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Abstract

How have post-career transitions into and out of self-employment been impacted by the Great Recession? Research from the 1990s and 2000s has shown that the prevalence of self employment increases substantially later in life, partly because self employment provides older workers with opportunities and flexibility not found in wage-and-salary jobs. Post-career transitions into and out of self employment have also been identified as an important pathway to retirement among older Americans. This paper examines post-career self-employment transitions during the recent recession that began in late 2007 and during the ensuing lackluster recovery. We utilize the Health and Retirement Study (HRS), a nationally-representative longitudinal dataset of older Americans, to investigate the role of self-employment in the retirement transitions of HRS Core respondents over nearly two decades, from 1992 to 2010, with particular emphasis on the most recent years. We find that post-career transitions into and out of self employment remain common in the face of the Great Recession, and that health status, occupation, and financial variables continue to be important determinants of switches from wage-and-salary career employment to self-employed bridge jobs. The latest evidence confirms that self employment continues to be an important pathway to retirement even during recessionary times.

Key words: Economics of Aging, Partial Retirement, Self Employment
JEL No.: J26, J14, J32, H55

I. Introduction

Self employment plays an important role in the retirement transitions of older Americans.¹ The prevalence of self employment among older Americans, as a fraction of those working, increases substantially with age, in part because more career self employed tend to remain working later in life than do wage-and-salary workers. Another reason is that a sizable number of career wage-and-salary workers move into self-employment bridge jobs prior to exiting the labor force, more so than vice versa. Transitions into self employment later in life are especially notable because they are yet another component of the diverse patterns of labor force withdrawal among today's older Americans.² A key question is whether these diverse patterns have continued in light of the recent severe economic downturn. More specifically, how have the self-employment transitions of older Americans been impacted by the Great Recession – the downturn that began in December 2007 – and the sluggish recovery since then?

Data from the Health and Retirement Study (HRS) – a nationally-representative longitudinal survey of older Americans that began in 1992 – indicate that, of those who were working in 1992, approximately one in five men and one in ten women aged 51 to 61 were self employed.³ Twelve years later, prevalence among these same respondents increased to more

¹ See Giandrea, M. D., Cahill, K. E. & Quinn, J. F. (2008). Self-Employment Transitions among Older American Workers with Career Jobs. U.S. Bureau of Labor Statistics Working Paper Series, WP-418.

² See Quinn, J. F., Cahill, K. E. & Giandrea, M. D. (2011). Early Retirement: The Dawn of a New Era? TIAA-CREF Institute *Policy Brief* (July); Quinn, J. F. (2010). Work, retirement, and the encore career: Elders and the future of the American workforce. *Generations*, 34(3), 45-55; Quinn, J. F. (1999). Retirement Patterns and Bridge Jobs in the 1990s. Issue Brief No. 206. Washington, DC: Employee Benefit Research Institute, 1–23; Ruhm, C. J. (1990). Bridge Jobs and Partial Retirement. *Journal of Labor Economics*, 8(4), 482-501; Kantarci, T. & van Soest, A. (2008). Gradual Retirement: Preferences and Limitations. *De Economist*, 156(2), 113-144; Cahill, K. E., Giandrea, M. D., & Quinn, J. F. (2006). Retirement Patterns from Career Employment. *The Gerontologist*, 46(4), 514-523; and Cahill, K. E., Giandrea, M. D., & Quinn, J. F. (2012). Older Workers and Short-term Jobs: Employment Patterns and Determinants. *Monthly Labor Review*, 135(5), 19-32 (May).

³ See Giandrea, M. D., Cahill, K. E. & Quinn, J. F. (2008). Self-Employment Transitions among Older American Workers with Career Jobs. U.S. Bureau of Labor Statistics Working Paper Series, WP-418.

than one third among men and to more than 15 percent among women – an increase of more than 50 percent. Prior analyses of HRS data also reveal that approximately 10 percent of wage-and-salary career workers transitioned into self-employment bridge jobs later in life. While the percentage frequency of transitions in the opposite direction was higher (about 25 percent of career self-employed moved to wage-and-salary work late in life), the actual number of older self employed increased because there were many more older Americans on wage-and-salary career jobs than on self-employed career jobs.⁴ Hipple (2010) documented this trend toward self employment with age more generally. The incidence of unincorporated self employment in 2009 by age bracket was 7 percent for those age 35 to 44, 7 percent for those age 45 to 54, 10 percent for those age 55 to 64, and 18 percent for those age 65 and older.

One implication of these earlier findings is that self-employment decisions are not predetermined during middle age. Many older workers exhibit a great deal of flexibility in their work decisions and appear willing to take on substantial risks later in life. These findings, however, are based largely on data from nearly two decades of economic expansion. Do the results still hold in light of the recent economic downturn?

A priori, the impact of a recession on the prevalence of transitions to self employment is ambiguous. On the one hand, wage-and-salary workers might be more adversely impacted than self-employed workers, and turn to self employment in order to continue to work. On the other hand, self employment is more risky, and fewer wage-and-salary workers might voluntarily give up their jobs to try self employment during bad times. In addition, a depressed economy might impact self-employed businesses directly, by reducing demand for the particular products or services being sold, or indirectly, by limiting access to capital.

⁴ Hipple, S. (2004). Self-employment in the United States: an update. *Monthly Labor Review*, 127(7), 13-23.

The latest data on self-employment transitions presented in this study reveal that the prevalence of self employment continued to increase with age throughout the Great Recession and sluggish recovery. Between 2004 and 2010 the fraction of HRS Core respondents who were self employed, among those working, increased from just under 35 percent to more than 40 percent among men and from 16 percent to more than 21 percent among women. The fraction of career wage-and-salary workers transitioning into self employment increased between 2004 and 2010 from 11 percent to 14 percent among men and from 8 percent to 10 percent among women. In short, the importance of self employment as a pathway to retirement that was identified in the earlier literature appears to have continued even in the face of the Great Recession and sluggish recovery.

The next section provides some background relating to self-employment transitions later in life. Section III describes the dataset used for our analysis – the Health and Retirement Study (HRS), spanning 1992 through 2010. Section IV presents our findings and Section V discusses the key findings and areas for further research.

II. Background

A dominant theme in the self-employment literature is the role of financial capital in entrepreneurship.⁵ This section highlights a few key studies that address this theme, and several studies related to self-employment transitions later in life. One of the most informative studies in this area is by Evans and Jovanovic (1989), who developed a model of self-employment based on many factors, including the degree to which liquidity constraints potentially limit

⁵ This section follows the discussion presented in our first study: Giandrea, M. D., Cahill, K. E. & Quinn, J. F. (2008). Self-Employment Transitions among Older American Workers with Career Jobs. U.S. Bureau of Labor Statistics Working Paper Series, WP-418.

entrepreneurship.⁶ In this model, income from wage-and-salary employment is a function of experience, education, and a random shock, while self-employed earnings are a function of entrepreneurial talent, capital available for the business start-up, and a random productivity shock. A person becomes self employed if expected income from wage-and-salary employment does not exceed the expected net income from self employment.⁷ Using a sample of young men in the National Longitudinal Survey of Youth, Evans and Jovanovic found that the value of assets had a positive effect on the likelihood of becoming self employed. Moreover, they found a positive correlation between assets and self-employment income, which suggests that men with greater assets become more profitable entrepreneurs.

In a pair of 1994 papers, Holtz-Eakin, Joulfaian, and Rosen developed models of self employment in which the decision to become or remain an entrepreneur depends on assets, and personal characteristics.⁸ They found that the receipt of an inheritance increased the likelihood of becoming self employed, and that the probability of becoming self employed increased with the size of the inheritance (Holtz-Eakin, Joulfaian, and Rosen, 1994a). They also determined that receipt of an inheritance while self employed increased the viability and revenues of the self-employed worker's business (Holtz-Eakin, Joulfaian, and Rosen, 1994b).⁹ These papers, along with the findings of Evans and Jovanovic (1989) indicate that income concerns and financial liquidity may be of primary importance among the self employed.

⁶ Evans, D. S., & Jovanovic, B. (1989). An estimated model of entrepreneurial choice under liquidity constraints. *The Journal of Political Economy*, 97(4), 808-827.

⁷ In this case, net income accounts for the foregone interest earnings on capital invested in entrepreneurship.

⁸ Holtz-Eakin, D., Joulfaian, D., & Rosen, H. S. (1994b). Entrepreneurial Decisions and Liquidity Constraints. *The RAND Journal of Economics*, 25(2), 334-347, and Holtz-Eakin, D., Joulfaian, D., & Rosen, H. S. (1994a). Sticking it Out: Entrepreneurial Survival and Liquidity Constraints. *The Journal of Political Economy*, 102(1), 53-75.

⁹ In another article, Holtz-Eakin, Joulfaian, and Rosen (1993) also found that the receipt of an inheritance increased the likelihood of retirement. The net impact of improved liquidity versus more opportunities for leisure is not obvious among older workers considering bridge employment.

Dunn and Holtz-Eakin (2000) investigated not only the relationship between financial capital and entrepreneurship, but also the impact of human capital, in the form of parental entrepreneurial experience, on self-employment decisions.¹⁰ They estimated a model that included own and family assets, demographic variables, and parents' self-employment status. Own assets had a positive but small effect on the likelihood of becoming self-employed, while parents' self-employment experience exerted a large and positive impact on the probability of becoming self employed. These findings, though, related to young men in their 20s and 30s who had completed schooling, not to the older workers on whom we focus in this paper.

Several studies have focused on self employment among older workers. Fuchs (1982) considered the role of self employment among older workers by focusing on the transitions from wage-and-salary employment to self employment.¹¹ He found that the self employed were significantly more likely to continue to work, compared to wage-and-salary workers, often while cutting back on hours of work. Other factors that impacted the employment decisions of older workers included health, age, and pension eligibility. One notable finding was that the probability of switching from wage-and-salary employment to self employment was a function of a worker's occupational experience. Those in prior jobs that required skills similar to those needed in self employment, such as managerial and sales positions, were more likely to make that transition.

Bruce, Holtz-Eakin, and Quinn (2000) focused on older workers and the transitions among wage-and-salary employment, self employment, and labor force non-participation using

¹⁰ Dunn, T., & Holtz-Eakin, D. (2000). Financial Capital, Human Capital, and the Transition to Self-Employment: Evidence from Intergenerational Links. *Journal of Labor Economics*, 18(2), 282-305.

¹¹ Fuchs, V. R. (1982). Self-Employment and Labor Force Participation of Older Males. *The Journal of Human Resources*. 17(3), 339-357.

the first three waves of Health and Retirement Study (HRS).¹² Like the other research cited above, they found that liquidity constraints played an important role in determining who became self employed.

Karoly and Zissimopoulos (2004) used data from the Current Population Survey (CPS) and the 1998 HRS to find that among those over the age of 50, self-employed workers were more likely to be male, married, and college educated.¹³ Self-employed workers were also more likely to be working part-time. Karoly and Zissimopoulos concluded that older self-employed workers are better able to maintain a presence in the labor force at older ages by reducing hours, an option not as commonly available to wage-and-salary employees.

Zissimopoulos, Maestas, and Karoly (2007) examined determinants of labor force exit among older workers, and found that defined-benefit pension incentives helped explain why labor force exit rates were higher among wage-and-salary workers than among self-employed workers.¹⁴ Further, using a cross-country comparison of the United States and England, they concluded that the availability of publicly-provided health insurance encouraged labor force exit among workers in their late 50s and early 60s.

Zissimopoulos and Karoly (2007a) used the first five waves of data from the HRS to estimate the impact of demographic and economic characteristics on the likelihood of

¹² Bruce, D., Holtz-Eakin, D., & Quinn, J. (2000). Self-Employment and Labor Market Transitions at Older Ages. Center for Retirement Research at Boston College Working Paper 2000-13. Retrieved February 15, 2007 from http://www.bc.edu/centers/crr/papers/wp_2000-13.pdf.

¹³ Karoly, L. A. & Zissimopoulos, J. (2004). Self-employment among older U.S. workers. *Monthly Labor Review*, 127(7), 24-47.

¹⁴ Zissimopoulos, J., Maestas, N., & Karoly, L. (2007). The Effect of Retirement Incentives on Retirement Behavior: Evidence from the Self-Employed in the United States and England. University of Michigan Retirement Research Center, WP 2007-155.

transitioning to self employment.¹⁵ Among full-time workers, self-employed men and women were less likely to retire than wage-and-salary men and women at any given age, with the exception of 51 to 55 year old women where there was essentially no difference. This difference in retirement rates was larger among older respondents than it was among younger ones. At the same time, some of the large number of wage-and-salary men transition to self employment. These two factors result in a growing prevalence of self employment among older workers with the self employment rate peaking at age 65 for men and 66 for women. A regression analysis of the impact of various demographic and economic factors on the probability of transitioning into self employment from wage-and-salary work showed that men with higher education, a health condition that limits work, or who were in the top quartile of the wealth distribution were more likely to do so. Other things equal, having an occupation in executive, managerial, sales, production, or repair led to an increase in the likelihood of transitioning to self employment among men. Conversely, men who were covered by employer or retiree health insurance, or who had a defined-benefit or defined-contribution pension were less likely to transition into self employment.

Zissimopoulos and Karoly (2007b) conducted a more extensive analysis of the characteristics of self-employed workers and their jobs.¹⁶ Using 6 waves of HRS data through 2002, the authors estimated that “about 20 percent of workers age 51 or older were self employed and that one-third of these older self-employed workers moved into self employment after age 50.”¹⁷ Among other comparisons, the authors in particular investigated the differences

¹⁵ Zissimopoulos, J. M., & Karoly, L. A. (2007a). Transitions to self-employment at older ages: The role of wealth, health, health insurance and other factors. *Labour Economics*. 14, 269-295.

¹⁶ Zissimopoulos, J. M., & Karoly, L. A. (2007b). Work and Well-Being Among the Self-Employed at Older Ages. Washington, D.C. AARP Public Policy Institute #2007-04.

¹⁷ Zissimopoulos, J. M., & Karoly, L. A. (2007b), p. viii.

between those who were self employed before age 50 and those who transitioned to self employment after age 50. Zissimopoulos and Karoly found that a slight majority of the self employed did not employ any other workers, but those who were self employed before age 50 were about 44 percent more likely to employ other workers than those who transitioned to self employment after age 50. Those who were self employed before age 50 were more likely to be male and worked, on average, about seven hours more per week than those who transitioned to self employment. Not surprisingly, this group of entrepreneurs also averaged over two decades of tenure on their job compared to fewer than five years among those who transitioned to self employment after age 50.

Kerr and Armstrong-Stassen (2011) used Canadian data on workers age 50 and older who were employed in bridge jobs.¹⁸ The authors examined the characteristics and reported motivations of those who were self employed compared to those employed in wage-and-salary positions, and found that those in self-employed bridge jobs were more likely to be female or unmarried, while those in wage-and-salary positions were more likely to be male or married. They also found that self-employed workers focused on personal fulfillment through entrepreneurship, while wage-and-salary employees focused more on the value of co-worker relationships.

This paper contributes to the literature by focusing on self-employment transitions later in life among workers with career jobs. We extend the research on retirement transitions to

¹⁸ Kerr, G. & Armstrong-Stassen, M. (2011). The Bridge to Retirement: Older Workers' Engagement in Post-Career Entrepreneurship and Wage-and-Salary Employment. *Journal of Entrepreneurship*. 20(1), 55-76.

incorporate switches later in life from wage-and-salary employment to self employment and vice versa, and utilize data extending well into the current business cycle (through 2010).¹⁹

III. Data

This paper utilizes data from the Health and Retirement Study (HRS), a longitudinal, nationally-representative dataset of older Americans that began in 1992.²⁰ The HRS interviews are ongoing and conducted every other year. The original group of HRS respondents, known as the HRS Core, included Americans aged 51 to 61 in 1992 (i.e., born between 1931 and 1941), plus their spouses, regardless of age.

Our goal is to document transitions from career employment. We define a full-time career (FTC) job as one that consists of at least 1,600 hours per year (“full time”) and that lasts ten or more years (“career”). Jobs that follow FTC jobs and precede labor force withdrawal are considered bridge jobs. These definitions are consistent with earlier studies investigating bridge job behavior and our previous study on self-employment transitions.²¹

We focus on HRS respondents who were on a FTC job in 1992 and follow their transitions away from career employment through 2010. Our sample consists of 3,061 men (52% of HRS men) and 2,567 women (38% of HRS women) (Table 1). Of those on a FTC job

¹⁹ See Giandrea, M. D., Cahill, K. E. & Quinn, J. F. (2008). Self-Employment Transitions among Older American Workers with Career Jobs. U.S. Bureau of Labor Statistics Working Paper Series, WP-418; Cahill, K.E., Giandrea, M.D., & Quinn, J.F. (2011). Reentering the Labor Force after Retirement. *Monthly Labor Review*, 134(6), 34-42 (June); Giandrea, M. D., Cahill, K. E., & Quinn, J. F. (2009). Bridge Jobs: A Comparison Across Cohorts. *Research on Aging*. 31(5), 549-576.

²⁰ For an overview of the HRS, see: Karp, F. (2007). *Growing older in America: The health and retirement study*. Washington, D.C.: U.S. Department of Health and Human Services, and Juster, F. T. & Suzman, R. (1995). An Overview of the Health and Retirement Study. *Journal of Human Resources*, 30(Supplement), S7-S56.

²¹ The authors have performed analyses using 5, 8, 15, and 20 year tenure requirements. Besides the expected decrease or increase in the number of bridge jobs observed under the different requirements, qualitative findings and observed trends remained essentially the same.

in 1992, 21 percent of the men and 10 percent of the women were self employed. The limited sample sizes of the career self-employed – 640 men and 267 women – prevent a detailed analysis of transitions from self employment toward wage-and-salary employment. However, our sizeable sample of career wage-and-salary workers – 2,421 men and 2,300 women – allows for a detailed examination of transitions into self employment from wage-and-salary careers. Therefore, while our descriptive analyses focus both on transitions into and out of self employment, our multivariate analyses are restricted to transitions into self employment only.

IV. Results

We first document the prevalence of self employment later in life and then explore, descriptively, two reasons for this: (1) self-employed individuals tend to work later in life and (2) more individuals switch from wage-and-salary career work to self-employed bridge jobs than the reverse. When examining self employment as a fraction of those working, it is important to remember that the number of respondents still working declines substantially with each subsequent HRS interview (Figure 1). Eight years after the first interview, for example, about one half of those on a FTC job in 1992 were working (54 percent of the men and 47 percent of the women). By 2010, fewer than one in five respondents on a FTC job in 1992 were still working (16 percent of the men and 20 percent of the women), which is not surprising given that the age-eligible sample was 69 to 79 years old in 2010.

Descriptive Statistics: Prevalence of Self Employment

Of those working in each survey wave, the percentage self employed increased steadily over the entire observation period, from 1992 to 2010, with men's rates about twice that of women's (Figure 2). In fact, the percentage self employed roughly doubled over this time

period, from 21 percent to 41 percent for men and from 10 percent to 22 percent for women. Between 2006, before the Great Recession began, and 2010, the prevalence of self employment increased by 5 percentage points for men (from 36% to 41%) and 4 percentage points for women (from 18% to 22%). HRS respondents continued net increases into self employment during this recession, either because more wage-and-salary than self-employed respondents stopped working or because more wage-and-salary workers switched into self employment than vice versa, or both.

Differential retirement rates explain part of the increase in self employment. Those on wage-and-salary career jobs were less likely than the career self-employed to be working in each subsequent wave, for both men and women (Figures 3a and 3b). In 2010, nearly one-half of men on a self-employed FTC job in 1992 were still working compared to less than one-quarter of those on a wage-and-salary FTC job in 1992. Among women, the percentages were 44 percent and 27 percent, respectively.

Part-time work among our sample of career full-time workers increases as people age.²² Initially, the self employed are much more likely to move to part-time work than are career wage-and-salary workers, but this difference disappears over time, with about 60 percent of both groups of men working part time in 2010 (Figure 4a). Among women, the prevalence of part-time work also increases over time among both groups, but career wage-and-salary workers remain much less likely to be working part time than those who were self employed on their career job (54% versus 76% in 2010, respectively) (Figure 4b).

The other well-documented reason why the prevalence of self employment increases with age is that more wage-and-salary workers switch into self employment than vice versa. In our previous examination of HRS data from 1992 to 2004, we found that the fraction of career wage-

²² Workers are classified as part time if total hours worked in a year are fewer than 1,600.

and-salary workers moving to self employment was 11 percent among men and 8 percent among women.²³ The fraction of career self-employed men and women who transitioned into wage-and-salary jobs over the same time period was much higher (24% and 27%, respectively), but because there are so many more wage-and-salary career workers than self-employed career workers (roughly five to one), the result is a net increase in the number of self-employed older individuals.

When we expand the observation period from 2004 to 2010, into the recession, these trends continue. By 2010, 16.1% of the men who were wage-and-salary workers in 1992 had made a transition to self employment (291 men in all), whereas 32.4% (154 men) of the career self-employed moved to wage-and-salary work. Among the women, the analogous percentages were 11.4% (209 women) and 35.4% (73 women).²⁴

To explore outcomes in more detail, we categorize respondents according to their transitions from FTC employment. Because our focus is on switches between wage-and-salary and self employment, we identify the following options for wage-and-salary career workers: (1) remain on wage-and-salary FTC job through 2010, (2) move to a self-employed bridge job, (3) move to a wage-and-salary bridge job, and (4) exit the labor force directly from the FTC job. For self-employed career workers, the options are: (1) remain on a self-employed FTC job through 2010, (2) move to a wage-and-salary bridge job, (3) move to a self-employed bridge job, and (4) exit the labor force directly.

²³ Giandrea, M. D., Cahill, K. E. & Quinn, J. F. (2008). Self-Employment Transitions among Older American Workers with Career Jobs. U.S. Bureau of Labor Statistics Working Paper Series, WP-418.

²⁴ Percentages are based on 3,654 wage-and-salary workers (1,813 men and 1,841 women) and 681 self-employed workers (475 men and 206 women) who were still on their FTC job in 2010 or who were observed to have made a transition from their 1992 FTC job.

The four-way outcome analyses are consistent with the descriptive results presented thus far. Men who were wage and salary on their 1992 FTC jobs were much less likely than self-employed men to remain on their FTC jobs through 2010 (Table 2). Of the wage-and-salary workers in 1992 and who made a transition by 2010, 17 percent of the men and 12 percent of the women moved to self employment. Among their counterparts who were self employed in 1992, 35 percent of men and 37 percent of women transitioned to a wage-and-salary position.

Descriptive Statistics: Determinants of Self Employment

An important part of this research is to explore the key determinants of self employment, using data from the recent economic downturn, to see what differences, in any, exist from those identified previously in the literature. Our analysis centers on the four-way outcome variable defined above for both wage-and-salary and self-employed HRS respondents. Among those who were wage and salary on the FTC job, we focus on the percentage who switched to self employment as a fraction of those who made a transition (Tables 3a (demographic characteristics) and 4a (economic characteristics)). Among those who were self employed on the FTC job, we examine the percentage who switched to wage-and-salary jobs, again, as a fraction of those who made a transition (Tables 3b and 4b).

The key drivers of transitions into self employment among wage-and-salary career workers are age, health status, marital status, presence of dependent children, and spouse's health and employment statuses, with education level measured as of 1992 and all other factors measured in the wave before the transition from the FTC job (Table 3a). Wage-and-salary men who made a transition and were in fair or poor health were more likely than those in good health and much more likely than those in excellent or very good health to transition directly out of the labor force, and were less likely to take either self employed or wage-and-salary bridge jobs.

Approximately 12 percent of transitioning men in fair or poor health switched into self employment compared to 20 percent of those in excellent or very good health (see data column 6). Similar patterns were also associated with a spouse's health status. Another large discrepancy among men existed by educational status. Self-employment transitions were much more common among college-educated men than those who did not complete college (24 versus 14 percent). Further, self-employment transitions were somewhat more likely among married men who left their FTC jobs, and those with dependent children or an employed spouse.

The determinants of women's transitions appeared similar to those of the men (Table 3a, column 12). In general, women transition from wage-and-salary employment to self-employed bridge jobs at a slightly lower rate than men (12 percent versus 17 percent). Women who transition from their wage-and-salary FTC job by the age of 55 were about three times as likely (17 percent versus 6 percent) to transition to self employment as those women who leave their FTC job after age 65. The analogous difference among men was substantially smaller (19 percent versus 14 percent). Like men though, women who transitioned from a FTC wage-and-salary job were more likely to begin self employment if they were healthy, college educated, or had dependent children.

Several findings regarding switches from career self employment into wage-and-salary employment are worth mentioning. First, self-employed men who were younger when they transitioned from their FTC job were much more likely than older men to switch into wage-and-salary employment (Table 3b, column 6). Excellent or very good self-reported health status also positively impacted switches into wage-and-salary employment among men who transitioned from a self-employed FTC job, as did being married and having an employed spouse. Unlike transitions into self employment, however, men with a college degree and men with dependent

children were less likely than other men to make a transition out of self employment, and spouse's health status was not a significant driver of transitions out of self employment for men.

Tables 4a and 4b present the economic correlates of transitions from wage-and-salary FTC jobs (Table 4a) and self-employed FTC jobs (Table 4b). Among men who transition from wage-and-salary FTC jobs, those who did not obtain health insurance on the FTC job were less likely to transition to a self-employed bridge job (column 6). Those men with DB pensions only who left FTC employment were the most likely to exit the labor force completely (column 5) and the least likely to transition to self employment (column 6). Supporting the findings of Zissimopoulos and Karoly (2007a), men who were white collar, highly or non-highly skilled and blue collar, highly skilled were substantially more likely to transition to self employment when leaving a wage-and-salary FTC job. Among men who left their FTC job, 19 percent of white collar, highly-skilled men transitioned to self employment while only 10 percent of blue collar, non-highly skilled made the same transition. There was also a notable U-shaped relationship between the wage rate of men in the year before transition and the likelihood of the transitioning men to begin a self-employed bridge job. This finding is tempered though by the small sample sizes among those at either end of the wage distribution. Finally, those men who transitioned from FTC employment with one-half a million dollars or more of non-housing, non-defined-benefit pension wealth were about twice as likely to transition to self employment as other men.

Among women transitioning from wage-and-salary FTC employment, those with defined-benefit pensions only were less likely than other women to transition to self employment (Table 4a, column 12). This difference among women was even more substantial than the corresponding difference among men. Different than among transitioning men, the likelihood of moving to self employment did not vary substantially among women based on occupational

status. As observed among men (column 6), there is a similar U-shaped relationship between the wage rate and the likelihood of transitioning to self employment among women who leave their FTC job. Conversely the relationship between high levels of wealth and the likelihood of transitioning to self employment was not observed among transitioning women.

A number of economic characteristics may also be correlates of the decision to transfer from full-time career self employment. Men leaving self-employed career jobs who had higher levels of wealth were less likely to switch to wage-and-salary employment, as were those who owned a home (Table 4b, column 6). In fact, self-employed FTC men and women both reported much higher levels of non-housing, non-pension wealth than wage-and-salary FTC workers. Thirty-one percent of self-employed men and 18 percent of self-employed women report wealth of one-half a million dollars or more at the time of transition from their FTC job (columns 1 and 7). Conversely, only about 8 percent of men and women on wage-and-salary FTC jobs report levels of wealth of \$500,000 or more. The large difference in pension coverage between wage-and-salary FTC workers and self-employed FTC workers likely mitigates a portion of this difference in wealth. Among those on self-employed FTC jobs, 83 percent of men and 95 percent of women had no pension on that FTC job (columns 1 and 7). Rather than fund a defined-benefit or defined-contribution pension plan, the self employed may plan on selling their businesses in order to fund retirement. Other findings of note include that men in blue collar, not highly-skilled self employment were most likely among all occupational categories to transition to wage-and-salary employment after having left FTC self employment.

As noted earlier, given the low sample sizes for those starting as self employed on their career jobs, we restrict the multivariate analysis to include only those who were wage-and-salary on their career job and, thus, focus on transitions late in life into self employment.

Multivariate Analysis

We estimate two multivariate self-employment models based on HRS respondents who were on a FTC wage-and-salary job in 1992 and for whom later employment status could be identified. The first specification is one in which self employment is viewed as a dichotomous decision. The dependent variable is equal to one if a worker who was on a FTC wage-and-salary job in 1992 ever transitioned into self employment between 1992 and 2010, and equal to zero otherwise. The second specification examines first transitions from wage-and-salary FTC jobs using the four-way dependent variable presented earlier in Tables 3 and 4. The outcomes are as follows: (1) remained on a FTC job or last observed on a FTC job, (2) moved to a different wage-and-salary job, (3) moved to a self-employed job, and (4) exited the labor force directly from a FTC job. The coefficients of each model are estimated for men and women separately using logistic regression for the first model and multinomial logistic regression for the second.

The multivariate analysis generally confirms the descriptive findings. Among men, the logistic regression results show that those younger than age 55 at the time of transition from the FTC wage-and-salary job and those in excellent or very good health, also at the time of transition, were more likely to switch from wage-and-salary career jobs into self employment later in life (Table 5). Those men in blue collar, not highly skilled FTC jobs were less likely to make the transition to self-employment. Likewise, those men with defined-benefit or defined-contribution (but not both) pension plans were less likely to transition to self employment than men with no pension plans on their FTC job. As with men, women who transition from their FTC job before age 55 are more likely to become self employed than women who leave their FTC job in their 60s. Women with dependent children at the time they leave their FTC job are more likely to become self employed than those women without dependent children. Finally

women with only defined-benefit pension plans are less likely to transition to self employment than women with no pension on their FTC job.

The multinomial logistic regressions reinforced many of the descriptive findings and the logistic regression results. Again, the main drivers of post-FTC transitions were age at the time of transition, own health status, occupational status, and pension status. Among men, younger respondents were more likely to switch to a wage-and-salary bridge job and older men were more likely to exit the labor force directly (Table 6a). Those in excellent or very good health were more likely to switch into a self-employed bridge job and were less likely to exit the labor force directly. Blue-collar workers were less likely than white-collar workers to take either a different wage-and-salary or a self-employed bridge job and were more likely to exit directly.

Generally speaking, the findings from the multinomial logistic analysis for women on wage-and-salary career jobs resemble those among the men. Women in excellent or very good health were more likely to transition to a bridge job (either wage-and-salary or self-employed) and less likely to exit directly, while the opposite was true for those in fair or poor health and for those with defined-benefit pensions and those in blue-collar occupations (Table 6b).

V. Conclusion

Prior research has established that self employment among the working population increases substantially as workers approach retirement age and that a sizable fraction of older workers switch from wage-and-salary employment into self employment, and vice versa, later in life. This paper shows that both of these patterns have continued in the face of the Great Recession and the sluggish recovery for the initial cohort of respondents from the Health and Retirement Study. The rate of self employment among HRS men who were working in 1992 was 21 percent, already a sizable proportion. Nearly two decades later, in 2010, the rate among

these same (now older) respondents nearly doubled to more than 41 percent, with steady increases in each survey year. For women in the HRS survey, the rate of self employment among those working also doubled, from 10 percent in 1992 to 22 percent in 2010, with increases in every survey year.

The rise in self employment later in life is a result of a combination of factors. Self-employed workers tend to stay in the labor force longer than wage-and-salary workers do, and more wage-and-salary workers switch into self employment later in life than vice versa. Both factors continued to play an important role in explaining increases in self employment in recent years. Some of the key determinants of these transitions include age at the time of transition, health status, educational attainment, occupational status, and coverage by a defined-benefit pension on the FTC job. We also find that, in more recent years, the prevalence of self employment appears to have increased among low- and middle-wage earners and among those with less financial stability, suggesting that older Americans may have chosen self-employment as a response to reduced opportunities in wage-and-salary employment from the recession.

A key finding from this study is that transitions to and from self employment continue to play a significant role in the retirement patterns of older Americans, even perhaps more so in light of the recent economic downturn. More broadly, self-employment is just one of many pathways older Americans utilize when exiting the labor force. The majority of older workers take on a bridge job following career employment, frequently in an entirely new line of work (Giandrea et al., 2009). Even after an initial exit from the labor force, retirement is often not permanent, as a sizable minority re-enter later in life (Cahill et al., 2011)

Older Americans' willingness to accept the risks associated with self employment is, in many ways, intuitive. Older workers are more likely than younger workers to have access to

investment capital. Their lifetime of experience may also help them avoid many of the pitfalls associated with running a business that may ensnare younger, less experienced workers.

The message to policymakers and employers is that transitions into and out of self employment are common among older Americans. Forward-thinking employers should be aware that many older workers have this option, and may switch into self employment if a wage-and-salary arrangement does not fit their preferences. More positively for employers, many career self-employed older Americans switch into wage-and-salary positions later in life, suggesting that employers may be able to attract experienced self-employed workers when faced with the well-documented upcoming challenge of our aging workforce. Policymakers should be aware of the self-employment option as well, as a potential way to help alleviate the strains of an aging population. The latest evidence confirms that those who are self-employed, on average, continue to work later than wage-and-salary workers and thereby continue to contribute to the economy.

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Table 1
Sample Size, by Gender

HRS Core: Respondents Age 51 to 61 in 1992

	Men	Women	Total
All HRS Core respondents			
n	5,869	6,783	12,652
Worked since age 50			
n	5,358	5,308	10,666
% of HRS Core	91%	78%	84%
Worked since age 50 and had a FTC job			
n	4,282	3,144	7,426
% of HRS Core	73%	46%	59%
On a full-time career job in 1992			
n	3,061	2,567	5,628
% of HRS Core	52%	38%	44%
Wage and salary			
n	2,421	2,300	4,721
% of FTC in 1992	79%	90%	84%
Self employed			
n	640	267	907
% of FTC in 1992	21%	10%	16%

Source: Authors' calculations based on data from the Health and Retirement Study.

Table 2

Transitions Into and From Self Employment as of 2010
 Sample: HRS Core Respondents on a Full-Time Career Job in 1992
 Horizontal Percentages

	Still on a FTC Job (FTC)	Moved to SE bridge job (SE)	Moved to WS bridge job (WS)	Moved out of labor force (Out)	<u>SE</u> <u>(SE+WS+Out)</u>	<u>WS</u> <u>(SE+WS+Out)</u>
Wage and salary						
Males	3	16	41	40	17	
Females	5	11	46	37	12	
Self employment						
Males	9	44	32	15		35
Females	4	43	35	17		37

Source: Authors' calculations based on data from the Health and Retirement Study.

Table 3a

Transitions of Career Wage-and-Salary Workers by 2010, by Gender and Demographic Characteristics
 Sample: HRS Core Respondents on a Wage-and-Salary Full-Time Career Job in 1992

Determinants	Men						Women					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Category Percentage	Still on a FTC Job	Moved to Self Employment	Moved to Wage & Salary	Out	SE (SE+WS+Out)	Category Percentage	Still on a FTC Job	Moved to Self Employment	Moved to Wage & Salary	Out	SE (SE+WS+Out)
Total	100%	3%	16%	41%	40%	17%	100%	5%	11%	46%	37%	12%
Age in wave before transition ¹												
55 and younger	20	0	19	57	25	19	33	3	16	58	23	17
56 - 61	46	0	17	38	45	17	43	4	10	43	43	11
62 - 64	18	1	16	37	47	16	15	4	8	39	49	9
65 and older	16	15	12	34	40	14	9	22	5	30	43	6
Subjective health status												
excellent / very good	54	3	19	42	35	20	55	6	13	50	31	14
good	32	2	13	42	43	13	30	5	10	44	40	10
fair / poor	14	2	11	34	52	12	14	3	7	35	54	7
Less than college degree	76	2	14	42	42	14	79	5	10	46	38	11
College degree	24	5	22	37	36	24	21	5	15	47	33	16
Not married	11	3	13	39	46	13	26	3	10	47	40	11
Married	89	3	16	41	40	17	74	6	12	46	36	12
No dependent children	84	3	15	42	40	16	70	5	10	45	40	11
Dependent children	16	3	19	37	40	20	30	5	15	49	31	15
No employed spouse	54	4	15	39	43	15	59	6	10	44	40	11
Spouse employed	46	2	18	43	37	18	41	4	13	49	33	14
Spouse's health status												
excellent / very good	55	2	19	42	37	19	47	5	14	46	35	15
good	28	3	15	39	43	15	32	6	10	48	35	11
fair / poor	17	4	11	41	44	11	21	8	10	44	39	11

¹ For those men and women still on a FTC job, this was their age in 2010 or when last observed.

Source: Authors' calculations based on data from the Health and Retirement Study.

Table 3b

Transitions of Career Self Employed Workers by 2010, by Gender and Demographic Characteristics
 Sample: HRS Core Respondents on a Self-Employed Full-Time Career Job in 1992

Determinants	Men						Women					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Category Percentage	Still on a FTC Job	Moved to Wage and Salary	Moved to Self Employed	Out	WS (SE+WS+Out)	Category Percentage	Still on a FTC Job	Moved to Wage and Salary	Moved to Self Employed	Out	WS (SE+WS+Out)
Total	100%	9%	44%	32%	15%	48%	100%	4%	43%	35%	17%	45%
Age in wave before transition ¹												
55 and younger	14	2	54	32	12	55	37	3	42	45	11	43
56 - 61	40	3	38	43	16	39	42	3	36	42	19	37
62 - 64	18	2	35	49	14	35	11	0	27	45	27	27
65 and older	29	24	14	46	16	18	11	18	18	41	23	22
Subjective health status												
excellent / very good	57	8	38	41	13	41	58	4	33	45	18	34
good	28	10	26	48	16	29	32	6	41	39	14	44
fair / poor	15	10	24	44	22	26	10	0	33	43	24	33
Less than college degree	70	8	35	41	16	38	86	4	36	42	19	37
College degree	30	11	26	49	14	29	14	7	34	52	7	37
Not married	9	5	29	45	21	30	18	3	35	43	19	36
Married	91	9	33	43	15	36	82	5	36	43	17	37
No dependent children	87	8	33	43	16	36	68	6	33	48	14	35
Dependent children	13	12	28	50	10	32	32	2	42	34	23	42
No employed spouse	51	7	29	48	15	31	50	4	35	45	17	36
Spouse employed	49	10	36	39	15	40	50	5	36	42	17	38
Spouse's health status												
excellent / very good	59	9	32	45	14	35	52	4	37	47	12	38
good	27	9	37	41	13	40	28	2	34	41	22	35
fair / poor	14	9	33	39	19	37	19	7	39	39	14	42

¹ For those men and women still on a FTC job, this was their age in 2010 or when last observed.

Source: Authors' calculations based on data from the Health and Retirement Study.

Table 4a

Transitions of Career Wage-and-Salary Workers by 2010, by Gender and Economic Characteristics
 Sample: HRS Core Respondents on a Wage-and-Salary Full-Time Career Job in 1992

Determinants	Men						Women					
	(1) Category Percentage	(2) Still on a FTC Job	(3) Moved to Self Employment	(4) Moved to Wage & Salary	(5) Out	(6) SE (SE+WS+Out)	(7) Category Percentage	(8) Still on a FTC Job	(9) Moved to Self Employment	(10) Moved to Wage & Salary	(11) Out	(12) SE (SE+WS+Out)
Total	100%	3%	16%	41%	40%	17%	100%	5%	11%	46%	37%	12%
Health insurance status												
Not covered on career job	7%	11%	12%	52%	25%	14%	13%	23%	11%	36%	30%	15%
"Covered, would maintain" coverage	78	2	16	40	41	16	69	3	12	47	38	12
"Covered, would lose" coverage	16	0	18	41	41	18	18	2	11	47	10	16
Pension status												
No pension	21	3	19	48	30	19	27	5	17	55	23	18
DC only	27	5	15	44	35	16	30	7	10	45	38	11
DB only	45	1	14	36	48	15	39	4	8	41	46	9
DC and DB	7	2	23	34	42	23	5	5	13	39	43	14
Occupation status												
White collar, highly skilled	35	3	18	37	41	19	35	7	11	43	39	12
White collar, other	13	3	17	38	42	18	38	7	8	43	42	9
Blue collar, highly skilled	25	4	15	35	46	16	8	4	13	48	35	14
Blue collar, other	27	2	9	39	49	10	19	3	12	39	46	12
Wage rate												
< \$6/hour	3	10	22	37	31	25	4	5	24	46	24	26
\$6 - \$10/hour	9	3	10	58	30	10	18	5	12	53	31	13
\$10 - \$20/hour	37	3	15	42	40	16	50	5	11	45	40	11
\$20 - \$50/hour	48	2	17	39	43	17	27	6	10	44	40	10
> \$50/hour	4	11	26	21	42	30	1	10	29	48	14	32
Wealth												
\$0 - \$25,000	34	3	12	47	38	12	40	5	11	48	36	12
\$25,000 - \$100,000	28	3	14	42	42	14	25	6	12	46	35	13
\$100,000 - \$500,000	31	2	19	36	43	20	28	4	11	45	41	11
\$500,000 or more	8	4	30	30	36	31	7	7	15	38	40	17
Do not own home	22	2	14	44	40	14	21	6	13	45	37	13
Own home	78	3	17	40	40	17	79	5	11	46	37	12

Source: Authors' calculations based on data from the Health and Retirement Study.

Table 4b

Transitions of Career Self Employed Workers by 2010, by Gender and Economic Characteristics
Sample: HRS Core Respondents on a Self-Employed Full-Time Career Job in 1992

Determinants	Men						Women					
	(1) Category Percentage	(2) Still on a FTC Job	(3) Moved to Wage and Salary	(4) Moved to Self Employed	(5) Out	(6) WS (SE+WS+Out)	(7) Category Percentage	(8) Still on a FTC Job	(9) Moved to Wage and Salary	(10) Moved to Self Employed	(11) Out	(12) WS (SE+WS+Out)
Total	100%	9%	44%	32%	15%	48%	100%	4%	43%	35%	17%	45%
Health insurance status												
Not covered on career job	20%	6%	34%	47%	12%	37%	23%	2%	35%	40%	23%	36%
"Covered, would maintain" coverage	75	10	32	43	15	35	73	5	35	45	15	37
"Covered, would lose" coverage	6	0	33	37	29	33	4	0	50	25	25	50
Pension status												
No pension	83	9	32	44	16	35	95	4	35	43	17	37
DC only	12	7	32	47	14	35	4	13	25	50	13	29
DB only	3	8	46	31	15	50	1	0	67	33	0	67
DC and DB	1	0	57	29	14	57	0	----	----	----	----	----
Occupation status												
White collar, highly skilled	36	10	34	41	15	38	25	7	29	48	17	31
White collar, other	21	16	33	28	22	40	35	3	40	41	16	41
Blue collar, highly skilled	33	7	22	56	15	24	11	6	33	44	17	35
Blue collar, other	10	7	46	32	15	50	28	4	40	32	23	42
Wage rate												
< \$6/hour	17	8	31	44	16	34	35	2	23	46	30	23
\$6 - \$10/hour	12	11	26	51	12	29	21	2	44	42	12	45
\$10 - \$20/hour	25	10	32	41	17	36	23	9	43	38	11	47
\$20 - \$50/hour	29	9	39	38	14	43	12	4	48	32	16	50
> \$50/hour	16	5	29	52	15	30	9	0	22	57	22	22
Wealth												
\$0 - \$25,000	23	5	42	35	18	44	31	0	30	41	29	30
\$25,000 - \$100,000	12	9	33	39	19	37	18	3	55	32	11	57
\$100,000 - \$500,000	33	6	32	45	18	34	33	7	34	47	12	37
\$500,000 or more	31	15	25	51	9	29	18	8	27	51	14	29
Do not own home	18	4	38	42	17	40	19	3	41	36	21	42
Own home	82	10	31	44	15	35	81	5	34	45	16	36

Source: Authors' calculations based on data from the Health and Retirement Study.

Table 5

Marginal Effects from Logistic Regression
 Dependent Variable: Switch to Self Employment by 2010
 Sample: Respondents on a Wage-and-Salary Full-Time Career Job in 1992

	Men		Women	
	coef	p-value	coef	p-value
Age in wave before transition				
54 or younger	-----	-----	-----	-----
55 - 59	-0.037	0.150	-0.025	0.138
60 - 61	-0.081	0.006	-0.036	0.092
62 or older	-0.066	0.010	-0.080	0.000
Respondent health				
Excellent/very good	0.037	0.064	0.025	0.115
Good	-----	-----	-----	-----
Fair/poor	-0.020	0.512	-0.029	0.264
Spouse health				
Excellent/very good	0.002	0.928	-0.002	0.896
Good	-----	-----	-----	-----
Fair/poor	-0.043	0.198	-0.001	0.959
Education				
Less than high school	-0.033	0.231	-0.018	0.444
High school	-----	-----	-----	-----
College	0.019	0.391	0.029	0.138
Married	0.026	0.416	-0.002	0.918
Dependent child	0.016	0.473	0.028	0.056
Spouse employed	0.019	0.330	0.011	0.534
Occupational status				
Blue collar - high skilled	-0.024	0.323	-0.034	0.266
Blue collar - other	-0.081	0.003	-0.020	0.370
White collar - high skilled	-----	-----	-----	-----
White collar - other	-0.005	0.851	-0.062	0.001
Health insurance status				
Portable	-0.022	0.306	0.010	0.575
Non-portable	-----	-----	-----	-----
None	-0.021	0.585	0.010	0.664
Pension status				
Defined-benefit	-0.057	0.008	-0.052	0.003
Defined-contribution	-0.043	0.046	-0.013	0.450
Both	0.083	0.021	0.062	0.065
None	-----	-----	-----	-----
Own home	-0.020	0.405	-0.008	0.660
Constant	-0.135	0.004	-0.134	0.000

Note: Logistic regression also controls for race, wage, wage squared, wealth, wealth squared, and region.

Source: Authors' calculations based on data from the Health and Retirement Study.

Table 6a

Marginal Effects from Multinomial Logistic Regression
 Dependent Variable: First Transition from Full-Time Career Job
 Men on a Wage-and-Salary Full-Time Career Job in 1992

	Moved to Wage-and-Salary Bridge Job		Moved to Self Employed Bridge Job		Exited the Labor Force	
	coef	p-value	coef	p-value	coef	p-value
Age in wave before transition						
54 or younger	-----	-----	-----	-----	-----	-----
55 - 59	-0.133	0.003	-0.040	0.086	0.162	0.001
60 - 61	-0.329	0.000	-0.056	0.000	0.375	0.000
62 or older	-0.286	0.000	-0.053	0.026	0.326	0.000
Respondent health						
Excellent/very good	0.030	0.328	0.040	0.032	-0.071	0.022
Good	-----	-----	-----	-----	-----	-----
Fair/poor	-0.141	0.002	0.007	0.798	0.134	0.002
Spouse health						
Excellent/very good	0.034	0.339	0.005	0.799	-0.039	0.272
Good	-----	-----	-----	-----	-----	-----
Fair/poor	0.009	0.845	-0.025	0.406	0.016	0.726
Education						
Less than high school	-0.009	0.809	-0.009	0.727	0.018	0.636
High school	-----	-----	-----	-----	-----	-----
College	-0.014	0.707	0.004	0.842	0.010	0.800
Married	0.112	0.024	0.016	0.603	-0.127	0.011
Dependent child	0.014	0.707	0.011	0.600	-0.025	0.504
Spouse employed	0.023	0.469	0.005	0.770	-0.028	0.382
Occupational status						
Blue collar - high skilled	-0.218	0.000	-0.016	0.486	0.232	0.000
Blue collar - other	-0.188	0.000	-0.074	0.005	0.261	0.000
White collar - high skilled	-----	-----	-----	-----	-----	-----
White collar - other	-0.135	0.004	-0.030	0.236	0.164	0.001
Health insurance status						
Portable	0.016	0.662	-0.015	0.446	-0.001	0.969
Non-portable	-----	-----	-----	-----	-----	-----
None	0.137	0.032	0.011	0.752	-0.149	0.026
Pension status						
Defined-benefit	-0.105	0.001	-0.023	0.242	0.128	0.000
Defined-contribution	0.017	0.610	-0.014	0.490	-0.003	0.923
Both	-0.054	0.419	0.060	0.054	-0.006	0.932
None	-----	-----	-----	-----	-----	-----
Own home	0.041	0.293	-0.009	0.701	-0.033	0.396
Constant	0.471	0.000	-0.083	0.050	-0.372	0.000

Note: Multinomial logistic regression also controls for race, wage, wage squared, wealth, wealth squared, and region.

Source: Authors' calculations based on data from the Health and Retirement Study.

Table 6b

Marginal Effects from Multinomial Logistic Regression
 Dependent Variable: First Transition from Full-Time Career Job
 Women on a Wage-and-Salary Full-Time Career Job in 1992

	Wage & Salary Bridge Job		Self Employed Bridge Job		Exit the Labor Force	
	coef	p-value	coef	p-value	coef	p-value
Age in wave before transition						
54 or younger	-----	-----	-----	-----	-----	-----
55 - 59	-0.157	0.000	-0.014	0.331	0.171	0.000
60 - 61	-0.295	0.000	-0.008	0.665	0.292	0.000
62 or older	-0.283	0.000	-0.050	0.006	0.299	0.000
Respondent health						
Excellent/very good	0.057	0.062	0.027	0.057	-0.089	0.003
Good	-----	-----	-----	-----	-----	-----
Fair/poor	-0.064	0.142	-0.034	0.169	0.117	0.005
Spouse health						
Excellent/very good	-0.019	0.600	0.005	0.749	0.010	0.790
Good	-----	-----	-----	-----	-----	-----
Fair/poor	-0.011	0.810	-0.001	0.950	0.005	0.921
Education						
Less than high school	-0.060	0.152	0.003	0.885	0.064	0.125
High school	-----	-----	-----	-----	-----	-----
College	0.014	0.732	0.032	0.054	-0.047	0.257
Married	-0.011	0.784	-0.007	0.730	0.009	0.820
Dependent child	0.034	0.260	0.018	0.169	-0.059	0.051
Spouse employed	0.039	0.258	0.000	0.987	-0.030	0.390
Occupational status						
Blue collar - high skilled	-0.097	0.092	-0.020	0.473	0.108	0.061
Blue collar - other	-0.201	0.000	-0.013	0.499	0.215	0.000
White collar - high skilled	-----	-----	-----	-----	-----	-----
White collar - other	-0.139	0.000	-0.045	0.005	0.163	0.000
Health insurance status						
Portable	-0.013	0.680	0.000	0.985	-0.002	0.947
Non-portable	-----	-----	-----	-----	-----	-----
None	-0.065	0.188	-0.005	0.794	-0.015	0.764
Pension status						
Defined-benefit	-0.163	0.000	-0.033	0.030	0.199	0.000
Defined-contribution	-0.093	0.003	-0.008	0.578	0.089	0.005
Both	0.060	0.365	0.049	0.073	-0.085	0.196
None						
Own home	0.061	0.094	-0.010	0.534	-0.056	0.127
Constant	0.624	0.000	-0.054	0.086	-0.436	0.000

Note: Multinomial logistic regression also controls for race, wage, wage squared, wealth, wealth squared, and region.

Source: Authors' calculations based on data from the Health and Retirement Study.

Figure 1

Percent Working, by Gender, 1992 - 2010
Sample: HRS Core Respondents On a Full-Time Career Job in 1992

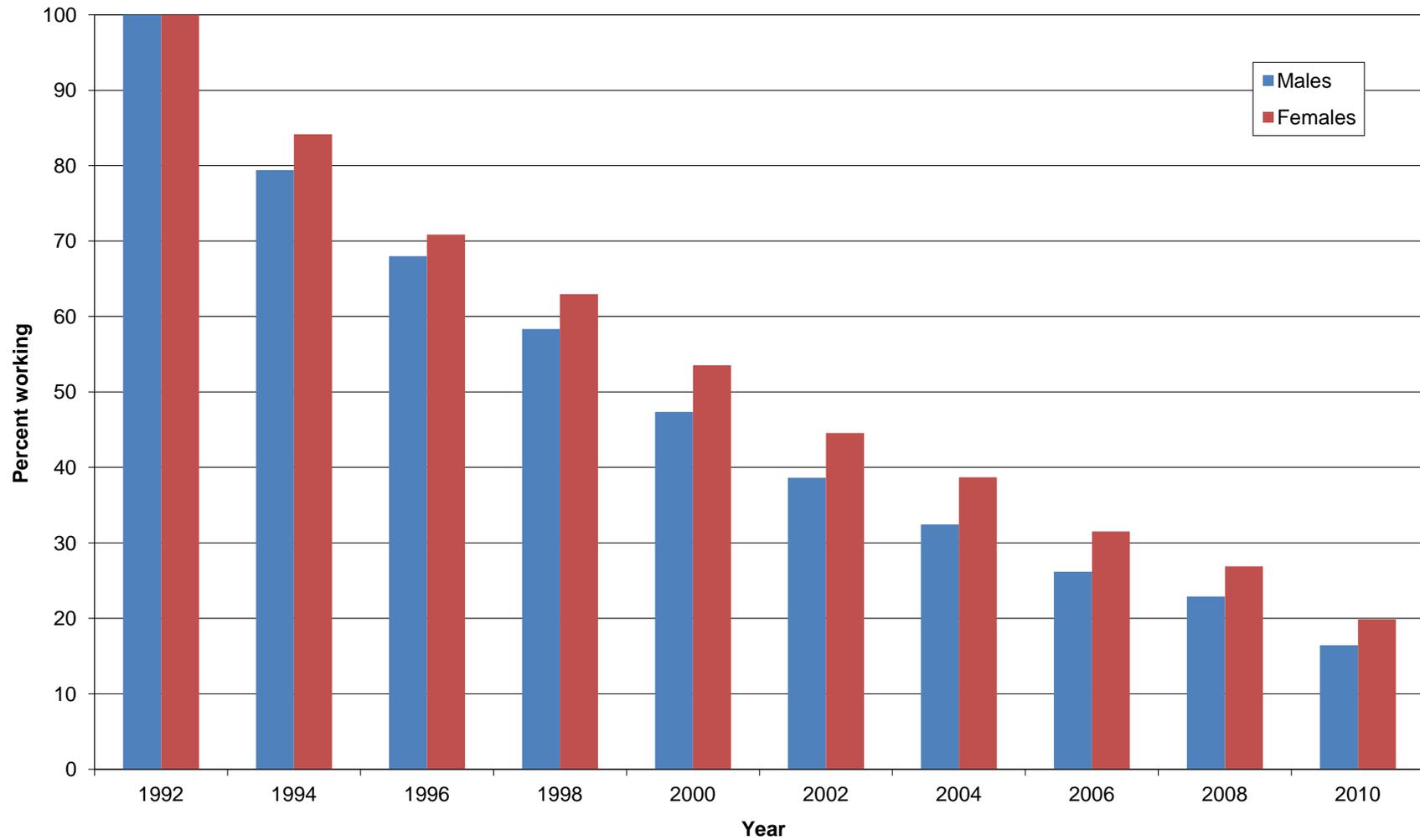


Figure 2

Percent Self Employed among those Working, by Gender, 1992 - 2010
Sample: HRS Core Respondents On a Full-Time Career Job in 1992

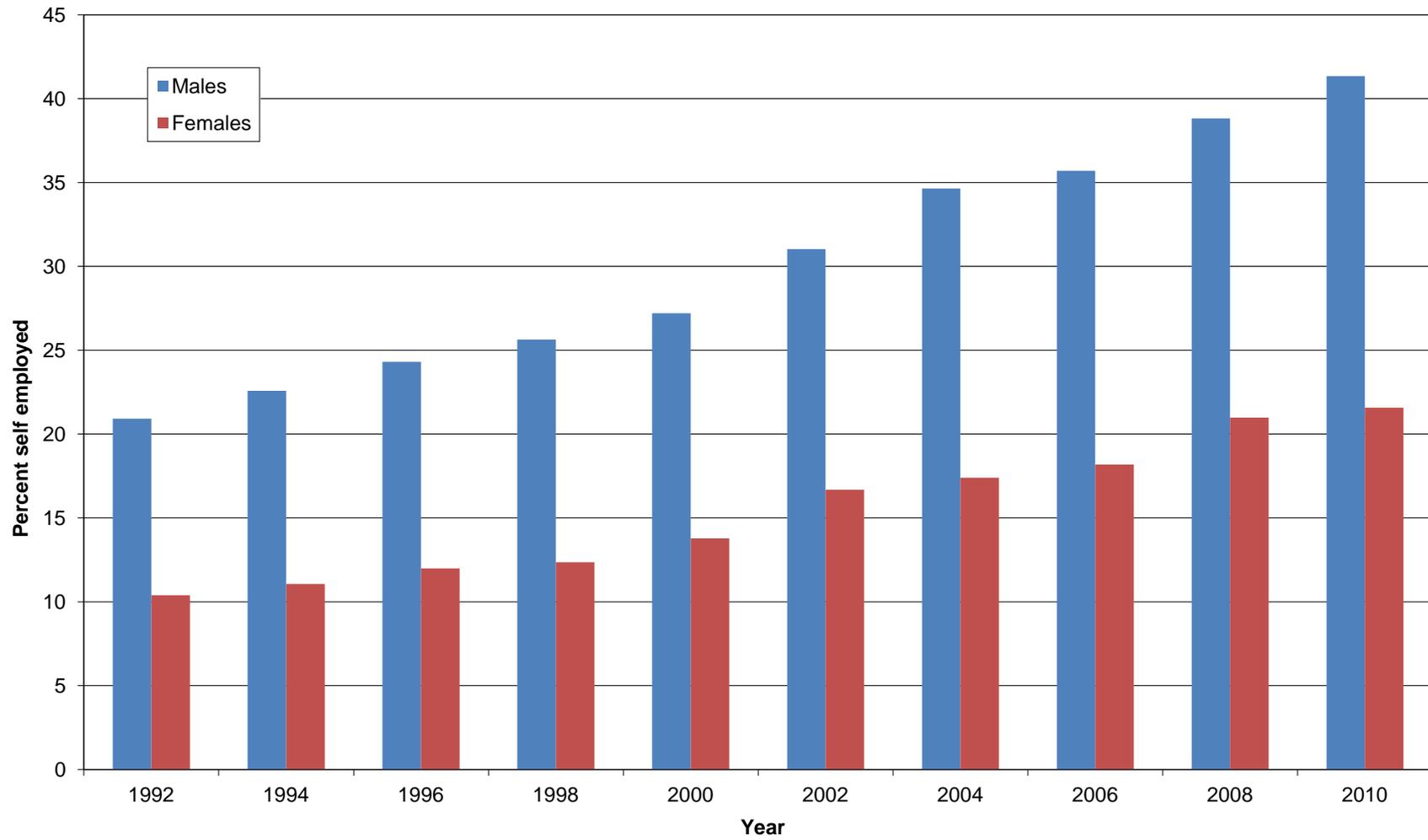


Figure 3a

Percent Working by Self Employment Status of Career Employment, 1992 - 2010
Sample: HRS Core Males On a Full-Time Career Job in 1992

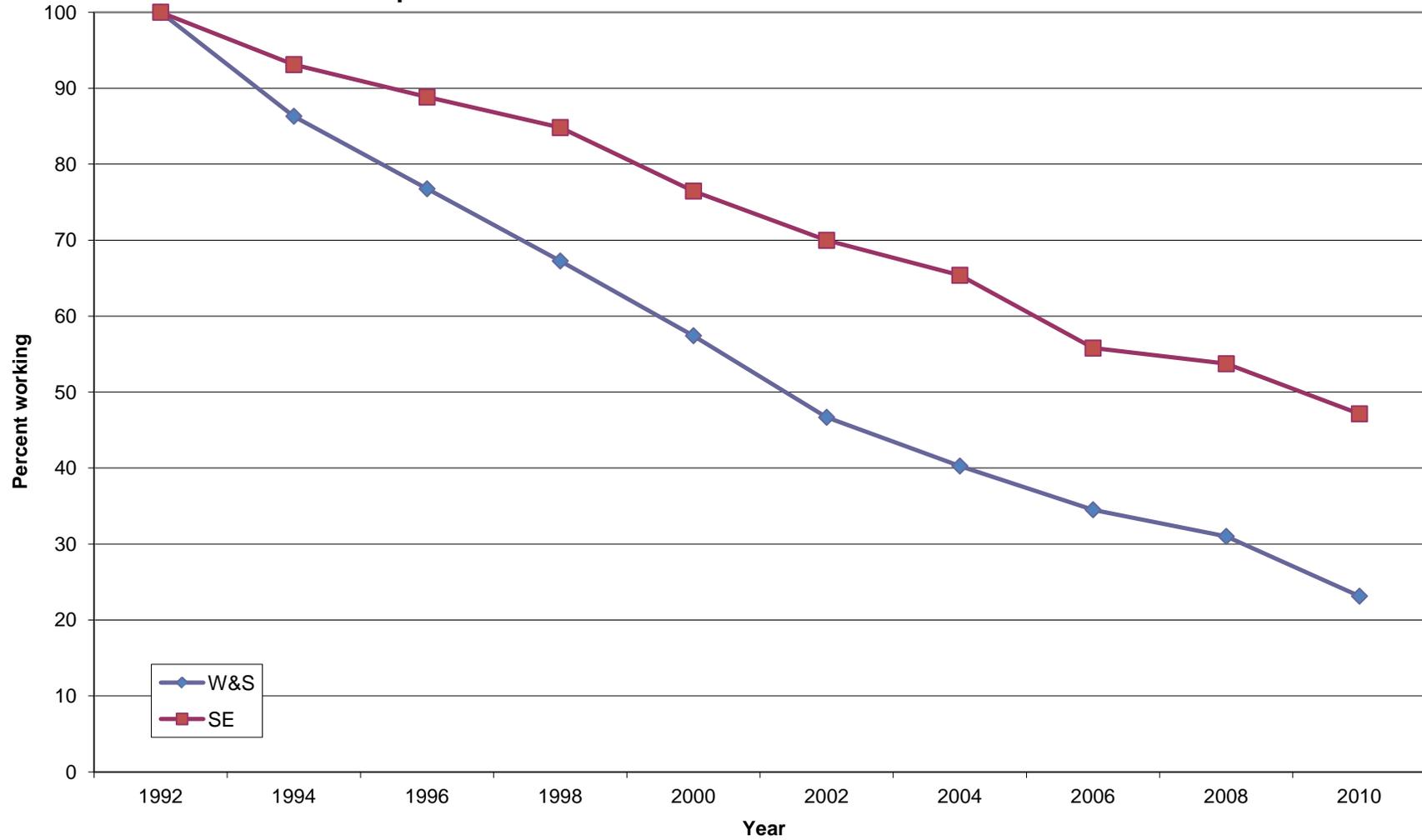


Figure 3b

Percent Working by Self Employment Status of Career Employment, 1992 - 2010
Sample: HRS Core Females On a Full-Time Career Job in 1992

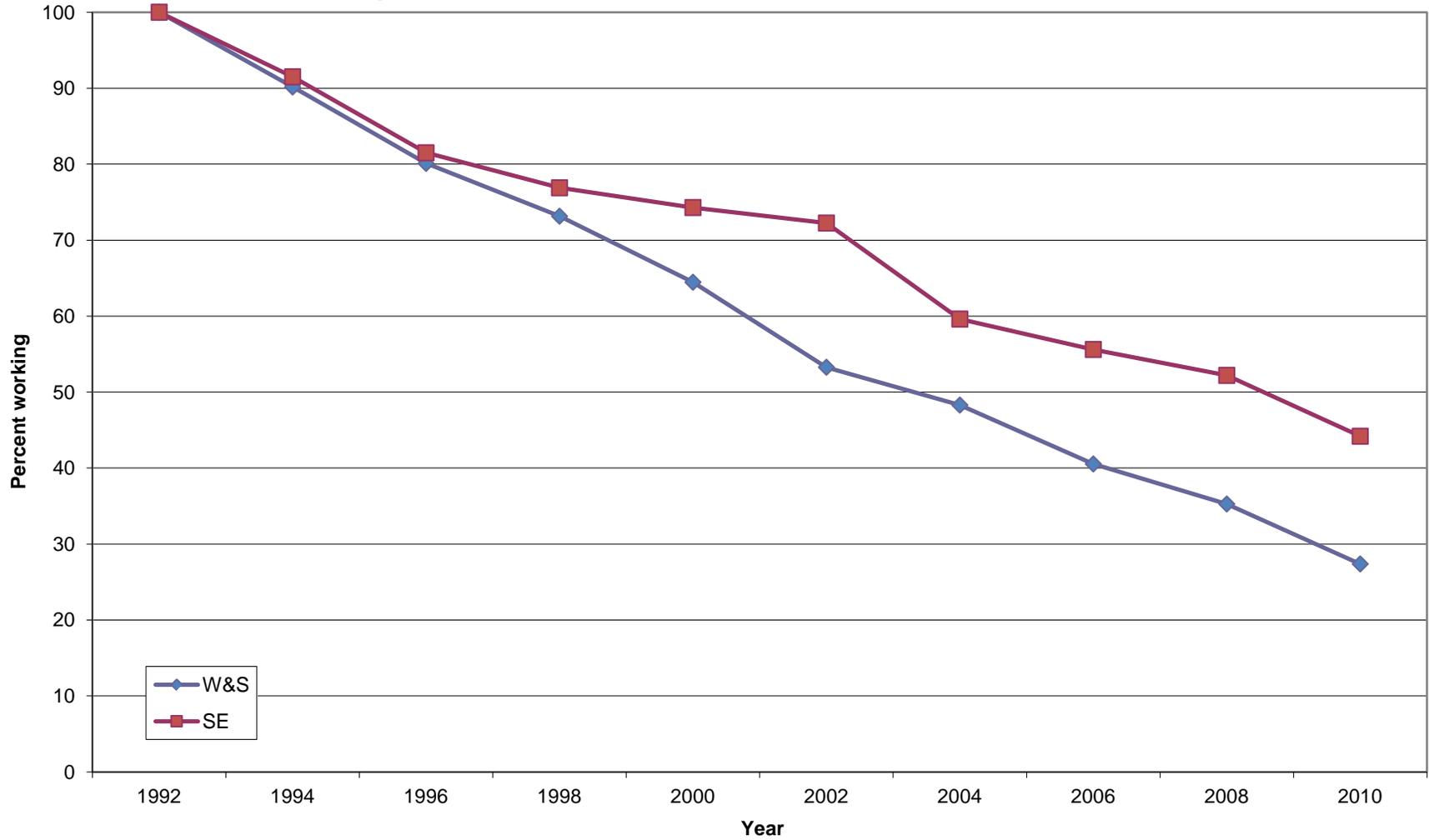


Figure 4a

Percent Working Part Time among those Working,
by Wage-and-Salary and Self Employment Status, Males, 1992 - 2010
Sample: HRS Core Respondents On a Full-Time Career Job in 1992

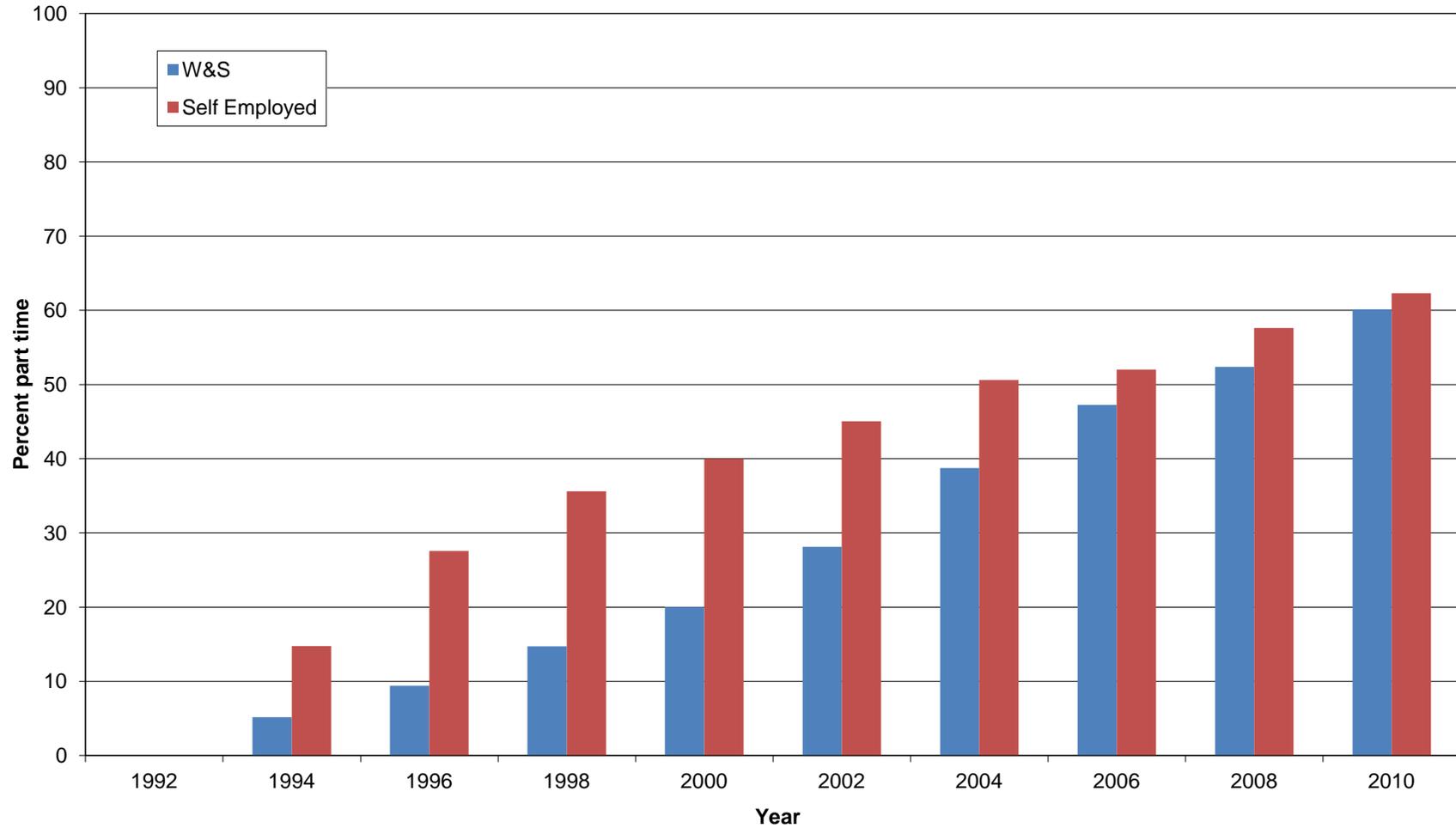


Figure 4b

Percent Working Part Time among those Working,
by Wage-and-Salary and Self Employment Status, Females, 1992 - 2010
Sample: HRS Core Respondents On a Full-Time Career Job in 1992

