

Survey Errors in Reports of Move Month

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Motivation for study

- Surveys ask respondents to recall events
- U.S. censuses ask respondents to recall where they lived on Census Day, April 1
- Some census evaluation interviews may occur 11 months after April 1
- Assumption: respondents who move around April 1 are able to give correct answers
- Recall errors may cause respondents to be enumerated at the wrong location

Literature on Event Recall

- Much research on respondent recall and several models of survey response process
Cannell et al. (1981), Sudman et al. (1996)
- Telescoping may be backward or forward
Rubin & Baddeley (1989), Huttenlocher et al. (1990); Janssen et al. (2006)
- Wording of questions may aid recall
Prohaska et al. (1998), Tourangeau et al. (2000)
- Use of move date as anchor may aid recall
Wagenaar (1986), Belli et al. (2008)
- Limited research on error in recalling move dates
Auriat (1993)

Source of sample of movers

- U.S. Postal Service National Change of Address database
 - Name of person making request
 - Current address where mail delivered
 - Destination address where mail will be forwarded
 - Date to start forwarding mail
 - Indicator of whether a Family move or an Individual move

Recall Bias Survey (RBS) asked move months

- US Census Bureau conducted RBS as research project during 2010 Census (Census Day: April 1)
 - Questionnaire very similar to one used in evaluations

Linse, Pape, Rosenberger, Contreras (2012)
- Sample of addresses selected from NCOA file
 - Requests submitted in March & April 2010
 - Linked to commercial database to get telephone number



Recall Bias Survey (RBS) implementation

- Questions about moves:
 - Did HH member move in 2010?
 - If yes, asked for addresses and dates of all moves
- 3 waves of telephone interviews: 4,500 each
 - June: 2 to 3 months after Census Day, RR 69%
 - Sept: 5 to 6 months after Census Day, RR 66%
 - Feb: 10 to 11 months after Census Day, RR 63%

Research strategy

- Assume NCOA record is “truth”
- Compare each RBS response to NCOA record to be sure household has same person and mentions same address
- Investigate error in reports of moves and move month
 - Logistic regression models
 - Multinomial analysis

Limitations

- NCOA undercoverage: Many movers do not file a request
- NCOA overcoverage: Some requests do not represent a move
- Movers may forward mail to one address but move to another
- Only 20% of addresses link to a telephone number

Data for analysis

- 8,937 respondents combining 3 waves
- 3,424 were **same person** as NCOA record
 - Address matched NCOA forwarding address
 - HH member matched NCOA name
- Of those, 1,740 were **same event** as NCOA
 - Reported move to NCOA forwarding address
 - Reported date of that move

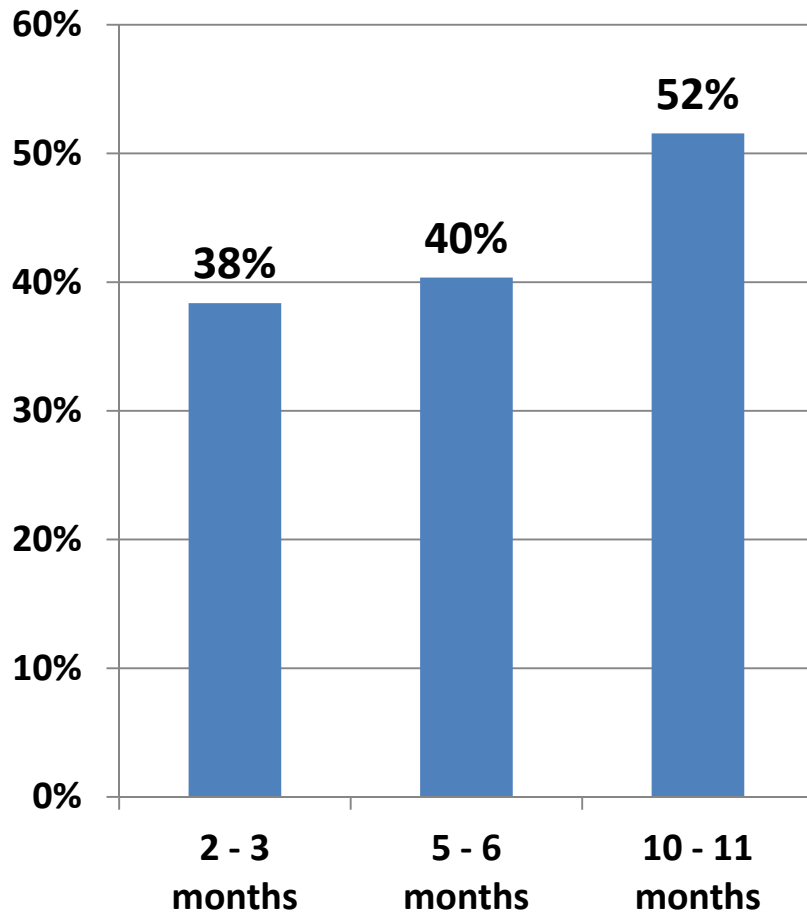
Logistic regression models

- Variables studied
 - RBS reported a move
 - RBS reported move month agreed with NCOA
 - RBS reported move month indicated a Census Day address that agreed with NCOA
- Models found association with
 - Length of time since move
 - Move-HH type
 - 1-person HH, Family move, Individual move

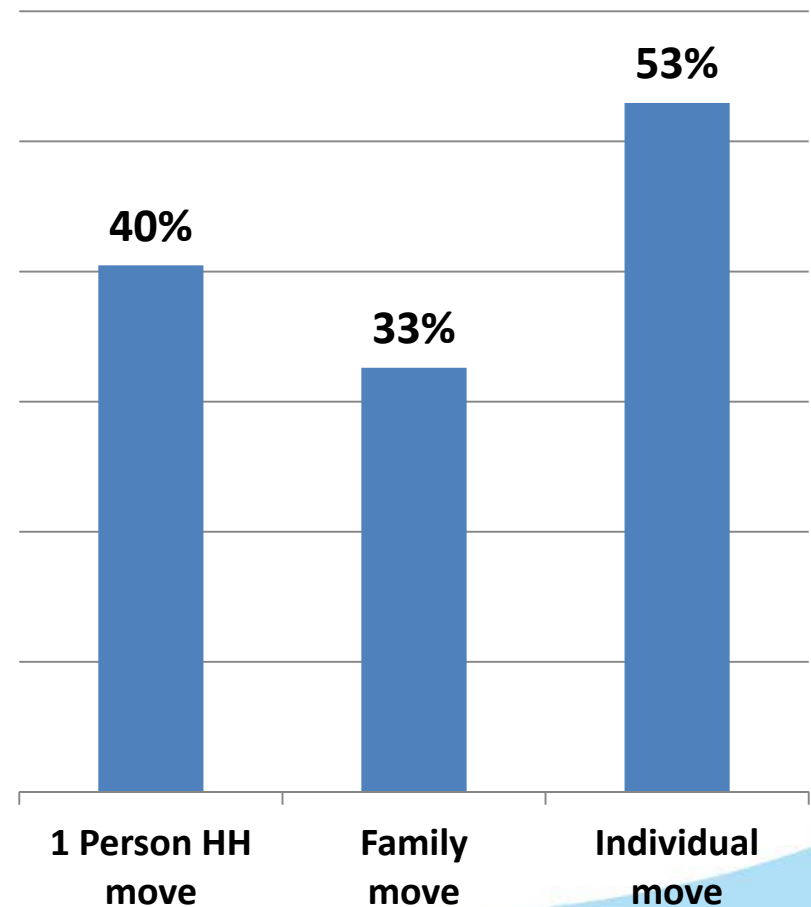
Error rate in reports of a move

(% of NCOA moves not reported)

by time since move



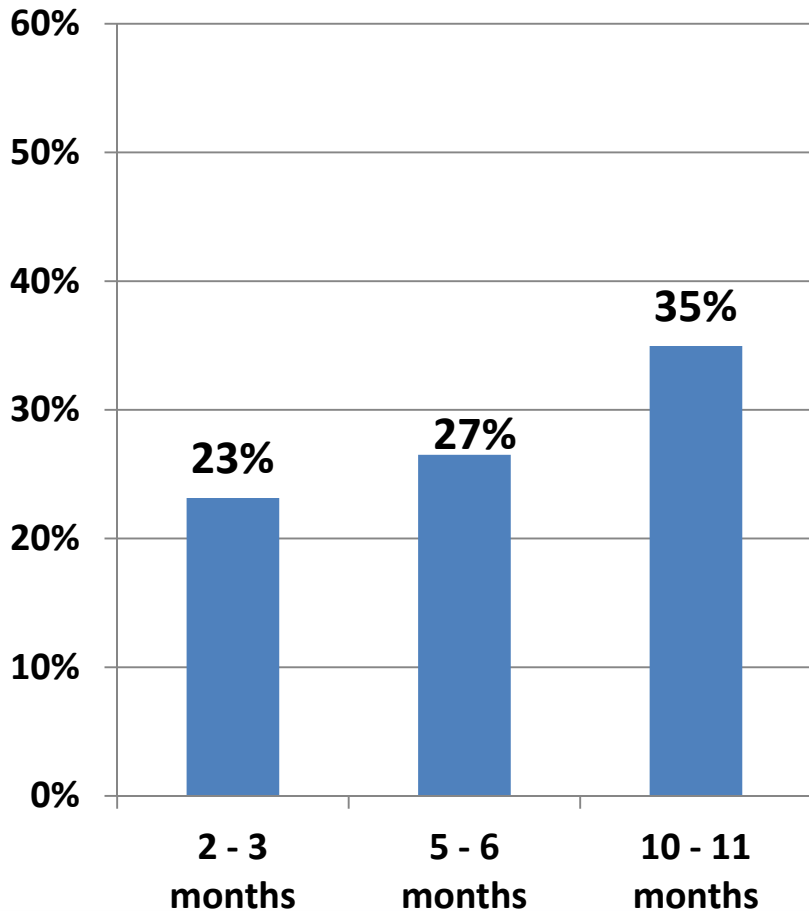
by HH-move type



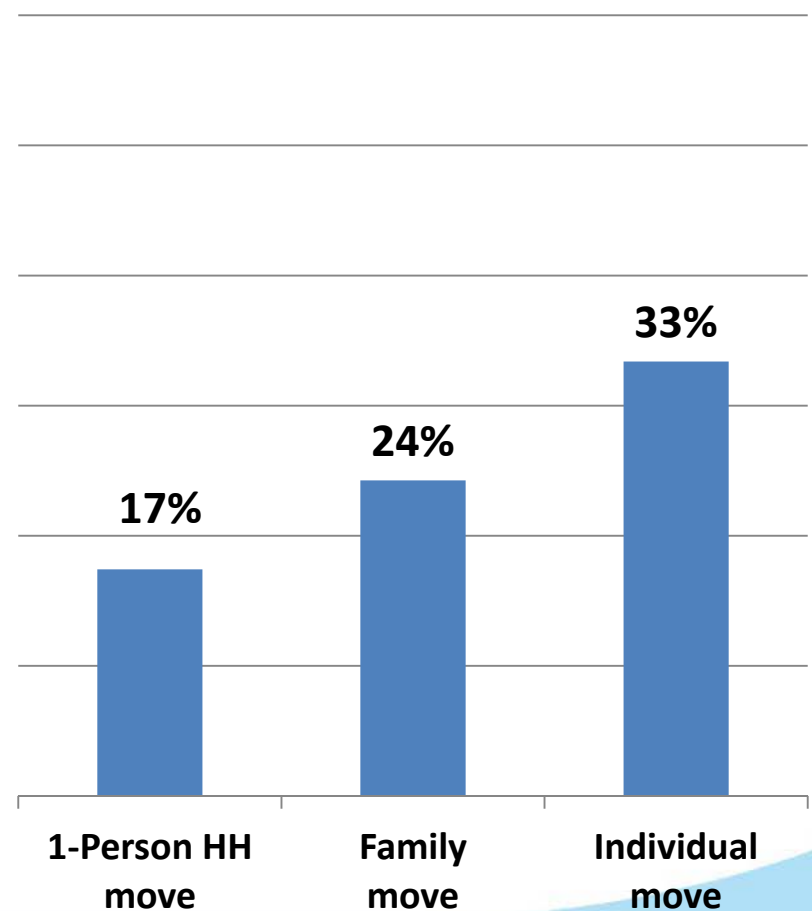
Error rate in reports of move month

(% with reported move month disagreeing with NCOA)

by time since move

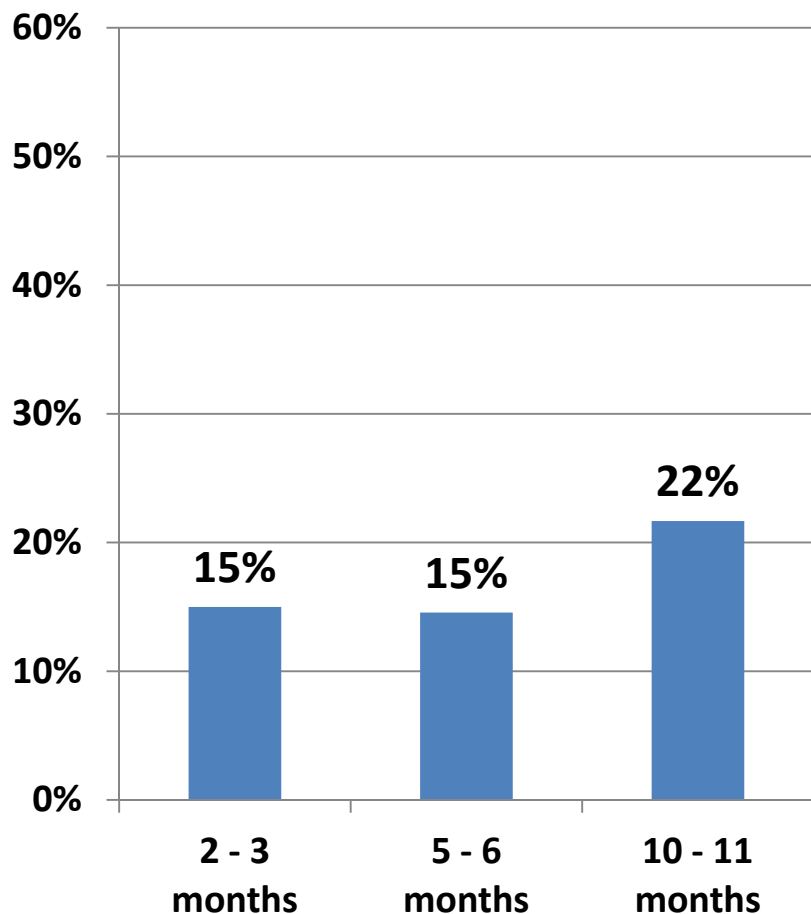


by HH-move type

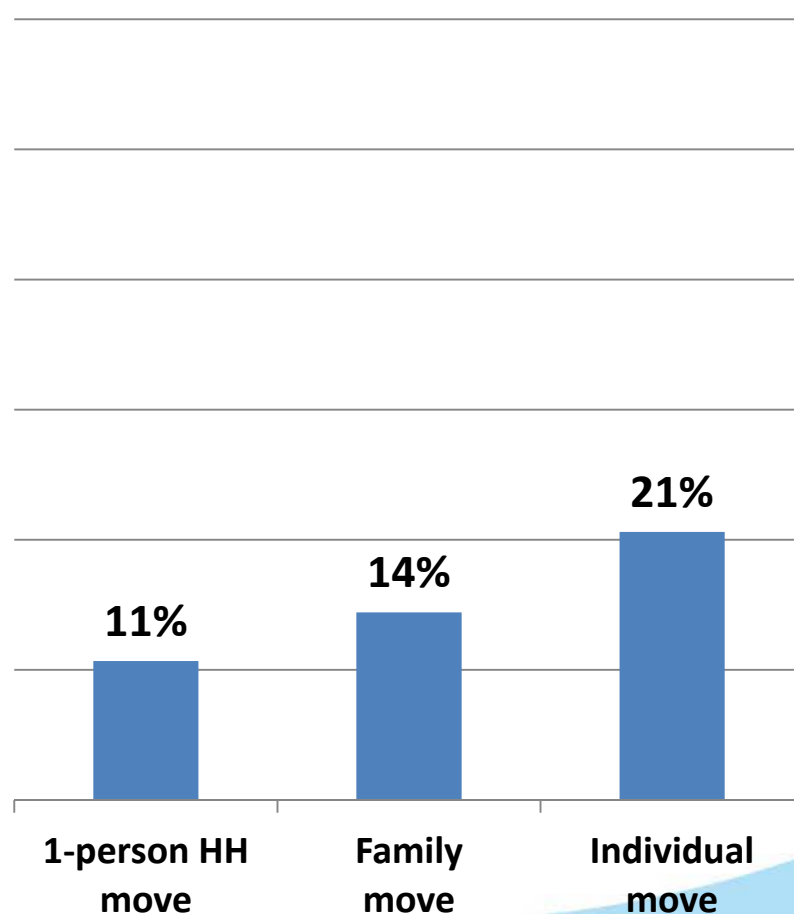


Error rate in reported Census Day residence (% with reported CD residence disagreeing with NCOA)

by time since move



by HH-move type



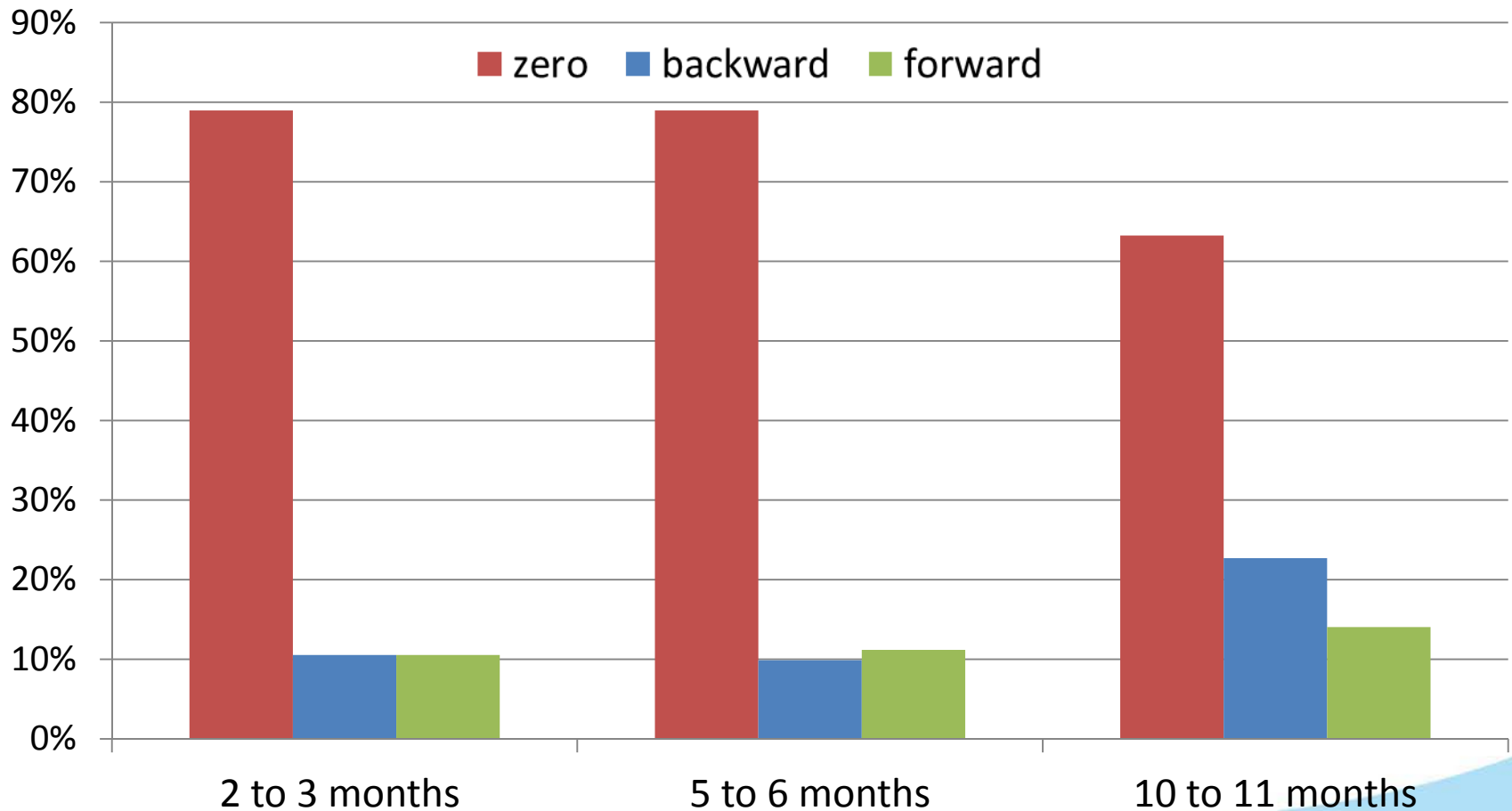
Effect of variables

- Reports given 10 to 11 months after move had highest error rates for all variables
 - No difference for reports between 2 to 3 months and 5 to 6 months after move
- Reports about moves by an Individual in HH had highest error rates for all variables
 - Fewer reports of moves
 - More error in reports of move month
 - More error in reported Census Day residence

Multinomial analysis

- Direction of net effect of error in RBS reports move month
 - Zero
 - Errors offset, equally earlier and later than NCOA
 - Backward telescoping
 - More errors tend to be earlier than NCOA
 - Forward telescoping
 - More errors to be later than NCOA
- Data: self-responses

Direction of error in self-reports of move month



Direction of error

- Self-responses
 - Backward telescoping occurred 10 to 11 months after a move, but not at 2 to 3 months or 5 to 6 months afterwards
 - Differ from Janssen et al. (2006) about when backward telescoping starts

Future research

- More research needed to identify point when error in recall of move month becomes problematic
- Complete address and strong matching criteria necessary for definitive results

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