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Comment Gary Burtless

This chapter traces out the effects of population aging on a few key labor market variables: the labor force participation rate; the unemployment rate;

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flows into and out of employment, unemployment, and the labor force; and trends in average wages and the variance of wages. The authors offer a clear survey of some of the main issues that link the population age structure to these variables. A couple of outcomes examined by the authors are mainly interesting to specialists. Others are interesting to a much wider audience, one that includes both policymakers and the economists who advise them. Labor force participation and the unemployment rate are particularly important, both to analysts who are interested in predicting the next quarter's or next year's gross domestic product (GDP) and to policymakers who want to know how closely the current path of GDP is tracking the potential growth path.

A number of economists have investigated some of the key impacts of population aging considered here. Both the labor force participation rate and the unemployment rate have been the focus of considerable research. The paper by Thomas Lemieux at this conference considers in detail the past effects of population age structure on the distribution of wages (Lemieux, chapter 1 in this volume). In a 1999 paper, Lawrence Katz and Alan Krueger examined alternative explanations for the sharp decline in the U.S. unemployment rate during the 1990s. Like the authors of this chapter, they estimated the effects of the population age structure. Reassuringly, Katz and Krueger found almost the same effect of age structure on the unemployment rate as is reported in this chapter. Katz and Krueger concluded that most of the aging effect occurred in the ten-year period after 1979. The effect of changing age structure on the unemployment rate after the mid-1990s was much less important (Katz and Krueger 1999).

The Social Security Administration (SSA) has been in the business of making participation and unemployment rate forecasts for several decades. It does not use the same methods developed by these authors, but the methods are broadly similar. Analysts in the Office of the Chief Actuary develop forecasts of the U.S. population, the labor force, and the employed population. In addition, they predict the labor force and unemployed population within subpopulations defined by age, gender, marital status, and the presence or absence of child dependents.

In making their short- and long-term forecasts, the SSA analysts do not assume future participation and unemployment rates within age-gender groups will remain stable. According to an analysis published a few years ago, their projections ". . . also include a 'lagged-cohort effect' that applies changes in participation rates for a cohort at a specific age (relative to earlier cohorts at the same age) to participation rates for that cohort at older ages (Motsiopoulos and Tucker 2005, 4)." In other words, like Fallick, Fleischman, and Pingle, the SSA analysts believe that birth cohort plays a sizeable role in explaining the trend in participation rates.

The authors of this chapter emphasize that cohort-specific effects seem to drive many of the long-term trends in overall participation and unem-

ployment. Women who entered the labor force in 1973 were systematically different from those who entered in 1963 or in 1983, and the cohort differences have persisted in succeeding decades. More recent birth cohorts have generally had participation rates and unemployment experiences that are more similar to those of male counterparts who are the same age. Not surprisingly, however, birth cohort models have little ability to predict a cohort's early-career participation and unemployment experiences. I also wonder whether cohort models are very successful in accounting for trends in labor status among people who are past the traditional retirement age.

Women's participation at older ages is rising in line with each cohort's lagged participation rate at younger ages. This goes a long way toward explaining the elevated participation rates of women who are now between sixty and seventy-five years old. The cohort models do not provide a full explanation for rising participation rates among women past age sixty, however. Part of the recent rise is explained by other phenomena, a fact the authors recognize. In addition, cohort models cannot account for any of the rise in labor force participation among men past the age of sixty-five. Over the past three decades participation rates of fifty-five to fifty-nine-year-old men have drifted downward in an erratic pattern. In contrast, the long-term decline in participation rates of men sixty-five and older came to an end in the mid-1980s. Since the early 1990s participation rates of men past sixty-five have been rising. Figure 10C.1 shows the trend in labor force participation rates of successive overlapping birth cohorts of men born between 1922 and 1944. The top line shows the participation rate of a given cohort when it was between fifty-five and fifty-nine years old; the middle line, the rate when it was between sixty and sixty-four; and the bottom line, the rate when it was sixty-five to sixty-nine-years-old. The youngest birth cohort, born between 1940 and 1944, had a labor force participation rate at age fifty-five to fifty-nine that was 2.8 percentage points below the comparable rate of the oldest cohort, born between 1922 and 1926. On the other hand, the youngest cohort had a participation rate between ages sixty-five to sixty-nine that was 11.2 percentage points *above* the comparable rate of the oldest cohort shown. Obviously, cohort models cannot easily account for the diverging trends of men younger than sixty and older than sixty-five.

Economists are interested in these trends for purposes of explaining the trend in the average and median retirement age; that is, the typical age at which full-career workers withdraw from the labor force. My reading of the evidence is that the age of labor force withdrawal has become more variable with successive birth cohorts. In the 1960s, 1970s, and 1980s there was more clustering of retirement ages among workers in a given birth cohort. Full-career workers were more likely to retire within a few years of the modal retirement age, say, age sixty-two or sixty-five. In contrast, workers are now more likely to withdraw at ages well before sixty and well past sixty-five.

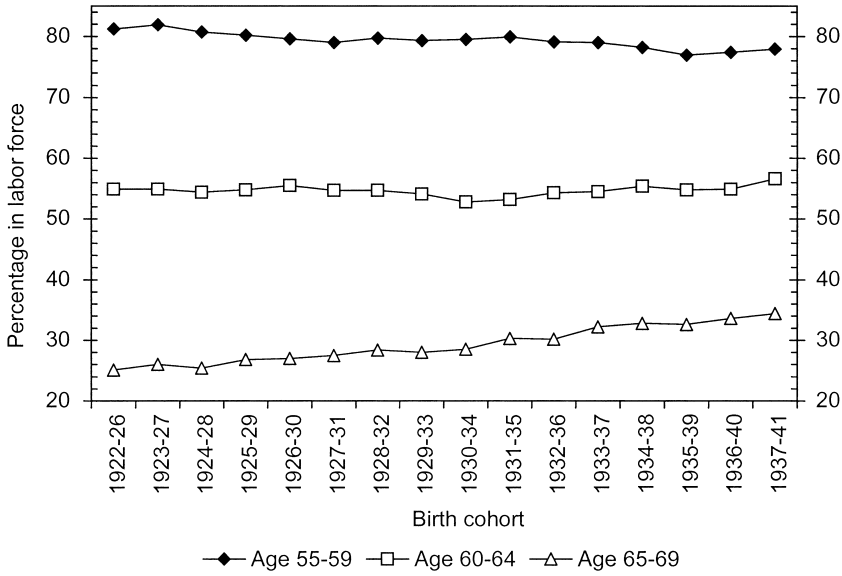

Fig. 10C.1 Labor force participation rate of successive male birth cohorts at selected ages, 1976–2009

Source: Author's estimates using source data from the Bureau of Labor Statistics.

Economists, including these authors, have offered plausible suggestions to account for trends in labor force withdrawal within successive birth cohorts (Burtless and Quinn 2001; Aaronson et al. 2006). One reason for increasing labor force participation at older ages is that both the public and private retirement systems now provide smaller incentives for early labor force withdrawal. From 1950 through the early 1980s, the net value of social security pensions tended to rise relative to after-tax wages for successive cohorts of retirees. Amendments to the Social Security Act passed in 1977 and 1983 brought this liberalization to an end. The after-tax value of social security pensions has gradually declined compared with the after-tax value of wages for workers who have retired since the 1980s. Equally important, the penalty on earning wages while collecting a social security check has been substantially reduced, and this change has encouraged some pensioners to find part-time or bridge jobs after they leave their career jobs. For a minority of workers these benefit trends have delayed the age of full exit from the labor force.

The private pension system has also shifted in a direction that encourages work later in life. Between 1980 and 2004 the fraction of workers who were exclusively covered by a defined-benefit (DB) plan fell from 60 percent to just 11 percent of all pension-covered workers. In the same period workers exclusively covered by a defined-contribution (DC) plan rose from 17 percent to

61 percent of all pension-covered workers (Munnell and Perun 2006). The two kinds of pension produce very different retirement incentives. Defined-benefit pensions penalize many workers who delay retirement past the plan's early or normal pension-claiming age. In many DB plans, it is financially advantageous for workers to quit their jobs and accept a pension as soon as they reach the initial benefit-claiming age. Defined-contribution pension plans are much more age-neutral in their retirement incentives. So long as a worker remains employed in a DC-covered job, the employer, the worker, or both can continue to make contributions to the plan, and the contribution remains the same percentage of the worker's wage. Because DC pensions provide little incentive to retire at one age rather than another, farsighted workers might choose to remain in their career jobs longer in order to build up their retirement wealth.

The changes just mentioned help account for the fact that some workers now withdraw from the labor force later than was the case among their counterparts in the 1980s and 1990s. Another explanation is needed to account for earlier labor force withdrawal among a minority of workers. One explanation for earlier labor force exit is the rise in lifetime wealth. Increasing wages and wealth have made many workers better off compared with their parents and grandparents. Some workers use part of their increased wealth to leave the workforce before reaching the social security retirement age. This behavior is economically rational if career workers find their jobs less attractive than the activities they can pursue when they retire. A second explanation for earlier labor force exit is the increased availability and generosity of disability benefits. In recent years workers have found it easier to collect benefits for some disabling conditions. Other workers have seen disability benefits grow faster than their potential wages, increasing the potential payoff to filing a disability claim (Autor and Duggan 2003).

Since 2000 there have been two major surprises in labor force trends. The first involves men and women past age sixty-two. Their participation and employment rates are currently higher than many forecasting models predicted in the late 1990s. The trend toward later retirement has accelerated among a minority of older workers. The second and bigger surprise has been the changed behavior of the young. They are less likely to be labor force participants than young adults in the late 1990s. Figure 10C.2 displays a social security forecast of labor force participation generated for the 2000 *OASDI Trustees' Report.* The report was published in April 2000, and the forecast itself was developed in the second half of 1999. Figure 10C.2 shows the SSA forecast of labor force participation among sixteen- to twenty-four-year-olds. The solid, dark line shows the actual labor force participation rate of sixteen- to twenty-four-year-olds as published by the BLS. The lighter line shows SSA's intermediate forecast of that participation rate developed for the *2000 OASDI Trustees' Report.* Starting in 2001 the actual participation rate of young adults fell sharply, declining 8.9 percentage points in nine

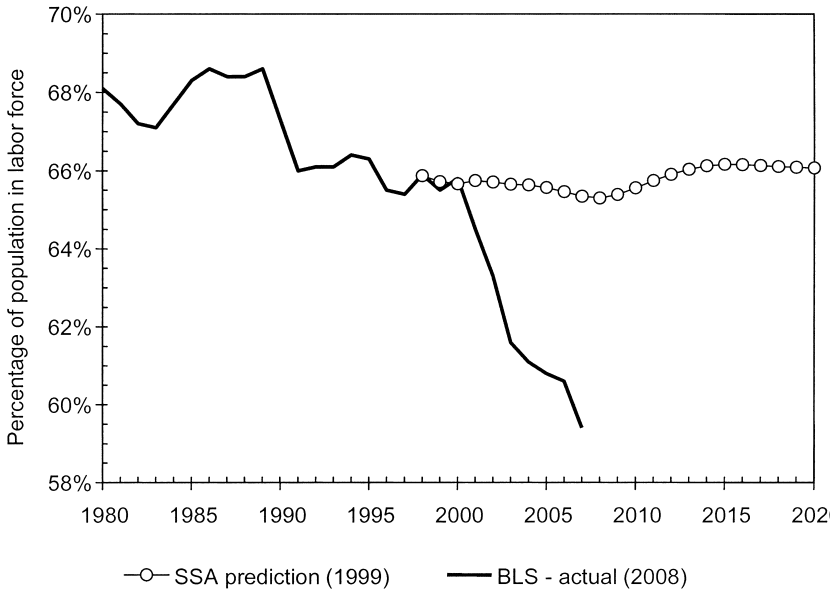

Fig. 10C.2 Actual and predicted participation rates of 16–24-year-old adults, 1980–2020

Source: Bureau of Labor Statistics and unpublished data from Office of the Chief Actuary, U.S. Social Security Administration.

years. The SSA forecast predicted a much smaller decline in young adult participation.

The error resulted in a considerable overstatement of the number of sixteen- to twenty-four-year-old labor force participants. By 2009 the overstatement of the youthful labor force amounted to 3.7 million young adults. It seems doubtful whether any economist before 1999 had a model that accurately predicted this decline. It is also doubtful whether, even after the participation decline became known, we had a model that could account for the magnitude and suddenness of the drop. In the previous recession, which began in 1990, young adults' labor force participation fell less than a third as much as it did after 2000.

In an extension of the research reported here it would be useful to show estimates of the impact of population aging on aggregate labor supply, when aggregate supply is adjusted to reflect the expected productivity of the work hours supplied. In figures 10.4 and 10.6 the authors give us projections of aggregate labor supply as measured by the labor force participation rate of the population sixteen and older. In figure 10.31 they give projections of the impact of the changing age structure on average wages. A straightforward extension is to develop estimates of the impact of the age structure on aggregate hours of work and on work hours weighted by expected productivity

per hour. The results in figure 10.31 weight each observed wage by the number of workers who earn or who are expected to earn that hourly wage rate. An alternative adjustment is to weight each observed wage by the number of hours that is paid that wage. This weighting scheme takes into account not only the age profile of labor force participation but also of expected hours worked in a given week. When labor force growth is caused by an influx of teenagers and young adults (groups with relatively low wages), the growth in productivity-weighted labor supply is slower than the growth in either labor force participation or aggregate work hours. The estimates in figure 10.31 imply, however, that the expected hourly wage of U.S. workers has risen as a result of population aging. The average wage will continue to rise, although very slowly, over the projection period. Thus, some of the expected future slowdown in labor force growth will be offset by the rising average wage of an older workforce. For purposes of predicting the future trend growth in national income, it would be useful to know the approximate size of this offset.

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