THE FISCAL IMPACT OF REFUGEES AND ASYLEES AT THE FEDERAL, STATE, AND LOCAL LEVELS FROM 2005 TO 2019

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Executive Summary

Between 1990 and 2022, the United States welcomed over 2.1 million refugees and granted asylum to more than 800,000 individuals (Office of Immigration Statistics 2023). While doing so impacts the United States economically, the purpose of granting protection is humanitarian. Federal and state governments spend considerable resources to support the resettlement and integration of these populations into the United States. Over time, refugees and asylees make significant contributions to federal, state, and local government revenues. Yet this is the first federal study to estimate the net fiscal impact of refugees and asylees on government. The study focuses on the 15-year period from 2005 to 2019. The estimates are meant to inform federal decision-making on resettlement services and contribute to the broader research landscape on how refugees and asylees contribute to society economically.

This study takes a static historical approach to fiscal impact measurement, which is defined simply as the revenues collected from refugees and asylees by government, minus the cost to government for expenditures on refugees and asylees over a specified period. The approach calculates costs for individuals and their spouses and children under age 18, most of whom are U.S. citizens. The analysis does not estimate or consider second-order effects on the labor market or other externalities, nor do the data permit a complete life-course analysis. The approach is modeled after a study of immigrants by the National Academies of Sciences, Engineering, and Medicine (2017), and builds synthetic time-of-arrival cohorts from 15 years of cross-sectional data. The model includes the major sources of social safety net expenditures and tax revenues, with some exceptions. Excluded are public goods related to military defense, support of foreign governments, and national security, as individuals cannot effectively be excluded from such services.

Overall, this federal study finds that the net fiscal impact of refugees and asylees was positive over the 15-year period, at $123.8 billion. The net fiscal benefit to the federal government was estimated at $31.5 billion, and the net fiscal benefit to state and local governments was estimated at $92.3 billion. Including immediate family members, refugees and asylees still contributed a net fiscal benefit, estimated at $16.0 billion. While refugees, asylees, and their immediate families were a net contributor to the federal government, estimated at $37.5 billion, they were a net fiscal cost to state and local governments, estimated at $21.4 billion. The higher percentage of expenditures paid by state and local governments for immediate families is in large part due to higher K-12 education expenditures for the children of refugees and asylees who were born in the United States. Local governments spend substantially more on K-12 education than the federal government spends, and as a result, most of the net impact of including spouses and children is observed at the state and local level.

This study found that governmental expenditures on refugees and asylees totaled an estimated $457.2 billion over the 15-year period. Expenditures by the federal government represented 72.5 percent of the total, at $331.5 billion. State and local government expenditures were 27.5 percent of the total, at $125.7 billion. Including immediate family members, expenditures for refugees and asylees totaled $723.4 billion.

Refugees and asylees with 10 or more years of residency had approximately the same level of income as the total U.S. population. Through payroll, income, and excise taxes, refugees and asylees contributed an estimated $363 billion to the federal government, and through income, sales, and property taxes they contributed $218 billion to state and local governments. To all levels of government combined, refugees and asylees contributed an estimated $581 billion in revenue. Including immediate family members, refugees and asylees contributed an estimated $739 billion in revenue.

Introduction

The United States has a long-standing tradition of providing protection to individuals facing well-founded threats to their safety in their country of origin. Between 1990 and 2022, the United States welcomed over 2.1 million refugees and granted asylum to over 800,000 individuals (Office of Immigration Statistics 2023). While the purpose of granting visas to refugees and asylees is humanitarian, they do impact the United States economically. U.S. federal and state governments spend considerable resources to support the and integration of these populations in the United States. Yet this is the first published study focused on quantifying the fiscal impact of refugees and asylees on the U.S. budget. Understanding this impact is important to decision-makers at all levels of government. Federal, state, and local spending is a consideration when, for example, establishing the annual ceiling on refugee admissions.

Populations Included in This Study

This study focuses on individuals who were granted asylum or arrived in the United States under refugee status since 1980. The population includes refugees, asylees, Cuban/Haitian entrants, and certain Special Immigrant Visa holders from Iraq and Afghanistan. For the purposes of this brief, we refer to these populations as refugees and asylees.

This report presents estimates of the net fiscal impact of refugees and asylees over the 15-year period, from 2005 to 2019. It estimates the total revenue directly collected by the government from refugees and asylees, and the total cost of refugees and asylees to the government. The net fiscal impact is calculated simply as the revenue minus the cost. The estimates presented are meant to inform federal decision-making on resettlement services and to contribute to the broader body of research on how refugees and asylees contribute to the United States economically. To simplify, this report uses the terms “asylee” and “refugee” to refer to individuals who were granted asylum or arrived in the United States under a refugee category, respectively, regardless of any subsequent adjustment of status to lawful permanent resident or naturalization. The category excludes asylum applicants and temporary protected statuses. In general, asylees and refugees are eligible for the same public benefits and programs. The data and methods used in the current study do not permit distinguishing between or among refugees and asylees with confidence.

There is limited research on the fiscal costs of refugees and asylees to the United States. Clemens (2022) focused on the period from 2017 to 2020 and estimated the fiscal costs of the reduced number of refugee arrivals and individuals granted asylum over this period. The analysis showed that the reduction in refugee arrivals over the period cost the U.S. economy $9.1 billion per year from the gross domestic product (GDP) and had a negative fiscal impact of over $2.0 billion per year, net of expenditures. Further, reductions in the number of immigrants granted asylum from 2017 to 2020 continue to cost the economy billions of dollars per year.

Two recent studies explored the economic *integration* of refugees at the national level. The Migration Policy Institute issued a report based on five years of pooled national survey data from 2011 through 2014 exploring English language proficiency, educational attainment, income, employment, and public benefits receipt (Capps et al. 2015). The researchers found that many refugees arrive with low levels of education and English language proficiency, but employment rates are generally on par with those of the U.S.-born population, and their income increases over time. The analysis concluded that although refugee participation in public benefit programs declines with time in the United States, they utilize slightly more public benefits 20 years after resettlement than U.S.-born individuals. Using a similar approach, Evans and Fitzgerald (2017) identified economic and social outcomes for refugees, finding

that refugees entering the U.S. before age 14 graduated high school and entered college at the same rates as U.S.-born individuals, while refugees entering as older teenagers had lower educational attainment than people born in the United States. Refugees entering as working-age adults were found to initially have low levels of employment, high benefits usage, and low earnings. As refugees spent more time in the U.S. their outcomes improved, showing higher employment rates than U.S.-born individuals, though not higher earnings. The study focused on adults ages 18 to 65 and examined a narrow range of public benefits programs. The current study includes refugees of all ages and assesses a more comprehensive set of safety net programs.

Though researchers rely on nationally representative surveys to study refugees, a known shortcoming of household surveys is that they generally undercount receipt of public benefits (Klerman, Ringel, and Roth 2005). One study found that the Current Population Survey (CPS) underreported overall Medicaid receipt by more than one-third (Pascale, Roemer, and Resnick 2009). Another study, which linked administrative records to the American Community Survey (ACS), found lower Medicaid underreporting (21.9 percent) (Boudreaux et al. 2015). Relying on household surveys without adjusting for the undercount of public benefits would inevitably underestimate the fiscal cost associated with refugees and asylees. The current study makes this important adjustment.

Several studies have examined the economic impact and outcomes for refugees at the local level. A 2012 study examined effects in Cleveland, Ohio, and found a total economic impact estimated at $48 million and the creation of 650 jobs (Chmura Economics & Analytics 2013). A similar analysis was conducted in 2015 in the Columbus, Ohio, metropolitan area and showed that the 16,596 refugees in the area supported 21,273 jobs and contributed $1.6 billion to the local economy (Community Research Partners 2015). Another study focused on refugee integration in Colorado over the five-year period from 2011 through 2015, and among other findings noted that employment rates among refugees rose from 17 percent in their first year of U.S. residence to 63.5 percent in their third year (Quality Evaluation Designs 2016).

The current study addresses the challenges noted above by adjusting information obtained from CPS Annual Social and Economic Supplement (ASEC) survey data to match real-world spending and revenue levels according to administrative records from government programs. Much of the information is derived from TRIM3 microsimulation model estimates that correct for underreporting of benefit receipt and calculate tax liability based on information reported in the CPS ASEC. However, because TRIM3 primarily aligns to administrative targets for the number of families receiving assistance, rather than to administrative targets for dollar amounts, we further adjust most of the program and tax estimates to align more closely with actual spending and revenue levels. In addition to these estimates, we impute benefits and revenues for sources not covered by the TRIM3 model. Full details on the expenditure items included in the study are provided in Appendix A.

Approach

General Approach

This study focuses on the fiscal impact of refugees and asylees to federal government and to state and local governments over the 15-year period from 2005 to 2019, the most recent years for which our data were available at the time of the study. Data limitations precluded analyses over a longer period. This study includes all refugees and asylees arriving in the U.S. since 1980, regardless of their current immigration status. This analysis follows the approach the National Academies of Science, Engineering

and Medicine (NASEM) used to analyze the fiscal impact of immigrants in *The Economic and Fiscal Consequences of Immigration* (2017) with several important modifications that are appropriate for the population under study. The data source and method used to capture refugee and asylee data at all ages and life stages—childhood and youth, working-age, middle-age, and retirement years—are described in detail below.

The NASEM report presents two broad methodological approaches for using existing national survey data to study economic impacts. The first approach is dynamic and focuses on employment effects and compounded costs over multiple periods for the purpose of projecting future costs and benefits to the U.S. economy. The second and static approach is a first-order inquiry measuring actual fiscal costs expended, compared with revenues collected over a specific historical period, to estimate impacts on federal and state governments. The second and static methodological approach was most appropriate and adopted for the current study.

To the authors' knowledge, longitudinal data on refugees and asylees in particular are not collected, which impacts our ability to study second-generation outcomes for refugees and asylees and to track broader economic impacts, secondary effects, or long-term costs. In addition, the government-sponsored household surveys critical for studying the U.S. population do not identify refugees and asylees directly. The current study overcomes this challenge with the application of a well-established method of imputation to assign refugee and asylee status to respondents, described below. Due to the lack of available data, the literature on refugee and asylee utilization of public benefits, their economic outcomes, and fiscal impacts is limited. To fill knowledge gap, the current study uses 15 years of survey data to reliably capture social and demographic characteristics to describe the population of refugees and asylees, who make up less than 1 percent of the U.S. population.

Critically, the current study considers costs to government, including the full spectrum of national public benefit programs, and accounts for other costs including the substantial costs of administering criminal justice programs and services and public education from preschool through college. The current study also includes government revenues generated directly by refugees, following the estimation methods used in the NASEM study to the extent feasible. Refugees and asylees are a subset of the immigrant population, and systematic differences distinguish them from other immigrants in ways likely to affect the use of government resources. An important difference is that refugees and asylees are entitled to a range of social welfare benefits upon arriving as refugees or being granted asylum in the United States and are also allowed to immediately apply for Social Security numbers and work authorization. For the period under study, most new immigrants were ineligible for benefits, with some exceptions, such as emergency medical care, prior to a five-year waiting period required of new arrivals since the establishment of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) in 1996.[1] With respect to costs of administering criminal justice, recent data indicate that 85 percent of federal arrests among noncitizens were for immigration offenses (Motivans 2021), which are not a risk for refugees, given that they are in lawful immigration status and often adjust to lawful permanent resident status and later become naturalized U.S. citizens. For asylees who obtain asylum through the defensive process, there are likely costs due to immigration offenses. Because of this complexity and our lack of data on these processes, some of the expenditures and revenues for criminal justice that could be estimated for immigrants cannot be reasonably applied to refugees and asylees.

[1] See Title IV: Restricting Welfare and Public Benefits for Noncitizens in "Major Provisions of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (P.L. 104-193)." Administration for Children and Families, Office of Family Assistance.

To define fiscal impact, it is necessary to capture both government expenditures and revenues, which is standard practice in the field of economics. Every person living in the United States is the beneficiary of direct and indirect government outlays, such as expenditures for public schools, national and local parks, and services for public safety. Individuals are a fiscal burden if their contributions to government through taxes and fees do not offset these outlays. The relevant question from a purely economic perspective is whether an individual contributes more to revenues than the individual consumes in services. This is specifically the case for measuring long-term costs, which prompt consideration of returns on investment. Therefore, to measure the actual fiscal costs of refugees and asylees over the long term, it is necessary to examine both government outlays paid on behalf of refugees and the fiscal contributions that refugees and asylees return to the government.

The 15-year study period saw a range of geopolitical events that determined refugee and asylee countries of origin, with important consequences for their fiscal impact and integration outcomes. Refugees and asylees from different countries are likely to vary in employability in the United States depending on characteristics observed upon arrival, including educational attainment, English-language proficiency, employment experience, and cultural norms. The primary countries of origin for refugees and asylees shifted over the study period. Some countries, such as Burma, Cuba, Iraq, and Somalia, appear consistently as origins for refugees, and typical origins of asylees were China and Ethiopia. Other countries, however, were less consistent, reflecting changing humanitarian need and shifting trends. For example, Burundi and Liberia were major refugee-sending countries in the earlier years, whereas Sudan and Syria were major refugee-sending countries in later years. A greater number of individuals from Colombia and Haiti were granted asylum in the earlier years, whereas a greater number of individuals from Egypt and Mexico were granted asylum during later years. More details on countries of origin for the largest number of refugees and asylees from 2005 to 2019, and for select years, can be found in Appendix B (see Tables B1, B2, and B3).

In addition to calculating costs for individual refugees and asylees, this report estimates costs for immediate family members. The immediate family includes spouses and children under 18 who did not enter the country as refugees or asylees and who may have other immigration statuses or be native-born or naturalized U.S. citizens. The number of refugees and asylees living in the United States between 2005 to 2019 ranged from 2.6 to 3.2 million, most of whom were lawful permanent residents or U.S. citizens. When non-refugee and non-asylee family members are added to the refugee and asylee population, the figure rises to 4.7 million. Most family members included in the analysis are children who were born in the United States. Throughout this report, analyses that include non-refugee and non-asylee spouses and children under age 18 refer to this group as “refugees, asylees, and their immediate families.”

This report does not consider second-order economic effects as a result of refugees and asylees entering the labor market. For example, their participation in the U.S. labor force may affect occupational structure, employment level, or wages among non-refugee populations, which in turn could affect the tax revenue collected by the government. Such an analysis would impact an accounting of the costs associated with the refugee population. However, due to limited data and extensive research, this type of analysis would require broad and potentially speculative assumptions that may be unfounded. Given that refugees and asylees make up less than 1 percent of the U.S. population, the probability that effects on non-refugee and non-asylee earnings or other measurable fiscal consequences would be observed at the national level is low. There may be important costs in local areas where refugees and asylees make up a more substantial share of the population. Such an analysis is beyond the scope of this study. The

study also does not consider the effect of refugee and asylee financial remittances to their home country, which may negatively affect their economic mobility in the United States.

Data

Current Population Survey

Data for the current study come from a variety of sources. Costs for Head Start, child welfare services, criminal justice, primary and higher education, Medicare, Medicaid, community health centers, and public hospital payments were obtained from public records and applied on a per capita basis. The costs of major social programs including child care subsidies, housing and home energy assistance, premium tax credits, nutrition assistance, school lunch, Social Security, Supplemental Security Income, refundable tax credits (such as the Earned Income Tax Credit [EITC]), and direct income assistance (Temporary Assistance for Needy Families [TANF]) are based on estimates from TRIM3 with population estimates from the CPS ASEC. The CPS is representative of the civilian non-institutional U.S. population and samples about 90,000 households each year. Because refugees made up less than 1 percent of the U.S. population, the number of cases in the CPS ASEC was modest, and as a result, distinctions among categories and characteristics are somewhat limited. The current study identified a total of 26,404 *unweighted* person-level observations collected from 2005 through 2019, representing 2,982,063 refugees over the period once weights were applied. This included 4,380 (unweighted) cases of refugees who lived in the United States for up to 4 years, 4,326 cases of refugees who lived in the United States for 5 to 9 years, and 17,698 cases of refugees and asylees who lived in the United States for 10 or more years.

Public Benefit and Tax Programs

To correct for the undercount of receipt in public benefits typical in nationally representative surveys, the current study used the Transfer Income Model, version 3 (TRIM3), to generate most program costs and taxes paid (for similar research using TRIM3, see Bruch, Van Der Naald, and Gornick 2023; Laird et al. 2019; Mincy, Jethwani, and Klempin 2014; NASEM 2019; National Research Council 2001; Parolin, Desmond, and Wimer 2023). TRIM3 is a microsimulation model that simulates the detailed eligibility rules of government benefit and tax programs based on person, family, and household information reported in the CPS. The model selects participants from among people eligible for benefits so as to match the size and characteristics of government program caseloads according to administrative data. The size of a public program's national caseload is obtained outside the model from a government agency. Broadly, survey records for individuals and families that meet eligibility criteria for a program benefit and match characteristics with those in the caseload may be randomly assigned a benefit. Assignment to a program benefit is performed so the survey data will represent administrative caseload characteristics and benefit levels in the aggregate. Take-up rates generated by the model vary significantly across programs and are determined by comparing the agency's known caseload against the size of the eligible population found in the survey. Eligibility is determined by individual income and family characteristics and federal and state rules. In this way the model incorporates program rules and regulations for each state to more accurately model social program eligibility and benefits. Additional adjustments were made to the dollar amounts estimated by TRIM3 for a number of programs so that the total dollar amounts estimated matched administrative totals reported by program offices.

For expenditures not included in TRIM3, data were extracted from administrative records and budgetary documents from the relevant federal agencies. Assumptions were made about the proportion of program costs that can be attributed to refugees based on extant research on refugee and asylee participation in programs. Where research was not available on refugees and asylees specifically,

research on the foreign-born population was used instead, with some modifications as deemed appropriate.

Identification of Refugees and Asylees

The current study uses the method devised by demographers Jeffrey Passel and Rebecca Clark (Passel and Clark 1998; see also Passel, Van Hook, and Bean 2004) to build detailed immigration status from survey data and public records. While the CPS ASEC does not identify refugees and asylees directly, it does collect country of birth for all household members, and for each foreign-born person the survey asks for their citizenship status and year of arrival. Refugee or asylee status was assigned for foreign-born CPS ASEC respondents if their country of birth and year of entry represent a "refugee or asylee country." The method applied does not distinguish between refugees and those granted asylum and does not include persons with temporary protected status.[2] The assignment to refugee and asylee status is based on legal status at the time of arrival to the United States or at the time asylee status was granted, and not legal status at the time of the survey. Importantly, the data source includes only persons entering the United States since 1980. For the current study, survey responses including family relationship variables were compared against annual immigration records from the Department of Homeland Security and the HHS Office of Refugee Resettlement (ORR) on the number of refugees arriving each year and the number granted asylum through affirmative or defensive processes each year, as well as the number of lawful (non-refugee/asylee) immigrants arriving in the year, by country of nationality. If the refugee arrivals, asylees, Cuban-Haitian entrants, and select Special Immigrant Visa holders in a given year exceed the number of non-refugee/asylee arrivals for a given country of birth, the country is designated as a "refugee" country for that year. As a result of this methodical approach, in aggregate, sample cases assigned refugee or asylee status are representative of their population in the United States.

The current study estimates fiscal impacts for the total 15-year period and each five-year period (2005-2009, 2010-2014, 2015-2019) and by years of U.S. residency. To maximize the number of records included, we do not disaggregate results by country of nationality. Combining records across countries of nationality allowed for the largest possible sample size. For example, the CPS data include 429 observations for persons from Nicaragua, but only two of these were recent arrivals. This is because nearly all refugees from Nicaragua arrived in the United States in the 1990s or earlier. By not dividing the cases by nationality, the observations representing Nicaraguan origin were combined with other new arrivals and contributed to the study. If all observations were broken out by country of nationality, many cases would have been excluded, including all from Yemen (n=18), Ghana (n=11), and Guatemala (n=19). Observations from these three countries were too few to yield an average estimate for their group. Instead, the current study retains observations from each country and combines cases by length of residency in order to retain each case identified in the sample.

Other data sources were considered for the study, including the Annual Survey of Refugees; however, our microsimulation model TRIM3 has not been implemented with other surveys. The Annual Survey of Refugees is a survey administered by the ORR and has been conducted annually for several decades. However, its focus on refugees arriving in the most recent five years preclude its use for estimating long-term costs. The current study does rely on both the ACS and Annual Survey of Refugees for benchmarks and corroboration of results.

[2] See U.S. Citizenship and Immigration Services (USCIS): "The Secretary of Homeland Security may designate a foreign country for TPS due to conditions in the country that temporarily prevent the country's nationals from returning safely, or in certain circumstances, where the country is unable to handle the return of its nationals adequately."

Methods

This section provides an overview of the methods used in the current study, with details provided in Appendix A. The analysis examined total fiscal cost for the refugee and asylee population by aggregating across series of public expenditures, including social safety net benefits, and sources of tax revenue. Note that intergovernmental transfers between federal, state, and local governments were excluded from the analysis to avoid the double counting of outlays. Additionally, unique state or local public benefits programs were not included. The resulting data provides for an assessment of per capita expenditures, revenues, and net fiscal impacts to facilitate the comparison of refugees and asylees with the total U.S. population.

Estimating fiscal impacts at the federal and state or local level required the identification of each program and the proportion of its outlays attributable to each level of government. Many programs are paid for solely by a specific level of government; for example, Social Security benefits are paid by the federal government. Expenditures for TANF, Medicaid, child care subsidies, the National School Lunch Program, K-12 public education, and the criminal justice system are paid for from a mixture of federal, state, and local funding streams and allocated accordingly. Because data were not sufficiently granular or explicit to distinguish state from local expenditures in the current study, these are combined as "state/local" and labeled accordingly. The proportion of outlays from the federal government was more clearly defined and obtained from public records. Expenditure data for programs particular to refugees and funded by the U.S. Department of State, the U.S. Department of Homeland Security, or the ORR were collected from budgetary documents at the federal agency level.

For several categories of spending, the involvement of refugees and asylees has no benchmark in the literature, so the current study used one of two methods. The first method presumes sufficient comparability between refugees and asylees and the broader population of foreign-born U.S. residents. For costs related to the administration of criminal justice and child welfare services (including foster care, guardianship, and adoption assistance), the current study assigned costs comparable to those incurred by the foreign-born population, and estimates were sourced from published studies. The second method presumes that refugees and asylees use services at the same level as the U.S. population. This method was most appropriate for significant public welfare costs in the form of direct support of service providers or block grants to states. Costs were estimated based on the number of refugees and asylees in the U.S. population and as a share of the targeted age group. Expenditures based on this method are costs for community health centers, Head Start, Medicaid disproportionate share hospital (DSH) payments, and the Workforce Innovation and Opportunity Act services for adults and youth.

The largest costs this study estimated were related to health care coverage. Cost estimates per enrollee for Medicare and Medicaid were provided by the Centers for Medicare and Medicaid Services (CMS). Participation in the Children's Health Insurance Program (CHIP) program is not reported reliably in the CPS ASEC. For this reason, the small number of CHIP cases identified in the survey and the costs associated with the program were combined with expenditures for Medicaid.

For refugees and asylees who were uninsured, the analysis estimated the size of the uninsured population and the burden this population placed on hospitals and health centers. Refugees were assumed to be more like the foreign-born than the U.S.-born population with respect to health care utilization. However, due to higher rates of participation in Medicaid and greater eligibility, refugee

uninsured rates were calculated as the average of rates between foreign-born and U.S.-born uninsured people. Appendix A provides details on how these costs were estimated.

To measure public education costs, the current study used state-level estimates for high-poverty districts (generally higher than the average school districts) to compute per-pupil costs, which were averaged from kindergarten through grade 12. The expenditure was applied to each refugee and asylee ages 6 through 17 and the children of refugees and asylees who were ages 6 through 17. The cost of K-12 education is likely overestimated given that some young refugees and asylees do not complete high school. In a working paper, researchers at the National Bureau of Economic Research (Evans and Fitzgerald 2017) found that only about 70 percent of refugees who entered the U.S. at age 16 graduated from high school, while those who entered the country before age 14 graduated at a rate similar to U.S.-born individuals (90 percent). To estimate public higher education costs, the total per-student, publicly financed costs for public college and university revenues were applied. All education-related expenditures were based on data from the Department of Education's National Center for Education Statistics.

Limitations

This study's approach has several important limitations. First, due to the nature of cross-sectional data, the current study does not account for the actual lifetime fiscal costs and benefits of refugees and asylees even though fiscal costs and benefits may change dramatically over the life course. In general, when individuals are of school age, they are a greater cost to society as consumers of public schooling who do not yet contribute revenue through income, payroll, or property taxes. In comparison, working-age adults are on average a fiscal benefit, contributing more through taxes than they consume in government outlays. As adults reach retirement age, they are typically more costly to government, based on the use of programs such as Social Security and Medicare and lower contributions through income and payroll taxes.

To study lifetime costs and benefits, researchers would need to track the same refugees over decades or track a representative group of refugees reflecting the same arrival cohort. This is not an option for refugees and asylees as longitudinal data stretching over decades do not exist, and observations for the current study are too sparse to permit the construction of synthetic arrival cohorts. One alternative approach is to approximate a refugee's life course by grouping refugees by age and length of time in the United States. Though not adopted for the current study, this is the method used by Capps et al. (2015) and Evans and Fitzgerald (2017, p. 38), and it assumes that refugees differ only by length of time in the country and that refugees *do not* differ substantially based on degree of human capital, ability to integrate into the economy, or the macroeconomic and policy context encountered upon arrival to the country. The current study does not make these assumptions.

A second limitation is that this study focuses on a particular 15-year period, which has its own specific demographic, geopolitical, and economic characteristics; thus, the results may not be generalizable to other periods. One reason is that the policy context of the time period under study may not be comparable to previous or future decades, and the prevailing economic conditions and policy environments that refugees and asylees encounter upon arrival can change dramatically in a few years. New federal policy affects the flow of arriving refugees and asylees but may not affect the existing number refugees and asylees already in the country. The generalizability of the results of this analysis also depends in part on the relative size of a new flow of refugees compared with the existing refugee population. For example, 75,721 people were admitted as refugees or were granted asylum in 2019, reflecting about 2.4 percent of the total population of refugees and asylees already in the country at the

time. While these new arrivals may have different lifetime costs compared with those already in the country, the impact of new arrivals on the total cost of the refugee and asylee population is not likely to be impactful.

An additional limitation is that the current study focuses exclusively on refugees and asylees and their non-refugee and non-asylee spouses and minor children. Contributions from the second generation would be important in a multiple-generation or life-course analysis; however, the current study focuses on the first generation over a specific historical period. While refugees and asylees can be identified with confidence in available data sources, there is no method for identifying refugees' adult offspring. It is possible that the outcomes of the second generation are substantially different from those of first-generation refugees, which other research on immigrant populations has found (NASEM 2017, chapters 7, 8, and 9). The lack of second-generation data is a departure from the method outlined by NASEM (2017), which the current study aimed to approximate. Missing data on the second generation is an impediment to a comprehensive empirical assessment of the long-term fiscal costs and benefits of the refugee population.

The current study is also unable to estimate variance in the fiscal impact of refugee subgroups. The fiscal impact of a specific group of refugees is likely to differ by key characteristics, such as time in the United States, pre-resettlement experiences with violence or trauma, employment in the home country, English proficiency, education, and age at entry. A study of greater depth and precision could account for the need for medical assistance and counseling, or human capital possessed by refugees at the time of arrival, and the related effects on fiscal costs and benefits.

Finally, this study does not include all expenditures and revenue sources that could reasonably be ascribed to refugees and asylees. While the line items with the largest expenditures and revenues are included, the study excludes the cost of national security, assistance to foreign governments, military defense, and some local expenditures and revenue sources. More details on these excluded expenditures and revenues can be found in the next section.

Program and Service Expenditures and Sources of Revenue

This section outlines the costs associated with the largest social safety net programs in the United States and the cost of narrower programs and services targeted to refugees. Details on the methods for estimating expenditures and revenues can be found in Appendix A. Regulations on the eligibility of immigrants, refugees, and asylees for benefits were largely established under PRWORA (P.L. 104-193) and the Illegal Immigration Reform and Immigrant Responsibility Act (P.L. 104-208). PRWORA established two categories of immigrants:

- Nonqualified Immigrants: this included undocumented immigrants, as well as some temporary immigrants in lawful status, such as students and tourists; and
- Qualified Immigrants: this includes lawful permanent residents, refugees, and other specific categories of immigration status.

Expenditures

Federal means-tested benefits include benefit programs available to eligible people in the U.S. population, such as TANF, Medicaid, and SNAP. Refugees and asylees are generally eligible for these programs. Under existing federal statutes, unlike other immigrant groups, refugees and asylees may

receive benefits from federal means-tested programs upon arrival in the United States as long as they meet the eligibility criteria, which are often set at the state level.

Qualified immigrants arriving after the enactment of PRWORA in 1996 are generally not eligible for TANF, Medicaid, or SNAP for five years; however, refugees and asylees are generally exempt from this restriction and are eligible upon arrival. Refugees and asylees are subject to the same requirements that apply to other program recipients, such as TANF time limits and SNAP work requirements, which vary among states. Under SSI, qualified immigrants arriving after the enactment of PRWORA are generally not eligible until they obtain U.S. citizenship, but refugees are eligible for their first seven years in the country and may remain eligible for an additional year if they have a pending naturalization application.

Similar to means-tested benefits, refundable tax credits target lower-income taxpayers and are available to all qualified taxpayers. These include the federal and state Earned Income Tax Credits, as well as the federal child tax credit.

Social insurance benefits include programs from which people receive benefits based on their individual contributions. In this report the social insurance benefit programs are Social Security, Social Security Disability Insurance, and Medicare. Our analysis includes Medicare Parts A, B, and D, as well as low-income subsidies for the Part D (prescription drug) program.

Refugee-Specific Expenditures

Refugee-specific expenditures include operational costs for programs and services from the U.S. Citizenship and Immigration Services (USCIS), the U.S. Department of State, and ORR. USCIS incurs costs for processing applications for refuge and performing security screenings and background checks for applicants. Expenditures from the Department of State pay for processing of applicants overseas, including health screening, and for reception and placement services, which provide a one-time cash payment to each refugee to assist with expenses during the first few months after arrival in the United States.

ORR provides services to refugees through a number of models. Most states use the state-administered model to administer refugee cash assistance and refugee medical assistance. These programs assist refugees who are not eligible for the means-tested programs listed in Table 1 based on their date of arrival or grant of status. Medical and cash benefits are terminated after eight months, though this duration has changed historically based on congressional appropriation levels and was increased to 12 months in March 2022. Among refugees, not all enrolled populations receive each type of benefit, and not all enrolled populations receive benefits for the full amount of time. Some recipients may have benefits terminated early due to earned income from employment. ORR provides new arrivals with health care access, case management, and an orientation to the U.S. health system. ORR also supports a domestic health screening within 90 days from date of eligibility or entry into the U.S. for the purpose of identifying conditions that threaten public health or impede self-sufficiency. ORR also provides preventive health grants to state and local health departments to support coordination and promotion of refugee health.

Table 1 categorizes the expenditures analyzed for the current study.

Table 1. Expenditure Items

Refugee/Asylee-Specific Benefits and Programs Administration for Children and Families Office of Refugee Resettlement - Transitional assistance and medical services - Refugee preventive health services - Refugee Support Services Department of State Bureau of Population, Refugees, and Migration - Migration and refugee assistance (reception and placement, processing) Department of Homeland Security, U.S. Citizenship and Immigration Services - Refugee processing costs
Social Insurance Benefits Social Security Social Security Disability Insurance (SSDI) Medicare
Means-Tested Benefits Child care subsidies (Child Care and Development Fund [CCDF]) Disproportionate share hospital (DSH) payments (to reimburse hospitals for serving uninsured patients) Health centers Health insurance premium tax credits Head Start Housing assistance Low-Income Home Energy Assistance Program (LIHEAP) Medicaid/Children's Health Insurance Program (CHIP) National School Lunch Program Supplemental Nutrition Assistance Program (SNAP, formerly food stamps) Supplemental Security Income (SSI) Temporary Assistance for Needy Families (TANF) Women, Infants, and Children (WIC) Special Supplemental Nutrition Assistance Workforce Innovation and Opportunity Act
Education, Child Welfare Services, and Criminal Justice K-12 public education Public funding for higher education Child welfare services (including adoption, guardianship, and foster care) Court and legal costs Corrections
Refundable Tax Credits Federal Child Tax Credit (CTC) Federal Earned Income Tax Credit (EITC) State Earned Income Tax Credits

ORR Refugee Social Services (RSS) provides refugees assistance in finding employment and integrating into life in the United States, including case management, English language instruction, and job training.[3] The majority of this funding is awarded to states in a formula allocation based on the pattern

[3] To ease the administrative burden on ORR and its state partners, ORR combined the refugee social services, refugee targeted assistance, and refugee health promotion into a single program called Refugee Support Services (RSS) in 2018.

of arrivals. For the period of study, ORR also administered targeted assistance to states, and this was merged into RSS in 2018 to streamline provision of services and to ease state administrative burden. Included in RSS funding is the school impact set-aside program, focusing on activities that lead to effective education and integration of refugee children into school systems and communities through English language instruction, after-school tutorials, and mentoring.

ORR also administers more specialized social services programs, which include but are not limited to intensive case management, community coordination, micro-enterprise programs, mental health services, and services for older refugees. These services help refugees acquire the skills and certification they need to enter, navigate, and succeed in the workforce and connect with their neighbors and communities. Such services are available to refugees for their first five years from the date of eligibility or arrival in the United States.

The Matching Grant program is an alternative to cash assistance programs, targeted to help refugees become economically self-sufficient within 120 to 180 days. Assistance was increased to 240 days as of March 2022. Self-sufficiency must be achieved without accessing public cash assistance, and enrollment is available to all ORR-eligible populations who have at least one member of the case deemed employable (e.g., not elderly or disabled, not already self-sufficient, and not in another ORR-funded program). During the time of this study, a number of nonprofit organizations provided cash assistance and social services to refugees through the Wilson-Fish program.

Revenues

Four types of taxes were included in the analysis for this report: payroll, income, excise, and sales. Table 2 lists the revenue items that were included. This analysis indirectly captures taxes paid by businesses for sales, excise, and property taxes, and we capture the employer share of payroll taxes. However, it excludes other business taxes such as the fees associated with licenses and permits, driver's licenses, business licenses, and park permits due to data limitations. Data on refugee and asylee business ownership and business taxes paid are not available at the national level. However, a June 2017 report by the New American Economy found that refugee-owned businesses generated $4.6 billion in business income in 2015. One study in Cleveland, Ohio, found that in 2012, refugee-owned businesses contributed $437,939 in tax revenue to local and state governments, representing 17 percent of refugees' total state and local tax revenue in the city (Chmura Economics & Analytics 2013). Different state and county tax rates and potentially different business ownership patterns hinder extrapolation from this estimate, however.

Table 2. Revenue Items

Federal	**State/Local**
FICA payroll taxes	Income tax
Income taxes	Property tax
Excise taxes	Sales tax

Expenditures and Revenues Not Included

Some expenditure and revenue items were not estimated due to data limitations, and their exclusion may underestimate costs and revenues.

Costs associated with some social insurance programs were not estimated, such as insurance trust revenues and expenditures, which include unemployment insurance and workers compensation. Reliable estimates were not available for these programs. Based on the 2014 Annual Survey of State and Local Government Finance,[4] across all states, insurance trust revenue exceeded expenditures by over $381 billion. That is, unless refugees differ substantially from the general population in their use of insurance trust programs such as workers compensation, excluding such costs and benefits is likely to overestimate costs and underestimate benefits of refugees.

Several public benefits programs were not included. For example, IRS-funded programs to support low-income taxpayers, such as Low-Income Taxpayer Clinics, and tax relief programs, such as fee waivers and installment agreements, were not included. Smaller programs such as the Department of Energy's Weatherization Assistance Program were also excluded. The study does not include benefits programs unique to specific states and local governments, such as temporary disability insurance programs, or nutritional assistance programs *apart from* SNAP, Special Supplemental Nutrition Assistance for Women, Infants and Children (WIC), and the National School Lunch Program. Services funded by states through state block grants, such as the Community Services Black Grant, the Social Services Block Grant, and the Substance Use Prevention, Treatment, and Recovery Services Block Grant were excluded because we do not have reliable information on how those funds are used to provide direct services or on what share of those services refugees and asylees may use. One-time appropriations that may provide direct services, such as funding from the State Targeted Response to the Opioid Crisis grants, authorized in the 21st Century Cures Act of 2016, were excluded. The study also excludes revenue sources such as business permits and licenses, and some social insurance programs, described in more detail below.

Public goods, such as services related to military defense and national security, are also excluded. The use of such public goods and services by one individual theoretically does not impact use by another, and individuals cannot effectively be excluded from using such goods and services. In practice many public goods are in fact congestible, meaning there is a realistic limit to the number of users at a time, such as public parks and transportation. In addition, interest payments for national, state, or local debt were excluded.

Estimating the costs per person for these items (public goods) is challenging—one could take the average or per capita cost, or the marginal cost. For many of these items, such as national security, the marginal additional cost is typically zero. However, in some cases the marginal cost may be much higher than the average cost, such as when a new park must be constructed due to congestion. As NASEM (2017) pointed out, "since public goods such as national defense represent a large part of the federal budget, the choice of how to allocate these expenditures will have a large impact on fiscal estimates." NASEM offers alternative scenarios to provide a range of estimated costs. While in specific communities the addition of refugees could have significant costs for these items, given that refugees make up such a small portion of the total U.S. population, it is not likely that they add substantially to these public goods costs at the national level. The one exception could be national security, if refugees require additional monitoring by domestic agencies such as the FBI. It was not possible to estimate these costs from available budgetary information.

[4] https://www.census.gov/data/tables/2014/econ/gov-finances/summary-tables.html

Refugee and Asylee Demographics and Public Benefit Receipt

Demographics

In an average year between 2005 through 2019, 3.0 million individuals living in the U.S. were refugees or asylees who had entered the United in 1980 or later, representing 1.0 percent of the total population.

Refugees and asylees who lived in the United States in any year from 2005 through 2019 arrived from over 100 different countries. Around 80 percent of refugees and asylees arrived from one of the top 20 countries of origin. Table 3 reports the top 50 countries of origin for refugees and asylees present in the U.S. over the 15-year period of study, who had entered the country since 1980. The top four countries of origin were Vietnam, Cuba, Ukraine, and Russia, which also represent the largest countries of origin among refugees and asylees in the country for 10 or more years.

Table 3. Top 50 Countries of Origin of Refugees and Asylees Present in the United States, Average Annual Population, from 2005 to 2019

Rank	Country of Birth	Total	Percentage of Total
Total		2,982,063	100.0%
1	Vietnam	473,867	15.9%
2	Cuba	399,595	13.4%
3	Ukraine	176,130	5.9%
4	Russia	159,049	5.3%
5	Iraq	135,180	4.5%
6	Laos	129,829	4.4%
7	Iran	102,122	3.4%
8	Myanmar (Burma)	91,809	3.1%
9	Haiti	89,531	3.0%
10	Bosnia & Herzegovina	80,783	2.7%
11	Somalia	79,290	2.7%
12	Cambodia	78,395	2.6%
13	Nepal	59,532	2.0%
14	Thailand	57,417	1.9%
15	Ethiopia	56,455	1.9%
16	Africa, not specified	56,117	1.9%
17	USSR	51,648	1.7%
18	Nicaragua	45,271	1.5%
19	Armenia	41,948	1.4%
20	Colombia	40,090	1.3%
21	Afghanistan	37,438	1.3%
22	Sudan	34,145	1.1%
23	Liberia	33,806	1.1%
24	Indonesia	32,489	1.1%
25	Bhutan	31,339	1.1%
26	Romania	29,646	1.0%
27	Poland	26,483	0.9%
28	Moldova	22,483	0.8%
29	Yugoslavia	21,645	0.7%

Rank	Country of Birth	Total	Percentage of Total
30	Eritrea	20,166	0.7%
31	Belarus	17,662	0.6%
32	Cameroon	15,777	0.5%
33	Sri Lanka	14,486	0.5%
34	Syria	13,456	0.5%
35	Congo	13,099	0.4%
36	Uzbekistan	12,940	0.4%
37	Venezuela	12,122	0.4%
38	Azerbaijan	11,887	0.4%
39	Croatia	11,786	0.4%
40	Serbia	11,540	0.4%
41	Kenya	9,164	0.3%
42	Albania	8,477	0.3%
43	Macedonia	8,376	0.3%
44	Georgia	7,016	0.2%
45	Mongolia	6,543	0.2%
46	Ivory Coast	6,385	0.2%
47	Sierra Leone	6,221	0.2%
48	Hungary	5,814	0.2%
49	Bulgaria	5,257	0.2%
50	Kazakhstan	4,739	0.2%

Note: Includes all refugees, asylees, and Cuban/Haitian entrants arriving in the U.S. since 1980. In some cases, a child of refugee parents is born in another country (such as France or Germany) that the family initially enters prior to entering the U.S. These countries have been excluded from this list.
Source: Current Population Survey's Annual Social and Economic Supplement and microsimulation model TRIM3, 2005-2019. The CPS ASEC does not identify refugees and asylees directly. The current study uses the method devised by demographers Jeffrey Passel and Rebecca Clark (1998) to build detailed immigration status from survey data and public records (Passel and Clark 1998; see also Passel, Van Hook, and Bean 2004).

Table 4 summarizes the length of U.S. residency and age of refugees and asylees in the United States over five-year periods. Data are cross-sectional, so characteristics are not observed directly for the same set of people over time; however, characteristics of the independent periods of observation can be compared. Comparing the first and last periods shows that more refugees and asylees resided in the country for 10 years or longer from 2015 to 2019 (71.6 percent) compared with somewhat fewer during the earliest period of the study from 2005 to 2009 (65.6 percent). This result is consistent with the increase in the share of people in the population ages 65 and older. The share of refugees and asylees ages 65 and older was larger in 2015-2019 at 14.8 percent, compared with 9.9 percent from 2005 to 2009. Overall, there are modest differences observed in the distribution of the refugee and asylee population by age and years of U.S. residency over the study period.

Table 4. Refugee and Asylee Years of U.S. Residency and Age for Five-Year Periods, 2005-2019

	Period of Observation		
	2005-2009	**2010-2014**	**2015-2019**
Total population size (N)	915,385	1,010,422	1,056,256
Years of U.S. residency			
0-4 years	15.7	15.8	15.5
5-9 years	18.7	14.5	12.9
10 or more years	65.6	69.7	71.6
Age			
0-17	8.6	6.8	7.0
18-64	81.5	80.4	78.3
65+	9.9	12.7	14.8

Note: The table shows percentages of the refugee and asylee population. Estimates are the sum of annual values divided by 5.
Source: ASPE analysis based on data from the Current Population Survey's Annual Social and Economic Supplement and microsimulation model TRIM3, 2005-2019.

Age and years of U.S. residency are presented for the 15-year study period in Table 5, which summarizes refugees' demographic characteristics as well as employment status, educational attainment, and income. Although the data are presented by the length of U.S. residency, the source data do not observe the same individuals over time and should be interpreted with caution. Since 1980, refugees and asylees moving to the United States have tended to originate from particular countries during specific periods, and this confounding of country of origin with years of U.S. residency means the two elements are not meaningfully separated in the data. While the data presented in Table 5 are reasonably accurate, characteristics may also be specific to the experiences of the individuals surveyed.

About two-thirds (69 percent) of refugees and asylees who entered the U.S. in 1980 or later have lived in the United States for 10 years or more. About 15 percent of the population resided in the country for five to nine years. Sixteen percent were relatively new arrivals, having been in the United States for fewer than five years. Among these new arrivals, one-quarter were children under age 18. Ninety-seven percent of the 1.2 million non-refugee and non-asylee children of refugees and asylees were U.S.-born citizens (not shown). Spouses and children of refugees and asylees were similar to individual refugees and asylees with respect to income level, poverty level, and use of public benefits.

Refugees and asylees arriving in 1980 or later were more likely than persons in the total U.S. population to be adults of working age. Eighty percent of individual refugees and asylees were ages 18 to 64 years compared with 62 percent of the total U.S. population. The relatively younger age of refugees and asylees in this analysis compared with the total U.S. population stems in part from people not identifiable in the data as refugees or asylees if they arrived prior to 1980. At the time of the survey, 57 percent of refugees and asylees admitted to the United States since 1980 were U.S. citizens; however, the lifetime proportion of refugees and asylees attaining U.S. citizenship is likely to be higher as the data include persons in the country for fewer than 5 years who were not yet eligible to apply for citizenship.

Table 5. Refugee and Asylee Population Characteristics by Years of U.S. Residency, 2005-2019

	Refugees and Asylees				Total U.S. Population [a]
		Years of U.S. Residency			
	Total	0-4	5-9	10 or more	Total
Total population size (N)	2,982,063	467,150	454,014	2,060,899	310,877,977
Male	48.6	47.7	48.5	48.8	49.0
Female	51.4	52.3	51.5	51.2	51.0
Ages 0-5	1.0	6.1	0.1	0.0	7.8
Ages 6-17	6.5	18.5	14.4	2.0	16.0
Ages 18-64	80.0	70.2	79.4	82.3	62.1
Ages 65 and up	12.6	5.2	6.0	15.7	14.0
U.S. citizen	56.6	2.0	32.1	74.4	92.3
Legal permanent resident	43.4	98.0	67.9	25.6	3.9
Household-family size					
1 person	14.0	13.3	11.7	14.7	17.8
2 people	20.3	13.4	16.1	22.8	24.3
3-4 people	39.7	36.4	42.1	39.9	37.9
5 or more people	26.0	36.9	30.1	22.6	19.9
Education (ages 25+)					
Less than high school **	19.2	30.1	19.2	17.5	11.9
High school graduate **	47.7	40.7	47.7	48.8	56.1
Bachelor's degree or higher **	33.1	29.2	33.1	33.7	32.0
Employment (ages 25-64)					
Employed full time **	57.3	42.9	55.9	60.0	57.2
Employed part time	13.2	14.7	12.6	13.1	13.8
Not working **	29.5	42.4	31.5	27.0	29.0
Family income					
Up to 100% poverty **	18.3	33.9	20.3	14.4	13.2
100%-250% poverty **	31.3	38.9	35.1	28.8	27.1
250%-400% poverty	20.9	15.6	21.7	21.9	21.3
400% poverty or up **	29.4	11.6	22.9	34.9	38.4
Household income [b]	$51,686	$32,016	$47,021	$59,072	$59,002

Note: Numbers are percentages of the total population in an average year. Estimates are the sum of the annual values divided by 15.

[a] The U.S. population includes temporary and unauthorized immigrants who are included in the total but not in the detail by citizenship and immigrant status.

[b] Median household income is adjusted to constant 2019 dollars based on the Consumer Price Index for All Urban Consumers (CPI-U).

** Indicates that the difference between 0-4, 10 or more, and the U.S. total is statistically significant at the 90 percent confidence level.

Source: ASPE analysis based on data from the Current Population Survey's Annual Social and Economic Supplement and microsimulation model TRIM3, 2005-2019. The CPS ASEC does not identify refugees and asylees directly. The current study uses the method devised by demographers Jeffrey Passel and Rebecca Clark (1998) to impute detailed immigration status based on a combination of survey-reported data and administrative records on non-citizen arrival.

In general, refugees and asylees in the U.S. for at least 10 years of residence were similar to the U.S. population in terms of income and employment. However, poverty levels were high among new arrivals. Thirty-four percent of refugees and asylees in the United States for less than five years were in poverty. The poverty rate was lower for refugees with longer residency in the United States—14 percent of refugees and asylees with 10 years or more of residence were in poverty—slightly higher than the average official U.S. poverty rate from 2005 to 2019 of 13.2 percent (for context, see Bishaw et al. 2020).

Consistent with this trend, median family income was higher among refugees and asylees who spent more time in the United States. Refugees and asylees with 10 or more years of residency had approximately the same level of income as the total U.S. population at each quintile, and median income for this group ($59,072) was not statistically different from median income for all persons in the United States ($59,002).

Employment trends were similar. Among people of prime working age (age 25-64), 42.9 percent of refugees and asylees in the U.S. less than five years were employed full-time, compared with 57.2 percent for the total U.S. population. Refugees and asylees in the U.S. for at least 10 years had a full-time employment rate of 60 percent, higher than the U.S. rate.

The levels of educational attainment of refugees and asylees were different from those of the adult U.S. population overall. However, about the same proportion of refugees and asylees attained a bachelor's degree as the total U.S. population. Compared with the U.S. population, more refugees and asylees had less than a high school education: 19.2 percent of refugees and asylees versus 11.9 percent of the total U.S. population. Refugees and asylees in the U.S. for longer were more likely to have completed high school and to have attained a four-year college degree than refugees and asylees in the U.S. for fewer years. As is the case with employment, levels of educational attainment are approximately the same whether considering individual refugees and asylees themselves or including their spouses.

Public Benefit Receipt

Refugees and asylees differed from the U.S. population with respect to their use of public benefits programs. Table 6 reports information on benefits from major public programs among refugees and asylees, their immediate family members, and the U.S. population. Refugees and asylees were less likely to use Social Security, SSDI, and Medicare benefits than the total U.S. population. Some of the higher rate of receipt of Social Security or Medicare for the U.S. population is because a higher share of the U.S. population is 65 and older compared with refugees and asylees arriving since 1980. Nine percent of refugees and asylees received Social Security or SSDI benefits, compared with 15 percent of the U.S. population.

Thirteen percent of refugees received Medicare benefits, compared with 15 percent of the U.S. population. Social Security and Medicare are social insurance programs requiring contributions from beneficiaries through payroll taxes, whereas the other benefit programs target low-income individuals and families. Many refugee and asylee retirees may not have accumulated sufficient time in the U.S. workforce to be eligible for these social insurance benefits.

Among the largest assistance programs, refugees and asylees were more likely to use SNAP and SSI compared with the overall U.S. population. Over the 2005-2019 study period, 21 percent of refugees and asylees received SNAP benefits at some time during the year, compared with 15 percent of all U.S. residents. Refugees and asylees were more than twice as likely to benefit from SSI, with 7.3 percent of refugees and asylees benefiting some time during the year, compared with 2.6 percent of the total U.S.

population. This may be in part because SSI is targeted to retirees ineligible for Social Security or whose Social Security benefits are too low to purchase necessities. Such circumstances are more likely among the smaller proportion of refugees who enter the country at retirement age or toward the end of their working years.

Table 6. Participation in Select Social Programs, Public Education, and Refundable Tax Credits for Refugees and Asylees and Their Immediate Families, 2005-2019

	Refugees and Asylees	Refugees, Asylees, and Immediate Families	Total U.S. Population
Total population size (N)	2,982,063	4,695,483	310,877,977
	%	%	%
Child care subsidies	0.2	0.7	0.7
Child Tax Credit [c]	12.9	10.1	6.2
Earned Income Tax Credit, federal [c]	18.2	13.6	8.8
Earned Income Tax Credit, state [c]	4.7	3.4	2.8
Housing assistance	7.5	6.8	3.3
K-12 education	6.5	18.9	16
LIHEAP	5.4	5.1	4.4
Medicaid or CHIP [b]	23.6	26.5	17.2
Medicare Parts A and B [a]	13.5	9.6	15.5
National School Lunch Program	5.4	14.1	12.7
SNAP	21.4	20.2	15.5
Social Security and SSDI	9.2	6.6	15.3
SSI	7.3	5.1	2.6
TANF	2	2.5	1.8
WIC	1.3	4	2.5

Note: Numbers are percentages of the total population. Estimates are the sum of annual values divided by 15.
[a] Data are not available on the number of unique individuals receiving Medicare Parts D along with A and B.
[b] The data source does not reliably distinguish between Medicaid and state CHIP.
[c] Includes only the refundable portion of credit. The non-refundable portion is deducted out of taxes paid.
[d] The Child Tax Credit value is divided between the head of the tax unit and the head's spouse and is not assigned to the child.
Source: ASPE analysis based on data from the Current Population Survey's Annual Social and Economic Supplement and microsimulation model TRIM3, 2005-2019. The CPS ASEC does not identify refugees and asylees directly. The current study uses the method devised by demographers Jeffrey Passel and Rebecca Clark (1998) to impute detailed immigration status based on a combination of survey-reported data and administrative records on non-citizen arrival.

TANF cash assistance benefited refugees and asylees at a slightly higher rate compared with the U.S. population. The TANF benefit rate was 2.5 percent among refugee and asylee families. Even though individual refugees and families had approximately the same rates of poverty, particularly prior to 10 years of residency, the higher rate of TANF participation for nuclear families compared with individuals aligns with TANF's goal of assistance to families.

Consistent with their younger average age and lower levels of income at arrival, refugees and asylees and their immediate families were more likely to use Medicaid (24 percent and 26 percent, respectively) compared with rate of Medicaid participation among the total U.S. population (17 percent).

Fiscal Impact of Refugees and Asylees

Net Fiscal Impact Over 15 Years

The analysis estimated that the overall net fiscal impact of refugees and asylees was positive by $123.8 billion over the 2005-2019 period, meaning that the population of refugees and asylees entering the United States in 1980 or later and living in the United States during this period contributed more in revenue than they cost in expenditures to the government. As Table 7 shows, the net fiscal benefit to the federal government was estimated at $31.5 billion, and the net fiscal benefit to state and local governments was estimated at $92.3 billion. The federal government spent over two and a half times as much as state and local governments on programs and services for refugees and asylees, and state and local governments received relatively less revenue.

When including the immediate families of refugees and asylees in the analysis, the net impact was still positive but lower, estimated at $16.0 billion. The net impact is lower due to services for families with children under 18, such as K-12 education, child care subsidies, Head Start, and WIC. While refugees, asylees, and their immediate families provided a net benefit to the federal government, estimated at $37.5 billion, they were a net fiscal cost to state and local governments, with the cost estimated at $21.4 billion. The difference is in large part due to costs for K-12 education, which increase by $155.7 billion when adding spouses and children who are not themselves refugees or asylees. State and local governments spend substantially more on K-12 education than the federal government, and as a result, most of the increase in cost is observed at the state and local level. When including non-refugee and non-asylee spouses and children under 18, K-12 education accounts for more than half of all state and local spending on refugees and asylees; when just focusing on refugees and asylees, K-12 education is around a quarter of state and local spending.

Table 7. Expenditures, Revenues, and Net Impact for Refugees, Asylees, and Their Immediate Families, 2005-2019

	Revenue	Expenditures	Net
	Refugees and Asylees		
Total	$581,009	$457,229	$123,781
Federal	363,040	331,539	31,501
State/local	217,969	125,689	92,280
	Refugees, Asylees, and Their Immediate Families		
Total	$739,401	$723,366	$16,035
Federal	467,450	429,995	37,455
State/local	271,951	293,371	−21,420

Note: Values are expressed in million 2019 dollars.
Source: Current Population Survey Annual Social and Economic Supplement and microsimulation model TRIM3, and additional ASPE analysis of administrative and budgetary data.

Net Fiscal Impact Over Time

When looking at five-year groupings in Table 8, the fiscal impact fluctuates but generally stays positive. In the 2005-2009 period, refugees and asylees contributed a net total $45.1 billion to the government. In 2010-2014, they contributed $25.1 billion, and in 2015-2019 they contributed $53.5 billion. When including their immediate family members, the net impact was smaller, and over the 2010-2014 period, the impact was negative.

Table 8. Expenditures and Revenues of Refugees by Year

	Revenues	Expenditures	Net
	Refugees and Asylees		
2005-2009	$164,487	$119,346	$45,141
2010-2014	181,108	156,011	25,097
2015-2019	235,414	181,871	53,543
	Refugees, Asylees, and Their Immediate Families		
2005-2009	$203,022	$193,329	$9,694
2010-2014	234,384	245,624	−11,240
2015-2019	301,995	284,413	17,582

Note: Values are expressed in million 2019 dollars.
Source: Current Population Survey Annual Social and Economic Supplement and microsimulation model TRIM3, and additional ASPE analysis of administrative and budgetary data.

The 2010-2014 period saw a smaller positive impact of refugees and asylees, and a negative impact when including their immediate families. This was due to several factors. In this period the country emerged from the Great Recession of 2009. Federal policy responded to the recession in several ways that affected the fiscal impact. Outlays on social assistance programs were higher during this period: TANF expenditures rose by over 100 percent relative to the previous five years, and SNAP expenditures more than doubled as more individuals and families qualified for assistance. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) cut payroll taxes by two percentage points in 2011, and it was extended through 2012 (by P.L. 112-78). Due to changes in earnings and reduced payroll taxes, the revenue collected from refugees and asylees decreased over the period by $2,600 per capita. The combination of increased outlays and reduced revenues resulted in a smaller positive impact of refugees and asylees and a negative impact of refugees, asylees, and their immediate families.

Total Expenditures Over 15 Years

From 2005 through 2019, government expenditures on refugees and asylees were an estimated total of $457.2 billion, with an annual per capita cost of $10,222. Expenditures from the federal government represented 72.5 percent of the total, at $331.5 billion over 15 years (see Table 7). State and local government expenditures were 27.5 percent of the total, at $125.7 billion. For refugees, asylees, and their immediate families, expenditures totaled $723.4 billion, with an annual per capita cost of $10,270. Federal expenditures represented 59.4 percent of these expenditures, totaling $430.0 billion over 15 years, and the remaining 40.6 percent was paid by state and local governments, totaling $293.4 billion.

Table 9 reports total expenditures on refugees, broken out by specific program. The largest expenditures on refugees were for Medicaid/CHIP and Medicare, at $139.4 and $86.8 billion respectively, over 15 years. Medicaid/CHIP represented 30 percent and Medicare represented 19 percent of total expenditures. These costs were consistent with observed medical costs, which tended to be the largest drivers of federal and state non-defense expenditures. Other high costs include Social Security/SSDI benefits ($61.2 billion), K-12 education ($40.7 billion), and SSI ($26.2 billion). Programs specifically targeted to refugees and asylees through ORR, the State Department, and USCIS, such as Refugee Cash Assistance and Refugee Medical Assistance, totaled $14.5 billion over 15 years, representing around 3 percent of all expenditures.[5]

Table 9. Expenditures for Refugees by Program, 2005-2019

Program	Refugees and Asylees	Refugees, Asylees, and Their Immediate Families
Medicaid/CHIP	$139,438	$187,832
Medicare	86,847	99,095
Social Security/SSDI	61,205	70,195
K-12 public education	40,723	196,417
SSI	26,167	28,934
Criminal justice (excludes police)	22,392	35,252
EITC [a]	20,005	22,944
Housing assistance	14,815	18,331
SNAP	13,026	19,297
Child Tax Credit [a]	8,192	9,853
ORR transitional assistance and medical services	5,679	5,679
Department of State, Bureau of Population, Refugees, and Migration	5,196	5,196
Premium Tax Credit	4,219	5,338
HHS ORR, social services	2,245	2,245
TANF	1,380	2,747
National School Lunch Program	970	3,303
State refundable tax credits [a]	857	948
ORR targeted assistance	707	707
DSH payments	565	731
LIHEAP	485	642
ORR Refugee Social Services	409	409
Workforce Innovation and Opportunity Act services	317	363
WIC	315	1,633
Health centers	303	394
Child care subsidies	232	2,035
USCIS	230	230
Head Start	202	2,508
ORR preventive health	70	70

[5] These costs do not include the cost of HHS administrative staff.

Program	Refugees and Asylees	Refugees, Asylees, and Their Immediate Families
Child welfare services	32	32
Public higher education	5	6
Total	*457,229*	*723,366*

Note: Values are expressed in million 2019 dollars.
[a] Includes only the refundable portion of credit. The non-refundable portion is deducted out of taxes paid as in Table 6.
Source: Current Population Survey Annual Social and Economic Supplement and microsimulation model TRIM3, and additional ASPE analysis of administrative and budgetary data.

Expenditures for the Largest Programs

Medicaid/CHIP

Over the 15-year period of study, the Medicaid and CHIP programs accounted for $139.4 billion, or 30 percent of total expenditures on refugees and asylees. From the 2005-2009 period to the 2010-2014 period, total Medicaid/CHIP expenditures on refugees and asylees increased by 21 percent and participation increased by five percentage points (from 20 percent to 25 percent). By comparison, expenditures and participation were relatively stable from 2010-2014 to 2015-2019. The increase in Medicaid under the Affordable Care Act began in 2014, which drove up the average expenditure for the 2010-2014 period relative to the 2005-2009 period. The Affordable Care Act expanded Medicaid eligibility in many states.

Medicare

Over the 2005 to 2019 period, Medicare Parts A, B, and D accounted for $86.8 billion, or 19 percent of total expenditures on refugees and asylees. When we include their immediate family members, Medicare expenditures rose to $99.1 billion. Total Medicare expenditures steadily rose across the three time periods of this study: from 2005-2009 to 2010-2014, expenditures rose by 51 percent, and from 2010-2014 to 2015-2019 they rose by another 52 percent. These increases were due to a combination of increased participation in Medicare with the aging of the refugee and asylee population, and also increasing costs per beneficiary. In 2005-2009, there were on average 293,000 refugees and asylees participating in Medicare. This increased to 422,000 per year in 2010-2014. Over 2015-2019, participation increased again to 492,000. At the same time, the annual per-beneficiary expenditures for Medicare increased by over 30 percent from 2010-2014 to 2015-2019.

Social Security and Social Security Disability Income (SSDI)

Over the 2005-2019 period, Social Security and SSDI benefits accounted for $61.2 billion, or 13 percent of total expenditures on refugees and asylees. When including immediate family members, the expenditures for Social Security and SSDI rose to $70.2 billion. Refugee and asylee participation increased at a faster rate than that of the general population, though it was lower overall. With the aging of the refugee and asylee population, the number of refugees and asylees receiving Social Security or SSDI benefits doubled between 2005-2009 and 2015-2019, compared with an increase of 25 percent among the U.S. population. By 2015 to 2019, 8.0 percent of refugees and asylees and their family members participated in Social Security or SSDI, compared with 16 percent of all people in the U.S.

K-12 Public Education

Over the 15-year period of study, K-12 education costs accounted for $40.7 billion, or 9 percent of expenditures for the refugee and asylee population. Eighty percent of refugees were working-age adults

and therefore not in the K-12 system, while 6.5 percent were enrolled in primary or secondary school in an average year from 2005 to 2019. By comparison, the rate of K-12 school enrollment for the U.S. population overall was 16 percent. The total cost of primary and secondary education for refugees was fairly consistent from 2005 to 2019, with the average annual total cost at around $14 billion. When adding in non-refugee family members, K-12 education costs rose to $196.4 billion over the 15 years.

Supplemental Security Income (SSI)

The total 15-year cost from the SSI program for refugees and asylees was $26.2 billion, and rose to $28.9 billion when including their immediate families. Costs and enrollment levels for the SSI program remained fairly stable over the 15-year study period. Participation in the SSI program was around 8 percent for refugees and 5 percent among refugees and their non-refugee family members across the 15-year period, with minor changes across the years. SSI participation was similarly stable for the U.S. population, with participation around 2.6 percent across the 15 years.

Refugee-Specific Programs

Though not among the largest expenditures, programs through HHS, the Department of Homeland Security, and the State Department exclusively targeting refugees had expenditures totaling $14.5 billion from 2005 through 2019. Sixty-three percent of these costs—totaling $9.1 billion—came from HHS. Among HHS expenditures, over 60 percent of expenditures came from programs associated with transitional assistance and medical services, which includes primarily Refugee Cash Assistance and Refugee Medical Assistance.

Total Revenues Over 15 Years

From 2005 through 2019, refugees and asylees who entered the U.S. in 1980 or later contributed an estimated $581 billion in revenue to all levels of government. Table 10 reports the revenues from refugees over the 15-year study period, by source. They contributed an estimated $363 billion to the federal government through payroll, income, and excise taxes, and $218 billion to state and local governments, through income, sales, and property taxes. Refugees paid $175.7 billion in federal payroll taxes, an amount greater than expenditures on refugees in Social Security and Medicare ($148.1 billion). Refugees contributed $171.9 billion in federal income taxes and $45.8 billion in state income taxes. Property tax contributions to local governments were $86.1 billion. State and local sales tax payments by refugees and asylees were estimated at $86.1 billion and federal excise taxes at $15.4 billion. Refugees, asylees, and their immediate families contributed an estimated $739.4 billion in revenue to all levels of government.

Table 10. Revenues from Refugees by Source, 2005-2019

Source	Refugees and Asylees	Refugees, Asylees, and Their Immediate Families
Federal payroll tax	$175,731	$225,510
Federal income tax	171,870	222,858
State/local sales and excise tax	86,123	105,934
Property tax	86,070	105,905
State income tax	45,775	60,111
Federal excise tax	15,438	19,082
Total	*581,009*	*739,401*

Note: Values are expressed in million 2019 dollars.
Source: Current Population Survey Annual Social and Economic Supplement and microsimulation model TRIM3, and additional ASPE analysis of administrative and budgetary data.

Comparison to the U.S. Population

From 2005 through 2019, refugees and asylees on average had a net fiscal impact comparable to that of the total U.S. population, as Table 11 illustrates. The average annual per capita net fiscal benefit was $2,767 for refugees and asylees. That is, on average for the years from 2005 to 2019, refugees and asylees contributed a net of $2,767 dollars to governments per capita. This compares to $2,258 for the U.S. population. Expenditures for the U.S. population were on average higher than expenditures for refugees, while revenues were higher for refugees and asylees. The result is consistent with the larger share of working-age adults in the refugee and asylee population compared with the U.S. population. As described above, this analysis excludes the costs of public goods, such as national security, public parks, and transportation networks. Including these costs would reduce the net fiscal impact for both refugees and asylees, as well as the total U.S. population. Because these costs would be allocated to all people equally, including them would not change the relative difference between the refugee and asylee population and the total U.S. population.

When considering the immediate family members of refugees and asylees, the average annual net value per capita was $228, substantially lower than that of refugees and asylees alone and lower than that of the U.S. general population. As described above, this is in large part due to the number of children born to refugees and asylees over this period while in the U.S., who had not yet reached working age.

Table 11. Average Annual Per Capita Net Fiscal Impact for Refugees, Asylees, and the Total U.S. Population, 2005-2019

	Refugees and Asylees	Refugees, Asylees, and Their Immediate Family	Total U.S. Population
Revenues	$12,989	$10,498	$12,674
Expenditures	10,222	10,270	10,416
Net	2,767	228	2,258

Note: Values are expressed in 2019 dollars.
Source: Current Population Survey Annual Social and Economic Supplement and microsimulation model TRIM3, and additional ASPE analysis of administrative and budgetary data.

Refugees and asylees have a different likelihood of engaging certain services than the total U.S. population. Annual per capita expenditures on Social Security, Medicare, school meals, and K-12 education are higher for the U.S. population than for refugees and asylees. However, expenditures for many benefit programs are higher for refugees and asylees, including TANF, SNAP, and refundable tax credits. In terms of revenues, refugees and asylees contributed less per capita in federal and state income taxes than the total U.S. population, and more in property taxes and state or local sales and excise taxes (see Table B5). Results for average annual per capita expenditures and revenues from specific sources can be found in Tables B4 and B5.

Comparability to Other Estimates

Results from this report are similar to other comparable analyses of refugees and immigrants. In comparison, the current study accounts for more factors than previous work and finds greater benefits. In its 2017 study, NASEM (chapter 8) used a ratio of revenues-to-expenditures (or receipts-to-outlays) to characterize the net fiscal impact of immigrants. A revenue-to-expenditure ratio of 1 indicates revenue neutrality, a ratio below 1 indicates a net cost, and a ratio above 1 indicates a net benefit. In the baseline scenario in NASEM (2017), first-generation immigrants in 2013 had a net negative fiscal impact, with a revenue-to-expenditure ratio of 0.68 across all levels of government. The ratio for the federal government was 0.73, and the ratio for state and local governments was 0.61. With different assumptions about how to estimate the costs of public goods, such as national security and interest on the debt, that ratio increased to 0.93 in total, 1.16 for the federal government, and 0.68 for state and local governments (scenario 5 in the NASEM study). Table 12 shows these results in comparison to the revenue-to-expenditure ratio for the present study. The ratio is reported for the group including refugees, asylees, and their immediate family members, as this is most comparable to the definitions used in the NASEM study (which includes immigrants and their dependents).

Table 12. Revenue-to-Expenditure Ratio for First-Generation Immigrants and Refugees

	Total	Federal	State/Local
NASEM Scenario 1 [a]	0.68	0.73	0.61
Current study: refugees, asylees, and immediate family members [b]	1.02	1.09	0.93

[a] Scenario 1 includes first-generation immigrants and their dependents in 2013 and includes the average cost of public goods.
[b] Costs for public goods are not included.
Source: NASEM (2017); Current Population Survey Annual Social and Economic Supplement and microsimulation model TRIM3, and additional ASPE analysis of administrative and budgetary data.

The present study finds that from 2005 through 2019, refugees and their non-refugee spouses and children had a near-neutral net fiscal impact, with a receipts-to-outlays ratio of 1.02 in total. The federal ratio was positive at 1.09, while the state and local ratio showed a negative net impact of 0.93. Again, these results are not directly comparable because this study did not include any costs to public goods.

Evans and Fitzgerald (2017) examined the socioeconomic outcomes of refugees entering the United States at age 18-45, tracking their outcomes over a 20-year period. By excluding non-refugee children and spouses, their result would be comparable to the present report's "refugee alone" group, with further restrictions on the sample to exclude children under 18 and some elderly refugees. Evans and Fitzgerald found that upon initial arrival, refugees had low employment and earnings and high benefits usage. Evans and Fitzgerald also found that over their first 20 years in the United States, refugees pay

$21,000 more in taxes than they receive in benefits, which corroborates the present study's finding of a net fiscal benefit of refugees.

Two additional studies looked at the socioeconomic outcomes of refugees during the 2011-2015 period. A report by New American Economy (2017) found that refugees who were in the United States for five years or less earned a median annual income of around $22,000, while refugees in the country for at least 25 years earned a median income of $67,000. A report by the Migration Policy Institute (Capps et al. 2015) similarly found increased income and educational attainment, and lesser public benefits usage, for refugees who lived in the country longer. While neither study explored fiscal impact, the findings of better economic outcomes for refugees who have been in the country longer generally track with those of the present study.

Discussion

This report examined the fiscal impact of refugees and asylees from 2005 through 2019. Overall, the net fiscal impact of refugees and asylees was estimated to be positive over the 15-year period, at $123.8 billion. The net fiscal benefit to the federal government was estimated at $31.5 billion, and the net fiscal benefit to state and local governments was estimated at $92.3 billion. Refugees, asylees, and their immediate families were a net fiscal benefit, estimated at $16.0 billion. While refugees, asylees, and their immediate families were a net contributor to the federal government, estimated at $37.5 billion, they were a net fiscal cost to state and local governments, with the cost estimated at $21.4 billion. A higher percentage of expenditures for immediate families is paid by state and local governments in large part due to K-12 education expenditures for the U.S.-born children of refugees and asylees.

This study found that governmental expenditures on refugees and asylees totaled an estimated $457.2 billion over the 15-year period. Expenditures by the federal government represented 72.5 percent of the total, at $331.5 billion. State and local government expenditures were 27.5 percent of the total, at $125.7 billion. For refugees, asylees, and their immediate families, expenditures totaled $723.4 billion. Fifty-nine percent of these expenditures were paid by the federal government, totaling $430.0 billion, and the remaining 41 percent were paid by state and local governments, totaling $293.4 billion. Expenditures were higher when including non-refugee and non-asylee family members.

Refugees and asylees contributed an estimated $581 billion in revenue to all levels of government. They contributed an estimated $363 billion to the federal government through payroll, income, and excise taxes, and $218 billion to state and local governments, through income, sales, and property taxes. Refugees, asylees, and their immediate families contributed an estimated $739.4 billion in revenue to all levels of government. They paid an estimated $467.5 billion to the federal government and $272.0 billion to state and local governments.

From 2005 through 2019, refugees and asylees who entered the U.S. in 1980 or later, on average, had a net fiscal impact comparable to the U.S. population. In any given year from 2005 to 2019, refugees and asylees contributed a net of $2,767 dollars to governments per capita. Among the U.S. population, the annual per capita impact was $2,258. Expenditures for the total U.S. population were on average higher than expenditures for refugees, while revenues were higher for refugees and asylees. On a per capita basis, refugees and asylees have a comparable fiscal impact as the total U.S. population. While this study focused exclusively on the impact on government budgets, this finding suggests that refugees and asylees do successfully integrate into the U.S. economy. These results also indicate that resettlement efforts, whether through specific resettlement programs or through broader safety net programs, are

effective in supporting economic integration. Still, opportunities to improve the services that refugees and asylees receive should not be ignored. More research is needed to understand which specific services are most effective, particularly for different refugee and asylee populations. HHS has several ongoing efforts to improve our understanding of service effectiveness for refugees and asylees, including collecting more comprehensive data on service needs and program participation.[6]

This study has several limitations. The study is not longitudinal and does not examine actual lifetime fiscal impacts of refugees and asylees. The study population includes people entering the United States beginning with the first year of the Refugee Act of 1980; however, people arriving in previous years are excluded. The study focuses on the 15-year period from 2005 through 2019, and thus the results may not be generalizable to other time periods, nor may they accurately project fiscal impact in the future. The study does not factor in the cost of national security and the U.S. military. The study does not examine the fiscal impact of the offspring of refugees and asylees. Due to data limitations, it was not possible to estimate the impact of subgroups of refugees, such as country of origin, length of time in the U.S., or English proficiency.

Over time, refugees and asylees and their families bring revenue to the U.S. government, and all levels of government, including federal, state, and local, play a critical role in welcoming them and in helping new arrivals establish a strong foundation to integrate into the economy.

[6] The ORR directs the Annual Survey of Refugees (ASR) to study and understand refugees' progress during their initial five years after arrival. Key ASR findings are included in ORR's Annual Report to Congress. In spring 2020, the ORR completed its 53rd ASR. The data show the progress refugee families have made toward learning English, participating in the workforce, and establishing permanent residence. Public use data is available for the 2019 ASR with future years likely to be added to the openICPSR archive.

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Appendix A. Details and Methods for Expenditures and Revenue Items in This Report

For details about the TRIM model developed and maintained by the Urban Institute, see Transfer Income Model, version 3 (TRIM3).

Child Care Subsidies: The federal government and states provide child care subsidies for low-income working families, spending roughly $9.5 billion in fiscal year 2019. Roughly two-thirds of child care subsidy funding comes from the Child Care and Development Fund (CCDF), while the remaining one-third comes from other government funding streams related to Temporary Assistance for Needy Families (TANF) and the Social Services Block Grant. Families receive a voucher that may be used to access care by any provider that meets state requirements, while other families receive a contracted child care slot. The federal government establishes broad requirements, including an income eligibility threshold of 85 percent of state median income. States have a wide degree of discretion within federal parameters and set rules for income eligibility limits, work requirements, family co-payments, subsidy rates, and other program rules. More information on state CCDF rules is available on the HHS website: https://www.acf.hhs.gov/opre/project/child-care-and-development-fund-ccdf-policies-database.

Estimates of child care subsidy receipt and costs were simulated using TRIM3. The estimated subsidy amount received by each child was equal to each state's maximum reimbursement rate,[7] which aligns with state practices. See online documentation for a detailed description of TRIM3's child care module: https://boreas.urban.org/documentation/ChildCare/Main.php.

Child care subsidies are paid for by a combination of federal and state dollars, based on Federal Medical Assistance Percentages (FMAP), calculated annually by HHS. Costs were weighted according to the distribution of the refugee and asylee population across states. These weights in combination with annual FMAP rates for each state were used to aggregate the federal share of child care subsidy costs. We made across-the-board adjustments to the TRIM3 estimated subsidies so that the total CCDF subsidies for the U.S. population matched real-world spending according to administrative data.

Child Tax Credit (refundable portion only): The Child Tax Credit (CTC) reduces the federal income tax liability of families with qualifying children. The amount of the credit is income-based and through 2017 was as high as $1,000 per qualifying child under age 17. If the value of the CTC exceeds the amount of taxes owed, families may receive the balance as a refund. It went to $2,000 in 2018.

Estimates of receipt and value of the child tax credit were simulated using TRIM3. Like other survey-based models, TRIM3 underestimates the refundable CTC (and the EITC), and this study adjusts dollar amounts across the board so that the total for the U.S. population matches real-world spending according to IRS data. The reported expenditure cost includes only the refundable portion of the CTC, the federal Additional Child Tax Credit (ACTC). The share of the CTC that reduces tax liability lowers the income tax revenue estimates. The entire value of the ACTC was assigned to the tax unit head. If married and filing jointly, the credit was equally distributed between the head and spouse. See the online documentation for a detailed description of TRIM3's federal income tax module: https://boreas.urban.org/documentation/federaltax/main.php.

[7] Maximum reimbursement rates may vary by provider type, child age, and other factors.

Child Welfare Services: Child welfare services consist of child protective services, foster care services, and adoption and guardianship subsidies. This study includes all federal and state funding for these services as reported to the ACF Children's Bureau. Any additional state and local services that are not reported to the Children's Bureau would not be included in this study. Importantly, federal subsidies for guardianship began in 2010, and thus expenditures for this program begin in that year. National child welfare data systems do not track the immigration status of children, and as a result it is not possible to identify the number of refugee and asylee children (or immediate family members of refugees and asylees) who are involved in these systems.

Some research on involvement of foreign-born children in these systems shed light and were used to drive the assumptions used in this study. One study used the National Survey of Child and Adolescent Well-Being, a nationally representative sample of children who were subjects of reports of maltreatment to child protective services (Dettlaff and Earner 2012). Because the data source includes children who are already subjects of a maltreatment allegation, it cannot give overall incidence comparisons. It did find that children of foreign-born parents were less likely to have an allegation be substantiated than children of U.S.-born parents (29.1 percent vs. 33.3 percent). This results in a 0.87 differential or ratio between immigrant and non-immigrant children. A California-specific study (Putnam-Hornstein et al. 2013) found that immigrant children ages 0-5 had a 9 percent rate of involvement in child protective services versus 18.3% for U.S.-born children ages 0-5, which suggests a differential of 0.5. A systematic review of existing literature found that immigrant children were less likely to be involved in child welfare systems than U.S.-born children (Millett 2016). We used the 0.5 ratio from the California study as our adjustment factor. While it is California-specific, it was the only estimate we found for child protective services involvement. Though Dettlaff and Earner used a national sample, the focus was on children already exposed to child protective services; the results provide support that immigrant children have less involvement, but the estimate itself is not appropriate for the current study.

The study calculates total expenditures on these systems at the federal and state levels based on reports from the Children's Bureau and calculates the refugee and asylee share based on the share of refugee and asylee children in the total population, adjusted downward by 0.5.

Criminal Justice: There are no government data sources tracking refugee and asylee involvement in criminal justice systems. This study assumes that refugees and asylees are as likely to be involved as the U.S. population, based on citizenship status. An analysis from the Bureau of Justice Statistics for data in 2017 finds that "non-citizens made up roughly the same portion of the U.S. prison population (7.6%) as of the total U.S. population (7.0%, per the U.S. Census Bureau)" (Bronson and Carson 2019, p. 1). Based on this estimate, we assume that refugees and asylees have the same likelihood of being involved as the U.S. general population and estimate their share of costs as simply their share of the overall population. The accuracy of these assumptions about refugee and asylee criminal justice system involvement cannot be tested with any existing data source, and greatly determines whether these estimates are high or low.

Data on criminal justice expenditures were calculated from microdata for federal, state, and local government costs from the Department of Justice Expenditure and Employment Extracts program. Data on the size of the prison population at the federal, state, and local levels for 2012 to 2014 came from a report by the Bureau of Justice Statistics at http://www.bjs.gov/index.cfm?ty=pbdetail&iid=5519. The size of the incarcerated population was also compared against data in the American Community Survey.

Disproportionate Share Hospital (DSH) Payments: Hospitals receive DSH payments from CMS to compensate hospitals for the higher operating costs they incur in treating a large share of low-income patients and preserve access to care for low-income populations by financially assisting the hospitals they use. Low-income patients tend to be sicker and more costly to treat than other patients with the same diagnosis. Higher costs also result from the need for additional staffing and services, such as translators and social workers, to care for low-income patients. HHS provides DSH payments, through both the Medicare and Medicaid programs, to qualifying hospitals that serve a large number of indigent Medicare, Medicaid, underinsured, and uninsured individuals. To estimate DSH costs for refugees, the model takes the estimated proportion of the uninsured population that is refugee or asylee and multiplies that proportion by the total federal expenditures on DSH payments. The data source for expenditures was the Medicaid and CHIP Payment and Access Commission, a non-partisan legislative branch agency providing data to Congress and HHS. Figures were checked against a 2016 report from the Congressional Research Service, "Medicaid Disproportionate Share Hospital Payments."

Earned Income Tax Credit (refundable portion only): The Earned Income Tax Credit (EITC) is a benefit for working people with low to moderate income. To qualify, one must meet earnings and other basic requirements and file a tax return.[8] The EITC reduces the amount of taxes owed, and if the value of the credit exceeds the amount owed in taxes, individuals receive the balance as a refund. The value of the credit or refund is larger for people with children.

TRIM3 produced estimates of receipt and cost of the EITC. Like other survey-based models, TRIM3 underestimates the EITC (and refundable CTC), and this study adjusts dollar amounts across the board so that the total for the U.S. population matches real-world spending according to IRS data. The reported cost includes the portion of the EITC used to reduce positive tax liability as well as the refundable portion of the credit. The entire credit was assigned to the tax unit head. If married and filing jointly, the credit was equally distributed between the head and spouse. See online documentation for a detailed description of TRIM3's federal income tax module: https://boreas.urban.org/documentation/federaltax/main.php.

Federal Individual Income Taxes: TRIM3 simulated the value of federal income taxes. We made across-the-board adjustments to the TRIM3 estimated federal income tax liability so that the total for the U.S. population matched real-world amounts according to IRS data. This value reflects total federal income taxes, excluding the EITC and ACTC. The entire tax was assigned to the tax unit head. If married and filing jointly, the tax was equally distributed between the head and spouse. See online documentation for a detailed description of TRIM3's federal income tax module: https://boreas.urban.org/documentation/federaltax/main.php.

Health Center Costs for the Uninsured: Uninsured refugees and asylees can receive health coverage at any provider, but the federal and state governments only finance coverage and services through select programs. Hospitals providing treatment for uninsured get partially reimbursed through DSH payments, described above. Health centers are safety net providers that primarily provide primary care services typically furnished in an outpatient clinic. The Health Resources and Services Administration (HRSA) funds health centers and uses part of that funding to offset costs of caring for the uninsured. Health center grants from HRSA include Migrant Health Centers, Community Health Centers, Health Care for

[8] For more information on EITC eligibility, see https://www.irs.gov/credits-deductions/individuals/earned-income-tax-credit/do-i-qualify-for-earned-income-tax-credit-eitc.

the Homeless, and Public Housing Primary Care. Ryan White HIV/AIDS Program Part C clinics provide primary health care, and many recipients of these grants are health centers.

To estimate federal expenditures on health center costs for uninsured refugees and asylees, the study first calculated the costs paid for through HRSA grants to health centers. Other expenses such as capital outlays are fixed costs that would not change with additional refugee patients. Next, the percentage of health center patients that were uninsured was identified from administrative records. This averaged 36 percent over 2005-2014. The uninsured percentage was increased by 50 percent to account for the fact that uninsured patients likely pay lower fees than insured patients. That is, greater weight was given to uninsured patients in determining the amount of HRSA grant dollars devoted to their care. As a result, the study estimated that 54 percent of all HRSA grant-supported revenue paid for services to the uninsured. The estimated yearly cost of administering to the uninsured was then multiplied by the estimated percentage of the total uninsured population who were refugees. Note that this analysis assumes that uninsured refugees are equally likely as other uninsured individuals to seek care at health centers. This assumption may not be accurate, as uninsured refugees may be either more or less likely to be located in areas where health centers operate. Data are not available to determine the validity of this assumption, however. An additional limitation is that while health centers are a major federally supported program that benefits uninsured refugees, this population may receive federal support for health services either directly or indirectly from other smaller federal efforts.

Housing Assistance: The federal, state, and local governments all administer housing assistance programs for low-income individuals and families. The Department of Housing and Urban Development (HUD) administers five core programs that subsidize rents for low-income populations: the Public Housing program, the Section 8 Housing Choice Voucher program, the Section 8 Project-Based Rental Assistance program, the Section 202 Supportive Housing for the Elderly program, and the Section 811 Supportive Housing for Persons with Disabilities program. In general, HUD bases program eligibility on family income, citizenship or immigration status, and, in some cases, other characteristics (e.g., age or disability status). HUD defines income limits based on a percentage of local area median income. The income level at which a family qualifies for assistance varies by program. We did not make further adjustment to the TRIM3 estimated housing subsidies due to the lack of availability of administrative targets for some sources of housing assistance.

Estimates of public and subsidized housing enrollment and costs were produced using TRIM3. Costs reflect the TRIM3 "subsidy" calculated for the household. For this analysis, the value of the subsidy was distributed equally among all household members. See online documentation for a detailed description of TRIM3's public and subsidized housing module: https://boreas.urban.org/documentation/PubOrSubsidizedHousing/Main.php.

To determine the proportion of housing assistance costs attributable to the federal government relative to state and local governments, total federal expenditures on housing for fiscal year 2014 were drawn from a 2015 Congressional Budget Office report, "Federal Housing Assistance for Low-Income Households." Total federal expenditures were $45 billion. State and local expenditures were drawn from the Census of Government Finance line item for "housing and community development." For 2014, total state and local expenditures were $49.945 billion. The federal and state/local shares of total expenditures were then calculated based on the total expenditures of roughly $95 billion in fiscal year 2014.

K-12 Public Education: All children in the United States have access to free public primary school, middle school, and secondary education. Research has not documented how much school districts spend on refugees and asylees relative to other students, nor is detailed information available on how many refugee and asylee students live in school districts. There are reasons to believe that refugee and asylee children are likely to be a higher cost to districts. According to the 2014 Annual Survey of Refugees, among refugees arriving in the U.S. in 2014, 73.6 percent reported speaking English "Not Well" or "Not At All" (ORR 2015, p. 96). Education costs are higher for students learning English, due to additional services provided, such as classes for English learners or bilingual classes. Additionally, refugees and asylees have higher levels of poverty than the total U.S. population: according to Table 4, from 2005 to 2019, the average annual poverty rate was 18.3 percent for refugees and asylees, relative to 13.2 percent for the total U.S. population. Lower-income students are likely to have higher educational needs, and these needs directly translate to increased federal funding. Districts with the highest rates of low-income families (as measured by the percentage eligible for free or reduced-price meals) are eligible for additional federal funding through Title I. To account for the potential higher cost for refugee and asylee students, this analysis assigns to refugees and asylees the higher cost of public education in high-poverty districts. Districts with higher poverty rates tend to spend more, in large part due to higher funding from federal Title I, though other factors may be involved (Cornman et al. 2022).

This analysis estimates the per-pupil expenditures by school district using data from the School District Finance Survey, administered by the National Center for Education Statistics at the U.S. Department of Education. The survey collects finance data from the entire universe of local education agencies in each of the 50 states and the District of Columbia. The study follows the methodology outlined by Cornman et al. (2022) to classify those districts based on their poverty quartile, using data from the Census Bureau's Small Area Income and Poverty Estimates program. To estimate per-pupil expenditures on refugee and asylee children, the analysis calculates average expenditures in the top two quartiles of districts by poverty status.

Low-Income Home Energy Assistance Program (LIHEAP): LIHEAP assists low-income households with their heating and cooling energy costs with bill payment assistance, energy crisis assistance, and assistance for weatherization and energy-related home repairs. LIHEAP is designed differently in every state, and each grantee sets its own income limits. Federal statute requires that income eligibility criteria for LIHEAP be between 110 and 150 percent of the federal poverty level, except where 60 percent of state median income is higher.

LIHEAP costs and enrollment were estimated using a combination of CPS data and, where available, the TRIM3 model. CPS data were used for 2005, 2006, 2011, 2013, and 2014. TRIM3 data were used for all other years. The cost of the benefit received was equally distributed among all household members.

Medicaid/Children's Health Insurance Program (CHIP): Medicaid is a joint federal and state program that provides free or low-cost hospital and medical coverage for low-income families and children, pregnant women, elderly people, people with disabilities, and, in some states, other adults. The federal government provides a portion of the funding for Medicaid and sets program guidelines, but there is state flexibility in program design. Eligibility varies by state but is primarily dependent on household income, family size, disability, and other factors. Qualifying individuals must be U.S. citizens, U.S. nationals, or a qualified noncitizen as defined by U.S. immigration law.

The Current Population Survey data for enrollment in the Children's Health Insurance Program (CHIP) are known to be unreliable because respondents are often unsure whether a child is covered by

Medicaid or CHIP. For this reason, costs of participation in CHIP were summed with Medicaid, and estimates were considered to be participation in either Medicaid or CHIP.

Cost estimates in this study are based on medical care, as the per-person average national expenditure for the program, and the number of individuals in the refugee and asylee population who met eligibility requirements to enroll. We made across-the-board adjustments to the Medicaid/CHIP dollar estimates so that the total for the U.S. population matched real-world amounts according to administrative data. For the years that TRIM3-simulated enrollment results were available (2006, 2008, 2010), Medicaid/CHIP coverage was obtained from TRIM3 and reflects TRIM3's correction for underreporting of Medicaid and CHIP receipt. For all other years, Medicaid and CHIP coverage was taken from the CPS ASEC. For 2005-2017, dollar values were assigned based on age, disability status determined by SSI receipt, and year using per-enrollee spending data from CMS. Dollar values for 2018 and 2019 were assigned by age, disability status, year, and state using per-enrollee spending provided by CMS. Dollar values were assigned based on age and year using per-enrollee spending data from CMS.[9] Note that the same dollar amount was applied regardless of whether coverage came through Medicaid or through CHIP. For a detailed description of Medicaid and CHIP eligibility modeling, see the online documentation at https://boreas.urban.org/documentation/Medicaid/Main.php.

Medicaid and CHIP are paid for by a combination of federal and state dollars, based on the Federal Medical Assistance Percentage (FMAP), calculated by HHS based on a formula set forth in statute. After total expenditures were estimated from TRIM, annual FMAP rates were used to allocate expenditures to the federal government and state governments. FMAP rates differ for each state. To account for the differential allocation of refugees among states, the total federal and state shares of expenditures were based on a weighted national FMAP rate, where each state's weight was the estimated proportion of refugees in its total population.

Medicare: Medicare is a federal health insurance program for people age 65 or older or people under age 65 with certain disabilities or terminal illnesses. Individuals pay into Medicare through payroll taxes while working and receive benefits upon meeting age and eligibility requirements. To qualify, an individual must be entitled to receive Medicare based on individual earnings or those of a spouse, parent, or child. The worker must have worked and paid payroll taxes for a specified number of quarters. Alternatively, people age 65 and older without enough credits earned through payroll taxes can buy Medicare coverage, provided that they are a U.S. citizen or lawfully admitted for permanent residence and have resided continuously in the U.S. for the five years preceding the application. Refugees who meet the criteria may enroll in Medicare Part B and premium Part A. In this case, they pay premiums for their coverage.

Cost estimates for this report are based on the national per-person average expenditure for medical care for Medicare Parts A, B, and D (prescription costs) and are not based on the cost of premiums, co-payments, or insurance. Information on whether or not a person was covered by Medicare was collected from the CPS. To avoid overestimating Medicare costs for children, people age 18 and under

[9] As noted above, people age 18 and under who reported Medicare were counted as covered by Medicaid rather than Medicare. The per-person Medicaid amounts were assigned by year and age group (children, adults, older adults). Higher costs for people with disabilities are not captured. The per-enrollee Medicaid values were provided by ASPE. The 2005-2014 values were obtained from a table labeled "Table 6—Medical Assistance Payments Per Enrollee, by Enrollment Category, Net Services FMR on APS Data." The 2004 values were obtained from a table labeled "Table 19 – Past and Projected Medicaid Expenditures on Medical Assistance Payments Per Enrollee, by Enrollment Category, Fiscal Years 2000-2025 (Data for Figure 6)."

with reported Medicare were reclassified as receiving Medicaid, rather than Medicare.[10] Dollar values were assigned based on age (19-44, 45-64, 65-84, and 85+) and year using per-enrollee spending data from the CMS Office of the Actuary. CMS disproportionate share hospital payments partially offset the additional costs to hospitals for serving Medicare patients. Data for 2011-2015 were sourced from the CMS Healthcare Cost Report Information System from hospital form CMS-2552-10. Beginning in 2015, dollar values broken out by age were no longer available, and we used a single dollar value provided by CMS. For a detailed description of Medicare modeling, see the online documentation at https://boreas.urban.org/documentation/Medicare/main.php.

For Medicare Part D, the low-income subsidy was estimated based on age and income eligibility, where each person eligible was counted as enrolled. The number of beneficiaries and per-enrollee annual costs were obtained from the CMS Office of Enterprise Data and Analytics at https://data.cms.gov/summary-statistics-on-beneficiary-enrollment/medicare-and-medicaid-reports/cms-program-statistics-medicare-part-d-enrollment.

National School Lunch Program: The National School Lunch Program provides free or low-cost nutritionally balanced meals to children in public and non-profit private schools and residential child care institutions. Children qualify to receive subsidized meals at school if their families' household incomes meet the income eligibility guidelines. Children from families with incomes at or below 130 percent of the poverty level are eligible for free meals. Those with incomes between 130 percent and 185 percent of the poverty level are eligible for reduced-price meals. Children who participate in the Supplemental Nutrition Assistance Program or Temporary Assistance for Needy Families, and children who are migrant, runaway, or homeless, are automatically eligible for free meals.

We obtained the estimated value of the National School Lunch Program for each household from the CPS. We made across-the-board adjustments to the National School Lunch Program dollar estimates so that the total for the U.S. population matched real-world amounts according to administrative data. The total value of school lunches received by all students in the household was equally distributed among all children age 5-15, plus those children age 16-18 who were enrolled in school. If a household reporting school lunches has no children under this definition, all children age 16-18 were considered students regardless of their enrollment status. The National School Lunch Program is funded by both the federal government and state governments. The federal and state portions of expenditures were calculated based on state match rates provided by the Department of Agriculture.

Payroll Taxes: The TRIM3 model simulated estimated payroll taxes (Old-Age, Survivors, and Disability Insurance; Civil Service Retirement System) paid. The tax was calculated on an individual basis and reflects the individual's taxes. The estimate includes both the employee and employer portions of payroll taxes paid. See online documentation for a detailed description of TRIM3's payroll tax module: https://boreas.urban.org/documentation/PayrollTax/main.php.

Property Taxes: Property taxes were assigned to all householders who owned their home or renters, excluding people who reported living rent free or who resided in public or subsidized housing. The assumption is that a share of the renter's rent goes toward property taxes. We assigned average property tax values to households based on data from the American Community Survey. Values vary by state and by poverty level (<100 percent, 100-199 percent, 200-399 percent, and 400+ percent of

[10] People tend to confuse Medicare and Medicaid, and this may be more pronounced among recent immigrants with lower English proficiency. Medicare is rare among children (who are eligible to receive it if they have end-stage renal disease or a parent who receives or is eligible for Social Security benefits).

poverty), and age group (18-64, 65+). The property tax amount was assigned to the household head. If the household head was married, the tax was split between the head and spouse.

We made across-the-board adjustments to property tax dollar estimates so that the total for the U.S. population matched real-world amounts according to the national income and product accounts (NIPA). Because some share of property tax is paid by businesses, making this adjustment assumes that property taxes paid by businesses are eventually passed on to consumers in the form of higher prices.

Public Postsecondary Education: The Current Population Survey provided data on refugee enrollment in postsecondary education. The share of refugees enrolled in public (as opposed to private) institutions is assumed to be comparable to that of the overall U.S. population. Data on federal, state, and local postsecondary education costs came from the National Center for Education Statistics' Integrated Postsecondary Education Data System (IPEDS). To focus specifically on the marginal costs of refugees, the analysis included the amount of non-operational grants that public postsecondary institutions receive from federal, state, and local government, which includes Pell grants and other student aid. Operating costs and appropriations represent 86 percent of the federal, state, and local funds received by postsecondary institutions and are not likely to change significantly on the margins because they are usually for specific projects and programs. We estimated the total marginal cost of refugees in postsecondary education by multiplying the non-operating grant cost associated with each full-time equivalent student by the number of refugees enrolled in public postsecondary education.

Sales and Excise Taxes: We estimate federal excise taxes using an equation that was developed for use in the NASEM (2017) report *The Economic and Fiscal Consequences of Immigration*[11] and was shared with us by Gretchen Donehower and Kim Rueben. The imputation was developed on Consumer Expenditure Survey data and estimates a household's spending on gas, alcohol, and tobacco (note that this is a spending estimate, not a tax estimate). These goods make up a large share of federal excise taxes. In the formula below, "adults" is the number of adults in the tax unit, and "kid" equals the number of child dependents in the tax unit within the indicated age range.

- Federal excise tax = 245 + 0.008 * AGI + 459 * adults −
  85 * kid02 + 7 * kid34 + 28 * kid59 + 97 * kid1014
  +227 * kid1517 +301 * kid1819

Following the procedures in the NASEM report, we applied the imputation to the CPS/TRIM3 data, summed the results, and then calculated an adjustment factor (NIPA federal excise tax/summed imputed consumption of gas, alcohol, and tobacco). We multiplied the adjustment factor by each household's imputed consumption to scale the estimates down to the NIPA federal excise tax total.

This method makes two assumptions. The first assumption is that people pay federal excise tax in proportion to their consumption of gas, alcohol, and tobacco. Second, federal excise taxes paid by businesses are passed through to households, and we assume that households pay these taxes in proportion to their consumption of gas, alcohol, and tobacco.

State and local sales and excise taxes are calculated as a percentage of income that varies by income range. Using TRIM3 information on a family's total cash income, the family's total state and local sales and excise taxes were imputed by multiplying family income by rates that varied by state and income

[11] https://www.nap.edu/catalog/23550/the-economic-and-fiscal-consequences-of-immigration

level (but not by year). For these purposes, related subfamilies were considered part of the household's primary family. State and local sales and excise taxes were assigned to the head of the family (where family is defined as all related persons in the household). If married, the tax was split between the head and spouse. Rates vary by state and the following income levels: $0-$30,000, $30,001-$40,000, $40,001-$60,000, $60,001-$100,000, $100,001-$300,000, and more than $300,000. The rates are based on IRS tables for sales tax deductions for years 2008-2019 and are augmented for state excise taxes and capital purchases based on information from the Consumer Expenditure Survey on relevant purchases and Census of Governments data. The totals that result from this estimation are less than what is shown in the NIPA produced by the Bureau of Economic Analysis. We applied multiplicative adjustments to the resulting dollar amounts to match NIPA benchmarks. Because some share of state and local sales and excise taxes are paid by businesses, this adjustment assumes that the share of these taxes paid by businesses are eventually passed on to consumers in the form of higher prices.

Social Security: Social Security is a social insurance program that provides cash benefits to support workers and their families in retirement, or when they experience income loss due to career-ending disability or the death of a family worker. Workers pay Social Security taxes while they are employed, and employers pay matching contributions. Eligible individuals must have worked and paid Social Security taxes for a specified time. Benefit levels are calculated based on prior earnings. There is no means- or resource-testing of Social Security benefits, although there are limitations on earned income in some situations. The three categories of Social Security benefits are retirement, survivor, and disability.

- The Old-Age and Survivors Insurance program provides monthly retirement and survivors benefits to qualified workers and their families. Workers must pay Social Security taxes for a total of 40 quarters, or 10 years, to be eligible for retirement benefits. Individuals qualify for full retirement benefits between the ages of 65 and 67, depending on the year of birth. Reduced benefits are payable at age 62.
- Social Security Disability Insurance (SSDI) provides monthly benefits to disabled individuals who cannot work due to a medical condition expected to last at least one year or result in death. Eligible individuals must meet the requirements for past work and Social Security taxes paid. In some cases, dependents of disabled individuals may also qualify for SSDI benefits.

Social Security benefit costs reflect receipt of Social Security and amounts reported on the CPS (TRIM3 does not simulate Social Security benefits). We made across-the-board adjustments to the dollar amounts reported in the CPS so that the aggregate amount of Social Security matched real-world targets according to administrative data. The reported benefits include Social Security retirement benefits, SSDI, and benefits paid to widows, survivors, and dependents of Social Security recipients. For this analysis, dollars are counted as received by the person reporting Social Security income in the CPS ASEC.

State Individual Income Taxes: The TRIM3 model was used to estimate the value of individual state income taxes paid. This variable reflects state income taxes for tax units with positive state income tax liability. The entire tax was assigned to the tax unit head. If married and filing jointly, the tax was equally distributed between the head and spouse. We did not make further adjustment to the state income tax estimates generated by TRIM3, due to a lack of available external targets. See online documentation for a detailed description of TRIM3's state income tax module: https://boreas.urban.org/documentation/StateTax/main.php.

Supplemental Nutrition Assistance Program (SNAP, formerly food stamps): SNAP provides monthly nutrition assistance benefits to eligible low-income individuals and families. Monthly allotments are determined based on net income and household size. To be eligible for SNAP, most households must meet certain asset and income tests. Households with elderly or disabled members need only meet the net income limit. The gross and net monthly income eligibility thresholds are set at 130 and 100 percent of poverty, respectively. Net income refers to gross income minus the allowable deductions. Certain categories of noncitizens, including refugees, are eligible to receive SNAP benefits.[12]

TRIM3 was used to estimate SNAP participation and costs. We made across-the-board adjustments to the TRIM3 SNAP dollar estimates so the total for the U.S. population matched real-world amounts according to administrative data. The cost of SNAP benefits was equally distributed among all eligible members of the SNAP unit. See online documentation for a detailed description of TRIM3's SNAP module: https://boreas.urban.org/documentation/foodstamps/main.php.

Supplemental Security Income (SSI): SSI is a federally funded program administered by the Social Security Administration that provides monthly payments to individuals (including children) who are age 65 or older, blind, or disabled and have limited income and assets. Benefits are available to U.S. nationals, citizens, and qualified noncitizens.[13]

TRIM3 was used to estimate SSI enrollment and costs. We made across-the-board adjustments to the TRIM3 SSI dollar estimates so that the total for the U.S. population matched real-world amounts according to administrative data. If both members of a married couple were eligible for SSI, the benefit was distributed equally between them. In all other cases (including disabled children), the entire benefit was assigned to the eligible person. See online documentation for a detailed description of TRIM3's SSI module: https://boreas.urban.org/documentation/SSI/Main.php.

Temporary Assistance for Needy Families (TANF): TANF is combined with solely state-funded (SSF) programs that provide cash benefits and services to low-income families with children to help them achieve self-sufficiency. States and territories receive federal funds to design and operate the programs,[14] and each state and territory has broad discretion in eligibility criteria and the benefits it provides. In general, to qualify for TANF or SSF benefits, an individual must have income below the poverty or deep poverty line, be pregnant or responsible for a dependent child, and be a U.S. national, a U.S. citizen, or a qualified legal noncitizen or permanent resident.

TANF is paid for by a combination of federal and state dollars, based on Maintenance of Effort (MOE) rates. After total expenditures were estimated from TRIM, annual MOE rates were used to allocate expenditures to the federal government and state governments. MOE rates differ for each state. To account for the differential allocation of refugees among states, the total federal and state shares of expenditures were based on a weighted national MOE rate, where each state's weight was the estimated proportion of refugees in its total population.

[12] For more information on SNAP eligibility, see https://www.fns.usda.gov/snap/eligibility.

[13] "Understanding Supplement Security Income SSI Eligibility Requirements." U.S. Social Security Administration. https://www.ssa.gov/ssi/text-eligibility-ussi.htm.

[14] The four purposes of the TANF program are to (1) provide assistance to needy families so that children can be cared for in their own home; (2) reduce the dependency of needy parents by promoting job preparation, work, and marriage; (3) prevent and reduce the incidence of out-of-wedlock pregnancies; and (4) encourage the formation and maintenance of two-parent families.

TRIM3 was used to estimate TANF and SSF enrollment and costs. We did not make further adjustments to the TANF/SSF estimates generated by TRIM3 due to a lack of available external targets. The cost of benefits was equally distributed among all eligible members of the assistance unit. See online documentation for a detailed description of TRIM3's TANF module: https://boreas.urban.org/documentation/TANF/Main.php.

Women, Infants and Children Special Supplemental Nutrition Assistance (WIC): WIC provides supplemental foods, nutrition education, referrals, and access to health and social services, at no cost to low-income pregnant, breastfeeding, and postpartum women and to infants and children up to age five who have a medically determined nutritional risk. Income must be at or below the level or standard set by the state agency, which is required to be between 100 and 185 percent of the federal poverty level. Individuals who do not meet the income requirements may still be eligible through receipt of SNAP, Medicaid, or TANF benefits. The WIC program does not restrict eligibility based on immigration status.[15]

TRIM3 was used to estimate WIC enrollment and costs. We made across-the-board adjustments to the TRIM3 WIC dollar estimates so that the total for the U.S. population matched real-world amounts according to administrative data. The TRIM3 model assigns benefit values to each member of the WIC unit based on that person's characteristics: woman, infant, or young child. See the online documentation for a detailed description of TRIM3's WIC module: https://boreas.urban.org/documentation/wic/main.php.

[15] For more information on WIC eligibility, see https://www.fns.usda.gov/wic/wic-eligibility-requirements.

Appendix B. Supplemental Tables

Table B1. Top 25 Countries of Origin for Refugees Arriving and Asylees Granted Asylum Between 2005 and 2019

Country	Number of Refugees	Number of Asylees	Total
Burma	176,316	2,437	178,753
Iraq	143,539	8,398	151,937
China, People's Republic	593	101,190	101,783
Bhutan	96,177	33	96,210
Somalia	88,503	2,408	90,911
Dem. Rep. of the Congo	71,115	1,154	72,269
Iran	43,214	6,827	50,041
Cuba	41,413	1,482	42,895
Ukraine	25,910	2,870	28,780
Syria	21,777	6,220	27,997
Eritrea	21,398	6,091	27,489
Russia	17,372	8,597	25,969
Venezuela	0	23,254	23,254
Ethiopia	11,069	12,158	23,227
Egypt	120	20,251	20,371
El Salvador	2,524	17,596	20,120
Colombia	3,129	14,504	17,633
Sudan	15,734	1,713	17,447
Guatemala	218	16,903	17,121
Haiti	30	14,378	14,408
Afghanistan	12,718	1,608	14,326
Burundi	12,531	787	13,318
Liberia	10,256	1,071	11,327
Vietnam	10,390	393	10,783
Honduras	346	10,111	10,457

Note: Number of asylees includes individuals granted affirmative and defensive asylum.
Source: Affirmative asylum: U.S. Department of Homeland Security, U.S. Citizenship and Immigration Services (USCIS), Refugee, Asylum, and Parole System (RAPS). Defensive asylum: U.S. Department of Justice, Executive Office for Immigration Review. Refugees: U.S. Department of State, Bureau of Population, Refugees, and Migration, Worldwide Refugee Admissions Processing System.

Table B2. Top 15 Countries of Origin for Refugees Arriving Between 2005 and 2019

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2005-2019
Burma	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	176,316
Iraq			X	X	X	X	X	X	X	X	X	X	X		X	143,539
Bhutan				X	X	X	X	X	X	X	X	X	X	X		96,177
Somalia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	88,503
Dem. Rep. of the Congo			X	X	X	X	X	X	X	X	X	X	X	X	X	71,115
Iran	X	X	X	X	X	X	X	X	X	X	X	X	X			43,214
Cuba	X	X	X	X	X	X	X	X	X	X	X					41,413
Ukraine	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	25,910
Syria											X	X	X		X	21,777
Eritrea		X	X		X	X	X	X	X	X	X	X	X	X	X	21,398
Russia	X	X	X	X	X								X	X		17,372
Sudan	X	X	X		X	X	X	X	X	X	X	X	X		X	15,734
Afghanistan	X	X		X		X	X	X	X	X	X	X	X	X	X	12,718
Burundi			X	X	X	X					X	X		X		12,531
Ethiopia	X	X	X			X	X	X	X	X	X	X	X	X	X	11,069

Note: "X" indicates country is in the top 15 countries of origin for the given year.
Source: U.S. Department of State, Bureau of Population, Refugees, and Migration, Worldwide Refugee Admissions Processing System.

Table B3. Top 15 Countries of Origin for Asylees Granted Asylum Between 2005 and 2019

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2005-2019
China, People's Republic	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	101,190
Venezuela	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	23,254
Egypt	X			X	X	X	X	X	X	X	X	X	X	X	X	20,251
El Salvador		X	X	X						X	X	X	X	X	X	17,596
Guatemala	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	16,903
Colombia	X	X	X	X	X	X	X	X								14,504
Haiti	X	X	X	X	X	X	X	X	X	X	X					14,378
Ethiopia	X	X	X	X	X	X	X	X	X	X	X	X	X	X		12,158
Honduras											X	X	X	X	X	10,111
India	X	X	X		X	X			X	X	X	X	X	X	X	9,241
Nepal				X	X	X	X	X	X	X	X	X	X	X		8,769
Russia	X	X	X	X	X	X	X	X	X					X	X	8,597
Mexico								X	X	X	X	X	X	X	X	8,485
Iraq			X	X	X	X	X		X	X	X	X	X			8,398
Iran				X	X	X	X	X	X	X	X	X	X			6,827

Note: "X" indicates country is in the top 15 countries of origin for the given year. Includes individuals granted affirmative and defensive asylum.
Source: Affirmative asylum: Source: U.S. Department of Homeland Security, U.S. Citizenship and Immigration Services (USCIS), Refugee, Asylum, and Parole System (RAPS). Defensive asylum: Source: U.S. Department of Justice, Executive Office for Immigration Review.

Table B4. Average Annual Per Capita Expenditures for Refugees and Asylees and the Total U.S. Population by Program, 2005-2019

Program	Refugees and Asylees	U.S. Population
Medicaid/CHIP	$3,117	$1,617
Medicare	1,942	2,094
Social Security/SSDI	1,368	2,772
K-12 public education	910	2,039
SSI	585	187
Criminal justice (excludes police)	501	501
EITC [a]	447	216
Housing assistance	331	125
SNAP	291	204
Child Tax Credit [a]	183	92
Health Care Premium Tax Credit	94	36
TANF	31	29
National School Lunch Program	22	37
State refundable tax credits [a]	19	8
DSH payments	13	318
LIHEAP	11	10
Workforce Innovation and Opportunity Act services	7	7
WIC	7	14
Health centers	7	5
Child care subsidies	5	26
Head Start	5	25
Child welfare services	1	50
Public higher education	<1	<1

[a] Includes only the refundable portion of credit. The non-refundable portion is deducted out of taxes paid.
Note: Values are expressed in 2019 dollars.
Source: Current Population Survey Annual Social and Economic Supplement and microsimulation model TRIM3, and additional ASPE analysis of administrative and budgetary data.

Table B5. Average Annual Per Capita Revenues for Refugees and Asylees and the Total U.S. Population by Source, 2005-2019

Source	Refugees and Asylees	U.S. Population
Federal income tax	$3,842	$4,405
State income tax	$1,023	$1,050
Federal excise tax	$345	$302
Federal payroll tax	$3,929	$3,418
Property tax	$1,924	$1,665
State/local sales and excise tax	$1,925	$1,834

Note: Values are expressed in 2019 dollars.
Source: Current Population Survey Annual Social and Economic Supplement and microsimulation model TRIM3, and additional ASPE analysis of administrative and budgetary data.

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