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All views expressed in this paper are those of the authors and do not necessarily reflect the views or policies of the U.S. Bureau of Labor Statistics.

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Abstract

What role does self-employment play in the retirement process? Older Americans are staying in the labor force longer than prior trends would have predicted and many change jobs later in life. These job transitions are often within the same occupation or across occupations within wageand-salary employment. The transition can also be out of wage-and-salary work and into self employment. Indeed, national statistics show that self employment becomes more prevalent with age, partly because self employment provides older workers with opportunities not found in traditional wage-and-salary jobs, such as flexibility in hours worked and independence. This paper analyzes transitions into and out of self employment among older workers who have had career jobs. We utilize the Health and Retirement Study, a nationally-representative dataset of older Americans, to investigate the prevalence of self employment among older workers who made a job transition later in life and to explore the factors that determine the choice of wageand-salary employment or self employment. We find that post-career transitions into and out of self employment are common and that health status, career occupation, and financial variables are important determinants of these transitions. As older Americans and the country as a whole face financial strains in retirement income in the years ahead, self employment may be a vital part of the pro-work solution.

I. Introduction

Older Americans are staying in the labor force longer than prior trends would have predicted and they often change jobs later in life. In fact, the majority of older Americans who have had career jobs make a job transition prior to retirement. These transitions are often within the same occupation or across occupations within wage-and-salary employment. The transition can also be out of wage-and-salary work and into self employment. National statistics show that self employment becomes more prevalent with age, partly because self employment provides older workers with opportunities not found in traditional wage-and-salary jobs, such as hours flexibility and independence. This paper examines the prevalence and determinants of a specific type of self-employment transition – those that serve as a step in the retirement process.

Self-employment transitions prior to retirement are of particular importance to policymakers and employers. The leading edge of the Baby Boomers have now reached retirement age, and their movement out of the labor force is expected to strain existing sources of retirement income. Today, the ratio of workers to retirees is about three to one; by 2030, the ratio will be two to one.⁴ As fewer workers support a growing retiree population, policymakers may look for ways to encourage individuals to remain in the labor force.

Self employment may be one option because self-employed individuals tend to stay in the labor force longer than wage-and-salary workers. While some of the differences between self-employed workers and wage-and-salary employees may be explained by selection effects (i.e., those who choose self employment are those who would have worked later in life anyway), self employment offers real advantages that are valued by older workers such as working for oneself

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¹ See Burkhauser and Quinn (1997).

² See Cahill, Giandrea, and Quinn (2006).

³ See Hipple (2004).

⁴ See Social Security Administration Fact Sheet (2007).

and flexible work hours.⁵ Older workers may also have access to capital that makes a transition to self employment possible and they have a lifetime of experience to increase the probability of a successful business venture. To the extent that self employment keeps individuals in the labor force longer than they otherwise would have, the country as a whole benefits from their additional output. These workers remain productive, have higher incomes, and will be less dependent on public programs, all as the nation has more goods and services to distribute among an aging population.

Employers may also have a lot to learn from these transitions, especially as older workers become an increasingly attractive option to fill an expected shortfall in skilled workers. Workers who switch from wage-and-salary employment to self employment later in life may be opting for self employment because of what is lacking in wage-and-salary employment rather than what can be gained in self employment. Workers' choices indicate that many select self employment and the benefits derived from it even when facing considerable risk in the form of returns to capital and variation in expected earnings. Employers may be able to woo those workers back to wage-and-salary employment – or prevent the transitions to begin with – by offering older workers some of the advantages that currently may be found predominantly in self employment. Flexibility in work schedule is a classic example.

This paper analyzes transitions into and out of self employment among older workers who have had career jobs. The next section of the paper provides some background on the role of self employment in the retirement transitions of older workers. Section III describes the data set that we utilize for the analysis, the Health and Retirement Study, an ongoing longitudinal

⁵ Branchflower and Oswald (1998) found that self-employed workers exhibited higher levels of both job and life satisfaction than wage-and-salary employees.

survey of 12,652 older Americans that began in 1992. Section IV presents the results of our analysis and Section V summarizes the main points of the paper.

II. Background

A dominant theme in the self-employment literature is the role of financial capital in entrepreneurship. This section highlights a few key studies that address this theme, and several studies related to self-employment transitions later in life. Perhaps one of the most informative studies on self employment is by Evans and Jovanovic (1989), who developed a model of self-employment based, in part, on the role of liquidity constraints. In this model, a person becomes self employed if expected income from wage-and-salary employment does not exceed income from self employment. 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 may imply that men with greater assets become more profitable entrepreneurs.

Holtz-Eakin, Joulfaian, and Rosen (1994a) developed a related model of self employment where the decision to become an entrepreneur was dependent on assets and personal characteristics. They found that an inheritance has a positive effect on the probability of becoming self employed, other things equal, but that the impact of an inheritance decreased with wealth. This finding confirmed the results presented in Evans and Jovanovic (1989). In another article Holtz-Eakin, Joulfaian, and Rosen (1994b) found that the receipt of an inheritance while self employed increased the viability and revenues of the self-employed worker's business.

Dunn and Holtz-Eakin (2000) investigated not only the relationship between financial capital and entrepreneurship, but also the impact of human capital on self-employment decisions. 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.

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. He found that the self employed were significantly more likely to continue to work, particularly by reducing work hours. Other factors that impacted the employment decision of older workers included health, age, and pension eligibility. One interesting finding was that the probability of switching from wage-and-salary employment to self employment was a function of a worker's occupational experience in jobs that required skills similar to those needed in self employment. Examples included managerial and sales positions.

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 the first three waves of Health and Retirement Study data. They found that liquidity constraints played an important role in determining who became self employed. Moreover, they concluded that health insurance was not an important factor affecting the transition from wage-and-salary to self employment.

Hipple (2004) documented that self employment became more likely as workers age.

The incidence of unincorporated self employment in 2003 by age bracket was 7.4 percent for

those age 35 to 44, 8.2 percent for those age 45 to 54, 10.5 percent for those age 55 to 64, and 15.3 percent for those 65 and older. Most recently, Zissimopoulos, Maestas, and Karoly (2007) examined determinants of labor force exit among wage-and-salary and self-employed older workers, and found that defined benefit pension incentives were significant determinants of why exit rates were higher among wage and salary workers. Further, using a cross-country comparison of the United States and Britain, they found that the availability of publicly-provided health insurance impacted labor force exit.

This paper contributes to the literature by focusing on transitions later in life from wage-and-salary career jobs into self employment and from self-employed career jobs into wage-and-salary employment. One explanation for the shift to self employment later in life may be a change in preferences for leisure as individuals age and leave full-time career (FTC) employment. The mechanics behind this explanation can be seen graphically in Figure 1, in which the choice between wage-and-salary and self employment is simplified by focusing on the tradeoff between higher wages and hours flexibility (i.e., wage-and-salary workers have higher earnings relative to self employed workers, but they are constrained in their ability to reduce hours worked). The hours inflexibility associated with wage-and-salary employment is illustrated by the vertical line at point L, the maximum amount of leisure allowed under wage-and-salary employment. In the first case, a worker chooses the higher wages and lower leisure hours associated with wage-and-salary employment. In the second case, perhaps one that follows FTC employment, the worker sacrifices higher wages in return for the increased leisure available with self employment.

The underlying assumption about hours inflexibility in wage-and-salary employment is supported by several stylized facts. In some cases, high fixed costs per worker related to benefits

such as health insurance limit a firm's willingness to employ part-time workers. In other cases, defined-benefit pension rules may result in significantly smaller pension valuations for those who work part-time (Penner, Perun, and Steuerle, 2002; Burkhauser and Quinn, 1997). While self employed workers may not experience these constraints on hours worked, they instead typically face lower wage profiles than comparable full-time wage-and-salary workers. Hamilton (2000) found a 35 percent earnings differential in favor of wage-and-salary workers relative to self-employed workers, and Lettau (1994) found that part-time workers earn substantially less in part-time work than in equivalent full-time work.

Using this simplified framework and the existing literature on self employment as a guide, we extend the research on retirement transitions more generally by Cahill, Giandrea and Quinn (2006) to incorporate switches later in life from wage-and-salary employment to self-employment and vice versa.

III. Data

An ideal data set for this research is the Health and Retirement Study (HRS). The HRS is a nationally representative panel data set created with the objective of understanding the antecedents and consequences of retirement, monitoring work disability, and examining the relationship among health, income and wealth, and the patterns of wealth accumulation and consumption over time. The HRS survey began in 1992 with interviews of over 12,500 people (known as the Core) aged 51 to 61 years, and their spouses, whatever their age. The interviews have been repeated every other year since 1992.

The longitudinal nature of the HRS allows us to examine each respondent's work history and identify job transitions. For the purposes of this analysis, we define a full-time career job as

⁶See Juster and Suzman (1995) for a detailed description of the HRS.

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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.

We begin our analysis by focusing on individuals who have had work experience since age 49, and obtain a sample of 10,540 HRS respondents (Table 1). We find that 91 percent of age-eligible men (n=5,344) and 77 percent of age-eligible women (n=5,196) have worked since age 50. Because this paper focuses on transitions from career employment, we restrict the sample to respondents with a FTC job at the time of the first interview, which reduces the sample to 5,570 respondents. Slightly more than one half of the men (n=3,057) and one third of the women (n=2,513) were on a FTC job in 1992. Approximately 21 percent of the men and 10 percent of the women were self employed on their FTC jobs at the time of the first interview. Therefore, among those HRS respondents who were on a FTC job at the time of the first interview, 4,668 were wage-and-salary workers and 902 were self-employed.

IV. Results

Descriptive Statistics: Outcomes

We begin the descriptive analysis with a high-level overview of how the prevalence of self employment increases as FTC workers age. Figure 2 presents the percentage of HRS men and women on FTC jobs in 1992 who were working for pay in each interview, from 1992 to 2004. By 2004, fewer than half of respondents, now aged 63 to 73, were working. Women were somewhat more likely to be working than men, a result of the fact that women were younger, on average, at the time of the first interview and the fact that FTC status was a requirement to be included in the analysis.

As the FTC respondents exited the labor force, the percentage of those working who were self employed increased substantially (Figure 3). At the time of the 1992 survey, slightly more than 20 percent of the men were self employed. The percentage of respondents who were self employed among those who remained working rose in every survey year through 2004, with the largest increases in the 2002 and 2004 surveys. Between 2000 and 2004, the percentage of men who were self employed among those who had a FTC job in 1992 and who were still working in 2004 increased more than 7 percentage points to nearly 35 percent. A similar pattern was seen among the women, although the percentages were considerably lower. Among women with FTC jobs in 1992 and still working in 2004, about 17 percent were self employed on their 2004 job.

The rise in self employment as workers age is a function of two factors. First, self employed workers may transition out of the labor force more slowly than wage-and-salary workers. Second, more wage-and-salary workers could be shifting into self employment as they grow older than vice versa. The longitudinal nature of the HRS allows us to examine both of these mechanisms separately. Rates of transition out of the labor force by self-employment and wage-and-salary status among men with FTC jobs are shown in Figure 4a. Those who were self employed on their FTC job in 1992 exited the labor force more gradually than those on wage-and-salary jobs. In particular, about one third of men who were self employed in 1992 were no longer working by 2004, compared to about 60 percent of the wage-and-salary men. A difference also exists among the female sample (Figure 4b), although the 10 percentage point gap between self-employed and wage-and-salary women in 2004 was not quite as large as among men.

The second explanation for the observed increase in self employment as workers age is that more wage-and-salary workers shift into self employment than self-employed workers shift into wage-and-salary employment. In percentage terms, men who were self employed on their FTC job moved into wage-and-salary worked at a much higher rate (about 23 percent) than wage-and-salary men moved into self employment (about 11 percent) (Figure 5). But because there were so many more wage-and-salary workers relative to self-employed workers, about 4 to 1, the net impact was a rise in self employment. Again, a similar story held among women.

Before proceeding with an analysis of determinants, it is important to highlight a key distinction between the self-employed and wage-and-salary jobs noted above; namely, that those on self employed jobs are much more likely to be working part time (Table 2). Among men who were on a wage-and-salary FTC job in 1992 and who were still working in 2002, about three quarters were working full time in 2002. In contrast, only about 56 percent of their self-employed counterparts were working full time in 2002. Among women, the gap was even wider. So it is important to note that while self-employed workers were staying in the workforce later in life, the hours worked does not appear to match those among wage-and-salary workers, at least with respect to a full-time, part-time distinction.

To explore outcomes in more detail, we make use of the longitudinal nature of the HRS and categorize respondents according to their transitions from FTC jobs. Four general outcomes are possible by 2004: (1) remain on a FTC job, (2) move into self employment, (3) move into wage-and-salary employment, and (4) exit the labor force directly. Each of these outcomes is examined separately for those who were wage and salary on their FTC job and for those who were self employed (Table 3). The four-way outcome analysis results are consistent with the previous findings. Those who were wage and salary on their FTC jobs were less likely to remain on their FTC jobs as of 2004 and more likely to exit directly from the labor force. Further, of those who were on a wage-and-salary FTC job in 1992 and who made a transition by

⁷ See Cahill et al. (2006)

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2004, about 12 percent of the men and 10 percent of the women had transitioned into a self-employment position. Among their counterparts who were self employed on their 1992 FTC job, about 42 percent of men and 39 percent of women transitioned to a wage-and-salary position.

Descriptive Statistics: Determinants

A key element of this research is to understand who transitions into self employment and why. To do so, we stratify the four-way outcome variable by various demographic and economic characteristics for the wage-and-salary and self-employed individuals separately.

Among those who were wage and salary on the FTC job, we focus on the percentage who switched to self employment among those who made a transition (Tables 4a (demographic characteristics) and 5a (economic characteristics)). Among those who were self employed on the FTC job, we examine the percentage who switched to wage-and-salary jobs among those who made a transition (Tables 4b and 5b).

The major differences in who became self employed during a transition appear to be related to health status although, to a lesser extent, differences exist for other factors such as age, education, marital status, and spouse's employment status (Table 4a). Men who were wage and salary on their FTC job and who made a transition were much less likely to have become self employed if they were in fair or poor health. Approximately 4 percent of those in fair or poor health switched into self employment compared to 15 percent among those in excellent or very good health. Similar percentages 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 (22 percent versus 10 percent). Further, self-employment transitions were somewhat more likely among men who were married and who had an employed spouse.

Women's transitions appeared similar to men's with respect to the impact of the set of demographic variables included in Table 4a. Two differences are of note. First, wage and salary women with dependent children were more likely to transition into self employment than those without dependent children. Second, rates of self employment were not impacted by a husband's health status.

Several findings regarding switches into wage-and-salary employment are worth mentioning. First, younger men were much more likely than older men to switch into wage-and-salary employment (Table 4b). Health status also positively impacted a switch into wage-and-salary employment, although differences were not as large as those found for switchers into self employment. Further, transitions from self employment to wage and salary employment were much more likely among men without a college degree, who were married, and who had a spouse in fair or poor health.

As with the findings regarding transitions into self employment, women with dependent children were more likely to switch employment status when making a transition. In contrast with the transition into self employment, however, women with a spouse in fair or poor health were more likely to switch into wage-and-salary employment.

The largest influence among the economic characteristics examined in this study pertained to wage rates and occupational status of the FTC job. Men who were wage-and-salary on their FTC jobs were much more likely to transition into self employment if they were highwage earners (Table 5a). Fewer than ten percent of those who earned less than \$10 per hour transitioned to a self-employed job, compared to about 18 percent of those who earned \$20 to \$50 per hour. About one half of those who earned \$50 per hour or more on their wage-and-salary FTC job transitioned to a self-employed job. Occupational status was also a strong

indicator of a transition into self employment. Approximately 20 percent of men with a white-collar, highly-skilled wage-and-salary FTC job transitioned to self employment, compared to about 5 percent of men with blue-collar, non-highly-skilled FTC jobs. Differences by health insurance status and pension status were not notable.

The impact of wage and occupational status was somewhat different for women on wageand-salary jobs in 1992 than their male counterparts. Differences by wage were smaller in
magnitude, although the general trend was the same – those with higher wages were more likely
to switch into self employment. In terms of occupation, women in blue-collar, non-highlyskilled jobs were more likely than those in white-collar, highly-skilled jobs to switch into self
employment. Also unlike the male sample, differences existed by health insurance and pension
status. Women without health insurance on their FTC job were much more likely than others to
switch into self employment, as were those without pensions. This result should be interpreted
with caution, however, because sample sizes were small.

Economic characteristics also appeared to influence transitions into wage-and-salary employment from self employment (Table 5b). Among men who were self employed on their FTC job and who made a transition, those who would lose their health insurance were less likely than others to switch to a wage-and-salary job. Another factor that positively influenced a switch to wage-and-salary employment was having a defined-contribution pension plan. Those with DC plans were much more likely to switch to wage-and-salary employment compared to those with DB pensions (51 percent versus 33 percent). Wages were generally not a strong influence on switching into wage-and-salary employment, although low wage workers were more likely than others to switch. Differences by occupational status existed as well, with those in highly-skilled white-collar and blue-collar jobs more likely to make a switch.

The number of observations for the female sample in several of the economic categories was too small to draw inferences; however, where observations were sufficient to examine outcomes, there were some findings of note. Women without pension coverage had a similar rate of switching into wage-and-salary employment as men without pensions. Unlike the men, though, low-wage women had the lowest prevalence of switching from self employment to wage-and-salary employment. Differences by occupational status did not follow any particular pattern.

Multivariate Analysis

This section examines transitions into self employment in a multivariate context. We estimate two 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 2004, and equal to zero otherwise. The second specification examines transitions from wage-and-salary FTC jobs in more detail, using the four-way dependent variable presented earlier in Tables 4 and 5. The outcomes are defined as of 2004 and are as follows: (1) remained 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 model.

The multivariate analysis generally confirms the descriptive findings. Among men, the logistic regression results show that respondents in fair or poor health or respondents with spouses in fair or poor health were about five percentage point less likely than otherwise similar

respondents to switch from wage-and-salary FTC jobs to self employment (Table 6a).

Occupational status was also a strong predictor of self-employment transitions, with white-collar, highly-skilled workers the most likely to switch into self employment. Pension status was also marginally significant, as those without a pension on the FTC job were more likely to switch into self employment.

The logistic regression for the female sample revealed fewer statistically-significant coefficients, but those that were significant appeared consistent with the findings for the male sample (Table 6b). Two coefficients were significant among women that were not significant for men. The lack of health insurance appeared to be positively associated with switching into self employment, all else equal, and home ownership was negatively associated with switching into self employment (after controlling for wealth). One observation of note is that, like the descriptive statistics, occupational status was not a significant predictor of switching into self employment among women.

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, health status, occupational status, and pension status. Among men, younger respondents were more likely to switch to a different wage-and-salary job and older men were more likely to exit the labor force directly (Table 7a). Those in fair or poor health were less likely to take a self-employed job after FTC wage-and-salary employment and were more 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 job after FTC wage-and-salary employment and were more likely to exit directly. Sample sizes for women appear to have limited the extent to which statistical significance could be found. Two findings from the logistic regression remain,

however; women without health insurance and without pensions were less likely to exit the labor force directly than otherwise similar women (Table 7b).

V. Conclusion

Self employment among the working population increases substantially as workers approach retirement age. According to data from the Health and Retirement Study, about 20 percent of men aged 51 to 61 in 1992 were self employed, already a sizable proportion. Twelve years later, more than one third of those working were self employed – an increase of more than 50 percent. Among older women, the increase in self employment was from about 10 percent to more than 15 percent. The rise in self employment later in life is a result of a combination of factors, including the fact that self-employed workers tend to stay in the labor force longer than wage-and-salary workers and that more wage-and-salary workers switch into self employment later in life than vice versa. Some of the key determinants of these transitions included health status, spouse's health status, educational attainment, and occupational status.

The degree to which older Americans switch from wage-and-salary employment to self employment is an interesting outcome. The implication is that self-employment decisions are not predetermined during middle age; in fact, it is just the opposite. Older workers exhibit a great deal of flexibility in their work decisions and appear willing to take on substantial risks later in life. In a sense, the outcome is intuitive, as 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.

Policymakers and employers may have a lot to gain by understanding the selfemployment transitions of older Americans, because the decision to remain working later in life is likely linked to the type of work people will be doing. Self employment, for example, provides many older workers with the flexibility that they desire in a work schedule. If needs such as these are met, many older workers may continue to work later in life and be a valuable resource as the population ages.

References

- 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
- Burkhauser, R., & Quinn, J. F. (1997) Implementing Pro-Work Policies for Older Americans in the Twenty-First Century. *Preparing for the Baby-Boomers: The Role of Employment. U.S. Special Committee on Aging*, Serial Number 105-7, 60-83.
- Cahill, K. E., Giandrea, M. D., & Quinn, J. F. (2006). Retirement Patterns from Career Employment. *The Gerontologist*, 46(4), 514-523.
- 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.
- Evans, D. S., & Jovanovic, B. (1989). An estimated model of entrepreneurial choice under liquidity constraints. *The Journal of Political Economy*, 97(4), 808-827.
- Fuchs, V. R. (1982). Self-Employment and Labor Force Participation of Older Males. *The Journal of Human Resources*. *17*(3), 339-357.
- Hamilton, B. H. (2000). Does Entrepreneurship Pay? An Empirical Analysis of the Returns of Self-Employment. *The Journal of Political Economy*, *108*(3), 604-631.
- Hipple, S. (2004). Self-employment in the United States: an update. *Monthly Labor Review*, 127(7), 13-23.
- 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.

- Holtz-Eakin, D., Joulfaian, D., & Rosen, H. S. (1994b). Entrepreneurial Decisions and Liquidity Constraints. *The RAND Journal of Economics*, 25(2), 334-347.
- Juster, F. T. & Suzman, R. (1995). An Overview of the Health and Retirement Study. *Journal of Human Resources*, 30(Supplement), S7-S56.
- Lettau, M. K. (1997). Compensation in Part-Time versus Full-Time Jobs: What if the Job is the Same? *Economics Letters*, Vol. 56, 101-106.
- Penner, R. G., Perun, P., & Steuerle, E. (2002). Legal and Institutional Impediments to Partial Retirement and Part-Time Work by Older Workers. Urban Institute. Retrieved from http://www.urban.org/Publications/410587.html
- Social Security Administration Fact Sheet downloaded April 11, 2007 from http://www.ssa.gov/pressoffice/factsheets/basicfact-alt.pdf
- 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.

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	5,344	5,196	10,540
% of HRS Core	91%	77%	83%
Worked since age 50 and had a FTC job			
n	4,697	3,470	8,167
% of HRS Core	80%	51%	65%
On a FTC job in 1992			
n	3,057	2,513	5,570
% of HRS Core	52%	37%	44%
Wage and salary			
n	2,418	2,250	4,668
% of FTC in 1992	79%	90%	84%
Self employed			
n	639	263	902
% of FTC in 1992	21%	10%	16%

Table 2

Self Employment Status

by Full-time/Part-time Status, Year and Gender

Sample: HRS Core Respondents on a FTC Job in 1992

Men

		Wage &	& Salary	Self En	nployed
	n	Full Time	Part Time	Full Time	Part Time
1992	3,057	100%	0%	100%	0%
1994	2,427	96%	4%	86%	14%
1996	2,078	91%	9%	73%	27%
1998	1,782	86%	14%	65%	35%
2000	1,447	80%	20%	61%	39%
2002	1,180	72%	28%	56%	44%

Women

		Wage &	k Salary	Self En	nployed
	n	Full Time	Part Time	Full Time	Part Time
1992	2,513	100%	0%	100%	0%
1994	2,110	92%	8%	85%	15%
1996	1,771	88%	12%	65%	35%
1998	1,568	84%	16%	70%	30%
2000	1,331	77%	23%	63%	37%
2002	1,103	72%	28%	51%	49%

Table 3

Transitions Into and From Self Employment as of 2004

Sample: HRS Core Respondents on FTC Jobs in Wave One

	Still on a FTC Job	Moved to Self Employment	Moved to Wage and Salary	Out	SE (SE+WS+Out)	WS (SE+WS+Out)
Wage and salary						
Males	10.6%	10.4%	31.7%	47.3%	11.6%	
Females	17.0	7.9	36.2	38.9	9.5	
Self employment						
Males	23.1	23.3	32.0	21.6		41.6%
Females	17.1	26.9	32.1	23.9		38.7

Table 4a

Transitions Into Self Employment as of 2004, by Demographic Characteristics
Sample: HRS Core Respondents on Wage and Salary FTC Jobs in Wave One

		Men						Women					
Determinants	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)	
Age in 2004							·						
61 and younger	4.4%	34.2%	6.6%	34.2%	25.0%	10.0%	27.8%	41.1%	8.5%	31.8%	18.7%	14.5%	
62 - 64	30.2	21.9	10.8	36.9	30.4	13.8	26.4	22.1	9.8	38.2	29.9	12.6	
65 - 69	42.1	10.3	11.3	30.9	47.5	12.6	33.5	10.4	6.8	37.9	45.0	7.5	
70 and older	23.3	3.7	13.0	29.9	53.4	13.5	12.3	3.6	8.5	26.9	61.0	8.8	
Subjective health status													
excellent / very good	60.1	14.7	13.0	32.3	40.1	15.2	62.4	24.2	9.5	35.8	30.5	12.6	
good	29.8	12.3	10.5	33.3	44.0	12.0	28.5	17.4	6.6	34.1	41.9	8.0	
fair / poor	10.1	8.6	4.0	32.8	54.6	4.4	9.1	12.1	4.9	31.5	51.5	5.5	
Less than college degree	76.2	12.0	9.1	33.9	44.9	10.4	78.3	20.6	7.4	34.7	37.4	9.3	
College degree	23.8	17.6	18.3	28.5	35.6	22.2	21.7	23.4	11.4	35.8	29.4	14.9	
Received inheritance	20.2	12.7	15.6	30.0	41.8	17.8	17.6	18.9	11.0	35.3	34.7	13.6	
Never received inheritance	79.8	13.4	10.2	33.3	43.1	11.8	82.4	21.8	7.6	34.8	35.8	9.7	
Not married	10.5	13.3	8.3	31.1	47.2	9.6	25.3	13.9	8.1	37.5	40.5	9.4	
Married	89.6	13.4	11.7	32.8	42.2	13.5	74.7	23.6	8.4	34.1	34.0	10.9	
No dependent children	79.4	11.6	11.5	32.6	44.3	13.0	82.4	17.5	8.3	34.9	39.4	10.1	
Dependent children	20.6	20.0	10.7	32.7	36.6	13.4	17.6	38.6	8.2	35.1	18.2	13.3	
No employed spouse	39.5	13.1	10.4	30.6	45.9	12.0	41.6	17.0	8.3	35.4	39.3	10.0	
Spouse employed	60.5	13.5	11.9	33.9	40.7	13.7	58.4	24.2	8.2	34.6	33.0	10.8	
Spouse's health status													
excellent / very good	58.1	12.4	13.9	32.4	41.3	15.9	53.0	24.2	8.4	35.3	32.1	11.1	
good	27.5	14.5	9.9	32.7	42.9	11.6	29.4	21.7	8.0	35.8	34.5	10.2	
fair / poor	14.4	15.7	5.6	34.3	44.4	6.6	17.5	25.1	7.8	27.7	39.4	10.4	

Table 4b

Transitions Out Of Self Employment as of 2004, by Demographic Characteristics
Sample: HRS Core Respondents on Self Employment FTC Jobs in Wave One

	Men						Women					
Determinants	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)
Age in 2004												
61 and younger	4.2%	27.8%	38.9%	22.2%	11.1%	53.8%	29.3%	29.5%	24.6%	32.8%	13.1%	34.9%
62 - 64	25.4	45.9	15.6	25.7	12.8	28.8	28.4	22.0	30.5	17.0	30.5	39.1
65 - 69	41.2	29.4	25.4	29.4	15.8	36.0	28.9	16.7	26.7	40.0	16.7	32.0
70 and older	29.3	12.7	26.2	40.5	20.6	30.0	13.5	7.1	32.1	42.9	17.9	34.6
Subjective health status												
excellent / very good	63.0	34.3	22.5	30.3	12.9	34.3	68.3	23.9	23.2	33.8	19.0	30.6
good	27.4	15.3	27.1	36.4	21.2	32.0	25.0	13.5	42.3	25.0	19.2	48.9
fair / poor	9.5	29.3	22.0	24.4	24.4	31.0	6.7	14.3	21.4	35.7	28.6	25.0
Less than college degree	70.5	29.4	24.8	29.4	16.5	35.0	84.6	18.2	28.4	32.4	21.0	34.7
College degree	29.5	26.8	21.3	36.2	15.8	29.0	15.4	34.4	25.0	28.1	12.5	38.1
Received inheritance	27.3	18.0	29.1	39.3	13.7	35.4	24.0	20.0	24.0	40.0	16.0	30.0
Never received inheritance	72.7	32.7	21.8	28.2	17.3	32.4	76.0	20.9	29.1	29.1	20.9	36.8
Not married	9.3	22.5	22.5	35.0	20.0	29.0	17.8	18.9	29.7	32.4	18.9	36.7
Married	90.7	29.2	23.9	31.0	15.9	33.7	82.2	21.1	27.5	31.6	19.9	34.8
No dependent children	81.2	26.1	24.4	32.7	16.9	33.0	82.2	20.5	26.9	33.3	19.3	33.8
Dependent children	18.8	39.5	21.0	25.9	13.6	34.7	17.8	21.6	32.4	24.3	21.6	41.4
No employed spouse	37.0	24.5	24.5	35.2	15.7	32.5	33.7	21.4	27.1	25.7	25.7	34.5
Spouse employed	63.0	31.0	23.3	29.2	16.6	33.7	66.4	20.3	28.3	34.8	16.7	35.5
Spouse's health status												
excellent / very good	68.5	31.6	21.7	31.2	15.6	31.7	57.4	20.4	29.0	35.5	15.1	36.4
good	21.1	28.4	24.7	30.9	16.1	34.4	21.0	20.6	17.7	35.3	26.5	22.3
fair / poor	10.4	12.5	37.5	32.5	17.5	42.9	21.6	22.9	31.4	22.9	22.9	40.7

Table 5a

Transitions Into Self Employment as of 2004, by Economic Characteristics Sample: HRS Core Respondents on Wage and Salary FTC Jobs in Wave One

	Men						Women					
Determinants	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)
Health insurance status												
Not covered on career job	5.0%	20.5%	10.3%	39.7%	29.5%	12.9%	7.4%	27.1%	17.0%	39.0%	17.0%	23.3%
"Covered, would maintain" coverage	81.2	11.2	11.7	32.0	45.1	13.2	80.2	19.0	6.9	36.1	38.0	8.5
"Covered, would lose" coverage	13.8	21.4	10.7	28.8	39.1	13.6	12.4	25.0	8.2	32.1	34.7	10.9
Pension status												
No pension	20.0	16.5	10.7	39.1	33.6	12.8	27.1	19.7	12.0	40.2	28.1	14.9
DC only	22.8	18.1	10.9	34.9	36.1	13.4	25.8	24.0	7.1	32.3	36.6	9.3
DB only	50.6	9.4	11.2	28.9	50.5	12.4	43.5	18.9	7.0	32.7	41.4	8.6
DC and DB	6.6	17.7	15.0	33.6	33.6	18.3	3.6	40.0	4.6	40.0	10.0	8.5
Wage rate												
< \$6/hour	5.4	15.1	7.0	46.5	31.4	8.2	12.3	28.0	8.1	39.8	24.2	11.2
\$6 - \$10/hour	17.5	16.4	7.5	36.4	39.6	9.0	35.2	21.4	8.5	34.6	35.6	10.8
\$10 - \$20/hour	52.1	12.4	9.5	30.7	47.4	10.8	43.5	18.4	7.4	36.3	37.9	9.1
\$20 - \$50/hour	23.8	11.5	16.2	31.9	40.3	18.3	8.8	26.0	9.3	29.3	35.3	12.6
> \$50/hour	1.3	33.3	33.3	9.5	23.8	50.0	0.3	0.0	20.0	40.0	40.0	20.0
Occupation status												
White collar, highly skilled	34.5	14.4	16.1	32.0	37.6	18.8	35.0	22.9	9.6	34.8	32.7	12.5
White collar, other	12.8	15.5	13.2	33.2	38.2	15.6	37.3	22.5	6.4	35.7	35.5	8.2
Blue collar, highly skilled	40.5	10.2	8.6	32.2	48.9	9.6	12.3	13.0	5.8	35.0	46.2	6.7
Blue collar, other	12.2	19.1	4.3	34.5	42.1	5.3	15.4	20.8	11.8	33.7	33.7	14.9
-												

Table 5b

Transitions Out of Self Employment as of 2004, by Economic Characteristics
Sample: HRS Core Respondents on Self Employment FTC Jobs in Wave One

	Men							Women				
Determinants	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)
Health insurance status	20.00/	25.00/	25.00/	27.50/	10.50/	22.20/	21.70/	10.50/	22.50	22.50	22.50/	27.10/
Not covered on career job	20.8%	25.0%	25.0%	37.5%	12.5%	33.3%	21.7%	12.5%	32.5%	32.5%	22.5%	37.1%
"Covered, would maintain" coverage	71.2	28.1	25.6	29.2	17.2	35.5	76.1	22.1	25.0	33.6	19.3	32.1
"Covered, would lose" coverage	8.1	35.5	16.1	25.8	22.6	25.0	2.2	25.0	50.0	0.0	25.0	66.7
Pension status												
No pension	68.4	28.9	20.1	32.3	18.7	28.2	85.6	21.4	25.3	31.5	21.9	32.1
DC only	12.6	31.5	35.2	24.1	9.3	51.4	7.2	26.7	33.3	26.7	13.3	45.5
DB only	14.2	31.2	23.0	34.4	11.5	33.3	6.7	7.1	50.0	42.9	0.0	53.8
DC and DB	4.9	9.5	47.6	28.6	14.3	52.6	0.5					
Wage rate												
< \$6/hour	17.2	29.6	31.5	31.5	7.4	44.7	46.6	15.9	20.3	34.8	29.0	24.1
\$6 - \$10/hour	17.8	25.0	23.2	35.7	16.1	31.0	18.2	22.2	37.0	25.9	14.8	47.6
\$10 - \$20/hour	33.1	31.7	22.1	29.8	16.4	32.4	19.6	27.6	27.6	34.5	10.3	38.1
\$20 - \$50/hour	22.3	28.6	24.3	30.0	17.1	34.0	13.5	15.0	30.0	25.0	30.0	35.3
> \$50/hour	9.6	30.0	16.7	33.3	20.0	23.8	2.0					
Occupation status												
White collar, highly skilled	38.4	30.3	26.1	29.7	13.9	37.4	30.3	25.4	23.8	33.3	17.5	31.9
White collar, other	19.5	23.8	20.2	32.1	23.8	26.6	30.3	23.8	31.8	34.9	9.5	41.7
Blue collar, highly skilled	24.4	30.5	24.8	31.4	13.3	35.6	3.9	37.5	0.0	37.5	25.0	0.0
Blue collar, other	17.7	27.6	21.1	34.2	17.1	29.1	35.6	12.2	31.1	27.0	29.7	35.4

Table 6a

Marginal Effects from Logistic Regression Dependent Variable: Switch to Self Employment by 2004 Sample: Men on Wage & Salary FTC Jobs in 1992

	coef	p-value
Age in 1992		
54 or younger		
55 - 59	-0.009	0.499
60 or older	0.002	0.900
Respondent health		
Excellent/very good	0.005	0.740
Good		
Fair/poor	-0.048	0.067
Spouse health		
Excellent/very good	0.017	0.257
Good		
Fair/poor	-0.048	0.067
College graduate	0.023	0.162
Married	0.006	0.805
Dependent child	-0.001	0.972
Spouse employed	-0.002	0.875
Occupational status		
Blue collar - high skilled	-0.040	0.022
Blue collar - other	-0.058	0.038
White collar - high skilled		
White collar - other	-0.013	0.500
Health insurance status		
Portable	-0.012	0.406
Non-portable		
None	0.017	0.577
Pension status		
Defined-benefit	-0.030	0.071
Defined-contribution	-0.038	0.048
Both	-0.030	0.283
None		
Own home	-0.005	0.801
Constant	-0.164	0.000

Note: Logistic regression also controls for race, wage, wage squared, wealth, wealth squared, receipt of an inheritance, and region.

Table 6b

Marginal Effects from Logistic Regression Dependent Variable: Switch to Self Employment by 2004 Sample: Women on Wage & Salary FTC Jobs in 1992

	coef	p-value
Age in 1992		
54 or younger		
55 - 59	-0.005	0.675
60 or older	0.002	0.918
Respondent health		
Excellent/very good	0.020	0.091
Good		
Fair/poor	-0.030	0.149
Spouse health		
Excellent/very good	-0.003	0.802
Good		
Fair/poor	-0.005	0.786
College graduate	0.013	0.415
Married	0.002	0.903
Dependent child	-0.004	0.775
Spouse employed	0.002	0.851
Occupational status		
Blue collar - high skilled	-0.013	0.501
Blue collar - other	0.012	0.489
White collar - high skilled		
White collar - other	-0.011	0.432
Health insurance status		
Portable	0.011	0.350
Non-portable		
None	0.036	0.031
Pension status		
Defined-benefit	-0.035	0.002
Defined-contribution	-0.038	0.004
Both	-0.066	0.061
None		
Own home	-0.024	0.059
Constant	-0.169	0.000

Note: Logistic regression also controls for race, wage, wage squared, wealth, wealth squared, receipt of an inheritance, and region.

Table 7a

Marginal Effects from Multinomial Logistic Regression

Dependent Variable: First Transition from Full-Time Career Job

Men on a Full-Time Career Job in 1992

	Wage & Salar	ry Bridge Job	Self Employe	ed Bridge Job	Exit the Labor Force		
	coef	p-value	coef	p-value	coef	p-value	
Age in 1992							
54 or younger							
55 - 59	-0.109	0.000	0.001	0.933	0.178	0.000	
60 or older	-0.124	0.000	0.003	0.866	0.263	0.000	
Respondent health							
Excellent/very good	0.029	0.257	-0.006	0.694	-0.039	0.155	
Good							
Fair/poor	-0.034	0.388	-0.071	0.017	0.159	0.000	
Spouse health							
Excellent/very good	0.000	0.990	0.018	0.257	0.001	0.977	
Good							
Fair/poor	0.025	0.507	-0.018	0.513	-0.020	0.635	
College	-0.022	0.535	0.017	0.332	-0.044	0.240	
Married	0.026	0.539	-0.006	0.817	-0.051	0.267	
Dependent child	-0.020	0.475	-0.007	0.703	0.005	0.880	
Spouse employed	0.017	0.503	0.010	0.524	-0.029	0.302	
Occupational status							
Blue collar - high skilled	-0.082	0.010	-0.044	0.016	0.155	0.000	
Blue collar - other	-0.074	0.098	-0.079	0.012	0.131	0.008	
White collar - high skilled							
White collar - other	-0.026	0.505	-0.019	0.354	0.042	0.320	
Health insurance status							
Portable	0.040	0.102	-0.031	0.038	-0.006	0.831	
Non-portable							
None	0.051	0.348	0.023	0.489	-0.075	0.213	
Pension status							
Defined-benefit	-0.083	0.007	-0.017	0.341	0.125	0.000	
Defined-contribution	-0.014	0.683	-0.026	0.212	0.001	0.970	
Both	-0.017	0.738	-0.003	0.927	-0.003	0.963	
None							
Own home	-0.054	0.105	0.002	0.925	0.063	0.090	
Constant	0.196	0.005	-0.066	0.092	-0.069	0.363	

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

Table 7b

Marginal Effects from Multinomial Logistic Regression

Dependent Variable: First Transition from Full-Time Career Job

Women on a Full-Time Career Job in 1992

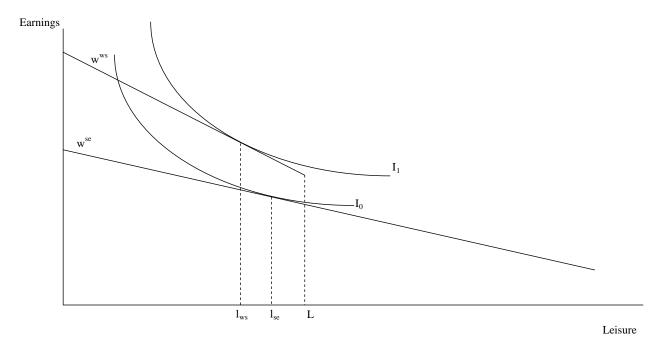
	Wage & Sala	ry Bridge Job	Self Employe	ed Bridge Job	Exit the La	abor Force
	coef	p-value	coef	p-value	coef	p-value
Age in 1992						
54 or younger						
55 - 59	-0.018	0.507	-0.002	0.899	0.180	0.000
60 or older	-0.051	0.356	0.009	0.705	0.345	0.000
Respondent health						
Excellent/very good	0.031	0.266	0.027	0.053	-0.113	0.000
Good						
Fair/poor	-0.059	0.196	-0.021	0.388	0.144	0.001
Spouse health						
Excellent/very good	-0.014	0.652	0.004	0.788	0.005	0.885
Good						
Fair/poor	-0.097	0.025	0.009	0.649	0.074	0.079
College	0.029	0.430	0.011	0.545	-0.057	0.120
Married	-0.017	0.679	-0.003	0.876	-0.032	0.463
Dependent child	0.085	0.013	0.005	0.766	-0.192	0.000
Spouse employed	-0.022	0.509	0.000	0.983	0.032	0.348
Occupational status						
Blue collar - high skilled	-0.002	0.961	-0.006	0.769	0.084	0.064
Blue collar - other	-0.024	0.596	0.027	0.177	0.006	0.891
White collar - high skilled						
White collar - other	0.007	0.825	-0.021	0.234	0.025	0.449
Health insurance status						
Portable	0.042	0.103	0.008	0.542	-0.017	0.512
Non-portable						
None	0.080	0.124	0.049	0.012	-0.135	0.022
Pension status						
Defined-benefit	-0.098	0.001	-0.020	0.133	0.106	0.001
Defined-contribution	-0.089	0.008	-0.023	0.137	0.056	0.104
Both	0.064	0.354	-0.060	0.179	-0.122	0.119
None						
Own home	-0.007	0.831	-0.027	0.075	0.056	0.115
Constant	0.205	0.003	-0.118	0.000	-0.064	0.362

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

Figure 1

The Choice between Wage-and-Salary Work and Self Employment

Case I: Worker prefers wage-and-salary employment



Case II: Worker prefers self employment

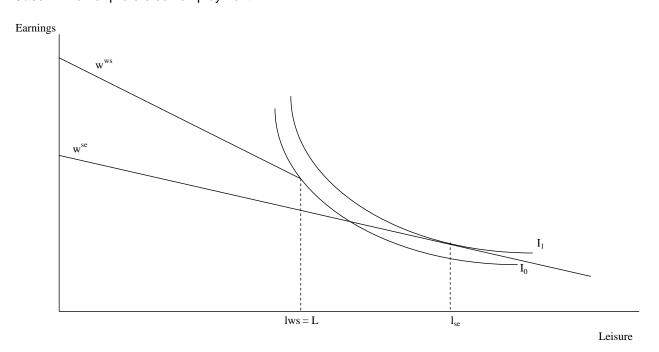


Figure 2

Percent Working, by Gender, 1992 - 2004

Sample: HRS Core Respondents On a FTC Job in 1992

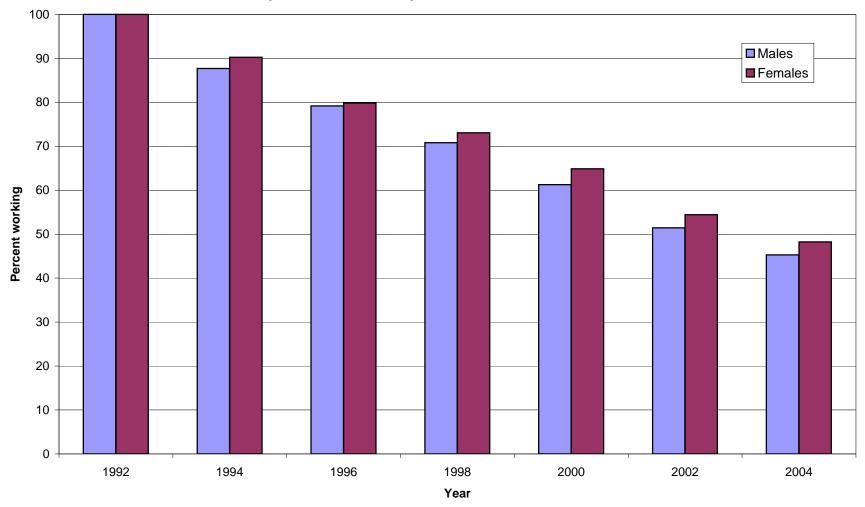


Figure 3

Percent Self Employed among those Working, by Gender, 1992 - 2004

Sample: HRS Core Respondents On a FTC Job in 1992

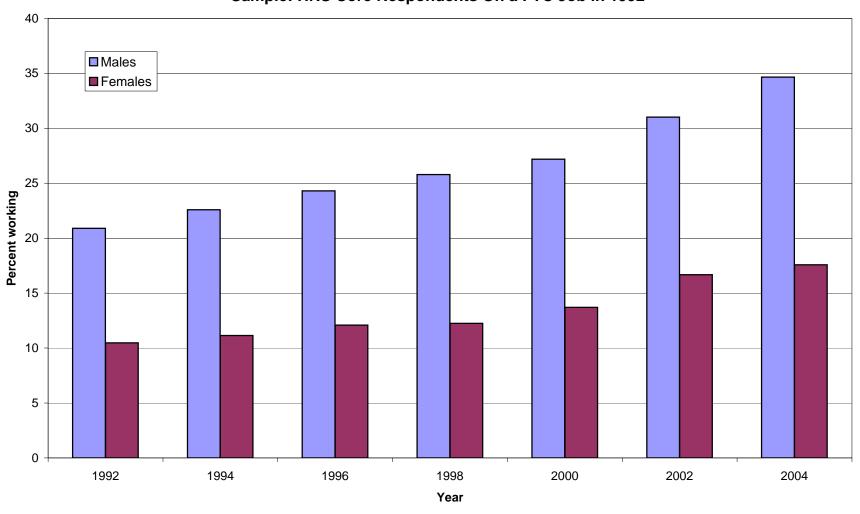


Figure 4a

Percent Working, by Self Employment Status in 1992, 1992 - 2004

Sample: HRS Core Males On a FTC Job in 1992

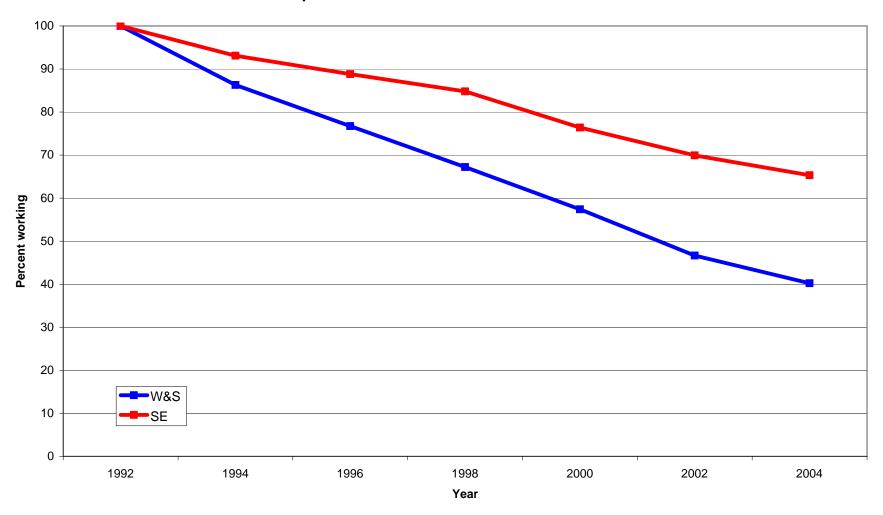


Figure 4b

Percent Working, by Self Employment Status in 1992, 1992 - 2004

Sample: HRS Core Females On a FTC Job in 1992

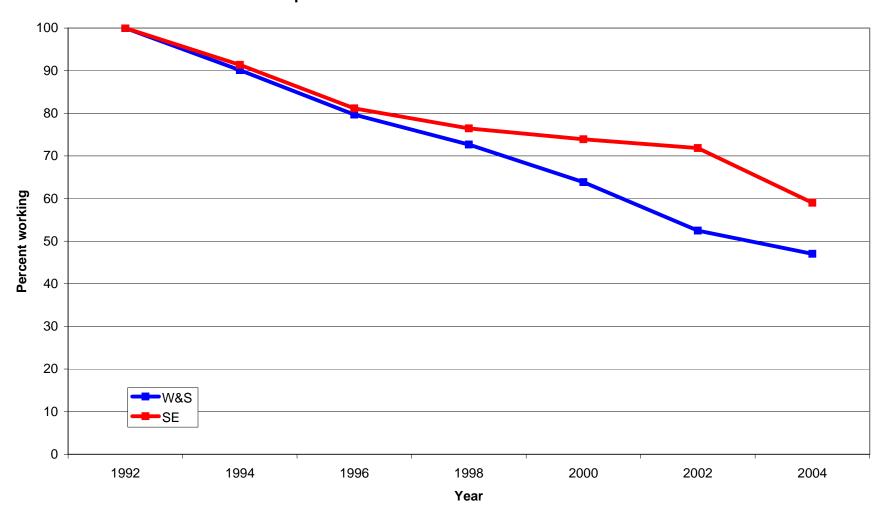


Figure 5

Percent of Individuals Who Switched Work Status between 1992 and 2004, by Gender Sample: HRS Respondents On a FTC Job in 1992

