
Methodology Appendix: Assumptions and Sources

Massachusetts 2006 Self-Sufficiency Standard

I. Introduction

The Self-Sufficiency Standard measures how much income is needed for a family of a certain composition in a given place to adequately meet their basic needs—without public or private assistance.

The Self-Sufficiency Standard calculates a family-sustaining wage that does not require choosing between basic necessities such as child care, nutritional food, adequate housing, or health care. On the other hand, the Standard is a core measurement excluding longer-term needs such as retirement savings or college tuition, purchases of major items such as a car, emergency expenses, or extras such as gifts, video rentals, or soccer fees.

Economic self-sufficiency cannot necessarily be achieved by wages alone. Public work supports are often necessary, even critical, for some families to meet the costs of high-price necessities such as child care, health care, and housing. Moreover, long-lasting self-sufficiency involves more than a job with a certain wage and benefits at one point in time. Attaining true self-sufficiency often requires access to education, training, and jobs that provide real potential for skill development and career advancement over the long-term.

The Self-Sufficiency Standard, however, does not imply that any family at any income should be completely self-reliant and independent of one another or the community-at-large. Indeed, it is through interdependence among families and community institutions (such as schools or religious institutions), as well as informal networks of friends, extended family, and neighbors that many families are able to meet both their non-economic and economic needs.

II. Federal Poverty Level and the Self-Sufficiency Standard

The Federal Poverty Level, or FPL, was developed over four decades ago and is based on the cost of a single item—food. According to the then-current expenditure patterns, families spent an average of one-

third of their income on food. Thus the basic U.S. Department of Agriculture “thrifty food budget” was multiplied by three to determine the federal poverty level. Although the FPL does vary by family size and is updated annually for inflation, it does not account for family composition, the age of children, or the geographic location of the family. For instance, the annual 2006 FPL for a family of three (either two adults with one child, or one adult with two children) is \$16,600 across the continental U.S.

The Self-Sufficiency Standard differs from the FPL in five important ways:

1. The Standard independently calculates the cost of each basic need (not just food) and does not assume that any single cost will account for a fixed percentage of the budget.
2. The Standard assumes that all adults—married or single—work full-time and includes all major costs (child care, taxes, and so forth) associated with employment.
3. The Standard varies costs not only by family size (as does the FPL), but also by family composition and the ages of children to create a total of 70 family types.
4. Whenever possible and appropriate, the Standard varies costs geographically (by state, region, county, and in some cases, by city or locality).
5. The Standard includes federal, state, and local taxes (e.g., income, payroll, and sales taxes) and tax credits. Federal tax credits include the Earned Income Tax Credit (EITC), Child Care Tax Credit (CCTC), and Child Tax Credit (CTC). When applicable, state tax credits can include a state EITC and/or other credits applicable to low-income families.

To the extent possible, the data used in the Self-Sufficiency Standard are:

- collected or calculated using standardized or equivalent methodology nationwide;

- obtained from scholarly or credible sources such as the U.S. Census Bureau;
- updated annually (or as updates are available); and, as mentioned,
- as geographically- and age-specific as possible and appropriate.

As improved or standardized data sources become available, the methodology used by the Standard is refined accordingly.

II. Monthly Costs

Housing

For housing costs, all Standards use the most recent Fiscal Year Fair Market Rents (FMRs), calculated annually by the U.S. Department of Housing and Urban Development (HUD) for each state's metropolitan and non-metropolitan areas. Annual FMRs are based on data from the 2000 decennial census, the biannual American Housing Survey, and random digit dialing telephone surveys. FMRs, which include utilities (except telephone and cable), are intended to reflect the cost of housing that meets minimum standards of decency. In most cases, FMRs are set at the 40th percentile; meaning 40% of the housing in a given area is less expensive than the FMR. All of Massachusetts' 2006 FMRs are set at the 40th percentile.

The FMRs are calculated for metropolitan areas known as Metropolitan Statistical Areas (MSAs), HUD Metro FMR Areas (HMFAs), and non-metropolitan counties. HMFAs were identified through a 2005 MSA "rebenchmarking" process (and a revised definition of an MSA) causing over 300 counties nationwide to be removed from or added to metropolitan areas, or else moved to another metropolitan area. In Massachusetts, HUD's rebenchmarking resulted in a name change, movement from one MSA to another, or a change in the MSA/HMFA designation for 42 of Massachusetts' 351 towns.

HUD identifies 17 metropolitan FMRs and 2 non-metropolitan counties in Massachusetts (a total 14 counties). For this report, the MSAs/HMFAs and two counties are divided into 33 Regions.

For two Massachusetts HMFAs, which include multiple counties, the Standard uses National Low Income Housing Coalition (NLIHC) county level median gross rents to create ratios to vary the FMRs within the HMFA. The Boston-Cambridge-Quincy,

MA-NH HMFA FMRs are varied for Essex, Middlesex, Norfolk, Plymouth, and Suffolk counties, and the Springfield, MA, HMFA FMRs are varied for Franklin, Hampden, and Hampshire counties. For the other regions in Massachusetts, the Standard uses the 2006 Fair Market Rents without adjustments.

The Standard assumes that parents and children do not share the same bedroom and no more than two children share a bedroom.

Sources: Housing

- U.S. Housing and Urban Development. Fair Market Rents for the Section 8 Housing Assistance Payments Program. Retrieved from <http://www.huduser.org/datasets/fmr/fmrover.doc>
- National Archives and Records Administration. Federal Register, Volume 70, No. 105, June 2, 2005. Department of Housing and Urban Development – Proposed Fair Market Rents for Fiscal Year 2006 for Housing Choice Voucher, Moderate Rehabilitation Single Room Occupancy and Certain Other HUD Programs; Notice. Retrieved from http://www.huduser.org/datasets/fmr/fmr2006P/Preamble_FY06_FMRP.pdf
- Federal Register. Department of Housing and Urban Development. June 2, 2005. Retrieved from http://www.huduser.org/datasets/fmr/fmr2006P/Preamble_FY06_FMRP.pdf
- National Low Income Housing Coalition. Excerpts from Federal Register: August 6, 2004 (Vol. 69, No. 15). Retrieved from <http://www.nlihc.org/2005fmrs/explanation.htm>
- National Low Income Housing Coalition. Median Gross Rent by County, 2000. Retrieved from <http://www.nlihc.org/research/lalihd/renterreport.pdf>
- Federal Register. Effective October 1, 2005. Schedule B: FY 2006 Final Fair Market Rents for Existing Housing. Retrieved from http://www.huduser.org/datasets/fmr/fmr2006F/FY2006F_SCHEDULE_B.doc

Child Care

Since a basic assumption for calculation of the Standard is that it provides the costs of meeting needs *without* public or private subsidies, free or unpaid child care provided by relatives and friends or any other private subsidies are not considered when choosing appropriate child care settings.

The Family Support Act, in effect from 1988 until welfare reform in 1996, required states to provide child care assistance at market-rate for low-income families in employment and/or education and training. States were also required to conduct cost surveys biannually to determine the market-rate (defined as the 75th percentile) by setting, age, and geographical location or set a statewide rate. Many states, including Massachusetts, have continued to conduct or commission the surveys as well as reimburse child care at this level. Data for the 2006 Self-Sufficiency Standard for Massachusetts is from the 75th percentile of the most recent child care market rate survey, completed in 2002 and effective in 2003.

The (licensed facilities) *family* care rates were used for the Standard's definition of an "infant" (defined as 0 to 3 years old by the Standard and under 2 years of age by Massachusetts Office of Child Care Services). Massachusetts' *center* care rates were used for preschoolers (defined as 3 to 5 years of age by the Standard and as 34 months to age-eligible to enter 1st grade by the Massachusetts Office of Child Care Services). The *schoolage* rates from the "before and after school" category were used for schoolage children (defined as 6 to 13 years of age by the Standard and age-eligible to enter 1st grade to 12 years of age by the Massachusetts Office of Child Care Services). Child care market survey rates were inflated to 2006 using the Consumer Price Index.

Child care rates, divided into six Massachusetts Executive Office of Health and Human Services (EOHHS) regions, are correlated with 32 of the 33 Self-Sufficiency Standard Regions. Therefore, "unweighted" child care rates were applied to these 32 Regions. All the towns in the Self-Sufficiency Region 14, Eastern Worcester County, are in EOHHS child care Region 2, except Southborough, which is in EOHHS Region 4, thus population (by city) weighted average of child care rates were created for Region 14.

Sources: Child Care

- Capizzano, J., Adams, G. & Sonenstein, F. (2000). *Child Care arrangements for child under five: Variation across states. New federalism: National Survey of America's Families*. (Series B, No. B-7). Washington DC: The Urban Institute.
- Urban Institute. 1999 National Survey of America's Families. Retrieved from http://www.urban.org/UploadedPDF/anf_b7.pdf
- Almanac of Policy Issues. Child Care. Retrieved from http://www.policyalmanac.org/social_welfare/archive/child_care.shtml
- 2002 Child Care Market Rate Study for the Massachusetts Office of Child Care Services (effective 2003).
- U.S. Bureau of Labor Statistics. Consumer Price Index. September 2005. Retrieved from <http://www.bls.gov/cpi/home.htm>

Food Costs

Food costs for the Standard are based on the U.S. Department of Agriculture (USDA) Low-Cost Food Plan. Although it is about 25% higher than the Thrifty Food Plan, the Low-Cost Food Plan is based on more realistic assumptions about food preparation time and consumption patterns, while still being a very conservative estimate of food costs. For instance, the Low-Cost Food Plan does not allow for any take-out, fast-food, or restaurant meals.

The Standard varies food costs by the number and ages of children and the number and gender of adults. The Standard assumes that a single-*person* household is one adult male, the single-*parent* household is one adult female, and a two-parent household is assumed to include one adult male and one adult female.

Geographic differences in Massachusetts' grocery costs were varied by using ACCRA's Cost of Living Index for grocery costs. Overall food costs range from 3% lower to 25% higher than the national average.

Sources: Food

- U.S. Department of Agriculture, Center for Nutrition Policy and Promotion. Official USDA Food Plans: Cost of food at home at four levels, U.S. Average, June 2006. Retrieved from <http://www.usda.gov/cnpp/FoodPlans/Updates/foodjun06.pdf>
- ACCRA. Cost of Living Index. 2004, First, Second, Third and Fourth Quarter average. Available at <http://www.accra.org/>

Public Transportation

Public transportation use is assumed for an entire statistical area when more than 7% of the population in that area uses public transportation; private transportation (a car) is assumed where public transportation use is less than 7%.

The percent of public transportation usage was determined using the Census Transportation Planning Package. If more than half of a Region's population has a public transportation usage of over 7%, public transportation costs are used. In Massachusetts, five of the 33 Regions are assumed to have public transportation (all in the Boston-Cambridge-Quincy MA-NH HMFA).

The cost of public transportation is calculated using the Massachusetts Bay Transportation Authority Combo Pass (unlimited travel on all rapid transit service and all local bus service).

Private Transportation

Private transportation costs are based on the costs of owning and operating an average sized car. One car is assumed for the single-parent family and two cars are assumed for a family with two adults. It is understood that the car(s) will be used to commute to and from work five days per week, plus one trip per week for shopping and errands. In addition, one parent in each household with young children is assumed to have a slightly longer weekday trip to allow for "linking" trips to a day care site. For per-mile costs, driving cost data from the American Automobile Association is used. The commuting distance is computed from the most recent national data available, the National Household Travel Survey 2001.

The auto insurance premium is the average premium cost for a given state from a survey conducted by the National Association of Insurance Commissioners (NAIC). To create within state variation (regional or county) in auto insurance premiums, generally ratios are created using sample premiums from up to five automobile insurance companies with the largest market shares in the state. However, the Automobile Insurers Bureau of Massachusetts publishes private passenger auto insurance rates for 27 transportation territories. Therefore this data was used to create population-weighted auto insurance ratios, which were then applied to the 27 Self-Sufficiency Regions with private transportation.

The fixed costs of car ownership such as fire, theft, property damage and liability insurance, license, registration, taxes, repairs, monthly payments, and finance charges are included. The monthly variable costs (e.g., gas, oil, tires, and maintenance) are also included, but the initial cost of purchasing a car is not. To estimate private transportation fixed costs, the

Standard uses Consumer Expenditure Survey amounts for families with incomes between the 20th and 40th percentile by national geographic region.

Auto insurance premiums and fixed auto costs are adjusted for inflation using the most recent and area-specific Consumer Price Index.

Sources: Public and Private Transportation

- Porter, C. & Deakin, E. (1995). *Socioeconomic and journey-to-work data: A compendium for the 35 largest U.S. metropolitan areas*. Berkeley, CA: Institute of Urban and Regional Development, University of California.
- Massachusetts Bay Transportation Authority. Retrieved from http://www.mbta.com/traveling_t/passes_typespassesfares.asp#monthlycombopass
- Census Transportation Planning Package (CTPP) 2000: Profiles for Massachusetts. Retrieved from <http://ctpp.transportation.org/home/ma.htm>
- American Automobile Association. *Your Driving Costs 2005*. Retrieved from http://www.aaawin.com/news_safety/pdf/Driving_Costs_2005.pdf
- U.S. Department of Transportation. *National Household Travel Survey 2001*. Retrieved from <http://nhts.orl.gov/2001/index.shtml>
- Fixed Auto Costs: Calculated and adjusted for region using Bureau of Labor Statistics on-line data query for the Consumer Expenditure Survey at <http://www.bls.gov/data/>
- Automobile Insurers Bureau of Massachusetts 2006 Private Passenger Automobile Insurance Rates. Retrieved from <http://www.aib.org>

Health Care

Health care costs consist of the cost of health insurance plus out-of-pocket costs. The Standard assumes that an integral part of a Self-Sufficiency Wage is *employer-sponsored* health insurance for workers and their families. Nationally, 70% of non-elderly individuals in households with at least one full-time worker have employer-sponsored health insurance coverage. In Massachusetts, 77% of non-elderly individuals in households with at least one full-time worker have employer-sponsored health insurance coverage. Nationally, employees pay an average of 18% of the total insurance premium for coverage for themselves, and 24% of the total insurance premium

for family coverage, with the employer paying the rest of the amount. In Massachusetts, the full-time worker pays an average of 21% of the insurance premium for individual coverage and 26% of the total premium for family coverage, with the employer paying the balance.

Health care premiums for a single adult and for a family are obtained from The Henry J. Kaiser Foundation. The Kaiser Foundation bases the cost of health insurance premiums on the average premium paid by a state's residents, according to the national Medical Expenditure Panel Survey (MEPS) and adjusted for inflation using the Medical Care Services Consumer Price Index. To vary health insurance premiums for each of the 33 Self-Sufficiency Regions, a ratio was created from rates supplied by Blue Cross Blue Shield of Massachusetts for seven health insurance regions and applied to the average statewide health insurance premium.

Health costs also include regional out-of-pocket costs calculated for adults, infants, preschoolers, schoolage children, and teenagers. Data for out-of-pocket health care costs (by age) are also obtained from the MEPS, adjusted by region using the MEPS Household Component Analytical Tool, and adjusted for inflation using the Medical Care Consumer Price Index.

Sources: Health Care

- Kaiser Family Foundation. State Health Facts Online. Health Coverage and Uninsured. Massachusetts: Employer-Sponsored Coverage Rates for the Nonelderly by Family Work Status, states (2003-2004), U.S. (2004). Retrieved from <http://www.statehealthfacts.org>
- U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index – All Urban Consumers, U.S. City Average. Medical Care Services (for premiums) and Medical Services (for out-of-pocket costs). Retrieved from <http://www.bls.gov/cpi/home.htm>
- Kaiser Family Foundation. State Health Facts Online. Health Cost and Budgets. Massachusetts: Average Single Premium per Enrolled Employee For Employer-Based Health Insurance, 2004 and Massachusetts: Average Family Premium per Enrolled Employee For Employer-Based Health Insurance, 2004. Retrieved from <http://www.statehealthfacts.org/>
- Agency for Healthcare Research and Quality. Household Component Analytical Tool (MEPSnet/

HC). August 2003. Rockville, MD. Retrieved from <http://www.meps.ahrq.gov/mepsnet/HC/MEPSnetHC.asp>

- Blue Cross Blue Shield of Massachusetts. HMO Blue Direct – Standard Monthly Rates.

Miscellaneous Costs

Miscellaneous items include all other essentials: clothing, shoes, paper products, diapers, nonprescription medicines, cleaning products, household items, personal hygiene items, and telephone. It does not make allowances for recreation, entertainment, savings, or debt repayment. Miscellaneous expenses are calculated by taking 10% of all other costs. This percentage is a conservative estimate in comparison to estimates in other basic needs budgets, which commonly use 15%.

Source: Miscellaneous

- Citro, C. & Michael, R. Eds. (1995). *Measuring poverty: A new approach*. Washington, DC: National Academy Press. Retrieved from <http://www.census.gov/hhes/poverty/povmeas/toc.html>

IV. Taxes and Tax Credits

Taxes

Taxes include federal and state income tax, payroll taxes, and state and municipal sales tax where applicable. Federal payroll taxes for Social Security and Medicare are calculated at 7.65% of each dollar earned. Although the federal income tax rate is higher than the payroll tax rate, federal exemptions and deductions are substantial. As a result, while payroll tax is paid on every dollar earned, most families will not owe federal income tax on the first \$10,000 to \$15,000 or more, thus lowering the effective federal tax rate to about 7% for some family types.

State sales taxes are calculated only on “miscellaneous” items, as one does not ordinarily pay tax on rent, child care, and so forth. Indirect taxes (e.g., property taxes paid by the landlord on housing) are assumed to be included in the price of housing passed on by the landlord to the tenant. Taxes on gasoline and automobiles are included as a cost of owning and running a car.

Massachusetts has a statewide sales tax of 5% and a state personal income tax of 5.3%. There is no state payroll tax or grocery, food, or clothing tax in Massachusetts.

Sources: Taxes

- Internal Revenue Service. 1040 Instructions 2005. Available at <http://www.irs.gov/pub/irs-pdf/f1040a.pdf>
- Massachusetts Department of Revenue. A Guide to Sale and Use Tax. Retrieved from http://www.dor.state.ma.us/Publ/PDFS/sales_use06.pdf
- Massachusetts Department of Revenue. Guide to Taxes: Personal Income Tax. Retrieved from http://www.dor.state.ma.us/help/guides/abate_amend/Personal/issues/RatesTax.htm
- Internal Revenue Service. Tax Law Changes for Individuals, 2006. Retrieved from http://www.irs.gov/formspubs/article/0,,id=109876,00.html#exempt_2006
- Internal Revenue Service. 2006 Federal Tax Rate Schedules. Retrieved from <http://www.irs.gov/formspubs/article/0,,id=150856,00.html>

Tax Credits

The Earned Income Tax Credit (EITC), or as it is also called, the Earned Income Credit, is a federal tax refund intended to offset the loss of income from payroll taxes owed by low-income families with earned income. The EITC is a “refundable” tax credit, meaning working adults may receive the tax credit whether or not they owe any federal taxes.

Although by law an eligible family can receive part of the federal EITC on a monthly basis (Advance EITC), many workers prefer to receive it annually, as it is difficult to estimate the amount of EITC eligibility due to fluctuating hours and wages. In addition, some workers prefer to use EITC as “forced savings” to meet important family needs, such as paying the security deposit for housing, or starting a savings account. Thus, nearly all families receive the federal EITC as a lump sum payment the following year when they file their tax returns, even though the Standard shows the EITC as income available *monthly*.

Massachusetts has a refundable state EITC, which is 15% of the federal EITC.

The Child Care Tax Credit (CCTC), now called the Child and Dependent Care Tax Credit, is a federal tax credit that allows working parents to deduct a percentage of their child care costs from the federal income taxes they owe. Like the EITC, the CCTC is deducted from the total amount of money a family

needs to be self-sufficient. Unlike the EITC, the federal CCTC is *not* a refundable federal tax credit; that is, a family may only receive the CCTC as a credit against federal income taxes owed. Therefore, families who owe very little or nothing in federal income taxes will receive little or no CCTC. In 2006, up to \$3,000 was deductible for one qualifying child and up to \$6,000 for two or more qualifying children.

The Child Tax Credit (CTC) is like the EITC in that it is a refundable federal tax credit. In 2006, the CTC provides parents with a deduction of \$1,000 for each child under 17 years old, or 15% of earned income over \$11,300; whichever is less. For the Standard, the CTC is shown as received monthly.

Sources: Tax Credits

- Internal Revenue Service. EITC for Individuals. Retrieved from <http://www.irs.gov/individuals/article/0,id=150557,00.html>
- Romich, J. L. & Weisner, T. (2000). *How families view and use the EITC: The case for lump-sum delivery*. Paper delivered at Northwestern University, Joint Center for Poverty Research.
- Internal Revenue Service. Publication 503. Child and Dependent Care Expenses. 2005. Retrieved from <http://www.irs.gov/pub/irs-pdf/p503.pdf>
- Internal Revenue Service. Publication 972. Child Tax Credit. 2005. Retrieved from <http://www.irs.gov/pub/irs-pdf/p972.pdf>
- Internal Revenue Service. Publication 17 (2005). Your Federal Income Tax For Individuals. Retrieved from <http://www.irs.gov/publications/p17/index.html>
- Internal Revenue Service. Tax Law Changes for Individuals, 2006. Retrieved from http://www.irs.gov/formspubs/article/0,,id=109876,00.html#exempt_2006
- Internal Revenue Service. Tax Changes for Individuals, 2006. Retrieved from <http://www.irs.gov/publications/p553/ch01.html>
- Internal Revenue Service. 1040A. 2005. Retrieved from <http://www.irs.gov/pub/irs-pdf/i1040a.pdf>
- Tax Credit Resources.org. Massachusetts Earned Income Credit. Retrieved from <http://www.taxcreditsources.org>