



# Lab Exercise #5: Linking ASEC to Basic Monthly Across Two Years (With Linking Validation)

## Learning Goals

- Combine supplement variables from two different time points
- Link combined supplement data to the next year
- Validate links using demographic variables

## Summary

In this exercise, we will expand on our work in *exercise 3 on linking the 2014 Food Security supplement to the 2015 ASEC* to examine how the relationship between food security and the child tax credit changes across two years. You may wish to reference IPUMS CPS RoPES to learn what months can be linked and what fraction of respondents can be expected to link between these months forward in time.

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Exercises

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1. What additional samples can we add to our linked sample from *exercise 3* to study how the relationship between food security and receipt of child tax credit money changes across time for individuals?

*Hint: Think about when the respondents from lab exercise 3 enter the second half of the rotation.*

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Revise your extract to include these samples.

2. How many individuals in the linked file experienced a decrease in household food security between 2014 and 2015? (Don't forget to validate!) \_\_\_\_\_
3. Label each observation on the timeline with the month-in-sample value, and identify the reference period for the child tax and the reference period for the food security questions.



4. Of those who experienced a decrease in food security, how many saw an increase in the amount of child tax credit received? \_\_\_\_\_
5. Would we be able to create a similar linked data set combining information from the Un(der)banked supplement and the ASEC? Why or why not?

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Answers

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1. What additional samples can we add to our linked sample from *exercise 3* to study how the relationship between food security and receipt of child tax credit money changes across time for individuals?

We can leverage the 4-8-4 rotation pattern of the CPS and include the 2015 Food Security supplement and the 2016 ASEC in our file, giving us two observations of both food security status and child tax credit receipts. We will have food security observations from respondents' month-in-sample 1 and 5 and CTC observations from respondents' MIS 4 and 8.

2. How many individuals in the linked file experienced a decrease in household food security between 2014 and 2015? (Don't forget to validate!) 521
3. Label each observation on the timeline with the month-in-sample value, and identify the reference period for the child tax and the reference period for the food security questions. Both the food security question from December 2014 and the CTC question in the 2015 ASEC reference the calendar year of 2014. Similarly, the food security question from December 2015 and the CTC question in the 2016 ASEC both reference the calendar year of 2015.
4. Of those who experienced a decrease in food security, how many saw an increase in the amount of child tax credit received? 19
5. Would we be able to create a similar linked data set combining information from the Un(der)banked supplement and the ASEC? Why or why not?  
No. While the ASEC is fielded every year, the un(der)banked supplement is fielded only every other year in June. Thus, those who are in the ASEC in month-in-sample 1 and receive the un(der)banked supplement in month-in-sample 4 will be included in the ASEC again in month-in-sample 5, but will be given the fertility supplement in month-in-sample 8.

