

A COMPARATIVE ANALYSIS OF DATA ON PERSONS WITH A WORK DISABILITY:
DATA FROM THE DECENNIAL CENSUS, CPS, AND SIPP

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much higher than the 9 percent rate from the CPS and the 8.2 percent from the Census. For those prevented from working, the rates were 5.1 percent for SIPP, 5 percent for CPS, and 4.2 percent for Census, with no noticeable difference in SIPP and CPS rates. Disability rates were derived by dividing the number of persons with a work disability by the total number of persons (16 to 64 years of age) and the number prevented from working was also divided by the total number of persons.

In terms of gender, work disability rates for men were higher than those for women. The 1990 rates for men were; 11.8 percent for SIPP, 9.4 percent for CPS, and 8.7 percent for Census. For women they were 11.2 percent, 8.6 percent, and 7.6 percent respectively. Gender rates for those prevented from working show males with a significantly lower rate of 4.6 percent for SIPP compared to 5.2 percent for CPS. The Census rate was 4.1 percent. For females, a significantly higher rate of 5.5 percent was shown for SIPP compared to 4.8 percent for CPS and 4.3 percent for Census. The SIPP estimate of 5.5 percent for females was noticeably higher than the 4.6 percent for males.

The differences in these survey estimates are probably caused by definitional differences. The SIPP estimates are higher than CPS estimates because its definition is more loosely worded and tends to leave more to the perception of the respondent. It asks about a physical, mental, or other health condition which limits or prevents work. This would have a tendency to produce higher estimates. The CPS definition is more restrictive, asking about a health problem or disability which

limits or prevents work. While there are mixed results from studies concerning self versus proxy responses, more recent studies have shown that significantly higher health and disability estimates are recorded from self respondents than proxy respondents.¹ The Census estimates are lower because it only includes persons with health conditions which last for 6 months or more, compared to the use of no time limit for the other two surveys.

5. SIPP vs CPS

A comparison of SIPP and CPS work disability estimates for similar time periods are shown in table B-1. All SIPP interview time periods were matched, as close as possible, with those of the CPS. The SIPP reference years represent interview time periods. Estimates from different SIPP panels, but similar interview periods, were combined to produce estimates for 1989 and 1992. Generally, SIPP work disability rates were higher than those from the CPS. For example, in 1992 SIPP showed 12.9 percent with a work disability compared to a much lower rate of 9.3 percent for CPS. Over the period, the SIPP estimates were consistently around 12 or 13 percent, while CPS estimates increased from 8.6 percent in 1984 to 9.3 percent in 1992. Surprisingly, estimates for those prevented from working, for both surveys, were generally consistent throughout the period, at about 5 percent. However, rates for women prevented from working

¹D.J. Herrmann, J. Kerwin, and C.M. Puskar. "Memory Retrieval and Guessing in Question-Answering on Surveys". Paper presented at the Eastern Psychological Association. Washington, DC, April 1993.

were noticeably higher in SIPP than in CPS. For example, in 1984 the rate was 6.1 percent for SIPP and 4.4 percent for CPS and in 1992 rates were 6 percent and 5.1 percent respectively. The blip in the SIPP estimates of 11.5 percent in 1990 may be due to some design changes for the 1990 panel. Research has been undertaken to determine the impact of these changes.

6. TREND

SIPP - As mentioned earlier, the general trend of SIPP work disability rates remained consistent over time. Rates for those prevented from working, which represent roughly half of those with a work disability also remained fairly consistent, showing no major difference in the 5.3 percent rate in 1984 and the 5.5 percent in 1992. (See table B-1) A similar trend was observed by gender, with work disability rates for men showing no significant increase from 11.7 percent in 1984 to 12.8 percent in 1992 and rates for women showing no major change in the 12.4 percent in 1984 to 13 percent in 1992. Gender rates for those prevented from working also show the same general trend of no significant change over time.

CPS - Also, no significant difference was observed in the general work disability estimates from the CPS over time, which showed 9 percent in 1981 and 9.3 percent in 1992 (table C). However, rates for those prevented from working, which also represent about half of those with a work disability, showed a noticeable increase of 4.7 percent in 1981 to 5.3 percent in 1992. While, prevalence rates for men were consistent over time, rates for women increased. For example, work disability rates

for men were 9.5 percent in 1981 and 9.6 percent in 1992. Whereas rates for women were 8.5 percent in 1981 and 9 percent in 1992. The CPS rates by gender for those prevented from working also show a significant increase over time: for men they were 4.8 percent in 1981 and 5.4 percent and for women, 4.7 percent and 5.1 percent respectively.

7. Decennial Census Estimates

The Census work disability estimates have shown decreases over the last two decades (Table D). The 8.2 percent in 1990 was lower than the 8.5 percent in 1980 and the 9.4 percent in 1970. Estimates for those prevented from working followed a similar pattern. They represent about half of those with a work disability, with rates of 4.2 percent in 1990, 4.4 percent in 1980 and 5.5 percent in 1970.

8. CONCLUSION

Most of the differences in the SIPP and CPS estimates are probably due to differences in definitions. The smaller CPS estimates are perhaps caused by a screening question which specifically ask about a health problem or disability which prevents or limits work. Whereas, the SIPP definition is more loosely worded and tends to leave more to the perception of the respondent. It asks about a physical, mental, or other health condition which limits or prevents work, thereby, producing higher estimates. The use of the word disability in the CPS definition also clearly establishes in the respondents mind a limitation in ones ability to perform certain tasks, which describes the definition of disability mentioned earlier.

Other estimated differences are probably due to survey design and methodology. An advantage of CPS is that it provides annual estimates from a large survey of about 60,000 households. The SIPP, on the other hand, is a relatively small survey of about 15,000 to 20,000 households.

Aside from the fact that virtually no personal interviews were conducted in the collection of information from the Decennial Census, its definition of disability was also restrictive. It covers only those persons with conditions which last for 6 months or more, compared to no time limit for other definitions.

Given the differences in survey methodologies and designs, definitions, and interview techniques, perhaps, one can understand why these differences in survey estimates exist. However, more consistency in these areas and a continued emphasis on the importance of collecting disability information will eliminate some of these discrepancies.

Also, in the design or redesign of work disability questions in the future, perhaps, environmental factors should be taken into consideration. Some evidence seems to suggest that some respondents are basing their disability status on the availability of accommodations by the employer or some other external factor associated with access to employment. Further studies in this area are needed to determine what impact, if any, these factors may have on disability estimates.

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Table A. Work Disability Rates in 1990

Characteristic	SIPP		CPS		Census	
	Pct	SE	Pct	SE	Pct	SE
Persons 16 to 64 years of age---						
With a work disability.....	11.5	0.22	9.0	0.11	8.2	0.005
Male.....	11.8	0.32	9.4	0.15	8.7	0.007
Female.....	11.2	0.31	8.6	0.13	7.6	0.007
Prevented from working.....	5.1	0.23	5.0	0.08	4.2	0.004
Male.....	4.6	0.21	5.2	0.12	4.1	0.005
Female.....	5.5	0.22	4.8	0.10	4.3	0.005

Table B-1. SIPP and CPS Work Disability Rates, by Year and Sex

Year and sex	With a work disability			
	Total		Prevented from working	
	SIPP	CPS	SIPP	CPS
Both Sexes				
1992.....	12.9	9.3	5.5	5.3
1990.....	11.5	9.0	5.1	5.0
1989.....	12.7	8.8	5.1	4.8
1988.....	12.1	8.9	5.1	4.7
1986.....	12.1	8.8	5.3	4.7
1984.....	12.1	8.6	5.3	4.6
Male				
1992.....	12.8	9.6	5.1	5.4
1990.....	11.8	9.4	4.6	5.2
1989.....	13.4	9.3	5.0	5.0
1988.....	12.9	9.4	5.2	4.8
1986.....	12.3	9.4	4.8	5.0
1984.....	11.7	9.2	4.4	4.8
Female				
1992.....	13.0	9.0	6.0	5.1
1990.....	11.2	8.6	5.5	4.8
1989.....	12.0	8.4	5.3	4.7
1988.....	11.3	8.4	5.0	4.7
1986.....	11.8	8.2	5.8	4.5
1984.....	12.4	8.1	6.1	4.4

Table B-2. SIPP and CPS Standard Errors

Year and sex	With a work disability			
	Total		Prevented from working	
	SIPP	CPS	SIPP	CPS
Both Sexes				
1992.....	0.19	0.11	0.21	0.09
1990.....	0.22	0.11	0.23	0.08
1989.....	0.23	0.12	0.25	0.08
1988.....	0.30	0.11	0.21	0.08
1986.....	0.33	0.11	0.23	0.08
1984.....	0.37	0.11	0.26	0.08
Male				
1992.....	0.27	0.15	0.17	0.12
1990.....	0.32	0.15	0.21	0.12
1989.....	0.33	0.16	0.21	0.12
1988.....	0.45	0.15	0.30	0.11
1986.....	0.48	0.15	0.31	0.11
1984.....	0.53	0.15	0.34	0.11
Female				
1992.....	0.26	0.13	0.19	0.10
1990.....	0.31	0.13	0.22	0.10
1989.....	0.31	0.14	0.21	0.10
1988.....	0.41	0.13	0.29	0.10
1986.....	0.46	0.13	0.33	0.09
1984.....	0.53	0.13	0.38	0.09

Table C. CPS Work Disability Rates

Year and sex	With a work disability			
	Total		Prevented from working	
	Pct	SE	Pct	SE
Both Sexes				
1992.....	9.3	0.11	5.3	0.09
1991.....	9.2	0.11	5.2	0.09
1990.....	9.0	0.11	5.0	0.08
1989.....	8.8	0.12	4.8	0.08
1988.....	8.9	0.11	4.7	0.08
1987.....	8.6	0.11	4.7	0.08
1986.....	8.8	0.11	4.7	0.08
1985.....	8.8	0.11	4.5	0.08
1984.....	8.6	0.11	4.6	0.08
1983.....	8.7	0.11	4.6	0.08
1982.....	8.9	0.11	4.7	0.08
1981.....	9.0	0.11	4.7	0.08
Male				
1992.....	9.6	0.15	5.4	0.12
1991.....	9.4	0.15	5.2	0.12
1990.....	9.4	0.15	5.2	0.12
1989.....	9.3	0.16	5.0	0.12
1988.....	9.4	0.15	4.8	0.11
1987.....	9.1	0.15	4.8	0.11
1986.....	9.4	0.15	5.0	0.11
1985.....	9.2	0.15	4.7	0.11
1984.....	9.2	0.15	4.8	0.11
1983.....	9.0	0.15	4.6	0.11
1982.....	9.3	0.15	4.6	0.11
1981.....	9.5	0.15	4.8	0.11
Female				
1992.....	9.0	0.13	5.1	0.10
1991.....	9.1	0.14	5.2	0.10
1990.....	8.6	0.13	4.8	0.10
1989.....	8.4	0.14	4.7	0.10
1988.....	8.4	0.13	4.7	0.10
1987.....	8.1	0.13	4.6	0.10
1986.....	8.2	0.13	4.5	0.09
1985.....	8.4	0.13	4.4	0.09
1984.....	8.1	0.13	4.4	0.09
1983.....	8.3	0.13	4.7	0.10
1982.....	8.5	0.13	4.8	0.10
1981.....	8.5	0.13	4.7	0.09

Table D. Decennial Census Work Disability Rates

Year and sex	With a work disability			
	Total		Prevented from working	
	Pct	SE	Pct	SE
Both Sexes				
1990.....	8.2	0.005	4.2	0.004
1980.....	8.5	0.003	4.4	0.002
1970.....	9.4	0.014	5.5	0.011
Male				
1990.....	8.7	0.007	4.1	0.005
1980.....	9.0	0.005	4.0	0.003
1970.....	10.2	0.020	7.0	0.018
Female				
1990.....	7.6	0.007	4.3	0.005
1980.....	8.0	0.004	4.7	0.003
1970.....	8.6	0.019	4.2	0.014