

Using the 2009 CPS-ASEC-SSA Matched Dataset to Show Who Is and Is Not Captured in the Official Six-Question Sequence on Disability

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14th Annual Joint Conference of the Retirement Research Consortium

August 2-3, 2012
Washington, DC

This research was supported by a grant from the U.S. Social Security Administration (SSA) as part of the Retirement Research Consortium (award # RRC08098401-04-00). The findings and conclusions are solely those of the authors and do not represent the views of SSA, any agency of the Federal Government, the NBER Retirement Research Center, CRR, or MRRC. Additional funding was received from the Rehabilitation Research and Training Center on Disability Statistics and Demographics at Hunter College, which is funded by the National Institute on Disability and Rehabilitation Research (NIDRR, Federal Award # H133B080012); the contents of this paper do not necessarily represent the policy of NIDRR and readers should not assume endorsement by the Federal Government (Edgar, 75.620 (b))

The Americans with Disabilities Act of 1990 was the culmination of a decades-long effort to afford people with disabilities the same protections against discrimination that previous civil rights legislation provided those facing discrimination based on race, national origin, sex, and age. Unlike other protected classes, whose characteristics are immutable and relatively easy to determine, disability for most Americans is not an immutable characteristic. More importantly, it has proven to be a much more difficult characteristic to conceptualize and operationalize for statistical purposes including the monitoring of the health, employment, and economic well-being of this protected class.

Nonetheless, evidence-based policymaking requires researchers to have sufficient data to capture the effect of current and future policies on the classes of citizens requiring targeted government actions. With respect to people with disability this has meant efforts by government statistical agencies to develop a set of questions that could, within more general national datasets, identify the population with disability using a small set of questions similar to those used to identify people by race, ethnicity, gender and age.

In what is considered a milestone in the effort to determine a minimum standard for the set of questions required to identify disability in all national datasets, in 2011 the Department of Health and Human Services (HHS) declared the new six-question sequence on disability (6QS), first introduced in the American Community Survey (ACS) and currently used in the Current Population Survey (CPS), “the data standard for survey questions on disability” (HHS 2011). However, none of these six questions specifically ask about work-activity limitations. See Table 1 for their exact wording and that of the work-activity limitation question in the CPS data.

Building on the work of Burkhauser, Houtenville and Tennant (2012), in Table 2 we use 2009 CPS-Annual Social and Economic Survey (ASEC)/SSA records data to test the consensus view as expressed in HHS (2011).¹ In the first column we show the total U.S. working-age population and its economic characteristics (labor force participation rate, employment rate and poverty rate). In subsequent columns we do the same for subpopulations based on various combinations of the 6QS and work-activity limitation questions. We show that the lack of a work-activity limitation question in the 6QS-based disability population (row 1, column 2) results in its inability to capture a substantial portion of the population with disabilities (row 1, column 7) that includes those who report a work-activity limitation-based disability only (row 1,

¹ Access to these data is restricted and the publication of results may be limited due to disclosure concerns.

column 6). To the degree that this latter group should be included in the broader working-age population with disabilities the 6QS is attempting to measure, the 6QS will not only underestimate the size of the relevant population that key U.S. disability policies and programs target, but more importantly, will lead to biased measures of the employment and program participation of this population.

But should those who only report a work-activity limitation-based disability be included in the broad disability population the 6QS is attempting to capture? In Table 3 we provide a face validity test using the same CPS data linked to actual SSA records. We show that the 6QS-based disability definition population (row 1, column 2) only captures 6.1 million (66.0 percent) of the 9.2 million (row 1, column 1) people aged 25-61 receiving SSDI/SSI benefits. This is a group that presumably should be captured as a subpopulation of any more general disability population. In addition, the 6QS population disproportionately underrepresents some diagnosis groups relative to others, for example intellectual disability relative to the nervous system and sense organs group.

When we add a work-activity limitation question to the 6QS (column 7), as recommended by Burkhauser, Houtenville, and Tennant (2012) based on their findings using self-reported measures of SSDI/SSI benefit receipt, we increase the SSDI/SSI population captured by 23.2 percentage points for a total of 8.2 million or 89.2 percent of the actual population receiving SSDI/SSI benefits as reported in column 1, and we more consistently capture the actual distribution of the diagnosis groups receiving benefits.

Sallie Keller-McNulty (Keller-McNulty 2006), the then-President of the American Statistical Association, urged in 2006 that research on technical and methodological adjustments to a work-activity limitation question continue so that it could be added to the ACS to improve the measurement of work disability. We find that inclusion of the work limitation question with the 6QS substantially improves the likelihood of identifying the disability population.

References

- Burkhauser, Richard V., Andrew J. Houtenville and Jennifer R. Tennant. 2012. "Capturing the Elusive Working-Age Population with Disabilities: Reconciling Conflicting Social Success Estimates from the Current Population Survey and the American Community Survey." *Journal of Disability Policy Studies* published online June 5, 2012, DOI: 10.1177/1044207312446226
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Table 1. Disability Questions in the Current Population Survey

Question (Survey)	Question Wording
Hearing difficulty (CPS-BMS)	Is anyone deaf or does anyone have serious difficulty hearing?
Vision difficulty (CPS-BMS)	Is anyone blind or does anyone have serious difficulty seeing even when wearing glasses?
Mental difficulty (CPS-BMS)	Because of a physical, mental, or emotional condition, does anyone have serious difficulty concentrating, remembering or making decisions?
Physical difficulty (CPS-BMS)	Does anyone have serious difficulty walking or climbing stairs?
Self-care difficulty (CPS-BMS)	Does anyone have difficulty dressing or bathing?
Independent living difficulty (CPS-BMS)	Because of a physical, mental or emotional condition, does anyone have difficulty doing errands alone such as visiting a doctor's office or shopping?
Work-activity limitation (CPS-ACES)	Does anyone in this household have a health problem or disability which prevents them from working or which limits the kind or amount of work they can do?

Table 2. Population Sizes and Economic Characteristics of Non-institutionalized Persons Ages 25-61, by Alternative Disability Definitions (2009 Matched CPS-ASEC/SSA)

Economic Characteristics	Total population	Six question sequence (6QS)	Work limitation	6QS only	Both 6QS and work limitation	Work limitation only	6QS and/or work limitation	Neither 6QS nor work limitation
Total population	152,100,000	12,419,339	12,784,924	5,114,505	7,304,834	5,480,090	17,899,429	134,230,000
Labor Force Participation Rate	81.3	36.8	22.2	68.9	14.3	32.7	35.5	87.4
Employment Rate	74.7	31.9	18.0	60.5	11.9	26.1	30.2	80.7
Poverty Rate	9.3	24.9	28.9	16.9	30.5	26.7	25.5	7.1

1. The 2009 CPS-ASEC file was matched to the SSA Numident file. Numident records were matched for 90,001 of the 102,726 persons ages 25-61 in the 2009 CPS-ASEC sample—a match rate of 87.6 percent. This means that 12,725 (12.5 percent of) persons ages 25-61 in the 2009 CPS-ASEC sample were not matched to Numident records. The CPS-ASEC sample weight was rescaled based on gender and age to account for non-matching sample and reestablish population size estimates.

Table 3. Share of SSDI/SSI Participants Captured Overall and by Primary Diagnosis Group, by Alternative Disability Definitions (2009 Matched SSA/CPS-ASEC)

Diagnosis Groups	Total population	Six question sequence (6QS)	Work limitation	6QS only	Both 6QS and work limitation	Work limitation only	6QS and/or work limitation	Neither 6QS nor work limitation
Any Group	9,189,590	6,062,762	7,168,667	1,030,486	5,032,277	2,136,390	8,199,153	990,437
Endocrine, nutritional, metabolic	3.3	3.3	3.5	2.4	3.5	3.5	3.3	2.7
Mental disorders o/t intellectual dis.	23.8	23.7	23.8	24.8	23.4	24.6	23.9	22.7
Intellectual disability	7.0	6.5	6.8	7.0	6.4	7.7	6.8	8.4
Nervous system and sense organs	8.4	10.4	8.7	9.4	10.6	4.1	8.8	5.1
Circulatory system	6.7	6.6	6.7	6.4	6.6	6.8	6.6	7.3
Musculoskeletal system	20.4	20.4	20.5	19.6	20.6	20.2	20.4	20.2
Injuries	4.1	4.2	4.4	3.8	4.2	4.6	4.3	2.5
Other	11.2	10.3	11	10.6	10.2	12.9	10.9	12.9
Blank/invalid code	15.3	14.6	14.8	16.0	14.4	15.7	14.9	18.2

1. SSDI status is based on whether an individual was (a) in the MBR file, (b) receiving benefits on the basis of disability (as opposed to retirement or survivorship), (c) had a current payment, and (d) eligible based on his/her own contributions (as opposed to the contributions of his/her retired parent(s) or deceased spouse). SSI status is based on whether an individual was (a) in the SSR file, (b) under age 65, and (c) has a current payment.

2. See note in Table 2.