Measuring Income Instability Tip Sheet

This tip sheet emerged in response to questions posed during the Income Instability Data Training webinar hosted by the National Research Center on Hispanic Children and Families on February 2, 2016, including questions regarding some of the technical approaches described in the webinar presentation. For more information, also see the two recently released research briefs on this topic: Income Instability in the Lives of Hispanic Children and Low and Stable Income: Comparisons Among Hispanic Children, From 2004 Through the Period Following the Great Recession.

Measuring Average Monthly Income

Average monthly income is a variable computed by the Census Bureau by combining the pre-tax real income of each member of the household. This measure includes earned income, cash transfer payments (i.e., assistance based on income eligibility but not the cash equivalent of programs such as food stamps), lump-sum and one-time payments, regular salary or other income from self-owned business, property income, and any interest and dividend income. We only use income reported for the month of the interview to reduce recall error and minimize issues of seam bias.

Calculating the Number of Income Shocks

We measure income shocks as changes in monthly income of 33 percent or more between the first month of Wave X and the first month of Wave X+1 for each wave included in the analysis. Negative (and positive) income shocks are comparably measured as reductions (or increases) in monthly income.

Calculating the Coefficient of Variation

There are resources online and in most statistics books on calculating the CV. We specifically calculate the ratio of the household's standard deviation of monthly income in Wave X to the household's mean monthly income in the same Wave using the current month of reporting. A higher value indicates more income instability. Zero indicates the same monthly income is observed for each month (no within-year month-to-month income instability).

Calculating Arc Percent Change (APC)

Calculate the average difference in income between two time points relative to the mean value across the two times points.

Calculating Arc Percent Change (APC) with incomes of $0

Stata Code:

```
forvalues w=2/9 {
        local p=`w'-1
        gen apc`p'=100*(inc`w'-
        inc`p')/((inc`w'+inc`p')/2) replace apc`p'=0 if
        inc`w'==0 & inc`p'==0 replace apc`p'=. if
        inc`w'==. | inc`p'==.
}
```

This should create apc1-apc8. When inc=zero in both waves, we can set APC=0

Using pre- or post-tax earnings

The SIPP asks, and we assume people report, pre-tax earnings. There are follow-up questions to respondents to clarify whether they are reporting pre or post tax.

Income from undocumented families

It is not possible to definitively identify undocumented families in natural surveys like the SIPP (it is possible to infer or arrive at rough estimates). One consideration is the extent to which undocumented individuals agree to participate or respond to national surveys.

Resource for researchers working with SIPP data to look at Hispanic families (e.g., sharing code, troubleshooting, discussing data issues)

Please contact the National Research Center on Hispanic Children and Families with any questions about working with the SIPP data set and we can try to address your questions, to the extent possible.