

# **Mail Surveys of Unnamed Persons**

This section addresses surveys that recruit respondents via mail in which the sampling unit is the address of a residence or business (i.e., an entity at a specific geographic location) and some type of screener typically is used to identify a responsible household member or eligible respondent within that unit to complete the questionnaire.

Mail surveys of unnamed persons vary greatly in the populations they cover, and the nature and quality of the sampling frames from which their samples are drawn. Also, assumptions about respondent eligibility differ among sample designs, which have an important bearing on the assignment of final disposition codes.

Table 4b addresses mail surveys of unnamed persons. It assumes that within each sampled unit some form of within-unit respondent selection or screening will be used to determine if there is at least one eligible respondent to complete the survey questionnaire; for example, the Kish method or some form of the so-called birthday methods might be used to randomly (or pseudorandomly) sample a respondent among all eligible persons residing there, or a purposively determined respondent might be designated by her/his role within the unit (e.g., a parent or guardian of any children in the household, the person most knowledgeable of the household's expenses, the accountant for the business, or the secretary-treasurer of a club or other voluntary organization). Of course, other selection procedures such as including all adults eligible might also be employed.

An example of a survey of unnamed persons would be a survey that uses an address-based sampling frame built from the USPS's Delivery Sequence File. To be eligible for this particular survey of unnamed adults (i.e., those 18 years of age or older), the selected address must be an occupied dwelling unit with at least one resident who is aged 18 years or older. A failure to receive a reply to the survey questionnaire in this example would place an address into the "Unknown Eligibility" category, since it cannot be confirmed that the address was an occupied dwelling unit. Similarly, in this example, various postal return codes that failed to establish whether any eligible adult lives at the mailed address would leave the unit's eligibility unknown.

For other types of surveys of unnamed persons that are recruited via the mail, the assumptions would be different. For some of these surveys, one should assume that the selected "type" of person was eligible, unless otherwise determined. An example would be a sample of persons directing HR (human resources) responsibilities at companies of a given size, using a sample of those companies purchased from a list vendor. In this example, it is reasonable to assume that all companies would have someone managing HR, even if such a title was not formally assigned to anyone employed by the company. In this example, the person serving as the HR head at the time of the survey request arrived at the company would be the designated respondent. The lack of a returned questionnaire would not necessarily place the person/company in the unknown eligibility category. If the company is known to still be in business at the mailed address, then the lack of a returned questionnaire should be treated as a nonresponse outcome (most likely as a

refusal). However, if it is unknown whether the company is still in business, the lack of a returned questionnaire should be considered a case of unknown eligibility.

The goal of an unnamed household survey is to reach an eligible person at the sampled address. Generally, when conducting a study of unnamed households by mail, a generic salutation such as "Postal Customer" is used in the address. Sometimes researchers append a name (individual or family) to a sample of addresses by merging addresses to a commercial database. In these cases, using the appended name in addressing the mailing envelope or package is thus considered a "tool" of unknown reliability to try to reach and gain cooperation at the address, and not as a means to, a priori, select a specific respondent. However, it is important to note that appending a name to the envelope may result in unintended consequences, as the USPS will typically direct the mailing to the named person even if they no longer reside at the address on the mailing. As such, utilizing a name may result in the sampled household being circumvented if the mail is redirected to a new household that the person on the address has moved to. Thus, researchers may have unknowingly sidestepped their goal of sampling a household and administering a screener for household selection within the survey. For the purposes of response rates, researchers should continue to follow the protocol of this section on Mail Surveys of Unnamed Persons if the survey is principally designed to sample households, and follow the second on Mail Surveys of Specifically-Named Persons if the survey is sampling named persons, regardless of whether a name is used in the address.

In these and other instances the rules of eligibility and the assumptions about eligibility will vary with the study design. The same postal return codes may properly be assigned to different final dispositions in two studies based on different eligibility assumptions as in the examples above. Because the nature of surveys that sample and recruit respondents via the mail is quite variable, researchers must clearly describe their study and its sample design, and explicitly state and justify their assumptions about the eligibility of the units in their initially designated sample to properly inform others of how the final unit dispositions are determined.

Throughout this section, and in Table 4b, *Standard Definitions* explicitly uses the language employed by the United States Postal Service (USPS) to account for all USPS dispositions in which mail is not delivered to an address. Researchers operating in other countries or utilizing non-USPS mailers (e.g. Federal Express) should treat these classifications as illustrative and naturally will have to use their own postal service's codes. Non-USPS codes should follow the *Standard Definitions*' logic and intent, as illustrated by the USPS codes.

### 1. Returned Questionnaires

In the mail mode, a returned, completed, self-administered questionnaire, whether received via mail or the internet, is the equivalent to an "interview" in the telephone and in-person modes.

Returned questionnaires are divided into four groups: a) complete (1.1), b) partial (1.2), c) blank (2.113) and d) "break-off", i.e., too incomplete to process (2.12). All surveys should have an *a priori* explicit definition of what constitutes a complete vs. a partial completion and what distinguishes a partial completion from a break-off.

Three widely-used standards for defining these questionnaire conditions are: a) the proportion of all applicable questions answered, b) the proportion of crucial or essential questions answered, and c) the proportion of all applicable questions administered (Frankel, 1983). Blank questionnaires are self-defining, and are considered an implicit refusal regardless of whether or not the returned document is fully intact. The following are standards that surveys might adopt to determine whether a case is a complete, partial, or break-off:

- a. Less than 50% of all applicable questions answered (with other than a refusal or no answer) equals break-off, 50%-80% equals partial, and more that 80% equals complete, or
- b. Less than 50% of all essential or crucial questions answered (with other than a refusal or no answer) equals a break-off, 50-99% equals partial, and 100% equals complete, or
- c. The above two could be used in combination. For example, one might require 100% of crucial questions and 80% of other questions being answered to count as a complete case.

Although no precise definition of complete or partial cases or break-offs is proposed here, and no universal definition is appropriate, a survey must provide a clear definition of these statuses so that the correct disposition can be unambiguously assigned. Suitable criteria may include those examples described above. Of course, less stringent definitions of complete or partial cases will mean that there will be more item nonresponse in cases deemed complete or partial.

However, a "completed" or "partially completed" questionnaire in a survey of unnamed persons may be received from someone who is not qualified for the purposes of a particular study to serve as an eligible respondent. In these instances, the "completion" most often is an unusual form of nonresponse. That is, although there was a response from the sampled unit, it came from someone not qualified to provide the response. This outcome should be coded a 2.36 (Misc. Eligible Noninterview) unless something is learned about the sampled unit that would make the unit Not Eligible for the survey. In those cases, the outcome should be coded 4.70. (In the case where the unit is known to be eligible for the particular survey, the researchers may choose to approach that unit again to try to gain a completion from an eligible respondent at the unit. If the researchers do this and are unsuccessful in ever gaining a completion, this unit may have a final outcome of a refusal – i.e., if an eligible person eventually refuses to cooperate – or it may remain a 2.36 if nothing more is heard back from the unit. In the cases where an eligible person returns a questionnaire, then the assignment of the unit's final disposition follows the rules discussed above in this section).

### 2. Eligible, No Returned Questionnaire (Nonresponse)

Eligible cases for which no completion is obtained consist of three types of nonresponse: a) refusals and break-offs (2.10); b) non-contacts (2.20); and c) others (2.30). See Table 4b.

<sup>&</sup>lt;sup>1</sup> Crucial or essential questions might include variables that are the key independent or dependent variables in a study. For example, a survey designed to measure racial differences might require the respondent's race being provided or a survey to examine the causes of depression might require a scalable score on the measure of clinical depression being completed.

Refusals and break-offs include cases in which some contact has been made with the housing/business unit, and someone at the unit has declined to complete the questionnaire and has communicated that the questionnaire will not be completed (2.11) or a questionnaire is returned only partially completed with some notification that a responsible household member refuses to complete it further.<sup>2</sup> For surveys with a required screener,<sup>3</sup> refusals may come from specifically-selected respondents, which would be a refusal of a known respondent (2.112). In other cases, the refusal may come from someone known not to be an eligible respondent, and researchers may want to create a unique outcome code (e.g., 2.114) for these occasions. In mail surveys of unnamed persons, entirely-blank questionnaires are sometimes mailed back in the return envelope without any explanation as to why the questionnaire was returned blank. Unless there is good reason to do otherwise, this should be treated as an "implicit refusal" (2.113). In some instances in which a noncontingent cash incentive was mailed to the respondent, the incentive is mailed back along with the blank questionnaire. Researchers may want to create a set of unique disposition codes to differentiate different types of nonresponse from the 2.113 outcome in which no incentive was returned. Subcodes should be mutually exclusive and can be reported in a logical grouping along with other subcodes as appropriate when describing the survey response.

Known non-contacts in mail surveys of unnamed persons include cases in which researchers receive notification that the eligible respondent was unavailable to complete the questionnaire during the field period (2.25).<sup>4</sup> There also may be instances in which the questionnaire was completed and mailed back too late — after the field period has ended — to be eligible for inclusion (2.27), thus making the case a "non-interview" as opposed to a refusal.

Other cases (2.30) represent instances in which the respondent within the household is selected and/or eligible and does not refuse to complete the questionnaire, but no completion is obtainable because of: a) deaths, including cases in which the addressee is identified by the USPS to be "Deceased" (2.31); b) respondent physically or mentally unable to do the questionnaire (2.32); c) language problems (2.33); literacy problems (2.34), d) someone other than the designated respondent completes all (2.351) or some (2.352) of the questionnaire (2.35) [see section on Returned Questionnaires], and e) miscellaneous reasons (2.36).

Whether death of the eligible respondent constitutes a non-respondent or an ineligible respondent depends on fieldwork timing. Surveys have to define a date on which eligibility status is determined. This would usually be either the first day of the field period or the first day that a particular case was mailed the request to participate in the survey. Thus, for example, if a person were alive and selected as the respondent on this status date, but died before a questionnaire was completed, the case would be classified as a nonresponse due to death (2.31). However, in some cases the researchers may choose to re-approach the sampled unit to determine if there now is a

<sup>&</sup>lt;sup>2</sup> "Responsible household members" should be clearly defined. For example, the Current Population Survey considers any household member 14 years of age or older as qualifying to be a household informant.

<sup>&</sup>lt;sup>3</sup> As with other types of studies that require screening to identify and select a specifically-qualified respondent (e.g. someone who is Hispanic, someone who is under the age of 35, etc.), see the calculations for Dual-frame RDD surveys, which provide a eligibility metric for valid households (e2) and an eligibility metric for screener qualification within the household (e1).

<sup>&</sup>lt;sup>4</sup> Further distinctions could distinguish cases involving temporary absences (e.g. family away on vacation for two weeks) and other reasons for non-contact.

newly-eligible respondent who is capable of completing the questionnaire. For example, in a survey where CIOs are the eligible respondents, and if the CIO who was alive at the time the business was first contacted dies during the field period, the new CIO could become the eligible respondent for the sampled business. If this is done, the final outcome of the case would be determined by what happens during the effort to gain cooperation from a newly-eligible respondent. Similar time rules would apply to other statuses.

Selected eligible respondents who are physically or mentally unable to complete the questionnaire (2.32) would include both permanent conditions (e.g., senility, blindness or paralysis) and temporary conditions (e.g., pneumonia or drunkenness) that prevailed throughout the field period. With a temporary condition it is possible that the respondent could/would complete the questionnaire if recontacted later in the field period or if the field period were later extended. But again, physical or mental barriers may cause the original eligible respondent to no longer be eligible (e.g., s/he retired from the company due to health problems), and in these instances researchers could choose to re-approach the sampled unit and try to gain cooperation from the newly-eligible person. If this is done, the final outcome of the case would be determined by what happens during the subsequent effort to gain cooperation from a newly-eligible respondent.

Language problems (2.33) include cases in which a selected respondent does not read a language in which a mailed questionnaire is printed (2.332).<sup>5</sup> It also would include instances in which a questionnaire is printed in a language that the respondent can read, but that version is not sent to the respondent (2.333). In contrast, literacy problems (2.34) would apply to cases in which the selected respondent could speak the language in which the questionnaire was printed, but could not read it well enough to comprehend the meaning of the questions.

Situations where a name was appended to the address file and used as the addressee, and then the envelope was returned because it could not be delivered to the person to whom it was addressed, will at times be returned as undeliverable. Researchers may choose to resend the mailing with a generic salutation (e.g., "Postal Customer"). In other cases the mail will still be delivered to the address and the current resident may or may not choose to take action in returning mail addressed to someone who does not live at that address (or to even participate in the survey herself). But in the event mail is returned and no more attempts to reach that address are made, the case should be treated as an eligible address that ended as an Eligible, No Questionnaire Returned form of nonresponse. This is because the researchers have learned that the address does exist even though the envelope was returned because the addressee did not reside at the sampled address. In contrast, if only a specific type of respondent is eligible for the survey, and given that in this example no screening at the address was completed, one would consider the address as being Unknown if Eligible. That is because the named person on the address is not necessarily the selected/eligible respondent, and in fact at this point of the field period only the address has

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<sup>&</sup>lt;sup>5</sup> Language cases can be counted as not eligible (4.70) if the survey is defined as only covering those who read certain languages. For example, until 2006 the General Social Survey defined its target population as English-speaking adults living in households in the United States (Davis, Smith, and Marsden, 2007). Whenever language problems are treated as part of 4.70 instead of 2.33, this must be explicitly stated.

been selected, and in a mail survey of unnamed people there should never be an attempt made to forward the envelope to a new address for the named person.

In instances of an unnamed-person, mail survey of businesses, letters will be returned with an address corrected. In such cases researchers are advised to re-send to the corrected address for the business, since in surveys of businesses with an unnamed person, the unit of sample is usually the business, not the explicit business location. If a study instead intends to cover businesses only at specific locations, then one would normally not re-send to the new address. For a general discussion of establishment surveys, see p. XX.

The miscellaneous designation (2.36) would include cases involving some combination of other reasons (2.30) or special circumstances (e.g., lost records or faked cases invalidated later on).

In mail surveys of unnamed persons — particularly ones in which mail is the only sampling mode — this subset of dispositions (Other, 2.30) would occur only if the researchers received unsolicited information about the respondent that allowed for such classification of the final disposition. However, in most instances one would assume that no information would be returned, which would lead to the case being classified as an "unknown eligibility" disposition.

### 3. Unknown Eligibility, No Returned Questionnaire

Cases of unknown eligibility and no returned questionnaire (3.0 and following) include situations in which nothing is known about whether the mailed questionnaire ever reached, or could have reached, the sampled address to which it was mailed (3.10); and, in the case of a screening study, it includes those cases in which it reached the address, but it is unknown if any eligible person is present at the address (3.20).

The unknown-eligibility subset in which nothing is learned about whether the mailing could or did reach the sampled respondent is broken down further into cases in which a) the questionnaire was never mailed (3.11) and cases in which b) absolutely no information ever reaches researchers about the outcome of the mailing (3.19). This latter disposition often occurs with high frequency in mail surveys.

Situations in which the address to which the questionnaire was mailed is known to exist and for which an eligible respondent is known to have not received the mailing include the case of no screener being completed, for questionnaires requiring a screener (3.21). They also include instances in which the U.S. Postal Service (USPS) labels "refused" (i.e., designated REF by the USPS; 3.23)

Finally, there are other cases in which the address, itself, precludes delivery and researchers are left not knowing whether there is an eligible respondent at the "correct" address (3.25). These are cases where, in other words, the household or business exists but the address being used to reach the household or business is in some way errant. These cases include: a) an "illegible" address, which means one that cannot be read by the USPS (ILL, 3.251); b) an "insufficient" address on the mail (IA, 3.252), for example, one missing a street number in the receiving post office's

delivery area; and c) the absence of a proper mail receptacle at the address for the USPS to leave mail (NMR, 3.253).

In each of these circumstances, researchers learn that the address to which the mailing was intended does (or may) exist, but does not know whether or not an eligible respondent is at the address.

Another set of possible dispositions in mail surveys of unnamed persons are those instances in which the mailing is returned as "undeliverable" (3.30). There are many subcategories of this class of dispositions designated by the USPS.

The USPS also will not deliver mail in many other circumstances, thus letting the researchers know only that the address used will not reach the addressee. These circumstances include the general category of "not delivered as addressed" (3.314). This category can be further subdivided into the USPS designations: a) "outside delivery limits" (3.3142), in which an address is not in the geographic area of delivery for the post office that received the mail; and b) "returned for better address" (3.3143), for mail of local origin (i.e., mail that is mailed at and delivered by the same post office).

A final group of dispositions in which researchers are left not knowing if the address is eligible is when the mail has been returned undelivered, but has forwarding information (3.40). In some of these cases, the mail may have been opened (3.41) and in others it may not (3.42). This would occur in surveys that appended name to the address where available. In this particular case, this should be a temporary code, with the address in question being considered eligible. Ultimately, whether these dispositions are temporary or final depends upon the researchers' choice to re-mail it with a generic salutation. In another instance, researchers learn that the address does not exist, but learns nothing more due to a "dispute about which party has right to delivery" which the USPS cannot resolve (3.50).

## 4. Not Eligible

Not eligible cases for mail surveys of unnamed persons include: a) the designated household being found to be ineligible due to screening information returned to the researchers and thus out-of-sample (4.10); b) situations in which quotas have been filled (4.80); and c) duplicate listings in which the same household received the screener at both listings (4.90).

No eligible respondent (4.70) includes cases where a household has been contacted with a necessary screener and the household member(s) have been found to not qualify for the study.

There also are cases in which the USPS does not attempt delivery because of a determination that no such address exists (4.313). This subcategory may be due to there being "no such number" (4.3131); "no such postal office" in a state (4.3132); "no such street" (4.3133); or a vacant address (4.3134).

In mail surveys of unnamed persons that employ a quota, there will be cases in which returned questionnaires are not treated as part of the final dataset because the quota for their subgroup has already been filled (e.g., responses from African American households when a racial quota is

used and the African American target has already been met) (4.80). What the quotas are and how they are to be filled must be clearly defined, and whether survey responses received after quotas have been met are accepted and included in the final data set should be clarified.

A final type of "ineligibility" occurs in mail surveys of unnamed persons when the sample frame includes duplicates, such as those using a large "mailing list" as the sampling frame. When duplicate listings are sampled — ones in which the same household inadvertently appears more than once in the sampling frame (e.g. one physical address connected to one post office box – both of which are sampled) and these are recognized as duplicates only after the mailings have been returned by the respondent, e.g., when a respondent mails back a completed questionnaire and a blank one with a note that s/he received two questionnaires, the duplicate returns should be treated as not eligible due to duplicate listings (4.81). Of course, researchers should strive to eliminate duplicates from sample frame before a sample is selected and a survey is fielded.

Finally, additional reasons for non-eligibility can be coded under Other (4.90).

In all cases about final disposition codes involving ineligibility, definite evidence of the status is needed. When in doubt, a case should be presumed to be eligible or possibly eligible rather than ineligible, unless there is unambiguous evidence leading to the latter classification.

#### 4. Consideration of e

Because it is common for a substantial number of cases to have unknown eligibility at the completion of mail surveys of unnamed persons, we recommend that the value of e (i.e. the estimated eligibility rate) be computed carefully, with consideration of a series of factors such as vacancy rates, rural delivery, non-residential addresses, etc., plus an adjustment for whatever is known about the addresses in the sample. That said, until such time if and when a method is found to produce a more reliable estimation of e, researchers must be guided by the best available scientific information on what share eligible cases make up among the unknown cases and one must not select a proportion for e in order to boost the response rate.

Table 4b: Final Disposition Codes for Mail Surveys of Unnamed Pe	
1. Returned questionnaire	(1.0)
Complete	(1.1)
Partial	(1.2)
2. Eligible, "Non-Interview"	(2.0)
Refusal & Break-off	(2.10)
Refusal	(2.11)
Known respondent level refusal	(2.112)
Blank questionnaire mailed back, "implicit refusal"	(2.113)
Break-off questionnaire too incomplete to process	(2.12)
Non-Contact	(2.20)
Notification that respondent was unavailable during field period	(2.25)
Completed questionnaire, but not returned during field period	(2.27)
Other	(2.30)
Death (including USPS category: Deceased)	(2.31)
Physically or mentally unable/incompetent	(2.32)
Language	(2.33)
Respondent language problem	(2.332)
Wrong language questionnaire sent for needed language	(2.333)
Literacy problems	(2.34)
Non-respondent completes questionnaire	(2.35)
Miscellaneous	(2.36)
3. Unknown eligibility, "non-interview"	(3.0)
Nothing known about respondent or address	(3.10)
Not mailed	(3.11)
Nothing ever returned	(3.19)
Unknown if eligible respondent in unit	(3.20)
No screener completed	(3.21)
USPS Category: Refused by Addressee [REF]	(3.23)
USPS Category: Cannot be Delivered [IA]	(3.25)
USPS Category: Illegible Address [ILL]	(3.251)
USPS Category: Insufficient Address on Mail from	
One Post Office to Another Post Office [IA]	(3.252)
USPS Category: No Mail Receptacle [NMR]	(3.253)
Unknown Whereabouts, Mailing Returned Undelivered	(3.30)
USPS Category: Undeliverable as Addressed [IA]	(3.31)
Not Delivered as Addressed	(3.314)
USPS Category: Outside Delivery Limits	(3.3142)
USPS Category: Returned for Better Address [IA]	(3.3143)
USPS Category: Returned for Postage	(3.33)
Returned Unopened — address correction provided	(3.41)

Returned Opened — address correction provided	(3.42)
USPS Category: In Dispute about Which Party Has	
Right to Delivery [DIS]	(3.50)
Other	(3.9)
4. Not Eligible, Returned	(4.0)
Selected Respondent Screened Out of Sample	(4.10)
No Such Address	(4.313)
USPS Category: No Such Number [NSN]	(4.3131)
USPS Category: No Such Post Office in State	(4.3132)
USPS Category: No Such Street [NSS]	(4.3133)
USPS Category: Vacant [VAC]	(4.3134)
No eligible respondent	(4.70)
Quota Filled	(4.80)
Duplicate Listing	(4.81)
Other	(4.90)

NOTE: Post office codes in brackets