2008 Economic Policy Institute Family Budgets

Technical Documentation

James Lin and Jared Bernstein

Economic
Policy
Institute

Overview

The Economic Policy Institute (EPI) Family Budgets is a relative measure of economic need that represents the annual family income required to maintain a safe and comfortable, but modest standard of living. Furthermore, family budgets are constructed for six different types of families: 1 and 2 parent families with 1, 2, and 3 children.

Definition of Areas

The 521 distinct urban areas represented in the 2008 EPI Family Budgets include two classifications:

- *Metropolitan Statistical Areas (MSAs).* Defined by the Office of Management and Budget (OMB), MSAs have at least one urbanized area with at least 50,000 inhabitants.

- *HUD Fair Market Rent Areas (HMFAs).* Defined by the Department of Housing and Urban Development (HUD), the designation of HMFA indicates that only a portion of the OMB Core-Based Statistical Area (CBSA) falls in the area in which the Fair Market Rent (FMR) applies. CBSAs, as defined by the OMB, are areas that have at least one urbanized area with more than 10,000 but less than 50,000 inhabitants.

Some MSAs/HMFAs lie in more than one state. For example, the Kansas City MSA lies in both Kansas and Missouri. Thus, in our final list of family budgets, Kansas City appears once in Kansas, and then once again in Missouri. There are 45 such instances of overlap; therefore, the total number of areas presented here is 521 + 45 = 566 total urban areas + 48 rural areas = 614 areas.

All areas that are not classified as either MSAs or HMFAs are considered rural. For the purposes of the 2008 EPI Family Budget, rural areas are presented as one area per state, labeled “Rural”. There are 48 total such areas; neither Rhode Island nor New Jersey contained areas classified as rural.

Budgets do not include Guam, the Virgin Islands, or Puerto Rico, but do include all 50 states and the District of Columbia.

Definition of Family

Since the size of a family dramatically affects the budget needed to maintain a safe and comfortable, but modest standard of living, we construct budgets for six different types of families in each area. These include families with 1 and 2 parents, and 1, 2, and 3 children.

Our definition of 1-parent families assumes that the head of household is employed, lives with his or her children, and files as the head of household for federal income taxes. Our definition of 2-parent families assumes that both partners are employed, live together with their children, and file jointly for federal income taxes.

Families with one child are assumed to have a "young child" (4 years old). Families with two children are assumed to have a "young child" and a "child" (8 years old). Families with three children are assumed to have a "young child", a "child", and a "teenager" (12 years old).

Components of the 2008 EPI Family Budgets

The 2008 EPI Family Budgets consist of seven individual components: rents, food, transportation, child care, health care, taxes, and other items of necessity.

Rents — *Source: U.S. Department of Housing and Urban Development*

Rent calculations use the U.S. Department of Housing and Urban Development (HUD) data on Fair Market Rents (FMRs). Data on FMRs can be accessed through HUD USER, "the primary source for federal government reports and information on housing policy and programs, building technology, economic development, urban planning, and other housing-related topics."[1]

FMRs are rent estimates for "privately owned, decent, and safe rental housing of a modest (nonluxury) nature with suitable amenities"[2]. Furthermore, FMRs are gross rent estimates, and thus include the costs of shelter rent plus utilities such as water, gas, and electricity, but not the cost of telephones, cable or satellite television service, or internet service. For most areas, the FMR represents the 40th percentile of county-level rental market prices—the price at which 40% of rental housing falls below and 60% of rental housing lies above. Due to data limitations, FMRs will represent the 50th percentile of rental market prices in some counties.

Families with 1 or 2 children use the HUD FMR rate for a two-bedroom rental unit. Families with 3 children use the rate for a three-bedroom rental unit. All counties that do not fall under MSAs or HMFAs are considered "Rural", and their rents are the average of rental prices in the state's rural counties, weighted by the Census 2007 projected population in these rural counties.

Food — *Source: Center for Nutrition Policy and Promotion; U.S. Department of Agriculture*

Data for the costs of food are taken from the Center for Nutrition Policy and Promotion (CNPP) publication, "Official USDA Food Plans: Cost of Food at Home at Four Levels". Presented here are the official USDA costs for four types of food plans that serve as

---

[1] Accessing HUD USER can be done at http://www.huduser.org. For more information about HUD USER, refer to http://www.huduser.org/about/pdrabout.html.

[2] Refer to Department of Housing and Urban Development (2008) for more information.

national standards for nutritious diets—the “Thrifty Plan, “Low-Cost Plan”, “Moderate-Cost Plan”, and “Liberal Food Plan”. We use the USDA Low-Cost Plan, which assumes that almost all food is bought at a grocer and then prepared at home.

Families are constructed from data for the following age categories: Male: 20-50, Female: 20-50, Child: 3-5, Child: 6-8, and Child: 9-11. In a 1-parent family, food costs for Female: 20-50 are used.

Starting from September 2007, the USDA changed its age categorizations to Male: 19-50, Female: 19-50, Child: 2-3, and Child: 4-5. The Male: 19-50 and Female: 19-50 categories were used for parents. To maintain consistency in age groups for Child: 3-5, a weighted average was calculated between Child: 2-3 and Child: 4-5.

Since the costs of raw, unprepared foods vary relatively little over geographic areas, and since the data present only nationally-representative costs of raw, unprepared foods, our calculations for costs of food vary only by the size of the family and not by geographical area. Results are adjusted by the CPI *Food at Home* index.

Child care — *Source: Children’s Defense Fund, Economic Policy Institute*
From the 2005 EPI Family Budgets technical documentation (Allegretto et al.):

> Child care costs are calculated for each state, and within each state costs are differentiated between urban and rural areas based on family size. However, for each state only one specific urban and rural area is available. Costs are calculated for 4-year-olds in one-child families, one 4-year-old and one school-age child in two-child families, and one 4-year-old and two school-aged children in three-child families. For the most part, costs are based on “child care centers,” but when necessary, we use costs for “family child care centers”.
>
> Child care costs are based on the Children’s Defense Fund’s 2000 report “The High Cost of Child Care Puts Quality Care out of Reach for Many Families.”[3]
>
> Tables A-2 (child care center costs for urban areas) and A-3 (child care center costs for rural areas) are the preferred tables used in this analysis, but incomplete data in the CDF report makes it necessary to employ other tables from the study as well. When Tables A-2 and A-3 alone are used, there are 11 states and the District of Columbia, or five scenarios total, where child care costs are incomplete.
>
> *Alaska:* There are no data on urban center care for school age children. The average statewide cost for center care for school age children is used instead.
>
> *Colorado and West Virginia:* There are no data on rural center care for school age children. The average state costs for center care for school age children are used instead.

[3] 2000 data were converted into [2007] dollars by using the Bureau of Labor Statistics child care deflator.

Indiana, Mississippi and Rhode Island: There are no data by urban/rural distinction for center care for 4-year-olds or for school age children. The average state costs for 4-year-olds and for school age children are used instead.

Massachusetts, New Jersey, New Mexico and Vermont: There are no data for rural areas for 4-year-olds or for school age children, nor are data on state averages available. Therefore, the urban area costs are used for both urban and rural areas.

District of Columbia and Hawaii: There are no reported child care costs in any table of the CDF report. Therefore, costs are used from EPI's 1999 family budgets and converted to [2007] dollars by using the BLS CPI *Child Care* deflator.[4]

Transportation — *Source: U.S. Department of Transportation-National Household Travel Survey; Internal Revenue Service*

Costs for transportation are taken from the National Household Travel Survey (NHTS), a national-level survey inventorying civilian travel habits. The NHTS breaks down travel habits by five different MSA sizes, as well as for all other areas not considered an MSA (labeled "Rural"), for a total of six different categories. Additionally, we calculate different transportation costs for 1- and 2-parent families.

Our transportation calculations consider only travel for work or non-social purposes—errands, school, or church, etc.—and exclude social purposes, such as for vacations. For a single-parent family, we calculate costs of travel for work and non-social purposes. For a 2-parent family, we calculate costs of travel for work and non-social purposes for the first parent, and then costs of travel for work only for the second parent.

From the NHTS, we calculate the number of miles traveled person per MSA category for work and non-social trips. We use the Internal Revenue Service (IRS) cents-per-mile estimate to calculate the costs incurred in driving. The IRS cents-per-mile estimate, for example, is the standard rate at which employees are reimbursed for travel for work. For 2008, it was $0.505 per mile.

Altogether, using data from the NHTS and the IRS cents-per-mile estimate, we use the following formula to calculate costs of travel for:

- *Single-parent families:* [(% work & non-social trips)/100 * Average miles/month/MSA * (IRS cost/mile)] = Family transportation costs

- *2-parent families:* [(% work & non-social trips 1st adult)/100 * Average miles/month/MSA * (IRS cost/mile)] + [(% work trips 2nd adult)/100 * Average miles/month/MSA*(IRS cost/mile)] = Family transportation costs

Health care — *Source: Current Population Survey-Annual Social and Economic Supplement; U.S. Department of Health and Human Services-Medical Expenditure Panel Survey;* E-Healthinsurance

In calculating health care costs, we recognize that a significant share of families is not provided health care coverage through employer-sponsored plans. We assume that families without employer-sponsored coverage either receive health care coverage from

[4] For more information, see endnotes 12 and 13 in Boushey et al. (2001).

Medicaid or buy into a non-group plan. We estimate the costs of coverage by taking the weighted average of four separate components: 1. the employee share of employer-provided health care premiums, 2. the share of families in non-group health insurance plans, 3. the share of families eligible for Medicaid coverage, and 4. expenses that go to out-of-pocket costs such as co-payments.

Weights used for the final average health care cost for each type of family are derived from the 2007 CPS ASEC. The formulas are as follows:

- *1-parent families:* [0.6513 * Employer-sponsored premium] + [0.0468 * Medicaid] + [0.3018 * Non-group premium] + [Out-of-pocket costs]

- *2-parent families:* [0.6918 * Employer-sponsored premium] + [0.0306 * Medicaid] + [0.2776 * Non-group premium] + [Out-of-pocket costs]

A description of the components are as follows:

- *Employer-sponsored health care premiums.* Employer-sponsored health care premiums are determined by data from the Medical Expenditure Panel Survey (MEPS). These data are for 2005, the latest data year, and is then inflated using the medical care cost inflator (CPI-MC). These data are on the state level, without differentiation between MSA and rural areas. However, an improvement is made on these data over the previous 2005 EPI Family Budget healthcare calculations—for 1P1C families, rather than relying on "Family" data as was done, we use the "Employee+1" data. Generally, premiums for "Employee+1" data are cheaper than "Family" data. We choose this because, presumably, a single parent with one child faced with the choice of an "Employee+1" healthcare plan vs. a "Family" healthcare plan will opt for the cheaper alternative when it exists.

- *Medicaid.* Medicaid incurs no premium to the family and is therefore $0.

- *Non-group premiums.* Data for non-group premiums are primarily gathered from an online health insurance quote website, *E-Healthinsurance*. Quotes are gathered for a prototypical family (refer to the section, “Definition of Family” for more information on the type of family we use to gather quotes), and are generally for plans that satisfy the following assumptions: HMOs/PPOs with a $500 deductible, 20% coinsurance rate, and $15-25 co-payment schedule. There are several exceptions due to the fact that not all states offer non-group plans that satisfy those assumptions. South Dakota for example, offers no plans with a deductible as low as $500; the lowest deductible offered is $1,500.

Given the many choices for non-group plans available, in general we choose plans as if we are ourselves shopping for our own prototypical family. To illustrate this, take a 2-parent, 3-child family in California as an example. California offers several plans with a $500 deductible for a 2P3C family; two of them are the following:

  - *CeltiCare II Select PPO 80/20 Plan, Celtic Insurance:*
    - $500 deductible
    - 20% coinsurance rate
    - $15 co-payment schedule

    - $1,429.22 per month for a 2-parent family with 3 children

- *SmartSense 500 Plan, BlueCross of California:*
    - $500 deductible
    - 30% coinsurance rate
    - $30 co-payment schedule
    - $463.00 per month for a 2-parent family with 3 children

Though the CelticCare plan fits better with our assumptions (PPO, $500, 20%, $15) when compared to the SmartSense plan (PPO, $500, 30%, $30), it seems unlikely that a family faced with these two choices would pay a $1,000 more per month for a plan with slightly lower coinsurance and co-payment rates. This was an example of thinking "in the shoes" of our prototypical family. For 2-parent, 3-child families in the state of California, we use the SmartSense 500 plan for non-group premiums.

- *Out-of-pocket costs.* Out-of-pocket costs are derived from the MEPS. These data are for 2005, the latest data year, and is then inflated using the medical care cost inflator (CPI-MC). These data are not on the state level—it is only on the regional level (Northeast, Mid-West, South, and West). These data are further specified for either urban or rural areas. This breakdown of region and metro status is an improvement over the previous family budgets, since the previous family budgets had only one set of data for each family type, and this set of data was on the national level only.

Taxes — *Source: Citizens for Tax Justice*
From the 2005 EPI Family Budgets technical documentation (Allegretto et al.):

> Citizens for Tax Justice (CTJ) compute the taxes for the tax year [2008]. Taxes include federal personal income taxes, federal Social Security and Medicare payroll taxes (direct worker payments only), and state income taxes, as well as local income or wage taxes. Note that these latter taxes may vary substantially from jurisdiction to jurisdiction within a state. Our figures take account of those variations where significant. For example, in Alabama, only Birmingham has a local wage tax. In contrast, Maryland’s local income tax is similar enough across the state that we used a statewide average (which simplifies our computations).
>
> Sales and property taxes are not included in this section, because sales taxes are included in the cost of other necessities; food is generally not taxed, and property taxes are included in the cost of housing. CTJ calculates taxes based on the after-tax incomes necessary to meet basic needs (i.e., after-tax family budget levels). It calculates the pretax incomes necessary for families to achieve this after-tax income.
>
> The taxpayer family types are married couples with one, two, or three children, filing jointly for federal income taxes and single parents with one, two, or three children filing federally as heads of household. We assume all income is from wages, none of the adults is elderly, all families are renters, and all couples have two wage earners (with one earner making two-thirds of total wages). Included in the output are federal tax credits for children, specifically the earned-income tax credit (refundable), the

per-child tax credit (often refundable) and the dependent-care tax credit (non-refundable). Families with two workers are assumed to have dependent care expenses of $3,000 for one child and $6,000 for two or more children. In those states that have tax credits for children, these are reflected in the state income tax calculations.

A note about metropolitan statistical areas. Many MSAs include areas from two or more states. Families living in the same MSA but in different states will pay different state taxes. In such cases we calculate separate budgets for the parts of the MSA in each state. For example, the Washington, D.C. MSA includes the District of Columbia and portions of Maryland, Virginia, and West Virginia. Therefore, budgets are calculated for the MSA in D.C. and the three states.

Other necessities — *Source: Bureau of Labor Statistics-Consumer Expenditures Survey*
Our calculation of “other necessities" is derived from the Bureau of Labor Statistics (BLS) Consumer Expenditures Survey (CES). We consider other items of necessity as items that do not fall into the aforementioned six categories but are nevertheless necessary for a reasonably safe and comfortable, but modest standard of living. These items include apparel, entertainment, personal care products and services, reading, education, and miscellaneous items.

Using families that earn the bottom 40% of the overall income distribution, "other necessities" is the proportion of costs for these items in relation to the costs of food and housing. In 2006, this was 24.0%. We use this figure to calculate the costs of other items of necessity for each individual family budget.

A note on updated population weights

Two of the seven components in our family budget analysis, rents and transportation, rely extensively on population data. In the previous family budget, population data was drawn from the 2000 Decennial Census. The 2008 Family Budgets are updated to use 2007 Census population estimates.

These data are on the county level, and are identified by a unique Federal Information Processing Standards (FIPS) code. We use FIPS codes to reassign 2006 population estimates to the HUD Fair Market Rent file and all 521 MSAs/HMFAs. Furthermore, we use 2006 population estimates to weight rural county rents. Calculation of rural county rents is discussed in the Rents section. We use the updated population estimates to assign transportation costs by the size of each MSA. Calculation of transportation costs is discussed in the Transportation section.

Updating population weights gives a more accurate reflection of family budgets in several major metropolitan areas, as some areas such as New Orleans, Louisiana have experienced dramatic population shifts since the 2000 Census.

References

Allegretto, S. & Fungard,Y. (2005). Family Budget Technical Documentation. Washington, DC: Economic Policy Institute.

Boushey, H., Brocht, C., Gundersen, B., & Bernstein, J. (2001). *Hardships in America: The Real Story of Working Families*. Washington, DC: Economic Policy Institute.

Carlson, A., Lino, M., Gerrior, S. A., & Basiotis, P. P. (2003). The Low-Cost, Moderate-Cost, and Liberal Food Plans: 2003 Administrative Report. Alexandria, VA: Center for Nutrition Policy and Promotion, U.S. Department of Agriculture.

E-Healthinsurance. (2008). *E-Healthinsurance*. <http://www.ehealthinsurance.com> Accessed March 2008.

Shulman, K. (2000). The High Cost of Child Care Puts Quality Care out of Reach for Many Families. Washington, DC: Children's Defense Fund.

U.S. Census Bureau. (2007). *Population Estimates, 2006*. Washington, DC.

U.S. Department of Health and Human Services. (2005). *Medical Expenditure Panel Survey*. Washington, DC: Agency for Healthcare Research and Quality.

U.S. Department of Housing and Urban Development. (2008). Final Fair Market Rents for Fiscal Year 2008 for the Housing Choice Voucher Program and Moderate Rehabilitation Single Room Occupancy Program. Washington, DC.

U.S. Department of Labor. (2007). *Consumer Expenditure Survey*. Washington, DC: Bureau of Labor Statistics.

U.S. Department of Labor. (2007). *Current Population Survey*. Washington, DC: Bureau of Labor Statistics.

U.S. Department of Transportation, (2001) *National Household Travel Survey*. Washington, DC. Federal Highway Administration.

U.S. Department of the Treasury. (2008). Publication 15-B. Washington, DC: Internal Revenue Service.

The authors would like to thank Sylvia Allegretto, Jin Dai, Lynn Rodgers, Mark Lino, Thomas Moore, Yuki Nakamoto, Greg Harper, and Bob McIntyre for their invaluable support.