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EPI'S FAMILY BUDGETS AND INCOME SUFFICIENCY IN DENVER

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For over a decade, the Economic Policy Institute (EPI) has calculated basic family budgets for every area of the United States. These budgets measure how much it costs various representative family types in over 600 local areas across the country to have a modest but adequate standard of living. They measure the income families need by estimating location-specific costs of housing, food, child care, transportation, health care, taxes, and other necessities.

Our methodology is so respected that the family budget tool has been used and cited extensively by living-wage advocates, private employers, academics, and policymakers looking for comprehensive measures of economic security. EPI's family budgets have frequently been used to gauge the adequacy of earnings. In particular, the family budget provides an excellent resource for policymakers seeking to assess the adequacy both of local wage standards and available safety net programs.

Over the past several years, lawmakers across the country, and across the political spectrum, have come to acknowledge that the country's central economic challenge is the persistent stagnation of wages. The lack of significant wage growth over the past generation is the driving force behind growing inequality, the lack of significant progress in fighting poverty, and the general slowdown in improving living standards (Bivens et al. 2014). Congressional inaction on policies that might address this stagnation—such as raising the federal minimum wage—have encouraged a substantial number of states and cities to enact higher minimum-wage laws and explore other policies to lift worker pay. These actions, while not eliminating the need for federal actions to lift wages, do help to ensure that regular employment provides the means to achieve a decent quality of life. Cities, in particular, that have raised local minimums or enacted living-wage laws have often done so in explicit recognition that higher costs of living in those areas require higher wage standards so that workers there can still meet their basic needs.

Current national and local attention on wage-lifting policies provides an opportune moment to examine how current income levels in various metropolitan areas compare with the family budgets' locally tailored thresholds of a modest but adequate standard of living. In this paper, we use the family budget thresholds to gauge the adequacy of incomes in the Denver metropolitan area.[1]

The major findings of this study include:

- EPI's annual family budgets for families in the Denver metro area range from a low of $28,829 for one-person families to $98,873 for families with two parents and four children.
- The shares of expenses going to various categories vary substantially across family types in the Denver metro area: 25 percent of expenses for one-person families go to housing, but larger families with children spend a significant share of their income on child care and health care.
- There are 388,000 non-elderly families and single persons with incomes below the family budget threshold in the Denver metro area, roughly 41 percent of all families in the region.
- Counting single persons and individuals in non-elderly families, 848,000 of the region's nearly 2 million such people—about 43 percent—fall below the family budget threshold.
- The share of people below the family budget threshold varies considerably by race, with whites having the lowest rate of income insufficiency (32.1 percent) and Hispanics facing the highest (71.9 percent).
- Rates of income insufficiency vary dramatically by citizenship status. Non-citizen workers are more than twice as likely as U.S.-born citizen workers to have income levels below the family budget threshold.

The paper proceeds as follows. First, we describe the components of EPI's family budgets. Next, we discuss the family budgets specific to the Denver metro area. Last, we compare income data for individuals and families with their respective family budget threshold, and describe the demographics of the population that falls below the family budget threshold in the Denver region.

EPI's basic family budgets

The EPI Family Budget Calculator illustrates the income required to afford an adequate standard of living for 10 family types (including single persons) living in over 600 specific U.S. communities. The fact that the budgets differ by location is important, since certain costs, such as housing, vary significantly depending on where one resides. Geographical cost-of-living differences are built into the budget calculations by incorporating regional, state, or local variations in prices (depending on the item). This geographic dimension of EPI's family budget measurements offers a distinct comparative advantage over poverty thresholds, which only use a national baseline in their measurements (e.g., the federal poverty line), or which use a geographic component only for measuring differences in housing prices (e.g., the Supplemental Poverty Measure).

This section provides a brief description of each component of EPI's basic family budgets (which will soon be updated fully with data for 2014) and the restrictions and/or working assumptions entailed in calculating costs of housing, food, transportation, child care, health care, other necessities, and taxes.

Housing costs are based on the Department of Housing and Urban Development's (HUD) fair market rents, or FMRs (HUD 2014). FMRs represent rents (shelter rent plus utilities) at the 40th percentile (i.e., the dollar amount below which 40 percent of standard quality rental units are rented) for privately owned, structurally safe, and sanitary rental housing of a modest nature with suitable amenities. Rents for studio apartments were used for one-person families, one-bedroom apartments were used for two-adult families, two-bedroom apartments were used for families with one or two children, and three-bedroom apartments were used for families with three or four children (based on HUD guidelines).

Food costs are based on the "low-cost plan" taken from the Department of Agriculture report *Official USDA Food Plans: Cost of Food at Home at Four Levels* (USDA 2014). This plan is the second-least-expensive of four types of food plans and assumes almost all food is bought at the grocery store and then prepared at home. The USDA food plans represent the amount families need to spend to achieve nutritionally adequate diets.

Transportation expenses are based on the costs of owning and operating a car for work and other necessary trips. The National Household Travel Survey (FHA 2009) is used to derive costs based on average miles driven per month by size of the metropolitan statistical area or rural area and multiplied by the cost per mile, as provided by the Internal Revenue Service (IRS 2014).

Child care expenses are based on costs of center-based child care and family-based care for four-year-olds and school-age children, as reported by the Child Care Aware of America annual report on the cost of child care by state (CCAA 2014). We assume all families in urban areas utilize center-based care and all families in rural areas utilize family-based care.

Health care expenses have two components: Affordable Care Act (ACA) insurance premiums and out-of-pocket expenditures. Premiums are based on the lowest-cost bronze plan in the rating area adjusted for family size, age of user, and tobacco surcharge (Henry J. Kaiser Family Foundation 2014). For the purpose of this family budget all members of the family are assumed to be non-smokers, and all adults are assumed to be 40 years old. Out-of-pocket medical expenditures are calculated for adults and children separately by region and are differentiated between metropolitan statistical areas and non–metropolitan statistical areas for those covered by private insurance (HHS 2013).

EPI's basic family budgets include the costs of other necessities such as apparel, entertainment, personal care expenses, household supplies (including furnishings and equipment, household operations, housekeeping supplies, and telephone services), reading materials, school supplies, and other miscellaneous items of necessity as reported for the second quintile from the Bureau of Labor Statistics Consumer Expenditure Survey (BLS 2013).

The family budget components enumerated thus far sum to the family's post-tax income. To calculate the tax component of family budgets, we utilize the National Bureau of Economic Research's Internet TAXSIM (NBER 2013) to gather information on federal personal income taxes, state income taxes, and federal Social Security and Medicare payroll taxes.

EPI's basic family budgets sum each of these components to get the total cost of living in each area across the United States. Notably, these budgets do not include several components of what might be considered a middle-class lifestyle. In particular, they do not include any savings: There are no savings for a rainy day (e.g., job loss or unexpected medical bills), savings for retirement (except through Social Security payments), or further investments in their children (e.g., enrichment activities or college savings). Thus, these are adequate but decidedly modest family budgets.

Denver metro area family budget thresholds

The basic family budgets for our 10 family types, from one person up to two-parent, four-children families, are shown in **Figure A**.[2] Unsurprisingly, the lowest family budgets are for only one person, at $28,829 a year. Except for child care (in which case families composed of two adults with no children also spend nothing), one-person families have the lowest expenses in every category. For example, they require only efficiency housing and only need to purchase other items, such as food and health care, for one.

Family budgets vary both by size and composition. For instance, a four-person family with one parent and three children is more expensive than a four-person family with two parents and two children. This sensitivity to family composition is an important advantage of EPI's family budgets over other measures of income sufficiency.

Our family budgets are consistent with the way food is measured for official poverty thresholds (which are based on a food budget) in the sense that adults require more food than children. In fact, our food budgets for same-sized families are higher when there are relatively more adults. That is, the monthly food budget for three-person families is $618 for two-parent, one-child families, but slightly less ($584) for families with one parent and two kids.

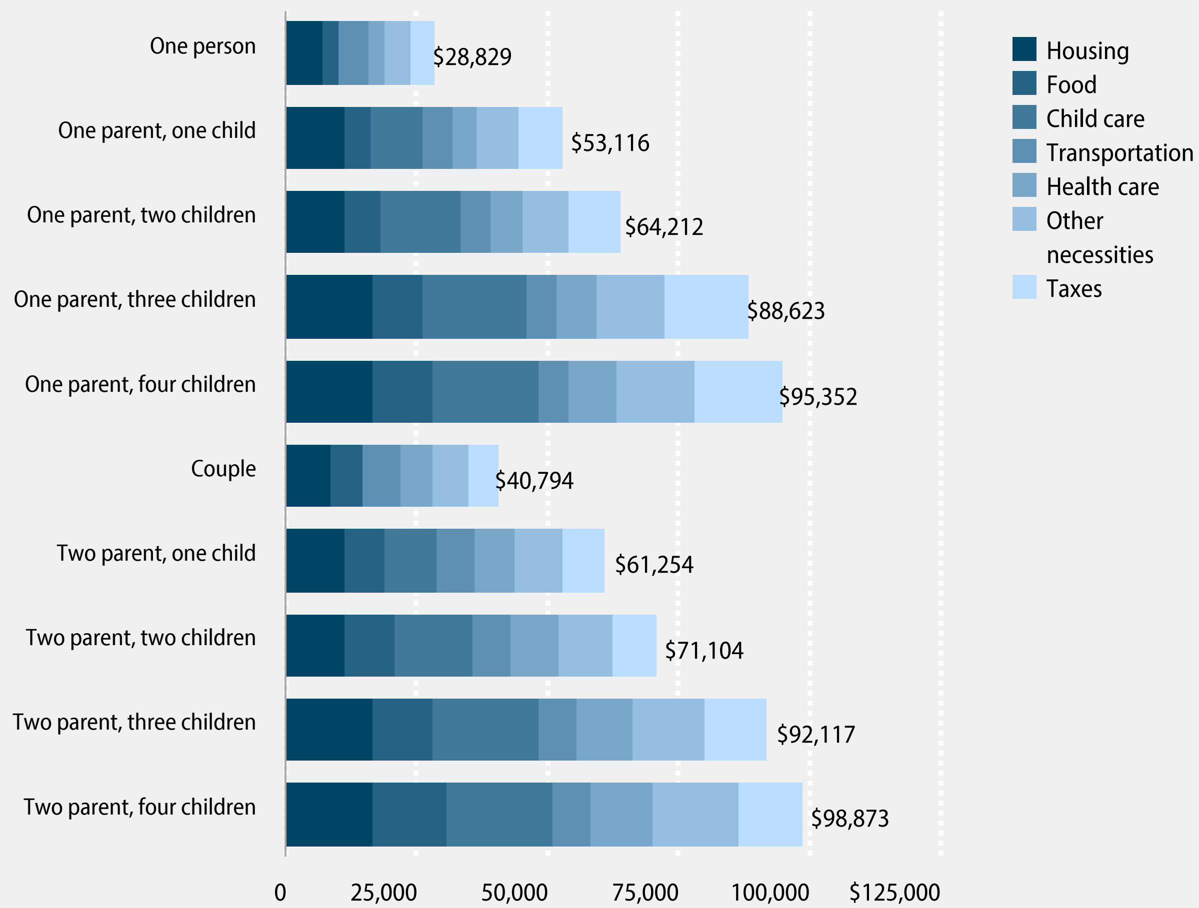
One of the improvements EPI's family budgets have over official poverty measures is the explicit acknowledgement of the high cost of child care. This expense is one of the reasons that one-parent, three-child families are more costly than two-parent, two-child families. The other reason is the fact that the second parent shares a room, while the third child in our budgets requires an extra room so that three children of varying ages (and likely genders) are not sharing one bedroom.

These explicit returns to scale in expenses are demonstrated in **Figure B**. It illustrates the relative shares of family budgets for one-parent, one-child families and two-parent, two-child families. The monthly housing costs are the same, at $960—both require a two-bedroom apartment. However, since larger families have larger overall budgets, their housing costs are a smaller share of their overall expenses. Housing is about 22 percent of expenses for the smaller family, but only about 16 percent for the larger family. Other expenses, such as food and health care, are nearly proportional to the number of adults and kids in the family. They are just about twice as costly for our two-parent, two-child family as for our one-parent, one-child family.

In the next section, we compare the 10 Denver-specific family budgets with actual family incomes in the Denver metro area to assess the extent to which families in the region are meeting the family budget's threshold of a modest but secure standard of living.

FIGURE A

Annual family budgets in Denver, by family type, 2014



Source: EPI analysis of EPI Family Budget Calculator (2015, forthcoming)

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Comparison of Denver metro area incomes to EPI's family budgets

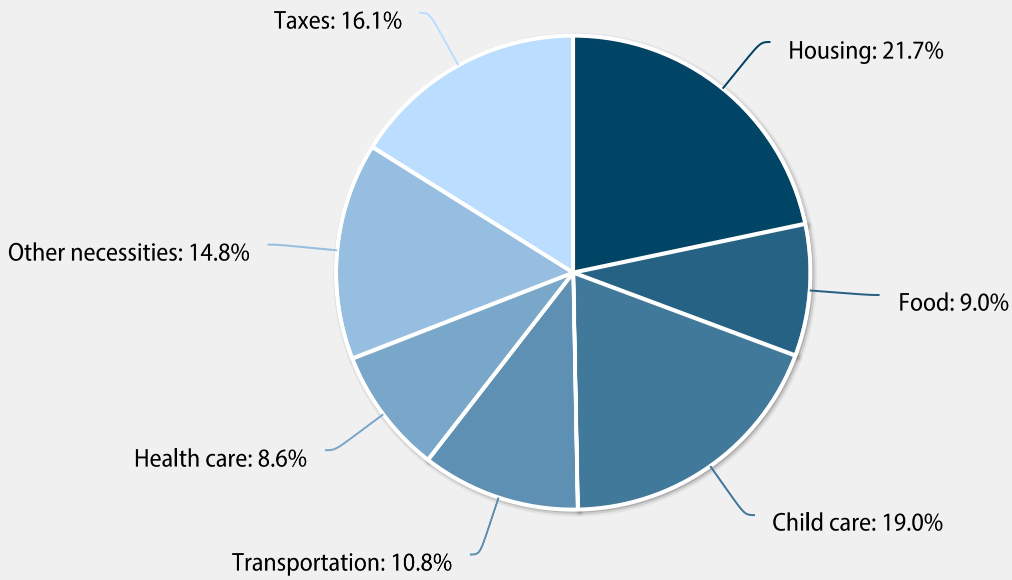
Equipped with the family budgets' geographically tailored thresholds, we can compare reported income levels with the appropriate family budgets to understand whether families and individuals in a particular region have adequate levels of income. To do this, we use data from the Census Bureau's American Community Survey (ACS). For this brief, we analyze data from the 2011–2013 ACS for all persons in non-elderly families living in the Denver-Aurora-Lakewood Metropolitan Statistical Area (hereafter referred to as the Denver MSA, or simply Denver) in one of the family types for which we are able to generate a family budget.[3]

As shown in **Table 1**, there are 388,000 families or single persons in the Denver MSA with total family incomes below their respective family budget threshold, representing just over 40 percent of all families in the region. When single per-

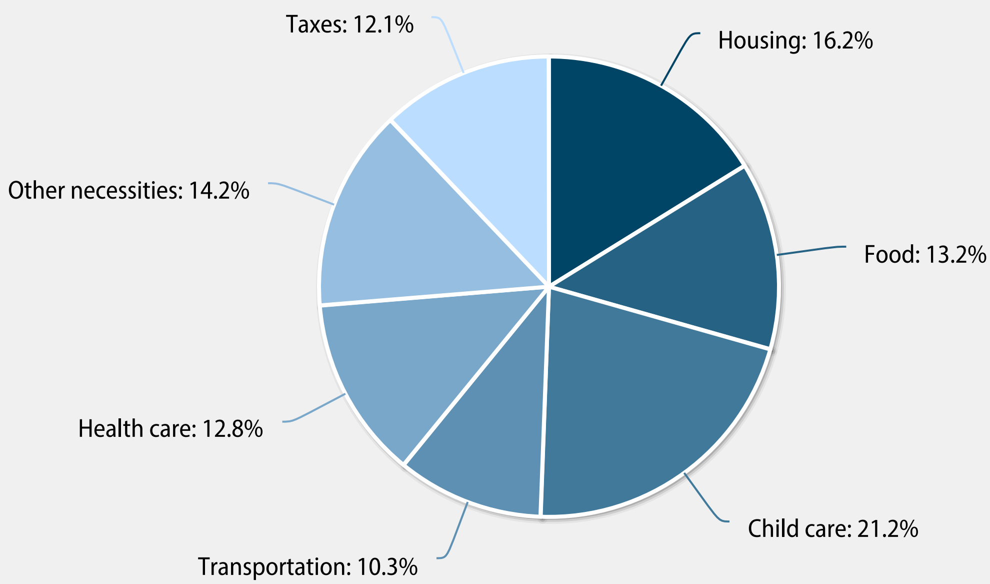
FIGURE B

Variation in the components of Denver family budgets, by family size, 2014

One parent, one child



Two parents, two children



Source: EPI analysis of EPI Family Budget Calculator (2015, forthcoming)

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TABLE 1

Number and share of families, individuals in families, and single persons in the Denver metro area below the family budget threshold

	Estimated population	Below the family budget threshold	Share below the family budget threshold
Families and single persons	949,198	387,584	40.8%
Individuals in families and single persons	1,957,327	847,959	43.3%

Note: Figures reflect families and persons in non-elderly households who fit one of the 10 available family budget types. See endnote two for details.

Source: EPI analysis of American Community Survey microdata, 2011–2013

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sons and people within families are tallied individually, nearly 850,000 people in Denver live with income levels below their respective family budget threshold—about 43 percent of the area population.

Table 2 shows demographic characteristics of the Denver population and those below their respective family budget threshold. There are some notable differences in the rates of income adequacy by demographic category. First, the data show that women are more likely to have inadequate levels of income than men—45.4 percent of women in the region are below the family budget threshold, compared with 41.3 percent of men. Second, more than half of all children in the region live in families with incomes too low to reach the family budget threshold of a modest yet secure standard of living. These children account for 36.5 percent of all individuals in the region below the family budget threshold.

The table also shows that single individuals are more likely than married persons to have inadequate levels of income—single parents, in particular. Single parents make up about 7 percent of the Denver population, yet account for nearly 12 percent of those below the family budget threshold. In fact, over two-thirds of single parents are below the family budget threshold. In contrast, 38.0 percent of married parents have income levels inadequate to meet the family budget line—a slightly smaller rate than the overall area population. Childless married couples have a significantly lower rate of income inadequacy than other groups—only 16.3 percent are below the family budget threshold, a rate less than half that of the overall Denver population.

Figure C highlights differences among racial and ethnic groups. As the figure shows, non-Hispanic whites comprise about two-thirds of the entire Denver population, yet less than half of those below the family budget threshold. In contrast, Hispanic individuals account for less than a quarter of the area population, yet make up more than a third of those living with inadequate levels of income. Latinos are far more likely than non-Hispanic whites to have incomes below the family budget line: As shown in Table 2, nearly three quarters of all Hispanic persons in Denver have incomes below the family budget line, compared with about one-third of all non-Hispanic whites. Non-Hispanic blacks or African Americans are a much smaller portion of the population, yet they too are more likely than whites to have incomes below the family budget threshold. Nearly two-thirds (64.3 percent) of African Americans in Denver have incomes below the family budget line. Asians, Pacific Islanders, and individuals of other races are also more likely than whites to fall short of the family budget line, but significantly less likely than blacks or Hispanics. Less than half (45.7 percent) have total family income below the family budget threshold—a rate slightly higher than that of the overall population.

TABLE 2

Demographics of individuals in families living in the Denver metro area below the family budget threshold

Category	Estimated total population	Share of the total population	Below family budget threshold	Share of category below family budget threshold	Share of total below family budget threshold
Total	**1,957,327**	**100.0%**	**847,959**	**43.3%**	**100.0%**
Sex					
Female	975,248	49.8%	442,339	45.4%	52.2%
Male	982,079	50.2%	405,620	41.3%	47.8%
Age					
Adult (age 18+)	1,408,321	72.0%	538,609	38.2%	63.5%
Child (age <18)	549,006	28.0%	309,350	56.3%	36.5%
Family status					
Married parent	397,555	20.3%	150,995	38.0%	17.8%
Married, no children	342,939	17.5%	55,884	16.3%	6.6%
Single parent	143,383	7.3%	100,168	69.9%	11.8%
Single, no children	1,073,449	54.8%	540,911	50.4%	63.8%
Race/ethnicity					
White	1,301,553	66.5%	417,274	32.1%	49.2%
Black or African American	99,299	5.1%	63,864	64.3%	7.5%
Hispanic	430,125	22.0%	309,045	71.9%	36.4%
Asian or other race	126,349	6.5%	57,776	45.7%	6.8%
Place of birth					
Outside U.S.	235,977	12.1%	141,353	59.9%	16.7%
U.S. state or territory	1,721,350	87.9%	706,607	41.0%	83.3%
Citizenship					
Born citizen	1,744,921	89.1%	716,013	41.0%	84.4%
Naturalized	76,035	3.9%	34,605	45.5%	4.1%
Not U.S. citizen	136,371	7.0%	97,342	71.4%	11.5%

Note: Figures reflect persons in non-elderly households who fit one of the 10 available family budget types. See endnote two for details.

Source: EPI analysis of American Community Survey microdata, 2011–2013

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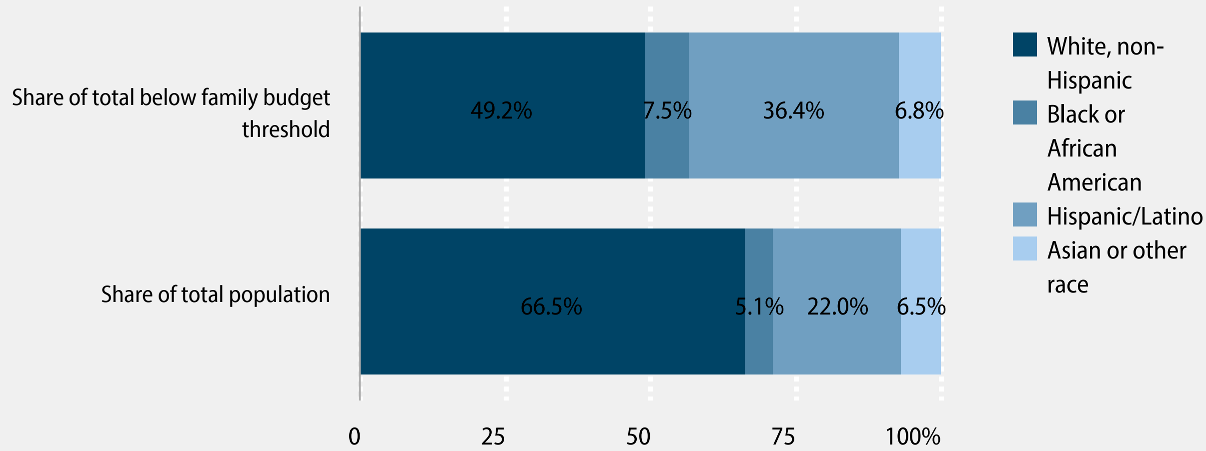
Table 2 also includes information on the place of birth and citizenship of the Denver population and those below the family budget line. As the table shows, immigrants in the Denver region are more likely than native-born persons to be below the family budget threshold, with 59.9 percent of those born outside the United States below the family budget

FIGURE C

Racial/ethnic make-up of Denver population and population below the family budget threshold



Source: EPI analysis of American Community Survey microdata, 2011–2013

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line, compared with 41.0 percent of those born in the United States. Immigrants make up about 12 percent of people in the MSA, and account for about 17 percent of people below the family budget line.

Differences in regional rates of income adequacy also vary by citizenship status. Individuals lacking U.S. citizenship are far more likely to have an income level insufficient to achieve the family budget's modest but secure standard of living. Over 70 percent of non-citizens living in Denver are below the family budget line. Non-citizens make up 7.0 percent of the non-elderly population, yet account for 11.5 percent of those below the family budget threshold.

Whereas Table 2 described the full non-elderly population in the Denver MSA, **Table 3** shows data solely on workers in the Denver MSA. Of the roughly 1.1 million non-elderly people both living and working in the Denver MSA, 338,000 (or roughly 31 percent) are in families with total family incomes below the family budget threshold.[4]

Many of the same patterns observed in the data on the overall population are unchanged when looking solely at workers. For instance, roughly two-thirds of all single-parent workers fall below the family budget threshold; African American and Hispanic workers again have the highest rates of income inadequacy, with 45.7 percent and 57.4 percent of these workers, respectively, below the family budget threshold; and immigrant and non-citizen workers again show significantly higher rates of income inadequacy than their native-born and citizen counterparts.

The shares of each category falling below the family budget threshold decline substantially as the sample is restricted to workers because children and non-working adults, who have lower incomes, are removed from the data. Overall, the share of workers below the family budget threshold is 12.2 percentage points smaller than the share of the total population below the family budget line—a decline of 28.1 percent.

TABLE 3

Demographics of workers living and working in the Denver metro area who are in families below the family budget threshold

Category	Estimated total workforce	Share of the total workforce	Below family budget threshold	Share of category below family budget threshold	Share of total below family budget threshold
Total	**1,083,988**	**100.0%**	**337,585**	**31.1%**	**100.0%**
Sex					
Female	508,773	46.9%	170,588	33.5%	50.5%
Male	575,216	53.1%	166,997	29.0%	49.5%
Family status					
Married parent	308,297	28.4%	99,149	32.2%	29.4%
Married, no children	256,217	23.6%	26,506	10.3%	7.9%
Single parent	103,207	9.5%	68,086	66.0%	20.2%
Single, no children	416,267	38.4%	143,843	34.6%	42.6%
Race/ethnicity					
White	792,140	73.1%	190,045	24.0%	56.3%
Black or African American	48,231	4.4%	22,061	45.7%	6.5%
Hispanic	183,317	16.9%	105,225	57.4%	31.2%
Asian or other race	60,301	5.6%	20,254	33.6%	6.0%
Education					
Less than high school	82,479	7.6%	56,543	68.6%	16.7%
High school	183,149	16.9%	81,818	44.7%	24.2%
Some college	327,7095	30.2%	121,143	37.0%	35.9%
Bachelor's	318,800	29.4%	59,815	18.8%	17.7%
Advanced degree	171,852	15.9%	18,265	10.6%	5.4%
Place of birth					
Outside U.S.	151,967	14.0%	78,478	51.6%	23.2%
U.S. state or territory	932,022	86.0%	259,107	27.8%	76.8%
Citizenship					
Born citizen	946,383	87.3%	262,992	27.8%	77.9%
Naturalized	56,528	5.2%	23,430	41.4%	6.9%
Not U.S. citizen	81,078	7.5%	51,162	63.1%	15.2%

Note: Figures reflect employed persons in non-elderly households who fit one of the 10 available family budget types. See endnote two for details.

Source: EPI analysis of American Community Survey microdata, 2011–2013

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This decline differs somewhat across racial, ethnic, immigrant, and citizenship categories, yet the most notable change—or in fact, relative lack of change—is for non-citizen workers. Looking back to Table 2, 71.4 percent of non-citizens in the Denver area population have family incomes below the family budget threshold. Looking only at non-citizen workers in Table 3, 63.1 percent have total family incomes below the family budget threshold. This decline of 8.3 percentage points—or 11.6 percent—is smaller than the reduction for domestic-born citizens (13.2 percentage points, or 32.3 percent) when children and non-working adults are removed from the sample. It is also a small change compared with the reduction in the population being analyzed; the total non-citizen population is 136,000, while the non-citizen workforce is roughly 81,000, about 40 percent smaller. That rates of income inadequacy fall more sharply for citizens than non-citizens when the sample is restricted to workers suggests that lack of citizenship is a significant barrier to achieving adequate levels of income, even among non-citizens who work.

Conclusion

The EPI family budgets provide a valuable tool for understanding what it actually takes to achieve a modest level of economic security in hundreds of communities throughout the country. Moreover, for policymakers seeking to assess whether labor standards are ensuring that regular employment provides the means to a decent quality of life, the family budget's threshold of a modest but secure standard of living is arguably a more useful target than traditional measures of poverty. Applying the family budget thresholds to Census Bureau data on Denver shows that many—indeed, more than 40 percent—of the region's residents are struggling to achieve economic security. As policymakers in Denver consider measures to raise incomes for area residents, they should be fully aware of just how far many in the community are from this benchmark.

*— The authors thank EPI research assistant **Tanyell Cooke** for her valuable contributions to this report.*

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Endnotes

1. Throughout this brief, the Denver metropolitan area refers to the Denver-Aurora-Lakewood metropolitan statistical area.

2. In this paper, the family budgets are presented in 2014 dollars. However, because the available micro data describe family and individual incomes in 2013, family budget threshold values are deflated to 2013 dollars using the Consumer Price Index for all Urban Consumers (CPI-U) prior to calculating assessments of family and individual income sufficiency in the Denver metropolitan area.

3. The 10 family budget thresholds we generate cover 91 percent of all families and persons in the Denver MSA. We analyze only non-elderly families, defined as families with at least one adult below age 65. Throughout this brief, subfamilies—i.e., families who live in the household of someone else—are treated as separate families, even in cases where the subfamily may be related to the householder. For example, adult children living with their parents or adult siblings living together are treated as separate family units when comparing their income levels with the corresponding family budget thresholds. This is done under the assumption that a secure yet modest standard of living should not require subfamilies to share housing.

4. Once again, these figures exclude workers in families outside the 10 types for which we have family budget thresholds.

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