Locating and Evaluating Sample Movers in the 2014 SIPP Panel

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Survey of Income and Program Participation (SIPP)

- Longitudinal survey that collects detailed, monthly data on:
 - Demographics
 - Employment, earnings, and income
 - Participation in government assistance programs
 - Interactions between these topics over time
- 2014 SIPP Panel
 - Extended the time between waves from four months to one year
 - Addition of an Event History Calendar
 - Supplemental CATI interview for the Social Security Administration (SSA)



SIPP Movers

- Locating movers is always a challenge for longitudinal surveys
- Why are movers important?
 - Value of longitudinal data
 - Movers are likely to differ from other survey respondents
 - Impact on data quality
- Longer gap between waves in 2014 Panel increases the importance of efficiently locating respondents





Locating Experiments

- Regional offices use a variety of strategies to locate movers (respondent contact information, Fast Data, USPS, internet)
- HQ wanted a standard way to help SIPP interviewers and regional offices find movers
- Experimented with two ways of locating movers during 2014 Panel field tests in 2011 and 2012:
 - Mover cards (address updates from respondents)
 - National Change of Address (NCOA) database
- Result: NCOA database provided valuable address information with fewer cost/quality concerns than the address update cards



2014 Panel Locating Operations

Pre-interview

- Gather a set of up-to-date address databases
- Extract the potential addresses associated with SIPP respondents and distribute them to interviewers/regional offices prior to interviewing
- Interviewers use strategies to locate movers during data collection period
- Post-interview
 - Evaluate the usefulness of each resource
 - Use the results of these evaluations to guide future locating activities





2014 Panel Locating Operations, cont'd

• Wave 2

- Sources: NCOA, SSA Supplement, commercial database
- Provided potential addresses to regional offices prior to interviewing

• Wave 3

- Sources: NCOA and a commercial database (different from Wave 2), which includes both addresses and phone numbers
- Developed a potential address tab within interviewers' case management system
- Loaded the potential addresses and phone numbers into case management



Potential Address Tab

Assig	nment	HH R	oster	Additional Information	🖌 Notes	Contacts	Letter Mgn	nt
History		Contact History		Returning Contact History	Bldg Mgmt		Potential Address	
Cont	Control Number: 0360901US1319990101100 Assignment Period: 2016/02 Case ID: 00000001							
Bad	Date	Source	Phone	Line Nbr Notes		1	Address	^
	02/10/15 09:00 AM	HQ		001,002			110 OCEAN VIEW	ANY TOWN.
	02/09/15 09:00 AM	HQ		001,002		1	109 OCEAN VIEW	ANY TOWN
	02/08/15 09:00 AM	HQ		001,002		1	108 OCEAN VIEW	ANY TOWN
	02/07/15 09:00 AM	HQ		001,002		1	107 OCEAN VIEW	ANY TOWN
	02/06/15 09:00 AM	HQ		001,002		1	106 OCEAN VIEW	ANY TOWN
Add Edit								

Ready





Locating Evaluations

- How many mover addresses were found in at least one database?
- Were the matches unique, or present in multiple databases?
- Which file(s) produced the highest number of address matches?
- Which files are most viable moving forward?





Wave 2 Evaluations: SIPP Mover File

- Entire households or individuals who moved away from their Wave 1 address
- 3,542 Wave 2 mover addresses
- Fields included on file:
 - SIPP Record IDs
 - Geographic information (urban/rural identifiers, coordinates, etc.)
 - Wave 2 address fields (house number, street name, zip, city, state)
- Address based file each Record ID denotes a separate residence



Wave 2 Evaluations: Address Files

File	Source	Relevance of Data	Number of SIPP Cases
NCOA	United States Postal Service	Past 18 months	1,854 (addresses)
SSA	Census Bureau	Fall 2014	1,341 (addresses)
Commercial Data	Private sector database provider	All associated addresses	6,378 (people)



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Wave 2 Evaluations: Methodology

- Remove potential addresses without a house number and street name entry
- Merge SIPP mover file with potential address file
- Search for address matches using two sets of criteria (upper and lower bounds for number of likely matches)
- Less restrictive matching criteria (upper bound)
 - House number
 - Zip code OR city & state
- More restrictive matching criteria (lower bound)
 - House number
 - Street name
 - Zip code
 - City & state





Wave 2 Evaluations: Methodology, cont'd

- Match criteria were applied to the merged datasets to create subsets of address matches
- SIPP house number = Address file house number
- Street names
 - Used a SAS function to compare the names and score them based on their similarity
 - Counted street names as a match if they fell below a certain score
- SIPP zip code = Address file zip code
- City names compared using SAS function
- SIPP State = Address File State (two-letter code)





Wave 2 Evaluations: Address Matches

	Number of	More Restrictive Matching		Less Restrictive Matching		
File	Linked Records	Number of	Percent of	Number of	Percent of	
		Matches	Linked Records	Matches	Linked Records	
NCOA	1,283	782	61	911	71	
SSA	708	291	41	467	66	
Commercial Data	1,153	279	24	349	31	





Wave 2 Evaluations: Distribution of Unique Matches

Frequency of	More Restric	tive Matching	Less Restrictive Matching		
Address Match	Number of Percent of		Number of	Percent of	
	Matches	Matches	Matches	Matches	
Total	1,027	100	1,254	100	
One	750	73	860	69	
NCOA	514	50	537	43	
SSA	133	13	207	17	
Commercial Data	103	10	116	9	
Тwo	229	22	315	25	
Three	48	5	79	6	





Wave 2 Evaluations: Conclusions

- Between 29-35% of the 3,542 mover addresses were in at least one of the three potential address files
- NCOA database was the most complete, linked to the most SIPP movers, and produced the highest number of address matches
- Although the SSA data were recent, missing and incomplete information likely contributed to the low number of address matches
- Little added value from the second potential address field in the commercial data file



Wave 2 Evaluations: Conclusions, cont'd

- High quality, complete address information is key to successfully locating movers
- Some files were more sensitive to the matching criteria than others. When shifting from the less restrictive matching to the more restrictive matching, the number of matches fell by:
 - 38% for SSA
 - 20% for the commercial data (both address fields combined)
 - 14% for NCOA
- Potential addresses are a useful locating tool, but our interviewers still have a lot of work to do



Future Locating Operations

- Additional Wave 2 evaluations
 - Low number of links between SSA file and mover file
 - Dealing with varying sensitivity of databases to matching criteria
- Wave 3 evaluations
 - Addresses (NCOA and commercial data), phone numbers (commercial data)
 - Significantly more potential addresses than in Wave 2
 - Tracking Wave 3 interview outcome codes of Wave 2 movers
- Choosing sources for Wave 4 and beyond
- Other valuable fields to include in potential address tab





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