The California Poverty Measure: Advances in Measuring Poverty for Immigrant Populations.

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Introduction

The California Poverty Measure (CPM), jointly produced by the Public Policy Institute of California (PPIC) and the Stanford Center on Poverty and Inequality, is a new research effort to measure economic disadvantage across and within California. It follows in the spirit of the research Supplemental Poverty Measure (SPM) now released each year by the U.S. Census Bureau and produced in a number of states, but adapts the methodology to account for California-specific population and policy factors. In this paper, we assess poverty for California's large immigrant population – and in particular, the undocumented population totaling roughly 2.6 million individuals—under this new measure. In particular, we ask: How does the picture of poverty change under the CPM when we account for the presence of unauthorized immigrants? Given the difficulty in identifying unauthorized immigrants in large-scale surveys, we examine a number of alternative methodologies and assumptions, and assess the sensitivity of poverty outcomes. Further, building on efforts in the CPM and SPM, we address the impact of safety net program eligibility and participation – both actual and hypothetical -- on poverty rates among immigrants and immigrant subgroups. Creating a methodology to rigorously measure poverty among undocumented immigrants in California is critical to understanding poverty in the state, given the large share of the population that is foreign born. But these methods may also inform SPM-style research efforts more broadly.

Both the CPM and the SPM¹ build upon the official poverty measure (OPM) in three important ways: 1) In determining poverty thresholds, a wider range of consumer expenditures is included, and housing costs are adjusted geographically; 2) Non-cash and post-tax transfers, including the Supplemental Nutrition Assistance Program (called "CalFresh" in California) and the Earned Income Tax Credit (EITC), are counted as income; and 3) Non-discretionary expenses, such as medical out-of-pocket costs, child care costs, and work related expenses (including transportation), are subtracted from income before determining an individual's poverty status.

The CPM improves upon the SPM by adjusting for the underreporting of safety net benefits in Census data, accounting for the large, undocumented immigrant population and considering other California-specific nuances. The CPM thus stands as an important achievement for measuring the level, and eventually the trend, of poverty in California, the largest state in the country, and one of the most diverse. As such, the CPM efforts provide unique opportunities to study and extend alternative methodologies for measuring poverty.

¹ For relevant publications on the CPM see: Bohn, Danielson, Levin, Mattingly and Wimer (2013) and Wimer, Mattingly, Levin, Danielson, and Bohn (2013). For related SPM work for the U.S. see Short (2012) and Citro and Michael (1995). For related SPM-style work in other states, see Isaas et al (2011) and Levitan (2011).

Estimates from the CPM suggest 22.0% of Californians are in poverty, and an even higher rate — 29.9% -- of immigrants are poor. Preliminary estimates from our work to-date suggest that as many as 43.5% of unauthorized immigrants in the state may be poor. At the national level, Passel and Cohn (2009) find that, nationally, the poverty rate among unauthorized adults exceeds that of legal immigrants and U.S. born adults by 8 to 11 percentage points (21% compared to 13 and 10, respectively). It is clear that immigrant populations, and in particular unauthorized immigrants, face extreme levels of poverty. This paper will probe the preliminary poverty estimates for California further and examine the role the government programs already play — or could play, under reasonable assumptions — in altering the picture of poverty for this group.

Methods

California is home to an estimated 2.8 million unauthorized immigrants as of 2011 (Hoefer, Rytina, and Baker, 2012), more than any other state. Furthermore, the share of the state population that is unauthorized is higher than in almost any other state (at about 7 percent), except Nevada (Passel and Cohn 2009). It is thus critically important to address unauthorized ineligibility for safety net benefits while estimating a robust CPM. We develop a methodology for excluding likely unauthorized immigrants from the calculation of benefits in the SNAP, TANF, and EITC programs.

Unauthorized immigrants are not eligible for most federal and state safety net programs due to their legal status. However, unauthorized immigrant families earn less, on average, than the native-born and are twice as likely to fall below federal poverty thresholds (Passel and Cohn, 2009). Erroneously assigning SNAP or Earned Income Tax Credit (EITC) benefits, for example, to unauthorized immigrants could result in underestimates of their poverty rate under the CPM (or SPM) approach.. Our paper will thus explore various scenarios for identifying the undocumented population in the ACS, and what this does to resultant poverty rates, both overall and for different groups.

The first step in this paper is to identify unauthorized immigrants in California. To date, our approach for the CPM has been to probabilistically assign immigrant status to individuals in survey data. We plan to test and refine this approach in the current study. The CPM relies primarily on the American Community Survey for information on family income, program participation, and demographics. However, neither the ACS – nor any other representative survey – provides direct information on unauthorized immigrant status. Furthermore, there is also no source of reliable data on the number of unauthorized immigrants within California's regions by demographic subgroups of interest. Hill and Johnson (2011) provide county and zip code level estimates of the population, and Passel and Cohn (2009) provide national demographic distributions, but no source provides these jointly.

To overcome this problem, we develop an algorithm to identify likely unauthorized immigrants in the ACS and use that information to adjust major safety net program participation and benefit amounts assigned to California's families. In this paper, we will test this methodology at

each step of the process, with the goal of bounding the impact of each decision on broader conclusions about poverty.

First, we develop a procedure to assign legal status to individuals in the ACS, based on the methods in Passel and Cohn (2009). That work uses the residual method to estimate unauthorized population totals and then uses a wide variety of individual characteristics, probabilistic methods, and other approaches to assign specific legal status in the Current Population Survey. Note, their specific methods are proprietary. Therefore, we adapt the general strategy to the ACS and the California context. Our assignment procedure follows four broad steps: (1) identify all noncitizen immigrants in the ACS, (2) exclude those with a very high likelihood of being authorized via widespread amnesty and visa programs, (3) exclude those likely to be authorized by marriage, (4) from the remaining pool of "potentially unauthorized," probabilistically assign estimates at the county level to match Hill and Johnson's (2011) estimates. The sensitivity of each component of this algorithm will be tested.

Second, we utilize rules in major anti-poverty programs to adjust eligibility of households with one or more unauthorized members, as assigned our algorithm. This includes SNAP, TANF, the EITC, and housing subsidies. We will test various assumptions in defining eligibility in these areas. For example, we can test two extremes – no households with unauthorized members participate in these programs and households with unauthorized members participate at the same level as similarly eligible U.S.-born only households. We examine the resulting impact on estimated poverty rates under the CPM methodology. First we will test the sensitivity of the CPM overall, as well as the rate for the immigrant population alone, to the assumptions described above.

A key contribution of SPM-style poverty measures is to evaluate the impact of safety net program resources and non-discretionary expenses on poverty. Our CPM work to date reveals the role of safety net programs in lowering poverty rates, especially among children, in California (see Bohn et al., 2013a and Wimer et al., 2013). For example, absent CalFresh, the states SNAP program, child poverty rates would be 4.1 percentage points higher. Because of eligibility limitations and low participation rates described above, it is presumed that these programs have less impact on observed poverty rates among immigrant groups in the state. We will estimate the effect of safety net resources on poverty rates for immigrants in California and then extend this work to model hypothetical changes in program participation for the immigrant population. For example, how would poverty rates change if unauthorized immigrants were eligible (or participated at a higher rate) for SNAP? How would poverty rates change if unauthorized immigrants who arrived as children (e.g., DACA-eligible) could receive SNAP? Or if undocumented immigrants were all granted legal status?

Preliminary Estimates

To date, we have carried out a preliminary algorithm to identify unauthorized immigrants in California and have adjusted safety net program resources accordingly. Following the Passel and Cohn (2009) method, we identify 3.4 million potentially unauthorized immigrants in California in the 2011 ACS based on self-reported socioeconomic characteristics. This

represents an overcount of 500,000 (or 20%) compared to the best estimates of the actual unauthorized population in the state (Hoefer et al, 2012). We then randomly assign unauthorized status to the pool of 3.4 million (weighted) ACS respondents, conditional on the county-level distribution of unauthorized immigrants as estimated in Hill and Johnson (2011). The resulting pool of unauthorized immigrants in California matches what (admittedly little) we know about the unauthorized population on demographic characteristics. Our procedure yields a likely unauthorized population that matches outside estimates with respect to education, age, labor force participation and birthplace characteristics.

As described above, we next adjust assignment procedures for safety net program resources to account for ineligibility of unauthorized immigrants. These adjustments are described in further detail in Bohn, Danielson, Levin, Mattingly, and Wimer (2013a). Ultimately, we find that 29.9% of immigrants are in poverty and an even higher rate – 43.5% -- of unauthorized immigrants in California are. These estimates reflect our first-best research decisions on identifying immigrants and correctly measuring their resources. One goal of this paper is to probe these decisions to bound the sensitivity of our estimates to other possible scenarios.

The sensitivity of these estimates to the modeling choices is yet unclear. Preliminary analysis for estimates of the EITC program indicate that correcting the tax filing status of likely unauthorized Californians leads to poverty rates about 0.5 percentage points higher. This is because a naïve tax model would assume eligibility for the EITC and assign receipt incorrectly, lifting some Californians, who did not likely receive an EITC, above the poverty line. Similar estimates will be completed for the SNAP and TANF programs. Each will be examined in light of alternative assumptions and relevant hypothetical eligibility or participation rules. It remains to be seen just how much immigrants – and in particular unauthorized immigrants – benefit from program income, as well as how this changes the picture of poverty in California (and by extension most likely other areas of the country with large immigrant populations).

References:

- Bohn, Sarah, Caroline Danielson, Matthew Levin, Marybeth Mattingly, and Christopher Wimer. 2013. "The California Poverty Measure: A New Look at the Safety Net", Public Policy Institute of California.
- Citro, Constance F., and Robert T. Michael, eds. 1995. *Measuring Poverty: A New Approach*. Committee on National Statistics Commission on Behavioral and Social Sciences and Education, National Research Council. Washington, DC: National Academy Press.
- Hill, Laura, and Hans Johnson. 2011. *Unauthorized Immigrants in California: Estimates for Counties*. San Francisco: Public Policy Institute of California. Available at http://www.ppic.org.
- Hoefer, Michael, Nancy Rytina, and Bryan Baker. 2012. *Estimates of the Unauthorized Immigrant Population Residing in the United States: 2011.* Washington D.C.: Office of Immigration Statistics.
- Passel, Jeffrey, and D'Vera Cohn. 2009. "A Portrait of Unauthorized Immigrants in the United States." Washington, DC: Pew Hispanic Center.
- Short, Kathleen. 2012. "The Research Supplemental Poverty Measure: 2011." Current Population Reports, Washington, D.C.: United States Census Bureau, 60-244.
- Christopher Wimer, Marybeth Mattingly, Matthew Levin, Caroline Danielson, and Bohn, Sarah. 2013. "The California Poverty Measure: A Portrait of Poverty Within California Counties and Demographic Groups", Stanford Center on Poverty and Inequality.