

## ABSTRACT

Title of Document: WORKING FOR PAY OR RAISING A FAMILY?  
THREE PAPERS ON WOMEN'S WORK  
EXPECTATIONS AND MARKET OUTCOMES.

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Since the gender revolution of the 1970s, we have learned a great deal about the determinants of female employment. One of the themes most frequently discussed in the literature refers to the role played by work expectations in shaping women's market achievement. As a supply-side explanation for women's market performance, work expectations emphasize women's internalized attitudes and preferences, which might lead some of them to make work and family decisions that will curtail their options down the road. To this point, most scholars have favored demand-side and contextual accounts of women's market achievement; these highlight mechanisms such as workplace discrimination against women or mothers, and similar structural constraints embedded in the larger cultural, social and economic systems. In this dissertation, I use longitudinal data to expand our understanding of women's work expectations in three directions. First, I revisit the neoclassical human capital argument's claim that individuals with low work expectations will invest less in human capital and choose jobs with lower penalties for

work interruptions. I find support for this argument: work expectations are relatively good predictors of early baby-boom women's human capital accumulation, job characteristics, employment rates, hourly wages, and occupational prestige. Second, I explore variation in the role of work expectations across two cohorts of American women, early and late baby boomers. I find that rapid social change made it easier for later cohorts to absorb the negative market consequences of holding low work expectations in young adulthood. Third, I model the life-course employment trajectories of early baby boomers from ages 20 to 54, and find that a significant proportion of them exhibited intricate work patterns throughout adulthood, with periods in which they were focused on their career and other periods in which they seemed to pursue other life interests. My research shows that –when observed over time– most women's work behavior is characterized by a high degree of complexity. This calls for a more nuanced approach to the study of women's market performance, one that –together with the structural forces constraining their action– explicitly accounts for women's subjective expectations, preferences and attitudes towards work and family.

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AND MARKET OUTCOMES

by

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To my father, who showed the way. To my mother, who now leads the way.

To my brothers and sisters, who make it such a pleasure to walk.

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## CHAPTER ONE

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### *Introduction*

#### **Understanding women's employment behavior**

Since the gender revolution of the late 1960s and early 1970s, research on the determinants of women's employment behavior has proliferated in the social sciences (Bianchi and Milkie 2010; Menaghan and Parcel 1990; Perry-Jenkins, Repetti, and Crouter 2000). Second wave feminism, technological advancements in fertility control, the liberalization of gender attitudes, and equal opportunity legislation made it easier for women to spend a growing number of years in formal education, to enter the labor force at unprecedented rates, and to aspire to occupations hitherto relegated almost exclusively to men.

However, these opportunities came with new challenges for women –and also for those seeking to understand women's labor market outcomes. Many women found themselves increasingly caught up in the “double shift” of a new dedication to market work and the unremitting responsibility of homemaking and care-giving (Hochschild and Machung 1989).

Much of the discussion evolved around the question of whether women's labor market behaviors are a consequence of their location in outdated or discriminatory structures and institutions, or the result of their preference or personal orientation towards work and family. In other words, scholarly discussion has alternated between *supply-side* explanations (which focus on women's socialized preferences, expectations, attitudes, effort, etc...), *demand* factors (such as employer discrimination, or the devaluation of

female-dominated occupations), and *contextual* factors (legislation, economic cycle, social change...). This dissertation contributes to this debate by shedding new light on the influence of work expectations (a supply-side factor) on women's market performance across the life-course.

### **The role of work expectations**

Expectations have been a central element of the literature on women's employment since the mid 1970s, when neoclassical economists Jacob Mincer and Solomon W. Polachek suggested that work expectations were key determinants of individuals' human capital investments and future market outcomes. In a nutshell, they hypothesized that individuals expecting low or intermittent employment across their life course would reduce their human capital investments and choose occupations with low penalties for time off, higher starting salaries and other amenities (such as better work conditions), even if these jobs were also characterized by flatter earning profiles over time and lower status and prestige (Mincer and Polachek 1974, 1978; Polachek 1975, 1981).

The neoclassical human capital argument was immediately applied to differences in the market performance of men and women. The gender pay gap and occupational sex segregation would, according to this view, be the result of women's weak attachment to the labor force and their expectation of interrupted work careers. Influenced by these expectations, women would invest less than men in education, accumulate less work experience, get less training, and choose occupations with low skill depreciation for time

outside the labor force –all of which would explain their lower market achievement when compared to men.

Despite the favorable evidence furnished by neoclassical economists during the 1970s and early 1980s, an increasing amount of evidence against the human capital argument accumulated during the following decades. Sociologists and feminist scholars showed, for instance, that (contrary to what the argument predicted) female-dominated occupations do not always pay higher starting wages (England et al. 1988; England, Reid, and Kilbourne 1996), do not yield lower returns to experience (England 1982, 1984), and do not necessarily involve a greater number of agreeable job traits (Kilbourne et al. 1994) than occupations dominated by men. In view of these contradictory results, in this dissertation I reexamine the role played by work expectations in predicting women's market performance across the life course.

### **Contributions and preview of the results**

I make three contributions to this literature. In *Chapter Two (The Human Capital Argument Revisited: Women's Work Expectations, Human Capital Accumulation, and Market Outcomes at Midlife)*, I show that the predictions of the human capital argument largely hold, under two conditions: one, that the argument is tested prospectively (with work expectations preceding market outcomes in time); two, that the argument is tested at the individual level –instead of approximating work expectations from gender. I compare women who consistently expected to work for pay with those who repeatedly expressed plans to stay at home, and find that women in this latter group invest less in human

capital, work in jobs with more favorable conditions, and eventually are employed at lower rates, earn lower wages, and reach less prestigious occupations.

In *Chapter Three (A Tale of Two Cohorts: The Market Consequences of Low Work Expectations for Early and Late Baby Boomers in the United States)*, I investigate whether the relationship –documented above– between work expectations and market outcomes holds across cohorts (comparing early and late baby-boomers). Given the fast pace of the gender revolution in the 1970s, and the rapid change in attitudes towards women’s employment, I ask whether women in more recent cohorts were better able than their older peers to defray the market penalties associated with holding low work expectations. My findings are mixed: on the one hand, home-oriented women in more recent cohorts were no longer employed at lower rates than their work-oriented peers; and the occupational penalty seemed also to be smaller for late baby boomers than for early baby boomers. However, these results were not confirmed when I pooled women from both cohorts and tested differences using a cohort interaction, pointing more at an incremental improvement across cohorts rather than a revolutionary shift.

Finally, in *Chapter 4 (The Life-Course Employment Profiles of Early Baby-Boom Women: A Group-Based Trajectory Analysis)*, I return to the discussion of whether women’s employment behaviors can be better explained by socialization (women’s preferences, expectations, attitudes...) or by structural forces (income inequality, race, gender roles...). I summarize women’s lifelong employment patterns into four trajectory-groups: women with consistently low employment rates; women who became increasingly attached to the workforce over time; women who worked at high rates in early adulthood, but dropped out of the workforce in large numbers later in life; and

women who were strongly attached to the workforce throughout adulthood. Then I use multivariate models to test the risks factors associated with membership in each one of these trajectories. Risk factors include women's early work plans, human capital, work-related experiences (having experienced discrimination at work, job satisfaction), family events (marriage, fertility, divorce, satisfaction with mothering), external constraints (own health, health of family members, husband's support for a wife's paid work) and socio-demographic traits (income and race). I find that both structural forces and socialization are relevant when women's employment behaviors are examined over the life-course.

### **What are work expectations? Some clarifications**

What do I mean by expectations? In keeping with the most recent literature on fertility intentions and behavior, I conceptualize them as individuals' best guess about their future behavior, shaped by a combination of four factors: socialization, the larger normative context, the information at hand, and people's subjective understanding of the alternatives available to them (cfr. Morgan and Rackin 2010). In practice, evidence indicates that expectations are largely equivalent to intentions, plans, and preferences; even if these can be distinguished conceptually, empirically they are mostly similar in their ability to predict work and family outcomes (cfr. Hayford 2009; Ryder and Westoff 1971). Whenever possible, I favor the use of the term expectations over others such as intentions, plans, orientations, or preferences, given that that the former is the term most widely used in the economic and sociological literature dealing with women's employment behavior.

My understanding of expectations acknowledges, on the one hand, that expectations are shaped by constraints, and might at times be unrealistic or based upon an incorrect assessment of the situation; on the other hand, I still believe that women's decisions are influenced by their "best guess" about a future that remains uncertain. In any case, this dissertation does not assume that expectations affect behavior: instead, it tests that claim empirically –while acknowledging that expectations are not the only relevant factor shaping people's decisions.

Expectations might also be difficult to measure. In cross-sectional studies, this has frequently led to a residual approach. Expectations are considered unobservable and lumped together into the residual –the variance in the outcome that remains unexplained after all observable covariates have been factored in. The problem here is that the residual can only be interpreted vaguely (as a mix of expectations, discrimination, and any other potential omitted confounders). This is the case for most cross sectional studies of the gender wage gap and occupational sex segregation –with the exception of a few semi-experimental research articles (Correll, Benard, and Paik 2007; Goldin and Rouse 1997).

Longitudinal studies frequently rely on statistical techniques that minimize the effects of expectations, under the assumption that they are unobservable and stable over time. The most common strategy here is the use of person fixed-effects, which control for all stable unobservable traits, such as women's individual preference for work and family –and their race, sex, IQ, and other static characteristics. This is based on the argument that observable changes in the outcome must result from changes in the explanatory variables, but cannot originate from things that remained unchanged over time –in other words: change cannot originate from stability. The use of person fixed-effects has



become a gold standard in this literature, at least within sociology (Avellar and Smock 2003; cfr. England et al. 1988; Waldfogel 1997). Although fixed-effects provide a better test of causality than other methods based on cross-sectional data, one can still not rule out potential confounders. This is a limitation in most of the literature this study addresses. In an attempt to provide a more explicit test of the role of expectations, in this dissertation I relax the assumption that expectations are unobservable and stable, and combine both a fixed effects estimation strategy with direct measurement of women's work and family preferences from point-blank survey questions asked repeatedly during women's lives.

### **Where do work expectations come from?**

Expectations do not form in a vacuum; they originate in childhood and evolve over people's lives as they incorporate new information, change normative codes, or encounter situations that facilitate or hinder action. Prior research has documented a high level of similarity between the gender attitudes of mothers and their daughters, particularly with respect to women's employment (Moen, Erickson, and Dempster-McClain 1997; Starrels 1992).

In this dissertation I focus on the consequences of holding certain work expectations, not on their formation. In some ways, expectations are taken as a given when they are first stated by the women in my study. However, in order to provide some context on the origin of expectations, *Table 1.1* explores descriptively the association between the work expectations of the early-baby boomers in this study and characteristics of their parents. The data (which will be introduced in greater detail in later chapters)

come from the National Longitudinal Survey of Young Women (NLS-YW). In *Table 1.1*, I group women according to their repeated responses between ages 14 and 22 to the question “*What would you like to be doing at age 35?*” If a woman always responded (between ages 14 and 22) that she expects to work for pay at age 35, she is added to the “high work expectations” group; if (between ages 14 and 22) she always said that she wanted to do something other than working for pay (i.e. looking after her home and family, or other life pursuits) she is characterized as having “low work expectations”; if she alternated back and forth between work and other preferences (between ages 14 and 22), she is included in the group of women with “mixed work expectations”.

*[Table 1.1 around here]*

Parental education is unrelated to women’s work expectations in young adulthood; actually women with mixed work expectations have more educated parents than either those who most often had plans to stay at home (low work expectations) or those who consistently planned to work for pay (high work expectations). However, the occupational traits of the parents are related to their daughters’ work expectations in interesting ways. Mothers’ average employment rates and occupational standing (measured here as working in professional or managerial occupations) were positively associated with their daughters’ work expectations, and these differences were confirmed statistically. For fathers, the opposite was true: the higher their average employment rates and occupational standing, the lower their daughters’ work expectations were.

This very simple exploration suggests that women’s employment expectations were related to the traditional division of labor in their parental household: the more dissimilar their parent’s employment rates and occupational standing, the more likely

young women were to develop gender-typed expectations (i.e. to expect an adult life centered on homemaking and childcare).

### **Correlates of work expectations**

How are work expectations related to other ideational and attitudinal preferences? In order to provide some additional context on the meaning of work expectations, *Table 1.2* presents cross-tabulations between work expectations, fertility and educational expectations, and women's commitment to paid work –all measured in young adulthood.

*[Table 1.2 around here]*

Ideal number of children is not associated with work expectations for my sample of early baby-boomers. However, the young women with low work expectations anticipated significantly higher average fertility (2.77 children) than either those with mixed work expectations (2.64) or those with high work expectations (2.50).

Educational aspirations were also significantly associated with work expectations: women with high work expectations anticipated more education than those with low work expectations, particularly at the highest levels: whereas only 36% of women with low work expectations expected to graduate from college, and only 11% to go to graduate school; 55% of those with high work expectations expected to get a BA degree, and almost a quarter (24%) expected to go to graduate school.

Finally, work expectation seemed to be associated with commitment to work. Whereas slightly more than half (57%) of the women with low work expectations said they would work for pay even if they had enough money to live comfortably, this proportion was significantly higher (76%) for women with strong work expectations.

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In short, this dissertation revisits the role played by work expectations in explaining women's market behaviors, in three steps. In *Chapter 2*, I test a series of mechanisms linking women's young adult work expectations with their midlife market achievement. Following the neoclassical human capital argument, I explore two types of mechanisms: human capital accumulation and job characteristics. I show that women with dissimilar work expectations differ significantly in these two domains, and that this diversity contributes to the observed gaps in employment rates, hourly wages, and occupational achievement at midlife.

In *Chapter 3*, I explore those same mechanisms across two cohorts of American women: early and late baby boomers, who reached young adulthood around the early 1970s and the early 1980s respectively. Given the rapid change in social norms involving the role of women in the public sphere (and particularly the increase in favorable attitudes towards working mothers), I expect cohort location to be an important mediator in the associations between work expectations and market outcomes.

In *Chapter 4*, I model women's lifelong employment profiles, and show that both socialization factors (such as work expectations) and structural constraints (such as socioeconomic status or discrimination) are needed to account for the complexity and fluidity of women's work trajectories over the life-course.

I close with *Chapter 5: Conclusion*, in which I highlight the limitations of this study and identify possible venues for future research on work expectations.

## CHAPTER TWO

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### *The Human Capital Argument Revisited: Women's Work Expectations, Human Capital Accumulation and Market Outcomes at Midlife.*

#### **ABSTRACT**

The neoclassical human capital argument establishes a theoretical link between individuals' work expectations and their subsequent market outcomes (Mincer and Polachek 1974, 1978). This theory has been highly contested, with most of the opposing evidence coming for comparisons between men and women, or between traditionally male- and female-dominated occupations (Okamoto and England 1999). In this paper, I identify two main shortcomings in the existing critiques of the human capital argument: first, they rarely use prospective data, in which measured expectations precede outcomes; second, they assume different work expectations between men and women –this being an increasingly problematic assumption, as women entered the labor force and their work expectations converged with those of men. I deal with these two issues by recovering the argument's early emphasis on individual expectations, focusing on differences among women (rather than between women, on average, and men, on average), and building a framework that prospectively links women's work expectations with their human capital accumulation, the characteristics of the jobs they hold, and their midlife market outcomes. I test this framework using data from the National Longitudinal Survey of Young Women (NLS-YW, 1968-2003) and find that work expectations are connected to women's market outcomes in a variety of ways, as predicted in the neoclassical human capital argument.

## INTRODUCTION

In a series of papers published in the 1970s and 1980s, Polachek (1975, 1981) and fellow economists suggested a set of mechanisms through which individuals' *current* employment expectations would affect their *future* market outcomes. Compared to those holding high work expectations, individuals expecting weak or discontinuous attachment to the labor force would invest less in human capital –formal education, job training– and choose occupations with low penalties for time out of the labor force –jobs that pay high starting wages, but have low returns to experience (Mincer and Polachek 1974, 1978; Polachek 1975, 1981). This would be the case for women who, in anticipation of future family obligations, reduce their current investments in human capital and enter family-friendly jobs with low skill-depreciation. Together with their temporary withdrawal from the labor force following childbirth, their lower human capital investments would curtail their occupational achievement and lower their lifetime earnings (Steinmetz and Steinmetz 2012).

For years, the human capital argument's ability to explain the gender pay gap and occupational sex segregation has been contested. Sociologists and feminist economists have challenged this argument by showing that female-dominated occupations do not always pay higher starting wages (England et al. 1988; England, Reid, and Kilbourne 1996), do not yield lower returns to experience (England 1982, 1984), and do not necessarily involve a greater number of agreeable job traits (Kilbourne et al. 1994) than occupations dominated by men.

These findings are not, by themselves, opposed to the human capital argument, given the evolution in women's work expectations and market behavior. Starting in the

1970s, women joined the workforce in large numbers (Fullerton 1999) and integrated occupations that had previously been dominated by men (Cotter et al. 1995). Along with these changes, women's work expectations shifted considerably: by the mid 1980s, most women no longer expected frequent or long work interruptions (Shaw and Shapiro 1987).

Over time, the importance of work expectations in predicting behavior –the core of the human capital argument– got lost in the analysis of women's labor supply and market outcomes vis-à-vis men. Investigations of gender gaps often treated all women as the same –oriented to family, as opposed to men, oriented to work. What happened instead is that women diverged over time. As opportunities for them outside the home widened, some committed themselves to full-time market careers, expecting continuous work trajectories –similar to those traditionally exhibited by men; others, a non-negligible minority, remained centered on motherhood, weakly attached to labor force or never entering it; and most women sought to combine work and family throughout adulthood, with few brief work interruptions. In short: women became increasingly heterogeneous as they entered the workforce in large numbers and changed their expectations; and gender became a poor predictor of labor supply and continuity.

The original insight from the human capital argument may still be relevant in explaining heterogeneity among women. Expectations remained highly relevant after the gender revolution of the 1970s, as evidenced by the growing penalties paid by women who, given their traditional orientations, failed to invest in human capital and entered occupations with poor prospects for promotion and wage growth (Sandell and Shapiro 1980; Shaw and Shapiro 1987). Qualitative attempts at understanding women's diverse work and family orientations (cfr. Blair-Loy 2006; Damaske 2011; Gerson 1986) have

revealed complex associations between women's subjective preferences and the forces shaping their market performance. These mechanisms have not yet received enough attention among quantitative researchers.

This paper provides new quantitative evidence on one of the core claims of the human capital argument: that work expectations influence market outcomes. I focus on heterogeneity of orientations among women and explore the mechanisms through which stated work expectations operate in early adulthood, setting women on diverse career pathways. Bringing together elements that are currently scattered across the literature on women's employment, I build a theoretical model in which work expectations are allowed to influence the amount of human capital a woman accumulates, the type of occupation she enters, and her midlife market outcomes –employment rates, hourly wages and occupational achievement. This model is then translated into ten interconnected hypotheses, which are tested using data from the National Longitudinal Survey of Young Women (NLS-YW).

## **WORK EXPECTATIONS AND EMPLOYMENT OUTCOMES**

### **The neoclassical human capital argument**

The human capital theory of labor argues that education and training boost workers' productivity by increasing knowledge and skills, which in turn lead to higher wages and earnings. Costly expenditures in human capital should thus be treated as investments yielding future returns. Human capital accumulation contributes to the sorting of workers to jobs, and explains pay differentials between and within occupations (Becker 1962; Schultz 1961).



In a series of papers published in the mid 1970s, Mincer, Polachek and colleagues expanded this theory by suggesting that decisions about human capital investment and employment might be influenced by people's expectations about the intensity and continuity of their future employment. More specifically, they argued that (Mincer and Polachek 1974:77):

*Expectations of future family and market activities of individuals are, therefore, important determinants of levels and forms of investment in human capital. Thus, family investments and time allocation are linked: while the current distribution of human capital influences the current allocation of time within the family, the prospective allocation of time influences current investments in human capital.*

Using 1960 Census data, Polachek (1975) showed how married and unmarried males and females –who according to social convention were assumed to hold unequal employment expectations– diverged in their labor force participation in the years following the end of their formal education. Some years later, Polachek presented an econometric model in which, in a context of weak attachment to the labor force, a rational economic actor –an individual seeking to maximize lifetime earnings– would choose an occupation with a high starting salary and a low atrophy rate –i.e. low skill depreciation and a low penalty for work interruptions (Polachek 1981). Later on, Mincer and Ofek expanded on the link between work continuity and skill depreciation by showing how, after an employment interruption, returns are higher when skill depreciation is lower; further, the loss of lifetime earnings is lower when the interruption is anticipated (Mincer and Ofek 1982). In short, their work suggested that women

expecting interrupted work lives would act rationally (from an economic perspective) by decreasing their investment in human capital and by entering jobs with high initial wages, low penalties for time off, and reduced returns to experience.

Neoclassical economic theory argues that wages will also incorporate compensating differentials: all else being equal, negative job attributes –unpleasantness, risk, physical demands, health hazards...– are compensated with higher wages, whereas positive attributes –job security, stability, a pleasant environment...– yield lower salaries (Duncan and Holmlund 1983; Duncan 1976; Lucas 1977). Weak work expectations, to the extent that they signal an orientation towards homemaking or work-family conciliation, could lead to a preference for certain work conditions –such as flexible or part-time hours– that would further widen wage gaps (Becker 1985; Sandell and Shapiro 1980)<sup>1</sup>.

Initially, human capital theorists found strong support for their predictions. They showed that convergence in work expectations and market behavior between men and women were partially responsible for the closing of the gender wage gap and the integration of occupations during the 1970s and 1980s: 25% of the reduction in occupational sex segregation and the gender wage gap in the 1980s was due to improvements in women’s skills –education, work experience and training (O’Neill and

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<sup>1</sup> Not strictly part of the human capital argument, *work effort* is often considered a determinant of market outcomes: women, or mothers –most of whom carry the double burden of market and domestic work (Hochschild and Machung 1989)– might put in less effort (Becker 1985), and be more willing to make trade-offs (Maume 2006; Mennino and Brayfield 2002), than comparable men. This mechanism has been highly contested by evidence (Bielby and Bielby 1988).

Polachek 1993) which, in turn, reflected the convergence between men and women's work expectations (O'Neill 1985).

### **Challenges to the human capital argument**

Some sociologists and feminist economists have challenged the human capital argument's ability to explain gender gaps in pay and occupational achievement. Here I summarize some of the evidence against key tenets of human capital theory:

*Higher starting wages but flatter wage growth.* Starting wages in most female-dominated occupations have been found to be lower –not higher, as the argument claims– than in male occupations (Blau and Ferber 1991; England 1982; England et al. 1988, 1996). In addition, women earn more –both at their first job and throughout their working lives– when they work in male-dominated occupations, where workers are expected to have high attachment and uninterrupted careers (England 1984).

*Skill depreciation following a work interruption.* To the extent that women anticipate an interrupted work history, they should enter jobs with low atrophy rates –low skill depreciation following unemployment (Polachek 1981; Zellner 1975). Using data from the *Panel Study of Income Dynamics* (PSID), England (1984) showed that the percentage female in an occupation is not significantly associated with its wage depreciation rates, and that women's return to employment after a work interruption is not related to the percentage female in their occupation. Further, women who experience frequent work interruptions do not seem to populate female occupations in higher rates than those with a more continuous work history (England 1982; Okamoto and England 1999). Gronau (1988) also used PSID data to show that, even though on-the-job training

and job requirements are associated with the gender wage gap, the skill intensity of women's jobs is independent of their prior employment plans.

*Compensating differentials.* Some research has found that favorable work amenities do not significantly contribute to the aggregate pay gap between female- and male-dominated occupations (Kilbourne et al. 1994). Also, in a sample of college students, women did not expect to be employed in different occupations –i.e., with more or less amenable working conditions – than men of comparable age (Blau and Ferber 1991).

### **Shortcomings in previous tests of the human capital argument**

The human capital argument, as introduced by Polachek and colleagues, hinges upon two conditions. First, *prior expectations affect subsequent behavior*: early work expectations alter later market outcomes. Second, the argument assumes that *individuals hold dissimilar work expectations*; this could be tested by using direct measures of work expectations or, on the aggregate, by making sure the groups being compared are sufficiently dissimilar to each other.

The satisfaction of these two conditions could be questionable in two cases. First, the argument might not apply when both expectations and market outcomes are measured at the same point in time –not prospectively. Second, work expectations might not be different enough when women and men are compared in the aggregate: not all women, maybe not even the majority of women, hold weak work expectations any more. This would also be the case when female- and male-dominated occupations are contrasted: there is a certain amount of men in female-dominated occupations, and vice-versa; and

each individual, in turn, holds personal expectations. Prior research has dealt with these two shortcomings in different ways.

*Work expectations should operate prospectively*

Gronau (1988) first noted this serious problem in the literature: “*Economic theory discusses the effect of planned (or future) career interruptions on current wages. Most empirical studies, however, examine the effect of past interruptions on wages*” (Gronau 1988:280). To address this issue, he used a single item in the 1976 questionnaire of the PSID to estimate women’s work expectations: “*Do you think you will keep working for the next few years, or do you plan to quit?*” When examining the direct effects of “plans to quit” on market outcomes, he found that, contrary to one of the claims from the human capital argument, plans to quit are not associated with the skill requirements in the jobs women enter, which opens up the possibility of other mechanisms being at work, such as discrimination (Gronau 1988).

Blau and Ferber (1991) also sought to use work expectations prospectively. From a convenience sample of college men and women, they collected work expectations, occupational aspirations and expected earnings for different points in the future. This allowed them to test “prospectively” (i.e. using subjective earnings predictions, not real data collected later in time) the contention that women, and not men, would prefer occupations with higher starting wages but flatter wage profiles. They found that women do expect lower participation rates than men: they anticipate work interruptions and part-time work more often than their male counterparts. Also in keeping with Polachek’s predictions, women expect wage profiles that are flatter than those of men. However, women do not expect lower starting wages than men and their expectations are unrelated

to their occupational choices –although, as they acknowledge, this could be driven by the selectivity of their college-educated sample. Unfortunately, this study lacks information on the actual employment outcomes of the respondents years later: we do not know if these men and women realized their occupational and earning expectations.

Okamoto and England (1999) investigated whether women’s expectations for intermittent employment were related to the sex composition of their occupations a few years later. The authors found little evidence in this regard. However, variables such as marriage, fertility, and part time work, often led to employment in female occupations. Liberal gender attitudes, on the other hand, increased the odds of working in male-dominated occupations.

Expectations have also been used prospectively by Shapiro and collaborators (Sandell and Shapiro 1980; Shaw and Shapiro 1987) who found that, by age 35, women with consistent plans for paid work were employed at a rate 30% higher than women consistently planning to stay at home, and earning 30% higher wage. They also found that almost half of the women who consistently said they wanted to stay at home were instead working for pay at age 35 –reflecting both the strong secular shift towards female employment and the high fluidity of women’s work careers (Shaw and Shapiro 1987).

#### *The times are a-changing: comparing men and women*

The neoclassical human capital argument was initially tested comparing men and women, using data from the 1960s and early 1970s (Mincer and Polachek 1974; Polachek 1975). Taken at face value, the implicit assumption that men and women differ in work expectations might have been consistent with the data available at that time. In 1950, the difference in employment rates between prime-age (ages 25-44) males and females was

close to 60 percentage points –rates were higher than 95% for males and lower than 40% for women. By 1960 the gender employment gap remained virtually unchanged, over 55percentage points. By 1970, things had only started to change, with the majority of prime working age women still outside the labor force and male participation rates above 95% (Fullerton 1999). Occupational sex segregation was high: the index of segregation was .66 in 1950, .68 in 1960, and .65 in 1970: in other words, parity would have required the relocation of roughly two thirds of men (or women) to occupations in which their gender was underrepresented (Blau and Hendricks 1979).

Things changed rapidly after 1970. By 1980, the prime-age employment differential between men and women fell to 30 percentage points, and was below 20 percentage points by 1990, a year in which three out of every four women ages 25 to 44 were in the labor force (Fullerton 1999). Occupations started to integrate by sex in the 1970s, with the segregation index dropping below 0.60 by 1980, and as low as 0.50 by 1990 (Baunach 2002; Weeden 1998; Blau, Simpson, and Anderson 1998; Bianchi and Rytina 1986). Not surprisingly, as differences between men and women narrowed, the human capital argument became less able to predict gender differences in labor market outcomes.

The changes described above were not only behavioral, but also attitudinal. Direct measures of women’s work-family orientations point towards a rising preference for market work rather than homemaking: most women who in the late 1960s affirmed that they would like to care for their families at age 35 switched to a preference for work outside the home by the mid 1980s (Rexroat 1985; Sandell and Shapiro 1980; Shaw and

Shapiro 1987)<sup>2</sup>. Hence, it is to be expected that these changes (women's stronger work expectations, their massive entry into the labor force, and their integration into male-dominated occupations), weakened the human capital argument's ability to account for gender differentials at the aggregate level.

But the question remains: Are *individuals* with low work expectations – irrespective of their gender, since the sexes today are largely similar in this respect– less likely to invest in human capital (education, training, work experience) and more likely to enter jobs with higher starting wages, reduced returns to experience, and favorable work conditions? Even though on average we could still expect small gender differences in market outcomes (and use gender as a proxy for work expectations), a stricter test of the human capital argument requires measuring work expectations at the individual level.

This paper focuses on differences among women, seeking to isolate the effect of work expectations from the influence of other potential confounders that might contribute to the existing difference between the market performance of men and women –such as gender discrimination, or social norms. I use work expectations prospectively –predicting later outcomes. In the next section, I start by providing a conceptual framework that, borrowing from past research on the human capital argument and the principle of compensating differentials, links work expectations to market outcomes through six intervening mechanisms.

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<sup>2</sup> My own exploration of data from the NLS-Young Women (which will be introduced in greater detail below) confirms that the preference towards work outside the home increased from 36% to 80% between 1968 and 1985, in this sample of nationally representative women.



## STATEMENT OF THE PROBLEM

### A conceptual framework for assessing the human capital argument

*Figure 2.1* represents the human capital argument as a relationship between a main explanatory variable, a series of mechanisms, and a set of outcomes. The explanatory variable is *work expectations*, the two mechanisms are *human capital accumulation* and *job characteristics*, and the three market outcomes are *employment rates*, *hourly wages*, and *occupational attainment*. The argument can be broken down into two parts: the first one focuses on the relationship between the main explanatory variable (work expectations) and the human capital mechanisms (H1-H6); the second part goes beyond these mediating mechanisms to explain actual market outcomes (H7-H9).

[*Figure 2.1 around here*]

Each of the two main mechanisms can be divided into three subcomponents. *Human capital investments* consist of educational attainment, accumulated work experience, and occupational training. The *job characteristics* that are most relevant in the human capital argument are starting wages, work amenities, and earning profiles – returns to experience.

The relationship between work expectations and the intervening mechanisms (i.e. human capital, job characteristics) can be expressed in six hypotheses. Individuals with low work expectations, compared to those expecting strong and continuous labor force participation, will *invest less in human capital*. This leads to the following hypotheses:

*Hypothesis H1:* Women with low work expectations will complete fewer years of formal education than women with high work expectations.

*Hypothesis H2:* Women with low work expectations will accumulate fewer years of work experience than women with high work expectations.

*Hypothesis H3:* Women with low work expectations will more rarely engage in on-the-job training programs than women with high work expectations.

Three hypotheses relate work expectations and job characteristics, as follows:

*Hypothesis H4:* Women with low work expectations will enter jobs with higher starting wages than those of women with high work expectations.

*Hypothesis H5:* Women with low work expectations will enter jobs with more females, and jobs that have favorable traits such as fewer hazards and physical demands, and better environmental conditions; these jobs will also require nurturant social skills and will place less importance on power.

*Hypothesis H6:* Women with low work expectations will enter jobs with flatter earning profiles –slower wage growth– than those of women with high work expectations.

Eventually, individuals with low work expectations (who underinvest in human capital and chose jobs with lower returns to experience) will be less successful in the market:

*Hypothesis H7:* Women with low work expectations will be employed at lower rates than women with high work expectations.

*Hypothesis H8:* Women with low work expectations will earn lower hourly wages than women with high work expectations.

*Hypothesis H9:* Women with low work expectations will work in less prestigious occupations than women with high work expectations.

The human capital argument indicates that the relationship between work expectations and market outcomes should be entirely mediated by these nine propositions. Empirically, this entails:

*Hypothesis H10:* Differences in labor force participation, hourly wages, and occupational attainment between women with dissimilar work expectations should be entirely attributable to differences in human capital and the characteristics of their jobs.

## **DATA, METHODS, MEASURES**

### **Data**

The Young-Women cohort of the National Longitudinal Surveys (NLS-YW) includes women who were interviewed up to 22 times between 1968 and 2003 –year in which the study was discontinued. Respondents were 14-24 years old when first interviewed, and 49-59 years old by the final survey year. A total of 5,159 women participated in the original study; by 2003, 55.4% of them (2,859 women) remained in the sample.

Women in the NLS-YW cohort, born between 1944 and 1954, are well suited for this analysis. They transitioned to adulthood during the 1960s and early 1970s, years of intense social change regarding women's employment. The loosening of social norms increased the heterogeneity of this cohort's expectations regarding their social roles as adults. In addition, the NLS-YW includes rich longitudinal measures of human capital

and market outcomes. These include years of education, work experience, income and wages, occupations, orientations towards work and family. These data can be complemented with a variety of family measures, such as marital and fertility histories, and with some information from women's spouses.

### **Sample and method**

This study's population includes all women in the NLS-YW who provided information between ages 14 and 35 (for some robustness checks, records up to age 45 were used –see *Appendix I*). However, analytical sample sizes vary across the study (from a minimum of 2,045 to a maximum of 4,199 women), since each of the hypotheses is tested using a different model specification and a specific temporal frame. *Table 2.1* summarizes the measures, methods and sample sizes across the study.

*[Table 2.1 around here]*

#### *Testing the relationship between work expectations and human capital mechanisms*

Hypotheses H1 through H6 relate work expectations and a variety of mechanisms. To test them I pool data across survey years, using ordinary logistic regression and OLS, depending on the nature of the outcome. I investigate whether women with high, low, or mixed work expectations in young adulthood (i.e. at ages 14 to 22) invest differently in human capital (hypotheses H1 to H3), and choose different types of jobs (hypotheses H4 to H6).

Three hypotheses predict that women with low work expectations will accumulate less human capital than other women. I use logistic regression to test hypothesis H1. I use data on 2,045 women, observed from ages 14 to 18, to predict high school graduation.

Data from 3,658 young women ages 14 to 22 is used to predicting college graduation rates. The next two hypotheses use OLS to predict accumulated years of work experience by age 35 (H2), and cumulative weeks of training by age 35 (H3); I test them using data from 2,873 women who were interviewed at age 35.

Given that interviews in the NLS-YW did not always occur annually, some women have no information at the exact age of 35; in these cases, I retrieve information from the closest interview, at ages 36, 34, 37 or 33 –in that order. I chose age 35 as the reference age because the question used to define work expectations uses that temporal horizon (*What would you like to be doing at age 35?*). For sensitivity's sake, I tested outcomes at age 45, given that most women's careers peak somewhere in the 40s. Most results were confirmed by the later age -see *Appendix I* for more details.

Hypotheses H4 to H6 refer to the characteristics of women's "first job" –defined as the first job a woman gets after completing her highest grade in education<sup>3</sup>. Women with low work expectations (compared to other women) are hypothesized to first, enter

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<sup>3</sup> This definition of "first job", even though it might not actually reflect the first paid occupation a woman ever held, is appropriate for substantive reasons: it represents women's entry level job after attaining their highest educational level, the level she presumably considers optimal –unless her educational desires are thwarted– and reflects her preferences. By adding controls for work experience and age, I make sure that "first jobs" are analytically equivalent –i.e. that women are compared to women with equal educational achievement and age. Defining "first job" this way has the advantage of using "real" jobs: prior research has inferred wage at first job from multivariate wage models, defining it as the wage at which work experience equals zero (see England et al. 1988). However, it is known that a "zero" value in multivariate results does not always have an interpretable meaning. Even if it did, it would probably reflect a job women held while getting their education, maybe a summer, temporary, or part-time job; in any case, these jobs would poorly reflect women's career intentions, expectations or preferences.

jobs with (H4) a higher starting wage: this is tested using OLS predicting the (ln)hourly wage, for the 3,311 women who reported their first-job wages. According to the human capital argument, these jobs would also be (H5) female-dominated, pose few physical demands, involve fewer hazards, and offer better environmental conditions; these conditions are measured using different scales (introduced below), and tested using OLS models for about 3,700 women –with sample sizes varying slightly due to missing data. H5 also predicts that these jobs entered by women with low work expectations would not place importance on power, but would instead require nurturing skills; I predict these two traits using logistic regression. In the long run, these jobs should also exhibit (H6) a flatter wage profile. In order to test this, I retrieve wages for the 2,073 women who were employed at both age 25 and 35; then I calculate the annual compound rate of wage growth between those two ages, and use OLS regression to predict wage growth by work expectation. For women not interviewed at exact ages 25 or 35, I proceed as explained above.

#### *Testing the relationship between work expectations and market outcomes*

Hypotheses H7 to H9 explore the effect of work expectations on three market outcomes: labor force participation, hourly wages, and occupational prestige. Unlike the tests of the mechanisms, which examine a particular outcome in time (at the time of graduation, or first job, or age 35) these market outcomes span women’s entire life-course. In this part of the analysis, I pool information for each woman from ages 20 to 35. This allows me to analyze the data longitudinally, letting work expectations (and other covariates) change, and adding person-specific fixed effects. These compare average outcomes for each woman before and after each year of observation, and predict changes

in the outcome from changes in the covariates. This implies that: (i) fixed-effects control for stable unmeasured characteristics; (ii) a woman has to have at least two valid observations to be included in the fixed-effects models.

I use logistic fixed-effects regression to model the likelihood that a woman is employed between ages 20 and 35; my sample has 31,721 person-year observations on 3,552 women (an average of 9 observations per woman); 1,187 other women dropped from this analysis because they were either always or never employed between the ages of 20 and 35. Hourly wages are modeled (only for employed women) using linear fixed-effects regression, on a sample of 18,559 person-year observations, corresponding to 4,085 women (an average of 4.5 observations per woman). Occupational prestige scores are also modeled using linear fixed-effects regression, with 19,746 person-year observations on 4,199 women (about 4.7 observations per woman) who were employed at least twice between the ages of 20 and 35.

Finally, (assuming that individuals are rational, have complete information, and that labor markets operate freely and efficiently) hypothesis H10 predicts that differences in employment rates, hourly wages, and occupational attainment between women with low and high work expectations will be fully explained by the mechanisms described above. In order to test this proposition, I show summary results from four stepwise models: one baseline model, with work expectations and sociodemographic controls only; two intermediate models in which human capital and job characteristics are alternated; and a full model with all covariates (work expectations, human capital, job characteristics, and sociodemographic controls). Thus I estimate how much of the effect

of work expectations on market achievement is explained by each set of mechanisms advanced by the neoclassical human capital argument.

## Measures

*Work expectations*<sup>4</sup>. I assume that work expectations are not isolated pieces of information, but might reflect deeper orientations. For that reason, I make use of as much information as possible, combining –for each survey year– all the available responses for a woman up to that moment. To measure women’s expectations for future employment, I use direct responses<sup>5</sup> to the question: “*What would you like to be doing when you are 35 years old?*” This question was asked to all women –regardless of their employment or family status– in every interview from baseline until they turned 35 years old. Possible responses were “working” (at a different or the same job), “married, keeping house, raising a family” or “other, don’t know”. I code work expectations differently depending on the analysis being performed.

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<sup>4</sup> The terms expectations, intentions, plans and orientations have different meanings. However, prior research has found that, empirically, these can be considered interchangeable (Hayford 2009; Ryder and Westoff 1971). In this paper I favor the use of the term “expectations”, since this is most commonly used in this literature (Mincer and Polachek 1974, 1978; Polachek 1981), but some of the other terms are used at times to avoid repetition.

<sup>5</sup> The economic literature on *revealed preferences* questions the validity of people’s stated motivations in response to direct interview questions, even though this skepticism is not universal among economists (cfr. Cox and Soldo 2004). Sociologists, while being aware of social desirability biases, favor this sort of approach, noting that subjective expectations shape women’s understanding of the options available to them. Here, I take this as an empirical question, which I set out to respond: *Are expectations good predictors of human capital investments and labor market outcomes?* If economists’ views about the poor predictive power of expectations are correct, this would only make any positive finding in this paper conservative.



In OLS and logistic models that predict human capital and job characteristics at one point in time (hypotheses H1 to H6), the variable “work expectations” is static: it takes the value “*high*” if women said that they wanted to work every time they were asked that question between ages 14 and 22 (except when predicting high school graduation, in which case age 18 is used as the upper limit); work expectations are “*low*” if women preferred to be doing something other than work every time they were asked from ages 14-22; work expectations are “*mixed*” when a woman did not exhibit a uniform preference for work or family between ages 14 and 22.

In fixed-effects models that predict market outcomes over time, work expectations are time-varying, coded as follows: first I calculate for each survey year the proportion of times a woman said, up to that moment, that she wanted to work for pay. This provides a distribution of women by the intensity of their past work orientation. Then I take women at the bottom 25% of this work-orientation distribution and code them as having “*low*” work expectations; the top 25% of the distribution are coded “*high*”; and the middle 50% of women, who alternated “work” and “no-work” plans, are coded “*mixed*”. Every year, the distribution is refreshed to incorporate women’s most recent preference, and the three groups are recalculated.

*Human capital* includes education, work experience, and training. *Education* is measured in two ways: either continuously as completed years of schooling, or as a set of dummy variables indicating graduation from high school or college (in OLS models).

*Cumulative work experience* is measured in years<sup>6</sup>, including a quadratic term. *Training*

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<sup>6</sup> To address left-censoring (i.e. work experience prior to the beginning of the study), for the small minority of women who were already working in 1968, I calculate potential work experience as

reflects the cumulative number of weeks women participated in on-the-job training programs in the past, and also include quadratic effects.

*Job characteristics* include a number of traits from the “Dictionary of Occupational Titles” matched to a woman’s occupation at each interview (cfr. England and Kilbourne 1988; England 1992). These characteristics correspond to the status of the economy in the late-1980s. In my study, they change throughout a woman’s life as she changes occupations; however, they are static if a woman remains always in the same job. I use the following job traits: percentage female, physical demands (values 0 to 5), exposure to physical hazards (values 0 to 100), bad environmental conditions (values 0 to 5), a dummy for jobs involving nurturant social skills, and another dummy for jobs placing importance on power. These variables are transformed into z-scores in multivariate models.

*Market outcomes.* Three outcomes are explored in the longitudinal fixed-effects models that test hypotheses H7 to H9. These are measured repeatedly between the ages of 20 and 35. Wages and occupational scores are only available for the years in which a woman is employed. *Employment* at the time of each interview is measured using a dummy variable (1=employed). *Hourly wages* are taken from women’s direct reports on their rate of pay during the week prior to the interview, adjusted to 1990 dollar values. *Occupational prestige* is measured using the Hauser-Warren Socio-Economic Index (HWSEI), which incorporates 1990 Census occupational codes and occupational prestige

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the respondent’s age, minus her years of schooling, minus six. This method has been extensively used in this literature, including the papers that employ the same NLS cohort used here (Avellar and Smock 2003; cfr. Waldfogel 1998).

ratings as reported in the 1989 General Social Survey (Hauser and Warren 1997). The HWSEI is a composite measure created by regressing occupational prestige ratings on occupational earnings and education, and then using the results to generate socioeconomic scores for all of the 1990 detailed occupation categories. Values range roughly from 0 to 80.

*Other controls.* Standard sociodemographic controls are added in all models. In OLS models predicting outcomes in one moment in time, these are static measures defined prior to the outcome (i.e. prior to graduation, first job, or age 35). In fixed-effect models, these are measured repeatedly at the time of each interview. They include marital status, number of times married, motherhood status, number of children, women's age in years, race (a dummy for non-Hispanic whites), and husband's income –to gauge women's "need" to work for pay.

## **RESULTS**

### **Descriptive statistics**

*Table 2.2* presents means and standard deviations (in parenthesis); most of these refer to age 35, except for high school and college graduation –which refer to ages 18 and 22 respectively– and first job –which can vary, as explained above. Women in *Table 2.2* have been classified as holding low, mixed, or high work expectations in young adulthood (ages 14 to 22). Women with low work expectations in young adulthood were significantly more likely to be married at age 35 (75.4%) than women with mixed (68.4%) and high (57.9%) work expectations. Differences in their likelihood of being a mother at age 35 were not significant, but women with low work expectations had more

children on average (1.94) than those with mixed (1.79) or high (1.87) work expectations. The income of these women's husbands was largely the same: husbands of low work expectation women earn \$30,900, compared to \$31,200 in the case of husbands of women with mixed work expectations, and \$29,300 for the husbands of women who exhibited high work expectations. Non-Hispanic whites tended to fall disproportionately in the group with low work expectations (83%) than in other groups: almost half of all women with high work expectations (48.4%) were from minority groups. In sum, the main demographic characteristics setting women with low work expectations apart were their higher marriage rates by age 35, higher fertility, and less diverse racial-ethnic origin.

*[Table 2.2 around here]*

Regarding human capital, women with low work expectations in young adulthood had lower High School (82.9%) and college (16.9%) graduation rates than either women with mixed (86.9 and 23.8%) or high (84 and 27.7%) work expectations; but only college graduation rates were statistically different –lower for women with low work expectations. Full-time work experience increased with work expectations, but these differences were not significant. Part-time work experience was significantly lower for women with low work expectation (2.3 years), than for women with high (2.4 years) and mixed work expectations (2.9 years).

The types of jobs held by women seemed to be associated with their work expectations. Inflation-adjusted hourly wages at first job were similar, but jobs were different in other respects: women with low work expectations entered jobs with higher percentage of females (71.5%), lower physical demands (1.9 in a scale from 0 to 5), fewer hazards (a score of 5.7 in a 0-100 scale), and lower exposure to bad environmental

conditions (0.2 in a 0 to 5 scale). Women with high work expectations more often entered jobs that placed importance on power. Average annual growth rate differences were large, and significant, between women with dissimilar work plans: those with low work expectations saw their wages grow at an annual rate of only 0.7% between ages 25 and 35, less than half the annual wage growth for women with mixed (1.7%) and high work expectations (1.5%).

Finally, women with different work expectations differed with respect to their market outcomes at age 35: women with low work expectations were employed at lower rates (56.4%) than their counterparts with mixed (68.7%) and high (69.5%) work expectations; they earned less (\$8.6 per hour) than other women (\$9.5 per hour for mixed and \$9 per hour for high expectation women); and worked in occupations that were less prestigious (32.7 points in a 0-80 scale, compared to 35.9 points for mixed, and 35.2 points for high work expectation women).

Descriptively, a number of characteristics were related to work expectations in ways that are consistent with the human capital argument. Not surprisingly, the starkest contrasts were found between the two extremes: women with low vs. high work expectations –who manifested a strong preference for home and work respectively in young adulthood. To avoid reiteration, below I focus on these two groups –as one would expect, results for women with *mixed* work orientations often fall in between the two extremes.

## Multivariate tests of the mechanisms<sup>7</sup>

### *Work expectations and human capital accumulation*

*Table 2.3* tests hypotheses H1 to H3. *Model H1* reports on a logistic regression predicting the likelihood that women will graduate from high school and college<sup>8</sup>. Results, based on the subset of women who were asked about their work expectations when they were under age 18 (high school) or 22 (college), indicate that early baby-boomers with low work expectations as teenagers were less likely than those with high work expectations to graduate from both high school and college—even though the high school graduation result is only marginally significant. Other variables work as expected across groups: early marriage reduced women’s high school graduation rates ( $p < .10$ ), and early motherhood depressed women’s chances of graduating from college. Additional children at early ages had additional negative effects on women’s graduation chances. Whites were more likely than blacks and Hispanics to graduate from both high school and college.

[*Table 2.3 around here*]

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<sup>7</sup> *Appendix 1* provides additional sensitivity analyses on these results, using alternative model specifications for most of the dependent variables and outcomes used here.

<sup>8</sup> Because most people graduate from high school at age 18, work expectations in the logistic regression predicting high school graduation rates were calculated using women’s responses to the question “*What would you like to be doing at age 35?*” between ages 14 and 18. If all answers to this question between ages 14 and 18 were “working for pay”, women are classified as having *high* work expectations; those who always said they wanted to stay at home are classified as having *low* work expectations; the rest of women had *mixed* work expectations. All other covariates are also calculated by age 18. The reference age for college graduation was 22.

*Model H2* reports coefficients from an OLS regression on women's accumulated work experience by age 35. Holding low work expectations in young adulthood reduced the amount of part-time experience a woman got by age 35, but was not significantly associated with her accumulated full-time experience –which suggests that, by staying longer in school, work oriented women reduced the amount of years available for full-time work, but relied often on part-time work. This is consistent with the fact that part-time, but not full-time, work experience was also positively related to years of schooling: work oriented women with more education often resorted to part-time work to remain in the market in early adulthood. Being married and having higher fertility lowered cumulative full-time experience but increased cumulative part-time work. Additional marriages (implying divorce) increased full-time experience. Non-Hispanic white women accumulated less full time work experience than women of other races.

*Model H3* runs an OLS regression on women's cumulative years of on-the-job training by age 35. Women with low work expectations accumulated less training than highly work oriented women ( $p < .10$ ), even after controlling for work experience –which, by increasing exposure, is strongly associated with the amount of training women get. Marital status, fertility and race did not significantly influence participation in job training programs by age 35.

#### *Work expectations and Job Characteristics*

*Table 2.4* presents coefficients from OLS models predicting the characteristics of the first job women held after completing formal education (hypotheses H4 to H6). Work expectations in these models are still measured between the ages of 14 and 22, and all other covariates are defined at the age at which women got their first job after completing

their education. *Model H4* indicates that work expectations were inversely related to women's starting wages: women with low work expectations earned higher wages at their first job than women with high work expectations. This finding is not new (Blau and Ferber 1991; cfr. Sandell and Shapiro 1980) but has been contested in previous research. Women's first wages were also higher when they had more education, work experience and training. Net of prior work experience, older workers also had a lower wage at first job.

*[Table 2.4 around here]*

*Model H5* explores other job traits that have traditionally been associated with lower depreciation rates, and with compensating wage differentials. It shows that the first job at which women with low work expectations entered the market, compared those entered by high work expectation women, included a higher percentage of females, placed lower physical demands, involved fewer hazards, were affected by fewer environmental conditions, and gave less importance to power. No significant association was found between the need for nurturant social skills in women's first job and their work expectations.

*[Table 2.5 around here]*

*Table 2.5* addresses the hypothesis that work expectations lead to jobs with flatter wage profiles or, in other words, lower returns to experience. In order to test this, I first calculated the compound annual rate of growth of women's wages between the ages of 25 and 35 –only for women who were employed at both ages; if a woman was not interviewed exactly at ages 25 or 35, information was retrieved from the closest available interview, as long as it happened within two years from the reference age.



Then I used OLS regression to predict these (previously calculated) rates of growth, controlling for changes in other variables over the same period. As hypothesized, wages for women with low work expectations grew at a lower rate than those of high work expectation women (but only marginally,  $p < .10$ ). In order to gain more confidence in these results, I replicated –in models not shown here– this same analysis using age 45, instead of age 35, as the ending point; results were similar in size, but significant at  $p < .05$  level, confirming the results shown here. Increases in work experience and training were positively associated with wage growth between ages 25 and 35. Becoming a mother between those two ages reduced wage growth, and Non-Hispanic whites had higher wage growth rates than other women.

### **Multivariate tests of the outcomes**

In the models below, both outcomes and covariates are measured repeatedly between ages 20 and 35, using fixed-effects regression –with race dropping from the analysis, as it does not change over time. *Table 2.6* presents results from fixed-effects regressions that test hypotheses H7 to H9, corresponding to the relationship between work expectations and the three main outcomes: labor force participation, hourly wages, and occupational prestige.

*[Table 2.6 around here]*

*Model H7* shows coefficients from a fixed-effects logistic regression estimating the likelihood that a woman works for pay at age 35. Shifts from higher to lower work expectations were consistently associated with reduced likelihood of being employed at age 35, regardless of whether a woman moved from high to mixed or to low expectations.

Additional years of schooling and work experience increased the likelihood of working for pay. Changes in on-the-job training were not significantly related to the likelihood of employment. Getting married, having children, and husband's income all made it less likely for women to be employed.

*Model H8* presents coefficients from linear fixed-effects regressions predicting (ln) hourly wages, for employed women between ages 20 and 35. Hourly wages were unrelated to changes in work expectations, but were positively related to human capital accumulation (education, work experience and training). Current part-time status did not affect hourly wages in my analysis. Occupations with more females, those involving nurturant social skills, and those that place importance in power were associated with lower wages. As predicted by the principle of compensating differentials, working at an occupation with bad environmental conditions increased wages; however, other negative job characteristics were irrelevant: jobs involving physical strength did not correlate with hourly wages, while hazards actually decreased them. Both marriage and fertility reduced wages, but the opposite was true for husband's income.

The determinants of occupational prestige are analyzed in *Model H9*, which shows coefficients from linear fixed-effects regressions predicting HWSEI scores for employed women between the ages of 20 and 35. Lower work expectations were associated with employment in less prestigious jobs, even after controlling for women's human capital and the characteristics of the occupation. Additional years of schooling and participation in on-the-job training facilitated access to more prestigious occupations, and current part-time employment was associated with lower occupational prestige. Surprisingly, additional work experience did not make it significantly more likely for a

woman to work in more prestigious jobs. Female-dominated jobs were very strongly penalized in terms of prestige, as were jobs requiring physical strength and those involving bad environmental conditions. Jobs involving nurturant social skills and power were rewarded with more prestige. Marital status, motherhood, husband's income and race were unrelated to occupational prestige.

### **Direct and indirect effects of work expectations on market outcomes**

Finally, *Table 2.7* summarizes change in the effects of holding low work expectations on labor force participation, hourly wages, and occupational prestige scores, calculated from stepwise fixed-effects models. In this table, "gross effects" models control only for women's socio-demographic characteristics –marital status, children ever born, husband's income, and age. The next row adds controls for human capital only – education, work experience, and on-the-job training. Next I control only for job characteristics –percentage female and compensating differentials. Finally, both human capital and job characteristics controls are included.

*[Table 2.7 around here]*

Results indicate that human capital was indeed the key mediator between women's work expectations and their market outcomes at midlife. Human capital was responsible for 21% of the difference between the likelihood of employment for women with low and high work expectations, 33% of their wage differential, and 19% of their occupational achievement gap. Job characteristics played a small role in the wage differential between low and high work expectation women (-5%) and they actually

worked in favor of women with low work expectations when it comes to their occupational status (+4%).

## CONCLUSION

A strong link was found between women's orientations towards work and their market behavior in young adulthood. The first six hypotheses, connecting work expectations with human capital investments and the types of jobs women entered, were validated: women with consistently weak work plans between the ages of 14 and 22, compared with those who consistently plan to work, were less likely to graduate from high school and college (*hypothesis 1*), they accumulated fewer years of experience by midlife (*hypothesis 2*), and they more rarely participated in on-the-job training programs (*hypothesis 3*). The first job held by low work expectation women, compared to that of women who consistently plan to work, paid on average a higher wage (*hypothesis 4*), was more often dominated by women, placed little importance on power, and involved less strength, fewer hazards, and better environmental conditions (*hypothesis 5*). However, these jobs did not seem to require additional nurturant social skills; previous research has pointed at the ambiguity of "nurturant social skill" as a job characteristic, since "*it does not differentiate between the nurturant social skill involved in helping a customer or client and the authoritative social skill involved in managing or supervising other workers*" (Kilbourne et al. 1994:691). Finally, wages of women with low work expectations did not grow as fast as those of women with stronger work expectations (*hypothesis 6*).

Work expectations also influenced the women's market outcomes, from young adulthood to midlife. Beyond the mediating mechanisms identified above, low work expectations had a direct influence on employment rates and occupational prestige at midlife: between ages 20 and 35, controlling for human capital, job characteristics, and other stable unobservable characteristics, early baby boomers with low work expectations were less likely to work for pay (*hypothesis 7*) and they worked in less prestigious occupations (*hypothesis 9*) than women with high work expectations. However, this did not hold for wages: the entire effect of work expectations on wages operated through the mediating mechanisms of human capital accumulation and the characteristics of the jobs held by different women (*hypothesis 8*).

Stepwise models indicate that the effect of low work expectations on women's hourly wages operated mostly through the intervening mechanisms: the difference between women with high and low work expectations became non-significant once human capital and job characteristics were accounted for. However, in addition to the indirect effect of work expectations on employment rates and occupational prestige, a direct effect remains: even after controlling for human capital and job characteristics, coefficients for low work expectations remain sizeable and significant. *Hypothesis 10* is thus only partially validated.

## **DISCUSSION**

Decades after the neoclassical human capital argument established a theoretical link between individuals' work expectations and their subsequent market outcomes, the theory is still highly contested. Certainly, this theory has failed to account for important

disparities in individuals' market behavior and career achievement, most notably when dealing with issues like the enduring gender pay gap and the segregation of occupations by sex.

I have argued that such inability should not be totally attributed to flaws in the human capital argument itself, but in the ways it has been tested in recent decades. In view of changes in women's work expectations and market behavior after 1970, it has become harder to assume that all women hold homogeneous work expectations, and that women's expectations are different from men's. For years now, women have accumulated as much (or more) education than men, have increasingly worked in male-dominated occupations, have reduced their fertility, and have come to expect relatively consistent work careers with just few and brief interruptions. In this context, individuals' work expectations should not be inferred from their gender, marital or paternity status; if possible, they must be measured directly.

*Do work expectations in young adulthood influence women's market achievement at midlife?* According to the findings in this paper, they do. Human capital is the strongest asset for market achievement: it gives women access to better paid and more prestigious jobs later in life (Becker 1962; Schultz 1961) and protects them from wage penalties associated with motherhood (Budig and Hodges 2010). Among early baby-boomers, the expectations women held early in their careers indirectly influenced their midlife market outcomes, operating through differential human capital investments and leading to jobs with dissimilar characteristics, occupational prestige, and returns to experience. But the effect of work expectations went beyond these mediating

mechanisms, directly affecting women's labor supply and occupational achievement –but not their wages– all the way from ages 20 to 35, and possibly beyond it.

These findings call for a more careful consideration of individuals' subjective orientations and preferences regarding work and family. Correlation between expectations and a variety of outcomes has been documented in other areas such as fertility (Hayford 2009; Morgan and Rackin 2010; Quesnel-Vallée and Morgan 2003), the household division of labor (Hiller and Philliber 1986), and marriage timing (Waller and McLanahan 2005).

The role of expectations, and the limitations of this paper, must be properly understood. First, saying that work expectations affect market outcomes does not imply that expectations are predictive of behavior for all women –most women who initially said they wanted to stay at home at age 35 did in fact work at that age, as prior research had already shown (Sandell and Shapiro 1980; Shaw and Shapiro 1987). What it implies, instead, is that work expectations do make a difference in explaining patterns of heterogeneity across groups of women who are alike in other respects. Similar effects have been documented with regard to fertility expectations: even if most women tend to under or overestimate their fertility goals, intentions make –on the aggregate– a difference in women's fertility outcomes (Hayford 2009).

Second, individual expectations change over time, in response to a number of potential factors, such as secular trends, life-course characteristics, and the actual work and family experiences of individuals. Determining how expectations change is beyond the scope of this paper. All we can say is that the period change in societal norms seems to be an important source of change: the majority of women in my sample evolved

towards a more work-oriented preference in the 1970s and early 1980s. Further research could compare cohorts who grew up under different societal norms to disentangle age, period and cohort effects in work expectations. Life-course characteristics also trigger change in people's fertility expectations and the achievement of their fertility goals (Hayford 2009; Morgan and Rackin 2010). Finally, women's expectations might change in reaction to adult work and family experiences such as divorce, childbearing or the experience of workplace gender discrimination (Gerson 1986).

Third, this paper focused on the consequences, not the causes, of holding certain work expectations in young adulthood: no claim can be made using this paper about the reasons young women exhibit a market or a domestic orientation. Young women's orientations are shaped by childhood socialization and parental background (Moen, Erickson, and Dempster-McClain 1997; Okamoto and England 1999), which fell beyond the reach of this investigation.

Fourth, dealing with expectations, intentions, orientations or plans potentially involves a degree of endogeneity: there might be a two-way causal loop between the dependent variable (in this paper, market outcomes) and the main predictor (expectations). However, a few precautions have been taken to minimize this problem. First, I have made sure that expectations (and other covariates) were always measured *before* the specific outcome being tested in each model –for instance, expectations from ages 14 to 18 were used to predict high school graduation, and expectations from ages 14 to 22 were used to predict college graduation.

It might also be argued that both expectations and the outcomes could depend on a third, common cause. This would be the case, for instance, if both expectations and



market outcomes were driven by women's inherent ability or IQ. The NLS-YW does not provide comparable information on women's intellectual ability for the entire sample. However, to the extent that IQ is a stable individual trait, the use of person fixed-effects in my longitudinal models would have largely mitigated this problem.

Work expectations and career aspirations should inform family policy, as some authors have argued (Hakim 2011). Social policy will be more effective in its goals when it recognizes the diversity in women's work and family orientations. Whether it seeks to increase the number of births in a lowest-low fertility context (as it does in some parts of Western Europe), or to facilitate the entry of mothers in the job market (as it did in the mid-nineties in the US), it might be more effective if, instead of designing one-size-fits-all policies, it targets women with different work orientations and career aspirations with tailored incentives.

## CHAPTER THREE

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### *A Tale of Two Cohorts: The Market Consequences of Low Work Expectations for Early and Late Baby Boomers in the United States.*

#### ABSTRACT

Prior research (including *Chapter 2* of this dissertation) found that work expectations in young adulthood are strongly related to midlife market outcomes: young-adult women expecting to stay at home at age 35 are less likely to be employed, and when employed, they earn lower hourly wages, and they work in less prestigious occupations at midlife than those expecting to work for pay. Early baby boomers graduated from high school right before the gender revolution of the 1970s, and made their early human capital and family investments in a context in which social norms and gender scripts favored the role of homemaker for women. Late baby boomers, who grew up in the 1970s and graduated from high school in the early 1980s, reached young adulthood in a rapidly shifting social context, and developed a different set of expectations regarding their future roles as workers and mothers. This paper explores changes in the relationship between work expectations and market outcomes across cohorts, using data from the NLS-YW and NLSY79 cohorts. Results indicate that home oriented women no longer paid an employment penalty compared to other women in the later cohort, but they still earned lower wages and reached less prestigious occupations than those with strong work expectations.

## INTRODUCTION

What are the market outcomes of women who reach young adulthood expecting weak or discontinued attachment to the labor force? Previous research (*Chapter 2* of this dissertation) shows that, among early baby-boom women, those with low work expectations invested less in human capital, entered jobs with lower penalties for time off, and by age 35 worked at lower rates, earned lower wages, and were employed in less prestigious occupation, than otherwise comparable women who had expressed high work expectations in young adulthood. In short, the expectations women held in their late teens and across their twenties significantly correlated with their subsequent educational and working trajectories, all the way to their mid-thirties.

Work expectations are heavily influenced by the normative context in which women grow up –not just inside their family of origin, but more broadly at a societal level. This paper explores the effects of social change on women’s market behaviors, by comparing early baby boomers (born between 1944 and 1954), who reached young adulthood around 1970; and late baby boomers (born 1958-1965), who reached young adulthood around 1980.

The 1970s witnessed dramatic normative changes with respect to women’s paid work: although women had been employed in varying proportions during previous decades (Goldin 2004), aggregate rates rose rapidly for women, and for mothers in particular in the 1970s and 1980s (Cohany and Sok 2007). These changes coincided with a trend towards more liberal gender attitudes and a greater acceptance of women’s employment outside the house (Cotter, Hermsen, and Vanneman 2011; Thornton and Young-DeMarco 2001; Thornton 1989).

Changing social norms produced a shift in women's expectations over time and across cohorts. On the one hand, period effects were strong and widespread, with work expectations increasing for women of all ages (Mason and Lu 1988). On the other hand, cohort position mattered greatly: by the time work expectations increased at the societal level, most early baby-boomers (born 1944-1954) had made decisions regarding education, human capital investments and family building that limited their ability to take advantage of the new opportunities (Shaw and Shapiro 1987; Sandell and Shapiro 1980). Late baby-boomers (born 1955-1964) were still young enough to be able to act upon the newly opened work opportunities, by increasing their human capital investments and postponing fertility. Thus, cohort location might have influenced women's ability to enter high-paying, prestigious occupations in midlife.

Non-normative behaviors are socially penalized (Gibbs 1965). The rapid shift in attitudes regarding female employment might have altered the distribution of rewards associated with employment and homemaking across cohorts: in a short period, staying at home went from being the social norm to being a minority preference, and working for pay became the new normal. As the gender revolution evolved and most women embraced the new opportunities available to them, those who exhibited low work expectations might have paid increasingly larger penalties in the market, when they entered it—and most women, regardless of their preferences, hold a paid job at some point during their adult lives (Freudiger 1983). Finally, the meaning itself of women's preferences might have also shifted: whereas expressing low work expectations before the gender revolution might have simply reflected conformity with social norms, doing so

in the late 1970s or early 1980s –when norms had significantly changed–probably signaled deep-rooted preferences for an adult life centered on one’s family and home.

In sum, rapid social change in the 1970s might have altered the relationship between women’s work expectations and their market outcomes, across cohorts. This change could have led to three possible scenarios: (a) The improved social and legal conditions for women’s employment –such as favorable attitudinal change, decreasing fertility, and anti-discrimination legislation– might have benefited all women in recent cohorts, regardless of their personal preference or work expectations, facilitating transitions in and out of employment and reducing the negative market consequences of low work expectations across cohorts. (b) However, if home-oriented women in the more recent cohort formed an increasingly select group, one for whom low work expectations revealed deep seated preferences, they might have paid larger penalties (*vis-à-vis* career-oriented women) than women in previous cohorts. In this case their market outcomes would have deteriorated across cohorts. (c) Finally, one would expect no change in the relationship between work expectations and market outcomes in two cases: first, it could be that the effects described above cancelled each other out over time; or, it might be that early and late boomers are not as dissimilar as is frequently assumed, and we need cohorts that are more distant in time to be able to track broad social change.

This paper investigates these three alternative scenarios of social change with regard to women’s work expectations and outcomes. I use two data from two cohorts of the National Longitudinal Surveys (NLS): the Young-Women cohort born between 1944 and 1954 (NLS-YW) and the Youth 1979 cohort born between 1964 and 1971 (NLSY79).

## LITERATURE REVIEW

### The importance of expectations

Interest in expectations, intentions, plans and orientations is on the rise. Despite the ambiguity surrounding these terms, the underlying conclusion from a variety of fields is that expectations are relevant predictors of actual behavior<sup>9</sup>. Two areas of research are particularly relevant here: family formation processes (marriage and fertility), and market outcomes.

#### *Expectations and family formation*

The link between fertility expectations and outcomes is well documented in the literature (cfr. Morgan 2001 for a detailed review). Fertility intentions predict actual fertility irrespective of individual background and life course characteristics. This effect is mediated by obvious factors, such as the certainty with which fertility expectations are expressed, and proximity between the measurement of intentions and outcomes (Schoen et al. 1999). Among women, age and entry into marriage are positively associated with the fulfillment of fertility expectations (O'Connell and Rogers 1983); and the accuracy of these is also mediated by women's current parity (Quesnel-Vallée and Morgan 2003). However, fertility expectations are not something fixed, but instead resemble a "moving target" (Morgan 2001) subject to reassessment; for instance, early fertility and

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<sup>9</sup> In theory, each of these terms (expectations, intentions, plans and orientations) has precise meanings which distinguish them from each other. However, prior research has found that, empirically, these can be considered interchangeable (Hayford 2009; Ryder and Westoff 1971). In this paper I will favor the use of the term "expectations", given that this is the most common use in neoclassical Economics, from which I borrow the theoretical framework used in this paper (Mincer and Polachek 1974, 1978; Polachek 1981).

socioeconomic disadvantage are associated with high and growing fertility intentions (Hayford 2009). Expectations also predict outcomes, on the aggregate, in the timing of important family events such as age at first marriage (Cherlin 1980).

### *Work expectations and market outcomes at midlife*

Work expectations and market outcomes are also connected in important ways. In this area, economists have long favored a “revealed preferences” approach, in which—for example—work hours are taken as a proxy for career orientation or preference for work. However, recent research has shown that approximating women’s employment intentions from work hours can be misleading in a variety of ways: for instance, it would be preposterous to conclude that a woman pursuing higher education is less career-oriented than another woman with elementary education employed for pay, just because she works fewer hours at the time of the interview; similarly, work hours are not a good proxy for career orientation for home-oriented women who are currently working to contribute financially to their families, but would rather take care of young children at home (cfr. Shreffler and Johnson 2012). For this reason, researchers are increasingly interested in direct, point-blank, questions that ask people about their expectations and motivations (cfr. Cox and Soldo 2004).

Young-adult women who manifest plans for work at midlife are more likely to work, to earn higher wages, and to reach more prestigious occupations at midlife, than those exhibiting plans to stay at home (Shaw and Shapiro 1987; *Chapter 2* of this dissertation). This effect is mediated by a twofold mechanism. On the one hand, those planning to work show higher investments in human capital: they complete more years of education, accumulate more work experience (Sandell and Shapiro 1980), and engage

more often in on-the-job training programs than their home-oriented counterparts. On the other hand, women expecting to stay at home at midlife work more often in occupations with low wage depreciation (low penalties for work interruption) but flatter wage profiles, and jobs with more agreeable work conditions such as fewer hazards and physical demands, which are associated with lower pay.

Finally, there are crossover effects between work and family expectations and outcomes. This should come as no surprise, given the strong links found between work and family behaviors on the one hand, and the correspondence between intentions and behaviors on the other hand. Thus, prior research has shown that women with strong expectations of future employment for pay enter marriage (Cherlin 1980) and have their first births (Stolzenberg and Waite 1977) later than those planning to stay at home.

### **The childhood context of early and late baby boomers**

The baby-boom period in the United States (1946 to 1964) was characterized by its high fertility rates compared to the periods surrounding it. However, prior research has established important differences in the experiences of those born in the first and second half of this period –before and after 1955, roughly (cfr. Hughes and O’Rand 2004). This division between early and late boomers has proven relevant when studying diverse outcomes such as the economic underpinnings of marriage (Sweeney 2002), people’s time use (Sayer, Cohen, and Casper 2004), and their gender attitudes (Peltola, Milkie, and Presser 2004). Given the importance that childhood experiences have on the formation of women’s attitudes and expectations regarding employment (Starrels 1992), this review focuses on differences in the childhood contexts of early and late baby-boomers that



might have influenced their work expectations in early adulthood. However, even though I focus here on dissimilarities between early and late boomers, these differences should not be exaggerated: in some cases, early and late boomers might just be siblings in a large family, with more in common than the review below might suggest.

### *Labor force participation*

Labor force participation for women 16 years and older increased from 33.9% in 1950 to 51.5% in 1980. This rise was steeper for women ages 25 to 34, which in 1950 was the group with the lowest participation rates at 34%, and by 1980 became the age group with the highest proportion employed, 65.5% (Fullerton 1999). Changes in women aged 25 to 34 are particularly illustrative, given that these are the ages at which the likelihood of having young children in the household is highest, which is in turn associated with retreat from paid work (Cohany and Sok 2007; Bianchi and Spain 1999).

These changes might have influenced the family environment in which early and late baby boomers grew up. Even though some early and late baby boomers might just be sisters in large families, late boomers were more likely to have been exposed to female employment (that of their mothers, older sisters, relatives or acquaintances) than early boomers. These influences could have marginally influenced their own attitudes and actual behaviors (Moen et al. 1997).

### *Fertility rates and desired fertility*

The childhood experiences of early and late boomers differed also with regard to fertility, both their own and that of their mothers. In the US, total fertility rates peaked in 1955, at around 3.7 children per woman (National Center for Health Statistics 2011). These figures had three main components: before 1955, fertility was rising because

women were having more children (*quantum*), because they were having them earlier than before (*tempo*), and because childlessness remained very low; once rates started to fall, women not only had fewer children, but they had them later, and a (still small but growing) proportion of women remained childless (Abma and Martinez 2006; Bongaarts and Feeney 1998).

Thus, early and late baby boomers were born in slightly diverse fertility contexts (*pre-* and *post-*1955): the first, marked by growing family sizes, early fertility, and low rates of childlessness; the second, characterized by shrinking fertility rates, postponement of first births, and a growing proportion of women who would never have children. Even if by the time early boomers were entering their teenage years (mid to late 1960s) things were beginning to change –toward lower and later fertility– their experiences still differ from those of late boomers, who reached young adulthood at a time (late 1970s and early 1980s) in which fertility decline and postponement were spreading across vast segments of the population (Sweet and Rindfuss 1983).

#### *Attitudes towards maternal employment*

Attitudes toward the employment of mothers outside the home became increasingly supportive between the early 1970s and the mid 1990s, across the board (Cotter, Hermsen, and Vanneman 2011; Thornton and Young-DeMarco 2001; Thornton 1989). This strong period effect was reinforced by cohort change: roughly half of the secular change in gender attitudes in those years can be attributed to cohort replacement (Firebaugh 1992; Mason and Lu 1988). Starting with those born in the mid 1950s, each new generation exhibited more liberal gender beliefs than the previous one (Brewster and Padavic 2000), even if differences across successive cohorts narrowed with the passing of

time (Schnittker, Freese, and Powell 2003). Cohort shifts in attitudes and actual change in women's employment behavior reinforced each other (Rindfuss, Brewster, and Kavee 1996). Other factors, such as an increase in educational attainment and a decrease in religiosity –both of which correlate positively with liberal gender ideology (Thornton, Alwin, and Camburn 1983)– contributed to the spread of attitudinal change. In summary: late boomers entered young adulthood in a normative context in which it was increasingly acceptable (if not expected) for women to work for pay during most of their adult years. Older baby boomers were also affected by these changes, but at older ages when early life decisions had already been made.

### **Research questions and hypotheses**

In view of these differences, this paper investigates changes across cohorts in the association between women's work expectations (i.e. their plans to work for pay) and their market outcomes (i.e. the market advantage of women with high versus low work expectations). I explore these changes by formulating three hypotheses.

First, given the 1970s' normative shift in favor of women's employment outside the home, one would expect a larger proportion of women in the earlier cohort (early boomers, with more traditional attitudes) to be strongly affected by the new social scenario than those in the second cohort (in which more women were work-oriented to begin with, and would have been employed anyway).

*Hypothesis 1 – employment:* The employment gap between women with low and high work expectations should have significantly narrowed across cohorts.

Second, we already know (*Chapter 2*) that early boomers' who exhibited low work expectations earned lower incomes than their work-oriented counterparts. However, in the case of early boomers, these differences were fully accounted by human capital accumulation and the types of jobs in which each group of women were employed. Among late boomers, those intending to stay at home might be a more select group (compared to early boomers with similar plans): whereas homemaking among early boomers was considered the proper thing for women to do, among late boomers this was increasingly counter-normative. Also, if deviation from social norms triggers penalties, low work expectations might be associated with increasing wage disadvantage across cohorts. As a consequence:

*Hypothesis 2 - hourly wages:* the wage gap between women with low and high work expectations should have increased over time, across cohorts.

Finally, among early boomers, holding weak work expectations was associated with work in less prestigious occupations at midlife. Although occupational trajectories might be more stable than wage trajectories across women's life, we would expect that the same forces working against women with respect to their hourly wages would also disadvantage home-oriented women in their occupational achievement. For that reason:

*Hypothesis 3 - occupational prestige:* occupational differences between women with low and high work expectations should have increased over time, across cohorts.

These hypotheses do not rule out alternative explanations that would operate in the opposite direction. For instance, new reproductive technology, legislation against gender discrimination, or the restructuring of the economy towards the service sector may all have benefited women across the board, particularly those seeking to combine work

and family over time. Under that scenario, market disadvantages against women with low work expectations might have narrowed across cohorts. The goal of this paper is not to estimate the relative effect or importance of each possible alternative mechanism, but simply to determine the direction of change in the relationship between women's work expectations and midlife market outcomes.

## **DATA, MEASURES, METHODS**

### **Data**

I use data from two of the National Longitudinal Surveys (NLS): the Young Women cohort (NLS-YW) and the Youth79 cohort (NLSY79). The original NLS-YW cohort is based on a national sample of 5,159 women who were ages 14-24 in 1968, interviewed 22 times until the year 2003, when they were 49-59 years old. The NLSY79 cohort includes a sample of 12,686 men and women ages 14-22 in 1979; in this paper, I focus exclusively on women (6,283 in the initial survey year), and use data up to the year 2010, when respondents were 45-53 years old.

Women in the NLS-YW cohort were born between 1944 and 1954, and constitute the leading edge of the baby boom generation. They reached young adulthood around the time when female roles were being challenged by the civil rights and women's movements of the 1960s and early 1970s. Women in the NLSY79 cohort were born between 1958 and 1965, and reached young adulthood in the late 1970s and early 1980s, when important normative changes associated with the second feminist wave were well underway. These women were interviewed annually from 1979 to 1994, and biennially

ever since. For simplicity's sake, I will refer to women in the older NLS-YW cohort as *early baby boomers* and those in the younger NLSY79 cohort as *late baby boomers*.

NLS data are well-suited for the present analysis because they include detailed educational, employment and family histories collected repeatedly throughout the adult lives of the respondents. More importantly, the data are highly comparable across cohorts. I restrict my analytic sample to women who were not in school and who provided valid employment, wage and occupational information for at least two interviews<sup>10</sup> between ages 20 and 35. The lower limit is intended to remove the effect of teenage childbearing, which might push women to make complex human capital and labor-supply decisions that might be unrepresentative of the relationship between work expectations and market outcomes for most women. The upper limit of 35 years old is set to match the phrasing of the question used to measure work expectations (as we shall see below). The methods used here do not require participation in all waves to contribute to the analysis. The resulting working sample includes a total of 4,170 early boomers and 5,594 late boomers –although sample size will vary across methods and outcomes.

## **Measures**

*Work expectations.* These are measured using direct responses to the question: “*What would you like to be doing when you are 35 years old?*” The question was asked to early baby boomers –regardless of their employment or family status– from baseline until they turned 35 years old. For late baby boomers, however, the question was only

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<sup>10</sup> This is required for fixed-effects estimation. I enforce this restriction throughout the paper to be able to compare estimates from OLS and fixed-effects models with consistent sample sizes.

asked between 1979 and 1984, when women were ages 14 to 27<sup>(11)</sup>. Women could choose between three answers: “working” (at a different or the same job), “married, keeping house, raising family” or “other, don’t know”. In order to make comparisons across cohorts possible, I created a simple *Low Work Expectation Index* representing, for each survey year, the proportion of times a woman indicated that she wanted to do something different than “work for pay” up to that survey –for late boomers, this value remains fixed after roughly age 27, the last time they were asked that question. This index ranges from 0 to 10, and it takes the value 0 for the women who always expressed the intention to work for pay, and 10 for those who always indicated a non-work preference. Thus, a 1-point increase can be interpreted as a 10% increase in a woman’s preference for things like childrearing or homemaking at age 35.

*Human capital* includes education, work experience, and training, all measured at each survey year. *Formal education* captures completed years of schooling. *Cumulative work experience* is measured in years, and separated into full-time and part-time experience<sup>12</sup>. *Training* includes the cumulative number of weeks a woman participated in on-the-job training programs up to a given interview.

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<sup>11</sup> Given the discrepancy in the availability of these data, I explored two possible ways of defining work expectations. Results are substantially equivalent when I define work expectations using similar age ranges for both cohorts (i.e. individual expectations can change between 14 and 27; but remain constant after age 27) and when I define them using all available information for each cohort (ages 14-35 for early boomers; ages 14-27 for late boomers). Given this equivalence, I favored the second option, because it makes use of all the available information for each cohort.

<sup>12</sup> To address left-censoring (i.e. work experience prior to the beginning of the study) in a minority of women who were already working in 1968, I calculate potential work experience as the respondent’s age, minus her years of schooling, minus six. This method has been extensively

*Job characteristics* include a number of traits from the “Dictionary of Occupational Titles” which has been widely used in this literature (cfr. England and Kilbourne 1988; England 1992). This resource assigns numeric values to different occupational traits; these reflect the status of the economic system in the late 1980s, and their measurement remains fixed –i.e. values can change across a woman’s life as she changes occupations, but remain stable if she remains in the same job. To gauge job disamenities that might influence wages and occupational prestige I include measures of physical demands (values 0 to 5), exposure to physical hazards (values 0 to 100), and bad environmental conditions (values 0 to 5); in the multivariate models, I use z-scores for all these variables. In addition, three other job characteristics are considered: the percentage female in the occupation, a dummy for jobs involving nurturant social skills, and another dummy for jobs placing importance on power.

*Market outcomes.* I explore three dependent variables: *employment status* at the time of the interview (dummy), *hourly wages* from women’s direct reports on their rate of pay during the week prior to the interview; and *occupational prestige*, measured using the Hauser-Warren Socioeconomic Index (HWSEI), which incorporates 1990 Census occupational codes and occupational prestige ratings as reported in the 1989 General Social Survey (Hauser and Warren 1997). The HWSEI is a composite measure created by regressing occupational prestige ratings on occupational earnings and education, and then using the results to generate socioeconomic scores for all of the 1990 detailed occupation categories. Values range roughly from 0 to 80.

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used in this literature, including those papers that employ the same NLS cohort used here (Avellar and Smock 2003; cfr. Waldfogel 1998).



*Other controls.* Standard socioeconomic controls are added in all models. These include *marital status* (a dummy for married women), *number of children*, women's *age* in years, *race* (a dummy for non-Hispanic whites –this is the only static covariate, and as such it will drop in fixed-effects models), and *husband's income* (in thousands of 1999-adjusted dollars).

## **Method**

First, I present descriptive statistics at age 35, for women in both cohorts by their work expectations. Descriptives include human capital, job characteristics and socioeconomic controls.

In multivariate models, I focus first on comparisons across cohort by market outcome, from ages 20 to 35: logistic and fixed-effects logistic regression are used to predict the likelihood that a woman works for pay during her early adulthood; OLS and linear fixed-effects regression are used to model women's hourly wages and occupational prestige scores for employed women. Logistic and OLS models allow us to see the association between work expectations and market outcomes, controlling for other observable characteristics that are associated with market success; fixed-effect models allow us to estimate change in the market outcomes as a consequence of changes in work expectations, controlling not just for observable characteristics, but also for all stable unobservable heterogeneity. Finally, I pool data from both cohorts and add interactions between “cohort membership” and each one of the predictors in the models, to test change across cohorts in the association between the covariates and women's labor supply, hourly wages, and occupational prestige.

## RESULTS

### Descriptive exploration

*Table 3.1* presents means and proportions by cohort and work expectation, at age 35. For descriptive purposes, women are classified in two groups: women with low work expectations, and all other women. Women with low expectations exhibited a preference for homemaking and childrearing in all interviews between ages 14 and 22; other women include those with strong and non-uniform work expectations in adolescence and young adulthood. The third and sixth columns present differences in means and results from two-tailed t-test of these differences.

*[Table 3.1 around here]*

Fewer women exhibited low work orientations among late boomers –those reaching young adulthood after the gender revolution of the 1970s. The proportion of women with strong preferences for home (i.e. weak work plans) decreased across cohorts from 30.7 to 8%.

In both cohorts, women with low work expectations were more likely than other women to be married, to have more children, and to be non-Hispanic white. Differences in motherhood status became larger and significant across cohorts. Even if non-significant within cohort, a reversal was observed in the earning capacity of husbands: early boomers with strong home-orientations were more likely (than their work-oriented counterparts) to be married to husbands who earned on average \$300 more; among late boomers, the difference turns negative for home-oriented women, whose husbands earned on average \$1,300 dollars less than those of work-oriented women. The

overrepresentation of non-Hispanic whites among home-oriented women declined from 18.5 to 12.5% across cohorts.

Home-oriented women accumulated less human capital than those planning to work for pay at age 35, and this difference increased across cohorts. Differences in work experience by age 35 became smaller and non-significant for late boomers, but remained significant with respect to participation in on-the-job training programs. Employed women's job characteristics shifted across cohorts too: in general, fewer differences can be found between the occupations of late boomers than between those of early boomers. Among early boomers, those oriented towards the home were more likely to work in female dominated occupations, to work in jobs involving fewer physical demands, and fewer nurturant skills. All these differences were no longer significant for late boomers.

However, women with different expectations still differed in their market outcomes, regardless of their cohort location. Those planning to stay at home at age 35 were less likely to work for pay at that age, earned lower hourly wages, and worked in less prestigious occupations. Except for employment rates (in which the gap between women with low work expectations and other women shrunk by 1.4 years, on average), the intra-cohort disadvantage of women with low work expectations increased with respect to both wages (from -.07 to -1.8 dollars per hour) and occupational prestige (from 3 to 5 prestige points).

In short, we observe countervailing trends, some of which (such as the disappearance of differences in work experience) might have made it easier for home-oriented women to participate in the labor market and catch up to work-oriented women's market success, and some (such as widening educational differences) which might have

made it increasingly difficult for them to compete for better jobs and higher wages. Multivariate models will help us reach stronger conclusions.

## **Multivariate results**

### *Labor Force Participation*

*Table 3.2* presents coefficients from ordinary logistic and fixed-effects models predicting women's participation in paid work from ages 20 to 35 –except for the years in which women were enrolled in school. For each method (logit and fixed-effects), the first column corresponds to early baby-boomers, and the second to late baby-boomers. The third column presents results from models pooling early and late boomers, and testing for significant differences in the effects of the independent variables across cohorts.

*[Table 3.2 around here]*

*Work expectations.* The coefficient for the Low Work Expectation Index in *Table 3.2* indicates that, all else being equal, increases in women's intention to look after their homes and families were associated with significantly lower employment rates for early baby-boomers, regardless of the estimation method being used. However, the size of these effects was greatly reduced for late boomers: in ordinary logit models, it was reduced by half, but remained significant at the 95% confidence level; in the fixed-effect models, home-oriented late boomers were not significantly less likely to be employed than their work-oriented peers. These results suggest that the employment penalty associated with holding low work expectations was greatly reduced, and it possibly disappeared altogether, across cohorts. Even if this reduction holds in both logistic and

fixed-effects models, the employment penalty only disappears statistically when stable unobservables are controlled for in fixed-effects models.

*Human capital.* Years of schooling were a strong predictor of labor force participation for early and late boomers in the logit models: however, this effect was no longer significant for either cohort when unobserved stable traits were controlled for in the fixed-effects models. The years of full- and part-time work experience a woman accumulated had moderate but significant positive effects on labor supply, and this applied to both cohorts. On-the-job training became more important for women's labor supply across cohorts, with late boomers being more likely to be employed with more years of training accumulated.

*Sociodemographic characteristics.* Marriage and children had negative effects on women's labor supply, although the cohort interactions in the fixed-effects models suggest that this depressing effect diminished in size for late boomers. Similarly, the more income a woman's husband brought home, the less likely she was to work for pay – although this effect became marginally smaller across cohorts. Being a non-Hispanic white woman was increasingly associated with lower participation rates across cohorts – this could reflect the increase in white women's participation relative to their counterparts of other races (which had higher participation rates to start with) or a worsening of the market situation of non-white women as a consequence of the massive entrance of white women into the labor market. This effect dropped out of the fixed effects model because race is a fixed characteristic. Finally, the effect of age on labor force participation was strongly mediated by stable unobservable characteristics: in logit models, things became

worse for older women across cohorts, but this effect largely disappeared –and hints towards a reversal– in fixed-effects models.

### *Hourly Wages*

*Table 3.3* shows coefficients from OLS and fixed-effects models predicting employed women's (ln) hourly wages, for early and late baby boomers. It also tests for changes across cohorts in the effect of the independent variables on hourly wages (third column). In order to make the OLS and the fixed-effects sample comparable, I require that a woman had two valid wages between the ages of 20 and 35 to be included in these models.

*[Table 3.3 around here]*

*Work expectations.* In keeping with previous literature on the subject (see dissertation paper 1) the effect of women's work expectations on their hourly wage was entirely mediated by their accumulated human capital and the characteristics of the occupations in which they worked. Women's orientation towards homemaking was unrelated to their hourly wages, not only for early baby boom women, but also for late boomers: there was no significant change in this relationship across cohorts.

*Human capital.* In keeping with an extended body of literature, human capital accumulation was strongly related to women's wages, and this effect was stable across cohorts, in both OLS and fixed-effects models: each additional year of schooling increased wages by about 6%, each additional year of work experience by about 0.1%. Current part-time employment was not significantly associated with wages –additional tests (not shown here) suggest that this lack of significance was largely produced by the

inclusion of job characteristics. Each additional year of on-the-job training boosted wages by about 6%, and this effect remained relatively constant across cohorts.

*Job characteristics.* The percentage of females in an occupation constituted a strong predictor of lower wages, and this negative effect did not improve across cohorts – despite the progress made in occupational integration and women’s access to high-paying jobs. Physical strength remained negatively associated with wages, and this negative effects worsened significantly across cohorts; hazards were also associated with low wages, but less so for more recent cohorts. The negative effect of bad environmental conditions was fully mediated by unobserved stable characteristics: their effect on wages turned positive and significant once the latter were incorporated in the models. Jobs requiring nurturing skills paid lower wages, but this effect greatly diminished, and almost disappeared, across cohorts. Jobs placing importance on power did not pay higher wages, and this effect remained insignificant across cohorts.

*Sociodemographic characteristics.* Marriage and the presence of children were negatively associated with wages; these effects remained stable across cohorts. Once unobserved heterogeneity was controlled for, women appeared to be assortatively mated with respect to income: their wages were higher the more their husbands earned –and this effect was larger for the late baby boom cohort. Non-Hispanic white women in recent cohorts lost their wage advantage with respect to other women. Age was largely unrelated to hourly wages.

### *Occupational Prestige*

*Table 3.4* shows coefficients from OLS and fixed-effects models predicting HWSEI occupational prestige scores, for early and late baby boomers who were in the

labor force (and reported their occupations) at least twice between the ages of 20 and 35. In addition, I show significance results from models pooling early and late boomers, and test for cohort effects.

*[Table 3.4 around here]*

*Work expectations.* Women with a more home-oriented attitude in young adulthood reached less prestigious occupations in both cohorts. Even though the size of this effect might have diminished for late boomers (and possibly disappeared once unobservable characteristics are controlled for), cohorts interactions were not statistically significant.

*Human capital.* Years of schooling remained an important predictor of occupational success, with each year accounting for a 2-point increase in the HWSEI index. As expected, cumulative full- and part-time work experience helped women achieve more prestigious occupations; the relevance of full-time experience might have grown over time. Part-time employment was associated with less prestigious occupations, and this association was consistent across cohorts. On-the-job training was strongly associated with occupational prestige, and its importance significantly increased across cohorts.

*Job characteristics.* Again, the percentage of females in one's occupation was a strong predictor of lower prestige, and this effect became larger over time. Occupational disamenities were strongly related to prestige, with physical strength and bad environmental conditions depressing wages, and exposure to hazards boosting wages. These effects remained stable across cohorts, once women's unobserved heterogeneity was accounted for. Nurturing skills were associated with higher occupational prestige,



although this positive effect diminished significantly across cohorts. Finally, power was associated with more prestigious occupations in both cohorts, and this relationship showed no signs of change over time.

*Sociodemographic characteristics.* Marriage, motherhood, husband's income, and age seemed all to be unrelated to the occupational prestige, once other factors –including stable unobservable traits– were controlled for. This pattern remained constant across cohorts.

## CONCLUSION

Was the negative relationship between low work expectations and market outcomes mitigated for late baby boomers? Were home-oriented women in more recent cohorts better able than their older peers to perform well in the workforce? My results do not provide a definitive answer, but point towards home-oriented late baby boomers paying smaller penalties than their peers in the early baby-boom cohort. Table 3.5 summarizes the key findings.

*[Table 3.5 around here]*

Women in more recent cohorts had fewer difficulties entering the labor force. This confirms *hypothesis 1*: among late boomers, women who reached young adulthood expecting an adult life centered on motherhood and homemaking were employed outside the home at similar rates than those who expected an adult life centered on paid work. This is an important result: after the gender revolution, women's preferences for work and family are no longer associated with their likelihood of being employed, once human capital and other relevant characteristics are taken into account. This could reflect a

scenario of improved opportunities for all women; but this could also mean that women with plans to stay at home were increasingly pushed to enter the labor market despite their preferences, in order to be independent financially after a divorce or to complement their husband's limited earnings potential –due to the stagnation of male wages from the 1970s onwards (Levy 1998).

The gender revolution and associated social changes in favor of women's employment did not modify the relationship between plans for future work and women's wages. The effect of low work expectations on the wages of late baby boomers was mediated by human capital and the characteristics of the jobs in which they worked, in the same way it had been for early baby boomers. These results fail to support *hypothesis 2*. Wage models also show the persistent importance of formal education and work experience in determining women's wages.

Finally, with respect to occupational prestige, I found reasons to think that things could be improving for home-oriented women in the more recent cohort, contrary to what I predicted in *hypothesis 3*: in the fixed-effect models, late boomers no longer suffer any occupational penalty for their low work expectations. However, this improvement was not appreciable in the OLS models, nor was it statistically confirmed in models pooling both cohorts and adding a cohort interaction. Additional research, possibly using more recent cohorts of women, is needed to clarify these results.

## **DISCUSSION**

Prior research has established that women expecting low or intermittent attachment to the labor force make limited investments in human capital and choose

occupations that are more family friendly and that provide better job amenities –such as better working conditions, fewer hazards, or less physical demands. As a trade-off, these jobs have lower returns to experience –flatter wage-experience trajectories.

Early baby boomers (born between 1944 and 1954) made important work and family decisions right before the gender revolution of the 1970s. They decided when to leave formal education, chose a field of expertise, and made binding family decisions (such as when to marry and start a family) in a social context in which women were expected to spend most of their adult lives looking after a family and a home. However, as early boomers lived through their twenties and thirties, the increasing acceptance of women's role as workers and the need to complement their family income pushed many of them to enter the labor force. The human capital investments and occupational choices they had made in adolescence (influenced by social norms) might have had unfavorable consequences for them, particularly if they found themselves lacking in qualifications or stuck in occupations with weak prospects of career advancement (Shaw and Shapiro 1987).

Late boomers (born between 1957 and 1965) reached young adulthood in the late 1970s and early 1980s, at a time when most of these changes regarding women's role in society and in the family were already underway. Their early human capital and family decisions were more often shaped by a new normative context, according to which women were expected to work during most of their adult lives, with only a few short work interruptions for family formation. In addition, late baby boomers enjoyed higher protection against gender discrimination in the workplace, and increased work

opportunities –manifested by the decline in occupational sex segregation during the 1980s.

In view of these important changes, this paper asked whether women in more recent cohorts were better able to absorb the negative consequences of holding low work expectations than women in previous cohorts, who became young adults before the gender revolution. More specifically, I predicted that late boomers with low expectations of paid work should have increased their labor force participation, but they might have had more difficulty in earning high hourly wages, and in reaching prestigious occupations than their work oriented cohort peers. The first of these hypotheses was confirmed by the data: late boomers who expected a life centered on motherhood and homemaking nonetheless entered the workforce at similar rates than comparable work-oriented women. No changes were observed in their earning potential: wages remained largely determined by human capital investments for both early and late baby boomers, regardless of their work expectations. Occupational penalties did not increase, but possibly decreased for home-oriented late boomers.

These results should be properly understood. First, these findings suggest that work expectations matter: for both early and late boomers, work expectations directly influenced women's investments in human capital and the types of jobs they entered. On top of this direct effect, work expectations influenced the likelihood of employment for early baby-boomers, but less so for late boomers; some occupational prestige differences are also appreciable across cohorts. However, hourly wages seemed to adjust fairly well to women's qualifications and occupational position, for both early and late boomers.

Second, women's early life work expectations remain heterogeneous in the aftermath of the gender revolution of the 1970s. Despite the growing inclination towards work among young women, there is still a minority of women who plan for an adult life centered exclusively on their families –and a larger proportion of women who express plans to combine work and family. Despite their early weak work orientations, home oriented women increasingly entered the labor force, at similar rates –all else being equal– as career oriented women. This may allow them to access more prestigious jobs, perhaps with lower occupational penalties, than previous generations. Future research should investigate the sources of women's home orientations, and the market trade-offs women thus oriented are willing to make. Comparison with more recent cohorts of women (for which long-term information is still not available) might show better contrasts than those observed in this paper.

This paper included women who entered the workforce at different times between the early seventies and the late nineties as work and family roles underwent dramatic change. Still, it does not seem to be the case that all women went from valuing home to valuing work. Rather, work expectations remain heterogeneous. These heterogeneous preferences are no doubt influenced by macro-social processes (such as normative shifts in attitudes or institutional constraints), by life-course events (such as marriage and fertility), and by individual socialization and deep-seated orientations. All this, in turn, determines women's market success over their adult lives.

## CHAPTER FOUR

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### *The Life-Course Employment Profiles of Early Baby-Boom Women: A Group-Based Trajectory Analysis*

#### ABSTRACT

Most of the literature on female employment has focused on the intersection between women's labor supply and specific family events such as marriage, divorce or childbearing. Even when using longitudinal data and methods, most studies estimate average net effects over time. This literature has greatly enhanced our knowledge of women's behaviors around particular work and family transitions. However, we know very little about how the effects of women's work and family experiences accumulate over the long-term, shaping their life-course employment trajectories. This paper uses group-based trajectory analysis to model the lifetime work profiles of early baby boomers in the United States. I find that this cohort's employment patterns can be summarized in four groups: those who worked consistently (37.8 percent), those who remained largely out of the labor force (22.8 percent), those who gradually increased their work attachment (26.7 percent), and a group of women who worked intensely during young adulthood, but later dropped out of the workforce in dramatic numbers (12.7 percent). I explore the factors associated with membership in each of these employment trajectories, and conclude that female labor force participation is better understood as a result of both socialization (preferences, attitudes towards childbearing, job satisfaction...) and structural constraints (discrimination, lack of husband's support...).

## INTRODUCTION

The study of women's labor force participation is a mature field: forty years into the gender revolution we know a great deal about the correlates of women's employment behavior, particularly at the intersection between work and family. Starting in the 1970s, women—particularly mothers of young children—greatly increased their participation in paid work, with fewer and shorter interruptions (Joesch 1994; Rindfuss et al. 1996). However, most of this literature has focused on the relatively short-term effects of work or family transitions. Far less attention has been devoted to the consequences of work and family events on women's long-term careers.

Female labor supply is characterized by its fluidity, adjusting over the life course as women navigate the challenges of combining work with other aspect of their lives. For a significant number of women (and an increasing number of men) work is not a continuous and uninterrupted status, but rather an activity that may at times be put temporarily on hold in order to prioritize other life pursuits, such as raising a family. In this paper, I investigate whether early baby-boom women's work lives can be characterized by a few ideal-type patterns; then I model these trajectories, seeking to answer the following questions: Were most women's employment patterns continuous or irregular? Who were the women most likely to experience reversals in their employment patterns? Did these women's early work expectations come to fruition later in life, and if not, why? What other factors influenced women's lifetime work profiles?

Accounting for the complexity of women's employment histories requires both longitudinal data and a method that incorporates the timing of events, their duration, the possibility of reversals, and the long term consequences of specific work and family

decisions. It also requires a long window of observation, ideally spanning women's entire working life. In the last couple of years, the older members of the baby boom cohort have been reaching retirement age, completing their working careers. Women in this cohort pioneered some of the most important processes underpinning the gender revolution, such as the rise in female employment and wage rates, the decline and postponement of fertility, and growing family instability. They became more attached to the labor force, with employment profiles increasingly similar to those of men (Spain and Bianchi 1996). They are also the first generation for which rich longitudinal data are available on their education, working and family histories.

Using data from the National Longitudinal Survey of Young Women cohort (NLS-YW, born between 1944 and 1954, interviewed between 1968 and 2003), this paper uses group-based trajectory analysis, GBTA (Nagin 1999, 2009) to explore the employment trajectories of early baby boomers between ages 20 and 54. I find that lifetime patterns of labor force participation of this cohort can be best summarized in four groups (group size in parenthesis): consistently low (22.8 percent), steady increase (26.7 percent), increase and decline (12.7 percent), and consistently high (37.8 percent). I then explore the bivariate association between membership in these four groups and a set of characteristics, such as women's early work plans, human capital accumulation, work-related experiences (having experienced discrimination at work, job satisfaction), family events (marriage, fertility, divorce, satisfaction with mothering), external constraints (own health, health of family members, husband's support for his wife's paid work) and socio-demographic traits (income and race). Finally, I fit finite mixture growth models that simultaneously estimate the likelihood of group membership and the risk factors



associated with it (Nagin 2009). This paper provides an empirical assessment of prior – mostly qualitative– studies that have explored women’s expectations, experiences and narratives of the work-family interface (cfr. Damaske 2011; Gerson 1986), and sheds new light on the influence of socialization and structural inequality in shaping women’s employment careers.

## **BACKGROUND**

### **Theoretical approaches to women’s employment behavior**

Over the last forty years, a number of theories have been put forth to explain women’s employment behavior. These attempts can be broadly grouped in three strains of thought. First, *gender socialization* theories –also known as theories of “gendered selves”– emphasize the role of internalized attitudes and preferences in the everyday process of doing gender (Butler 1988; Chodorow 1999; West and Zimmerman 1987). According to these theories, women “learn” gender during childhood and adolescence, acquiring the feminine traits prevalent in their social milieu –i.e. gender-typed attitudes and behavioral predispositions, such as nurturing and relational skills, communal thinking, or empathy.

Second, *structural theories* of gender inequality highlight the role of institutional factors that impinge on women’s ability to choose and act. According to these theories, women’s behavior is influenced not so much by their individual attitudes or preferences, but rather by their location within the gender system and other social structures. Most of the outcomes that we attribute to behavioral or attitudinal differences between men and women are, according to these theories, a reflection of the different structural positions

they occupy, and a result of the ways in which society allocates market rewards across the sexes (Reskin 1988). These theories highlight the fact that, when subjected to comparable social conditions (e.g. equal expectations about childcare roles, or about what constitutes good or bad parenting) and when given equal access to opportunities (e.g. professional mentorship, chances of promotion, availability of social and professional networks) most men and women behave in largely similar ways (Kanter 1977; Risman 1998).

Finally, the *developmental approach* constitutes a sort of middle-way between childhood socialization and structural theories. In this view, agency and structure, constraint and choice, are necessarily interwoven in women's behavior: social action always takes place in a context of constrained choice and of chosen constraint. Subjective attitudes, preferences, expectations, and gender roles provide a normative framework that lends meaning to the available alternatives of action; whereas institutions and practices define the (often unequal) ways in which options emerge in the first place for the individual –depending on his or her location within the economic, social, political and gender systems. This hybrid approach has become the standard in the qualitative literature that has sought to understand the normative frameworks that shape women's work-family narratives (Blair-Loy 2006; Damaske 2011; Gerson 1986). Because it combines elements from socialization and structural theories, I consider this to be the perspective that is best suited to account for the complexity and fluidity of women's market behavior across the life-course. In this paper, I build upon this theoretical tradition and explore quantitatively some of the claims emanating from the qualitative literature.

## **Pulls and pushes, structure and agency**

Women's work and family experiences are fluid. In her landmark qualitative study of women's employment trajectories, Gerson (1986) found that most of her interviewees (a sample of sixty early baby-boom women, interviewed in the late 1970s, when they were in their early to mid-thirties) grew up with some sort of teenage preference for their adult lives: about 45% of them wanted to work for pay, while the others planned an adult life centered on motherhood and homemaking. However, as these women recounted their work and family experiences, four distinct groups emerged, depending on whether or not they had fulfilled their teenage work-family plans: of the women who grew up expecting to work for pay, only forty percent managed to be employed consistently, with the rest of women veering towards domesticity; among the women expecting to stay at home, only about one third did just that –while the other two thirds ended up working for pay.

From these women's narratives, Gerson was able to identify a series of forces *pulling* women towards the market or *pushing* them towards domesticity. The following experiences were common among the women who ended up working for pay, regardless of whether or not they had intended to do so earlier in life: they were more likely to report high levels of overall job satisfaction, episodes of financial strain, and marital instability. Conversely, the women who ended up focusing on motherhood were more likely to think of childcare as a highly rewarding activity, to report high levels of financial security and partnership stability, and to say that they had felt at times ill-treated or discriminated against at work (Gerson 1986).

This high degree of variability between women's stated preferences and their employment trajectories illustrates the tension between gender socialization and structural location. Risman and colleagues (1998) sought to shed new light on this question using longitudinal data from the Washington State Career Development Study (CDS) to predict married women's work hours between their high school graduation to their early thirties. They found evidence in favor of both socialization and structural mechanisms influencing women's employment hours. On the one hand, women's early preferences for work or family, as well as their personal definition of work as a *job* or part of a *career*, were significant predictors of future work intensity. On the other hand, adult experiences such as childbearing, their husband's income, women's own earning potential and professional success were also associated with midlife employment. Cross-country comparative research has similarly lent support to both socialization and structural forces, by showing how women's ability to fulfill their work-family preferences differs by country –i.e. by policy context and the level of public support for working women (Gash 2008; Yerkes 2013).

More recently, England (2010) used similar arguments to re-assess progress in gender equality in the United States. She combined structural and socialization explanations to define the gender revolution as “uneven and stalled”, particularly from the mid-1990s onwards. On the one hand, the revolution has produced uneven outcomes because the persistent devaluation of female-typed occupations has made it far less likely for men to enter female-dominated occupations than for women to enter traditionally male jobs. On the other hand, women's entry into male-dominated occupations has stalled due to lingering social notions of gender essentialism, which make women less

likely to challenge traditional gender boundaries unless they see no other path for upward occupational mobility –i.e. many women of working-class backgrounds reject the idea of entering male-dominated careers, seeking instead upward mobility through female-typed occupations such as secretary or teacher (England 2010). This thesis stirred some controversy among feminist scholars, some of whom reject the claim that lack of progress in gender equality is related to women’s own choices, and think that structural constraints are given too little importance in England’s account (cfr. Bergmann 2010; McCall 2011; Reskin and Maroto 2010). England’s response to this criticism captures well the position I take in this paper, and for that reason is quoted here at length (England 2011:116–117):

*Among sociologists of gender, [...] aversion exists to explanations that assert a causal role for socialized preferences on the supply side of labor markets. I respectfully disagree; I believe that continuous gendered socialization affects taken-for-granted assumptions (e.g., which jobs we even consider), identities, and preferences. Outside social forces change our insides. Rather than eschewing socialization explanations in fear that they will be used to blame the victim, I believe we should point out that people did not choose the constraining social forces that formed their preferences, identities, and assumptions [...] and that even if they chose their jobs, they were not always aware of and certainly do not prefer the low pay in those jobs.*

## **Predictors of long-term female employment**

This paper takes a long view on employment, spanning the majority of women's working lives. A number of factors influence women's labor force participation over time. With no intention of being exhaustive, I review here some key domains shaping women's work profiles:

*Childbearing.* Even though mothers have been at the forefront of the gender revolution since the 1970s (Juhn and Potter 2006), bearing children is still the strongest factor depressing women's labor force participation (Spain and Bianchi 1996) and lifetime earnings (Sigle-Rushton and Waldfogel 2007). This effect is mediated by women's market behaviors around childbirth: longer work interruptions increase the chances of downward occupational mobility (Aisenbrey, Evertsson, and Grunow 2009) and reduce earnings (Baum 2002; Phipps, Burton, and Lethbridge 2001). The effects of fertility are lasting, particularly for high parity mothers (Kahn, Garcia-Manglano, and Bianchi 2010). Moreover, mothers' behavior around the first birth predicts differences in market outcomes almost two decades later (Shapiro and Mott 1994). Women's behaviors around childbirth are also highly fluid: they follow at least six different employment patterns, with only about half of them falling within the binary *employed-unemployed* categorization –i.e. with close to 50% of women following more complex work trajectories (Hynes and Clarkberg 2005).

*Experiences at work.* An increasing number of studies have linked women's experiences at work with their job continuity and the likelihood that they will return to the labor force after bearing a child (Böckerman and Ilmakunnas 2009; McRae 1993). Job satisfaction and availability of affordable childcare also are strongly associated with

women's return to work after giving birth (Stone 2007). Additionally, the number of legal cases involving workplace discrimination due to family responsibilities has increased in recent decades (Still 2006; Williams and Bornstein 2006). Despite the difficulty of measuring it empirically, subjective reports of discrimination might approximate women's experiences in this domain.

*Family context.* Although the direction of the causal link between marital instability and female employment is unclear (Greenstein 1990; Sayer and Bianchi 2000; Schoen et al. 2002), married women tend to exhibit lower employment rates than their single and divorced peers (Drobnic, Blossfeld, and Rohwer 1999; Jeon 2008; Smock, Manning, and Gupta 1999). Women's long-term employment behavior is also influenced by the gender division of labor at home. Theories of housework specialization predict that men and women will concentrate their efforts in those areas in which they hold comparative advantage, with most women focusing on household production, and most men specializing in market work (Becker 1991). These differences are exacerbated when couples become parents (Baxter, Hewitt, and Haynes 2008; Bianchi et al. 2000; Sanchez and Thomson 1997), and are mediated by partners' gender attitudes, particularly by husbands' support for their wives' employment (Smith 1985). Family income has also been shown to influence women's labor supply, with those married to men at the bottom and top of the income distribution being less likely to be employed than the women married to men with incomes in the middle quartiles (Cotter, England, and Hermsen 2007). Finally, the health of the household members (women's own health or that of their relatives) may condition female labor force participation and long-term attachment.

*Attitudes and expectations.* Even though most of the effect of women's work preferences might be mediated by familial and institutional factors, work plans have been shown to influence human capital accumulation and occupational decisions in young adulthood (*Chapter 2* of this dissertation; Shaw and Shapiro 1987), and more generally to inform women's employment behaviors over the long run (Hakim 2002). However, women's preferences are not static but variable across the life course: women reduce their commitment to work during the first years after giving birth (Evertsson and Breen 2008), and adjust their work hours in response to family events such as marriage and childbearing (Drago, Wooden, and Black 2006).

### **Remaining questions**

Despite our abundant knowledge of the factors influencing women's employment outcomes, most research has focused on the short-term impacts of specific work-family events or transitions. Little research has explored the cumulative effects of these factors on women's employment trajectories over their entire adult life-course. A long-term view would provide a richer description of the compounding effect of work-family experiences on female employment, as women move in and out of the labor force (or adjust their employment hours) throughout their adult lives.

This paper provides a descriptive exploration of the factors associated with women's employment trajectories over the life course. It tests, quantitatively, some of the mechanisms identified in qualitative studies that *pull* women towards the market or *push* them towards home (Gerson 1986). By incorporating subjective measures of expectations and preferences, I document the tension between women's work-family narratives,



experiences, and outcomes. These narratives have been a matter of interest both in the media (Belkin 2003) and in qualitative research (Blair-Loy 2006; Damaske 2011). I describe the ideal-type employment trajectories followed by early baby boomers in the United States, with the advantage of using actual data, instead of model-based projections (Joshi 2002; Sigle-Rushton and Waldfogel 2007). Finally, I shed new light onto the forces shaping women's long term work patterns by asking the following three questions:

1. Which women exhibit high employment rates in young adulthood?
2. Among women who exhibit *low* employment rates in young adulthood: What factors are associated with increasing market participation over time?
3. Among women with *high* employment rates in young adulthood: What predicts declining employment at midlife?

The answers to these questions illustrate the influence of both socialization and structural forces in shaping women's employment careers: I find that both sorts of mechanisms appear to be relevant, but in different ways for women with different work patterns.

### **Methodological challenges: life-course trajectories**

#### *The life-course approach: a summary of key concepts*

The life-course is a "sequence of socially-defined events and roles that the individual enacts over time" (Giele and Elder 1998:22). Life-course research is interdisciplinary, relies on mixed-methods, and aims at exploring the micro and macro processes that make up the whole of the human experience –work, family, time, space,

context, process, etc. In this section I focus on the concepts that are most relevant when examining life-time employment trajectories.

*Transitions.* Individuals' life-course can be summarized as a combination of transitions and trajectories (Elder 1985). Transitions are changes that occur at a given point in the individual's life, such as the move from singlehood to marriage, from childlessness to motherhood, from education to employment, or from employment to retirement. Some transitions are reversible, but most of them carry consequences even after they are "undone" –which explains why we consider divorce a separate status, not a mere reversal to singlehood. Transitions thus modify people's status, identity or roles (Quadagno 2007). Transitions might be determined by social conventions (about, for instance, the appropriate moment to marry, or to have a child) and usually carry with them social implications (expectations for the behaviors that are proper to each status or role).

*Timing and duration.* The timing of work and family transitions has far-reaching effects across the life-course –both for the individual and his or her family. For instance, teenage childbearing is associated, among others, with interruptions in formal education (Hoffman, Foster, and Furstenberg 1993) and increased risks for the health of the child (Corcoran 1998). Duration between transitions is similarly important: e.g. a longer period outside the labor force following childbirth is associated with a decline in wages and with occupational downgrading (Aisenbrey et al. 2009; Hofferth and Curtin 2006).

*Sequencing.* Given the growing diversity in possible pathways to adulthood (Shanahan 2000; Smock and Greenland 2010), the ordering of transitions has become yet another important determinant of work and family outcomes across the life-course. The

traditional script dictating a normative sequencing of education, employment, marriage, and parenthood (in that order) has been replaced by an increasingly complex chain of transitions and reversals between employment, partnership and parenthood statuses (Aassve, Billari, and Piccarreta 2007).

*Trajectories.* Most transitions have cumulative effects, influencing outcomes over the long run; they are the building blocks of trajectories. Trajectories are pathways or careers that emerge over the life course with some typicality (Hynes and Clarkberg 2005). As such, trajectories not only summarize the cumulative experiences of a group of individuals with respect to some observable outcome; when correctly identified, trajectories can help unveil the mechanisms by which particular life events come together to characterize ideal-type pathways. Trajectories may also reveal underlying processes of cumulative disadvantage, by graphically illustrating the long-term consequences of events for people in different structural locations.

*Method: group-based trajectory analysis*

A full exploration of the life-course requires rich longitudinal data, and a method that captures experiences and cumulative events over time, incorporates transitions in and out of a particular state, and allows for trajectory reversals. Group-based trajectory analysis (GBTA) is well suited for the exploration of developmental outcomes over time (Nagin 1999, 2009). GBTA has been frequently used in the field of criminology to characterize long-term patterns of crime, reintegration and recidivism; in recent years, it has also been increasingly used in the employment and fertility literature (cfr. Hayford 2009; Hynes and Clarkberg 2005).

This method (a type of latent class growth curve analysis) explicitly models trajectories over time, using a finite mixture model approach to jointly determine –for each individual– the probability of group membership and the risk factors associated with different trajectories. Most importantly, GBTA uses maximum likelihood for the estimation of the model parameters, allowing the researcher to test different scenarios regarding the number, and functional form, of trajectories –resulting in different group sizes. Bayesian (BIC) and Akaike (AIC) information criteria are available to assess goodness of fit. In this paper I used the “*traj*” plugin for Stata, recently developed by Jones and Nagin (2012).

### **Analysis plan**

First, I used GBTA (with the logistic transformation) to select the number of trajectories and functional forms that best summarize women’s employment over the life-course. A variety of trajectories were explored, starting with a relatively high number of groups and complex (cubic) functional forms; I used the BIC to test the goodness of fit of these saturated models against more parsimonious specifications (fewer groups; quadratic and linear functions). I started with six cubic trajectories, and ended up choosing four trajectories, two of which follow a linear progression, with the other two following a quadratic pattern.

Once the employment data were summarized into trajectories, I descriptively explored each one of the four groups, providing means and proportions for each one of the covariates. Next, I refined these models (still within the GBTA framework, and using a multinomial modeling strategy) by incorporating individual characteristics and

assessing the risks associated with membership in each one of the employment groups. By switching the reference group, I individually compared trajectories that share a common initial pattern but differ subsequently –e.g. the two groups of women who worked at high rates during the twenties and early thirties, but who parted ways afterwards –as one group’s labor supply declined steadily. Finally, I show how employment profiles relate to lifetime hourly wages and occupational achievement.

## **DATA AND MEASURES**

### **Data**

I use all 22 waves from the National Longitudinal Survey of Young Women (NLS-YW), conducted between 1968 and 2003. The NLS-YW includes information about 5,159 women born between 1944 and 1954 and first interviewed between the ages of 14 and 24. The survey was discontinued after 2003, when respondents were 49 to 59 years old. Eighty-five women are dropped from my analysis because they have missing data on one or more employment covariates, leaving a sample of 5,074 early boomers – over 98% of the original sample. GBTA allows each woman to contribute to the analysis during the years in which she provides valid data, even if she is lost to attrition in later waves. In the NLS-YW, retention rates are relatively high, with 88.4% of women contributing to at least five (and 79.8% to at least ten, and over 50% to at least twenty) waves of data.

NLS-YW data are particularly well suited for a longitudinal exploration of women’s employment trajectories, since they provide information on women’s complete educational, partnership, fertility and employment histories. In addition, information is

available on women's work-family expectations between the baseline survey and age 35, making it particularly suited for the study of women's preferences for work or home. Another interesting feature of these data is that they include information on subjective feelings of discrimination, job satisfaction, and attitudes towards childcare.

### **Main variables**

GBTA requires the definition of two key variables, measured longitudinally, which constitute the main building blocks of the trajectories: an outcome variable and a variable that measures time. The dependent variable in my analysis is an *employment* dummy (1=employed), available for each survey year. Women are employed if they are working part-time, full-time, for pay or self-employed. The variable that tracks time is *age*, measured in years –which involved rearranging the observations to be anchored on women's age rather than the survey year. In order to minimize outliers at both ends of the life-course, and to focus on women's prime working years, I dropped observations before age 20 and above age 54. This reduced the impact of teenage employment (which in most cases may represent part-time or summer work while studying) and of early retirement (which might respond to a different set of motivations) on women's employment trajectories. Note that dropping person-age observations does not imply dropping respondents: all women are allowed to contribute to the analysis between the ages of 20 and 54.

### **Independent variables**

GBTA can accommodate both time-varying and time-invariant covariates. However, these are treated quite differently: longitudinal variables modify the shape of

the trajectories, whereas static traits determine the risks of membership in a particular group-based trajectory. My interest here is to explore the characteristics that influence group membership: for this reason, I summarize women's traits, attitudes, and behaviors into static variables –most of which capture experiences that in reality spanned their entire life-course. For this reason, all covariates are time-invariant<sup>13</sup>.

*Work expectations* summarize plans<sup>14</sup> for employment between the ages of 14 and 34 (years in which the information is available), using women's responses to the question “*What would you like to be doing when you are 35 years old?*” I aggregate women's answers into a distribution of work plans, with those always saying that they wanted to “work for pay” at the upper end, and those who always expressed a different preference (i.e. “looking after home/family” or “doing something else”) at the lower end of the distribution. Then I break the work-preference distribution in terciles: high, mixed, and low work expectations. Hence, this variable can be interpreted as a woman's relative position within the cohort with respect to the intensity of her midlife work plans.

*Human capital* is measured at age 25; four dummies summarize women's educational achievement as follows: less than high school, high school graduate, some college, and college graduate or more. Two dummy variables capture negative employment experiences: job dissatisfaction activates for women who expressed deep dissatisfaction with work at some point in their adult lives; and workplace discrimination

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<sup>13</sup> *Appendix Table AT4* defines all variables used in this analysis, and includes information on the years in which each of these was available.

<sup>14</sup> Following prior literature which found that these concept to be roughly similar in their empirical consequences, I use the terms “expectations”, “plans”, “intentions”, and “preferences” interchangeably (Hayford 2009; Ryder and Westoff 1971).

flags women who ever felt discriminated against for a variety of reasons (including sex, race, age, and nativity).

Women's *fertility history* is summarized in four variables: the first is a categorical variable comprising the timing of the first birth: childless, teen mother, early twenties, or late twenties or later –note that this cohort had their first birth relatively early in life, with median age at first birth in the early twenties, compared with the delayed fertility of cohorts who came after them. Three dummy variables further characterize women's fertility experiences: one flags women who had high levels of fertility, defined as three or more children; another one represents single motherhood, and activates for women whose first birth happened before they were married (an experience that was far less common for this cohort than is today); finally, an additional dummy characterizes women who were most dissatisfied with the childcare role –defined as being below the median in the lifetime distribution of satisfaction with the task of caring for children.

*Family experiences* include five dummies: whether a woman was married by age 25, to identify those who delayed marriage well beyond the normative age for this cohort; whether a woman ever divorced; and whether her husband ever expressed opposition to her employment. Additionally, two dummy variables capture health limitations to the amount or type of work the respondent can do: the first one refers to her own health limitations, the second one to the limitations of other relatives in the household. I also control for total family income –measured across the whole study and coded in quartiles– and race –with a dummy for non-Hispanic whites.



## RESULTS

### Employment trajectories

*Figure 4.1* presents overall employment rates for all women in the NLS-YW cohort between the ages of 20 and 54. Labor force participation rates increased from 41 to 52% in the early twenties, remained relatively flat in the late twenties, and grew again consistently during the thirties and early forties, reaching a lifetime high at age 43, with 71% of women working for pay. Overall participation rates decreased after age 43, with just 61% of the cohort employed at age 54. This profile is in keeping with previous reports of female employment rates across cohorts, which found that the employment trajectory of more recent cohorts of American women had lost the M-shaped form that was typical of older cohorts (with a trough around the late twenties), becoming similar to men's –an inverted U– but at a lower level, peaking between 70 and 75% in the mid-forties (Spain and Bianchi 1996).

*[Figure 4.1 around here]*

Using GBTA, I tested different numbers of employment groups (from two to six) and functional forms (linear, quadratic, cubic). I settled for four groups, two of which follow a linear trajectory, with the other two following a quadratic pattern. Adding more groups only duplicated existing groups into parallel groups (with a substantially similar trajectory, but at different levels). Reducing the number to fewer than four groups resulted in the merger of two of the existing groups, implying a substantial loss of information (given that the four existing groups have distinct shapes). BIC and AIC statistics confirmed the choice of four groups with linear and quadratic functional forms.

*Figure 4.2* presents the four model-predicted employment trajectories.

Interestingly, each of these trajectories presents some characteristic features that distinguish it from the rest. The first group consists of the 18.9 percent of women who exhibit consistently low employment rates –only about one in five are employed at any given age. The second group includes 30.9 percent of women, who steadily increase their participation rates over time, from around 20% in the early twenties to over 80% in the early fifties. The third group is the smallest, with 14.6 percent of early boomers who worked at high rates (over 80%) in the late twenties, but who dramatically retreated from the labor force after age 35, with less than 20% of them working after age 50. Finally, the fourth and largest group includes 35.6 percent of women, who reached high participation rates (over 80%) in the mid twenties, and remained employed at high rates throughout their entire life-course.

*[Figure 4.2 around here]*

Interestingly, these results show that women differed in their employment patterns in important ways: on the one hand, some of them exhibited an early focus on work while others remained mostly out of the labor force in early adulthood; on the other hand, early trajectories did not necessarily imply continuity after midlife –either by choice or in response to constraining factors, a significant proportion of women changed course dramatically over time, losing their focus on employment, or substantially strengthening it. These patterns, with two baseline groups, and four possible trajectories (defined by continuity vs. divergence) are strikingly similar to the four groups identified by Gerson (1986) –with a difference: her baselines did not measure actual employment, but intentions or preferences.

## Characteristics of the four employment groups

*Table 4.1* presents means and proportions for women in each of the four employment trajectories described above. In order to make this description more informative, I do not proceed variable by variable, but highlight the characteristics of each employment group, with an emphasis on the most salient traits that distinguish it from the other groups.

*[Table 4.1 around here]*

*Group 1: Consistently Low Employment (size=22.8 percent)* - Only about one in five women in this group was employed at any given age. Less than one quarter of them had high work expectations, with almost half of them often saying that they wanted to be looking after their home or family at age 35. Almost 40% of them dropped-out of high school, and only 24% of them continued in education after high school. When they worked, they were more likely than other women to express strong dissatisfaction. However –probably because they did not spend a lot of time employed in the first place– they rarely reported workplace discrimination. Almost 40% of them were teen mothers, and a similarly high proportion had three or more children. They were significantly more likely than other women to have been unmarried mothers (34%), and they seemed to enjoy caring for children –with only 25% of them ever expressing dissatisfaction with mothering. About seven in ten women in this group were married by age 25, and they seemed to enjoy relatively high levels of marital stability –with only 30% of them ever divorcing. Almost half of them had husbands who opposed the idea of them working for pay. Almost four in ten had health issues that limited the amount of work they could perform at some point in their adult lives, and 17% of them (a relatively high proportion,

compared to women in other groups) had relatives whose health impeded their work. Their family incomes were strikingly lower than those of women in all other groups, with over half of them in the bottom quartile and over 70% with incomes below the median. Two thirds of them were non-Hispanic whites.

*Group 2: Steady Increase (size=26.7 percent)* - Women in this group had employment profiles that grew steadily over time, from about 20% in the twenties to over 80% in the early fifties. Their life-course experiences were relatively average for their cohort. Only 25% of them expected to work consistently throughout their adult lives, with 37% of them often expressing preferences for a life centered on their children and families. They were moderately educated, with 43% of them graduating from high school and another 46% studying beyond high school. Only 22% of them held jobs they considered very dissatisfying, and 39% had ever felt discriminated at work. Most of them became mothers in their early twenties (the median age for this cohort), and they expressed average levels of satisfaction with mothering. The only aspect in which the women in this group stand out is their marital experience: they married earlier than their peers (80% of them were married at age 25), and over half of them saw their marriages end. Maybe unsurprisingly, their husbands were very unsupportive of them working for pay. Women in this group belonged to high-middle-income families, with almost two-thirds of them above the median family income. They were disproportionately non-Hispanic white (82%), compared to other groups.

*Group 3: Increase and Decline (size=12.7 percent)* – The smallest of all groups, Group 3 includes women who exhibited high employment rates in early adulthood, peaking at about 80% in the early thirties; but who later dropped out of the labor force in

dramatic numbers, with less than 20% of them employed by their early fifties. They had the highest work expectations, with 44% of them consistently expressing a desire to work for pay at age 35, and only 19% expressing domestic preferences. They were highly educated, with almost half of them (44%) graduating from college. Perhaps unsurprisingly, they were among the most likely to express dissatisfaction with work (26%), and to have experienced workforce discrimination (41%). Their marital experiences were relatively unremarkable, with 54% of them married by age 25, 39% of them ever divorced, and relatively supportive husbands –only 23% of whom opposed the idea of them working for pay. Interestingly, they had a relatively high level of personal health limitations (43%), and had relatives whose health hindered their employment (16%). They were evenly represented across the income distribution. This group included more minority women (39%) than the others.

*Group 4: Increase and Stay High (size=37.8 percent)* – This most-numerous group is made up of women who were very strongly attached to the labor force, with employment rates over 80% for most of their adult lives. They had strong (albeit not universal) work expectations, and they were not particularly educated, with most among them (43%) having just a high school degree. Not particularly dissatisfied with work, a relatively high proportion of them ever experienced work discrimination (36%) –which didn't seem to deter them from working for pay. Many of these women remained childless –at rates much higher than other women (42%); if they ever had children, they rarely had more than two, and they didn't seem to enjoy caring for children. Their marital experiences were not very special, except for the fact that their husbands were remarkably supportive of them working for pay –only 12% of husbands were against it.

They were less likely than other women to encounter health situations –either personal health limitations or those of relatives– that limited the amount or type of work they could perform. Their family incomes and racial composition were average for this cohort.

In summary, these descriptive results point towards the following factors encouraging employment in early adulthood: having high work expectations, getting more than a high school education, remaining childless or postponing childbearing, having fewer than three children, and marrying late –to a husband who was not opposed to women’s work. Opposite experiences seemed associated with low employment rates in early adulthood. Marital instability, particularly disliking childcare, and having health issues (personal or those of a relative) all seemed to depress women’s employment over time; the reverse experiences facilitated high or increasing workforce attachment throughout the life course. Below, I fit multivariate models that include these risk factors (and are roughly equivalent to multinomial logistic regressions) to test the robustness of these results.

### **Multivariate results**

Descriptive results show that the employment experiences of early baby boomers can be summarized using three components: first, the level of labor force attachment in early adulthood (high vs. low); second, increasing employment over one’s life (among those with low early participation rates); third, declining attachment to the labor force with the passing of time (among those who were employed at high rates before midlife). This section explores the factors associated with these three possible employment patterns.

*Which women reached high employment rates in young adulthood?*

Women in groups 1 and 2 (*consistently low*, and *steady increase*) were loosely attached to the workforce in early adulthood. Women in groups 3 and 4 (*high and decreasing*, and *high and stay high*) have in common a strong early attachment to the labor force –as high as 80% by the late twenties. *Table 4.2* presents results from models predicting membership to the two groups (3, 4) exhibiting strong early workforce attachment –as opposed to the other two groups (1, 2).

*[Table 4.2 around here]*

Holding non-domestic work expectations, being more educated, and not being dissatisfied with work, were significantly associated with high employment rates in early adulthood. Similarly, having fewer children, having them later, marrying late, and marrying men who do not oppose their wives' employment, made it significantly more likely to work at high rates in early adulthood. On the other hand, these women were more likely to have experienced workplace discrimination (which implies being employed in the first place), to have gone through at least one divorce, and to not have health issues that limit work (or a relative with bad health). Finally, higher incomes, and being of a minority race also encouraged high attachment to the workforce in early adulthood. However, neither the experience of single motherhood nor dissatisfaction with the role of caring for children were associated with membership to the two groups that exhibit high employment rates in early adulthood.

*Among women who exhibited low employment rates in young adulthood, what factors were associated with increasing market participation over time?*

Women in groups 1 and 2 had low employment rates in early adulthood –always below 40% during their twenties. However, women in group 2 (*steady increase*) entered the labor force gradually throughout adulthood, whereas their peers in group 1 (*consistently low*) remained employed at very low rates (about 20%) for their entire adult lives. *Table 4.3* presents results from models predicting membership in the group that increases attachment to the labor force, as opposed to the one that remains largely unattached.

*[Table 4.3 around here]*

Having non-domestic work expectations in early adulthood was associated with about 50% greater odds of increasing employment over time. Getting more education was also related to a pattern of increasing participation across the life course, but the effect seemed to be non-linear, weaker for college graduates than for either high school graduates or women who attended but did not complete a four-year college degree. Experiences of work discrimination were associated with increasing work rates –with the association probably going both ways, given that employment increases exposure to potential discrimination. Job satisfaction was not significantly related to the likelihood of increasing employment over the life course. Having large families decreased the likelihood of growing workforce attachment, while having a supportive husband or divorcing increased it. Single motherhood, one’s attitude towards childcare, and age at first marriage did not significantly distinguish women who remained largely out of the labor force from those who entered it over time. Health worked in the expected direction:



one's bad health, or that of one's relatives, hindered women's ability to increase their labor supply over time. Family income and being white were positively associated with growing employment rates.

*Among women with high employment rates in young adulthood, what led some of them to exhibit declining employment at midlife?*

Women in groups 3 and 4 shared a strong attachment to the workforce in their twenties and early thirties –with employment rates reaching above 80%; however, women in group 3 dramatically reduced their employment rates after about age 35, dropping to very low levels (below 20%) by the early fifties. *Table 4.4* predicts membership to this group that reverses its course and becomes increasingly detached from the workforce over time.

*[Table 4.4 around here]*

The following risk factors increased the likelihood of a post-midlife withdrawal from the labor force: holding a college degree (which might signal being married to men with higher education and earning potential), having children (and having them at later ages), having a husband who does not support her employment, and suffering from bad health conditions –either personally, or through a relative. On the other hand, reporting discrimination, divorcing, and having higher family incomes all reduced the likelihood of women leaving the labor force. Finally, work expectations –measured up to age 34–, satisfaction with work and childcare, having more than three children, ever being a single mother, having married early, and race, were all unrelated to the likelihood of belonging to the group with weakening attachment to the labor force (as opposed to the group with strong attachment).

## **Employment trajectories, wages and occupations**

This paper has unveiled a high degree of heterogeneity in women's lifetime employment trajectories, with significant proportions of women following diverging patterns of participation in paid work across the life-course. Still, market success (narrowly defined here as earning higher hourly wages and reaching more prestigious occupations) might not be easily inferred from women's employment trajectories, particularly for the women who reversed course and increased or decreased their attachment to the workforce over time. Were these employment profiles systematically associated with early baby boomers' wages and occupations?

*[Figure 4.3 around here]*

*Figure 4.3* plots hourly wages for employed women in each one of the four employment groups explored in this paper, from ages 20 to 54 –these are actual, not model-predicted, inflation-adjusted dollars. There were no wage-crossovers, but wages increasingly diverged across the life course, particularly between the women in group 1 (*consistently low* employment) and the women in other groups. High employment rates in early adulthood led to higher wages across the life course for groups 3 and 4; and the women who stayed strongly attached to the workforce had higher hourly wages than those who gradually dropped out of the labor force.

*[Figure 4.4 around here]*

*Figure 4.4* shows HWSEI scores<sup>15</sup> for employed women in each of the four employment groups explored in this paper. Occupational differences between women with different work patterns were quite set by the late twenties, even though all women managed to reach more prestigious jobs later in life. The two groups containing women who were strongly attached to the workforce in early adulthood (3, 4) reached more prestigious occupations than the other two groups (1, 2). But surprisingly (and unlike what we just observed with respect to hourly wages) the women who remained employed at high rates did so in occupations with *lower* average occupational prestige than those who gradually became detached from the labor force after midlife. In the early fifties there seemed to be a reversal of that trend, but our data do not reach far enough to explore with enough detail that end of the life-course.

## CONCLUSION

In this paper, I have used group-based trajectory analysis to summarize the life-course employment behaviors of American baby-boom women in four trajectories (group sizes in parenthesis): *continuously low* (22.8 percent), *steadily increasing* (26.7 percent), *increasing and declining* (12.7 percent), *continuously high* (37.8 percent). Women in the latter two groups exhibited a strong early attachment to the labor force; while women in the first two groups stood out for their low employment rates in early adulthood.

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<sup>15</sup> Houser-Warren Socio-Economic Index (HWSEI): a composite measure created by regressing occupational prestige ratings on occupational earnings and education, and then using the results to generate socioeconomic scores for all of the 1990 detailed occupation categories. Values range roughly from 0 to 80. It uses 1990 Census occupational codes, and occupational prestige ratings as reported in the 1989 General Social Survey (Hauser and Warren 1997).

However, work attachment in early adulthood was, for many of them, unrelated to labor force participation after midlife: a significant proportion of women veered away from their early employment behavior, some increasing attachment to the labor force after years out of it, some dropping out of paid work after more than a decade working at high rates. In this sense, for roughly 40 percent of the women in my sample, employment was not a static state (*in* vs. *out* of the labor force), but an endeavor to which they devoted more or less attention at different ages –depending on family life-course: timing and circumstances.

In keeping with previous research, strong early attachment to the labor force was found to be significantly associated with holding strong work expectations, completing more years of education, postponing fertility and having small families, not marrying early (and if marrying, not having a husband who opposes his wife's employment), and not suffering (personally, or in a relative) from limiting health conditions. Women from families with more financial resources and from minority groups were also more likely to work at high rates in early adulthood. Some factors were common among women who ended up out of the labor force in high proportions –regardless of whether or not they had been strongly attached to the labor force earlier in life. These women were more likely to have had the following life-course experiences: not remaining childless (and having children late), divorcing or having a husband who was unsupportive of their paid work, and having health limitations or having a relative with ill health. The opposite experiences were common among the women who –regardless of their early employment rates– ended up employed at high rates after midlife.

Employment trajectories were also found to be associated with lifetime wage rates and occupational achievement in interesting ways. First, early strong attachment to the labor force was conducive to overall higher hourly wages across time, and more prestigious occupations, regardless of whether or not women remained employed after midlife. However, among those with early attachment to the labor force, the women in the group that reduced employment rates across midlife worked in more prestigious occupations (but earned lower wages) than the women in the group that stayed employed across the life-course. To the extent (we can only tentatively affirm this) that this might reflect earning wages that were below-par given their occupations, this could explain why these women dropped out of the labor force. However, alternative explanations for this finding should be explored in future research, such as selectivity due to family circumstances or socioeconomic status –with those who became more detached from the labor force possibly coming from more advantageous backgrounds.

## **DISCUSSION**

A number of studies have explored the factors influencing women's work-family behavior since the gender revolution of the 1970s. Many of these studies have focused on the short-term effects of specific transitions, such as marriage, parenthood, work status, retirement, etc. At the same time, scholars have debated the importance of socialization and structural mechanisms driving women's employment behavior over the long run.

In this exploratory paper, I have looked at the long-term effects of work and family experiences in shaping early baby-boom women's employment patterns. I have documented a high degree of heterogeneity in their work profiles, with trajectory

reversals for a significant amount of women. Importantly, both socialization factors (such as preferences, attitudes, and subjective measures of satisfaction) and structural constraints (such as race, lack of support from husbands and discrimination) were found to be relevant at different points in the life-course. This implies that one could potentially find support for any of these mechanisms when looking at a narrowly defined period of women's lives, but that a more complex and multidimensional picture emerges when outcomes are explored over longer time spans.

This is an older cohort, whose work and family experiences may or may not resemble those of more recent cohorts of American women. On the one hand, early baby boomers are particularly interesting because they spearheaded the gender revolution: they were the first generation to be employed in large numbers, they featured declining fertility rates, and they sought to combine work and family in high proportions –with mothers of young children employed at rates that were much higher than those of previous cohorts.

On the other hand, other features of contemporary family life, such as the erosion of normative scripts for the transition to adulthood (Aassve et al. 2007; Shanahan 2000), the increasing variability in the timing of marriage and parenthood by education (Cohen and Bianchi 1999; Martin 2000), and the rise in divorce and cohabitation (Brown, Van Hook, and Glick 2008; Bumpass and Lu 2000; Cherlin 1992) might have made the experiences of more recent cohorts of women more heterogeneous and complex than those of their older peers (Aassve et al. 2007). Additionally, changes in the family have been accompanied by increasing job instability and greater economic vulnerability,

particularly among young adults from working and lower-middle class backgrounds (Levy 1998), potentially adding to the forces destabilizing women's long-term careers.

This study has two additional limitations. First, the methods used do not allow us to make claims about the causal mechanisms linking women's employment profiles with risk factors and work-family experiences. There is a degree of endogeneity and temporal overlap between the employment outcomes and risk factors explored here. For this reason, all the relationships documented above are merely associational. Second, some of the information used here relies on women's subjective assessments: work expectations, perceived experiences of discrimination, assessments of husbands' attitudes, and satisfaction with work and childcare, came all from subjective reports which might be affected by social desirability bias, post-hoc rationalizations of past events, etc. Still, this information has allowed us to get an approximation or estimate of factors that are otherwise difficult to measure objectively.

This study highlights the importance of looking at female market outcomes over the long run, attending at women's attitudes, expectations, and subjective narratives, as well as the structural factors that define and shape their options and opportunities. Moreover, the high degree of complexity in women's employment behaviors explored in this paper highlights the need to move beyond static, short-term characterizations of women's work and family outcomes, and into a more fluid understanding of their long term strategies, and those of their husbands and families –or, as Moen and Sweet (2004) put it, from a dichotomous “work-family” paradigm to one of “flexible careers” which are dynamic, relational, and shaped by attitudes and values, but also embedded within existing gender, occupational, and labor systems.

## **CHAPTER FIVE**

### ***Conclusion***

In this dissertation, I have sought a better understanding of the role that work expectations play in women's work behaviors and market outcomes. First, I revisited the neoclassical human capital argument and explored the mechanisms through which work expectations influence women's human capital accumulation, job choice, employment rates, hourly wages and occupational achievement. Second, I investigated how rapid social change around the gender revolution of the 1970s might have altered the relationship between work expectations and market outcomes, for two cohorts of American women –early and late baby boomers. Third, I summarized women's employment careers into four longitudinal trajectories and tested the risk factors associated with membership to each one of these groups.

My work shows that women's work lives are complex and fluid: they are influenced by a variety of factors throughout the life-course. These are difficult to conceptualize with precision using general concepts and categories (such as “working mother”, “stay-at-home housewife”, etc). Some women in my study spent most of their adult lives focused on their employment careers, some favored the role of mother, and a majority of them combined work and family in varying degrees at different ages. For some women, socialization factors (such as attitudes, preferences and expectations) constituted the driving forces behind their employment decisions, at least during some periods of their life-course. For other women, structural and institutional forces (discrimination, lack of support for childcare, socioeconomic status, etc.) seemed to be more consequential, constraining the alternatives available to them in ways that limited



their choice at one point or another. Attempts to assign exclusive importance to one set of mechanisms (i.e. structure vs. agency, or supply vs. demand-side arguments) seem to be driven more often by ideological considerations than by an open exploration of the real difficulties that most women face in their everyday lives, as they seek to balance work and family in ways that make sense to them –given their personal and relational circumstances. As scholars look more broadly at women’s work and family trajectories over time, a more nuanced picture should emerge –one that acknowledges women’s heterogeneous dispositions and preferences, without losing sight of the wide variety of circumstances that condition and limit their decisions throughout adulthood.

### **Limitations of this study**

This dissertation has used longitudinal data, and relatively advanced multivariate techniques, to produce refined estimates of the relationship between work expectations and a number of other factors. However, none of the conclusions of this study can be considered causal: even though I have made use of a fair amount of information (and have tried to approximate empirically some factors that are often considered unobservable, such as expectations or discrimination), I did not use techniques specifically designed to provide a strong test of causality –such as experimental approaches or instrumental variables.

Additionally, I have acknowledged (in *Chapter 1: Introduction*) that work expectations are certainly related to women’s family background, and to the characteristics of their parents. However, I made the strategic decision not to look at the causes of work expectations (how they are formed), but rather at their consequences: still

today, it is a fact that women (and men) reach young adulthood with different subjective perceptions and preferences regarding their future roles as workers and parents. My goal has been to show whether and how these expectations matter. I have found that they influence people's choices (for example, how much education to get) and that these choices eventually make a difference in their lives. Of course, other factors are also important (even at times more important than expectations), and *Chapter 3* has investigated some of them, finding for instance that at later stages of the life-course, earlier employment decisions trump expectations when explaining people's wage level.

### **Moving forward: possible extensions of this research**

This work has important policy implications. If, as I have tried to argue, expectations matter across the life-course, one could still ask: *Why do we care about expectations in the first place?* Some people would argue that expectations are important because they embody cultural and social norms, and as such can be either a vehicle for social change or a mechanism for the reproduction of existing inequalities. In this case, policy interventions could focus on childhood socialization and try, for instance, to favor developmental approaches that promote similar expectations between the sexes, and that counteract assumptions of separate gender roles. Policy could also address adult outcomes, and suggest interventions that minimize the effects of expectations on market outcomes, and facilitate men's and women's ability to realize their expectations without work or family penalties. This would be the case for family-friendly policies, paid maternity leave, and good-quality affordable childcare, among others.

The results of this study cannot be generalized to other countries. The extent to which men and women combine work and family, share family roles, and develop gender expectations, is strongly influenced by social context. Some of my conclusions could (and should) be tested in countries that have different approaches to gender roles and to social policy. Attention is increasingly focusing on countries that have tried to improve the gender neutrality of parental leave legislation, with overall positive effects for equality –but not free from unintended consequences (Duvander and Johansson 2012; Eriksson 2011; Evertsson and Duvander 2011). In the future, I hope to be able to expand my research in this direction.

This dissertation has focused exclusively on women. However, men’s work and family behaviors have been gaining increasing relevance during the last decade: men’s attitudes towards women’s employment have become more liberal, although the trend might have flattened in recent years (Cotter et al. 2011). Even if women still do more, men have substantially increased their participation in family chores (Coltrane 2000) and the time they spend with children (Bianchi 2000; Fisher, McCulloch, and Gershuny 1999). Support for a gendered division of household chores has also declined (Cunningham 2008).

As we learn more about men’s attitudinal changes, we would expect parallel behavioral changes, especially in the younger generations. Future research should further explore the shifting boundaries of gender roles, and how changes in men’s attitudes and behaviors influence women’s expectations regarding their ability to navigate the demands emanating from their work and family obligations. In this respect, together with some of the more optimistic developments highlighted above (such as young men’s growing

appreciation for women's employment, or their increased contribution to childcare and housework), researchers should pay attention to other less encouraging trends. Among these are men's growing insecurity and instability, both as partners and as providers in families: growing employment instability, increased job turnover, wage stagnation, and the growing reliance of young people on cohabiting relationships (which tend to dissolve at higher rates), are all important factors that shape young women's work expectations, and which might in turn influence their investments in careers and families.

Today, increasing numbers of women reach young adulthood with plans to be equal partners and co-providers in their families, taking on roles traditionally reserved to men. The extent to which the work and family expectations and preferences of young generations of women are realized will depend not only on men's reciprocal assumption of childcare and housework tasks. It will also hinge upon the ability (of both men and women) to ensure a minimum level of stability and security in their professional and relational ties. This is one of the areas in which social policy might be most relevant in the coming decades. Originating in the Scandinavian countries, where family policy is most conducive to a shared definition of parental responsibilities between men and women, evidence is accumulating on what some scholars are calling "the second stage of the gender revolution": as gender equality spreads within families, relationships become more stable, individuals are better able to realize their fertility expectations, and women manage to combine work and family in more satisfying ways (Duvander and Andersson 2006; Frejka et al. 2008; Goldscheider 2012; Mencarini and Sironi 2012). Future research should be able to track these developments in other countries, and link them to changes in the expectations and behaviors of both men and women.

\*\*\*\*\*

In sum, this dissertation highlights the importance of taking the long view on women's market behaviors and outcomes. Additionally, I have shown how women's attitudes, expectations, and subjective narratives, together with the structural factors that influence the options available to them, are all relevant for understanding their strategies for balancing work and family over time. These factors play different roles at different stages of the life-course. For this reason, women's complex and fluid employment trajectories call for new approaches that move beyond short-term explorations of outcomes.

**APPENDIX I: Sensitivity Analyses (Chapter 2)**

The results presented above are fairly robust to alternative variable definitions.

*Formal education* was measured in two alternative ways: continuously (completed years of schooling) and categorically (highest degree earned). In both cases – using linear and multinomial logistic regression respectively– results confirm the conclusions above: early baby boomers with low work expectations got less formal education than those with high work expectations. *Work experience* is tested alternatively using age 45, instead of 35, as the reference, and using total accumulated years of work experience instead of splitting it into full-time and part-time experience. Results confirm that the relationship between work expectations and work experience operated mostly through the lower propensity of women with low work expectations to accumulate part-time experience. *Training*'s positive relationship with work experience was still negative by age 45; nevertheless, it became non-significant.

*Starting wages* remained significantly higher for women with low work expectations when, instead of the complex definition of “first job” used in this paper, a simpler analysis of wages at age 25 (chosen to represent an early stage in most people's career) was conducted. *Wage profiles* for women with low work expectations remained flatter than those of women with high work expectations when, instead of using growth between ages 25 and 35, I expanded the window of observation ten additional years, to age 45. In fact, the relationship became still more significant ( $p < 0.05$ ) when the longer time-span was used.

## TABLES

**Table 1.1. WORK EXPECTATIONS AND FAMILY BACKGROUND.**

Means and proportions, by work expectations<sup>(1)</sup> around age 20. NLS-YW, 1968-2003.

	Low work expectations	Mixed work expectations	High work expectations	Low vs. all other (two-tailed t-tests)
N=	1,237	1,755	1,032	
%	30.7%	43.6%	25.6%	
Mother's education (years of completed schooling)	10.5	10.7	10.0	
Father's education (years of completed schooling)	10.4	10.6	9.4	
Mother employed when R aged 14 (%)	32.3	42.1	44.1	***
Father employed when R aged 14 (%)	94.6	93.1	91.2	*
Mother worked in professional-managerial occupations (%)	2.6	5.5	4.8	***
Father worked in professional-managerial occupations (%)	21.8	18.8	12.3	***

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<sup>(1)</sup> Women are classified using their responses to the question: What would you like to be doing at age 35? Possible answers are "Working for pay", "Looking after home or family", or "Other". Women are classified as having:

- "Low work expectations": responded, every time between ages 14 and 22, that wanted to stay at home at age 35.
- "High work expectations": responded, every time between ages 14 and 22, that wanted to work for pay at age 35.
- "Mixed work expectations": exhibited non-monotonic preferences for work or family.

TABLES

**Table 1.2. WORK EXPECTATIONS AND OTHER ATTITUDES AND EXPECTATIONS.**  
Means and proportions, by work expectations<sup>(1)</sup> around age 20. NLS-YW, 1968-2003.

	Low work expectations	Mixed work expectations	High work expectations	Low vs. all other (two-tailed t-tests)
N=	1,237	1,755	1,032	
%	30.7%	43.6%	25.6%	
Fertility expectations				
Number of children R considers ideal	2.84	2.81	2.83	
Number of children R expects to have	2.77	2.64	2.50	***
Educational expectations (in not yet graduated)				
Expects to graduate from High School (%)	93.1	98.5	95.5	***
Expects to graduate with Associates Degree (%)	53.8	72.7	69.2	***
Expects to graduate with BA (%)	35.7	55.4	55.3	***
Expects to go to Graduate School (%)	11.3	18.4	24.4	***
Commitment to work				
If R and her husband had enough money to live comfortably without working...				
...she would work anyway (%)	56.5	65.8	75.5	***
...undecided (%)	5.7	3.4	2.5	*
...she would stay at home (%)	37.8	30.8	22.0	***

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<sup>(1)</sup> Women are classified using their responses to the question: What would you like to be doing at age 35? Possible answers are "Working for pay", "Looking after home or family", or "Other". Women are classified as having:

- "Low work expectations": responded, every time between ages 14 and 22, that wanted to stay at home at age 35.
- "High work expectations": responded, every time between ages 14 and 22, that wanted to work for pay at age 35.
- "Mixed work expectations": exhibited non-monotonic preferences for work or family.



TABLES

**Table 2.1.** Summary of hypotheses, measures, methods, and samples. NLS-YW 1968-2003

Compared to others, women with low work expectations...	Dependent variable	Measured as...	Ages	Indep		Sample definition (women...)	N
				Vars ( <sup>1</sup> )	Method		
<b>...accumulate less work experience:</b>							
H1. Get less education	Lower HS graduation rates	Dummy (1=HS grad)	14-18	(a)	Logit	all	2,045
	Lower college graduation rates	Dummy (1=college grad)	14-22	(b)	Logit	all	3,658
H2. Accumulate less work experience	Years FT experience by age 35	Continuous, in years	14-35	(c)	OLS	all	2,873
	Years PT experience by age 35	Continuous, in years		(c)	OLS	all	2,873
H3. Accumulate less training	Weeks of on-the-job training by age 35	Continuous, in weeks	14-35	(d)	OLS	all	2,873
<b>...choose jobs with:</b>							
H4. Higher starting wages	Hourly wage in the first job after completing education	(ln)hourly wage (in 1990 dollars)	1 <sup>st</sup> job	(e)	OLS	all	3,311
H5. Favorable work conditions	Higher percentage female	Continuous, % female in occupation (0-100)	1 <sup>st</sup> job	(e)	OLS	employed	3,837
	Fewer physical demands	Scale 0-5 (z-scores)		(e)	OLS	employed	3,756
	Non-exposure to hazards	Scale 0-100 (z-scores)		(e)	OLS	employed	3,756
	Better environmental conditions	Scale 0-5 (z-scores)		(e)	OLS	employed	3,655
	Nurturant social skills required	Dummy (1=skill required)		(e)	Logit	employed	3,757
	Importance placed on power	Dummy (1=power important)		(e)	Logit	employed	3,757
H6. Flatter wage profiles	Annual wage growth rate between ages 25 and 35	Compound annual growth rate of women's inflation adjusted wages between ages 25-35	25-35	(e)	OLS	employed at ages 25 & 35	2,073
<b>...achieve less in the market:</b>							
H7. Work at lower rates	Having a job	Dummy (1=employed)	20-35	(f)	FE logit	all	3,552
H8. Earn lower wages	Current hourly wage	(ln)hourly wage	20-35	(f)	FE	employed	4,085
H9. Less prestigious occupations	Prestige of current occupation	Continuous, HWSEI scores 0-80	20-35	(f)	FE	employed	4,199

<sup>(1)</sup> Controls grouped as follows:

(a) = Work expectations, marital status, motherhood status, number of children, race

(b) = (a) + number of times married by final age

(c) = (b) + higher degree earned, weeks of job training

(d) = (b) + higher degree earned, work experience

(e) = (b) + higher degree earned, work experience, job training

(f) = (e) + job characteristics (% female, physical demands, hazards, atmospheric and environmental conditions, nurture, power)

TABLES

**Table 2.2.** Means and standard deviations, by work expectation<sup>(1)</sup>. NLS-YW 1968-2003

	Low work expectations	Mixed work expectations	High work expectations	Low vs. all other (two-tailed t-tests)
N=	1,237	1,755	1,032	
%	30.7%	43.6%	25.6%	
<b>SOCIODEMOGRAPHIC CONTROLS</b>				
Married at age 35	75.4 (43.1)	68.4 (46.5)	57.9 (49.4)	***
Number of marriages by age 35	0.8 (0.6)	0.9 (0.7)	0.7 (0.6)	
Mother by age 35	71.7 (45.1)	73.7 (44.1)	69.0 (46.3)	
Children ever born by age 35	1.95 (1.3)	1.79 (1.3)	1.87 (1.5)	*
Husband's income (if married) by age 35	30.9 (19.1)	31.2 (20.1)	29.3 (20.9)	
Percentage non-Hispanic white	83.0 (37.6)	72.1 (44.8)	51.6 (50.0)	***
<b>HUMAN CAPITAL INVESTMENTS</b>				
High School graduation rates	82.9 (37.7)	86.9 (33.8)	84.0 (36.7)	
College graduation rates	16.9 (37.5)	23.8 (42.6)	27.7 (44.8)	***
Full-time work experience by age 35	7.0 (4.7)	7.2 (4.4)	7.4 (4.8)	
Part-time work experience by age 35	2.3 (2.5)	2.9 (2.6)	2.4 (2.5)	***
On-the-job Training by age 35	26.6 (49.1)	33.1 (46.7)	33.0 (54.3)	***
<b>JOB CHARACTERISTICS</b>				
Hourly wage of first job	7.6 (4.0)	7.8 (4.6)	7.5 (4.3)	
% female in first job	71.5 (23.7)	69.7 (23.4)	68.5 (23.6)	*
Physical demands (first job, scale 0-5)	1.9 (0.7)	2.0 (0.7)	2.1 (0.7)	***
Exposure to hazards (first job, scale 0-100)	5.7 (13.1)	7.7 (16.8)	9.1 (18.1)	***
Environmental conditions (first job, scale 0-5)	0.2 (0.4)	0.3 (0.4)	0.3 (0.5)	**
% for which first job involves nurturant skill	32.2 (46.7)	35.0 (47.7)	34.1 (47.4)	
% first job places importance on power	0.8 (9.1)	1.9 (13.7)	1.9 (13.7)	*
Annual wage growth rate from ages 25 to 35	0.7 (5.5)	1.7 (5.6)	1.5 (5.0)	***
<b>OUTCOMES</b>				
Employment rates at age 35	56.4 (49.6)	68.7 (46.4)	69.5 (46.1)	***
Hourly wage at age 35	8.6 (5.4)	9.5 (6.6)	9.0 (9.0)	**
Occupational prestige at age 35	32.7 (13.0)	35.9 (14.0)	35.2 (15.0)	***

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<sup>(1)</sup> Women are classified using their responses to the question: *What would you like to be doing at age 35?* Possible answers are "Working for pay", "Looking after home or family", or "Other". Women are classified as having:

- "Low work expectations": if they responded, every time between ages 14 and 22, that wanted to stay at home at age 35.
- "High work expectations": if they responded, every time between ages 14 and 22, that wanted to work for pay at age 35.
- "Mixed work expectations": if they exhibited non-uniform preferences for work or family.

TABLES

**Table 2.3. DO WOMEN WITH LOW WORK EXPECTATIONS ACCUMULATE LESS HUMAN CAPITAL?**  
Unstandardized Coefficients from (H1) Logistic and (H2, H3) OLS models predicting (H1) Formal Education, (H2) Work Experience and (H3) Training. NLS-YW 1968-2003.

	H1. Graduated from:		H2. Cumulative years of work experience:		H3. Cumul. weeks of training
	High school	College	Full-time	Part-time	
Sample and covariates defined at ages...	14-18	14-22	14-35	14-35	14-35
Method	Logit	Logit	OLS	OLS	OLS
Sample size	2,045	3,658	2,873	2,873	2,873
Work expectations <sup>(2)</sup> (ref. <i>High work expectations</i> )					
Low work expectations in young adulthood	-0.29 ^	-0.97 ***	0.14	-0.33 *	-4.67 ^
Mixed work expectations in young adulthood	0.09	-0.52 ***	-0.09	0.37 **	-0.49
Education					
Completed years of schooling <sup>(1)</sup>	n.a.	n.a.	0.05	0.15 ***	0.58
Work experience					
Cumulative years of full-time experience	n.a.	n.a.	n.a.	n.a.	1.58 ***
Cumulative years of part-time experience	n.a.	n.a.	n.a.	n.a.	1.31 **
On-the-job training					
Cumulative weeks of training	n.a.	n.a.	0.01 ***	0.00	n.a.
Sociodemographic characteristics					
Married (dummy)	-0.30 ^	-0.11	-0.46 *	0.29 *	-3.11
Number of times married	n.a.	n.a.	1.01 ***	-0.12	1.03
Mother (dummy)	-0.36	-1.06 ***	-0.44	-0.01	2.80
Number of children ever born	-0.80 ***	-0.59 ***	-1.07 ***	0.04 ***	-1.10
Race (non-Hispanic white=1; other=0)	0.42 **	0.53 ***	-1.36 ***	0.81	1.62

^p<0.1; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<sup>(1)</sup> "Years of schooling" defined as the highest grade ever completed, from 0 (none) to 18 (graduate degree).

<sup>(2)</sup> Women are classified using their responses to the question: *What would you like to be doing at age 35?* Possible answers are "Working for pay", "Looking after home or family", or "Other". Women are classified as having:

- "Low work expectations": if they responded, every time between ages 14 and 22, that they wanted to stay at home at age 35.
- "High work expectations": if they responded, every time between ages 14 and 22, that they wanted to work for pay at age 35.
- "Mixed work expectations": if they exhibited non-monotonic preferences for work or family.

## TABLES

**Table 2.4. DO WOMEN WITH LOW WORK EXPECTATIONS ENTER CERTAIN TYPES OF JOBS?**  
Unstandardized OLS coefficients predicting (H4) (ln)wages and (H5) job characteristics of first job. NLS-YW 1968-2003.

	H4. Higher	H5. Job characteristics of first job:					
	wage first job <sup>(1)</sup>	% female	Requires strength	Involves hazards	Environ. conditions	Nurturant social skill	Power is important
Sample size	3,311	3,305	3,227	3,227	3,136	3,227	3,227
Work expectations <sup>(2)</sup> (ref. <i>High expectations</i> )							
Low work expectations in young adulthood	0.077 ***	2.52 *	-0.18 ***	-0.16 ***	-0.17 ***	0.04	-0.89 ^
Mixed work expectations in young adulthood	0.053 **	0.88	-0.04	-0.02	-0.04	0.00	-0.06
Formal education							
Completed years of schooling	0.103 ***	0.908 ***	-0.083 ***	-0.092 ***	-0.122 ***	0.284 ***	0.115
Work experience <sup>(3)</sup>							
Cumulative years of full-time experience	0.033 ***	0.235	-0.037 ***	-0.017 **	-0.020 ***	-0.028 ^	0.072 *
Cumulative years of part-time experience	0.010 *	0.600 **	0.005	0.006	-0.003	0.059 **	0.031
On-the-job training <sup>(3)</sup>							
Cumulative weeks of training	0.000 ^	0.037 **	0.001	0.000	0.000	0.002 *	-0.004
Sociodemographic characteristics							
Married at first job	-0.009	0.139	0.083 *	0.008	0.002	0.247 *	-0.606 ^
Number of times married by first job	-0.007	-1.974 *	0.042	0.012	0.030	-0.187 *	-0.045
Mother by first job	-0.001	1.064	-0.032	-0.074	-0.067	0.246 ^	0.356
Number of children ever born by first job	0.000	0.895	0.041	0.003	0.003	0.095	-0.004
Age at first job (in years)	-0.011 ***	-0.714 ***	0.025 ***	0.019 ***	0.024 ***	-0.023 ^	0.073 *
Race (non-hispanic white=1; other=0)	0.005	2.888 **	-0.239 ***	-0.222 ***	-0.253 ***	0.285 **	0.576

^p<0.1; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<sup>(1)</sup> "First Job" defined as the first job recorded after a woman completed her highest year of education, between ages 14-24 and 49-59.

<sup>(2)</sup> Women are classified using their responses to the question: *What would you like to be doing at age 35?* Possible answers are "Working for pay", "Looking after home or family", or "Other". Women are classified as having:

- "Low work expectations": if they responded, every time between ages 14 and 22, that they wanted to stay at home at age 35.
- "High work expectations": if they responded, every time between ages 14 and 22, that they wanted to work for pay at age 35.
- "Mixed work expectations": if they exhibited non-monotonic preferences for work or family.

<sup>(3)</sup> Given the way I defined first job, women may have work experience and training before their "first" job: for instance, if they worked as they earned their education, or if they returned to school after working for a while. Hence, controlling for past work experience and training is necessary for a meaningful interpretation of this model. Age was added for similar reasons.

TABLES

**Table 2.5. DO WAGES OF WOMEN WITH LOW WORK EXPECTATIONS GROW SLOWER?**  
 Unstandardized OLS coefficients predicting (H6) annual wage growth from age 25 to 35.  
 NLS-YW 1968-2003.

	H6. Wage growth rate <sup>(1)</sup> between ages 25 to 35
Sample size	2,073
Work expectations <sup>(2)</sup> (ref. <i>High work expectations</i> )	
Low work expectations in young adulthood	-0.006 ^
Mixed work expectations in young adulthood	0.001
Increases in formal education	
Additional years of education completed	0.002
Work experience gained	
Additional years of full-time work experience	0.004 ***
Additional years of part-time work experience	0.003 ***
Additional on-the-job training completed	
Additional weeks of training	0.000 **
Changes in marital status (ref. <i>Unmarried age 25 &amp; 35</i> )	
Unmarried age 25 - married age 35	0.001
Married age 25 - unmarried age 35	0.007 ^
Married age 25 & 35	-0.003
Marital history between ages 25 and 35	
Additional marriages (0 = no additional marriages)	-0.001
Changes in motherhood status (ref. <i>Childless age 25 &amp; 35</i> )	
Childless age 25 - mother age 35	-0.009 *
Mother at ages 25 and 35	0.001
Fertility history between ages 25 and 35	
Additional children born	-0.001
Race (non-Hispanic white=1; other=0)	0.008 **

^p<0.1; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<sup>(1)</sup> Compound annual growth rate of women's inflation-adjusted hourly wage at ages 25 and 45.

<sup>(2)</sup> Women are classified using their responses to the question: *What would you like to be doing at age 35?*

Possible answers are "Working for pay", "Looking after home/family", or "Other". Expectations are coded:

- "Low": responded, every time between ages 14 and 22, that they wanted to stay at home at age 35.
- "High": responded, every time between ages 14 and 22, that they wanted to work for pay at age 35.
- "Mixed": if they exhibited non-uniform preferences for work or family.

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**Table 2.6. DO WOMEN WITH LOW WORK EXPECTATIONS DO WORSE IN THE MARKET?**  
Coefficients from fixed-effects models predicting (H7) employment, (H8) hourly wages and (H9) HWSEI prestige scores, between ages 20 and 35. NLS-YW 1968-2003.

	H7. Working for pay <sup>(1)</sup>	H8. (ln)Hourly wage <sup>(2)</sup>	H9. HWSEI prestige scores <sup>(2)</sup>
Sample size	3,552	4,085	4,199
Person-year observations	31,721	18,599	19,746
Work expectations <sup>(3)</sup> (ref. <i>High work expectations</i> )			
Low work expectations	-0.435 ***	-0.014	-0.859 **
Mixed work expectations	-0.214 **	-0.015	-0.397 ^
Human capital			
Years of schooling completed	0.326 ***	0.037 ***	1.316 ***
Years of FT work experience (>35 hrs/wk)	0.011 ***	0.001 ***	0.001
Years of FT work experience squared	-0.032 ***	-0.001 ***	-0.002
Years of PT work experience (<35 hrs/wk)	0.007 ***	0.000 ***	0.002
Years of PT work experience squared	-0.015 ***	0.002 **	0.001
Currently employed part-time		-0.004	-1.387 ***
Cumulative years of training	0.085	0.049 ***	0.792 ***
Cumulative years of training squared	-0.010	-0.003 **	-0.057 **
Job characteristics			
Percentage female on the job (10% increase)		-0.016 ***	-2.454 ***
Requires physical strength		0.001	-4.387 ***
Exposure to hazards		-0.060 ***	3.525 ***
Bad environmental conditions		0.044 **	-8.249 ***
Demands for nurturant social skills		-0.081 ***	6.304 ***
Importance is placed on power		-0.053 ^	1.238 ^
Sociodemographic controls			
Married	-0.572 ***	-0.025 **	0.254
Children ever born	-0.859 ***	-0.021 ***	-0.170
Husband's Income (in thousands of 1990 dollars)	-0.010 ***	0.000 *	-0.004
Age in years	0.098	0.007	0.401

^p<0.1; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<sup>(1)</sup> Coefficients from FE logistic regression. All women. This analysis predicts work for pay: no job characteristics are included.

<sup>(2)</sup> Coefficients from fixed-effects regression. Employed women.

<sup>(3)</sup> Classified using responses to the question: *What would you like to be doing at age 35?* Possible answers are "Working for pay", "Looking after home/family", or "Other". For each survey year, I calculated the percentage of previous interviews in which a woman said she wanted to work for pay at age 35, getting a distribution of preferences for "work". Then I classified women in three groups:

- "Low work expectations": bottom 25 percent of the distribution (those saying that they wanted to work for pay least often)
- "High work expectations": women in the top 25 percent of the distribution (most frequently saying they wanted to work for pay)
- "Mixed work expectations": women in middle 50 percent of the distribution (they alternated the different responses over time)

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**Table 2.7. DO WORK EXPECTATIONS HAVE A SEPARATE DIRECT EFFECT ON MARKET OUTCOMES?**  
 Percentage change in the gross effect of low work expectations on market outcomes,  
 from stepwise fixed-effect models, between ages 20 and 35. NLS-YW 1968-2003.

	Working for pay		(ln) Hourly wage		HWSEI scores	
	Coef.	Change	Coef.	Change	Coef.	Change
Gross effect <sup>(1)</sup>	-0.550 ***		-0.023 ^		-0.977 **	
Adding human capital variables	-0.435 ***	-21%	-0.015	-33%	-0.789 *	-19%
Adding job characteristics variables			-0.022	-5%	-1.020 **	+4%
Adding both HC and job chars.			-0.014	-39%	-0.859 **	-12%

^p<0.1; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<sup>(1)</sup> Includes only work expectations and socioeconomic controls (marital status, children ever born, husband's income, and the respondent's age).

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**Table 3.1.** Means at age 35, by cohort and work expectations<sup>(1)</sup>.  
NLS-YW (early boomers, interviewed 1968-2003) and NLSY (late boomers, interviewed 1979-2010).

	Early Boomers			Late Boomers		
	Low work expect.	Other women	Within-cohort difference (t-test)	Low work expect.	Other women	Within-cohort difference (t-test)
N=	1,237	2,787	-1,550	502	5,752	-5,250
% of cohort	30.7	69.3	-38.5	8.0	92.0	-83.9
<b>SOCIOECONOMIC CONTROLS</b>						
Married	75.4	64.7	10.7 ***	67.5	57.0	10.4 ***
Has children	71.7	71.9	-0.2	80.9	75.2	5.7 **
Children ever born	1.95	1.82	0.1 *	2.10	1.83	0.3 ***
Husband's annual income, 1k (if married)	30.9	30.6	0.3	27.3	28.6	-1.3
Percentage non-Hispanic white	83.0	64.5	18.5 ***	70.7	58.2	12.5 ***
<b>HUMAN CAPITAL INVESTMENTS</b>						
Total years of education	11.8	12.3	-0.5 ***	12.0	13.2	-1.2 ***
Cumul. full-time work experience, years	7.0	7.3	-0.3	8.5	8.9	-0.4
Cumul. part-time work experience, years	2.3	2.8	-0.5 ***	2.5	2.6	-0.1
Cumulative on-the-job training, weeks	26.6	33.1	-6.5 ***	13.9	21.7	-7.8 ***
<b>JOB CHARACTERISTICS (if employed)</b>						
Female in current job (%)	69.9	66.6	3.3 **	59.0	57.8	1.3
Physical demands of (z-scores)	-0.16	-0.06	-0.10 *	-0.25	-0.26	0.01
Exposure to hazards (z-scores)	-0.11	-0.08	-0.03	-0.13	-0.11	-0.03
Environmental conditions (z-scores)	-0.12	-0.10	-0.02	-0.12	-0.11	0.00
First job involves nurturant skill (%)	28.2	33.7	-5.5 **	20.3	23.8	-3.5
First job places importance on power (%)	0.85	0.89	-0.04	5.71	6.46	-0.75
<b>OUTCOMES</b>						
Employment rates	56.4	69.0	-12.6 ***	60.2	70.9	-10.8 ***
Hourly wage	8.6	9.3	-0.7 **	8.0	9.8	-1.8 ***
Occupational Prestige	32.7	35.6	-3.0 ***	30.6	35.6	-5.0 ***

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<sup>(1)</sup> Women are classified using their responses to the question: *What would you like to be doing at age 35?* Possible answers are "Working for pay", "Looking after home or family", or "Other". Women are classified as having "Low work expectations" if they responded, every time between ages 14 and 22, that they wanted to stay at home at age 35. "Other women" includes those who changed responses and those who always said, between ages 14 and 22, that they wanted to work for pay at age 35.



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**Table 3.2. EMPLOYMENT RATES BY WORK EXPECTATION ACROSS COHORTS**

Coefficients from ordinary and logistic fixed-effects models predicting employment, from age 20 to 35, for women not in school. NLS-YW (1968-2003) and NLSY (1979-2010).

	A. Logit			B. Fixed Effects		
	Early Boomers	Late Boomers	Early v. Late	Early Boomers	Late Boomers	Early v. Late
Sample size	3,198	4,209	7,407	3,198	4,209	7,407
Person-year observations	27,314	48,078	75,392	27,314	48,078	75,392
Work expectations <sup>(3)</sup>						
Low Work Expectation Index	-0.051 ***	-0.028 ***	**	-0.080 ***	-0.023	**
Human capital						
Years of schooling completed	0.079 ***	0.027 ***	***	0.012	-0.013	
Years of FT work experience (>35 hrs/wk)	0.006 ***	0.008 ***	***	0.008 ***	0.008 ***	
Years of FT work experience squared	-0.009 ***	-0.012 ***	*	-0.024 ***	-0.020 ***	*
Years of PT work experience (<35 hrs/wk)	0.004 ***	0.005 ***		0.007 ***	0.006 ***	
Years of PT work experience squared	-0.009 ***	-0.005 *		-0.019 ***	-0.013 ***	
Cumulative years of training	0.018	0.334 ***	***	0.101	0.859 ***	***
Cumulative years of training squared	-0.007	-0.082 **	**	-0.023	-0.164 ***	***
Sociodemographic controls						
Married	-0.376 ***	-0.344 ***		-0.984 ***	-0.661 ***	***
Children ever born	-0.218 ***	-0.189 ***		-0.894 ***	-0.631 ***	***
Husband's income (in thousands of 1990 USD)	-0.014 ***	-0.010 ***	*	-0.011 ***	-0.009 ***	^
Race (non-Hispanic white)	-0.014	-0.194 ***	**			
Age in years	-0.062 ***	-0.102 ***	**	0.136	0.090 *	

^p<0.1; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<sup>(1)</sup> Women from the NLS-YW cohort, born between 1944 and 1954, and interviewed between 1968 and 2003.

<sup>(2)</sup> Women from the NLSY79 cohort, born between 1957 and 1965 and interviewed between 1979 and 2010.

<sup>(3)</sup> The Low Work Expectation Index, whose values go from 1 to 10, contains the cumulative percentage of times a woman indicated, up to a given interview year, that she would like to be doing something different from "working for pay" when asked "What would you like to be doing when you are 35 years old?". It can be interpreted as the effect of a 10% increase in her preference for homemaking.

TABLES

**Table 3.3. HOURLY WAGES BY WORK EXPECTATION ACROSS COHORTS**

Coefficients from OLS and fixed-effects models predicting (ln) hourly wages, at ages 20 to 35, for employed women. NLS-YW (1968-2003) and NLSY (1979-2010).

	OLS			Fixed Effects		
	Early Boomers	Late Boomers	Early v. Late	Early Boomers	Late Boomers	Early v. Late
Sample size	4,056	5,566	9,622	4,056	5,566	9,622
Person-year observations	18,425	38,906	57,331	18,425	38,906	57,331
Work expectations <sup>(3)</sup>						
Low Work Expectation Index	0.001	-0.003 ^		0.000	0.003	
Human capital						
Years of schooling completed	0.083 ***	0.067 ***	***	0.037 ***	0.057 ***	**
Years of FT work experience (>35 hrs/wk)	0.001 ***	0.001 ***	***	0.001 ***	0.002 ***	***
Years of FT work experience squared	-0.001 ***	-0.001 ***		-0.001 ***	-0.002 ***	**
Years of PT work experience (<35 hrs/wk)	0.000	0.000 *	*	0.000 ***	0.001 ***	
Years of PT work experience squared	0.003 **	0.002 **		0.001 **	0.000	
Currently employed part-time	-0.003	-0.011		-0.005	0.009	
Cumulative years of training	0.061 ***	0.061 ***		0.050 ***	0.077 ***	
Cumulative years of training squared	-0.004 ***	-0.014 *	^	-0.003 **	-0.008 ^	
Job characteristics						
Percentage female on the job (10% increments)	-0.009 **	-0.021 ***	***	-0.016 ***	-0.012 ***	
Need for physical strength	0.032 **	-0.037 ***	***	0.001	-0.018 ***	*
Exposure to hazards	-0.030 *	0.007	*	-0.039 ***	-0.014 *	*
Bad environmental conditions	-0.061 ***	-0.041 ***		0.031 **	0.027 ***	
Demands for nurturant social skills	-0.124 ***	-0.023 *	***	-0.079 ***	-0.005	***
Importance is placed on power	-0.028	-0.019		-0.050	0.010	
Sociodemographic controls						
Married	-0.062 ***	-0.043 ***		-0.024 **	-0.018 **	
Children ever born	-0.006	-0.009 ^		-0.022 ***	-0.015 **	
Husband's income (in thousands of 1990 USD)	0.003 ***	0.003 ***		0.000 *	0.001 ***	***
Race (non-Hispanic white)	0.050 ***	0.010	***			
Age in years	-0.008 ***	-0.003		0.008	0.009	

^p<0.1; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<sup>(1)</sup> Women from the NLS-YW cohort, born between 1944 and 1954, and interviewed between 1968 and 2003.

<sup>(2)</sup> Women from the NLSY79 cohort, born between 1957 and 1965 and interviewed between 1979 and 2010.

<sup>(3)</sup> The Low Work Expectation Index, whose values go from 1 to 10, contains the cumulative percentage of times a woman indicated, up to a given interview year, that she would like to be doing something different from "working for pay" when asked "What would you like to be doing when you are 35 years old?". It can be interpreted as the effect of a 10% increase in her preference for homemaking.

## TABLES

**Table 3.4. OCCUPATIONAL PRESTIGE BY WORK EXPECTATION ACROSS COHORTS**

Coefficients from OLS and fixed-effects models predicting HWSEI occupational prestige scores, for employed women ages 20 to 35. NLS-YW (1968-2003) and NLSY (1979-2010).

	OLS			Fixed Effects		
	Early Boomers	Late Boomers	Early v. Late	Early Boomers	Late Boomers	Early v. Late
Sample size	4,170	5,594	9,764	4,170	5,594	9,764
Person-year observations	19,609	39,912	59,521	19,609	39,912	59,521
Work expectations <sup>(3)</sup>						
Low Work Expectation Index	-0.129 **	-0.096 **		-0.122 **	-0.028	
Human capital						
Years of schooling completed	2.981 ***	2.402 ***	***	1.332 ***	2.036 ***	***
Years of FT work experience (>35 hrs/wk)	0.005 **	0.008 ***		0.001	0.006 ***	**
Years of FT work experience squared	-0.006	-0.016 ***	^	-0.001	-0.015 ***	**
Years of PT work experience (<35 hrs/wk)	-0.004	-0.002		0.001	0.007 **	
Years of PT work experience squared	0.031 ^	0.025 ^		0.004	-0.011	
Currently employed part-time	-1.864 ***	-1.719 ***		-1.377 ***	-1.557 ***	
Cumulative years of training	1.329 ***	2.675 ***	**	0.770 ***	2.489 ***	***
Cumulative years of training squared	-0.069 **	-0.459 **	*	-0.055 **	-0.615 ***	***
Job characteristics						
Percentage female on the job (10% increments)	-1.645 ***	-2.170 ***	***	-2.465 ***	-2.705 ***	***
Need for physical strength	-0.358	-3.212 ***	***	-4.178 ***	-4.415 ***	
Exposure to hazards	2.683 ***	3.615 ***	**	2.318 ***	2.578 ***	
Bad environmental conditions	-7.595 ***	-8.576 ***	*	-5.520 ***	-6.337 ***	**
Demands for nurturant social skills	8.411 ***	4.691 ***	***	6.308 ***	3.028 ***	***
Importance is placed on power	2.966 **	3.191 ***		1.218 ^	2.174 ***	
Sociodemographic controls						
Married	0.543 ^	0.458 *		0.265	0.069	
Children ever born	-0.029	-0.063		-0.184	-0.145	
Husband's income (in thousands of 1990 USD)	0.013	0.023 ***		-0.004	0.000	
Race (non-Hispanic white)	1.478 ***	0.880 ***	^			
Age in years	-0.071	0.178 **	**	0.405	0.038	

^p<0.1; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<sup>(1)</sup> Women from the NLS-YW cohort, born between 1944 and 1954, and interviewed between 1968 and 2003.

<sup>(2)</sup> Women from the NLSY79 cohort, born between 1957 and 1965 and interviewed between 1979 and 2010.

<sup>(3)</sup> The Low Work Expectation Index, whose values go from 1 to 10, contains the cumulative percentage of times a woman indicated, up to a given interview year, that she would like to be doing something different from "working for pay" when asked "What would you like to be doing when you are 35 years old?". It can be interpreted as the effect of a 10% increase in her preference for homemaking.

TABLES

**Table 3.5. DID THE EFFECT OF EXPECTATIONS CHANGE ACROSS COHORTS?**

Summary of the effects of low work expectations on early and late boomers' employment, hourly wage, and occupational prestige, between ages 20 and 35. NLS-YW, 1968-2003 and NLS-Y79, 1979-2010.

	Logit / OLS			FE logit / Linear fixed-effects		
	Early Boomers	Late Boomers	Early v. Late	Early Boomers	Late Boomers	Early v. Late
Working for Pay <sup>(1)</sup>	-0.051 ***	-0.028 ***	**	-0.080 ***	-0.023	**
Hourly Wages <sup>(2)</sup>	0.001	-0.003 ^		0.000	0.003	
Occupational Prestige <sup>(2)</sup>	-0.129 **	-0.096 **		-0.122 **	-0.028	

<sup>(1)</sup> From logistic and fixed-effect logistic models including socioeconomic characteristics (marital status, children ever born, husband's income, and the respondent's age), and human capital accumulation (years of education, full-time experience, part-time experience, on-the-job training).

<sup>(2)</sup> From OLS and linear fixed-effect models including socioeconomic characteristics (marital status, children ever born, husband's income, and the respondent's age), human capital accumulation (years of education, full-time experience, part-time experience, on-the-job training), and job characteristics (percentage female, physical demands, hazards, environmental and atmospheric conditions, nurturing requirements, and importance of power).

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**Table 4.1. DESCRIBING TRAJECTORY GROUPS.**  
Means and proportions by group trajectory. NLS-YW 1968-2003.

	G1: Always Low	G2: Steady Increase	G3: Increase & Decline	G4: Increase & Stay High
Group size	1,158	1,353	646	1,917
Percentage of all women	22.8%	26.7%	12.7%	37.8%
Young Adult Work Expectations <sup>(1)</sup>				
Low Work Expectations	46.9	37.0	18.7	26.9
Mixed Work Expectations	29.4	37.3	37.6	33.3
High Work Expectations	23.8	25.8	43.7	39.8
Human Capital by age 25				
Not yet completed HS	37.3	10.7	9.4	8.8
HS graduate	38.6	43.7	25.7	43.5
Some college	12.0	25.2	21.4	25.4
College grad or more	12.1	20.4	43.5	22.4
Employment Experiences				
Very dissatisfied with work	25.9	21.6	25.5	21.7
Ever discriminated against at work	20.7	39.2	41.3	35.9
Fertility Experiences				
Timing of first birth				
Childless	16.6	2.3	27.6	42.1
Teen mother	38.8	29.9	20.7	19.7
Early twenties	33.0	50.1	22.8	23.9
Late twenties	11.7	17.7	29.0	14.3
Had 3 or more children	42.3	43.8	18.7	13.5
Ever was a single mom	34.2	17.6	19.7	17.9
Dislike childcare	25.1	35.0	44.3	38.1
Family Experiences				
Married by age 25	68.8	80.4	54.1	53.1
Ever divorced	30.1	52.1	39.0	38.1
Husband opposed to her working for pay	48.8	54.6	23.2	12.3
Health limitations				
Own Health ever limited work	39.1	40.7	42.9	22.8
A relative's health ever limited work	17.4	13.1	15.6	6.7
Sociodemographic Controls				
Total Family Income				
Bottom quartile	53.5	11.3	19.0	18.3
Second quartile	18.2	25.9	29.1	27.2
Third quartile	13.1	32.4	22.6	28.3
Top quartile	15.2	30.4	29.3	26.2
Race (non-Hispanic White)	66.8	82.3	60.8	68.3

<sup>(1)</sup> Women are classified using their responses to the question: What would you like to be doing at age 35? Possible answers are "Working for pay", "Looking after home or family", or "Other". For each survey year, I calculated the percentage of previous interviews in which a woman said she wanted to work for pay at age 35, getting a distribution of preferences for "work".

Accordingly, I classified women in three groups:

- "Low Work Expectations": bottom tercile of the distribution (those saying that they wanted to work for pay less often)
- "High Work Expectations": women in the top tercile of the distribution (more frequently saying they wanted to work for pay)
- "Mixed Work Expectations": middle tercile of the distribution (they alternated the different responses over time)

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**Table 4.2. WHAT DETERMINES HIGH EMPLOYMENT RATES IN THE EARLY 20s?**  
Coefficients from logistic models predicting membership to groups with high employment rates in early adulthood. NLS-YW, 1968-2003.

	Belongs to G3/G4 (vs. G1/G2)	
	Coefficient	(Odds Ratio)
Sample size	5,074	
Young adult work expectations <sup>(1)</sup> (ref. <i>Low</i> )		
Mixed work expectations	0.551 ***	(1.74)
High work expectations	0.821 ***	(2.27)
Human capital by age 25 (ref. <i>Less HS</i> )		
HS graduate	0.807 ***	(2.24)
Some college	0.783 ***	(2.19)
College grad or more	0.511 **	(1.67)
Employment experiences		
Very dissatisfied with work	-0.218 *	(0.80)
Ever discriminated against at work	0.293 ***	(1.34)
Family experiences		
First birth (ref. <i>Childless</i> )		
Teen mother	-0.855 ***	(0.43)
Early twenties	-1.339 ***	(0.26)
Late twenties	-1.461 ***	(0.23)
Had 3 or more children	-1.003 ***	(0.37)
Ever was a single mom	0.055	(1.06)
Dislike childcare	0.021	(1.02)
Married by age 25	-0.255 *	(0.77)
Ever divorced	0.418 ***	(1.52)
Husband opposed to her working for pay	-1.285 ***	(0.28)
Health limitations		
Own health ever limited work	-0.535 ***	(0.59)
A relative's health ever limited work	-0.592 ***	(0.55)
Sociodemographic controls		
Total Family Income (ref. <i>Bottom quartile</i> )		
Second quartile	1.532 ***	(4.63)
Third quartile	2.170 ***	(8.76)
Top quartile	2.226 ***	(9.26)
Race (non-Hispanic White)	-0.435 ***	(0.65)

^p<0.1; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<sup>(1)</sup> Women are classified using their responses to the question: What would you like to be doing at age 35? Possible answers are "Working for pay", "Looking after home or family", or "Other". For each survey year, I calculated the percentage of previous interviews in which a woman said she wanted to work for pay at age 35, getting a distribution of preferences for "work". Accordingly, I classified women in three groups:

- "Low Work Expectations": the bottom tercile of the distribution (i.e. those saying that they wanted to work for pay less often)
- "High Work Expectations": women in the top tercile of the distribution (i.e. more frequently saying they wanted to work for pay)
- "Mixed Work Expectations": women in the middle tercile of the distribution (i.e. they alternated the different responses over time)

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**Table 4.3.** GROWING EMPLOYMENT AFTER A SLOW START IN THE 20s.  
Coefficients from logistic models predicting membership to the "steady increase" group (G1) vs. "always low" group (G2). Women not in school. NLS-YW 1968-2003.

	Belongs to G2 (vs. G1)	
	Coefficient	(Odds Ratio)
Sample Size	5,074	
Young Adult Work Expectations <sup>(1)</sup> (ref. <i>Low</i> )		
Mixed work expectations	0.395 **	(1.48)
High work expectations	0.473 **	(1.60)
Human Capital by age 25 (ref. <i>Less HS</i> )		
HS graduate	0.707 ***	(2.03)
Some college	0.960 ***	(2.61)
College grad or more	0.481 *	(1.62)
Employment Experiences		
Very dissatisfied with work	-0.114	(0.89)
Ever discriminated against at work	0.531 ***	(1.70)
Family Experiences		
First birth (ref. <i>Childless</i> )		
Teen mother	1.084 ***	(2.96)
Early twenties	1.040 ***	(2.83)
Late twenties	0.660 *	(1.93)
Had 3 or more children	-0.386 **	(0.68)
Ever was a single mom	-0.025	(0.98)
Dislike childcare	0.028	(1.03)
Married by age 25	0.196	(1.22)
Ever divorced	0.426 ***	(1.53)
Husband opposed to her working for pay	-0.347 **	(0.71)
Health limitations		
Own Health ever limited work	-0.407 ***	(0.67)
A relative's health ever limited work	-0.651 ***	(0.52)
Sociodemographic Controls		
Total Family Income (ref. <i>Bottom quartile</i> )		
Second quartile	1.287 ***	(3.62)
Third quartile	1.671 ***	(5.32)
Top quartile	1.492 ***	(4.45)
Race (non-Hispanic White)	0.340 *	(1.40)

<sup>^</sup>p<0.1; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<sup>(1)</sup> Women are classified using their responses to the question: What would you like to be doing at age 35? Possible answers are "Working for pay", "Looking after home or family", or "Other". For each survey year, I calculated the percentage of previous interviews in which a woman said she wanted to work for pay at age 35, getting a distribution of preferences for "work". Accordingly, I classified women in three groups:

- "Low Work Expectations": the bottom tercile of the distribution (i.e. those saying that they wanted to work for pay less often)
- "High Work Expectations": women in the top tercile of the distribution (i.e. more frequently saying they wanted to work for pay)
- "Mixed Work Expectations": women in the middle tercile of the distribution (i.e. they alternated the different responses over time)

TABLES

**Table 4.4. DECLINING EMPLOYMENT AFTER A STRONG START IN THE 20s.**  
Coefficients from logistic models predicting membership to the "high and decrease" group (G3) v. "always high" (G4) group. Women not in school. NLS-YW 1968-2003.

	Belongs to G3 (vs. G4)	
	Coefficient	(Odds Ratio)
Sample Size	5,074	
Young Adult Work Expectations <sup>(1)</sup> (ref. <i>Low</i> )		
Mixed work expectations	0.213	(1.24)
High work expectations	-0.002	(1.00)
Human Capital by age 25 (ref. <i>Less HS</i> )		
HS graduate	-0.468 ^	(0.63)
Some college	-0.123	(0.88)
College grad or more	0.931 **	(2.54)
Employment Experiences		
Very dissatisfied with work	0.236	(1.27)
Ever discriminated against at work	-0.307 *	(0.74)
Family Experiences		
First birth (ref. <i>Childless</i> )		
Teen mother	0.453 ^	(1.57)
Early twenties	0.500 *	(1.65)
Late twenties	1.108 ***	(3.03)
Had 3 or more children	0.198	(1.22)
Ever was a single mom	-0.210	(0.81)
Dislike childcare	0.104	(1.11)
Married by age 25	0.101	(1.11)
Ever divorced	-0.284 *	(0.75)
Husband opposed to her working for pay	0.771 ***	(2.16)
Health limitations		
Own Health ever limited work	0.653 ***	(1.92)
A relative's health ever limited work	0.573 **	(1.77)
Sociodemographic Controls		
Total Family Income (ref. <i>Bottom quartile</i> )		
Second quartile	-0.673 **	(0.51)
Third quartile	-1.577 ***	(0.21)
Top quartile	-1.666 ***	(0.19)
Race (non-Hispanic White)	-0.148	(0.86)

^p<0.1; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

<sup>(1)</sup> Women are classified using their responses to the question: What would you like to be doing at age 35? Possible answers are "Working for pay", "Looking after home or family", or "Other". For each survey year, I calculated the percentage of previous interviews in which a woman said she wanted to work for pay at age 35, getting a distribution of preferences for "work". Accordingly, I classified women in three groups:

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TABLES

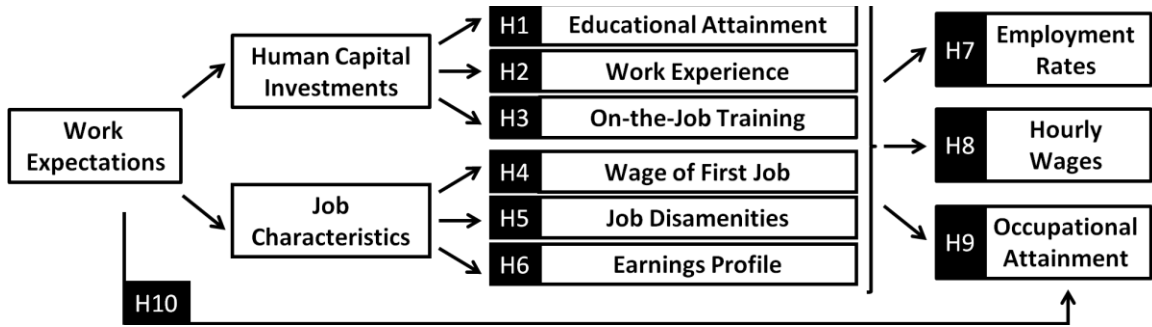
**Appendix Table AT4.** Variable definition and availability. NLS-YW, 1968-2003.

Variable	Type	Defined as	Values	Years Available*
Work expectations	categorical	Distribution of the proportion of times they expressed a work preference for the future. Divided in three terciles.	Low: most home oriented Mixed: middle third High: most work oriented	1968, 69, 70, 71, 72, 73, 75, 77, 78, 80, 82, 83, 85, 87
Education	categorical	Years of completed schooling.	<12: less than high school 12: high school graduate 13-15: some college >16: college grad plus	all years
Dissatisfaction with work	dummy	Distribution of the proportion of times they expressed dissatisfaction with their work.	0: below the median (relatively satisfied) 1: above the median (relatively dissatisfied)	1968, 69, 70, 71, 72, 73, 78, 80, 82, 83, 85, 87, 88, 91, 93, 95, 97, 99, 2001, 03
Discrimination	dummy	Ever reported feeling discriminated against at work for various reasons, including sex, age, race, ethnicity.	0: never reported discrimination 1: reported discrimination	1972, 78, 80, 82, 83, 88, 95, 2001
Age at first birth	categorical	Age at which they had their first child.	0: Childless 1: As a teenager 2: In the early twenties 3: In the late twenties	all years
Number of children	dummy	Whether a respondent had three or more biological and adopted children.	0: Two or fewer kids 1: Three or more kids	all years
Single motherhood	dummy	Whether a woman had a child before the date of her first marriage.	0: no single mom 1: single mom	all years
Dissatisfaction with childcare	dummy	Distribution of the proportion of times they expressed dissatisfaction with caring for children.	0: below the median (relatively satisfied) 1: above the median (relatively dissatisfied)	1978, 83, 88
Age at marriage	dummy	Whether a woman was married by age 25 (if never married, this variable takes the value 0).	0: never married by age 25 1: married at least once by age 25	all years
Divorce	dummy	Whether a woman ever got divorced (if never married, value is 0).	0: never divorced 1: divorced	all years
Husband's opposition to her employment	dummy	Proportion of times a woman reports that her husband opposes the idea of her working for pay.	0: below the median (husband supportive) 1: above the median (husband opposed)	1968, 72, 78, 83
Respondent's health limitations	dummy	Whether they ever reported that their own health limited the amount or type of work they could perform.	0: no health limitations 1: reports health limitations	1971, 78, 83, 88, 91, 93, 95, 97, 99, 2001, 03
Relatives' health limits Rs ability to work	dummy	Whether they ever reported that the health of a relative limited amount or type of work they could perform.	0: no health limitations 1: reports health limitations	1973, 78, 83, 88, 93, 95, 97, 99, 2001, 03
Total family income	categorical	Average family income across the study, broken down in quartiles.	Quartiles: 1 (bottom) to 4 (top)	all years
Race	dummy	Whether a woman is a non-Hispanic white.	0: minority race 1: non-Hispanic white	all years

\* All years: 1968, 69, 70, 71, 72, 73, 75, 77, 78, 80, 82, 83, 85, 87, 88, 91, 93, 95, 97, 99, 2001, 03.

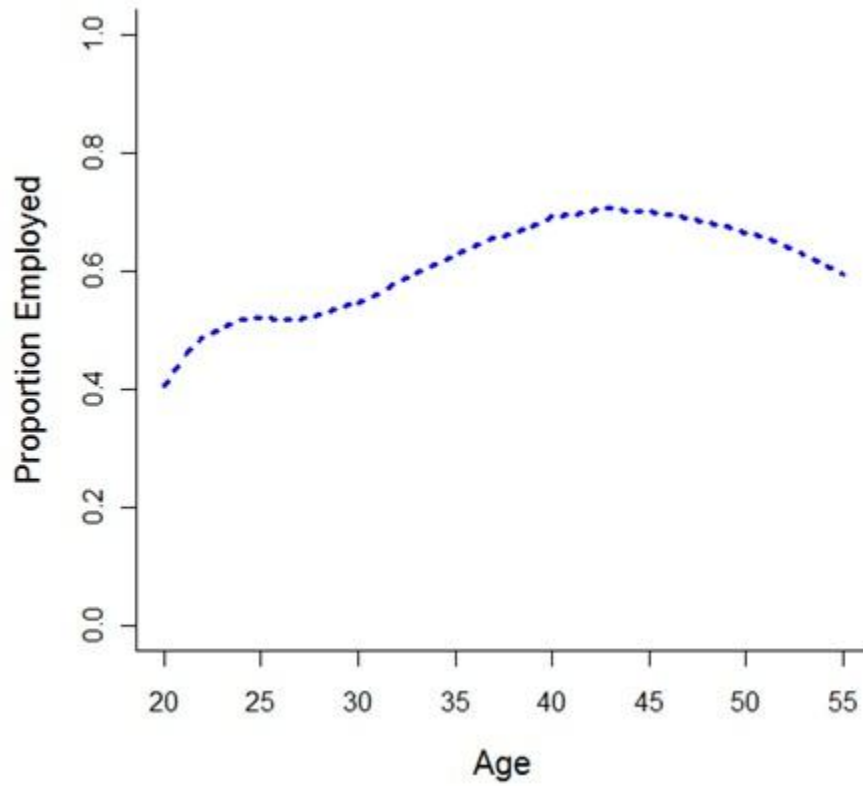
# FIGURES

Figure 2.1. The Human Capital Argument: from work expectations to market outcomes.



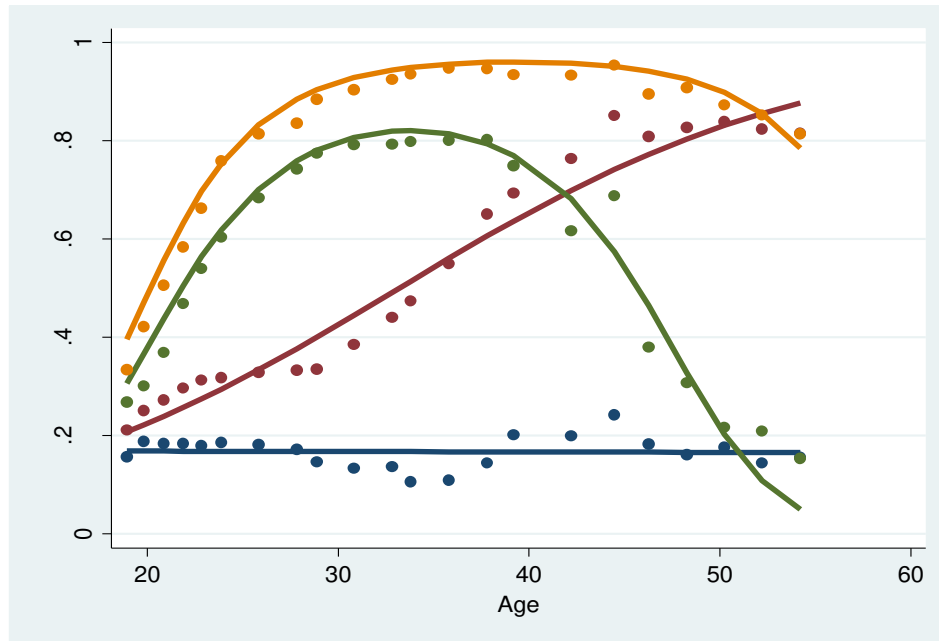
## FIGURES

**Figure 4.1.** Employment rates between the ages of 20 and 54. All women. NLS-YW 1968-2003.



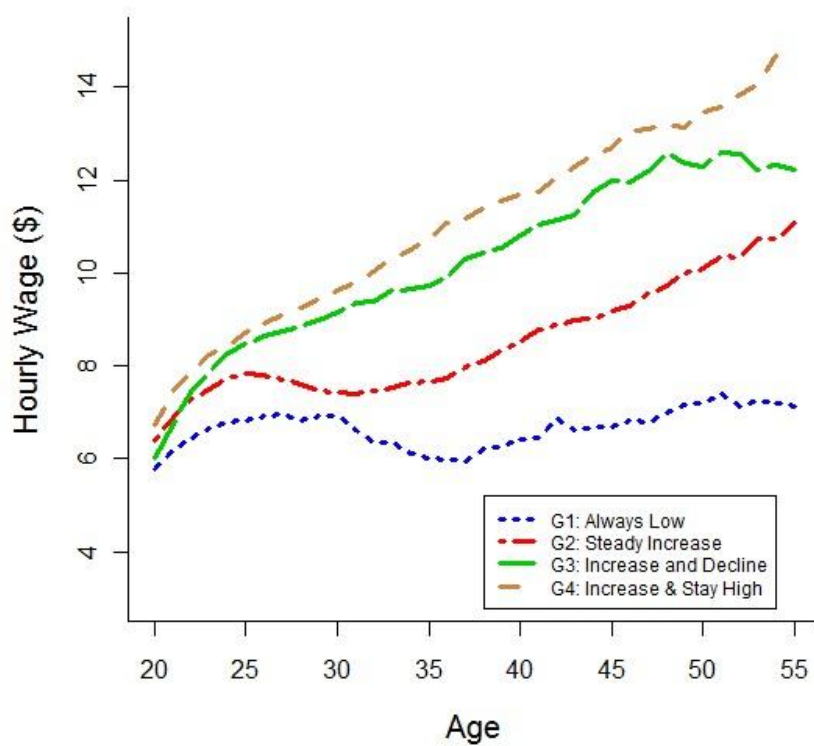
## FIGURES

**Figure 4.2.** Model-predicted employment trajectories, and actual employment rates (dotted lines) between the ages of 20 and 54. NLS-YW 1968-2003.



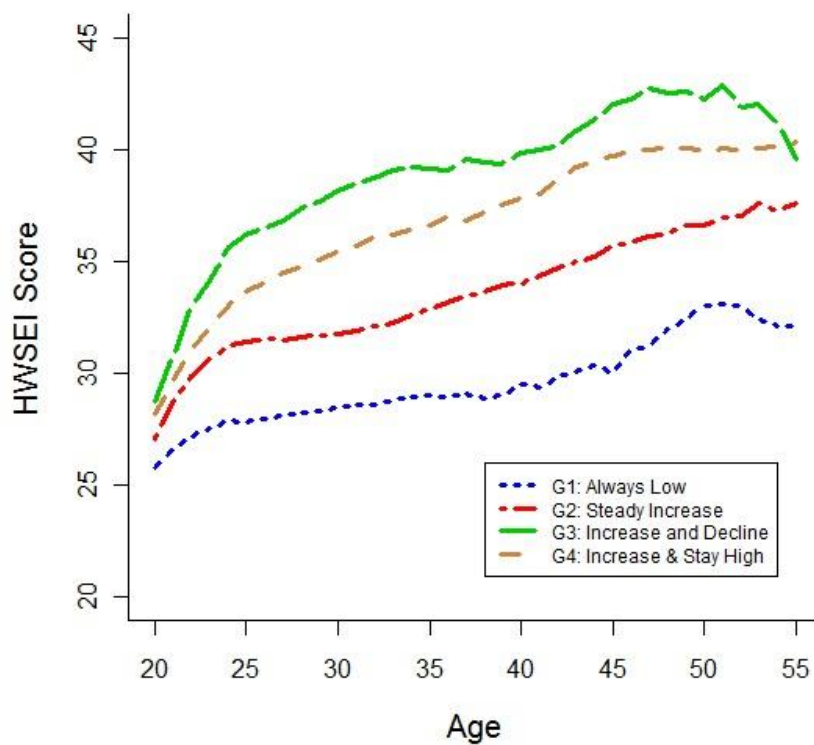
## FIGURES

**Figure 4.3.** Hourly wages between the ages of 20 and 54, by model-predicted employment group. NLS-YW 1968-2003.



## FIGURES

**Figure 4.4.** Hauser-Warren (HWSEI) occupational prestige scores from ages 20 to 54, by model-predicted employment group. NLS-YW 1968-2003.



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