DISCUSSION

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I agree with most of Mr. Miller's criticisms. But on one critical point I do wish to take issue with him before I present my own comments on Mr. Farber's paper. Mr. Miller stated, in effect, that if the choice were his, he would have answered "no" to the question whether cohort analysis should have been undertaken using OASI data. My answer would have been "yes".

Longitudinal analysis -- taking a selected group of workers and following their labor market activity over a period of time is relatively new and hardly tested technique in labor market analysis; but one which I am sure will expand rapidly. How a person, family or an identical group of workers adjusts to ever varying demands for labor, shifting technology and a changing wage structure, during their life cycle, can in large part only be satisfactorily answered by continuous work histories obtained as events take place. Attempts to duplicate this process by means of recall on the part of a respondent has not been very successful because of the very short time span that can be recalled accurately. Cross sectional analysis presents obvious difficulties in tracing labor market experience over the life cycle of identical groups.

Mr. Farber's spade work has been an important contribution to our better understanding both of the possibilities and the hazards of longitudinal analysis. In his imaginative use of wage and age cohort changes for the period 1951-1957, he has uncovered some rather fascinating relationships of aging to wage and employment trends. But the study also has some serious drawbacks which in its present form limits its use in economic analysis.

1. Changes in employment and wages for each age and wage cohort reflects a mixture of different influences -- aging, short run economic fluctuations and administrative procedures. The mixture varies considerably for each one of the age and wage cohort groups. Since it is impossible for the user to separate the data into these basic components, one is never certain of the extent to which the index for any given cohort reflects changes in wage rates, aging or data deficiencies. This is most apparent in the younger cohorts. The sharp rise in participation rates for the youngest cohorts and up-grading of wages, as a youth changes his status from a part time secondary worker attending school to a full time primary worker swamps the influences of all changes which may have been caused by economic factors. We find that for example, the wage index for the 20-24 year old worker rose to 1193.0 from 1951-1957. Did this group benefit from general wage rate increases which amounted to about 30 per cent in the period? How much were each of the other cohorts effected by sharply rising wage rates? Another example of lack of uniformity among cohorts is found in the highest paid male cohort where administrative limitations on maximum covered wages makes it difficult to determine the influence of economic developments. The stability in average wage credits seems entirely inconsistent with what we know was happening to wages in the period, especially for the full time worker. Knowing this obvious weakness in the high paid male cohort, it is difficult to interpret the significance of the narrowing of the wage differentials presented on Tables 7 and 8 based on the relation of low-paid cohorts to the highest paid cohorts.

2. Although Mr. Farber assures us that the results of his cohort analysis are consistent with other available data, no evidence is given to substantiate this claim. A cursory examination indicates that the increase in employment, i.e., the number of workers in the sample reporting wage credits was 41.1 million in 1951 and 61.2 million in 1957 an increase of 20 million or 50 per cent. As might be expected from the selection of the sample of workers employed in 1957, the rise is substantially higher than indicated in the BLS establishment series or the BLS household series -- BLS nonfarm employment rose by 5 million or only 12 per cent. I assume with some effort and work the employment series can be roughly reconciled. Reconcilation would be invaluable in determining how many workers with earnings experienced drop out of the cohort sample and their effect on employment and wage credit trends in any year.

Since the cohort data have potential value as a measure of change in income, there is also need for some systematic comparison with the data for total and median income of wage and salary workers obtained from the Census Bureau. Some knowledge of the relationship between wage credits earned and with average earnings of employed workers reported in BLS series would also be extremely helpful.

3. I raise the question of reconcilation with some concern because it appears to me that there is very substantial understatement of the impact of the 1954 recession on employment and wages in the cohort data. A major purpose of this paper, Mr. Farber says, is, "to pay particular attention to the 1954 recession and its differing effects on the wage credits of the lower and higher paid male and female cohorts". Mr. Farber using the Woytinsky quote also sharply criticizes the use of cross sectional wage data because it fails to adequately take into account the impact of employment declines on workers' earnings in a recession.

Yet, what is perplexing is that in adding employment of each of the male and female wage cohorts together I find total employment in the sample advanced from 42.9 million in 1953 to

43.9 million in 1954 -- an advance in average annual employment of one million in a recession year. This rise in employment in 1954 is in sharp contrast to all our other employment data for 1954. The BLS private nonagricultural establishment series showed a decrease of 1.4 million. Total nonagricultural employment in the household series, declined by over 1.0 million; while female nonfarm employment also showed a decline of 300,000 in 1954 compared to a rise of 600,000 shown in the cohort sample.

Since one of the major determinants of a recession is a decline in overall employment, I am confused as to how it is possible to better evaluate the impact of declining employment on wages among the cohorts when in fact employment rose in a recession year.

This rather large employment increase shown in the cohort sample in a recession year would seem to imply:

a. The current sample may not be representative of year to year changes in employment, and therefore of the economic impact on wages of declining employment during a recession.

b. Average annual employment data do not adequately reflect short term layoffs -- a typical occurance during recessions. The decline in wages from such short layoffs will be reflected partly in the wage cohort of employed workers but will not show an employment impact in the average wages of the entire cohort.

c. Persons who become and remain unemployed or are forced to retire because of a recession disappear from the sample. This group can be sizable especially in the older worker cohorts. Once older workers become unemployed they are the least likely to find other jobs and a substantial number of the long term unemployed probably never return to the sample.

In any event, I do think more explanation is needed, if the analysis of the data is to support the underlying contention of the author that cohort data give the best indication of the effects of declines in employment on incomes in recessions.

4. I also think that the selection of the cohorts based on employment in 1957 is open to some question. The selection has definite advantages for the young age groups where new entrants come into the labor force and participation rates rise rapidly. Employment in 1957 is thus likely to give undue weight to growth in employment and wages for the younger cohorts. When we get to the other end of the age scale, where the sample represents only a small group of older workers who have managed to continue their attachment to the labor force beyond retirement age, the pattern of employment and wage credits is hardly representative of the large and important group of older workers who withdrew from covered employment as they aged between 1951-1957. Were those who retired in higher wage cohorts than those who remained? Unless we know the answer to this question, the movement in employment and average wage credits for the older worker has only very specialized significance for the few selected who worked in 1957.

On net, I would think that the sample selection also results in a downward basis in the earnings reported by wage cohorts. For example, over 70 per cent of those with average earnings of less than $1,200 and over 50 per cent of those whose earnings were between $1,200-2,390, from 1951-1957 were under 30 years of age. Yet this group accounts for only 1/3 of the number employed in 1957. Many of these young people obviously were not separate spending units and made relatively minor contributions to family income between 1951-1957. Many in the low income groups had voluntary part time jobs and such low income is not necessarily indicative of distress or hardship. In fact, unless some distinction is made between primary and secondary family earners, the cohort distribution by high and low incomes has very limited usefulness. The failure to include the income of workers who had retired or died but earned incomes between 1951-1956 probably causes a further downward bias.

My conclusion would be that the cohort data used in this study are extremely tricky for economic analysis. Changes in average wage credits and employment from cohort to cohort over time have a different meaning for each cohort. While the differences in the cohorts can be compared arithmetically, explaining the significance of the differences is an analytical process. And it is in the latter area, in my judgement, that the next steps must be taken if we are to take full advantage of the vast amount of very useful data being made available to us by Mr. Farber.