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The Accuracy of Survey-Reported Marital Status:
Evidence from Survey Records Matched to Social Security Records

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ABSTRACT

Many researchers have concluded that, in surveys, divorced persons often fail to report accurate marital information. In this article, I revisit this issue using a new source of data -- surveys exactly matched to Social Security data. I find that divorced persons frequently misreport their marital status, but there is evidence that the misreporting is unintentional. A discussion of possible improvements in surveys is presented. Implications for the study of differential mortality and the study of poverty among aged women are discussed.

I. Introduction

Whether marital status and marital history are accurately reported in surveys has long been of interest to researchers. This interest stems from the importance of marital information in research and policy analysis, and the realization that certain marital events -- such as divorce -- are sensitive subjects that respondents may be unwilling or reluctant to discuss with interviewers. There is evidence that persons often fail to report marital status accurately. For example, the U.S. Bureau of the Census (1966) examined the April 1960 Decennial Census records of 554 persons known to have been divorced in March 1960. About 13 percent of these individuals had implausible or impossible marital status responses recorded on the Census survey (never married, widowed, separated, or married with spouse absent). There is also evidence that marital history information from surveys is often inaccurate. Preston and McDonald (1979), for a number of marriage cohorts, estimated the proportion of marriages that ended in divorce using vital statistics data and, separately, using data from the 1970 Decennial Census survey. The proportion of marriages that ended in divorce was almost always higher when computed from vital statistics. Although a number of factors could explain this result, the authors believe that underreporting of divorces in the Census survey is largely responsible. Other studies have also found that divorces are not always reported in surveys. Espenshade (1983), Thornton and Rodgers (1987), and Martin and Bumpass (1989) find that fewer divorces are reflected in the marital history supplements to the Current Population Survey than in vital statistics records.

In this article, I examine the accuracy of survey-reported marital status using a new source of data: survey records exactly matched to Social Security records. The focus here is on marital status responses of those known to be divorced. Whether a person is divorced can be established in many cases using Social Security benefit records because some types of Social

Security benefits are based on marriages ended by divorce. To receive these types of benefits, an individual must present evidence concerning marriage and divorce to the Social Security Administration (SSA) (this evidence could be a marriage certificate and a certified copy of the divorce decree). The use of Social Security records to evaluate survey responses reveals a pattern of misreporting that is important and surprising.

Preston and McDonald (1979) believe that stigma associated with divorced status likely causes some individuals to misreport marital status. Even if an individual does not feel stigmatized by a status of divorced, he or she may report some other marital status -- such as never married -- because of a reluctance to discuss such a sensitive event with an interviewer. I find evidence that some respondents are unwilling to report their actual marital status, but this is not common. More important, I present evidence that many divorced individuals misreport marital status unintentionally. Failure to report divorced status occurs primarily among those Social Security beneficiaries who have deceased ex-spouses; these divorced beneficiaries quite frequently report a marital status of widowed. Among those Social Security beneficiaries who have living ex-spouses, a marital status of divorced is generally (but not always) reported in surveys. The fact that misreporting of marital status depends almost exclusively on whether an ex-spouse is deceased suggests confusion over what to call oneself upon the death of an ex-spouse rather than an unwillingness to reveal one's actual marital status. There is additional evidence discussed later that supports this explanation for the misreporting of marital status. This is an important result because it suggests that survey questions can be refined so that they are clear enough to elicit accurate responses. Possible refinements are discussed later.

Regardless of whether survey questions are refined, the results of this article have

important implications for a number of areas of research. One of these areas is the study of differential mortality by marital status. Analysis of mortality by marital status can suffer from a previously unknown source of bias. Survey samples of individuals who report a status of divorced are disproportionately made up of individuals whose ex-spouses are living because those with deceased ex-spouses frequently report a marital status of widowed. The mortality experiences of divorced individuals with living ex-spouses may be more favorable than the experiences of individuals with deceased ex-spouses. This could happen because, while married, a couple shares a common environment and each member is exposed to the risks of that environment (for example, cigarette smoke). Also, it may be typical for a divorced individual to be similar to his or her ex-spouse in characteristics that affect mortality, such as level of education. These considerations suggest that a study of differential mortality that uses a survey to measure the marital status of sample members and uses death certificates, gathered subsequent to the survey, to determine which sample members have died might have biased results because persons who *report* a status of divorced in the baseline survey do not necessarily have mortality outcomes representative of *all* divorced persons in the survey sample.¹ The issue is more complicated in studies that use marital status responses from a survey to determine the size of the population in each marital status category and marital status information on death certificates to determine the number of deaths that occurred in a given period in each marital status category. It is likely that there is misreporting of marital status in *both* sources of data. The level of bias in studies of differential mortality is a topic beyond the scope of this article but one that is

¹Comstock and Tonascia (1977) is an example of a study that uses a survey to identify baseline characteristics of sample members, such as marital status, and uses death certificates, gathered subsequent to the survey, to determine which sample members have died.

worthy of future research.

There are other areas of research that are affected by misreporting of divorced status. Much attention has been paid to the fact that aged divorced women are an economically vulnerable group. Crown et al. (1993) report that 23 percent of divorced women aged 62-74 and 28 percent of divorced women aged 75 or older have income below the poverty level (the corresponding figures for married women are 5 percent and 9 percent). There is reason to believe that aged divorced women who report that they are widowed have a different level of income than other aged divorced women. A divorced woman may be eligible for a survivor benefit from Social Security upon the death of her ex-husband. The survivor benefit is potentially *twice* the benefit available while the ex-husband is living. These high-benefit divorced women are often not included in samples used to measure poverty among divorced women because they frequently report a marital status of widowed. Their exclusion may lead to an upwardly biased estimate of poverty among divorced women. The measurement of poverty among aged widows can also be biased because there are divorced women who report a marital status of widowed. Whether the measurement of poverty among widows is seriously biased depends on whether divorced, survey-reported widows differ from actual widows in economic circumstances and depends on whether divorced, survey-reported widows constitute a large proportion of all survey-reported widows. Regarding this latter issue, Holden (1992) has found evidence that is consistent with the view that a substantial proportion of survey-reported widows are in fact women of some other marital status. The issue of whether misreports of marital status bias the measurement of poverty among aged divorced women and aged widowed women will be addressed later in this article.

The structure of this article is as follows. The next section reviews the Social Security provisions that govern benefits paid to divorced persons. This is followed by a presentation of results from the New Beneficiary Data System (NBDS). The NBDS is composed of two surveys conducted nine years apart and data on survey respondents from SSA's records. Next, results are presented from the other data sources used for this article, namely, data from the Survey of Income and Program Participation (SIPP) and data from the Current Population Survey (CPS) exactly matched to data from SSA. Finally, a discussion of possible improvements to surveys is made and an assessment of the level of bias in the measurement of poverty among aged divorced women and aged widowed women is given.

II. Social Security and Divorce

In this study, the records of SSA are the basis for determining whether a person's actual marital status is divorced. It is useful, therefore, to describe the Social Security rules that apply to divorced persons. The description that follows is a general one. Detailed information on Social Security can be found in Myers (1993).

An aged divorced person is eligible to receive a Social Security benefit based on an ex-spouse's work record if the marriage that ended in divorce lasted at least 10 years. If the ex-spouse is alive, such an individual is eligible for a *divorced spouse* benefit. The unreduced monthly benefit amount of a divorced spouse beneficiary is equal to his or her ex-spouse's primary insurance amount (PIA) multiplied by 0.5. (SSA computes a person's PIA based on the person's average earnings in Social Security covered employment.) A reduced benefit is payable prior to SSA's normal retirement age. Should an ex-spouse die, a divorced person with a 10-

year marriage would be eligible for a *surviving divorced spouse* benefit. The unreduced monthly benefit amount is equal to his or her ex-spouse's PIA multiplied by 1.0. Thus, the death of an ex-spouse can cause a person's Social Security benefit to double. Divorced spouse and surviving divorced spouse benefits are *secondary* benefits (a secondary benefit is one that is based on another person's work in Social Security covered employment). A divorced person might be eligible for a *retired-worker* or a *disabled-worker* benefit. These are *primary* benefits (a primary benefit is based on one's own work in covered employment). The monthly benefit amount of a primary beneficiary can be equal to his or her PIA.²

An individual entitled to a primary benefit that is less than a secondary benefit to which he or she is entitled is a dually entitled beneficiary. Such an individual receives a full primary benefit and a partial secondary benefit (Social Security only pays a total amount that is approximately or exactly equal to the full amount of the secondary benefit). A person eligible for a primary benefit that is higher than a secondary benefit for which he or she is eligible can only be paid the primary benefit. Social Security rules are gender neutral but men rarely receive secondary benefits. This is because men usually have work records that entitle them to higher primary benefits.

There are other types of secondary benefits paid to divorced persons, namely, those paid to survivors who are disabled (and aged 50-59) and those paid to survivors caring for children. Persons who receive these benefits are not used in any of the analyses of this article (only a small number of divorced persons receive these benefits).

²Eligibility requirements and benefit computation procedures for retired-worker benefits are substantially different from those for disabled-worker benefits. Most important, an individual must have a severe physical or mental impairment to receive disabled-worker benefits.

Surviving divorced spouse benefits cannot be paid to persons under the age of 60. Divorced spouse or retired-worker benefits cannot be paid to persons under the age of 62. There is no minimum age requirement to receive disabled-worker benefits. At age 65, a disabled worker is reclassified as a retired worker.

Generally, a divorced spouse beneficiary must be unmarried or his or her benefit will be terminated. Prior to 1983, the same rule applied to surviving divorced spouses. Currently, however, a married person may collect a surviving divorced spouse benefit if the marriage occurs at age 60 or later.

If an individual is receiving a full or partial benefit as a divorced spouse or as a surviving divorced spouse, which can be determined from Social Security benefit records, it is a fact that the person has been divorced because such an individual would have to provide evidence to SSA that a marriage occurred, that the marriage lasted 10 years, and that the marriage ended in divorce. For the SIPP and the CPS, an assessment of survey-reported marital status can only be made for those receiving full or partial benefits as divorced spouses or as surviving divorced spouses. With the NBDS, it is possible to also assess survey-reported marital status for persons receiving only primary benefits.

III. The New Beneficiary Data System

The New Beneficiary Data System (NBDS) is composed of data from Social Security records and two surveys. The initial survey, the New Beneficiary Survey (NBS), was conducted in 1982 with a sample of individuals who first received cash benefits from Social Security in the

1980-1981 period.³ Surviving members of this sample were interviewed again in the New Beneficiary Followup (NBF), which occurred about nine years after the initial survey. The two surveys were sponsored by SSA and were conducted by Temple University's Institute for Survey Research. A description of the NBDS can be found in U.S. Department of Health and Human Services (1993).

There are several files that make up the Social Security record system. Records from two of these files, the Master Beneficiary Record (MBR) and the Numident, are used in analyses presented in this section of the article. Records from these files were matched with survey data from the NBDS using the Social Security numbers (SSNs) of the respondents. (The public-use version of the NBDS does not contain Numident data and does not contain much of the MBR data used here. SSA highly restricts access to the internal-use NBDS.) The MBR contains Social Security benefit data, such as type of benefit and amount of benefit. The Numident, among other things, contains data on fact and date of death. Not all deaths are documented in SSA's Numident records but for deaths occurring in the 1980s or later the records are thought to be fairly complete.

Social Security data are available for all respondents. For each ever-married respondent, there was also an attempt to obtain Social Security records for the current or most recent spouse. Thus, for a respondent who reports a marital status of divorced, there should be Social Security records for the respondent *and* for the ex-spouse of the most recent marriage. In order for the records of the current or most recent spouse of the respondent to be added to the NBDS, the

³The NBS also contains a sample of individuals who were not receiving cash benefits in the 1980-1981 period but who were eligible for Medicare benefits in 1982. This Medicare sample is not used in any of the analyses presented in this article.

respondent had to provide the SSN of the spouse to SSA.

The availability of Social Security records for the most recent spouses of divorced respondents is an important and unique feature of the NBDS. Other important features of the NBDS are the dramatic oversampling of persons who, in 1980-1981, began receiving full divorced wife or full surviving divorced wife benefits, and a longitudinal structure that allows for the measurement of reported marital status prior to an ex-spouse's death and after an ex-spouse's death.⁴

In the initial survey and in the followup survey, interviewers asked respondents the following question about marital status.

Are you currently married, a widow/widower, separated, divorced, or were you never married?

Interviewers were instructed to read the question without pausing after each status and were told to emphasize the word currently. Definitions of the marital status categories were provided in the instruction books of interviewers. The divorced category was defined so as to include "those whose ex-spouses died after the divorce." Interviewers were not instructed to read the definitions to respondents but presumably would have used them if a respondent expressed confusion about whether to classify himself or herself as divorced or widowed.

Marital status was never imputed in the NBDS. I have removed a small number of proxy respondents from the NBDS sample. This is primarily done because, for one of the analyses,

⁴It is rare for a man to receive full secondary benefits and it was decided not to sample such individuals in the NBS (a man who receives a partial secondary benefit, however, could have been sampled as a primary beneficiary). Thus, in some cases, I will refer to a sample of divorced wives or surviving divorced wives rather than divorced spouses or surviving divorced spouses.

I want to make sure it is the same person who is reporting marital status in the initial survey and in the followup survey. The analyses using the SIPP and the CPS are different in that marital status is, on occasion, imputed in these surveys, and proxy respondents are not removed from the samples.

The first analysis using the NBDS involves an examination of reported marital status in the NBF (the followup survey) for respondents who meet three main conditions: marital status is reported as *divorced* in the NBS (the initial survey), Numident records for the most recent ex-spouse are available, and the ex-spouse is *alive* at the time of the NBS.⁵ Regarding the first sample restriction, I assume that persons who report a marital status of divorced in the NBS are in fact divorced. This seems reasonable in that divorced is probably not a socially more acceptable response than other marital status responses such as married or widowed (in fact many researchers presume the opposite) and thus it is unlikely someone whose true marital status is not divorced would claim this status. For a respondent who did not provide the SSN of his or her ex-spouse from the most recent marriage, there will be no Numident records available for the ex-spouse and thus no way to determine his or her survival status. The second restriction removes such respondents. An examination of marital status in the NBF by survival status of the ex-spouse will indicate whether marital status is misreported and whether this varies by survival status of the ex-spouse.

First, consider persons who were sampled as divorced wife beneficiaries. As reported in table 1, not one divorced wife with an ex-husband living at the time of the NBF reported a

⁵See U.S. Department of Health and Human Services (1993) for information on the percentage of respondents who died between surveys and on the percentage of living initial respondents who refused to be interviewed for the followup survey.

marital status of widowed in the followup survey.⁶ Ninety-three percent of divorced wives reported, as had been the case in the initial survey, a status of divorced. Virtually all of the remaining divorced wives had remarried. (This assumes that the six percent who report a status of married are accurately reporting their status. It is plausible that a small percentage would have remarried during the nine years that elapsed between surveys.) In contrast, among those whose ex-husbands had died during the interval between the two surveys, 39 percent reported a marital status of widowed in the followup survey. It is possible some of these persons actually are widows. That is, those who remarry and who lose their husbands during the interval between surveys are widows, not divorced persons. Note, however, that none of the "widows" reported in the marital history questions of the followup survey that they had been married during the interval between surveys. It is reasonable, therefore, to conclude that it is the deaths of ex-husbands causing these persons to claim widowed status.

Next, consider persons who were sampled as primary beneficiaries and who were, *at the time of the initial survey*, primary-only beneficiaries. A primary-only beneficiary is a retired or disabled worker who is not dually entitled to a secondary benefit, such as a divorced spouse or surviving divorced spouse benefit.⁷ As reported in table 1, about 2 percent of those whose ex-

⁶Sample size, denoted by N, is furnished in all tables in this article. All surveys used in the article employ complex sampling designs and I have not calculated standard errors for estimated percentages. The pattern of misreporting is similar in all samples used in this article and I believe the basic conclusions I draw are valid.

⁷The dually entitled could have been included in the primary beneficiary sample but some adjustment to the sample weights would have been necessary because entitlement to secondary benefits at the time of the initial survey probably increases the likelihood of providing a SSN for an ex-spouse (one of the sample restrictions). Thus, without some reweighting, the primary beneficiary sample would have too many dually entitled beneficiaries (or, said differently, too few primary-only beneficiaries). In any event, the exclusion of dually entitled persons creates

spouses were alive at the time of the followup claimed to be widow(er)s. Among those with deceased ex-spouses, 29 percent claimed to be widow(er)s. As was the case with divorced wives, those who claimed widowed status did not report that they had been married during the interval between surveys, indicating that it is the deaths of *ex*-spouses causing these persons to claim widowed status. Those in the primary-only sample are very different from those in the divorced wife sample. Specifically, the primaries had stronger attachments to the workforce, some are men, and some had marriages of short duration. The proportion who report widowed status is somewhat lower among those in the primary beneficiary sample but, fundamentally, the results are similar.

Some divorced persons who were primary-only beneficiaries at the time of the initial survey were receiving partial surviving divorced spouse benefits by the time of the followup. This could happen if an ex-spouse died in the period between surveys, if the marriage to the ex-spouse lasted 10 or more years, and if the ex-spouse's primary insurance amount was high enough. It is possible that payment of a survivor benefit from Social Security causes a person to think of oneself as a widow(er). This is, at best, a partial explanation. In table 1, I present results for a sample of persons who were primary-only beneficiaries *at the time of the followup survey*.⁸ Among those with deceased ex-spouses, 22 percent claim to be widow(er)s. For

a sample that offers a sharp contrast to the other sample (divorced wives) and thus allows for examination of whether misreporting of divorced status is strongly influenced by underlying characteristics such as work history, length of marriage, and gender.

⁸This sample contains a few persons who had their primary benefits ended in the period between surveys (for example, persons who were no longer eligible for disabled-worker benefits because their health improved). In any event, those in this sample are not receiving a full or partial secondary benefit at the time of the followup.

purposes that will become clear later in this article, it is useful to point out that in this sample misreporting occurs but it is not the norm. Among those with deceased ex-spouses, there are 3.3 times as many persons who report a status of divorced as there are who report a status of widowed.

Results for men who were initially primary-only beneficiaries are also presented in table 1. The pattern of misreporting is similar to the other groups (although the sample of men with deceased ex-wives is small).

Are the divorced respondents who report widowed status in the followup survey doing so out of confusion or out of an unwillingness to reveal their actual marital status? Note that all of the persons in the samples reported their status as divorced in the initial survey. Thus, the above results are based on a sample of persons who have demonstrated in one survey that they are capable of revealing their actual marital status (divorced). Also, stigma associated with divorced status or sensitivity in reporting divorced status should affect all respondents, not just those with deceased ex-spouses. An explanation that is consistent with the results is that some respondents with deceased ex-spouses think widow(er) is the correct response to the marital status question.

A different type of analysis -- one that does not use the longitudinal nature of the NBDS -- involves an examination of the marital status responses in the NBS (the initial survey) for individuals receiving divorced wife benefits, and, separately, for individuals receiving surviving divorced wife benefits. To be included in the divorced wife sample, a respondent must have been sampled as a divorced wife and must still be receiving full divorced wife benefits at about the time of the NBS. Because of the type of benefit they receive, it is possible to conclude that

those in this sample had ex-spouses who were alive at the time of the NBS (there is no need to check the Numident death records). The surviving divorced wife sample is composed of persons who were sampled as surviving divorced wives and who were still receiving full surviving divorced wife benefits around the time of the NBS. Because of the type of benefit persons in this sample receive, it is known that their ex-spouses are deceased. Table 2 presents the distribution of marital status responses for each sample.

Ninety-two percent of divorced wife beneficiaries report a marital status of divorced. Four percent report a status of widowed. Note that some or all of the survey-reported widows in the divorced wife sample may in fact be widowed. All of these survey-reported widows report being married more than once and, when asked about marriages *other* than the most recent, they respond that they were *not* widowed in those marriages. Perhaps the divorced wife benefits are based on these *other* marriages and widowed status is derived from subsequent marriages that did end in widowhood. Very generally, then, those with living ex-spouses provide marital information that is consistent with the type of benefit they receive.

Remarkably, a majority of surviving divorced wives report they are widows. Some may be widows, but an examination of survey responses to the question of when the respondent's late husband died suggests that the large majority of these "widows" are actually divorced persons. Fifty-seven percent report being widowed in the same year that, according to SSA records, an ex-husband died (specifically, the ex-husband on whose work record the surviving divorced wife benefit is based). For another 26 percent, the reported year is different, but it is within two

years of an ex-husband's death.⁹ Thus, generally, it is the deaths of *ex*-husbands that are responsible for the marital status responses of widowed, not the deaths of husbands.

IV. The Survey of Income and Program Participation

The 1990 SIPP is a longitudinal, nationally-representative survey conducted by the Bureau of the Census. Respondents are interviewed every four months, with a total of eight interviews being conducted. Basic information on personal characteristics, labor market experiences, participation in government programs, and income is collected. Some interviews contain special topical modules in which detailed questions are asked about a given topic. Results presented in this article are based on information from the second interview of the 1990 SIPP which has a topical module devoted to marital history. The 1990 SIPP has been matched to SSA records (about 90 percent of respondents had their records matched). To protect the confidentiality of respondents, use of matched SIPP (and CPS) files is restricted. These files may be used only for research purposes and only by persons who receive authorization from the Bureau of the Census.

The marital status question for the SIPP is as follows.

Is (name of respondent) now married, widowed, divorced, separated, or never married?

For the question on current marital status, the SIPP interviewer instructions do not define divorced status. However, for questions in the marital history topical module about how previous marriages ended, the interviewers are instructed to mark "divorce" in "the case of

⁹The 57 percent and 26 percent figures were computed after removing a small number of persons from the sample who had missing data.

divorce followed by the death of the husband or wife."

In table 2, I present the frequency of marital status responses for individuals receiving divorced spouse benefits (either full or partial) around the time of the interview and, separately, for individuals receiving surviving divorced spouse benefits (either full or partial) around the time of the interview. Generally, the same pattern found in the NBDS holds for the SIPP. Divorced spouse beneficiaries, who have ex-spouses who are alive, generally report a marital status of divorced.¹⁰ Surviving divorced spouse beneficiaries frequently report that they are widowed.

As was the case with the NBDS, there is evidence that those surviving divorced spouses who report a status of widowed are doing so because of the deaths of *ex*-spouses, not spouses. Seventy-eight percent report that they were widowed in a year that is, according to SSA records, the same as the year an *ex*-spouse died or is different by no more than two years.¹¹ Another eight percent report being married only once, which if true must have been to an *ex*-spouse on whose work record a surviving divorced spouse benefit is based.

¹⁰The NBDS is unique in that SSA had the SSNs of respondents prior to the interview (this was possible because the sample was drawn from SSA's benefit records which contain SSNs). For the SIPP (and the CPS), SSA has to rely on respondent-provided information regarding the SSNs. SSA does employ a reasonable -- but imperfect -- validation procedure regarding the SSNs. Certainly, in some cases, invalid SSNs cause the wrong Social Security records to be matched to respondents. Thus, one should look for general patterns in the results presented in table 2, being aware that some of the inconsistencies between type of benefit and marital status are due to mismatches or other miscellaneous factors, such as the fact that type of benefit and marital status are measured at slightly different points in time.

¹¹This figure was computed after removing a small number of persons from the sample who had imputed data.

V. The Current Population Survey

The March 1991 CPS is a cross-sectional, nationally-representative survey conducted by the Bureau of the Census. It has been matched with SSA records (87 percent of the respondents had their records matched). The question on current marital status is basically the same as that of the 1990 SIPP and, as in the SIPP, there is no definition of divorced status.

In table 2, I present distributions of marital status responses. Type of benefit is measured at about the time of the survey.¹² Again, individuals receiving a full or partial divorced spouse benefit generally report a marital status of divorced. A *majority* of individuals receiving a full or partial surviving divorced spouse benefit, however, report a marital status of *widowed*. The March 1991 CPS does not have a marital history segment, so it is impossible to verify that it is the deaths of ex-spouses causing the responses of widowed. However, the pattern of reporting is similar to the SIPP and the NBDS, where such a verification was made. Note that the proportion who report a status of widowed is greater in the CPS than in the SIPP. This could be for any number of reasons including the possibility that the SIPP marital history questions prompt some discussion between interviewers and respondents which leads to more accurate marital status responses.

VI. Discussion

There is ample evidence that, in surveys, divorced persons often report a marital status other than divorced. Misreporting of marital status primarily occurs among divorced persons

¹²These distributions were developed during a separate research project. An added, minor sample restriction is that respondents must report some family Social Security income in the CPS.

with deceased ex-spouses; such individuals often report their marital status as widowed. This pattern of misreporting occurred in all three surveys examined here and occurred among very different samples including men and persons who do not receive survivor benefits from Social Security. Divorced persons with living ex-spouses generally report a marital status of divorced. The fact that misreporting is strongly linked to a particular event (the death of an ex-spouse) suggests general influences such as stigma or sensitivity about divorced status are not responsible for the misreporting. It is plausible confusion over what to call oneself upon the death of an ex-spouse is responsible for the misreporting in many cases. Other evidence supports this view. In a longitudinal survey, many respondents reported a marital status of divorced initially and then a status of widowed following the deaths of their ex-spouses. An explanation involving stigma or sensitivity about divorced status is less compelling in this case because these persons reveal to interviewers -- at some point -- that they have been divorced.

Refinements to survey questions and/or procedures may elicit more accurate responses. Perhaps interviewers should be instructed to define the divorced category for respondents prior to asking about current marital status, in an attempt to include among the currently divorced those whose ex-spouses are deceased. For this approach to be successful, respondents would have to be given the definition prior to the question rather than simply having it available for respondents who express confusion over which marital status category is appropriate; in the NBDS an appropriate definition of divorced status was available for those who expressed confusion but it apparently was not used very often. Another approach would be to have more than one marital status category on the survey for divorced individuals: divorced with ex-spouse alive and divorced with ex-spouse deceased. This would make it clear to those with deceased

ex-spouses not to label themselves as widowed. An added advantage would be that researchers would have more information about divorced respondents. Survival status of the ex-spouse is an important piece of information because it is a determinant of economic well-being (it terminates alimony payments and makes many persons eligible for survivor benefits from Social Security). Finally, for surveys that collect marital histories, such as the SIPP, it may make sense to ask how each marriage *ended*. Currently, in the SIPP, for each marriage except the most recent, a respondent is asked how the marriage *ended*. For the most recent marriage, the interviewers assume the response to the current marital status question reflects how the most recent marriage ended. Perhaps the structure of questions could be altered so that interviewers could pose the question "how did your most recent marriage *end*?" For a person with a deceased ex-spouse, this question may focus attention on what happened to the marriage and not what happened to the ex-spouse.

The approach taken in this article has been that there is a correct marital status response for a given respondent and deviation from this response means marital status is misreported. Of course, one does not have to take such a stringent view. For example, consider a woman whose marriage ended in divorce and who, say, receives alimony from her ex-husband. If she reports a status of widowed upon her ex-husband's death, an analyst may feel comfortable including her in a sample of widows because she is *similar* to a widow in at least one respect -- the death of the ex-husband (and the termination of alimony payments) has changed her economic status. However, I believe that, generally, losing a spouse is not similar to losing an ex-spouse. For example, based on March 1991 CPS records matched to Social Security records, only 11 percent of persons who were paid full or partial divorced spouse benefits received alimony. Typically,

then, the change in a divorced wife's economic status upon her ex-husband's death is not comparable to the change in a wife's status upon her husband's death. This is one reason surveys should try to separately identify those whose marriages ended in divorce and not have many of these persons classified as widowed.

The research community should have some understanding of the dimension of the misreporting problem. Holden (1992) examined marital status responses in different interviews of the 1984 SIPP. She measured whether marital status in the first interview changed in subsequent interviews to a status of widowed. Of those whose status was changed to widowed, only 87 percent had an initial status of married or separated. Thirteen percent had a status of divorced or never married before a status of widowed. Holden believes these are divorced persons who changed their status after their ex-spouses died. This explanation is only one possibility, though, because there is no information on the existence or survival status of former spouses. Factors other than the death of an ex-spouse could cause the marital status response to change from one interview to the next -- these factors include a change from a survey response to an imputed response, a change in who answers the survey questions, errors in recording and coding the data, and an actual change in marital status over the course of the SIPP (for example, a divorced woman who remarries and is subsequently widowed).

I believe that survey-reported widows who are actually divorced persons do not represent a substantial portion of the survey-reported widowed population, at least among aged women. My reasoning is as follows and is based on a March 1991 CPS sample of women aged 65 or older who receive Social Security and who had their Social Security records matched to the CPS. Among these women, 6.7 million report a marital status of widowed. Of these, 4.67 million

receive full or partial aged widow benefits, which means they receive benefits based upon marriages ended by the deaths of spouses, not by divorces.¹³ Those receiving full or partial surviving divorced wife benefits account for only 0.13 million of the total. Another 1.83 million receive only primary benefits. If many of the primary-only "widows" are actually referring to deceased ex-husbands when reporting marital status, then (and only then) is it possible that many survey-reported widows are reporting this status because of deceased ex-husbands. I do not think this is possible, though. At most, I believe 0.15 million of the 1.83 million are reporting widowed status because of the deaths of ex-husbands. If the 0.15 million figure is true, we would expect there to be about 0.50 million primary-only women with deceased ex-husbands who report a marital status of *divorced* (this is based on an assumption -- supported by the NBDS longitudinal analysis -- that, among those who do not receive secondary benefits and who have deceased ex-spouses, there are 3.3 times as many who report a status of *divorced* as there are who report a status of widowed). Tabulations from this CPS sample reveal that there are only 0.48 million primary-only women who report a status of *divorced* (and certainly not all of these persons have deceased ex-husbands). The point is that the true figure cannot be higher than 0.15 million because it would be inconsistent with the small number of primary-only women who report a marital status of *divorced*. I believe, at most, 0.28 million (the 0.13 million surviving divorced wives with widowed status plus the 0.15 million primary-only women) or 4.2 percent

¹³Is it possible these aged widow beneficiaries are referring to deceased ex-spouses when claiming widowed status? Evidence from the SIPP indicates that virtually all aged widow beneficiaries are referring to persons on whose work records the widow benefits are based when they claim widowed status (this statement is based on a comparison of reported year of widowhood to year of worker's death in SSA's records and an examination of the reported number of times married). If these referred-to persons were ex-spouses, the benefits would not be aged widow benefits but rather surviving divorced wife benefits.

of survey-reported widows are actually divorced persons. The actual figure is likely lower. (Note also this figure is based on the CPS which has an elevated incidence of misreporting relative to the SIPP.) While the 0.28 million estimate of an upper bound of divorced persons who report widowed status does not represent a substantial part of the survey-reported widowed population, it would reflect a substantial number of missing aged divorced women -- in this CPS sample only 0.73 million women *report* a status of divorced.

Regarding the study of poverty among aged divorced women, there is some evidence that the missing divorced persons do not fundamentally bias results. Among the 0.73 million women who report a status of divorced, 24.8 percent are poor. If surviving divorced wives who report a status of widowed are included, the percentage poor only falls to 24.6. This figure is not based on all divorced women because some primary-only divorced women with deceased ex-husbands likely report a status of widowed in the survey. These women cannot be observed in the data because receipt of a primary benefit implies nothing about one's actual marital status. However, among aged primary-only women who do report a status of divorced, 24.0 percent are poor. If these persons are representative of all aged divorced primary-only women, the 24.6 figure would not change much if the missing primary-only women were included.¹⁴

VII. Conclusion

Using a novel type of data, I have demonstrated that divorced persons frequently

¹⁴The figures reported in this paragraph are similar to ones obtained using March 1994 CPS records matched to Social Security records. Also, the poverty figures from the matched 1991 and 1994 CPSs do not change markedly if survey-reported Social Security income is replaced by Social Security income taken from the Social Security records.

misreport their marital status. I have quantified the incidence of misreporting in several samples. An analysis of the possible effects of the misreporting on the measurement of economic well-being among aged women was presented. Currently, one can use survey-reported marital status to obtain reasonable estimates of the *incidence* of poverty, by marital status, among aged women. Although the proportion of divorced women who report a marital status of widowed is reasonably large, those with misreported marital status do not appear to have a very different incidence of poverty than divorced women who correctly report their marital status. Divorced women who report a status of widowed may well be of a different economic status than actual widows but the relative size of the truly widowed population is such that the incidence of poverty among actual widows is unlikely to be very different from that of survey-reported widows. There is reason to believe, however, that the measurement of poverty among widows may be increasingly biased as time passes because of the growth in the divorced population. Estimates, generated under the intermediate assumptions of SSA's Office of the Chief Actuary, imply that the ratio of aged widowed women to aged divorced women will fall from 11.4 to 2.8 over the period 1995-2020 (Bell 1997). Even if the incidence of poverty by marital status is unaffected and will continue to be unaffected, it will be increasingly unlikely that surveys will yield accurate measurements of the *number* of poor women in each marital status category. Inaccurate measurement in this area may lead to misguided policy discussions because there will appear to be relatively few divorced persons and reforms designed to alleviate the economic hardships associated with divorce will receive less attention than they deserve. It is important to note that the measurement of poverty by marital status is just one of *many* areas of research that are affected by the misreporting of marital status. A major contribution of this article is the finding

that the deaths of ex-spouses are largely the cause of the misreporting. Knowledge of the reason behind the misreporting will put researchers in a better position to assess possible biases in their work. Also, the reason behind the misreporting is not clearly linked to stigma or sensitivity over divorced status, which suggests refinements to surveys may result in more accurate responses. Some suggested refinements were presented.

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Table 1

Marital Status in Followup Survey (NBF) for Persons Reporting Divorced Status in Initial Survey (NBS)
by Survival Status of Ex-spouse.

Percentage:	Sample Type							
	Divorced Wife at the Time of Initial Survey		Primary Only at the Time of Initial Survey					
	All		All		Primary Only at the Time of Followup Survey		Men	
	Ex-Spouse Alive	Ex-Spouse Deceased	Ex-Spouse Alive	Ex-Spouse Deceased	Ex-Spouse Alive	Ex-Spouse Deceased	Ex-Spouse Alive	Ex-Spouse Deceased
Married	6.4	3.1	12.4	4.1	11.9	5.2	19.9	14.3
Widowed	0.0	39.2	1.8	29.0	1.5	22.1	2.4	30.2
Separated	0.9	0.0	2.3	0.0	2.4	0.0	3.4	0.0
Divorced	92.7	55.1	82.8	66.9	83.5	72.7	73.3	55.6
Never Married	0.0	2.7	0.6	0.0	0.6	0.0	1.0	0.0
	N=78	N=34	N=359	N=69	N=345	N=54	N=171	N=13

Notes: See text in section III for sample restrictions. Ex-spouse's survival status reflects status at time of the NBF.

Table 2

Marital Status by Type of Benefit

Percentage:	NBS		SIPP		CPS	
	Divorced Wife	Surviving Divorced Wife	Divorced Spouse	Surviving Divorced Spouse	Divorced Spouse	Surviving Divorced Spouse
Married	0.5	0.6	5.2	2.3	1.3	3.8
Widowed	4.3	55.7	6.9	35.4	12.5	53.7
Separated	3.4	0.0	1.9	1.5	0.2	1.5
Divorced	91.9	43.7	86.1	60.8	86.0	40.3
Never Married	0.0	0.0	0.0	0.0	0.0	0.6
	N=178	N=172	N=37	N=79	N=90	N=161

Notes: See text in sections III, IV, and V for sample restrictions.