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The Survey of Program Dynamics

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The Survey of Program Dynamics (SPD) is a ten-year longitudinal survey designed to provide data about families before and after the 1996 nationwide welfare reform. The SPD's value derives from three characteristics: (1) It was designed to focus on welfare, (2) its sample is representative of the 1992 and 1993 civilian noninstitutionalized population, and (3) its response rates are comparable to those of other longitudinal household surveys. Even so, the problem of attrition of respondents has necessitated the use of incentives and special efforts to return nonrespondents to the survey.

Because of respondent attrition, researchers have questioned the usefulness of data from the SPD; thus, the purpose of this paper is to evaluate the quality of the SPD data. The conclusions drawn from the analysis that follows are that (1) the SPD data are representative of the population when compared with the Current Population Survey (CPS) and (2) the SPD response rates are comparable to those of two other major longitudinal household surveys—the Panel Study of Income Dynamics (PSID), conducted by the Survey Research Center at the University of Michigan, and the National Longitudinal Survey of Youth (NLSY), conducted by the National Opinion Research Center for the Center for Human Resource Research at Ohio State

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University. Attrition, however, is still a problem for the SPD. An experimental study that the Census Bureau conducted in 1998 concluded that monetary incentives were successful in gaining cooperation from panel nonrespondents, a finding suggesting that SPD should adopt the use of monetary incentives to reduce attrition.

This paper addresses the following questions:

- What role does the SPD play in measuring the effects of welfare reform?
- How do the SPD's response rates compare with those of the 1968 PSID and 1979 NLSY?
- What affected SPD attrition?
- How do data from the SPD compare with data from the CPS March Demographic Supplement?
- What was learned from the SPD Exploratory Attrition Study[1] and the use of incentives?
- What response rates can be expected if the Census Bureau receives funding to regain the participation of nonrespondents to the 1997 SPD and the 1992 and 1993 Survey of Income and Program Participation (SIPP)?

Research Questions

What role does the SPD play in measuring the effects of welfare reform? The SPD is a national longitudinal survey that follows the same families for up to ten years, from 1992 through 2001. In 1996, Congress mandated that the Census Bureau continue to collect data from households who participated in the 1992 and 1993 panels of the SIPP, households that had already completed survey participation by January 1995 or 1996, respectively (see box 3–1). This additional data collection allows the Census Bureau to obtain information on changes in program participation, employment, and earnings as well as measures of adult and child well-being in the post-1996 time period. The data collected from the 1992 and 1993 SIPP panels provided us with three years of longitudinal baseline data prior to major welfare reform. Data collected in those panels included information on the factors that determine program eligibility, program access and participation, transfer income and in-kind benefits, detailed economic and demographic data on employment and job transitions, earnings and other types of income, and family composition. The SIPP data (1992–1995 for half the sample, 1993–1995 for the other half), combined with the SPD data (1996–2001), will provide ten years of annual panel data capturing both pre- and post-welfare reform data. As do most longitudinal surveys, the SPD follows people in the original sample who move or form new households.

[1] As will be explained later, this study was conducted to test the feasibility and costs of finding and interviewing nonrespondents from the SIPP sample—the sample of households used for the SPD survey.

Several other surveys also will contribute to our understanding of the changes that result from welfare reform. The 1996 SIPP will provide nearly four years of longitudinal data—from April 1996 through March 2000—for almost 37,000 households. A special welfare reform module was collected from August to November 1998 (Nelson and Doyle 1999).[2]

The 1997 SPD data (collected in 1996) were released in February 1999. The 1998 SPD data (collected in 1997) were released in February 2000. Although we released calendar year files, our main focus is to develop a longitudinal processing system to create a unified data file with common formats. It is only with such a file, and an appropriate longitudinal weight, that sophisticated before-and-after analysis of the effects of welfare reform can take place. Developing such a processing system is a major undertaking.

The Census Bureau's CPS and the Urban Institute's National Survey of America's Families (NSAF) are cross-sectional surveys that will be used to study the effects of welfare reform. The CPS already has been used to study other nonexperimental welfare changes, such as those made in 1981 to the Aid to Families with Dependent Children (AFDC) program (see, for example, Moffitt 1992). The NSAF data are being collected specifically to evaluate the 1996 changes.[3]

Researchers also hope to learn about different components of the 1996 changes by looking at preexisting, continuing experimental studies, such as welfare waiver demonstration projects (for example, Bos and Fellerath 1997; Fraker et al. 1997; Weissman 1997; Wemmerus and Gottlieb 1999). Other useful approaches include ethnographic studies, such as the Manpower Demonstration Research Corporation's (MDRC) Urban Change Study and the General Accounting Office's studies of welfare reform in selected states (see, for example, GAO 1998; MDRC 1998). Each survey and study will provide insight into some aspects of welfare reform and should be considered part of the portfolio needed to understand that major program change.

The SPD is a unique tool for evaluating welfare reform because of its welfare reform–specific content (see box 3–2) and its ability to analyze the economic and social well-being of families both at two points in time and longitudinally over a ten-year period. The importance of the SPD is that it will provide a national longitudinal picture of welfare before, during, and after the enactment of welfare reform. Because it is a national survey, it will serve as a benchmark to the numerous state and city studies.

[2] One-quarter of the SIPP sample is interviewed each month about the previous four months.

[3] See the Urban Institute Web site, which discusses the NSAF survey: http://newfederalism.urban.org/nsaf/index.htm.

Box 3–1. Description of the Survey of Program Dynamics

The Census Bureau conducts the SPD under the authority of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (Public Law 104-193). P.L. 104-193 requires (and funds) the Census Bureau to:

> continue to collect data on the 1992 and 1993 panels of the Survey of Income and Program Participation [SIPP] as necessary to obtain such information as will enable interested persons to evaluate the impact [of the law] on a random national sample of recipients of assistance under state programs funded under this part and (as appropriate) other low-income families, and in doing so, shall pay particular attention to the issues of out-of-wedlock birth, welfare dependency, the beginning and end of welfare spells, and the causes of repeat welfare spells, and shall obtain information about the status of children participating in such panels.

The 1997 SPD "Bridge Survey" attempted to interview all sample participants in the 38,000 households that completed all waves of the 1992 and 1993 SIPP panels (73 percent of the original sample). The field staff interviewed 82 percent of those households (approximately 30,000) using a modified version of the March 1997 Current Population Survey (CPS) in May and June of 1997. This survey provides a bridge between the 1992–1993 SIPP data and the 1998–2001 SPD data.

A new core SPD questionnaire was developed for 1998 with the assistance of Child Trends and funding from the U.S. Departments of Agriculture and Health and Human Services. The 1998 survey also included a self-administered adolescent questionnaire (SAQ). The SPD core instrument includes retrospective questions for all people age 15 and over on jobs, income, and program participation as well as detailed questions about children under age 15. Because of budget constraints, the sample for the 1998 SPD was approximately 18,500 households, including all sample households with children in or near the poverty threshold and an overrepresentation of other households with children below or near the poverty threshold. The field staff obtained interviews from 89 percent of households eligible for the 1998 SPD. The 1999 SPD included extended measures of children's well-being, the 2000 SPD includes a retrospective children's residential history, the 2001 SPD will repeat the 1998 SAQ, and the 2002 SPD will repeat the 1999 extended measures of children's well-being.

Rossi notes that "the question that most interests the policy community is, What have been the net effects of TANF[4] (uniquely attributable to TANF) on the employment and

[4] Temporary Assistance for Needy Families.

well-being of low income households?" He states that the "gold standard" for estimating the net effects of welfare reform is the randomized experiment. The SPD cannot measure the effects directly, but it can, through modeling, decompose the impact of economic changes and welfare reform. Several studies have done this using pooled time-series, cross-sectional data (Blank 1997; Council of Economic Advisors 1999; Lewin Group 1997; Ziliak et al. 1997). The same models could be tested using longitudinal data from the SPD for the 1992–2001 period. Furthermore, even gold-standard random-assignment impact studies use modeling to account for differential attrition from the treatment and control groups.

Rossi also expresses concern that attrition may compromise the amount and representativeness of data from the SPD, a problem made worse by the possible issue of incomplete longitudinal data for some households. Although we also are concerned with attrition and report later in the paper both on the representativeness of the remaining sample and on efforts to bring back nonrespondents, we must note that SPD analysts can compare initial and final conditions without necessarily using intermediate longitudinal data.

How do the SPD's response rates compare with those of the 1968 PSID and the 1979 NLSY? The usefulness of data from any study that interviews the same respondents over a period of years depends on whether the data represent the relevant populations (Hernandez 1999). Nonresponse by members of the original sample is a potential source of bias that can undermine the quality of estimates derived from longitudinal data. This section compares response rates between the initial interview and the most recent interview for three major national longitudinal household surveys: the SPD, the PSID, and the NLSY. See table 3–1 for a brief description of each survey and its universe. This section also discusses how the surveys have tried to minimize attrition.

Table 3–2 presents the current response rates for specified survey periods.[5] The current mortality-adjusted cumulative response rate for the entire survey period between initial sample selection and the most recent interview is 50 percent for the SPD, 64 percent for the NLSY, and 35 to 41 percent for the PSID (see the bottom line of table). The rates indicate the proportion of people designated for interview during sample selection who were successfully interviewed during each round of interviews.[6] Note also that the PSID-SRC (Survey Research Center) sample was intended to be a representative sample of the U.S. population, whereas the PSID-SEO (Survey of Economic Opportunity) subsample and the entire NLSY were representative only of

[5] These were the most recent, final estimates published or available for each survey at the time the source document was written.

[6] SPD respondents could have missed an intervening SIPP interview. They were eligible for the SPD sample if they participated in the first and last SIPP interviews for their panel.

selected portions of the population: low-income households in 1968 and people age 14 to 22 in 1979, respectively.[7]

Box 3–2. Welfare Reform–Specific Content in the SPD

Basic information: basic demographic characteristics, household composition, educational enrollment, work training, functional limitations and disability.

Economic information: employment and earnings; income sources and amounts; assets, liabilities, and program participation and eligibility information (including reasons for leaving programs and reasons not accepted into programs); health care use; health insurance coverage; and food adequacy.

Child well-being: school enrollment and enrichment activities, disability and health care use, contact with absent parent, child care arrangements, payment of child support on children's behalf, and residential history.

The SPD also includes two self-administered questionnaires:

(1) a series of questions for adults about marital relationship and conflict that includes a depression scale, and

(2) a questionnaire for adolescents ages 12 to 17 on issues such as household routines and chores, parental monitoring, identification with parents, contact with nonresidential parent, delinquent behaviors, knowledge of welfare rules, crime-related violence, substance use, dating, sexual activity, and contraceptive use.

Response rates for some longitudinal surveys often appear higher than for the SIPP in the literature because they report their response rates on the basis of the number of households actually interviewed in Wave 1 rather than on the basis of the original sample selected for interview. Table 3–3 compares response rates for SPD, PSID, and NLSY at Interview 1 and at Interviews 11, 12, and 13 (the SPD's most recent interviews). Interview 1 response rates that are based on the sample selected are 91 percent, 76 percent, and 89 percent for the SPD (originally SIPP), PSID, and NLSY, respectively. A comparison of response rates from sample selection to the same number of interviews (11, 12, and 13) shows SPD rates comparable to those of PSID and somewhat lower than NLSY's. The Census Bureau conducted SPD interviews during the 1990s, when response rates for household surveys were generally somewhat lower than in the

[7] The SEO sample of the PSID was selected from low-income respondents to the 1967 SEO conducted for the Office of Economic Opportunity by the Census Bureau. Thus, these households had an extra opportunity for nonrandom attrition (nonresponse to the SEO). See Appendix B.

1978–1980 period for the PSID and 1989–1991 period for the NLSY. Both the PSID and the NLSY used incentives throughout their field period to encourage participation, whereas the SIPP used no incentives.

Table 3–1. Summary of Three Longitudinal Surveys

	Survey of Program Dynamics Panel	Panel Study of Income Dynamics	National Longitudinal Survey of Youth
Purpose of survey	To provide panel data to evaluate the 1996 welfare reform legislation	To provide panel data to study demographic, social, and economic changes over an extended period of time	To gather information at multiple points in time on the labor market experiences of people who were age 14 to 22 in 1979
Universe	Civilian noninstitutionalized population in 1992–1993	Civilian noninstitutionalized population, (SRC sample); low-income households with householder under age 60 in 1968 (SEO sample)	Individuals age 14 to 22 in 1979
Original sample size	50,000 households	4,802 families (SRC); 23,430 people (SEO)	14,574 people
Time frame	1992-2001	1968-present	1979-present
Survey organization	U.S. Census Bureau	University of Michigan SRC	National Opinion Research Center

SEO=Survey of Economic Opportunity; SRC=Survey Research Center.
SOURCE: Author.

The SPD response rate held steady at 50 percent between the twelfth and thirteenth interviews because the Census Bureau made additional efforts to bring Wave 12 nonrespondents back into the sample and to encourage Wave 13 nonrespondents to respond. A $40 incentive was mailed to Wave 12 nonrespondents, and during Wave 13 field representatives were allowed to give $40 incentives to encourage nonrespondents to be interviewed.[8]

[8] Field representatives requested that the regional office send the incentive with a letter requesting cooperation.

Table 3–2. Response Rates for SPD, PSID, and NLSY (%)

	SPD	PSID-SRC	PSID-SEO	PSID: Total	NLSY: Always	NLSY: Currently
Sample-selection to Interview 1	90.9	77.0	50.8	66.5	89.0	89.2
Interview 1 to most recent Interview (see note below):						
All deceased included in base	51.6	45.2	45.2	45.2	69.6	86.7
Known deceased removed from base	53.6	53.0	53.0	53.0	71.5	NA
Sample Selection to Most Recent Interview (see note below):						
All deceased included in base	46.9	34.8	23.0	30.1	62.1	77.3
Known deceased removed from base	50.0	40.8	26.9	35.2	63.8	NA

Notes: Data collection year and wave (interview) number for most recent survey at the time this paper was prepared: SPD=1998 (Wave 12); PSID=1993 (Wave 26); NLSY=1996 (Wave 17). The label "always" means that a respondent never missed an interview; "currently" means that a respondent may have missed one or more interviews but is currently in the survey. See Appendix A for a comparison of SPD, PSID, and NLSY response rates.
NA=not available.
SEO=Survey of Economic Opportunity; SRC=Survey Research Center.
Source: Author calculations from survey documents and personal conversations; see Appendix B.

Examining the 1992 SPD data shows that some differential attrition occurred by income group, program participation characteristics, and family characteristics (Hernandez 1998). Table 3–4 compares the attrition rates for SPD sample cases, arranged according to the income-to-poverty ratio in the first interview month. Attrition rates are calculated for three periods: (1) between the first and last SIPP interview months for the 1992 and 1993 SIPP panels that provided the sample for the subsequent SPD Bridge Survey interview;[9] (2) between the last SIPP interview month in October 1994 and January 1995 and the SPD Bridge Survey interview in 1997; and (3) between the first SIPP interview month and the SPD bridge interview. Attrition rates are calculated as the percentage of the sample at the first time point who are not successfully followed and interviewed at the second point in time.[10]

[9] The SPD Bridge Survey was a modified March 1997 CPS interview designed to bridge the gap between the last SIPP interview (1994 or 1995) and the first SPD interview (1998). See box 1.

[10] See SIPP and SPD documentation for the specific rules used to ascertain whether or not a sample person is designated as interviewed at a particular point in time. The Web site addresses are http://www.sipp.census.gov/sipp/ and http:/www.sipp.census.gov/spd/.

Table 3–3. Cumulative SPD, PSID, and NLSY Response Rates from Sample Selection to the First, Eleventh, Twelfth, and Thirteenth Interviews (%)

Survey	1st Interview	11th Interview	12th Interview	13th Interview
SPD	91	59	50	50
PSID	76	54	52	51
NLSY	89	79	78	77

Notes: SPD: 1st Interview=1992 or 1993; 11th–13th interviews=1997 to 1999. PSID: 1st interview= 1968; 11th–13th interviews=1978 to 1980. NLSY: 1st interview=1979; 11th–13th interview=1989 to 1991.
Source: Author calculations.

People with lower incomes have higher attrition rates than do people with higher incomes. But the differences are not enormous, and about 50 percent of the people of most direct interest to researchers for evaluating welfare reform were interviewed both in the first SIPP interview month and in the SPD Bridge Survey interview.

What affected SPD attrition? Budgetary and other reasons may have exacerbated attrition. First, to capture the pre–welfare reform situation of households (including prewaiver behavior), the 1992 and 1993 panels of the SIPP were used as the sampling frame for the SPD; thus, the SPD sample inherited a 27 percent attrition rate from the 1992 and 1993 SIPP panels.[11] Second, the budget was insufficient to interview all households in both the 1992 and 1993 SIPP panels for the length of the SPD; therefore, households that participated in both Wave 1 and Wave 9 or 10 interviews[12] were selected for the SPD sample. Third, because of budget constraints, the Census Bureau subsampled the 1997 SPD Bridge Survey sample for the 1998–2002 SPD. The low-income population and households with children were oversampled with certainty or near certainty to maximize the sample population most likely to receive welfare. If these types of households are also most likely to become nonrespondents, then measured attrition would be biased upward compared with a nonstratified sample.

[11] For more details on the origins and sampling scheme of the SPD, see Weinberg et al. (1998).

[12] Some households were assigned to 9 waves and others to 10 waves of interviews; for households to be eligible for SPD, they must have completed the last assigned interview.

Table 3–4. Three Measures of Sample Attrition in the SPD, by Income Level

Income-to-Poverty Ratio	Attrition Rates (%)		
	Interview 1 to Interview 9 or 10	Interview 9 or 10 to SPD Bridge Survey	Interview 1 to SPD Bridge Survey
0.0 to <0.5	36	26	53
0.5 to <1.0	27	24	45
1.0 to <1.5	26	23	43
1.5 to <2.0	23	21	39
2.0+	18	21	35

Source: Author calculations.

How do data from the SPD compare with data from the CPS March demographic supplement? Table 3–5 (for all respondents) and table 3–6 (for young women) compare selected measures from the SPD with the CPS March Income Supplement.[13] The tabulations of both the SPD and CPS data presented here use normalized weights (the individual weight divided by the average sample weight); the results of the normalized weighting procedure resemble unweighted counts. The normalized weights, however, preserve the weighted relationship between variables. That is, the proportional distribution is the same whether normalized or cross-sectional weights are used. The results are not national estimates.

Statistical differences between the SPD and CPS at the 90 percent significance level are asterisked.[14] SPD–CPS comparisons for women ages 20 to 26 in 1997 (ages 21 to 27 in 1998)[15] are a proxy for potential young mothers. This group is useful in evaluating the potential of SPD data for examining the effects of welfare reform on young mothers.

[13] Stephen Campbell, Charita Castro, and Arthur Jones in the Census Bureau's Housing and Household Economic Statistics Division defined the variables and wrote the SAS programs to produce these data.

[14]When multiple comparisons are made at the 90 percent confidence level, 10 percent of differences will appear to be statistically significant just as a result of chance. In Table 5, about twelve of the seventeen SPD-CPS comparisons (one is dependent) are significant and are thus suggestive of sample differences. In contrast, Table 6 shows that for young women, the much smaller number of significant differences suggests few sample differences.

[15]Because we have not yet constructed family and household variables for the 1998 SPD, tabulations are shown at the individual level. For household-level comparisons for 1997 (1996 data), see Appendix 3–C.

Table 3–5. Comparison of Selected Variables Collected in SPD and the CPS March Income Supplement for All Individuals (Normalized Weights)

Program	Program Participation (%)			
	SPD 1997	CPS, March 1997	SPD 1998	CPS, March 1998
Temporary Assistance for Needy Families	1.3	1.4	1.5	1.1
Supplemental Security Income	2.4	2.0	3.0[a]	1.9
Food stamps	8.6[a]	10.0	7.6[a]	8.7
Public housing and rent subsidies	4.1	4.5	5.3[a]	4.2
Energy assistance	3.2[a]	2.6	3.5[a]	2.5
Free/reduced school lunch	13.4	14.3	13.8[a]	12.4
Type of income	**Distribution by type of income (%)**			
Wage and salary earnings	53.8[a]	50.5	48.8	49.9
Retirement income	9.1[a]	6.8	7.7	6.8
Income from at least one asset	47.8*	40.2	45.3*	39.8
Dividends	13.1[a]	11.5	18.6[a]	12.2
Work characteristic	**Distribution by work characteristic (%)**			
Worked at all during 1997-1998	67.8[a]	69.0	67.9	69.1
Worked 50+ weeks	80.7[a]	72.6	80.7[a]	73.7
Worked for one employer	85.9[a]	84.6	84.4	84.7
Had health insurance	87.6[a]	84.4	89.7[a]	83.9
Education	**Distribution by education (%)**			
No high school diploma	35.0[a]	40.2	37.8[a]	39.7
High school diploma	26.2[a]	24.6	24.9	24.6
Some college	21.1[a]	19.3	20.6[a]	19.4
Bachelor's degree or higher	17.7[a]	15.9	16.7	16.3

Note: Except for educational status, which is as of the interview date, the data are for the previous year.
[a]The SPD estimate is significantly different from the CPS estimate at the 90 percent confidence level.
Source: Author.

Table 3–6. Comparison of Selected Variables in SPD and CPS March Income Supplement for Women Ages 20–26 in 1997 and 21–27 in 1998 (Normalized Weights)

	Program Participation (%)			
Program	**SPD 1997**	**CPS 1997**	**SPD 1998**	**CPS 1998**
Temporary Assistance for Needy Families	7.5	7.4	6.1	6.7
Supplemental Security Income	2.2	2.1	2.9	1.9
Food stamps	14.0	13.8	10.9	12.8
Public housing and rent subsidies	6.8	5.8	7.2	6.3
Energy assistance	3.7	2.4	3.0	2.8
Free/reduced school lunch	11.0	10.5	11.1	10.3
Type of income	**Distribution by type of income (%)**			
Wage and salary earnings	79.8	78.5	76.7	79.1
Retirement income	0.8	0.3	0.2[a]	3.2
Income from at least one asset	35.0	34.7	39.1	36.0
Dividends	4.0	5.2	7.7	6.2
Work characteristic	**Distribution by work characteristic (%)**			
Worked at all during 1997-1998	80.7	80.0	79.2	81.0
Worked 50+ weeks	58.8	56.9	70.8[a]	63.4
Worked for one employer	73.2	71.7	71.2	73.4
Had health insurance	76.6	74.9	86.8[a]	74.3
Education	**Distribution by education (%)**			
No high school diploma	11.1	12.2	8.5	10.6
High school diploma	27.5	30.0	27.6	29.7
Some college	41.3	40.8	42.3	38.3
Bachelor's degree or higher	20.0	17.0	21.6	21.4

Note: Except for educational status, which is as of the interview date, the data are for the previous year.
[a] The SPD estimate is significantly different from the CPS estimate at the 90 percent confidence level.
Source: Author.

In the comparisons for all survey respondents, some statistical differences are apparent, more so for the 1998 data than for 1997. For example, the percentage of people participating in programs for the SPD and CPS are quite comparable for 1997. A greater number of significant differences are found in the 1998 data, with the SPD showing a slightly higher percentage participating in programs; however, the percentages for the two years are still reasonably close. In

the comparisons for women ages 20 to 26 in 1997 and 21 to 27 in 1998, only a few differences are statistically significant, possibly indicating that the data compare quite well with the CPS; but more likely, the differences are significant because of the relatively small sample size of this age group.

What was learned from the SPD Exploratory Attrition Study and the use of incentives? Addressing concern about the SPD response rates, the Census Bureau conducted the Exploratory Attrition Study (King 1999) to assess the extent to which nonrespondents could be brought back into the sample. Other longitudinal surveys (such as the PSID and NLSY) have contacted early panel nonrespondents and successfully brought them back into the sample. A key element of this experiment was to test the effectiveness of monetary incentives in encouraging people who had not responded as much as five or six years earlier to re-enter the sample and respond to a current questionnaire. The project focused on people at or below 200 percent of the poverty threshold, because they are of interest in studies of welfare reform and their attrition is much greater than that of the higher income population.

Possible reasons why attrition is a problem for the SPD include the fact that SPD households will be followed much longer than SIPP households—ten years for SPD versus four years for the 1996 SIPP panel and three years for other SIPP panels. Furthermore, additional interviews were required because of the clear legislative mandate for SPD, but respondents from the 1992–1993 SIPP panels had been told that they had completed their eligibility for the survey. Moreover, some potential participants had refused the Census Bureau many times before, thus making them "hard-core" nonrespondents.

Because of the complexities and cost of programming a computer-assisted personal interview instrument for a small sample, a revised paper questionnaire and control card from Wave 9 of the 1993 SIPP panel were used to interview households in the experiment. Three incentive amounts were tested ($0, $50, and $100) to see if the size of the incentive affected response rates. Table 3–7 shows the results.

The Exploratory Attrition Study sample consisted of 358 randomly selected low-income (below 200 percent of poverty) cases that became nonrespondents in the 1992 and 1993 SIPP panels and 48 cases spawned[16] after SIPP but before the SPD Exploratory Study interview, for a total of 406 cases. Of the 406 cases, 373 were eligible to be interviewed. The eligible cases included those who were interviewed, those who refused, cases in which no one was home, those who were temporarily absent, and those who moved and could not be found at the time. The remaining 33 cases included vacant units, units under construction, units occupied by people whose usual residence is elsewhere, demolished units, units converted to a business, and units that had been moved (for example, a mobile home).

[16] New cases are spawned when new households are formed out of original sample unit households. For example, a child who marries and establishes a separate household is a spawned case.

Table 3–7. SPD Exploratory Attrition Study Response Rates by Income and Incentive Amount

	Sample Size	Total Response Rate (%)	Response Rate with Monetary Incentive (%)		
			$0	$50	$100
Eligible cases	373	37	29	37	44[a]
0–99% of poverty threshold	132	39	34	42	42
100–200% of poverty threshold	241	35	26	33	44[a]
0–149% of Poverty Threshold	191	39	33	42	42
150–200% of poverty threshold	182	35	25	31	46[a]

[a]Response to the $100 incentive is significantly different from the $0 rate at the 90 percent level, but not significantly different from the $50 rate.

All the comparisons were tested at the 90 percent significance level. The response rate for all eligible cases was 37 percent. The response rate for those who received the $100 incentive (44 percent) was higher than the response rate for those who received no monetary incentive (29 percent). The response rate for the $50 group (37 percent) was not significantly different from the $0 group. The total response rate for those below the poverty threshold was 39 percent, not significantly different from the response rate of 35 percent for those above the poverty threshold. Incentives have a larger effect on inducing cooperation from those who refused their last SIPP or Bridge Survey interview (or where there was no one home or all occupants were temporarily absent) than on those who moved and could not be found. For those offered $100, the response rate for the former group was 54 percent, compared with 35 percent for unlocated movers. Obviously, incentives could be offered only if the cases were located.

What response rates can be expected if the Census Bureau receives funding to regain the participation of nonrespondents to the 1997 SPD and the 1992 and 1993 SIPP? If funding becomes available, the Census Bureau plans to interview a targeted sample of SIPP and SPD Bridge Survey nonrespondents. During the period 2000–2002, we will interview a targeted sample of SPD Bridge Survey (1997) nonrespondents, and in the period 2001–2002 we will interview a targeted sample of SIPP (1992–1995) nonrespondents.[17] The targeting will follow rules parallel to those used to subsample the 1998 SPD from the 1997 Bridge Survey sample. The proposal involves paying nonrespondents an initial $100 incentive in the first year and $40

[17] SPD (1998 and later) nonrespondents are always approached for later interviews.

maintenance incentives in subsequent years. If this plan to reinterview nonrespondents is implemented, the Census Bureau projects response rates to increase from the current (that is, 1999) 50 percent rate to 55 to 57 percent in 2000, to 62 to 64 percent in 2001, and to 60-63 percent in 2002.[18]

There is a risk that those who return to the study will differ from those who do not return. The sample of "turned-around" nonrespondents may not be fully representative, but it is likely to be more similar to nonrespondents in general than to people who have consistently responded during the past seven to eight years.

Conclusion

The SPD is only one of many tools for evaluating welfare reform, yet it has the potential to be particularly valuable. On the basis of comparisons with the CPS March Income Supplement, SPD data are representative of the national population.[19] SPD response rates are comparable to NLSY and PSID response rates, although attrition remains a problem. Despite these positive signs, the experimental evidence suggests that it will be worthwhile to pay incentives to current nonrespondents in order to bring them back and improve SPD response rates.

[18]Early results from the 2000 SPD interviewing show a 56 percent response rate, consistent with these projections.

[19] To fully use the SPD data, researchers must understand that complex modeling is needed to adjust for nonresponse and to incorporate other data sources (for example, state-specific variables that describe state welfare programs).

Appendix A

Comparison of SPD, PSID, and NLSY Response Rates[20]

Survey of Program Dynamics

Household response rates between sample selection and the first interview were calculated for the SIPP 1992 and 1993 panels combined, on the basis of results presented in McMahon (1995) and Eargle (2000). People interviewed in the first and last waves of the 1992 and 1993 SIPP samples became the SPD Bridge Survey sample. Individual response rates between the first SIPP 1992 and 1993 panel interviews and the SPD Bridge Survey interview (1997) were derived by Donald J. Hernandez using the SIPP 1992 Panel Waves 1–10 Longitudinal File, the SIPP 1993 Panel Waves 1–7 Longitudinal File, and the U.S. Census Bureau internal SPD 1997 file available on the Housing and Household Economic Statistics Division server on December 4, 1998. Deceased are identified from the SIPP data for the period between Interview 1 and the final SIPP interview prior to the SPD interview. The response rate between SPD 1997 and SPD 1998 is preliminary, and both deceased and newly institutionalized populations were removed from the base.

Panel Study of Income Dynamics

The PSID User's Guide (Hill 1992) notes that the original PSID sample actually consisted of two independent samples, one drawn by the Survey Research Center (the "SRC sample"), and the other selected from the Survey of Economic Opportunity (SEO), which was conducted in 1966 and 1967 by the Census Bureau for the Office of Economic Opportunity (OEO). The initial response rate for the SEO sample (SRC 1972) was calculated to be 74 percent and was based on the sample of households provided to SRC by the Census Bureau and the OEO. This result does not include the effects of (1) attrition between sample selection and the first interview of respondents by the Census Bureau in 1967, which led to a response rate of 91.6 percent (OEO 1970); (2) sample loss through subsequent refusals to remain in the sample that became the SEO component of the PSID, because about 25 percent of respondents refused to allow their names to be passed to SRC (Hill 1992); and (3) the failure of some sampled addresses to be transmitted from OEO to SRC (Hill). To calculate the PSID–SEO sample selection-to-interview response rate of 50.8 percent, the initial response rate of 91.6 percent was multiplied by the 75 percent rate of "willingness" to have names transmitted from the Census Bureau to SRC, and then by the 74 percent response rate obtained by SRC in seeking to interview households provided by the Census Bureau and the OEO. This formula does not take into account the fact that address information for some willing participants was not transmitted from the Census Bureau and OEO to SRC. Introducing this source of sample loss into the calculations reduces the current estimate

[20] This appendix is based on material prepared by Donald Hernandez (1999).

to 50.8 percent. Of course, as in all the surveys discussed here, weighting procedures were designed to take into account various factors, including sample attrition. The response rate for the SRC sample was 76 percent. The SRC sample constituted about 60 percent of the initial PSID sample, whereas the SEO sample constituted about 40 percent of the initial PSID sample.

The response rates for "Interview 1 to the most recent interview" were obtained from the SRC (1972) and from table 2a of the documentation provided by PSID (U.S. Bureau of the Census 1998). The first and most recent interview years were 1968 and 1993, respectively. Tecla Loup of the PSID staff was very helpful in identifying needed estimates and confirming the interpretation of specific estimates. Deceased are identified by PSID staff from the PSID data between the first and most recent interviews. Sandra Hofferth provided the estimated response rate for 1994, where the base was adjusted for mortality.

National Longitudinal Survey of Youth

The source for these estimates is *NLSY-79 Users' Guide, A Guide to the 1979–1996 National Longitudinal Survey of Youth Data* (Ohio State University 1997). The response rate of 89.2 percent between sample selection and first interview is obtained from table 3.3.1 of the document and is based on the cross-sectional and supplemental subsamples. The response rate of 69.6 percent between the initial interview (1979) and the most recent interview (1996) is obtained from table 3.7.1. Deceased, who numbered 224 by 1994 according to table 3.6.1, were removed from the base. An additional 39 deaths for years 1995 and 1996 also were removed from the base.[21] The "always" interviewed column of table 3–2 in this chapter includes in the numerator those people who were interviewed in each of the seventeen interviews. The "currently" interviewed column of this table includes in the numerator people who were interviewed in at least the first interview and the current interview. If the base is limited to those not dropped from the survey or deceased, the proportion of those interviewed in the first interview who missed no more than one interview out of seventeen was 83.0 percent; when combined with the 4.6 percent who missed only two out of seventeen interviews, the response rate was 87.6 percent.

[21]Reported in personal communication from Randall J. Olsen (1998).

Appendix B

Table B–1. Household Income Distribution: The 1997 SPD Bridge Survey and the 1997 CPS March Income Supplement (%)

Income	SPD	CPS
Less than $5,000	3.1	3.4
$5,000 to 9,999	7.8	8.4
$10,000 to 14,999	8.3	8.6
$15,000 to 24,999	14.9	15.4
$25,000 to 34,999	14.0	13.7
$35,000 to 49,999	16.7	16.3
$50,000 to 74,999	18.5	18.0
$75,000 and over	16.8	16.4

Note: The distribution is similar for both the SPD Bridge Survey and CPS March Income Supplement household income. The one distinction between the two distributions is that the 1997 CPS March Income Supplement has a higher percentage of households with total income below $25,000 compared with the SPD—35.7 percent versus 34.1 percent. This difference is statistically significant.
Source: U.S. Bureau of the Census, March CPS 1997, and 1997 SPD Bridge Survey.

Table B–2. Selected Household Data from the 1997 SPD Bridge Survey and the 1997 CPS March Income Supplement

Variable	1997 SPD Bridge Survey	1997 March CPS
Average household income	$47,381	$47,123
Average age of householder	50.0[a]	48.4
Average number of children per household	0.7	0.7
Households with children under age 18 (%)	36.7[a]	37.6
Households receiving means-tested government transfers (%)		
Total	16.2	16.6
Temporary Assistance to Needy Families (TANF)	2.1[a]	2.5
Supplemental Security Income (SSI)	4.7[a]	4.4
Food stamps	7.6[a]	8.2
Energy assistance	3.3[a]	2.6
Housing assistance	4.7	4.9
Free lunch program	8.7	8.8
Households receiving selected means-tested benefits (%)		
Average household income	$20,110[a]	$19,119
Average age of householder	46.8[a]	44.2
Average number of children per householder	1.5	1.5
Households with children under age 18 (%)	65.7[a]	67.9

[a]The SPD estimate is significantly different from the CPS estimate at the 90 percent confidence level. SOURCE: U.S. Bureau of the Census, March CPS 1997, and 1997 SPD Bridge Survey.

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