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Weathering the Great Recession: Psychological and Behavioral Trajectories in the Transition from School to Work*

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Abstract

Studies of career development highlight the importance of finding a good "fit" between individual values, needs, and abilities and the experiences and rewards to be found in particular occupations. Rapid economic change and labor market turbulence make career choice and development life-long processes. Still, early careers are particularly unstable, as young workers move from "survival jobs" to "career jobs" in their quest for a good person-job fit. Little is known, however, about the psychological orientations and behaviors in the *post-adolescent* period that foster longer-term success in the world of work. The maintenance of high aspirations, crystallization of career goals, and intensive job search may be particularly important. Using multilevel latent class analysis applied to longitudinal data obtained from 1,010 youth surveyed by the ongoing Youth Development Study (YDS), this article examines the interrelations of psychological orientations and behaviors indicative of agentic striving from age 18 to 31. In addition, we assess how these trajectories influence adaptation to declining labor market conditions during the severe economic recession that began in 2007. We find that those who maintain high aspiration and certainty over career goals are better insulated against unemployment between 2007 and 2009 (age 33 to 35), even when educational and self-identified career attainments, adolescent achievement orientations, and social background variables indicative of advantage are controlled. They also have higher hourly wages in 2009.

Keywords

School-to-work transition; Career development; Aspirations; Job search behaviors

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Studies of career development highlight the importance of vocational exploration to find a good "fit" between individual values, needs, and abilities and the experiences and rewards to be obtained in a particular occupation (Fouad, 2007; Johnson, 2001). Rapid economic and technological changes, as well as turbulence in the labor market, make career choice and development life-long processes (Staff, Messersmith, & Schulenberg, 2009). These changes threaten the nexus of values, and other individual characteristics, and occupational rewards (Johnson & Mortimer, 2011). Early careers tend to be particularly unstable, as young workers move from "survival jobs" to "career jobs" in their quest for a good person-job fit (Mortimer et al., 2008). Whereas there is a large body of research on adolescent aspirations and achievement-related behaviors in the status attainment tradition (Kerckhoff, 1995; Warren, Hauser, & Sheridan, 2002) and considerable interest in agentic action in the literatures of life course (Elder, 1994; Hitlin & Elder, 2007a; 2007b) and life span (Heckhausen & Wrosch, 2010) development, little attention has been directed to the psychological orientations and behaviors in the *post-adolescent* period that foster labor market achievement in early adulthood and help young workers to weather turbulent economic times. The maintenance of high aspirations, the crystallization of career goals, and intensive job search behavior may be particularly important in this regard.

The current "Great Recession" in Europe and America has had particularly severe consequences for young workers, often the last hired and the first fired (Norris, 2010). The consequences of severe recession reach further than unemployment, however, as it also affects workers who retain their jobs. Rather than terminating their employees, employers often reduce the hours of their existing staffs, diminishing workers' paychecks and living standards. But even in the worst recessions, some individuals suffer great losses while others remain relatively unscathed. Although structural factors (industry, region, etc.) are undoubtedly important, salutary agentic psychological resources and transition strategies may protect young adult workers during times of economic upheaval.

Using multilevel latent class analysis (Amato & Kane 2011; Macmillan & Copher, 2006; Macmillan & Eliason, 2003; Oesterle et al., 2010) applied to survey data obtained from 1,010 youth surveyed by the Youth Development Study (YDS), this paper examines pathways of achievement-related psychological orientations and behaviors indicative of agentic striving from age 18 to 31. We analyze successive combinations of educational aspirations, career goal certainty, and job search techniques to identify distinct latent life pathways. We also assess how these post-adolescent pathways have influenced longer-term success in the world of work, above and beyond social origins, adolescent achievement-related orientations, and educational attainment, as indicated by adaptation to declining labor market conditions during the current economic recession.

Agentic Striving during the Transition from School to Work

The challenges contemporary young people face in moving from school to work are well recognized (Schoon & Silbereisen, 2009). Youth today confront a rapidly changing occupational structure and increasingly nonstandard employment relations that indicate weakening ties between employer and employee. Difficulties during this transition period also reflect the deteriorating job market for young people in the U.S. since the 1970s (Danziger & Ratner, 2010), as well as weak institutional connections between schools and employers (Kerckhoff, 2003; Mortimer & Kruger, 2000). Establishing stable employment in so-called "real" or "career" jobs that enable economic self-sufficiency, have long-term prospects, and career potential is becoming increasingly difficult, as youth find themselves moving between a succession of unrelated, nonstandard, temporary, survival, and "bad" employment situations (Heinz, 2003; Kalleberg, Reskin, & Hudson, 2000; MacDonald, 2009; Mortimer et al., 2008). In this context, young people must rely on their own resources

and social connections as they complete school, seek full-time jobs, and become established in the world of work (Rosenbaum, 2001).

A substantial body of research shows that socioeconomic origins and adolescent aspirations play an important role in distinguishing more successful school-to-work transition patterns from those signifying "churning" or "floundering" (Danziger & Ratner, 2010; Kerckhoff, 2003), as well as impacting occupational attainment (Schoon & Silbereisen, 2009; Corcoran & Matsudaira 2009; Edelman, Holzer, & Offner, 2006). The individual's completed level of schooling is also well recognized as a major determinant of status attainment and career acquisition (Mortimer et al., 2008; Schoon 2006; 2008). Distinct post-adolescent psychological orientations and behavioral strategies may also foster long-term labor market success and the ability to withstand difficult economic periods. The maintenance of high aspirations, crystallization of career goals, and intensive job search behavior may be particularly important transition resources.

The Maintenance of High Aspirations

According to Heckhausen and Wrosch's (2010) motivational theory of life-span development, goal selection, engagement, and disengagement constitute recurring goal-oriented action cycles, critical to the attainment of positive developmental outcomes at all stages of life (see also Shulman & Nurmi, 2010). The critical regulatory challenge is to select goals consistent with age-graded opportunities and to mobilize resources (time, effort, and skills) effectively in their pursuit. In the years following high school, most youth do not have dependents and there is normative approval for continued financial support from the family of origin, especially for higher education. As a result, in this period of life, educational opportunities are maximized. High educational aspirations, that is, the selection of high educational goals, provide motivation for the pursuit of post-secondary education and persistence in the face of setbacks and difficulties.

It is well documented that contemporary youth have extraordinarily high aspirations. In fact, over ninety percent of high school seniors in the United States plan to go to college, and well over half of high school seniors aspire to hold professional and managerial jobs in adulthood (Reynolds et al., 2006). Numerous studies show that adolescent socioeconomic aspirations predict longer-term educational and occupational attainment (Ashby & Schoon, 2010; Beal & Crockett, 2010); ambitions in young adulthood are also positively associated with adult attainment (Mello, 2008). Remaining ambitious during this transition period may protect young people from the risk of floundering.

The prolonged school-to-work transition enables a lengthy period of educational and occupational exploration for ambitious young people (Arnett, 2004), with opportunities for "late bloomers" and new beginnings when initial forays are unsatisfactory. If young people decide, after leaving high school or after initially departing from college, that their qualifications do not lead to the careers they want, they may enter (or re-enter) community colleges, public and private business and vocational schools, and degree programs on the Internet, as well as traditional four-year colleges and universities. Maintaining high aspirations during this transition period may help some youth maintain college enrollment and finish their degrees, which in turn would increase the odds of career acquisition (Mortimer et al., 2008).

Nonetheless, maintaining unrealistically high aspirations during this period may yield more problematic transitions, especially if high ambitions lead to prolonged education without acquisition of a college degree. As Heckhausen and Wrosch (2010) point out, in the face of "developmental deadlines," when opportunities for goal achievement greatly diminish, the individual must disengage from prior goals and establish new ones that are more attainable.

Further striving under these circumstances would be dysfunctional, as motivational resources would be squandered. Many youth find themselves in precisely this situation. Whereas about 70 percent of young people in the United States succeed in entering two-year or four-year colleges following high school graduation, only 37 percent of entering college students who plan to earn a bachelor's degree do so within four years; 57 percent achieve it within six years (Knapp, Kelly-Reid, & Ginder, 2010). Young people who do not scale down their educational aspirations after experiencing clear signals (e.g., persistently low grades in college courses) may engage in what might be called "educational floundering." Thus, while continued high aspirations may promote socioeconomic attainment in adulthood, the "holding on" to high aspirations in the face of continued failure (Uno et al., 2010) may promote floundering in the labor market (Kerckhoff, 2003) and decrease the young worker's capacity to weather economic storms.

Crystallization of Career Goals

Given the rapid economic change and increasing turbulence in the labor market, it is perhaps not surprising that many young people today have difficulty deciding on future career options (Rindfuss, Cooksey, & Sutterlin, 1999) and developing strategies to achieve them. Occupational goals may be as important as educational goals in ensuring a successful transition from school to work. Indeed, the crystallization of vocational goals may provide the motivation for persistence in the pursuit of educational goals if the latter are seen as prerequisites for occupational goal achievement. However, while parents and educators in the U.S. promote college attendance, they do not generally encourage vocational exploration. Without clear linkages between educational coursework and future labor market opportunities, youth may become uncertain about the value of their educations and diminish their efforts. Schneider and Stevenson (1999) emphasize the importance of matched, or consistent, educational goals and vocational objectives in sustaining successful pursuit of postsecondary degrees. Whereas it may be unrealistic in the present context of lengthy transitions to adulthood to expect that high school students would target a specific occupational goal, if the youth gives no thought to vocational objectives, educational pursuits may seem aimless and unworthy of strong resource commitment. Staff and colleagues (2010) found that 10 percent of high school sophomores reported not knowing what job they wanted to hold as adults, and that occupational uncertainty in adolescence strongly predicted uncertainty at age 26. These findings underscore the importance of being able to at least articulate an occupational choice at a relatively early age, which could indicate the psychological salience of career decision-making and promote further exploration, heightening the likelihood of eventually identifying a line of work that provides a good fit with interests, abilities, and resources (Zimmer-Gembeck & Mortimer, 2006).

It might be argued that in an increasingly unpredictable job market, having uncertain career aspirations could allow young people to adapt more easily to changing opportunities. Experimentation with different fields of study and types of jobs could enable youth to avoid foreclosure (Marcia, 1966) and acquire more satisfying and enduring adult careers (Arnett, 2004). Having uncertain career aspirations during this period may lead to a greater accumulation of workplace experiences, job skills, and employer contacts (Bynner, 2005). Moreover, having narrowly defined career aspirations could prove problematic if individuals are unable to adjust to rapidly changing employment conditions (Orrange, 2007).

But uncertain career goals may signify an absence of career exploration or exploration that is fragmented and aimless rather than linear and deliberate. Young people who lack crystallized career goals may be especially likely to flounder as they accumulate college credits, degrees, work experiences, and job contacts that do not combine into a useful whole. According to Schneider and Stevenson (1999), many young people pursue postsecondary courses of study that seem irrelevant, lacking clear connection to their vocational or any

other goals (see also Csikszentmihalyi & Schneider, 2000). Without crystallization of career objectives, future jobs may be more like fantasies than realistic objectives that warrant deliberate planning, leading to the attainment of credentials necessary for chosen fields.

Certainty about career objectives is likely to promote the mobilization of energy and other resources to achieve them (Nurmi, Salmela-Aro, & Koivisto, 2002). Staff et al. (2010) found that individuals with undecided career ambitions in both adolescence and young adulthood earned significantly lower wages in adulthood than young people with more certain aspirations, supporting the view that occupational uncertainty leads to labor market floundering. Consistently, Zimmer-Gembeck and Mortimer (2007) report that crystallization of vocational decisions during high school or in the early-to-mid twenties is linked to college completion by the mid-20s. Those who manifested greater indecision in their career goals were less successful in the educational and occupational realms, with a lower likelihood of career establishment and job satisfaction. Fortunately, research shows considerable progress in occupational identity development in adolescence and early adulthood. Malanchuk, Messersmith, and Eccles (2010) showed that 40 percent of young people in their sample exhibited more complex occupational identities as they moved from ages 17 to 21, characterized by specific plans and increasing effort to reach a clear and desired occupational goal.

Intensive Job Search Behavior

Job stability in the United States has been decreasing over the past several decades (Corcoran & Matsudaira, 2009), with workers changing employers multiple times during their early careers. Some researchers contend that frequent shifts from job to job, interspersed with spells of unemployment, are not necessarily dysfunctional, as better matches between employer and employee accrue from “job shopping,” and higher wages and career jobs result when young adults move voluntarily between jobs (Keith & McWilliams, 1999). Consistently, some scholars have touted the benefits of occupational exploration and change that may come with an extended transition to adulthood (Arnett, 2004; Keith & McWilliams, 1999).

Others point out that erratic employment can result in lost opportunity for on-the-job training and other work socialization that enhance human capital, employment stability, and occupational attainment (Corcoran & Matsudaira, 2005; Hamilton, 1990). For instance, Neumark (2002) found job instability in the early career had adverse effects on adult wages once accounting for unobserved factors related to both job stability and later attainments. Similarly, Gregg (2001) finds evidence for an early “scarring” effect: British males who experienced more months of unemployment from age 16 to 23 spent more time unemployed from age 28 to 33 (see also Neumark, 2002). Furthermore, employment problems during the early career may diminish job-related confidence, lower expectations, and lessen future prospects, especially when local labor market opportunities are limited.

The intensity and character of job searches may help to explain whether erratic employment signifies a beneficial pattern of exploration and “job shopping” or whether it leads to floundering during this transition period. Are youth job changers intensively engaged in job searching, tapping into diverse sources of information and opportunities to locate a job that offers both extrinsic rewards and intrinsic fulfillment, or are they simply drifting? Young people may position themselves more favorably in the labor market by engaging in active job searches, drawing on informal contacts, formal contacts, or direct application. Information about jobs may come through spouses, parents, other relatives, or neighbors; or through more formal contacts, such as teachers, employers and co-workers (Granovetter, 1995). Youth who do not have access to personal contacts with valuable job leads may have

to rely more strongly on direct application, such as simply going to a place of work and asking if there are available openings.

Frequent and more intensive job search behavior may be especially helpful for youth who do not attend college after high school. Though structural bridges from school to work are not strongly developed in the U.S., Rosenbaum and colleagues (Rosenbaum et al., 1999; Rosenbaum, 2001) have emphasized the importance of institutional job contacts (e.g., schools, employment agencies, etc.) for occupational attainment during the early career. For youths who do not attend college, school contacts can benefit long-term earnings, whereas employment agencies increase earnings in the year immediately following high school. Employers are also a source of institutional contacts that can promote career advancement and higher wages through internal career ladders or through job referrals to other employers.

In summary, while scholarly attention has focused on aspirations, plans, and vocational development during adolescence, it is important to consider the agentic orientations and behaviors during the transition to adulthood that contribute to occupational attainment. We focus on three psychological orientations and behaviors (i.e., aspirations, career goal certainty, and job search activities) that may be interrelated amongst themselves and also influence longer-term successes and vulnerabilities in the world of work.

The Present Study

In this paper we address two central questions: (1) What is the relationship between various indicators of "agentic striving" (from age 18 to 31)? Applying latent class analysis techniques to near-annual longitudinal survey data, we model trajectories of educational aspirations, certainty of occupational goals, and the character of job searches to determine how these orientations and behaviors are related over time. (2) How do agentic orientations and behaviors during this transitional period (age 18 to 31) affect the individual's ability to adapt to severe economic downturn in early adulthood? Further, does agentic striving in the post-adolescent period matter when prior orientations to work and school, as well as social origins, are controlled? Does its influence persist given adult educational and career attainments? Work-related data in the 2007 and 2009 YDS surveys (at ages 33 and 35) enable us to examine the likelihood of successfully weathering the Great Recession given prior background characteristics, agentic orientations and behaviors, and educational and subjective career attainments. Specifically, we regress three outcome variables capturing cumulative months of unemployment over the 2-year period (2007–2009), as well as employment status and hourly wages in 2009, on background characteristics, high school orientations to work and school, the agentic psychological/behavioral trajectories described above, and educational and subjective career attainments in 2009. This study of the dynamic interplay of macrostructural economic change and individual agency enhances our understanding of what enables young adults to avoid employment difficulties, or to recover quickly from such problems if they do occur, with strong implications for their future occupational and economic trajectories.

Method

The Youth Development Study (YDS)

The YDS is a continuing prospective longitudinal study of 1,010 teenagers drawn from a greater metropolitan area of approximately 3 million residents (see Mortimer, 2003). The YDS began in 1988 with a randomly selected sample of all ninth graders enrolled in the St. Paul Public School District in Minnesota. U.S. Census data indicate that this site was comparable to the nation as a whole with respect to several economic and sociodemographic indicators (Mortimer, 2003). Questionnaires were administered yearly in school from the

ninth to twelfth grades, tapping early experiences in work, achievement-relevant attitudes, school performance, and educational and occupational plans for the future. By 2005, when most respondents were 31 and 32 years old, 71 percent of the initial participants had been retained. The retention rates in 2007 and 2009 were 71 percent and 67 percent, respectively. Panel retention in 2009 is not associated with numerous indicators of socioeconomic origin (i.e., nativity, age, family structure, and parent(s) education, employment status, and occupational prestige in 1988), as well as measures related to ninth-grade school achievement (i.e., grade point average, educational aspirations, time spent in extracurricular activities, academic self-esteem, intrinsic motivation to school, and parent's educational expectation for the child), extrinsic and intrinsic work values, and adjustment (i.e., alcohol use, school misconduct, depressive affect, mastery, and self-esteem). However, men and non-whites have a higher risk of survey attrition by 2009 than women and whites (attrition analyses not shown but available from the authors).

Educational Aspirations, Career Goal Certainty, and Job Searching—The pathways that represent agentic striving are based on three variables. First, the respondents were asked, "What is the highest level of education that you plan to obtain in the future?" This measure is represented by four categories: (1) high school or less; (2) some college (with no degree attained); (3) an Associate's degree or a Vocational/Technical degree; and (4) a Bachelor's degree or higher. Second, after asking the respondents to state their long-term career goal, they were asked how certain they were that they would achieve that goal. The possible responses are, "I have already achieved it," "very certain," "somewhat certain," and "not very certain." Finally, we include the job search techniques that led to the respondent's current job. Each year, the respondents were given a list of possible methods and asked to check off how they found their primary job. The items represented three types of job search techniques: informal, formal, and direct. Informal searching includes finding a job via information provided by a spouse or partner, parents or other relatives, a friend, or neighbor. Formal methods are the use of connections, such as someone at school, a coworker, an employer, or an internship. Finally, direct techniques as operationalized here are those that do not depend on prior personal relationships or educational and work contacts; they are available to all job-seekers. These include responding to an ad in the newspaper, asking about job openings at a potential place of employment, going through an employment agency, using the internet, going to a job fair, and taking a civil service test. Since multiple job search techniques could be used, the three search techniques are treated as separate variables in the latent pathways and their probabilities are not mutually exclusive. There is also a category for those who are employed and are not searching during the current year.[1]

Sociodemographic Factors—We control several measures of socioeconomic background in our models. Descriptive statistics for these variables, as well as the work-related outcomes and agentic pathways, are shown in Table 1. Parental education and income were obtained by mail surveys from 96 percent of the mothers or fathers during the first year of the study. The highest educational credential of the respondents' parents is measured by three categories: high school or less, some college, and Bachelor's degree or higher. If only one parent was present in the household, that parent's education level is our indicator. Family income is a thirteen-level ordinal scale, ranging from under $5,000 to $100,000 or more. We also include indicator variables for gender (coded 1 = male; 0 = female), and race (coded 1 = white; 0 = non-white).

[1]While job search techniques were recorded yearly, educational aspirations and career goal certainty were not asked in 1992, 1993, and 1994. The respondents' educational aspirations and career goal certainty from their senior year of high school (1991) are used to represent those years.

High School Psychological Orientations to Work and School—In addition to sociodemographic factors, we also take into account early psychological orientations to work and school. Controlling for economic self-efficacy and academic self-esteem, measured in 1990 during the junior year of high school, allows us to assess whether our agentic striving pathways influence economic outcomes net of prior adolescent orientations to work and school. Economic self-efficacy indicates the respondent's estimation of future chances of: "having a job that pays well"; "being able to own your own home"; and "having a job that you enjoy doing." Five response options ranged from "very low" to "very high." A scale of academic self-esteem combines responses to three questions capturing the individual's self-evaluation regarding intelligence, reading ability, and general ability in school, in comparison with other students of the same age. Five options ranged from "far below average" to "far above average."

Educational Attainment and Subjective Career Attainment—To assess the impacts of agentic pathways above and beyond educational qualifications and career establishment, we include measures of educational attainment and the subjective evaluation of one's present job as a career, corresponding to the last year of data used to construct the pathways (2005, age 31). The educational attainment response categories are the same as those for educational aspirations described above. For subjective career attainment, respondents were asked, "how is your present job related to your long-term career goals?" The responses were: (1) "It is not linked to my long-term career objectives;" (2) "it provides skills or knowledge that will prepare me for my future work;" and (3) "it will probably continue as a long-term career." Those who did not have a current job were coded as not employed. In the models that follow, we compare respondents who identify their job as a career to those giving all other responses.

Occupational Outcomes during the Recession—After analyzing the pathways of agentic striving from age 18 to 31, we then examine how these pathways influence three occupational outcomes during the recent recession. First, unemployment in 2009 is measured as an affirmative response to the question, "Are you currently employed (either part-time or full-time)?" Second, the total number of months unemployed throughout the course of the recession is analyzed, obtained from a life history calendar capturing 28 months from May 2007 to August 2009. Finally, hourly wages in 2009 is the sum of hourly wages from all current jobs. The distribution was skewed, so we transformed this measure using the natural logarithm.

Statistical Methodology

Latent Life Paths—Following recent research (Amato & Kane, 2011; Macmillan & Copher, 2006; Oesterle et al., 2010), we use multilevel latent class models to understand how variables indicative of agentic striving come together in distinct configurations from age 18 to 31. Considered over time, do the successive combinations of educational aspirations, career goal certainty, and job search techniques constitute distinct latent life pathways? The latent life path model is a second-order hierarchical latent class model with a set of latent variables capturing the within-age configuration schema (that is, the combinations of agentic states at each age) and a set of latent variables capturing the across-age life path schema (that is, the patterns of movement between such configurations over time). The model also has the advantage of including a missing category for each variable at each time, allowing for the inclusion of all 1,010 original respondents at every survey wave. Here, we briefly summarize this model, referring the interested reader to Macmillan and Eliason (2003) for further details about the multilevel latent class model, estimation procedures, and best fitting model selection.

Let X_{it} be the set of $t = 1, \ldots, T$ unobserved agentic configuration schema, and Y_i be the unobserved agentic life path schema. The latent life path model can then be written as

$$\Pr\{R_{i11}, \ldots, R_{iJ1}, X_{i1}, \ldots, R_{i1T}, \ldots, R_{iJT}, X_{iT}, Y_i\} = [\Pr\{R_{i11}|X_{i1}\} \cdots \Pr\{R_{iJ1}|X_{i1}\}] \cdots [\Pr\{R_{i1T}|X_{iT}\} \cdots \Pr\{R_{iJT}|X_{iT}\}] [\Pr\{X_{i1}|Y\} \cdots \Pr\{X_{iT}|Y\}] \Pr\{Y\}$$

where the probability on the left-hand-side of the equal sign is the joint probability over the set of observed and latent variables and where the conditional probabilities on the right-hand-side consist of (1) the product of the set of conditional probabilities for the observed agentic states R_{ijt} given the latent agentic configuration schema X_{it} at times $t = 1, \ldots, T$ (given in the first two sets of brackets), (2) the product of the conditional probabilities of the latent agentic configuration schema X_{it} given the latent agentic life path schema Y (given in the third set of brackets), and (3) the unconditional probability of the agentic latent life path variable Y (given outside the last set of brackets).

Estimates of the conditional probabilities $\Pr\{R_{ijt} \mid X_{it}\}$ give the degree to which the jth observed agentic state at age t, R_{ijt}, is embedded in, or constituent of, the age-graded latent agentic configuration schema X_{it}. Similarly, estimates of the conditional probabilities $\Pr\{X_{it} \mid Y\}$ give the degree to which the latent agentic configuration schema Xit is embedded in latent agentic life path schema Y. By exploiting the person-period nature of the data, we estimate the model in a single stage using a nonparametric multilevel latent class specification in Latent Gold (Vermunt & Magidson, 2005; Vermunt, 2003). Following Macmillan and Eliason (2003), the BIC statistic is used in our analyses to guide model selection.

Regression Models—After estimating the latent class models, we use modal assignment, based on the probability of belonging to a particular pathway, to classify each respondent into one of the agentic striving pathways (the percentage of respondents assigned to each pathway is shown in Table 1). We then include these pathways as predictors in models examining occupational outcomes in the recent recession.

Results

Pathways of Agentic Striving

As described above, hierarchical latent class modeling was used to determine the distinct pathways of agentic striving as measured by career goal certainty, educational aspirations, and job search patterns. The estimation procedure indicated that the best-fitting model had 4 latent agentic pathways over time and 9 latent agentic configurations at each observation, as measured by the BIC statistic shown in Table 2. That is, at the first level of the two-stage hierarchical model, there are 9 probabilistic combinations of educational aspirations, career certainty, and job search behaviors, which we refer to as agentic configurations. At the second level, the 4 latent life paths then describe how these configurations move through time, which we refer to as agentic pathways. Table 2 also shows several model fit statistics at both levels of the hierarchical model. One agentic configuration and one agentic pathway represent respondents with a high probability of being missing across the post-high school years. Thus, this configuration and pathway are composed mainly of youth who attrited early from the study. With a probability of 24 percent at both levels, the largely missing configuration and pathway are treated as missing and are not included in subsequent analyses, limiting our discussion to 3 agentic pathways and 8 agentic configurations. The probabilities reported below are for the remaining 76 percent of respondents in the non-missing configurations and pathways.

Though our focus is on the agentic pathways, since they describe how the various agentic states change from age 18 to 31, we briefly describe the first level of analysis, or the agentic configurations, concentrating on those that are the most common. Table 3 describes the probability of each agentic configuration (AC), the probability of each agentic state within each AC, and the probability of the ACs over time. Figure 1 shows the changing probability over time for the five most common ACs.

AC1 has the highest probability (across all years) at 19.7%. As indicated by the probability of the agentic states within AC1, respondents with this configuration have high Bachelor's aspirations (89%); almost 60% are very certain that they will achieve their career goals or have already achieved them; and they have a probability of 1 of not currently searching by any method (AC7 is similar to AC1, but information about job search is missing). The probability of AC1 begins low (13% in 1992) and increases throughout the observation period, to a high of 29% in 2005. Thus, AC1 becomes more likely in the later years when respondents in that configuration have stopped searching and have high career certainty.

AC5 stands in contrast to AC1. Those in AC5 also have a high probability of aspirations towards a Bachelor's degree (86%). They have a slightly higher probability of being very certain that they will achieve their career goals (51% vs. 43%), but are somewhat less likely to have already achieved those goals (6% vs. 16%). But whereas respondents in AC1 were not searching for a job, those in AC5 appear to be actively searching, particularly by direct techniques (100%), those that tend to be most available to novice job seekers. AC5 begins with a 13% probability in 1992, reaching a peak in 1997 (19%) before becoming less common in later years. AC4 is quite similar to AC5 in terms of educational aspirations, career certainty, and probability over time. AC4, however, uses a more varied job search strategy, using informal (54%) and formal techniques (38%), with much less emphasis on direct (20%) techniques. Thus, those with Bachelor's aspirations and high career certainty are likely to be in these two job searching configurations, AC5 and AC4, early, most likely giving way to the non-searching behavior of AC1 in later years. Interestingly, as shown in Figure 1, these two configurations both peak in 1997, or six years after high school, a time when those who had achieved BA degrees would be actively searching for jobs. Both decline through 1999. After 1999, however, AC5, which relied almost exclusively on direct methods, declines further, and AC4, which utilizes more diverse strategies, rises. This pattern would be expected, given increases in social capital as young workers gain experience in the labor market. By 2005, however, both configurations are clearly overtaken by AC 1, the pattern characterized by high aspirations and not searching.

AC3 is quite similar to AC4, the configuration with high educational aspirations and active job search, but those in AC3 have no aspirations for a Bachelor's degree (0%) and relatively high aspirations for an Associates/Votech degree (43%). (AC6 is much like AC3, but the respondent is not employed.) Like AC4, those in AC3 are engaged in diverse job search methods. With a similar peak in the middle years (28% in 1998), this configuration then becomes less common.

Respondents in AC2, like AC3, have lower educational goals, with only 2 percent probability for Bachelor's degree or higher aspirations and most commonly aspiring toward an Associates/Votech degree (39%). Like AC1, AC2 exhibits relatively high career certainty or attainment, no job search behavior, and increasing probability over time. AC2 is the configuration that most likely overtakes AC3, the actively searching configuration characterized by aspirations that are below the BA degree. AC2 is the second most common configuration, after AC1; across all years; 17.1% of respondents are assigned to AC2. By 2005, the two non-searching agentic configurations, A1 and A2, together constitute more than half (53%) of the sample.

Next, we move on to a consideration of the latent agentic pathways, which result from respondents' movement across the agentic configurations over time. Whereas the most likely AC can change with each year for each respondent, each respondent is assigned to one unique pathway over all years, providing a single measure of how the agentic states vary over time. The pathways produced by the best-fitting model are shown in Figure 2. In order for the figures to be clearer, only the two highest categories for career goal certainty are shown, while only the aspirations for a Bachelor's or Associates/Vocational degree are shown (very few respondents' highest educational aspirations were a high school diploma only or some college).

The first latent agentic pathway captures a group with high educational aspirations, representing about 48% of the non-missing sample. The probability of aspiring to a Bachelor's degree is typically between 80 % and 90% across the years of observation. This group also has high certainty that they will achieve their career goal, and that certainty is relatively static over the years. Across the waves, there is a probability of between 40% and 50% of being very certain that the goal will be achieved. There is a probability of 10% that the goal is already achieved. There is never a probability higher than 8% of being not very certain of achieving the career goal (not shown in figure). As for job search behavior, this group is predominantly using direct procedures, responding to ads independently or going into establishments to apply. By 1997, six years after most respondents would have left high school (1991), the probability of having found one's current job through direct methods is 41%. The probability of having found one's job that same year through informal and formal methods was 23% and 16%, respectively. As members of this pathway age the job search behaviors wane, presumably because many individuals find jobs, and after 1999 (age 25–26), the probability of not searching for a job is about 50%.

The most noticeable feature of the second pathway, which represents about 31% of the sample, is the quick rise in the probability of *not* searching for a job. This probability is over 60% as early as 2000 (age 26–27) and it rises to a maximum of 66% in 2004. The peak in job searching occurs in the same year as in the first pathway, 1997. Also like the first pathway, the technique for finding the current job is primarily a probabilistic combination of direct (33% in 1997) and informal (23% in 1997) methods. Another distinguishing feature of this pathway is the drop in aspiring towards a Bachelor's degree. This probability decreases from about 38% to 11% and remains at about that value from 1995 through the rest of the observation years. Simultaneously, there is a rise in the probability of aspiring to an Associates or Vocational degree, increasing from 23% in 1994 to 35% in 1995 and again remaining roughly constant thereafter. This group is apparently giving up educational goals that are unlikely to be achieved, substituting more attainable goals. Despite this shift, the probability of being very certain about career goal attainment or having already attained that goal remains relatively high and largely unchanged throughout the waves.

The final pathway is one that sees decreasing educational aspirations and career goal certainty and has a probability of about 21% among respondents. While those assigned to this pathway have a probability above 40% immediately after high school of being very certain of achieving their career goal in the future, this decreases to around 25% in the most recent years. Similarly, the probability of aspiring to an Associates or Vocational degree increases to as high as 33% in 1995, but then declines to around 20% by 2005. There is relatively little aspiration for a BA or higher, and this fluctuates over time. This group also peaks its job searching a year later than the other pathways, in 1998 instead of 1997. In that year, direct search that led to their current job peaks at a probability of 33%, while the probability of informal techniques reaches 25%. The probability of both direct and informal searching then drops by well over half, though there is no noticeable increase in not searching as in the other pathways.

In sum, there are both similarities and differences across the three pathways. All are similar in the order of the probability of job search behavior, with the most job search behavior occurring at about the same time. Direct methods for finding the current job are most prevalent in each group, followed by informal techniques. Formal methods are least prevalent in each pathway. There are also similarities in the first and second pathways in the increase in not searching as the years pass. These two pathways also show static, and relatively high, career goal certainty across waves.

Educational aspirations clearly distinguish the pathways, with one group having overwhelming aspirations for a Bachelor's degree, another relinquishing this aspiration in favor of an Associates/Vocational degree, and a third pathway with relatively low aspirations throughout. Given this distinguishing factor, we refer to the pathways by their educational aspirations for simplicity: (1) Bachelor's aspirations; (2) Changing aspirations; and, (3) Low aspirations. In the analyses that follow, each respondent is coded according to their modal agentic striving pathway, based on the probability of being in each group.

Weathering the Recession

To determine whether the agentic striving pathways affect unemployment, months of unemployment, and hourly wages in adulthood, we show a series of nested regression models that successively add each of the following to a model containing only sociodemographic background variables: psychological orientations to work and school in adolescence, the agentic striving pathways during the transition to adulthood, and educational and subjective career attainment in adulthood.[2]

Unemployment—Table 4 shows results for a series of logistic regression models predicting the probability of unemployment in 2009. In Model 1, gender, race, and socioeconomic background exhibit no statistically significant effects. According to Model 2, those with higher adolescent economic self-efficacy are less likely to be unemployed in 2009. For example, increasing economic self-efficacy by one standard deviation (i.e., 2.261) decreases the probability of unemployment by 38% ($[e^{-.209*2.261} - 1]*100\% = -37.66\%$). Adolescents with high academic self-esteem also have a lower probability of unemployment, though when the post-adolescent agentic pathways are added (Model 3), this difference is reduced to statistical non-significance. Model 4 shows that young adults who follow the Low aspirations pathway are 5.4 times more likely to be unemployed than those assigned to the Bachelor's aspirations pathway ($e^{1.687} = 5.40$), even after we include 2005 educational attainment and subjective career attainment in the model. Interestingly, those who have achieved Associates or Vocational/technical degrees exhibit less likelihood of unemployment than those who attained Bachelor's or higher degrees. The overall pattern of findings in Table 4 indicates that avoidance of the low aspirations pathway protected adolescents with high academic self-esteem from experiencing unemployment. The effect of adolescent economic self-efficacy also diminishes substantially when the agentic striving pathways are included.

We also examine unemployment over the course of the recession, measured as the total number of months unemployed from May 2007 to August 2009. Given that months of unemployment represent count data and the standard deviation is higher than the average (see Table 1), we use negative binomial regression, as shown in Table 4. In Model 5, the

[2]In supplemental analysis not shown but available from the authors upon request, we used inverse proportional weighting (Scharfstein, Rotnitzky, & Robins, 1999) to assess whether our findings are influenced by panel attrition. To create the weight, we first estimated a logistic regression model predicting attrition in 2009 with numerous measures of social background, achievement, aspirations, and adjustment. We then included the inverse of the predicted probability from the attrition analysis in all of our models predicting unemployment and wages (i.e., Tables 4, 5, and 6). The regression results remained substantially the same.

background variables again exhibit little long-term effects on unemployment. In Model 6, we see that youth with higher economic self-efficacy have fewer months of unemployment. However, this difference is explained by the inclusion of the agentic pathways in Models 7 and 8, with both the Low aspirations and Changing aspirations pathways reporting significantly more months of unemployment than those with Bachelor's aspirations. These effects remain even after including educational and career attainment (Model 8), both of which are not statistically significant. These results highlight the importance of agentic striving to weathering the economic downturn, with the pathways mediating the effects of high school psychological orientations while remaining robust to adult educational and career attainments. For example, the coefficients in Model 7 translate to estimates of .71 months of unemployment for those assigned to the Bachelor's aspirations pathway, 1.88 months for the Changing aspirations pathway, and 6.06 months for the Low aspirations pathway, holding the other variables constant.

Hourly Wages—In addition to unemployment, we also examine how agentic striving affects the hourly wages of those employed in turbulent economic times. According to the results shown in Table 5, there is a clear effect of agentic striving on logged hourly wages in 2009, though the results for the other variables in the model make for a more complex story. Turning first to Model 9, both gender and parent's highest education are statistically significant. Males are predicted to have about 15% higher wages than females ($[e^{0.143} - 1]*100\% = 15.37\%$), while those whose parents have a Bachelor's degree or higher have wages about 36% higher than those whose parents have a high school education or less. Interestingly, parents' college attendance, without a degree, does not translate into higher offspring wages when compared to adult children whose parents obtained less education. Gender does not remain statistically significant with the inclusion of the high school orientations to work and school. While adding the high school orientations in Model 10 reduces the effect of parental education somewhat, including the agentic pathways renders the effect of parents' education statistically insignificant. This reduction is plausible given the association between parents' education and the agentic pathways. Of those respondents with a parent with a Bachelor's degree, 80% are in the Bachelor's aspirations pathway, compared to 10% each for the Changing and Low aspirations pathways. As shown in Model 11, those with Low aspirations and Changing aspirations have wages about 41% and 14% lower, respectively, than those with Bachelor's aspirations.

Though not as important in the unemployment models, the behavioral indicators of educational and career attainment are all significant in predicting wages. All educational groups have significantly lower wages compared to those with a Bachelor's or higher degree ($p < .01$). For example, the wages of those with only a high school education are about 32% lower than those with a Bachelor's degree. The wages for those who did not finish college are also lower than those who finish, by about 22%. Those who view their job as a career also report wages about 19 percent higher than those who do not ($p < .01$). Adding educational and career attainments removes the significant effect of the Changing aspirations pathway, but the Low aspirations pathway maintains its significance, again pointing to the importance of this dynamic measure to occupational outcomes during the recession. This final model explains about 23% of the variation in logged wages.

Discussion

Theoretical models of the process of occupational attainment have for decades emphasized the importance of adolescent psychological orientations as sources of agency that mediate socioeconomic origins and destinations (Sewell & Hauser, 1975). Adolescents' aspirations for higher levels of schooling affect educational attainment; career aspirations and educational attainment, in turn, predict more or less prestigious "first" jobs after school

completion. Building upon this classic model of status attainment, as well as the psychological literature on vocational development, in this article we extend prior research in this area by specifying a more dynamic and interdisciplinary model of adult occupational attainment, encompassing agentic latent pathways during the transition to adulthood that not only impact long-term wage attainments but also help individuals to "weather" economic recessions.

First, whereas classic models of status attainment focus on adolescent aspirations as predictors of long-term attainment (Kerckhoff, 1995; Warren et al., 2002), we use a more fluid measure of agentic striving that captures distinct pathways of career goal certainty, educational aspirations, and job search patterns during the turbulent post-adolescent period (Heckhausen & Wrosch, 2010; Hitlin & Elder, 2007a; 2007b). Our pathways show that many young people maintain high educational aspirations, express certainty in achieving their occupational goals, and engage in active job search behaviors, especially in the earlier years of the transition. Yet, our pathways also indicate that the majority of young people show change in their aspirations, career goals, and job search behaviors during this period. For some, this period entails a decline in educational aspirations from the BA to Associate/ Vocational levels and diminished job search, while certainty about career objectives remains steady. For others, it involves declines in agentic striving, particularly in educational aspirations and career goal certainty. We thus extend prior research by showing differential patterns of developmental change in agentic psychological resources and strategies over time that would be missed if agency were conceptualized as a static phenomenon.

Second, our model allowed us to assess whether these more or less favorable pathways exerted effects on weathering economic recessions and on long-term wage attainments. Agentic striving was especially important in helping young people weather economic storms. Even after controlling for high school psychological orientations to work and school, as well as later educational and career attainment, young people who exhibited declining aspirations and certainty during the transition period were most likely to accumulate months of unemployment and to not be employed at the time of the 2009 survey administration. Importantly, this pattern demonstrates the power of agency in averting unemployment irrespective of educational credentials and career-like job placement. The agentic pathways also predicted wage attainments in adulthood, as respondents with the most favorable agentic orientations in the post adolescent period earned significantly higher wages in adulthood than individuals whose psychological manifestations of agency declined during the transition to adulthood.

Though both the Low aspirations and the Changing aspirations pathways showed more months unemployed during the recessionary period than those with high aspirations, those who exhibited changing aspirations appeared to be less disadvantaged (see Models 7 and 8 in Table 5). Moreover, in the final models, those who exhibited Changing aspirations were not significantly different from those with High aspirations with respect to unemployment and hourly wages in 2009. Consistent with Heckhausen and Wrosch's (2010) motivational theory of life span development, their capacity to disengage from unrealistic educational (and perhaps also, occupational) goals, and to substitute more realistic ones, may have enabled them to enter positive occupational and income trajectories.

The effects of the agentic pathways were reduced, but not eliminated, when educational and subjective career attainments were added to the models, suggesting that agentic striving may be important because it fosters resilience during the increasingly turbulent school-to-work transition (Nurmi et al., 2002; Schoon, 2006; 2008). Young people with the less favorable agentic pathways, in particular, weathered poorly in the recession, with high probabilities of unemployment and lengthy periods of unemployment. Whereas educational qualifications

and settling into a job considered a career are undoubtedly important for many labor market outcomes, our results show that the maintenance of high educational aspirations, career goal certainty, and active job search behaviors protected young adult workers from unemployment during a time of economic upheaval (Corcoran & Matsudaira, 2005; Hamilton, 1990).

Though our focus here is on pathways of psychological orientations during the transition to adulthood, and how these affect work outcomes, with just one exception we found that background factors either had little effect on long-term job outcomes or those effects were rendered null with the inclusion of the agentic pathways. It is well documented that males earn higher wages than females in the early occupational career (Marini & Fan, 1997), and our analyses confirm this inequality. Race had little effect on job outcomes, but our coding of race was crude (white vs. non white) and our sample size limits our ability to assess significant differences by racial groups. Socioeconomic background, measured by both parent(s)' education and household income, also showed non-significant long-term effects on work outcomes in our models.

In conclusion, congruent with the socioeconomic attainment literature, and the psychological literature on vocational development, we highlight the significance of agentic pathways for adult socioeconomic outcomes and adaptation during this most recent, particularly turbulent, historical period. Of course, the current economic recession is not over, and as future waves of YDS data are collected, we will continue to assess how previous pathways of agentic striving and school to work transitions help adults avoid or recover from employment difficulties.

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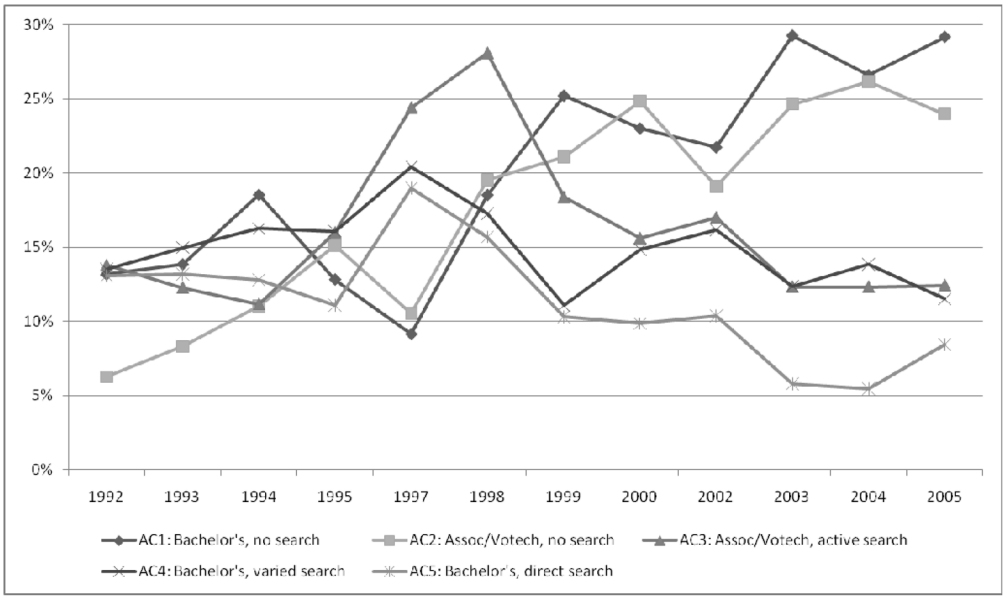

Figure 1.
Probabilities of Select Agentic Configurations over Time

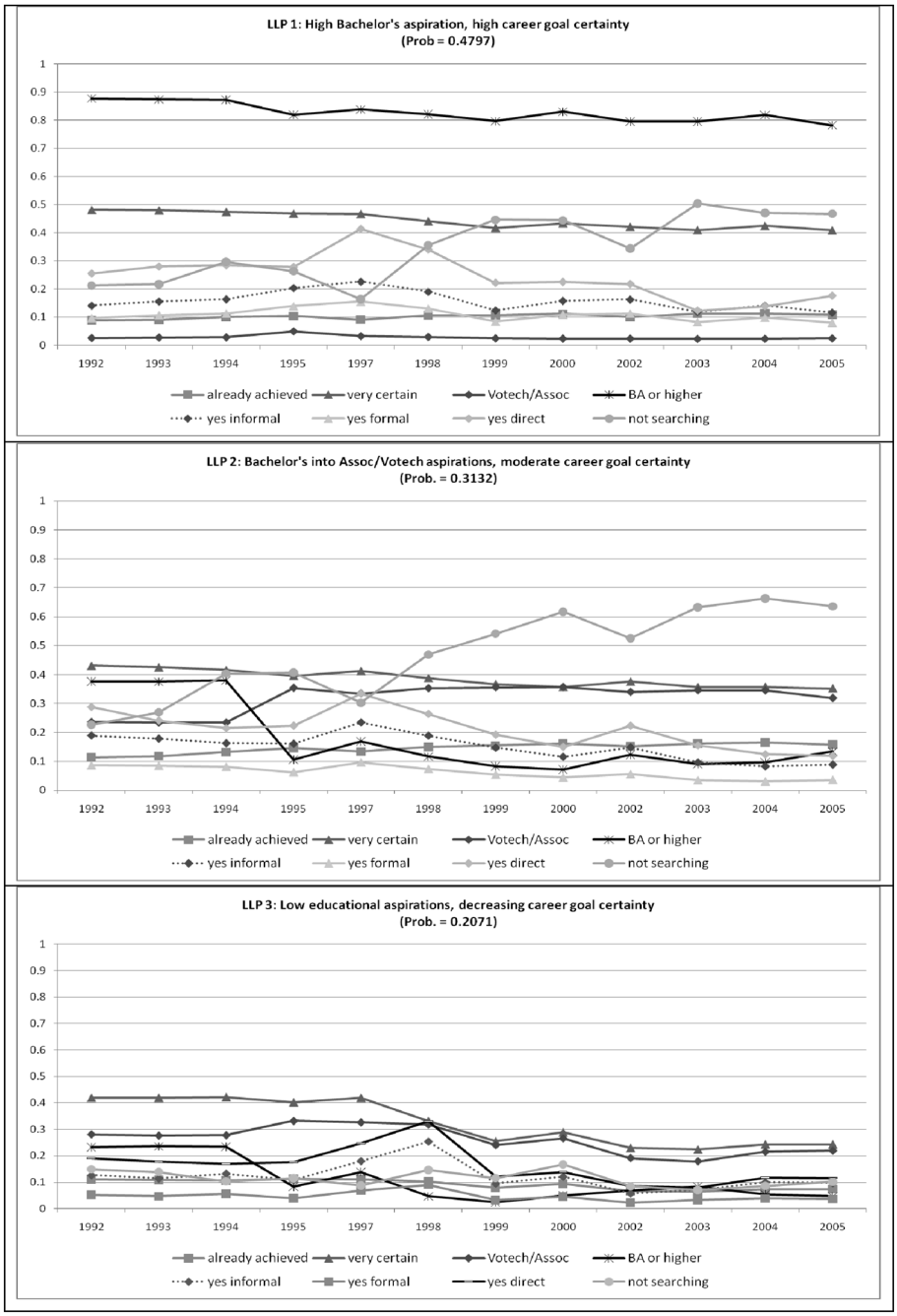

Figure 2.
Latent Life Pathways of Agentic Striving for the YDS cohort 1992–2005

Table 1

Descriptive statistics

	Average (St. dev.)
Sociodemographic Factors (1988)	
Male	42.3%
White	79.7%
Family income	6.027 (2.314)
Parent's highest education: HS or less	38.9%
Parent's highest education: Some college	31.6%
Parent's highest education: Bachelor's or higher	29.5%
High School Orientations to Work and School (1990)	
Economic self-efficacy	12.099 (2.261)
Academic self-esteem	10.140 (1.706)
Agentic Striving Pathways (1992–2005)	
Bachelor aspirations	48.0%
Changing aspirations	31.3%
Low aspirations	20.7%
Educational and Subjective Career Attainment (2005)	
Educational attainment: High school or less	20.4%
Educational attainment: Associates/Votech	22.8%
Educational attainment: Some college	22.4%
Educational attainment: Bachelor's or higher	34.4%
Subjective career attainment: Yes	47.7%
Occupational Outcomes (2007–2009)	
Unemployed, 2009	18.9%
Months of unemployment, 9/2007–5/2009	1.540 (4.506)
Hourly wages, 2009	25.578 (16.571)

Table 2

BIC Statistic and Model Fit Statistics for Hierarchical Latent Class Analysis of Agentic Striving

BIC Statistic		
Latent Pathways	**Role Configurations**	**BIC Statistic**
1	1	167826.4398
	2	126424.1520
	3	102167.2341
	4	101390.1736
	5	100394.3868
	6	99693.9764
	7	99328.5461
	8	98929.1677
	9	98725.8767
	10	98900.9458
2	1	167836.8785
	2	123173.9786
	3	101149.7754
	4	97026.2767
	5	95971.6146
	6	95213.4632
	7	94846.8012
	8	94457.1466
	9	94463.5839
3	1	167846.3172
	2	122759.9711
	3	100757.3148
	4	95953.6153
	5	94985.8988
	6	94014.5436
	7	93463.8678
	8	93131.6418
	9	92858.0705
	10	92834.4228
	11	93112.5868
4	1	167855.7558
	2	122439.9407
	3	100468.9362
	4	95680.7698
	5	94509.4603
	6	93498.3085
	7	93117.3465
	8	92807.8278

BIC Statistic

Latent Pathways	**Role Configurations**	**BIC Statistic**
	9	**92507.3385**
	10	93324.2498
5	1	167865.1945
	2	122470.3457
	3	100435.6603
	4	95595.3964
	5	94446.7510
	6	93519.1260
	7	92848.5640
	8	93353.9851

Model Fit Statistics for 4 Pathway, 9 Configuration Model

Statistic	Pathways	Configurations
Classification Errors	.0175	.0362
Reduction Errors	.9725	.9525
Entropy R^2	.9642	.9504
Standard R^2	.9627	.9347

Table 3

Probabilities for the Eight Level-1 Latent Agentic Configurations (AC)

	AC1	AC2	AC3	AC4	AC5	AC6	AC7	AC8
P(AC)	***Probability of each agentic configurations (AC)***							
	19.7%	17.1%	16.1%	14.9%	11.4%	9.4%	8.7%	2.6%
P(career certainty|AC)	***Probability of career certainty within each agentic configuration***							
missing	4.3%	9.4%	3.5%	3.1%	5.1%	1.0%	2.7%	100.0%
already achieved	15.9%	20.6%	11.6%	10.6%	5.7%	10.2%	5.3%	0.0%
very certain	43.4%	34.0%	44.0%	47.3%	50.9%	38.0%	50.0%	0.0%
somewhat certain	29.4%	25.4%	28.7%	32.9%	29.9%	35.5%	32.4%	0.0%
not very certain	7.0%	10.6%	12.2%	6.2%	8.4%	15.5%	9.6%	0.0%
P(educ. aspirations|AC)	***Probability of educational aspirations within each agentic configuration***							
missing/DK	7.2%	30.4%	29.9%	7.1%	9.5%	46.3%	10.2%	62.6%
HS or less	0.0%	13.2%	11.7%	0.2%	0.3%	14.5%	0.0%	3.7%
Votech/Assoc	2.0%	39.4%	43.0%	2.7%	2.9%	32.6%	2.6%	8.8%
Some college	1.5%	14.9%	15.4%	1.0%	1.7%	6.6%	0.0%	2.3%
BA or higher	89.3%	2.1%	0.0%	89.1%	85.6%	0.1%	87.2%	22.6%
P(informal|AC)	***Probability of informal job search within each agentic configuration***							
not employed/missing	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
no	0.0%	0.0%	60.5%	45.8%	92.2%	0.0%	0.0%	50.6%
yes	0.0%	0.0%	39.6%	54.2%	7.8%	0.0%	0.0%	49.4%
not searching	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
P(formal|AC)	***Probability of formal job search within each agentic configuration***							
not employed/missing	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
no	0.0%	0.0%	86.2%	62.1%	95.5%	0.0%	0.0%	89.5%
yes	0.0%	0.0%	13.8%	37.9%	4.5%	0.0%	0.0%	10.5%
not searching	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
P(direct|AC)	***Probability of direct job search within each agentic configuration***							
not employed/missing	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
no	0.0%	0.0%	49.8%	79.7%	0.0%	0.0%	0.0%	51.1%
yes	0.0%	0.0%	50.2%	20.4%	100.0%	0.0%	0.0%	48.8%
not searching	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

	AC1	AC2	AC3	AC4	AC5	AC6	AC7	AC8
P(AC|year)	***Probability of each agentic configuration over time***							
1992	13.2%	6.3%	13.8%	13.5%	13.1%	10.6%	21.0%	8.6%
1993	13.8%	8.3%	12.3%	15.0%	13.2%	11.7%	18.9%	6.8%
1994	18.5%	11.0%	11.2%	16.3%	12.8%	10.7%	13.7%	5.9%
1995	12.8%	15.1%	16.0%	16.1%	11.1%	16.8%	7.5%	4.6%
1997	9.1%	10.5%	24.4%	20.4%	19.0%	10.3%	6.1%	0.1%
1998	18.5%	19.5%	28.1%	17.3%	15.7%	0.0%	0.1%	0.8%
1999	25.2%	21.1%	18.4%	11.1%	10.3%	8.7%	4.6%	0.7%
2000	23.0%	24.9%	15.6%	14.8%	9.9%	8.1%	3.2%	0.6%
2002	21.7%	19.1%	17.0%	16.2%	10.4%	8.8%	6.6%	0.3%
2003	29.3%	24.6%	12.3%	12.4%	5.8%	9.2%	6.2%	0.2%
2004	26.6%	26.2%	12.3%	13.9%	5.5%	8.2%	7.2%	0.2%
2005	29.2%	24.0%	12.4%	11.5%	8.4%	8.7%	5.5%	0.2%

Table 4

Regression Models for Unemployment

	Logistic Regression of Unemployment, 2009				Negative Binomial Regression of Months Unemployed, 5/2007–9/2009			
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**	**Model 7**	**Model 8**
(Intercept)	−.933*(.420)	2.927**(.923)	1.708 (1.126)	2.633*(1.227)	.816 (.450)	3.700***(1.107)	.606 (1.371)	.901 (1.431)
Sociodemographic Factors								
Male	−.353 (.248)	−.218 (.257)	.005 (.270)	.182 (.281)	.314 (.281)	.423 (.290)	.507 (.326)	.436 (.327)
White	.277 (.337)	.184 (.348)	.344 (.364)	.386 (.373)	−.257 (.371)	−.614 (.397)	−.534 (.437)	−.523 (.433)
Family income	−.070 (.059)	−.043 (.061)	−.013 (.064)	−.036 (.066)	−.028 (.067)	.009 (.070)	.059 (.076)	.064 (.076)
Parent's highest education: Some college vs. HS	−.338 (.281)	−.252 (.292)	−.233 (.312)	−.311 (.320)	−.330 (.335)	−.272 (.342)	−.381 (.390)	−.403 (.388)
Parent's highest education: Bachelor's or higher vs. HS	−.428 (.321)	−.176 (.341)	−.124 (.389)	−.282 (.406)	−.278 (.393)	−.096 (.422)	.383 (.501)	.332 (.492)
HS Orientations to Work and School (1991)								
Economic self-efficacy		−.209***(.058)	−.175**(.060)	−.173**(.061)		−.134*(.060)	−.069 (.067)	−.071 (.066)
Academic self-esteem		−.163*(.082)	−.145 (.090)	−.164 (.092)		−.135 (.089)	−.046 (.098)	−.044 (.100)
Agentic Striving Pathways								
Low aspirations vs. Bachelor's aspirations			1.453***(.357)	1.687***(.479)			2.149***(.454)	2.196***(.620)
Changing aspirations vs. Bachelor's aspirations			−.201 (.351)	.305 (.467)			.979*(.445)	1.156*(.586)
Educational and Career Attainment (2005)								
Educational attainment: High school or less vs. Bachelor's or higher				−.826 (.571)				−.010 (.673)
Educational attainment: Associates/Votech vs. Bachelor's or higher				−1.073*(.540)				−.582 (.623)
Educational attainment: Some college vs. Bachelor's or higher				−.404 (.437)				−.393 (.544)
Subjective Career Attainment: Yes vs. No				−1.004***(.293)				−.360 (.304)
Model fit								
−2 Log-likelihood	468.579	442.811	416.172	400.038	−814.678	−787.819	−723.394	−712.450
Model Chi-squared, df	8.0, 5	33.82***, 7	60.46***, 9	76.59***, 13	4.55, 5	14.61*, 7	36.44***, 9	43.38***, 13

*$p < .05$,

** $p < .01$,

*** $p < .001$

Note: Standard errors are in parentheses.

Note: In the negative binomial regressions, the scale parameters range from 5.3 to 5.7 across the models.

Table 5

OLS Regression of Hourly Wages, 2009 (logged)

	Model 9	Model 10	Model 11	Model 12
(Intercept)	3.034*** (.105)	1.916*** (.223)	2.324*** (.244)	2.506*** (0.252)
Sociodemographic Factors				
Male	.143* (.059)	.094 (.057)	.083 (.056)	.056 (.056)
White	−.062 (.078)	−.051 (.076)	−.045 (.074)	−.044 (.072)
Family income	−.010 (.014)	−.016 (.014)	−.015 (.013)	−.019 (.013)
Parent's highest education: Some college vs. HS	.098 (.070)	.050 (.068)	.007 (.068)	.032 (.067)
Parent's highest education: Bachelor's or higher vs. HS	.309*** (.076)	.205** (.076)	.108 (.081)	.092 (.080)
HS Orientations to Work and School (1991)				
Economic self-efficacy		.026 (.014)	.018 (.014)	.013 (.014)
Academic self-esteem		.086*** (.019)	.068*** (.020)	.060** (.019)
Agentic Striving Pathways				
Low aspirations vs. Bachelor's aspirations			−.533*** (.104)	−.266* (.117)
Changing aspirations vs. Bachelor's aspirations			−.146* (.071)	.050 (.087)
Educational and Subjective Career Attainment (2005)				
Educational attainment: High school or less vs. Bachelor's or higher				−.382*** (.114)
Educational attainment: Associates/Votech vs. Bachelor's or higher				−.286** (.095)
Educational attainment: Some college vs. Bachelor's or higher				−.247** (.080)
Subjective Career Attainment: Yes vs. No				.173** (.055)
Model fit				
Adjusted R^2	.051	.125	.179	.229
F-statistic (df)	5.14*** (5)	8.80*** (7)	10.24*** (9)	9.68*** (13)

* $p < .05$,

** $p < .01$,

*** $p < .001$

Note: Standard errors are in parentheses.