Lab Exercise #2: Time in the CPS

Learning goals

- Create an index variable with long data to indicate the number of times an individual is observed in the CPS in a single calendar year
- Understand the strengths and limitations of an MISH-based variable versus an index-based variable to measure the number of times an individual is observed in a single calendar year

Summary

In this exercise, use 2017 basic monthly data to construct a variable that indicates how many times an individual appears in the CPS in 2017. Then use the IPUMS CPS variable MISH as an alternate measure for how many times an individual appears in the CPS in 2017. Compare and contrast your variables that indicate how many times an individual appears in the CPS in 2017. The only variables you need to include in your extract are YEAR, MONTH, MISH, and CPSIDP.

Hint: See the Stata syntax guide for a command that looks across an individual's observations and counts observations or finds the maximum value of a variable.

1. First using MISH, and then using the index-based time variable you constructed, how many people appeared in the 2017 CPS for a maximum of the following number of times? Fill in Table 1.

   Hint: Be sure to avoid double counting observations.

Table 1

Maximum Number of Times in CPS	MISH	Your Time Variable
One		
Two		
Three		
Four		
Five		
Six		
Seven		
Eight		

2. How many of the respondents in the 2017 CPS have a maximum observation value in the second half of the 4-8-4 rotation (i.e., MISH 5-8)?

   _____

3. What are the limitations of MISH as a variable for counting the number of times an individual is in the CPS in a given year (e.g., 2017)?

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   _____
   _____

4. What is the advantage of creating your own time variable rather than using MISH to count the number of times an individual appears in a single calendar year of the CPS?

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   _____
   _____

1. First using MISH, and then using the index-based time variable you constructed, how many people appeared in the 2017 CPS for a maximum of the following number of times? Fill in Table 1.

Table 1

Maximum Number of Times in CPS	MISH	Your Time Variable
One	21,438	67,540
Two	22,392	65,352
Three	25,083	78,385
Four	150,840	274,202
Five	22,161	0
Six	22,786	0
Seven	24,743	0
Eight	196,036	0

2. How many of the respondents in the 2017 CPS have a maximum observation value in the second half of the 4-8-4 rotation (i.e., MISH 5-8)? 265,726
3. What are the limitations of MISH as a variable for counting the number of times an individual is in the CPS in a given year (e.g., 2017)?
   For individuals who started the CPS in 2016, the value of MISH in 2017 is not an accurate reflection of how many times they have been in the CPS during 2017.
4. What is the advantage of creating your own time variable rather than using MISH to count the number of times an individual appears in a single calendar year of the CPS?
   Creating a time variable as opposed to using MISH provides a dataset-centric count of the number of times an individual appears in the data as opposed to the household's place in the CPS rotation pattern.