative in their household or the highest-earning adult household member if no family members were present. Nonchild dependents were split between married couples if they were assigned to one of the spouses. Ninety-four percent of dependent children in our dataset were assigned to parents, 5 percent were assigned to other family members, and remaining dependents were assigned to nonfamily members.

Allocation of State and Local Revenues and Expenditures

Table A.1 shows the categories of state and local revenues and expenditures with national averages for their share of total revenue or expenditures in parentheses.²¹ Individual income taxes, property taxes for those in owner households, and Medicaid and public welfare on the expenditure side of the ledger were assigned to individuals based on their reported amounts and then scaled to match the Census of Governments (COG) state totals. Other COG revenue and expenditure flows, such as property tax for renters, general sales tax, and business taxes, were assigned based on income (or wage income specifically for insurance trust revenues and expenditures). Higher education charges and expenditures were assigned to individuals in college, and K–12 education expenditures were allocated to children in elementary and secondary school and then assigned in our results to their parents. Selective sales taxes, such as cigarette or alcohol taxes, were assigned evenly to individuals above the legal age to consume, and other revenue and expenditure flows were assigned evenly to

all individuals (both adults and dependents). As described earlier in this appendix, after all state and local revenue and expenditure flows were accounted for, the amounts assigned to dependent children were wrapped up to adults in their household, typically their parent or parents.

TABLE A.1

Census of Governments State and Local Revenue and Expenditure Flow Types

Revenues (share of total)	Expenditures (share of total)
■ Property taxes (14%)	■ Higher education expenditures (7%)
■ General sales taxes (10%)	■ K–12 education expenditures (16%)
■ Selective sales taxes and public utilities (5%)	■ Other education expenditures and libraries (4%)
■ Individual income taxes (9%)	■ Medicaid and public welfare (16%)
■ Business taxes (3%)	■ Insurance trust expenditures (11%)
■ Higher education charges (e.g., tuition) (3%)	■ Other expenditures and capital outlays (45%)
■ School lunch sales (<1%)	■ Intergovernmental expenditures (<1%)
■ Other education charges (<1%)	
■ Insurance trust revenue (15%)	
■ Other revenues (22%)	
■ Intergovernmental revenue (18%)	

Note: Although it is included in the 16 percent of Census of Governments expenditures from Medicaid and public welfare in the table, we did not assign the 2 percent of the total 2011–13 Census of Governments expenditures that went to institutional Medicaid spending.

Notes

1. We were a member of (Rueben) and consultant to (Gault) the panel that directed and cowrote the report.
2. Audrey Singer and Dowell Myers, “Labor Force Growth Increasingly Depends on Immigrants and Their Children,” *Urban Wire* (blog), Urban Institute, September 29, 2016, <http://www.urban.org/urban-wire/labor-force-growth-increasingly-depends-immigrants-and-their-children>.
3. This brief differs from the NAS report by largely reporting results for immigrant and native adults. In the NAS report, most of the results are presented for immigrants and for two groups of natives: those with immigrant parents and all others. We reference this group of second-generation native adults when appropriate. For more details, see NAS (2016).
4. See chapter 8 of *The Economic and Fiscal Consequences of Immigration* (NAS 2016).
5. Accessed via [IPUMS-CPS](#) (Flood et al. 2015).
6. Of these dependent children, considered in their own right, 4 percent are immigrants. Another 21 percent of dependent children are natives with immigrant parents; although these children of immigrants are natives when considered in their own right, their costs are typically assigned to their immigrant parents.
7. Given limits in our individual data, we did not examine characteristics across local areas, and all taxes and spending were assigned based on total state and local amounts.
8. See data for 2011, 2012, and 2013 from US Census Bureau, “State and Local Government Finance,” Census of Governments Annual Survey of State and Local Government Finances, accessed May 31, 2017, https://www.census.gov/govs/local/historical_data.html.
9. See *The Economic and Fiscal Consequences of Immigration* (NAS 2016, 360–61).
10. See chapter 7 of the NAS sister report, *The Integration of Immigrants into American Society* (NAS 2015, 326–30).

11. Gelatt et al. (2017) examine how policies affecting immigrants in the areas of enforcement, public benefit access, and integration vary across states.
12. West Virginia's estimates for immigrant adults, for example, were based on just 70 observations.
13. We rounded all estimated fiscal impact dollar amounts in this brief to the nearest \$50 to emphasize that the basis for our estimates was a relatively small sample.
14. Fourteen percent of our immigrant sample arrived since 2006, though this share of new immigrants varied across states.
15. Similarly, some revenues, for example business taxes and fees, are allocated to individuals but may not increase with an additional person. We have not allocated these per capita revenues to immigrants in our marginal estimates either.
16. Fixed revenue flows included other revenues and intergovernmental revenues. Fixed expenditure flows included expenditures on other education and libraries, public welfare vendor payments to private vendors and administration expenditures, and other expenditures and capital outlays. See tables 9-11 and 9-12 in the technical annex to chapter 9 of *The Economic and Fiscal Consequences of Immigration* (NAS 2016) for more information.
17. These estimates of the fiscal impact imply that the total annual aggregate impact of immigrants and their dependents in the United States under an average cost allocation, averaged across 2011–13, was a cost of \$57.4 billion, while natives (and their children) created benefits of \$254.3 billion. Switching to a marginal cost allocation—in which we assumed immigrants did not add to the costs of public goods, and thus we did not assign those costs to immigrants—resulted in both groups being net contributors to state and local budgets. The total annual aggregate impact under a marginal cost allocation shifted to benefits of \$18.5 billion for immigrants and \$178.3 billion for natives. Under both average and marginal cost allocations, the surplus revenues raised amounted to \$197 billion, which equaled the average annual surplus across all 50 states and DC for 2011–13.
18. Similarly, revenues that were allocated to all persons totaled about half of all state and local revenues.
19. See chapter 9 of *The Economic and Fiscal Effects of Immigration* (NAS 2016) for the full set of regression analyses, in which we present six models, with each subsequent model adding more control variables to account for immigrant-native differences.
20. This means K–12 costs were assigned to adults with school-age children, and public higher education payments were assigned to adults who were either attending, or have a dependent attending, an institution of higher education.
21. More detailed information on each revenue and expenditure type and how they were allocated to adults, along with a full description of the methodology, is provided in chapter 9 of *The Economic and Fiscal Consequences of Immigration* (NAS 2016).

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About the Authors



Kim Rueben, a senior fellow in the Urban-Brookings Tax Policy Center at the Urban Institute, is an expert on state and local public finance and the economics of education. Her research examines state and local tax policy, fiscal institutions, state and local budgets, issues of education finance, and public-sector labor markets. Rueben directs the State and Local Finance Initiative. Her current projects include work on state budget shortfalls, financing options for California, the fiscal health of cities, and examining higher education tax credits and grants. She serves on a Council of Economic Advisors for the Controller of the State of California and a National Academy of Sciences panel on the economic and fiscal consequences of immigration, and she was on the DC Tax Revision Commission in 2013. In addition to her position at Urban, Rueben is an adjunct fellow at the Public Policy Institute of California (PPIC).

Rueben received a BS in applied math-economics from Brown University, an MS in economics from the London School of Economics, and a PhD in economics from the Massachusetts Institute of Technology.



Sarah Gault is a former research associate in the Urban-Brookings Tax Policy Center, contributing to the State and Local Finance Initiative. She works primarily on topics relating to state and local public finance, and she has also supported research on financial transaction taxes and simplifying student financial aid. Gault holds a bachelor's degree in economics from the College of William and Mary. She is currently enrolled at Brown University to receive a master's degree in public affairs.

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