

MEASURING YOUTH UNEMPLOYMENT

By Judith M. Tanur

The monthly unemployment rate, which is announced the first Friday of each month by the Commissioner of Labor Statistics, is a key indicator of how well the US economy is doing. Conceptually, the rate is the number of persons not employed, but nonetheless in the labor force, divided by the total number of persons in the labor force. Like many such statistics, it is survey-based and rests on a number of assumptions. Specifically, it depends on how one conceptualizes *employed*, how one defines *in the labor force*, and how each is measured by the survey. The work reported here looks in particular at one aspect of these concerns, but should serve as an example of the dependency of all such statistics on the measurement process.

Each month, the Bureau of the Census conducts interviews with some 60,000 households for the Current Population Survey (CPS), which gathers data on many aspects of labor force participation. The CPS is a rotating panel: Household locations selected in a multi-stage area probability sample remain in the sample for four consecutive months, drop out for eight, and return for the same months in the following year. Thus, up to three-quarters of the sample in any month were also interviewed the previous month; the remainder are new. Most first (and fifth) interviews are carried out in person; most others, by telephone.

While data are collected for all persons living in the residence, interviewers are told to select any knowledgeable adult to report for all household members. Proxy reporting averages about 50% in the CPS, but is considerably higher for younger people. The CPS classifies each person as employed, unemployed, or not in the labor force. Those defined as *not in the labor force* do not figure in the unemployment rate at all (although the Bureau of Labor Statistics does report the *labor force participation rates* as well).

How Is Unemployment Calculated?

The unemployment rate depends on who is counted as *employed* and who is included within the labor force. *Employed* individuals are those who, during the reference week, worked at least one hour for pay or profit, spent at least 15 hours as an unpaid worker in a family business, or were temporarily absent from a continuing job. Those in the labor force but unemployed include those who have been hired for a new job starting within 30 days, are on layoff expecting recall within six months, or are *looking for work*. To be looking for work under the CPS definition an individual who was not working must have been available for work had it been offered during the reference week, and must have actively sought work during the four weeks prior to the survey week. It's the last criterion—an active job search—that is of particular concern here.

The measured unemployment rate for those 16-24 years old is often two or three times as high as that for older people. For the past four years, I have been examining whether the exceptionally high figure for youths might be in part an artifact of measurement. If young people include some activities in *job search* that older people exclude, they might be more likely to claim that they had looked for work, and thus more likely to be classified as *unemployed*. Moreover, a large majority of young people are reported for by proxy (most often by their parents). Thus, different understandings of job search by youths and adults could result in different classifications for those youths reported for by proxy than would have occurred had youths reported for themselves.

To be sure, the CPS does not accept a simple assertion that an individual has been looking for work, but goes on to ask what has been done to find a job. Carrying out an active job search (registering with

a public or private employment agency, answering or placing ads, etc.) is necessary for an individual to be counted as looking for work and hence, classified as *unemployed*. But these followup questions work asymmetrically. Respondents with too broad a conceptualization of job search will claim to have looked for work but then may fail to cite activities meeting the CPS definition. If so, they will be classified (correctly) as *not in the labor force*. Individuals with too narrow an understanding of job search will answer no when asked if they had looked for work, will not be asked the follow-up questions, and thus will be mistakenly classified as *not in the labor force*.

The Effects of Proxy Reporting

There is clear evidence that measured unemployment rates differ between those reported for by proxy and those reporting for themselves. Table 1 gives unemployment rates for youths and adults by race and sex, calculated from the March 1982 and March 1988 CPS. In 1988, an explicit item noted whether data was provided by the respondent, by proxy, or by both. In 1982, proxy status was determined only indirectly by noting whether the individual reported on was designated as the household informant. The second line of the table shows proxy status for 1988 as it was determined using the 1982 method, while the third line is the designation by interviewer coding.

For male youths of both races, those reported for by proxy are recorded as having higher unemployment rates than those who self-report. For females, however, the direction is reversed: Self-reporters indicate a higher unemployment rate. Almost all adult groups follow the youthful female pattern, where self-reporters have higher unemployment rates than those reported for by proxy.

An analysis reported earlier¹ making use of the more elaborate technique of *logit* analysis found that sex and race affected the predicted unemployment rate, but that the impact of proxy reporting depended on whether the individual was male or female. For youths, males reported by proxy had higher predicted rates of unemployment than self-reporters, regardless of race. Females, again regardless of race, had higher predicted measured unemployment if they were self-reporters. For adults, predicted probability

of unemployment is higher for self-reporters than for those reported for by proxy, regardless of sex or race.

What Explains These Patterns?

It's possible that differential unemployment rates based on proxy status are real rather than measurement artifacts. Unemployed persons might be more likely to be home to self-report. But there are reasons for rejecting this argument. First, the residual category "not in the labor force" should absorb some of this effect, since those not looking for work are also more likely to be home. Further, to attribute the observed effect solely to self-selection, we would have to assume that this process works differently for young males than for young females and for adults.

I find other explanations more likely. In particular, I believe that the societal expectation that young males, especially, should either be working or looking for work is strong among their proxies. Hence, when such a proxy reporter is in doubt as to whether a young man has

carried out a job search, the informant (most often his mother) is likely to represent him as having done so, making him more likely to be counted as unemployed.

was replaced by "has been reading." Respondents in the 1988 study and the 1990-91 standard group were then asked, "Would you report him as looking for work?" The experimental group in 1990-91 was given the phrase "doing something to find work" instead of "looking for work."

The results are shown in Table 2. Youths are considerably more affected than are adults by the wording changes, the differences reaching statistical significance in the 1990-91 standard CPS. Youths in the standard CPS

are significantly more likely to mistakenly consider reading ads as a job search, resulting in an inflated unemployment rate. The direction of influence is towards mistakenly considering looking at newspaper ads as looking for work.

The second vignette describes an activity that CPS *does* consider job search: talking with friends and relatives about job openings. The vignette in 1988 read "During the past 4 weeks Sandy talked with friends and relatives about job openings." The 1990-91 version removed the phrase "during the past 4 weeks," and again the standard versions asked if the protagonist was "looking for work" and the experimental version, if the protagonist was "doing something to find work." The results are also shown in Table 2. Again, youths are more influenced by the wording changes than are adults, and again the movement is toward being more likely to consider the activity as job seeking—correctly in this instance.

The CPS's use of follow-up questions introduces an asymmetry in the effect of these differential conceptions of

TABLE 1
UNEMPLOYMENT RATE BY AGE, SEX, RACE, AND PROXY STATUS

	Males				Females			
	Whites		Blacks		Whites		Blacks	
	Proxy	Self	Proxy	Self	Proxy	Self	Proxy	Self
Youths								
1982	18.4	15.6	39.4	33.6	12.3	12.8	32.9	36.1
1988(a)	11.9	9.5	26.6	24.1	8.4	9.6	24.1	28.5
1988(b)	11.6	10.9	26.5	25.1	7.7	10.4	22.1	29.9
Adults								
1982	5.8	8.7	13.4	15.0	4.9	6.6	11.4	12.7
1988(a)	3.8	5.0	10.1	8.8	3.0	3.6	6.4	9.6
1988(b)	3.5	5.3	9.3	9.6	2.5	3.7	6.5	9.3

(a) Proxy status determined indirectly (was individual household informant).
(b) Proxy status determined directly by interviewer code method.

Source: Current Population Survey, March 1982 and March 1988.

There is some direct evidence of differential conceptualization of job search by age. The Census Bureau has carried out a series of "debriefing" studies of CPS respondents using respondents in their fourth (and for this experimental sample, final) month in the sample. Those who reported themselves or a member of their household as looking for work were presented with a series of vignettes and asked whether the protagonist in each should be classified as *looking for work*.

Just What does "Looking For Work" Mean?

Two vignettes were similar across the studies, and show some interesting effects of age on susceptibility to changes in wording. The first deals with newspaper ads. The 1988 the vignette read: "During the past 4 weeks, George has occasionally looked at newspaper ads. He hasn't answered any of the ads because he hasn't yet found any jobs in which he's interested." (Looking at or reading ads without answering them is not considered job search by CPS.) In 1990-91, the phrase "occasionally looked at"

TABLE 2

WHAT IS CONSIDERED "LOOKING FOR WORK?"

Is looking at newspaper ads enough?

	16-24 yrs. of age	Over 24 yrs.	Everyone
1988	38.1	36.2	36.3
1990-91 Standard	80.6	51.5	55.0
1990-91 Experimental	65.7	53.8	54.8

Is talking with friends and relatives enough?

	16-24 yrs. of age	Over 24 yrs.	Everyone
1988	47.7	38.0	38.6
1990-91 Standard	54.8	53.7	53.5
1990-91 Experimental	71.4	57.9	59.1

Note: Percentages saying each activity is considered "looking for work," shown by age. For the 1988 study respondents were asked: "I asked you if ... had been looking for work during the past 4 weeks. Please tell me whether or not you think each of the following activities should be reported as looking for work." The 1990-91 study pitted a revised version of the CPS questionnaire against the standard version. The instructions for the standard group were: "Earlier I asked you if ... has been looking for work. In the next example, please tell me whether or not you would report the person as looking for work." For the experimental group, respondents were asked: "Earlier I asked you if ... has done anything to find work. In these next examples, please tell me whether or not you would report the person as doing something to find work."

Source: US Bureau of the Census, CPS Debriefing Studies, during the years indicated.

job search. A statement that a subject is not looking for work is accepted; but followup questions are designed to make sure that a claim of job search meets CPS definitions. The wording change in the newspaper ads vignette encourages more (mistaken) assignments of that activity as looking for work, and the effect is stronger for young people than for adults. But if an informant tells a CPS interviewer that the person reported for was looking for work during the past four weeks and then can list only looking at newspaper ads to substantiate the claim of job search, the interviewer classifies the subject as not looking for work.

On the other hand, the wording changes in the friends and relatives vignette moves respondents, and especially

youths, to greater accuracy in correctly classifying the activity as job search. If this effect were to carry over into the operational CPS, it might well have an effect on the reported unemployment rate. Youths who self-report might mention conversations with friends and relatives more often than would proxies for such youths. Thus, the self-reporters would be more likely to be correctly classified as unemployed and those reported for by proxy would be more likely to be incorrectly classified as not in the labor force.

These findings represent more than an interesting methodological point. The unemployment rate is a key government statistic which is widely followed, and has important consequences for politics and policy as well as potential economic

impact. It is determined—as are many such statistics—from survey research. Thus, all our familiar concerns (adequacy of sampling, the impact of question wording, accuracy of proxy reports, etc.) come into play and assume special importance. As noted at the outset, this piece has focused on one aspect of the process by which the unemployment rate is calculated. This same sort of attention is appropriate to the other criteria for that rate, as well as for other survey-based government statistics.

Endnotes

¹ Judith M. Tanur and Jung-Kyu Lee, "1992 Youth Unemployment Measured by the CPS," a paper presented at the Annual Meeting of the American Statistical Association, Boston, MA, August, 1992.

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