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## **The More Things Change, the More They Stay the Same: Trends in Long-term Employment in the United States, 1969-1998**

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### Abstract

This study considers the question of whether there has been a decline in the attachment of workers and firms in the United States. Specifically, it compares snapshots of job tenure taken at the end of workers' careers from 1969 to 1998, using data from the Retirement History Survey, the National Longitudinal Survey of Older Men, and the Health and Retirement Study. The primary finding is one of stability in the prevalence of long-term employment relationships for men in the United States. In 1969, average tenure in the longest job for males aged 58-62 was 21.9 years. In 1998, the comparable figure was 22.0 years. A similar measure of average tenure in the longest job does decline for those men with less than a high school education, but this trend is reversed by using a relative, rather than an absolute, cut-off for low education. It remains true in all years that more educated men have higher tenure than less educated men. Among non-white men, average tenure has increased over this time period, but remains below comparable measures for white men.

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A great deal of attention has been paid in recent years to the issues of job stability and job security in the United States. Many economic studies have attempted to answer the question of whether there has been deterioration in the prevalence of long-term, stable employment relationships in the United States during the period from roughly the mid-1970s to the present. Most of these studies have found either (1) no robust evidence of significant changes in various measures of job tenure, job stability or job security or (2) indications of relatively small increases in job turnover, particularly during the 1990s. An edited volume aimed at exploring and reconciling the evidence on this question concluded by noting that it was “premature to infer long-term trends towards declines in long-term employment relationships.” (Neumark 2000)

In contrast to the findings of most empirical studies, there remains a powerful conventional wisdom that the U.S. has experienced widespread, substantial declines in expected job security or stability for workers in the U.S. A recent New York Times article noted that “worker’s today face a workplace that operates without the myth of job security.”<sup>1</sup> Many feature articles have been written on the transformation of the American workplace, and how workers are now prepared for careers in which they do not expect to spend a substantial fraction of their working careers with a stable employer. Further, when asked directly, workers themselves appear to be more worried than in previous years about the risk of separating from their employers. (Schmidt, 2000).

This paper adds to the literature on long-term trends in employment stability in the United States in two specific ways. First, rather than examining cross-sectional tenure distributions or estimating job retention probabilities for different years, I focus on distributions of completed tenure for several cohorts of workers near the end of their

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<sup>1</sup> Connelly, Julie. “Youthful Attitudes, Sobering Realities.” New York Times, October 29, 2003.

working lives. Second, by using different data sets than have previously been employed for questions relating to job stability, I effectively consider a longer time span than previous research in this area. Most previous studies have relied on Current Population Studies (CPS) files or longitudinal data available only from the early- or mid-1970s forward.<sup>2</sup> These studies have also been complicated by changes in question wording of several of the key tenure measures over time.

I use data from three different data sets to estimate the distribution of tenure on the longest job ever held, from cohorts of workers observed near retirement from 1969 to 1998. Specifically, data are drawn from the Retirement History Survey (RHS), started in 1969, the National Longitudinal Study of Older Men, started in 1966 (NLS), and the Health and Retirement Study (HRS). Using these data allow me to examine cohorts of men who are aged 58-62 years in each of the years 1969, 1975, 1980, 1992 and 1998.

### **I.A. Current findings on trends in job tenure**

The question of whether job stability has declined in the United States, and the tendency for economic studies and the popular press to disagree over its answer, has been around since at least the mid-1990s. A representative group of empirical research related to this controversy is contained in a volume edited by Neumark (2000). To set the stage for my current study, I briefly summarize some of the main conclusions of this earlier work.

Neumark (2000) summarizes several empirical investigations of changes in job stability and/or job security covering the period from the mid-1970s through the mid-

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<sup>2</sup> As summarized below, researchers have addressed these questions using the Panel Study of Income Dynamics (PSID), Survey of Income and Program Participation (SIPP), and the National Longitudinal Studies (NLS).

1990s. More specifically, evidence from the PSID and the CPS suggests that the fraction of workers with very low tenure with their current employer increased somewhat during the 1970s (Jaeger and Stevens, 2000). Evidence for young workers from the NLS surveys, analyzed by Bernhardt, et al. (2000) is also consistent with higher separation rates during this period. Among higher tenure male workers, there is also evidence across data sets that their probability of remaining with their current employer declined during the 1990s (Neumark, Polsky, and Hansen, 2000). Most of the studies included in this volume point to some increase in turnover (or some decline in average tenure), for some worker groups, during some subset of the years between 1970 and 1995. However, as Neumark points out in the quote above, what is clearly *not* found is consistent evidence of a major change in the dynamics of worker-firm relationships.

Another set of papers (and a corresponding segment of the earlier literature) focuses more narrowly on turnover resulting from involuntary job changes. Here, there is again some evidence found of increasing rates of involuntary job separations. Using the PSID, for example, Valetta (2000) finds an increase in the probability that high-tenure male workers experience an involuntary job change between 1976 and 1992. Valetta notes that these findings are consistent with an erosion of incentives to maintain long-term employment relationships, and thus qualitatively consistent with some of the claims from the popular press of a change in the nature of employment relationships. Similarly, Stewart (2000) makes use of CPS data and reports an increase in job loss rates from the 1970s to the 1980s (but not from the 1980s to the 1990s).

There remains a disconnect, however, between claims of eroding job stability and the empirical findings in this literature. To some extent, this is a matter of differences in

degree. While there is some evidence of relatively short-term and statistically significant changes in turnover rates, or involuntary turnover rates, or tenure distributions, none of these changes are obviously large enough or persistent enough to support the assertions of major shifts in employment relationships.

### **I.B. Contributions of the current study**

This study differs from prior work mainly in the summary measure used to consider employment stability. My approach is to focus on cohorts of individuals who are observed near the end of their working lives, and utilize retrospective data on their completed (or near-completed for those longest jobs still in progress) tenure in the longest job they have held. As noted above, use of data from the RHS, NLS, and HRS allows me to calculate these distributions of tenure in the longest job for cohorts of older men observed in 1969, 1975, 1980, 1992, and 1992.

One advantage of this approach is that it avoids the need to translate from either job retention rates or turnover probabilities, or from distributions of current tenure into a measure that is more directly interpretable as a measure of the importance of long-term employment relationships. Many of the claims of decreased job stability express the notion that this—the extent to which long-term employment relationships are an important feature of the economy—is what has changed. As William Sundstrom (2003) argues in a review of the collected studies in the Neumark book:

“Even if one leans toward the conclusion that stability has declined, the papers do not provide a good feel for the magnitude of the change...It would be interesting to know whether [these] changes in separations rates or tenure distributions...imply a large or merely marginal decline in that probability [of lifetime employment].”

Sundstrom refers to measures of the importance of lifetime jobs first formulated and estimated by Hall (1982), and revised and updated in Ureta (1992). These authors estimated probabilities that an individual's current job will eventually last for more than a given number of years. This concept is more directly related to claims of a reduction in long-term employment relationships. If my show, for example, that similar fractions of workers ending their working lives in 1969 and in 1998 have been with a single employer for more than 20 years, there is little room for an argument that the relevance of long-term employment relationships has changed dramatically over time.

A related contribution of this approach is that, while the data sets utilized span only a slightly longer period of time than previous work (1969 to 1998) they will effectively make comparisons that include many earlier years. Measures of tenure in the longest job for the 1969 cohort will summarize the job turnover probabilities faced by workers from the 1930s through the 1960s. One concern with many of the previous studies is that consistently collected data from prior to the mid-1970s (or later for some data sets) is virtually non-existent. If some of the reported changes began to occur at the start of the 1980s, the use of only a few years of pre-change data could explain the failure of many studies to accurately capture such changes.

This advantage, however, points to the potential for a corresponding disadvantage of this approach. If change in employment relationships did not emerge until the end of the period studied (say, the mid-1990s), a study of older men that ends with data from 1998 may not capture the full scale of these changes. To some extent, this cannot be avoided given the currently available data. To partially address this

issue, however, the final section of the paper uses previously estimated changes in job retention rates during the 1990s to simulate the effects of long-term employment for younger cohorts of workers.

## **II. Data**

### **II.A. Retirement History Survey**

The Retirement History Survey began in 1969 with a survey of approximately 11,000 men and unmarried women aged 58 to 63.<sup>3</sup> While these individuals were re-interviewed every other year until 1980, I rely primarily on information collected at the first survey wave. To maintain consistency with later cohorts drawn from other data sets, I look at the sub-sample of men aged 58-62 in the initial year, 1969. This provides me with a sample of 6,884 men in the specified age range in 1969. All tabulations reported below are weighted using the 1969 sample weights from the RHS.

The main questions of interest for this paper come from a section of the survey that collects retrospective information on previous jobs held. In particular, survey respondents are asked a series of questions about the longest job they ever held, including the year in which that job started, and the year in which it ended. From these questions, I calculate tenure in the longest job, which forms the primary measure used in this study of a long-term employment relationship.

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<sup>3</sup> The fact that only unmarried women are fully surveyed by the RHS, and that there is not a similarly defined age group of women covered by the NLS survey explains why I limit this study to males. While there is limited evidence from the previous literature for a decline in job stability among men, there is even less evidence of such a trend among women. Further, major changes in women's labor force participation over the past four decades would require make the simple tabulations of tenure in the longest job relied on in this study difficult to interpret for women. Such an analysis is left for future work.

## **II.B. National Longitudinal Survey of Older Men**

The NLS of Older men began in 1966 by surveying a sample of men aged 45 to 59 in that year. Because of the much broader age range in the NLS survey than in the RHS, I am able to construct 3 separate cohorts of older men, observed in three different calendar years. Specifically, I look at the distribution of tenure on the longest job for: (i) men aged 58-62 in 1969 (for comparison with the RHS results), (ii) men aged 58-62 in 1975, and (iii) men aged 58-62 in 1980. The resulting sample sizes for the cohorts observed in 1969, 1975, and 1980 are 1204, 1341, and 968, respectively.

The key questions used from this dataset are similar to those from the RHS. In particular, individuals in the initial year of the NLS were asked for the dates at which their longest previous job started and ended, as well as the date at which their current job started. In each subsequent year of the NLS survey, individuals are asked whether they remain with the same employer as in the previous survey wave. If they are not, they are asked about when their current job started, and about any intervening jobs completed between the current and previous survey. To code tenure in the longest job for each of the three cohorts in 1969, 1975, and 1980, I utilize data from both the retrospective longest job and the year-specific updates.

## **II. C. Health and Retirement Study**

Finally, the Health and Retirement Study began in 1992 with a survey of individuals ages 50-61 and their spouses. These individuals have been resurveyed every other year since then. This allows me to define two comparable cohorts from the HRS:

men aged 58-62 in 1992, and those aged 58-62 in 1998. Sample sizes for these two groups from the HRS are 1402 and 1760.

There is one substantive difference from the earlier data sets in the survey question used in the HRS to code tenure in the longest job. In the first wave of the HRS individuals are asked about their current job (if currently employed) or their previous job (if not currently employed). Then, individuals are asked whether they had some previous job that lasted for at least five years, along with how many such jobs they have held. If there are multiple previous jobs lasting for five years or more, the individual is asked for starting and ending dates (along with salary, and other information) only for the *most recent* of these jobs. I use the maximum job tenure (difference between starting and ending dates of reported jobs) from these questions as the measure of tenure on the longest job in the initial year of the HRS survey (1992). In the later (1998) wave of the HRS, I use this information, plus updated information on subsequent jobs held since the wave 1 survey.

Because the other surveys ask specifically about the length of the longest job ever held, but the HRS asks about the most recent of (potentially) several jobs lasting more than five years, there is the potential for the calculated length of longest job in the HRS to be downward biased. If, for example, an individual worked at one previous job for ten years, and then at a subsequent job for 6 years prior to the initial HRS wave, we would miss the longest job tenure because of the structure of the questions. Fortunately, using individual responses about how many jobs lasting more than five years, and the start date of the most recent such job, I can calculate an upper bound on how much this could bias my estimates of tenure on the longest job. This is described in more detail below, and

does not significantly change my conclusions. For most workers the most recent long term job is also the longest job. This is not surprising since the job shopping process and the decline in separation rates with tenure means longer lasting jobs tend to occur later in workers' careers.

### **III. Results**

#### **III.A. Basic tabulations of tenure in the longest job**

In Table 1, I report the basic results on the distribution of tenure on the longest job from five cohorts of men taken from the three data sets. The first panel of the table shows the results for all men. From 1969 to 1998, the average tenure on the longest job barely changes, going from 21.9 years to 22 years. The table suggests a slight increase in average tenure for those cohorts observed at age 58-62 in 1975 and 1980. As a result, there does appear to be a slight reduction in average tenure if we look only from 1975 through the end of the 1990s, as many previous studies have done. There are two reasons, however, to be cautious in reaching even this limited conclusion pointing towards a small reduction in lifetime job security. First, the trend is not robust to inclusion of earlier birth cohorts (observed in 1969) to the time series. Second, as shown below, measures of average tenure from the later cohorts in the NLS may be biased upward due to non-random attrition. Overall, means and medians shown in the first table show no evidence of declining job stability when contrasting cohorts at the end of their careers in 1969 versus 1998. Calculations of the fraction of men with longest tenure below 10,20, or 30 years also fail to show any strong patterns consistent with a reduction in the importance of long-term employment relationships.

Another feature of Table 1 that deserves mention is the similarity in the summary statistics for tenure in the longest jobs across the two data sets for the 1969 cohorts. Average and median tenure for the RHS and NLS samples are generally close to one another. The only group for which there is a statistically significant difference in mean tenure across the two data sets for 1969 is more highly educated workers.

While these summary statistics on tenure in the longest job are not directly comparable with recent studies calculating distributions of current tenure, or with retention rates, they can be compared with previous estimates of the prevalence of long-term or “lifetime” jobs in the U.S., by Hall (1982), and updated by Ureta (1992). It is also interesting to compare the *projections* of eventual tenure from the earlier studies with my tabulations of the actual prevalence of long-term employment taken from retrospective data. The calculations from these older studies are not completely comparable with those presented here, however. I am considering completed tenure in the longest job, while Hall and Ureta were estimating distributions of completed tenure in the current job. Particularly for younger workers, the current job might end quickly, but a subsequent job could end up as a very long-term job. Hall (1982) originally argued that stable, “near-lifetime” employment was quite prevalent in the U.S., citing his results that estimated the fraction of individuals whose current job would last for a given number of years. For example, Hall estimated that approximately 37 percent of men were in jobs that would eventually last for more than 20 years. My estimates more strongly emphasize the likelihood that most workers will have *some* job during their working lives that lasts for more than 20 years. For example, in 1969, 52 to 56 percent of men reported

that they had held some job for more than twenty years. In 1998, this figure was approximately 54 percent. Hall also presents results for older workers, which should be closer to my tabulations, since older workers are more likely to currently be in their longest job. Among male workers aged 55 and over, Hall (1982, Table 7) shows that roughly 50 percent will have eventual job tenure of 20 or more years. Ureta (1992) makes some important modifications to Hall's methodology, including taking account of changing entry rates over time, and finds somewhat lower figures for those with eventual tenure of more than 20 years. The estimates in Table 1, in addition to showing stability over time, underscore the message of earlier work that long-term employment remains an important feature of the labor market experience for most workers in the U. S.

The remaining rows of Table 1 show the pattern of longest tenure over time when each cohort is split according to years of education and race. Among less educated workers, defined as those with less than 12 years of completed education, there is evidence of a decline in tenure. Average tenure in the longest job goes from approximately 21 years in 1969 to 19 years in 1998, with median tenure falling from 21 to 18 years over the same period. It is important to note that all of this decline comes at the very end of the period, between 1992 and 1998.

Among those men with 12 or more years of education, tenure is stable or increases slightly over the entire period. There is an increase in the 1970s for this group, that appears to be reversed in the 80s and 90s, however. One concern with taking these results by education at face value is that average educational attainment has increased dramatically during the past several decades. This means that the group defined as "less educated" is becoming increasingly selected over time. I show below that this the decline

in tenure among the less educated as shown in Table 1 is not robust to a definition of low education that uses a relative measure of education that changes over time as average education improves.

The final two sections of Table 1 separate the men by race. Among whites, tenure in the longest job is again quite stable. Tenure among non-whites shows an upward trend, with median tenure rising from 17 or 18 years in 1969 to 20 years by 1998. As has been found in previous work (Ureta 1992, Hall, 1982), non-whites continue to have lower tenure on their longest jobs than whites, although there appears to be some convergence in this differential between 1969 and 1998.

### **III. B. Data concerns**

One pattern that stands out in Table 1 is that tenure in the longest job appears to increase during the course of the 1970s, but then levels off or falls after 1980. Unfortunately, this pattern is entirely driven by data from the later two NLS cohorts. This raises the question of whether this pattern is driven by some aspect of the NLS dataset in these years. One possible explanation for these increases in longest tenure across the NLS cohorts involves sample attrition from the NLS. Attrition from the NLS cohort of older men was significant, particularly during the 1970s and 1980s, the period over which I show an increase in reported tenure on the longest job. The U.S. Department of Labor notes that attrition was relatively low during the earliest years of the survey (USDOL, 2003), with 87% of the original (1966) participants responding to the 1969 survey. Unfortunately, by 1980, only 60% of the 1966 participants were still responding. (see USDOL, Table 6.3). The NLS handbook reports that much of this

attrition is the result of respondent mortality. This is less of a concern for the results shown in this paper, since my samples for later years include the younger respondents, who have correspondingly lower mortality rates. However, even among those still living, only 79 percent of the initial participants were responding by 1980. (87 percent were responding in 1975).

Some direct tabulations from the NLS suggest that differential attrition may, in fact, be driving some of the increases in longest tenure reported in Table 1 between 1969 and 1980. If those who leave the sample are disproportionately those men with high levels of job turnover, or relatively low tenure in their longest job, increasing attrition over time will result in a spurious increase in the reported tenure measures. To examine this, I consider the 1969 cohort of men aged 58 to 62. The 1204 men in this age range include 968 who remain in the survey through at least 1975, and 236 who do not. Average longest tenure in 1969 among those who will remain in the survey through 1975 is 23.0 years, compared to an average of just 18.9 years among those who leave the survey prior to 1975. These differences are strongly statistically significant. When I use a broader age range (including younger workers so that mortality is less of a factor), I obtain only slightly smaller differences in tenure between those who leave the sample, and those who remain.

Another striking feature of the trend across years in the NLS data is that the changes in average tenure are largely driven by very substantial changes in the fraction of those whose longest reported job is very short, 10 years or less. In 1969, for example, the NLS data show that 16 percent of men had tenure in their longest job of less than or equal to 10 years. This is a bit lower than the corresponding fraction in the RHS in 1969, and

similar to the fractions with low tenure reported in the HRS. In the later cohorts from the NLS, however, this fraction with longest jobs lasting less than a decade falls to 13 and then just 9 percent. The exercise just mentioned, in which the 1969 cohort is divided between those who eventually leave the sample and those who remain also points to those who leave as being substantially more likely to have longest tenure of less than 10 years. Of those in the 1969 cohort who remain through 1975, approximately 15 percent report longest tenure of 10 years or less; of those who leave before 1975, however, 20 percent report longest tenure of 10 years or less. These results suggest that the 1975 and 1980 cohorts from the NLS could be overstating average longest tenure, because lower tenure workers are disproportionately represented among those who do not respond in later years.

This attrition issue immediately raises similar questions with respect to the HRS sample. Since the 1998 results are based on those individuals who have remained in the HRS until the fourth wave, it is possible that a similar attrition bias could be at work in the later waves of the HRS. Examination of average tenure in the 1992 HRS by subsequent attrition, however, produces evidence of less severe differential attrition by job attachment. Among the 1402 members of the 1992 HRS cohort studied here, 1086 remain in the sample through 1998. Average tenure among those who remain until the fourth wave is 22.5 years, compared to 21.25 years among those who leave the sample before 1998. The difference in average tenure by later attrition status is significant at the 10% level, but not at 5%. Thus, the pattern is similar, with those workers who remain in the survey having higher reported tenure in the longest job, although the magnitudes are only approximately 1/4<sup>th</sup> those of the corresponding differences from the NLS cohorts.

This suggests that the decline in most of the summary measures of tenure between 1992 and 1998 could slightly understate the true decline, as the result of higher attrition rates among low tenure workers. The extent of this problem, however, seems much less pronounced than is the case among the NLS cohorts.

The second data issue to examine here is the extent to which the difference between the tenure questions in the HRS and the other data sets could lead to an understatement of longest tenure in for the men observed in 1992 and 1998. As described above, the HRS collects information on tenure in the most recent job lasting more than five years, rather than the longest of all recent jobs. This could lead to an apparent finding that tenure is low in the 90s relative to the previous decades. Since Table 1 shows little evidence of such a finding, even before addressing this data concern, the main goal of considering this problem is to determine whether there is the potential for significant increases in tenure over time that are masked by the nature of the survey data used here.

To get an idea of the extent to which my measure of longest tenure from the HRS is understating true longest tenure, I make use of several additional variables from the job history section of the HRS. Specifically, I use information on the number of jobs an individual had that lasted for five or more years, and information on when the most recent of these jobs (and the only one for which actual tenure information was reported) began. Next, I calculate the number of years between age 20 and the year in which the most recent job of five years or longer began, label this quantity as JOBGAP. This gives a rough idea of the number of years in the individual's labor force history that is not covered by the jobs reported in the HRS. If an individual reports only one other job

lasting at least five years, JOBGAP is taken to be an upper bound on their actual (but unreported) tenure in the longest job. If an individual reports two other jobs lasting at least five years, I use JOBGAP-5 as this upper bound. A small number of individuals report 3 or more previous jobs lasting more than five years, and these cases are handled in a similar way. This procedure allows me to calculate an upper bound for the individual's tenure on his "true" longest job, or an alternate measure of an individual's longest job tenure.

Implementing this process for the cohort taken from wave 1 of the HRS provides an idea of how serious this data problem may be. For 86% of the wave 1 sample, this suggests that my original measure of longest job tenure is, in fact, the individual's longest job tenure. For this group of individuals, the upper bound measure of tenure on any omitted jobs is less than tenure on the most recent job lasting more than five years. When I use the alternative, upper-bound measure of longest tenure for the remaining 14% of the sample, estimated average tenure on the longest job (for the entire cohort) increases by approximately a year and a half, and median tenure rises by one year. Overall, I view this exercise as suggesting that, while the longest tenure distributions in the HRS are probably understated, the magnitude of this understatement is modest, probably less than one year.

### **III.C. Underlying demographic and labor market trends**

Because the cohorts summarized in Table 1 represent work histories spanning nearly 70 years, it is also important to consider whether underlying demographic and labor force trends can help inform the interpretation of the basic results. Several underlying changes in the labor force and population between the 1960s and 1990s could

potentially affect these measures of tenure on the longest job measured for these broad cohorts of older men in different years. Specifically, differences across the cohorts in age of retirement, educational attainment, and veteran status have the potential to produce changes in length of longest tenure when no underlying change in job security has occurred (or obscure actual changes).

Table 2 summarizes several characteristics of the different cohorts of men. There is a strong trend towards earlier retirement during this period, that shows up in Table 2 in the fraction of each cohort that is already retired when they are observed between ages 58 and 62. Among older men observed in 1969, between 4 and 5 percent have already retired. However, by the 1990s, nearly one-third of the cohort reports themselves as retired.<sup>4</sup> This corresponds with much earlier work documenting a long-term trend in the United States towards earlier retirement. Burkhauser and Quinn (1997), for example, report reductions in male labor force participation rates of 16 to 20 percentage points between 1970 and 1998.

The trend towards earlier retirement could have a purely mechanical effect on tenure in the longest job, particularly if most of these “longest” jobs are the also the last jobs workers hold before retiring. If the total lifetime length of labor force participation is reduced by several years from the earliest to the latest cohorts considered here, we might also expect a reduction in tenure in the longest job, since the right tail of this distribution will be reduced with earlier retirements. It is certainly true that a large

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<sup>4</sup> For the 1969 through 1980 cohorts, individuals are reported as “retired” if they give “retired” as their response to a question concerning their labor force status during the survey week. In the HRS cohorts (1992 and 1998) individuals are considered retired if their reported labor force status is “retired” or “partially retired.” Alternative definitions yield similar trends, though the extent of the increase is obviously diminished if I do not include the partially retired in later years.

proportion of the “longest jobs” are still in progress as workers near retirement ages.<sup>5</sup> In 1992, for example, 61% of the observed cohort who are still employed report that they are currently working in their longest job. This concern would suggest that an observed decrease in longest tenure could result without any corresponding change in the underlying stability of employment relationships. Since I find little evidence of a decline, adjusting for changes in the retirement age can only strengthen the evidence against declining job stability.

To approximate how much this trend towards earlier retirement could affect trends in longest job tenure, I create a counterfactual distribution of tenure that holds the fraction already retired in the year of observation constant at approximately 5 percent. For this exercise, I utilize only the 1969 RHS cohort and the two HRS cohorts observed in 1992 and 1998. First, I calculate the number of years since retirement for those individuals who are already retired by 1992 or 1998. Approximately 85% of those already retired in 1992 would still have been working if the age of retirement had not changed between 1969 and 1992. To approximate longest tenure if the trend towards earlier retirement had not occurred, I add the number of years since retirement to true longest tenure for 85% of those already retired in the 1990s. Specifically, I take the lowest 85% of the distribution of years since retirement, and add years since retirement onto longest tenure for those individuals. This gives me a counterfactual distribution in which only 5% of the observed individuals have potentially had their tenure cut short by retirement. This is likely to overstate the effect of reduced retirement age on my measure

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<sup>5</sup> Even if workers move from a career employer to a bridge job prior to full retirement, anticipation of an earlier retirement age could result in the bridge jobs being started at an earlier age.

of tenure in the longest job, since some of the longest jobs have been completed many years prior to retirement.

The results of this counterfactual exercise are summarized in Table 3. The overall conclusion is that the counterfactual distributions of longest tenure in the 1990s have means that are roughly 1 year higher than the actual distributions. For all men, average tenure on the longest job in the HRS goes from 22.8 to 23.5 in 1992, and from 22.0 to 22.8 in 1998. When compared with the starting point of 1969, this adjustment for changes in the retirement age results in a change from a picture of stability in longest tenure to one of a slight increase in tenure over time. Conducting a similar exercise for subgroups defined by education and race produces comparable results for each subgroup. This is not surprising, since the extent of the trend toward earlier retirement does not vary substantially across the subgroups. These results suggest that the trend toward earlier retirement could obscure a trend towards increases in lifetime employment, the magnitude of this effect is likely to be small, with average tenure in the longest job changing by less than a year as a result of this procedure that likely overstates the impact.

Another striking change in the older male labor force during this time period involves changes in educational attainment. Average education among the different cohorts of older men is rises substantially over the time period examined here. Average years of education for the 58 to 62 year old men observed in 1969 is just 10.1 years; by 1998 the cohort of the same age has average educational attainment of 12.7 years.<sup>6</sup> This trend could have several possible effects on the interpretation of trends in longest job

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<sup>6</sup> To confirm that this is not the product of differences in the measurement of education across data sets, I have tabulated completed education among men from the corresponding birth cohorts from the 1970 and 1980 census. Trends in educational attainment from these calculations look very similar to those reported in Table 2.

tenure summarized in Table 1. First, changes in the level of education could have offsetting effects on tenure in the longest job over time. The simplest of these is a mechanical effect, similar to that arising from changes in the retirement age. As individuals spend more time in school, and holding all else constant, total time in the labor market will decline, and so we may see some minor reduction in tenure in the longest job, even without any necessary change in employment stability over the lifecycle. The magnitude of such a change must be relatively small, however, since the total change in years of education is only about 2.5 years—a substantial change in educational attainment, but still a very small fraction of most individual’s working years.

The second potential effect of changing levels of education comes about because more highly educated workers tend to face less turnover in their careers. This would suggest that increases in education might be expected to increase average tenure. The results from Table 1 when the samples are broken down into different education groups illustrate that it is this effect that dominates on average.<sup>7</sup> In 1998, for example, median tenure on the longest job is just 18 years for those with low levels of education, but is 23 years for more educated workers. Thus, as average education has increased, one might expect for tenure in the longest job to have increased as well. This would be the case if the mix of jobs, or the mix of employment relationships has changed along with rising education levels, so that there are more “long-term” jobs in 1998 than in 1969 simply because there are more highly educated workers. On the other hand, if the distribution of

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<sup>7</sup> Simple regressions also point to a positive correlation between longest tenure and educational attainment. For each year of the data, I regress longest tenure on education, age, and race. Education always has a positive and significant coefficient, suggesting that an additional year of education is associated with .2 to .4 additional years of tenure in the longest job.

jobs, or the mix of long-term and short-term positions has remained the same, rising education levels would have little impact on our measures of tenure in the longest job.

Another way to consider the effects of changing education levels is to look at trends in longest tenure among groups of workers with different levels of education. Several previous studies have focused on trends in retention rates and tenure distributions among workers with different measures of skill. As noted above, there are not striking differences in trends across the less- and more-educated workers shown in Table 1. One exception to this is that there is a sharper decline in median (and mean) tenure in the longest job among less educated workers in the 1990s. A difficulty with such comparisons, however, is that the dramatic changes in education over time mean that the “less educated” group is becoming a more selective group over time. Even looking at only the last two cohorts, observed in 1992 and 1998, there are substantial differences. Average education increases by half a year across the 1992 and 1998 cohorts. More directly related to the selection story, the less-educated group is roughly 32 percent of the overall sample of men in 1992, but is only a quarter of the overall sample of men in 1998. Any decline in tenure among the “less educated”, then, could simply reflect that the less educated in 1998 are from a lower portion of the overall distribution of skill than in the previous cohort.

Table 4 addresses these issues concerning changing education levels, by looking at tenure in the longest job based on groups defined by fixed percentiles of the education distribution. For this table, I divide each cohort into three groups, based on their relative position in the overall distribution of years of education. Specifically, each cohort is divided into those with education less than or equal to the 25<sup>th</sup> percentile, those with

education between the 25<sup>th</sup> and 75<sup>th</sup> percentiles, and those with education levels greater than the 75<sup>th</sup> percentile. Because years of education is an integer, with substantial clustering, I randomly select from among those with education equal to the cutoff points so that each group contains exactly 25 or 50 percent of the overall sample for that year.

The first row of Table 4 shows results for those men with education levels at or below the 25<sup>th</sup> percentile of their cohort's education distribution. When low education is defined in these relative terms, there is less evidence of a decline in job tenure among the less-skilled, even during the 90s. Median tenure is a 20 years for the lower quartile of the education distribution in both 1992 and 1998. Among the middle two quartiles there is a decline in longest job tenure with median tenure falling from 25 to 22 years. Similarly, among the more educated there is a decline in median tenure from 24 to 22 years. For the middle education group, however, this does not appear to be a reduction relative to 1969, when median longest tenure for that group is 21 years.

A final concern with underlying difference across the cohorts of men studied here that could affect conclusions about job tenure involves the fraction of men who took time out of the civilian labor force to serve in the military. Because there are relatively large differences across cohorts in the fraction of men who are veterans, there may be concerns about the effect of military service on eventual job tenure. A period of military service could, for example, delay the job-shopping process, and result in men starting their career jobs later in life. If cohorts with unusually high levels of military service are also those with unusually short tenure, this may again reflect something other than change in underlying employment relationships.

It is difficult to investigate this issue directly with the current data sets, because the RHS and the NLS data do not report whether each individual has served in the military.<sup>8</sup> Fortunately, data are available from other sources on the fraction of various birth cohorts who have completed some military service. In the bottom row of Table 2, I report the fraction of white males in the corresponding birth cohorts who had some military service, reported in Bound and Turner (1999) and taken from 1980 Census data. This shows the fraction of veterans is particularly high for those men that I observe in 1980 and 1992 (birth cohorts centered around the years 1920 and 1932). Given the data limitations, there is little more to do here, except to note that there is little evidence of unusually low tenure among those cohorts with the highest levels of military service. I have also attempted to estimate the basic correlation between veteran status and longest tenure, using the two years of HRS data, for which veteran status is directly reported. Regressions of longest tenure on veteran status result in a small positive effect of veteran status on job tenure that is statistically significant in only one of the years. From this, I conclude that differences in military service are unlikely to influence the observed trends in longest tenure.

#### **III.D. What do recent changes imply for future cohorts of workers?**

The results presented thus far are largely consistent with much previous work by economists on the question of trends in job stability. Specifically, there is evidence of a small reduction in tenure on the longest job during the 1990s, but this reduction does not result in average longest tenure that is lower than that faced by cohorts finishing their

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<sup>8</sup> Both of these data sets do report whether individuals are receiving or expect to receive and benefits as the result of military service. I have not made use of these reports.

careers in 1969. This finding of reduced tenure across the two cohorts observed in the 1990s is consistent with findings by Neumark, Polsky, and Hansen (2000) (and confirmed by several other studies summarized above) of reduced job retention probabilities beginning in the mid-1990s. One question that arises is what such changes in probabilities might imply for younger workers currently in the labor force. In this section, I provide some preliminary answers to two specific questions. First, are the changes in job retention rates estimated for the 1990s consistent with the magnitude of reductions in longest tenure in the 1990s found in this study? Second, if these changes in retention rates persist over the next several decades, what will the incidence of long-term employment look like for workers who end their careers in the coming decades?

To address the first of these questions, I use the retention rates reported in Table 3.5 of Neumark, Polsky, and Hansen (2000) (hereafter NPH) for the 1980s and 1990s to simulate the distribution of longest tenure for workers who face those turnover rates throughout their careers. Specifically, for the periods 1983-87 and 1991-95 NPH estimate the probability of remaining with one's current employer over a four-year interval, conditional on current tenure. For the earlier period (83-87), the authors report 4-year retention probabilities of .36 for workers with tenure less than 2 years, .65 for those with tenure of 2 to 8 years, .88 for those with tenure of 9 to 14 years, and .68 for those with tenure greater than 14 years. For the later period (91-95), the estimated retention rates are .40, .59, .79, and .64.<sup>9</sup>

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<sup>9</sup> These retention rates are for all male workers. NPH do report some age-specific retention rates, but do not report age- and tenure-specific rates. Only 4- and 8-year retention rates are reported in this study due to the timing of the available data. My calculations assume (somewhat unrealistically) equal annual retention rates that produce the reported 4-year retention rates.

In the first column of Table 5, I use the probabilities from the earlier period, and simulate the distributions of tenure in the longest job for a cohort of workers exposed to these rates for 40 years. In the second column of Table 4, I simulate the tenure distribution assuming that workers face the retention rates from the 83-87 period for the first 30 years of their careers and those from the 91-95 period over the final 10 years. This is intended to approximate the different tenure distributions that might be expected for the 1992 and 1998 HRS cohorts. These calculations show a reduction in average tenure on the longest job of .6 years (20.4-19.8 years) from being exposed to the reduced retention probabilities for the final 10 working years. This is a slightly smaller change than the reduction of .8 years actually found between the 1992 and 1998 cohorts. Simulated median tenure does not change, and the fraction with longest tenure of less than 20 years falls by approximately 3 percentage points (similar to the change in the actual distributions from the HRS). While this exercise is somewhat speculative, it does show that the findings here for the 1990s are generally consistent with what might be predicted from earlier work estimating retention or turnover probabilities.

A more speculative exercise involves using these retention rates to forecast future tenure distributions if the retention probabilities remain at their lower (1990s) levels. In the 3<sup>rd</sup> column of Table 5, I perform the calculations assuming that workers face the lower retention probabilities for the second half of their 40 year careers. Finally, the final column of the table repeats the calculations assuming that workers face the lower probabilities for their entire careers. Average tenure on the longest job declines by almost two years from the baseline in the first case, and by more than 3 years in the second case. The fraction of workers who will not reach tenure of more than 20 years

with their employers grows to 75 percent in the final column. Thus, there do appear to be some potentially large effects on the incidence of long-term employment, but only if current reductions in job retention probabilities persist over the next several decades. This analysis is not meant to suggest that this is what will happen in the future, but rather to provide an illustration of how, and over what time horizon, relatively small changes in job turnover rates can begin to substantially change long-run outcomes for workers. A final, and important, caveat, is that the assumption that retention probabilities observed in the 1980s also applied to workers in previous decades is a strong, and somewhat arbitrary one. It is just as reasonable to assume that retention rates in the 1980s were unusually high as to assume that retention rates in the 1990s were unusually low.

#### **IV. Conclusions**

This study compares snapshots of job tenure taken at the end of workers' careers from 1969 to 1998. The primary finding is one of stability in the prevalence of long-term employment relationships for men in the United States. In 1969, average tenure in the longest job for males aged 58-62 was 21.9 years. In 1998, the comparable figure was 22.0 years. A similar measure of average tenure in the longest job does decline for those men with less than a high school education, but this trend is reversed by using a relative, rather than an absolute, cut-off for low education. It remains true in all years that more educated men have higher tenure than less educated men. Among non-white men, average tenure has increased over this time period, but remains below comparable measures for white men.

While several major demographic and labor force trends could potentially complicate interpretations of these tenure comparisons over time, I find little evidence that such trends would change my basic conclusions. Accounting for changes in the retirement rate would point towards slight increases in tenure over the entire period. The timing of changes in the fraction of men with military service does not seem likely to be driving long-run patterns summarized here. Finally, potential differences in survey questions between the HRS and the other data sets used seem to have relatively minor effects. There is, however, evidence that attrition from the NLS may lead to an upward bias in tenure measures reported here for 1975 and 1980.

The question of why press and popular views of job stability are at odds with many academic studies of this issue remains. The results presented here, however, offer strong evidence that the story cannot be a simple one of broad changes in the probability of remaining with a given employer for a large fraction of one's career.

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**Table 1**  
**Tenure on Longest Job 1969-1998**  
**Men 58-62 in Year Observed**

<b>Year:</b>	<b>1969</b>	<b>1969</b>	<b>1975</b>	<b>1980</b>	<b>1992</b>	<b>1998</b>
<b>Data source:</b>	<b>RHS</b>	<b>NLS</b>	<b>NLS</b>	<b>NLS</b>	<b>HRS</b>	<b>HRS</b>
<b>All men</b>						
<b>Mean</b>	21.9	22.3	23.8	24.1	22.8	22.0
<b>se(mean)</b>	(0.14)	(0.32)	(0.30)	(0.31)	(0.28)	(0.24)
<b>Median</b>	21	22	24	24	23	22
<b>se(median)</b>	(0.30)	(0.83)	(0.55)	(0.57)	(0.54)	(0.54)
<b>% &lt;=10 years</b>	17.94	15.78	12.53	9.46	15.20	16.30
<b>% &lt;=20 years</b>	48.31	47.53	39.75	36.90	41.70	45.90
<b>% &lt;=30 years</b>	75.62	75.61	72.40	72.74	73.10	77.00
<b>N=</b>	6884	1204	1341	968	1402	1760
<b>Education &lt; 12 years</b>						
<b>Mean</b>	21.5	20.9	23.5	23.3	21.3	19.0
<b>se(mean)</b>	(0.18)	(0.39)	(0.38)	(0.43)	(0.53)	(0.51)
<b>Median</b>	21	20	23	23	21	18
<b>se(median)</b>	(0.25)	(0.87)	(0.57)	(0.89)	(0.82)	(1.11)
<b>% &lt;=10 years</b>	19.72	18.83	13.33	10.03	18.30	26.60
<b>% &lt;=20 years</b>	49.71	53.20	41.21	40.99	49.70	58.40
<b>% &lt;=30 years</b>	77.19	80.47	73.30	74.57	75.90	83.90
<b>N=</b>	4063	830	810	500	452	435
<b>Education &gt;= 12 years</b>						
<b>Mean</b>	22.4	24.5	24.2	24.8	23.4	22.8
<b>se(mean)</b>	(0.21)	(0.56)	(0.47)	(0.45)	(0.33)	(0.27)
<b>Median</b>	22	24	24	25	24	23
<b>se(median)</b>	(0.50)	(0.79)	(0.53)	(0.82)	(0.53)	(0.53)
<b>% &lt;=10 years</b>	15.42	10.84	11.60	8.98	14.00	13.40
<b>% &lt;=20 years</b>	46.31	38.32	38.04	33.48	38.50	42.40
<b>% &lt;=30 years</b>	73.39	67.73	71.35	71.20	72.00	75.10
<b>N=</b>	2821	374	531	468	950	1325
<b>Non-whites</b>						
<b>Mean</b>	18.3	18.7	22.0	23.0	19.5	20.0
<b>se(mean)</b>	(0.43)	(0.55)	(0.51)	(0.58)	(0.63)	(0.56)
<b>Median</b>	17	18	21	25	20	20
<b>se(median)</b>	(0.76)	(1.14)	(0.84)	(1.12)	(0.82)	(0.84)
<b>% &lt;=10 years</b>	27.38	25.92	14.88	12.08	19.90	19.90
<b>% &lt;=20 years</b>	59.18	57.07	48.00	37.34	52.60	52.60
<b>% &lt;=30 years</b>	86.67	85.19	78.37	78.55	86.30	81.30
<b>N=</b>	625	369	388	261	252	320
<b>Whites</b>						
<b>Mean</b>	22.2	22.6	24.0	24.2	23.2	22.3
<b>se(mean)</b>	(0.14)	(0.39)	(0.35)	(0.36)	(0.31)	(0.27)
<b>Median</b>	21	22	24	24	24	22
<b>se(median)</b>	(0.25)	(0.75)	(0.51)	(0.52)	(0.53)	(0.53)
<b>% &lt;=10 years</b>	17.02	14.81	12.30	9.28	14.60	15.80
<b>% &lt;=20 years</b>	47.28	46.62	38.83	36.95	40.20	45.00
<b>% &lt;=30 years</b>	74.54	74.70	71.68	72.26	71.30	76.40
<b>N=</b>	6215	835	953	707	1150	1440

**Note: All entries are based on tabulations using sampling weights, for cohort of men aged 58 to 62 in the given year.**

**Table 2**  
**Work and Retirement Status 1969-1998**  
**Men 58-62 in Year Observed**

Year: Data source:	1969 RHS	1969 NLS	1975 NLS	1980 NLS	1992 HRS	1998 HRS
<b>All men</b>						
% working	78.77	72.4	61.16	55.14	60.21	59.8
% retired	5.57	4.03	17.96	26.86	30.1	32.8
average age	59.93	59.92	59.96	60.37	59.4	59.9
average education	10.1	9.8	10.4	11	12.2	12.7
<b>Education &lt; 12 years</b>						
% working	75.16	67.6	55.47	49.75	59.4	54.1
% retired	6.12	3.83	21.29	28.72	31.8	29.9
<b>Education &lt;= 12 years</b>						
% working	83.89	80.4	67.78	59.72	66.9	61.3
% retired	4.78	4.37	14.07	25.29	29.3	33.7
<b>Non-whites</b>						
% working	69.46	69.53	60.75	48.68	55.9	58.9
% retired	3.57	2.66	14.63	27.17	30.5	28.5
average education	7.3	6.8	7.5	8.6	10.5	11.5
<b>Whites</b>						
% working	79.61	72.68	61.28	55.62	65.9	59.8
% retired	5.77	4.15	18.24	26.87	30	33.4
average education	10.3	10.1	10.7	11.2	12.4	12.8
% veterans*	25	25	50	75	70	45

Note: All entries are based on tabulations using sampling weights, for cohort of men aged 58 to 62 in the given year.

\*Veteran status is fraction of veterans in the corresponding birth cohorts, as reported in Bound and Turner (1999).

**Table 3**  
**Counterfactual Mean Tenure in Longest Job**  
**Eliminating Change in Retirement Age**

	Year: Data source:	1969 RHS	1969 NLS	1992 HRS	1998 HRS
<b>All men</b>		21.9	22.3	23.5	22.8
<b>Education &lt; 12 years</b>		21.5	20.9	22.1	19.7
<b>Education &gt;= 12 years</b>		22.4	24.5	24.1	23.7
<b>Non-white</b>		18.3	18.7	20.3	20.6
<b>White</b>		22.2	22.6	23.1	24.0

Note: See text for details of counterfactual exercise

**Table 4**  
**Mean and Median Tenure in Longest Job**  
**by Percentiles of Education Distribution**

Data source: Year:	RHS 1969	NLS 1969	NLS 1975	NLS 1980	HRS 1992	HRS 1998
<b>Education &lt;=25th percentile</b>						
Mean	20.44	19.56	21.74	23.08	20.75	21.26
Median	19	17	22	24	20	20
N=	1698	299	334	241	350	439
<b>Education &gt; 25th &amp; &lt;=75th percentile</b>						
Mean	22.41	21.81	24.09	24.02	23.59	22.17
Median	21	21	24	24	25	22
N=	3396	598	668	482	700	877
<b>Education &gt; 75th percentile</b>						
Mean	22.52	24.49	24.64	24.64	22.82	22.31
Median	22	24	24	24	24	22
N=	1698	300	334	334	352	439

**Table 5**  
**Simulated Effects of Changing Retention Rates**  
**On Tenure in the Longest Job**

	Decrease Retention Rates in:			
	Baseline	Final 10 Working Years	Final 20 Working Years	All Working Years
<b>Tenure in the longest job</b>				
<b>Mean</b>	20.4	19.8	18.7	17.2
<b>Median</b>	19	19	18	17
<b>%&lt;=20 years</b>	58%	61%	68%	75%

Note: Baseline retention rates are taken from Neumark, Polsky, and Hansen (2000), Table 3.5. See text for details.