

Estimating Poverty Thresholds in San Francisco: An SPM-Style Approach

Lucas Manfield, Stanford University
Christopher Wimer, Stanford University

Working Paper 11-3
<http://inequality.com>

July 2011



The Center for the Study of Poverty and Inequality is a program of the Institute for Research in the Social Sciences (IRISS). Support from the Elfenworks Foundation gratefully acknowledged.

Estimating Poverty Thresholds in San Francisco: An SPM-Style Approach

Lucas Manfield and Christopher Wimer
Stanford University
July, 2011

The federal government began measuring poverty in the 1960s. Knowing that in those days families spent a third of their income on food, the poverty “line” – or threshold - was set at three times the cost of the economy food plan published by the U.S. Department of Agriculture. We know that families’ budgets nowadays look much different, but for nearly half a century this method for measuring poverty has remained unchanged (aside for updates for inflation). In 2009, however, the Office of Management and Budget created an Interagency Technical Working Group (ITWG) to consider the creation of a new complementary poverty measure. The result was the Supplemental Poverty Measure (SPM), a proposal that, like most other attempts at reworking the poverty measure, is grounded primarily in the recommendations a 1995 report published by the National Academy of Sciences (NAS), *Measuring Poverty: A New Approach* (Citro and Michael 1995). The development of the SPM is a significant step forward for measuring poverty, but it is just the beginning. The details of the measure’s implementation have ignited significant debate among policy-makers, researchers, and the public regarding how best to improve the measure.

The task of measuring poverty can typically be divided into two parts. The first is the creation of a poverty threshold – a representation of the amount of resources necessary to achieve some minimum level of welfare. The second part is to then estimate families’ resources to ascertain their ability to meet that the expenses embodied in that threshold. This paper documents the first step - the creation of a series of poverty thresholds - for the City of San Francisco.¹

¹ Ideally, at the local-level, each city may want to develop not one but two “SPM-style” measures, which for convenience we would dub the “valid measure” and the “comparable measure.” The valid measure would use the most rigorous methods

The thresholds calculated in this paper are based off of the most recently published national-level SPM thresholds, which as of this writing are for 2008. Based on the recommendations made in the 1995 NAS report and the body of research that followed, these thresholds include food, clothing, shelter and utilities (FCSU), with an additional 1.2 multiplier to account for other necessities. The SPM thresholds are based on the 33rd percentile of expenditures by families with two children (the so-called “reference family”) and are derived by the BLS from five years of consumer expenditure (CE) data. The threshold for the reference family is typically adjusted for other family types using what is called an “equivalence scale.” For alternative poverty measures, the Census Bureau typically uses a three-parameter equivalence scale developed by the economist David Betson, and we adopt that method for this report.

For local poverty measures, such as the San Francisco Poverty Count that we seek to create, the next step in creating accurate thresholds is performing a “geographic adjustment” that captures the relative costs of the components of the poverty threshold in San Francisco vs. those costs in the nation as a whole. The official poverty measure makes no distinction across geographic areas: the poverty line is the same in San Francisco as it is in rural Mississippi.

So how should poverty thresholds in San Francisco be adjusted? Until quite recently, the best available thinking at the Census Bureau was to use what was

and data available for that city, state, or other geographic unit, even if that method or data could not be applied universally to all other similar locations across the country. So, for example, if New York City is able to better capture the effects of rent control by using locally available data, this would be built into the “valid measure.” But another “comparable measure” could still be developed for New York City that uses the same measures and data available nationwide, such that there was a universal and comparable system of local poverty measures across the country. As we proceed with our work in San Francisco, we intend to also develop a second measure that mimics as closely as possible the decisions made in the Census’ actual SPM measure, as that becomes available in the Fall of 2011 and beyond.

called a “triple index.” That is, researchers would create not one threshold for everyone but three thresholds depending on a family’s housing arrangement. Housing arrangements would be divided into three groups: renters, owners with a mortgage, and owners without a mortgage. Each threshold would then be adjusted by the relative housing costs of that group. So for renters, we would adjust for the relative costs of renting in San Francisco versus renting in the nation as a whole. For owners with a mortgage, we would adjust for the relative costs of owning with a mortgage in San Francisco versus owning with a mortgage in the nation as a whole (and so forth).

Recently, however, this approach has been abandoned in favor of what is called a “rental only index.” Under this approach, only the adjustment factor for renters would be used, and would be applied to all three housing groups. So, for example, if the SPM thresholds for the three groups were \$20,000, \$25,000, and \$30,000 for owners without mortgages, renters, and owners with mortgages, respectively, each would be inflated (or deflated) by the relative costs of *renting* in a specific locale versus the nation as a whole. This approach was adopted in response to a problem identified with the triple index at an April, 2011 meeting at the Brookings Institution (Renwick, personal communication). Essentially, the problem identified was related to the question of geographic comparability of mortgage expenditures. Mortgage expenditures depend on many factors, such as the length and terms of the typical mortgage in that area that do not reflect the true costs of buying a new home in that area. For this reason, the “owners with mortgages” component of the triple index was deemed too potentially problematic, and instead the renters component of that index was deemed a sufficiently good proxy for the increased (or decreased) costs of buying a new home in a given area. Less clear is why this adjustment factor is also a good proxy for the relative costs of owning *without* a mortgage, but presumably the thought was that the renters adjustment

was the best available piece of data with which to account for *anyone's* relative costs in a given area.²

A second problem is that in areas such as San Francisco, mortgage costs are significantly greater than rental costs. People who pay the extra cost of owning a home in San Francisco, therefore, are probably paying for a long term investment in the amenities of a home that do not reflect cost of living in the city (a point suggested by Arloc Sherman at the Center for Budget and Policy Priorities). The fact that mortgage costs are significantly higher than rental costs in San Francisco is a signal that the costs of home ownership may not be an accurate reflection of the costs of necessity that you would want to be reflected in a poverty threshold.

For these reasons, we have elected to use a “dual index” for San Francisco. The dual index includes one threshold for both families that rent and families that pay a mortgage, and another threshold for families that own their home free and clear. We base the first threshold off housing expenditures for families that rent. So our approach differs from current thinking on the SPM in two ways: 1) we abandon the rental only inflator for owners without mortgages, and 2) apply a threshold based on renters to owners who are paying a mortgage. In theory, this means that our approach assumes the income needed to get by if you own your home with a mortgage is the same as the income needed to get by if you were to rent. Taken further, this means that the costs of finding adequate shelter in an area are determined by the costs faced by renters. Since the rental market is arguably the best barometer of current housing market costs, we believe this to be a reasonable assumption. In practice the difference in dollar value of the baseline mortgage and renter thresholds is negligible (though of course 10 or 20 years down the road this may no longer be true). For owners *without* mortgages, we believe that for San

² One could argue, for instance, that when one owns a home without a mortgage one has access to the “implicit rents” embodied in what that home would rent for if the owner put that home on the rental market. And, therefore, that the relevant adjustment factor in that case would therefore be the renters’ adjustment.

Francisco it is inappropriate to use either a rental-based baseline threshold or a rental-only inflator. These families' shelter costs are simply lower than other people's, and those reduced costs should be reflected in lower baseline poverty thresholds (indeed, current SPM thinking agrees with this line of thought). But the *relative* costs of owning without a mortgage are also much lower in San Francisco than they are for renters or mortgage holders. The relative costs of owning without a mortgage in San Francisco are only 8% higher than in the nation as a whole, whereas the relative costs of renting in San Francisco are fully 94% higher than in the nation as a whole. Thus, if we were to apply the rental-only inflator to this group, as current SPM thinking advises, we believe we would be erroneously inflating the actual shelter costs faced by this group in San Francisco.

To calculate our final thresholds, the shelter and utilities portion of each SPM threshold (49.4% of the renter threshold and 41.5% of the owner without a mortgage threshold) is inflated by the difference in housing costs between San Francisco and the nation as a whole (for households with two or three bedrooms that contain kitchens and bathrooms). We use 5-year data on housing costs from the American Community Survey. For the renter/mortgage threshold, we use median gross rents. For the non-mortgage threshold, we use median monthly ownership costs that include insurance, utilities, and taxes.

Table 1 below shows the results of this analysis for the construction of poverty thresholds in the city of San Francisco. We show what the poverty threshold would be for each housing status group in five areas: 1) nationally, using the official federal poverty line; 2) nationally, using the most recent SPM thresholds that we have seen produced; 3) in New York City, from the work published by its Center for Economic Opportunity (note, in NYC a different approach is used, in which a housing status adjustment is made to income to account for the advantages of owning without a mortgage); 4) in the state of Wisconsin, from work published by the Institute for Poverty Research; and 5) in San Francisco, based on our calculations.

As can be seen, our “SPM-style” thresholds for San Francisco are considerably higher for renters and mortgage-holding owners than all other thresholds produced in other areas, even the thresholds produced for New York City. We suspect this is because New York City is a larger, more heterogeneously-priced city than is San Francisco, and that you would not find this to be the case if you compared San Francisco, say, to only Manhattan. Nevertheless, these SPM-style thresholds reveal that the cost of getting by is considerably higher in San Francisco than it is under assumptions embodied in the official poverty statistic.

Thresholds:	Renter	Mortgage	No Mortgage
Poverty Line	\$21,834	\$21,834	\$21,834
National SPM	\$24,880	\$25,522	\$20,426
NYC CEO	\$29,634	\$29,634	\$29,634
Wisconsin	\$25,312	\$24,821	\$19,169
San Francisco	\$36,433	\$36,433	\$21,104

	Renter/Mortgage	No Mortgage
National SPM Threshold	\$24,880	\$20,426
Shelter+Utilities Portion	\$12,291	\$8,477
SF Housing Cost Inflator	1.94	1.08
SF Threshold	\$36,433	\$21,104