Responses to Questions Posed During the ASA Webinar on Address Based Sampling
Held November 30, 2010
Presenter: Michael Link, Ph.D.

1. I assume that the availability of an accurate geocode (tract/block, maybe lat/long) depends on the Census Bureau having gotten the address into TIGER? This is a problem as a decade wears on and TIGER is not well enough maintained (and the census MAF as well).

   Response: As a general statement this is correct – geocoding will only be as accurate as the database used to match the address to the coordinates.

2. Does this chart (slide 24) refer only to residential addresses - i.e. businesses are excluded?

   Response: Yes – known businesses were screened from the data in this chart.

3. For what % of ABS sampling frame can you match up telephone numbers?

   Response: That depends on several factors – the databases used in the match; the number of different database vendors used (they can differ in which databases they use for matching); the geography of interest; they type of address (i.e., PO Box cannot be matched), etc. As a general rule, the match rates when using a reputable survey sample vendor that includes both listed numbers and those captured in other commercial databases ranges from 50-60%. Sometimes this is lower, sometimes higher.

4. How often do the vendors update their sample frames?

   Response: The USPS provides updates weekly or monthly depending on the sample vendor's license and agreement.

5. Who does the licensing?

   Response: The USPS – you can find more information on this at ribbs.usps.gov

6. Can you match with cell phone lists or only landlines?

   Response: By law only landlines.

7. Can you talk about the quality of the matching with telephone numbers? I've heard that even though the match rate is 60%, some and maybe many of the numbers turn out not to be working residential numbers.

   Response: Like matching itself, the quality of the match really depends on the sources and the vendor doing the match. Based on internal studies at Nielsen, approximately 80-85% of the matched telephone numbers have proven to be valid and linked to the proper address.

8. Is the sampling frame the household, or does the frame include multiple families living in one household?

   Response: The sample frame is mailable addresses – so you can have multiple families at the same address.

9. Why can vendors not append cell phone or email addresses to an ABS frame?

   Response: By law in the U.S. they are prohibited from knowingly matching cell phone numbers to addresses. Vendors can attach emails to addresses. This is done by linking with commercial databases. The validity of the emails and the matches is far lower for emails than other forms of information appended to the file, such as landline telephone number or name.

10. Do you have any insight or experience with ABS in the Canadian context? If not, do you know of any leading academics or researchers who may be able to provide guidance / feasibility to using ABS in Canada?

    Response: Unfortunately no.

11. Please provide reference just mentioned for slide 38, a publication from 2008.

    Response: These data were originally presented at the 2008 American Association for Public Opinion Research Conference, but a better citation would be the following:

    M. Link, G. Daily, C. Shuttles, T. Yancey, A. Burks, and C. Bourquin (2009). "Building a New Foundation: Transitioning to Address Based Sampling After Nearly 30 Years of RDD." 2009Proceedings of the American Statistical Association, Survey Methodology Section (available online through the American Statistical Association), Alexandria, VA

12. How do you handle matched telephone households where the household's current residence does not match the address that was sampled? Are they then treated like unmatched households and then sent the pre-recruit survey?

    Response: Because the base sample unit is the address you should follow the address in the case of having an incorrect phone number match. The proper way to treat such cases in this example, therefore, would be to send them down the "unmatched" path (i.e., treat them as you would addresses with no identifiable telephone number).

13. It seems that ABS with telephone follow-up may increase the coverage by around 10% with considerable additional costs. Am I interpreting the presentation incorrectly. With cell + landline frames vs ABS frames, what are your experience with validity of results and cost of obtaining the data?

    Response: Cost is totally dependent upon design. For example, an ABS-based mail survey can cost considerably less than an RDD telephone survey (see, for example, Link, M., M. Battaglia, M. Frankel, L. Osborn, and A. Mokdad (2008). "Comparison of Address-based Sampling versus Random-Digit Dialing for General Population Surveys." Public Opinion Quarterly 72, 6-27). At Nielsen, the costs actually declined slightly, while the emphasis shifted from high labor costs in the call centers to mail production costs. The only generalization regarding costs is that it is NOT true than an ABS design will automatically be more costly than and RDD/Cell design.

14. What have you done to deal with mis-matches of phone numbers and addresses? Specifically, probabilistic matches in large buildings where the unit matched to a phone number are often inaccurate. Do you screen for this, and how do you treat these cases?

    Response: Because the base sample unit is the address you should follow the address in the case of having an incorrect phone number match. The proper way to treat such cases in this example, therefore, would be to send them down the "unmatched" path (i.e., treat them as you would addresses with no identifiable telephone number).

15. Why do they enumerate households in the field instead of just getting the DSF?

    Response: In some types of surveys where near universal enumeration is essential the DSF alone cannot provide that level of coverage for face-to-face interviewing (remember, for example, that some homes are only reachable via PO Box). In certain areas, therefore, it may be necessary to do some level of in-person enumeration – primarily in very rural areas.

16. Is there any evaluation of the "miss rate" for the types of HUs which Census also finds it hard to find - e.g. multiple households within a single address that isn't large enough to be an official "drop point?"

    Response: Researchers at NORC have done some excellent work in this area. I'd suggest the following: English, N., C. O'Muircheartaigh, K. Dekker, & L. Fiorio. 2010. Qualities of Coverage: Who is Included or Excluded by Definitions of Frame Composition? Paper presented at the 2010 Joint Statistical Meetings, Vancouver, BC.

17. Why is there undercoverage in rural areas?

    Response: Legacy issues – many rural areas have not traditionally had full city-style (street, city, zip code) addresses but rather rural route numbers or simplified addresses. This is changing over time as emergency 911 service is being installed in these areas – E911 required that all homes have a standardized city-style address.

18. When FE and ABS are combined, what is the typical cost per completed interview?

    Response: Costs can vary by level of effort, percentage FE vs ABS, etc. The researchers at RTI International have done some excellent work in this area. I'd suggest the following: Iannacchione, V., K. Morton, J. McMichael, et al. 2010. The Best of Both Worlds: A Sampling Frame Based on Address-Based Sampling and Field Enumeration. Paper presented at the 2010 Joint Statistical Meetings, Vancouver, BC.

19. Other than the television diary, can you give a quick example of how Nielsen may be utilizing ABS?

    Response: Nielsen also uses ABS for its Radio Diary Service, Consumer Confidence Survey, and is exploring options for use of ABS to augment field enumeration and provide coverage for online recruitment studies.

20. What is the cost per completed interview when using only FE?

    Response: Costs can vary by level of effort, percentage FE vs ABS, etc. The researchers at RTI International have done some excellent work in this area. I'd suggest the following: Iannacchione, V., K. Morton, J. McMichael, et al. 2010. The Best of Both Worlds: A Sampling Frame Based on Address-Based Sampling and Field Enumeration. Paper presented at the 2010 Joint Statistical Meetings, Vancouver, BC.

21. It seems that ABS effectively combined with multiple contacts and multiple data collection becomes very expensive so that it is practical for large govt surveys paid for by taxpayers - interested in a non political response.

    Response: As noted at the outset of the section on examples, given the short timeframe, the webinar focused on more elaborate, mixed-mode designs. ABS can also be used in its most simple for to conduct a straightforward mail survey, which is far less expansive and can produce higher response rates than some landline RDD surveys and certainly less expensive than landline/cell phone mixed mode studies. For example, see Link, M., M. Battaglia, M. Frankel, L. Osborn, and A. Mokdad (2008). "Comparison of Address-based Sampling versus Random-Digit Dialing for General Population Surveys." Public Opinion Quarterly 72, 6-27).

22. Can you discuss the standard method for post-stratification and design weighting?

    Response: Post-stratification and design weighting are not different for ABS than they are with other studies. At a minimum, one would apply a weight for probability of selection and post-stratification weights for key demographic or geographic variables. One can argue that weighting could be enhanced in an ABS environment, because counts at a Census block level are easier to obtain for addresses than for telephone numbers.

23. Where can we read more about ABS?

    Response: There is an emerging body of literature coming out on ABS, but the area is still relatively new. The best places to look are Public Opinion Quarterly and Proceedings of the American Statistical Association Annual Conference. Numerous presentations have been given over the last 3-4 years at conferences such as the American Association for Public Opinion Research and the American Statistical Association.

24. It is still not clear to me how vendors assess the coverage of the ABS frame segments. Can you explain?

    Response: Two ways this has been done. One is by simply comparing the address counts from the USPS list to Census counts – this is simple, but not very precise. Second is by selecting random geographic segments and sending field staff to enumerate these segments, and then compare the enumerated counts to the ABS counts. This is the more expensive, but more accurate method. With several large survey organizations having conducted both types of assessments over the past few years, there has been some convergence that the DSF – when all addresses are included – covers 96-98% of all residential homes in the U.S.

25. Given that earlier studies used RDD, how confident can researchers (in various fields, industries) are in relying on the conclusions of such studies? Will we begin to see health or other kinds of studies being repeated using ABS?

    Response: This is happening already. There are a number of major government-sponsored and other studies which have moved to or testing the use of ABS in one form or another, such as CDC's REACH survey, National Survey on Drug Abuse and Health, the National Election Studies, Health Information National Trends Study, and others.

26. How do you handle cases when a sampled address in an apartment building that has a matched phone number and the phone number turns out to belong to a different apartment unit in the same building?

    Response: Because the base sample unit is the address you should follow the address in the case of having an incorrect phone number match – even if the difference is the apartment number. The proper way to treat such cases in this example, therefore, would be to send them down the "unmatched" path (i.e., treat them as you would addresses with no identifiable telephone number).