FINDINGS FROM A PILOT STUDY OF CURRENT AND POTENTIAL PUBLIC ASSISTANCE RECIPIENTS INCLUDED IN THE CURRENT POPULATION SURVEY

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Introduction

The U. S. Census Bureau's March Current Population Survey (CPS) collects information on characteristics of current (and potential) recipients of public assistance programs, including the Aid to Families with Dependent Children program. However, it was roughly estimated that the aggregate public assistance amounts reported in the CPS were about 75 percent of independent estimates in 1973 (series P-60, No. 98, p. 169). In this regard, Budd and Radner note that "... the composition of the poor - by whatever standards their overall number is determined - is dependent on the patterns of income underreporting in the data source used, as well as on the shapes of the distribution of the various income types themselves" (E. C. Budd and D. R. Radner, "The Bureau of Economic Analysis and Current Population Survey Size Distributions: Some Comparisons for 1964", in The Personal Distribution of Income and Wealth, edited by D. Smith, National Bureau of Economic Research, Inc., 1975, p. 503).

This net underreporting, overall, is the result of many interacting factors including the net underreporting of income by respondents, a possible net downward bias in the imputation of missing income items, the misinterpretation of the income questions, etc. A need exists to examine this underreporting bias in more detail.

Previous Studies Completed on Underreporting of Public Assistance Income

This pilot study is a continuation of a series of studies analyzing public assistance income reporting biases in household surveys. Based on previous findings, the framework of analysis used to determine the direction of reporting bias of public assistance income in household surveys is as follows:

Agency record information:	Household survey information: Public Assistance income reported	None reported
Public Assistance income received	True positives	False negatives
None received	False positives	True negatives

As noted above, true positives are public assistance recipients, based on administrative records, who also reported in the survey that they had received some amount. True negatives cases are nonrecipients who correctly reported in the survey that they did not receive any public assistance income.

False positive cases are nonrecipients who incorrectly reported in the survey that they had received some amounts. This may be due to many reasons, including misinterpretation or misunderstanding of the questions asked. False negative cases are recipients who may have incorrectly reported in the survey that they had not received any amount. This may result from a reluctance to report the receipt of welfare as well as the misinterpretation or misunderstanding of the questions.

According to T.W. Hu (reference 1) about 27 percent (of 186 families) did not report receiving either cash assistance or medical assistance in household interviews although they were listed on county agency files. He also noted that mean monthly family disposable income reported in the survey was about triple that reported in agency files. In another study which examined how well the 1966 Survey of Equal Opportunity (SEO) identified public assistance recipients (reference 2), R. Livingston reported that among 1,985 persons who had received some public assistance amounts in the SEO, approximately 74 percent were true positives and about 26 percent were false positives. He also reported that among 1,573 low income families not reporting any public assistance amounts, 91 percent were true negatives and about 9 percent were false negatives. He concluded that the findings indicated that the data on public assistance recipients in the SEO appear to be tolerable for analysis. In another similar type of study for families included in a 1968 Test Census (reference 3), R. Livingston found that there were 22 percent of false negative cases among 411 matched cases. He also found the number of false positives was relatively high - about half of those reporting receipt of public assistance income could not be found on county agency rolls. Finally, M. David (reference 4) noted that among matched cases, 37 percent of the population reported public assistance benefits within 10 percent of agency's amounts. He also reported that less than 10 percent of the cases were false negatives.

Because of the different universes, the variable sample sizes involved, and the different procedures used to collect data, it is difficult to arrive at any clear-cut conclusions from these

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studies. However, they do indicate that the incidence of false negatives and false positives vary. For example, for false negatives, it ranged from a low of less than 10 percent to a high of 27 percent. Moreover, findings also indicate that the net underreporting of aggregate public assistance income amounts consisted of the net underreporting of income by true positives, overreporting of income by false positives and the underreporting of income by false negative cases.

Purpose

In order to obtain information on (1) methodological aspects of conducting a larger scale study and (2) the nature of income reporting biases noted below, a very small sample "hot house" or pilot study was undertaken.

Among other items, this study attempted to investigate the following:

(1) What is the incidence of and the amount of income underreporting among true positives?

(2) What is the incidence of and the amount of income overreporting among false positives?

(3) What is the incidence of and the amount of income underreporting among false negatives?

In view of the widespread use of the CPS income data for public welfare program planning and policy making, it was deemed important that such a preliminary analysis be undertaken. This pilot study, designated the Public Assistance Recipient Study (PARS), encompassed the following: determining the feasibility of measuring the extent of household composition change, obtaining information on the attitude of survey respondents towards welfare and comparing statistically CPS public assistance income data with welfare agency administrative records.

General Methodology

In summary, procedures involved surveying about 250 households with income 150 percent or less of the 1973 poverty threshhold. Households were selected from March and April 1974 outgoing CPS rotation groups. The pilot study was conducted in two SCSA's (New York/New Jersey and Chicago) and in three SMSA's (Los Angeles, Houston, and Detroit). After the data were compiled, they were verified statistically against welfare agency administrative records to evaluate the type of income reporting biases found in household surveys. The linkage between CPS and administrative record data was completed by the Census Bureau. Neither the Social and Rehabilitation Service nor the State welfare agencies had any access to identified records from both files. The sample of 246 households provided the following subsamples: occupied and eligible households, 220; interviews completed, 209; one or more household members age 65 or under (included in record check), 151; families with children, 87. Results indicate that future studies be limited to families with children to maximize the utility of the sample but the top of range studied should be at a level higher than the 150 percent of the poverty threshhold.

General Findings

1. Public Assistance Income Reporting Biases

Inasmuch as the March 1974 CPS did not collect AFDC payments separately, the information analyzed herein generally relates only to household units with children.

An analysis of the 87 households with children revealed that for June 1974 there were 25 true positive cases (29 percent), 10 false positive cases (11 percent), 12 false negative cases (14 percent), and 40 true negative cases (46 percent). The difference between survey and administrative record AFDC amounts for the true positive and false negative cases, respectively, were $2,236 (mean of $89) and $4,022 (mean of $335) or a total gross underreporting of $6,258.

The total overreporting resulting from false positive cases was $2,542 (mean of $254). Combining these two groups resulted in a net underreporting of AFDC amounts of $3,716 or an average of about $80 per household unit. These figures indicate that the false negative cases have a greater impact than the others.

There were no discernible differences in the age of head of household, marital status of head, or size of household among the four groups: true and false positives, true and false negatives. However, there appears to be an indication (which, of course, is not statistically significant because of the small sample size) that there may be some difference among these four groups with respect to race and sex of head.

Another comparison was made between CPS annual amounts on public assistance (although subject to further analysis, it is assumed that families with children reporting receipt of public assistance received AFDC) with annual AFDC payments found in agency administrative records. Among 87 households with children 28 were true positives (32 percent), 16 were false positives (18 percent), 10 were false negatives (11 percent), and 33 were true negatives (38 percent).

The same type of underreporting biases that were found for the reporting of monthly

public assistance payments were also found for annual reported amounts. For the true positives (households with children) the total net difference amounted to a minus $31,459 or $1,123 per household. In this group, 67% underreported, 29% over-reported, and 4% were the same. For the false negatives, the underreporting amounted to $35,361 or a mean of $3,536 per household. Total underreporting amounted to $66,820. Offsetting this underreporting was the overreporting due to false positives, which totalled $38,626 or $2,414 per household. Combining these minuses and pluses resulted in a net underreporting of $28,194 (or about minus $500 per household for the 54 households). Again, it appears that the major contributors for the net underreporting are the false negative cases.

With respect to the characteristics of these four groups (true and false positives, true and false negatives) the results were about the same as that indicated for the monthly analysis.

2. Food Stamp Recipiency Reporting Bias

Another item of interest was the reporting of food stamp recipiency for a one-month period for households with and without children. For all 151 households, there were 19 true positives (13%), 24 false positives (16%), 14 false negatives (9%), and 94 true negatives (62%). However, for the 87 households with children, there were 19 true positives (22%), 13 false positives (15%), 8 false negatives (9%), and 47 true negatives (54%). These data indicate that about 3 in 4 households with children correctly report their participation in the food stamps program i.e., either that they do participate (true positives) or do not participate (true negatives). However, when the effect of the false positives (13 households) and false negatives (8 households) are considered, there is a net undercount of food stamp participation of only 6 percent.

3. Household Composition Change

Data measuring household composition changes between January 1973 and June 1974 tabulated for 246 families indicated that the likelihood of composition change varied depending on whether children were present, whether receipt of assistance was reported, and upon characteristics of the head of household. Of 87 families with children present, 40 percent indicated a change in household composition compared with 16 percent change for the 159 households with no children present. The likelihood of composition change was greater when an amount was reported in June 1974 for PARS (37 percent and 40 percent for the true positive and the false positive, respectively), than when no AFDC was reported received (31 percent for false negatives and 33 percent for true negatives).

Families with the head reported as white experienced a household composition change more frequently than did families with the head reported as black or another race; almost half of the white families compared to three in 10 of the families that were black or other races. Male headed households were more than twice as likely to have a household composition change than female headed households, 63 percent and 30 percent, respectively. The age of the head of the household also showed considerable variation.

Residential mobility as reported in PARS was compared with results from CPS interviewing by Census Bureau staff. This review indicated underreporting of both entire household mobility and individual mobility in PARS. This apparent underreporting may have resulted in part from differences in the way the information was collected. For example, the control card is a working document used to control the sample of the CPS and must be kept current by the interviewer whereas the household information for PARS is based on the recall of the respondent. Also, PARS was completed at a later point in time with a greater chance for the respondent to forget about the change.

4. Welfare Programs; Awareness and Attitudes

In order to obtain information for use in estimating number of individuals eligible for assistance that are not recipients, along with the likelihood of their applying for assistance, questions were included on the June 1974 survey form on the extent to which the respondent was aware of welfare programs and the respondent's attitudes toward the receipt of assistance. Of the 209 households, both with and without children present, for which interviews were completed, 35 included household members who were reported as receiving AFDC during June 1974 (this includes 25 true positives and 10 false positives). Of the remaining households, 9 respondents indicated that AFDC had previously been received, 10 respondents knew of someone who had received AFDC, and an additional 25 respondents had at least heard of government programs that provided income to families with children.

Of the 19 respondents who had received or knew of someone receiving AFDC, only 10 were aware that the type of aid received was income. However, 7 respondents thought the aid received was clothing, household items, or something other than income. Two respondents did not know or could not remember the type of aid. Of the 106 respondents who reported never having received AFDC, 39 said they would apply if

more income was needed, 48 respondents said they would not, and 18 respondents were not sure (1 not reported). It is likely that most of these respondents are in households without children. Nearly a quarter (47 respondents) of those interviewed indicated that a member of the household had purchased food stamps during June 1974. An additional 31 respondents had purchased or used food stamps previously. A substantial majority of the remaining respondents said they would apply for food stamps if they needed to buy food, 76 stating yes compared to 53 stating no and 5 not reported.

Similarly, a quarter (53 respondents) of those interviewed indicated that a member of the household had received medical care during June that was covered by Medicaid.

These data indicate that many of the respondents are not familiar with the terminology used in the PARS, and to a similar extent, the CPS. For example, nearly half of the individuals who indicated they had either received or had heard of AFDC were not aware that the type of aid provided was income. This could result in an underreporting of public assistance and reinforces the need to more clearly define what information is being collected, possibly through the use of extensive probing questions to determine which individuals are most likely to incorrectly report this information and the extent by which it is erroneously reported.

Another problem in obtaining actual amounts of public assistance received by the family is the possible deductions from the grant for items such as the purchase amount of food stamps which the present CPS question does not make clear.* For example, the AFDC grant may be $255 before a deduction for food stamps of $130 is made and the AFDC recipient may incorrectly report $125 as the amount of assistance. The extent that this underreporting of AFDC payment will occur depends on the policies of the various State public welfare agencies covering such matters and the awareness of the respondent that such amounts are to be included in the reported income.

Summary and Future Direction of Research

As stated previously, caution must be used when drawing any conclusions from this pilot study because of the small sample size involved. The study findings, however, indicate that false negatives cases tend to have a major impact on the net underreporting of public assistance income. This problem may be alleviated through the use of more precise wording of the public assistance income question and/or through the use of more probing questions relating to the receipt of such assistance.

Another research effort with a somewhat larger sample size might more accurately determine the extent of biased reporting of public assistance income in the CPS. This type of study would be beneficial to determine, for example, the number of nonrecipient families eligible for AFDC that can be expected to apply for assistance.

One of the problems encountered in the review of the March 1974 CPS data was the inclusion of AFDC information with the receipt of other public assistance; a strong assumption was made that families with children receiving public assistance were considered AFDC recipients. It may be useful to note that the March 1975 CPS appropriately asked separate questions on the receipt of AFDC and general assistance (GA) along with the combined amount. It is known that very few families receive both AFDC and GA. Hence, the March 1975 CPS data will allow for more precise estimates of AFDC income and will be of considerable value in any future research analysis of this sort.

*This point was brought to the attention of the authors by Janice Peskin, Office of the Assistant Secretary for Planning and Evaluation, DHEW.

REFERENCES

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