

# A Longitudinal Examination of Career Preparation and Adjustment During the Transition From High School

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Preparing for an adult career and incorporating a career into one's identity is a key task during the transition to adulthood (Erikson, 1968), and completing developmental tasks is considered a major factor in adjustment (Havinghurst, 1972). Previous research has established associations between overall career preparation in high school and adjustment soon after high school graduation. Differences in the developmental patterns of career preparation dimensions (indecision, planning, and confidence) following high school graduation also have been found. The current study builds on that prior work by examining associations between changes in the dimensions of career preparation and changes in 3 aspects of adjustment (emotional stability, social adaptation, and self-actualization) from 12th grade in high school to 4.5 years after high school graduation in a sample of 454 youths, using latent growth curve analysis. Results showed that career preparation both predicts and is predicted by adjustment. Career confidence was a particularly important predictor of adjustment. Both 12th grade career confidence and changes in confidence over time predicted changes in adjustment and adjustment 4.5 years post-high school. In an alternative model, an increase in emotional stability was predictive of higher career confidence and lower indecision. Results are discussed in the context of developmental theories and the notion that adjustment and career are interrelated processes.

*Keywords:* career preparation, career decision making, adjustment, transition to adulthood

The transition from adolescence to early adulthood is a time of active identity development. Erikson's (1968) psychosocial theory of development asserts that identity formation is the key developmental task of adolescence and that adjustment is affected by success in navigating developmental tasks. Furthermore, other theorists (Skorikov & Vondracek, 2011; Vondracek, 1995; Waterman, 1990) have suggested that career and identity development are associated processes that are important for adjustment and self-fulfillment. Active preparation for an adult career is particularly salient during the transition from high school to work and college. Career commitments made at this time have consequences for adjustment in adulthood, including later career satisfaction and opportunities (Lee & Gramotnev, 2007; Mortimer, Vuolo, Staff, Wakefield, & Xie, 2008; Super, 1954, 1957).

Identity commitment, which takes place in multiple domains, including the career domain, involves cognitive, behavioral, and emotional attachments to a decision and emerges as the result of multiple co-occurring processes (Luyckx, Goossens, & Soenens, 2006; Waterman, 1990). In the career development literature, the concept of career preparation has been used to refer collectively to career identity commitment processes (Skorikov, 2007a). Skorikov

(2007b) described career preparation as a three dimensional construct comprising career decidedness (or indecision), planning, and confidence. These three dimensions can be seen as interrelated indicators of the process of making a career commitment, which appears to be closely intertwined with adjustment during the transition to adulthood.

Erikson (1968) posited that making occupational commitments is the most challenging task of identity formation in late adolescence and that failing to accomplish it can compromise adjustment. Indeed, previous research has shown associations between various indicators of career preparation and adjustment. Thus, adjustment in high school and beyond is associated with career planning and confidence in making career decisions (e.g., Creed, Muller, & Patton, 2003; Creed, Prideaux, & Patton, 2005), and career preparation during high school predicts adjustment 6 months after high school, controlling for previous adjustment (Skorikov, 2007b). Identity literature, which loosely focuses on career commitment by using measures that assess identity commitment in the career domain, has suggested linkages between career identity commitment and adjustment in high school and college students (e.g., Kunnen, Sappa, van Geert, & Bonica, 2008; Meeus, Iedema, Helsen, & Vollebergh, 1999). However, when investigating the effect of career on adjustment, research has not taken into consideration the interrelatedness of career preparation dimensions and social and emotional indicators of adjustment or their likelihood of having different trajectories (e.g., well-being may change differently from self-actualization). It is particularly important to examine the interrelatedness of career preparation and adjustment longitudinally, during the entire transition from high school to adult employment, because decisions, behaviors, and cognitions related to career at this time set individuals on the path for later career

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opportunities (Mortimer et al., 2008). The aim of the current study was to advance previous research by assessing dimensions of career preparation over the course of the transition from high school to work and further education and their associations with changes in social and emotional adjustment and self-actualization.

In addition to Erikson's (1968) psychosocial theory of development, the current study was guided by several related theoretical perspectives. First, Vondracek's (1995) developmental-contextual perspective on career asserts that making career decisions based on careful planning and in accord with one's abilities and talents leads to the experience of self-actualization through career. Second, social cognitive career theory (SCCT; Lent, Brown, & Hackett, 1994) and expectancy-value theory (EVT; Eccles & Wigfield, 2002) both point to the importance of cognitive processes related to confidence in achieving career goals. When applied to career confidence, EVT would emphasize confidence in one's capacity to deal with tasks in the career domain (including both specific and general tasks), whereas, a specific task, such as getting a job, would be emphasized by SCCT. Taken together, both SCCT and EVT would agree that having the confidence to achieve career goals is important for goal achievement, which in turn, would set a positive feedback loop and facilitate emotional well-being. In addition, both theories would suggest considering one's interests, abilities, and goals as important for achieving career goals. Career indecision, as assessed in the current study, takes into account these aspects about the self. Third, the theory of career construction (Savickas, 2005) asserts that "career adaptability," which is expected to affect successful coping with career issues and facilitate psychosocial adjustment, can be manifested in career planfulness, decisiveness, confidence, and exploration. However, career exploration in general does not appear to be directly associated with the dimensions of career preparation and does not seem to have the same effects on adjustment (Skorikov, 2007a). This is consistent with the Eriksonian identity perspective, which describes exploration and commitment as independent aspects of the process of identity formation (e.g., Meeus et al., 1999). In fact, career exploration has typically been studied as a broad exploration of general career options (e.g., Creed, Patton, & Prideaux, 2007; Rogers & Creed, 2011), which, unlike decision making, planning, and confidence, does not indicate progress in making occupational commitments (Skorikov, 2007b). Porfeli and Skorikov (2010) described two different forms of career exploration, diversive (in-breadth) exploration and specific (in-depth) exploration, and provided evidence of their different contribution to the overall process of career development. Whereas specific career exploration (i.e., exploration focused on implementing one's career plans) can be a part of making a commitment, career exploration in breadth is associated with commitments only indirectly (via its effects on specific exploration). Together, these theoretical perspectives and the empirical support for them offer guidance for why studying career preparation is important in understanding career identity development and the mechanisms through which career identity commitments are made.

### Career Preparation

Career preparation is an important component of career identity development and is critical for late adolescents and young adults as they move into their adult occupational careers (Skorikov, 2007a).

Career preparation is defined as the process of laying the foundation for establishing one's occupational career and consists of three dimensions of commitment-focused processes involved in career identity development (Skorikov, 2007b; Stringer, Kerpelman, & Skorikov, 2011): (a) career decision making (making an informed decision based on knowledge of one's career options and the self), (b) career confidence (having confidence to achieve one's career goals), and (c) career planning (developing strategies for achieving one's career goals). These dimensions can also be seen as indicators of career adaptability (Savickas, 2005).

Most research on career preparation is cross-sectional and has addressed only selected relations among career decidedness, career decision making self-efficacy, career planning, and their associations with selected adjustment variables. Skorikov's (2007b) study is the only one that has assessed all three career preparation dimensions over time (11th grade to 6 months post-high school) and their association with various indicators of mental health, well-being, and adjustment 6 months post-high school. Although Skorikov addressed career preparation as a single latent factor, Stringer et al. (2011) showed that different dimensions of career preparation do not follow exactly the same pattern of change after high school graduation. Career confidence showed a steady linear increase; career planning was found to have no significant change within the first 6 months following high school graduation but was found to increase linearly thereafter. Career indecision showed an overall decreasing pattern, with a steep decrease within the first 6 months after graduation followed by a slower decrease over the next 4 years. Therefore, it is important to examine the extent to which each dimension of career preparation contributes to dimensions of adjustment during the transition from high school.

### Adjustment and Career Preparation

Success in dealing with normative, developmental tasks is expected to be associated with personal and social adjustment, happiness, satisfaction, and successful accomplishment of later developmental tasks (Erikson, 1968; Havinghurst, 1972). During the transition to adulthood, preparing for an adult career is a primary focus, and its success is important for subsequent adjustment (Arnett, 2004; Skorikov, 2007b). However, adjustment can also affect one's ability to prepare for a career (e.g., Strauser, Lustig, & Çiftçi, 2008; Creed et al., 2003). In fact, the relationships between career preparation and adjustment are likely to be reciprocal, but little is known about their mutual effects (Skorikov, 2007a). Whereas a short-term study of high school students making the transition to work or college found that well-being was both a predictor and an outcome of career decision self-efficacy (e.g., Creed et al.), there has been no systematic research on the direction of the effects in the relationships between career preparation and adjustment. Therefore, the current study addresses both questions: Does career preparation predict later adjustment, and does adjustment predict later career preparation? These questions only can be addressed in longitudinal studies, which have been rare in research on career preparation.

There has been little attention given to the longitudinal associations between career preparation and adjustment (exceptions are Creed et al., 2003, 2005; Skorikov, 2007b), and no research to date has examined how changes in career preparation and adjustment dimensions are related to each other over time. In studies con-

ducted with adolescents and adults, career commitment has been suggested to be important for emotional adjustment, well-being, and career satisfaction (e.g., Creed et al., 2003, 2005; Kunnen et al., 2008; Meeus et al., 1999; Perrone, Ægisdóttir, Webb, & Blalock, 2006; Skorikov, 2007b), but these studies did not focus on the differential effects of specific aspects of career preparation.

Adjustment in the current study was assessed by emotional stability, social adaptation, and self-actualization. Emotional stability is characterized by being emotionally steady and predictable in a way that allows individuals to meet the demands of everyday life; social adaptation refers to being able to understand social cues and use them to fit in with a larger group; and self-actualization is the feeling of realizing one's full potential (Maslow, 1943; Minsel, Becker, & Korchin, 1991). These indicators are particularly representative of adjustment for young adults, who are engaged in identity exploration and commitment making, which are theorized to affect social and emotional health (Arnett, 2004), as well as self-actualization (Vondracek, 1995; Waterman, 2007).

Overall, career preparation can improve adjustment and lower distress, especially during educational and career transitions. It has been established that career preparation is connected to adjustment measures, including social adaptation, emotional stability (Skorikov, 2007b), well-being, and self-esteem (Creed et al., 2003), for high school students. Because literature also indicates that career preparation dimensions are interrelated over time and that adjustment can predict and be predicted by career preparation dimensions, it is important to take into consideration all of these factors when examining the unique effects of dimensions of career preparation on types of adjustment.

### Rationale and Hypotheses

Extant theory and empirical work suggest that the transition from high school to work, college, or both is a critical time for adjustment and preparing for one's adult career (Erikson, 1968; Mortimer et al., 2008; Mortimer, Zimmerman-Gemback, Holmes, & Shanahan, 2002; Skorikov, 2007b). However, little research has addressed the hypothesized effects of career preparation on adjustment and adjustment on career preparation. The current study builds on the previous work by Skorikov (2007b) and Stringer et al. (2011) by investigating longitudinal associations among the intercepts and slopes of the career preparation and adjustment dimensions. More specifically, the current study investigated whether changes in career confidence, planning, and indecision predicted social adaptation, emotional stability and self-actualization 4.5 years post-high school and whether each career preparation dimension in 12th grade predicted change in social adaptation, emotional stability, and self-actualization from 12th grade to 4.5 years post-high school. In addition, the prediction of change in each of the career preparation dimensions by each of the adjustment dimensions in 12th grade also was tested in order to account for literature suggesting that career preparation is affected by adjustment.

For the current study, four hypotheses were addressed:

*Hypothesis 1:* Initial levels of career indecision, planning, and confidence will predict change in social adaptation, emotional stability, and self-actualization.

*Hypothesis 2:* Changes in career indecision, planning, and confidence will predict social adaptation, emotional stability, and self-actualization levels 4.5 years post-high school.

*Hypothesis 3:* Initial levels of social adaptation, emotional stability, and self-actualization will predict change in career indecision, planning, and confidence.

*Hypothesis 4:* Changes in social adaptation, emotional stability, and self-actualization will predict career indecision, planning, and confidence levels 4.5 years post-high school.

To account for the fact that the career preparation and adjustment indicators are interrelated over time, the current study controlled for associations among the intercepts and slopes of the career preparation dimensions and each type of adjustment when testing hypotheses.

## Method

### Sample and Procedure

This study used a subset of data from the Adolescent and Young Adult Development Study (AYADS) conducted by Vladimir Skorikov (see Porfeli & Skorikov, 2010; Skorikov, 2007b). The AYADS is a large-scale, multivariate, longitudinal study of career development, identity, and mental health during the transition to adulthood. Whereas the AYADS comprised data collected on eight occasions from multiple subsamples, the current study utilized a sample of adolescents who were studied six times over a period of approximately 5 years beginning in 12th grade in high school.

The current study was conducted on a sample of 454 participants recruited from six high schools in Hawaii. The schools were selected to represent both urban and rural populations and a variety of communities in terms of their socioeconomic status (SES), ranging from poor (with an average household income 3 times lower than the state average) to affluent communities (with an average household income 2 times higher than the state average). The participants were paid volunteers, who expressed their consent to participate in writing, and who were granted a permission to partake by a parent or legal guardian. In the beginning of the study, the participants were high school seniors, whose average age was 17.2 years. There were 272 girls (60%) and 182 boys (40%), who came from a variety of ethnic groups (35% Asian, 29% multiethnic, 16% Hawaiian and Pacific Islander, 16% Caucasian, and 4% other, including American Indian, African, and Hispanic). The sample was diverse in terms of their parents' educational and occupational status. Approximately 40% of fathers and 39% of mothers earned a high school diploma, 17% of fathers and 21% of mothers completed vocational training or a community college degree, 19% of fathers and 24% of mothers graduated from a 4-year college, and 10% of fathers and 9% of mothers had an advanced degree (Master's or doctoral level). Among fathers, 23% held lower level jobs, 50% held midlevel jobs, and 12% high level jobs. Among mothers, 21% held lower level jobs, 58% midlevel jobs and 4% held high level jobs. Less than 1% of all fathers and 13% of mothers were homemakers. Almost 2.5% of the families received public assistance.

Data were collected annually on six occasions with an interval of 1 year between times of measurement. The first wave of data

collection (Time 1) was conducted during the fall semester of the 12th grade, and the last one (Time 6) took place approximately 4.5 years after high school graduation. Whereas at Time 1, all of the study participants were high school students residing in Hawaii, their post-high school pathways showed considerable variation. Thus, at Time 2 (6 months after high school graduation) 50% attended 4-year colleges, 26% were enrolled in community colleges or vocational training programs, and 24% did not attend any educational institutions. Almost half (47%) did not have a regular job, whereas only 18% were working full time (30 hr per week or more), and 34% were part-time workers. By the end of the study, of those who participated at Time 6 ( $N = 383$ ), 18% completed a bachelor's degree, 11% earned an associate degree, and 4% completed vocational training. However, 50% were still pursuing a postsecondary education (including 32% in 4-year colleges, 13% in 2-year schools and vocational programs, and 4% in postbaccalaureate programs). Only 1 person in our sample failed to obtain a high school diploma. In sharp contrast to Time 2, 54% of the study participants were working full time at Time 6, whereas only 20% did not have a regular job and 26% were working part time. Only 40% still lived with their family of origin, whereas approximately 40% moved to a different location (U.S. mainland, another island, or a foreign country). While most of the participants combined school and work during the course of the study, only half (including those who had already completed a bachelor's degree and those who had been still pursuing a bachelor's degree at Time 6) could be considered college-bound youths. Through carefully designed retention procedures, we were able to keep the attrition rate at a rather low—for a 5-year study—level. Of the 454 Time 1 participants, 383 (84%) were retained at Time 8.

## Measures

Career preparation was assessed using measures of career indecision, career confidence, and career planning. Career indecision was assessed using the Career Decision Scale (CDS; Osipow, Carney, & Barak, 1976). The CDS contains 16 items that are rated on a 4-point scale ranging from 1 (*not at all like me*) to 4 (*exactly like me*). Higher scores indicate greater indecision. The CDS items include, for example, "I can't make a career choice right now because I don't know what my abilities are," and "I don't know what my interests are. A few things 'turn me on' but I'm not certain that they are related in any way to my career possibilities." Numerous studies have established good psychometric properties of the CDS (see Skorikov, 2007b). For example, internal consistency has been found to be .89 (Patton & Creed, 2001), and test-retest reliability ranged from .82 to .90 for two college samples (Osipow et al., 1976). Studies establishing construct validity showed that the CDS was correlated with theoretically related constructs (e.g., Kelly & Lee, 2002; Osipow et al., 1976).

Career Confidence and Career Planning were assessed using a measure of career development constructed and validated over the course of the AYADS project (see Skorikov, 2007b, for detail). The Career Planning subscale assesses the degree to which one has established plans for reaching one's career goals and obtaining one's desired occupation, whereas the Career Confidence subscale measures the degree to which one believes that one will be able to achieve one's career goals. The Career Confidence subscale and Career Planning subscale items are rated on a 7-point Likert-type

scale ranging from *completely agree* (3) to *completely disagree* (−3), where higher scores indicate greater career confidence and planning. The scale scores are calculated by summing the scores of all items. The Career Planning scale includes eight items (e.g., "I have a plan for where I want to be in my career ten years from now" and "I know what to do in order to accomplish my occupational goals"), and the Career Confidence scale included five items (e.g., "I feel confident that I can do well in my chosen occupation in the future" and "I feel that my occupational plans may be impossible to accomplish"). Using a sample that had a partial overlap with the one utilized in the current study, Skorikov (2007b) found that the alpha coefficients for the planning and confidence scales were .85 and .82, respectively. Construct validity has been demonstrated via confirmatory factor analysis and via convergent/discriminant validation (Skorikov, 2007b). Additionally, in a sample of young adults derived from the AYADS, as expected, career planning and confidence were positively correlated with specific (in-depth) career exploration but not with diverse (in-breadth) career exploration (Porfeli & Skorikov, 2010).

Adjustment was assessed with the Positive Mental Health Scale (PMHS; Minsel et al., 1991). The PMHS subscales used in this study included emotional stability (four items; e.g., "I am emotionally very stable; my mood is positive even under stress"), social adaptation (four items; e.g., "I get along well with literally anyone I want to"), and self-actualization (five items; e.g., "I live my life to the fullest"). The PMHS items are rated on a 4-point scale ranging from *rarely* to *all the time*. Higher scores indicate better adjustment. Cronbach's alphas were adequate, ranging from .72 to .76 (Minsel et al., 1991). Previous work (Skorikov, 2007b) showed that the subscales correlated with each other. The correlation coefficients were .64 for self-actualization and social adaptation, .39 for emotional stability and self-actualization, and .46 for emotional stability and social adaptation.

## Analytic Procedure

The goals of the current study were addressed with latent growth curve analysis (LGCA) in a structural-equation modeling framework, using Mplus 5.21 (Muthén & Muthén, 2009; Willet & Bub, 2005). Six observations nested within individuals served as observed indicators of two latent constructs, an intercept (the average starting or ending point for the sample) and a slope (the rate of change across the six waves). Time was specified accordingly to the functional forms of the career preparation and adjustment dimensions (e.g., linear growth = 0, 1, 2, 3, 4, 5). A common problem when fitting latent growth curve models with multiple growth curves is that the model will not fit if the indicators of the slopes and intercepts are not on a similar scale (i.e., the minimums and maximums are similar). To address this issue, all total scores were rescaled to have a minimum of 1 and a maximum of either 4 or 7, depending on the scale. This is reflected in the means reported in Table 1. In order to deal with missing data, full information maximum likelihood (FIML) was used in Mplus. This is a powerful estimation tool that uses all available data to estimate the model numerous times until it finds the best model given all of the data available (Muthén & Muthén, 2009). Of the 454 participants, 84% were retained at Time 6, and 73% had complete data for all time points. Twenty-seven percent of participants had

Table 1  
Means and Standard Deviations

Variable	<i>M</i> ( <i>SD</i> )	Min	Max
Indecision T1	2.07 (0.54)	1.00	3.69
Indecision T2	1.82 (0.53)	1.00	3.50
Indecision T3	1.79 (0.53)	1.00	3.31
Indecision T4	1.73 (0.54)	1.00	3.69
Indecision T5	1.65 (0.51)	1.00	3.31
Indecision T6	1.62 (0.50)	1.00	3.44
Planning T1	5.31 (1.03)	1.88	7.00
Planning T2	5.24 (1.05)	2.13	7.00
Planning T3	5.29 (1.08)	1.38	7.00
Planning T4	5.33 (1.04)	2.00	7.00
Planning T5	5.38 (1.07)	1.88	7.00
Planning T6	5.43 (1.04)	2.00	7.00
Confidence T1	4.15 (1.16)	1.00	7.00
Confidence T2	4.32 (1.28)	1.00	7.00
Confidence T3	4.34 (1.26)	1.00	7.00
Confidence T4	4.44 (1.25)	1.20	7.00
Confidence T5	4.62 (1.24)	1.40	7.00
Confidence T6	4.64 (1.24)	1.60	7.00
Emotional stability T1	2.92 (0.60)	1.00	4.00
Emotional stability T2	2.97 (0.64)	1.00	4.00
Emotional stability T3	2.95 (0.67)	1.00	4.00
Emotional stability T4	2.98 (0.61)	1.00	4.00
Emotional stability T5	3.00 (0.63)	1.00	4.00
Emotional stability T6	3.04 (0.62)	1.00	4.00
Social adaptation T1	2.92 (0.59)	1.00	4.00
Social adaptation T2	2.96 (0.62)	1.00	4.00
Social adaptation T3	2.97 (0.59)	1.25	4.00
Social adaptation T4	3.02 (0.55)	1.75	4.00
Social adaptation T5	3.02 (0.57)	1.25	4.00
Social adaptation T6	3.07 (0.57)	1.50	4.00
Self-actualization T1	2.97 (0.63)	1.00	4.00
Self-actualization T2	2.97 (0.62)	1.25	4.00
Self-actualization T3	2.97 (0.62)	1.00	4.00
Self-actualization T4	2.97 (0.63)	1.25	4.00
Self-actualization T5	3.02 (0.60)	1.50	4.00
Self-actualization T6	3.00 (0.62)	1.25	4.00

Note. Confidence and planning were rescaled to have a minimum of 1 and maximum of 7 (i.e., [Confidence total score + 20]/5; [Planning total score + 32]/8). T = Time; Min = minimum; Max = maximum.

missing data at one or more time points. Those with missing data did not differ on age, ethnicity, and parents' educational attainment and occupational rank. However, attrition was higher for men than for women, and men were more likely to have missing data. Therefore, sex was controlled in the hypothesized models. The addition of sex to either of the models did not improve model fit; therefore, sex as a correlate of the predictors and outcomes was not included in the final models. Several indicators of model fit were used: chi square, Tucker-Lewis index (TLI; Tabachnick & Fidell, 2001), comparative fit index (CFI; Bentler, 1990), and root-mean-square error of approximation (RMSEA; Byrne, 2001).

## Results

### Preliminary Analyses

Exploratory data analysis was conducted before conducting LGCA. Means and standard deviations (see Table 1) showed that on average, emotional stability, social adaptation, and self-actualization were moderately high at each time point (using the

original scale of the measure). Career confidence was moderate overall, but an increasing pattern was seen from Time 1 to Time 6 (T1–T6). Career planning was moderately high overall, and a slight decrease from Time 1 to Time 2 (T1–T2) was seen, followed by an increasing pattern in the means from T2–T6. The means for career indecision suggested that in general, career indecision was decreasing over time, and there appeared to be a larger decrease from T1–T2 than from T2–T6. Examination of boxplots and histograms indicated that the data were symmetric for all variables. Bivariate correlations showed associations among career confidence, planning, indecision and emotional stability, social adaptation, and self-actualization.

### Career Preparation in the 12th Grade Predicts Growth in Adjustment, and Growth in Career Preparation Predicts Adjustment at 4.5 Years Post-High School (Model A)

**Unconditional growth models.** In order to test the study's hypotheses, unconditional growth models were fitted to determine the functional forms of emotional stability, social adaptation, and self-actualization. Because Stringer et al. (2011) identified the functional form of each dimension of career preparation using the same data set, these analyses are not discussed here. For all unconditional growth models, the error terms at each measurement point of indicators of the latent variables were correlated with the previous time point of that variable. The reasoning for this is that it was expected that the error in measurement of career confidence, for example, at T1 would be associated with the error in measurement of career confidence at T2. In addition, intercepts were correlated with their corresponding slopes.

Growth was examined for each type of adjustment. Time for the adjustment types was specified as  $-5$ ,  $-4$ ,  $-3$ ,  $-2$ ,  $-1$ , and  $0$  for the hypothesis in which career preparation predicted adjustment 4.5 years post-high school. Social adaptation and emotional stability increased linearly, and self-actualization did not show significant change over time.

**Slope and intercept correlations.** Intercorrelations among the intercepts (career preparation at T1 and adjustment at T6) and slopes of career preparation and adjustment dimensions were examined (see Table 2). Herein, all intercepts will be referred to as T1 or 12th grade (when time is centered at T1) or T6 or 4.5 years post-high school (when time is centered at T6; e.g., intercept of planning is referred to as "T1 planning"). Career preparation intercepts and adjustment slopes were correlated with the following exceptions: T1 indecision was not associated with the slope of social adaptation. T1 planning was not associated with the slope of emotional stability, and T1 confidence was not associated with the slope of emotional stability. The changes from T1 to T2 in indecision and planning were not associated with any of the slopes or intercepts of the adjustment types and were not included in Table 2.

**Model A.** Figure 1 illustrates standardized and unstandardized parameter estimates for the latent growth curve model predicting growth in and T6 social adaptation, emotional stability, and self-actualization from career confidence, planning, and indecision intercepts and slopes, respectively. This model also controlled for the effects of the co-occurring adjustment and career preparation processes by including all correlational paths among slopes and

Table 2  
Intercorrelations Among Intercepts (Adjustment at T6 and Career Preparation at T1) and Slopes

Latent variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Social adaptation I T6	—											
2. Emotional stabilization I T6	.52***	—										
3. Self-actualization I T6	.75***	.54***	—									
4. Confidence I T1	.35***	.38***	.27***	—								
5. Indecision I T1	-.19***	-.38***	-.17**	-.76***	—							
6. Planning I T1	.28***	.27***	.26***	.63***	-.61***	—						
7. Social adaptation S	.30**	.23*	.32**	-.33**	.16	-.39***	—					
8. Emotional stabilization S	.20*	.52***	.54***	-.06	-.14†	.04	.45***	—				
9. Self-actualization S	.25***	.29***	.53***	-.31***	-.15†	-.26***	.75***	.45***	—			
10. Confidence S	.25**	.23***	.36***	-.38***	.11	-.07	.45***	.55***	.43***	—		
11. Indecision S	-.09	-.11	-.25**	.41***	-.35***	.25**	-.37*	-.45***	-.31**	-.72***	—	
12. Planning S	.18*	.12	.29***	-.33***	.18*	-.35***	.60***	.61***	.27**	.60***	-.50***	—

Note. I = intercept; S = slope; T = time.  
†  $p < .01$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

intercepts that were not regressed on each other. Model fit indices indicated that the chi square was significant,  $\chi^2(509) = 874.27$ ,  $p < .001$ ; however, the TLI (.963), CFI (.954), and RMSEA (.040, *ns*) all indicated that the model fit the data well. Variance in the outcomes was predicted as follows: T6 social adaptation (3%),

emotional stability (3%), and self-actualization (4%); changes in social adjustment (22%), emotional adjustment (9%), and self-actualization (11%).

Model A showed that career confidence ( $\pi_{0i} = 4.17$ ,  $p < .001$ ;  $\pi_{1i} = 0.10$ ,  $p < .001$ ), career planning ( $\pi_{0i} = 5.32$ ,  $p < .001$ ;  $\pi_{1i} = 0.04$ ,  $p < .01$ ), social adaptation ( $\pi_{0i} = 3.03$ ,  $p < .001$ ;  $\pi_{1i} = 0.34$ ,  $p < .01$ ), emotional stability ( $\pi_{0i} = 2.99$ ,  $p < .001$ ;  $\pi_{1i} = 0.36$ ,  $p < .05$ ), and self-actualization ( $\pi_{0i} = 2.96$ ,  $p < .001$ ;  $\pi_{1i} = 0.31$ ,  $p < .05$ ) increased over time. Career indecision ( $\pi_{0i} = 2.07$ ,  $p < .001$ ;  $\pi_{1i} = -0.05$ ,  $p < .001$ ) decreased over time. T1 levels of career indecision and confidence predicted changes in emotional stability, such that greater 12th grade career indecision predicted slower increases in emotional stability. In addition, greater 12th grade career confidence predicted slower increases in all three types of adjustment. Career planning in 12th grade predicted changes only in social adjustment, such that greater initial planning predicted slower increases in social adjustment. Growth in career confidence was important for social adaptation, emotional stability, and self-actualization, such that slower gains in career confidence were associated with poorer adjustment 4.5 years post-high school. Changes in career planning and career indecision were not significantly predictive of adjustment 4.5 years post-high school. Taken together, these results suggest that for career indecision and planning, where you start in 12th grade matters for change in adjustment. However, where you start and where you go in developing confidence to achieve career goals is important for both change in adjustment and adjustment level 4.5 years post-high school.

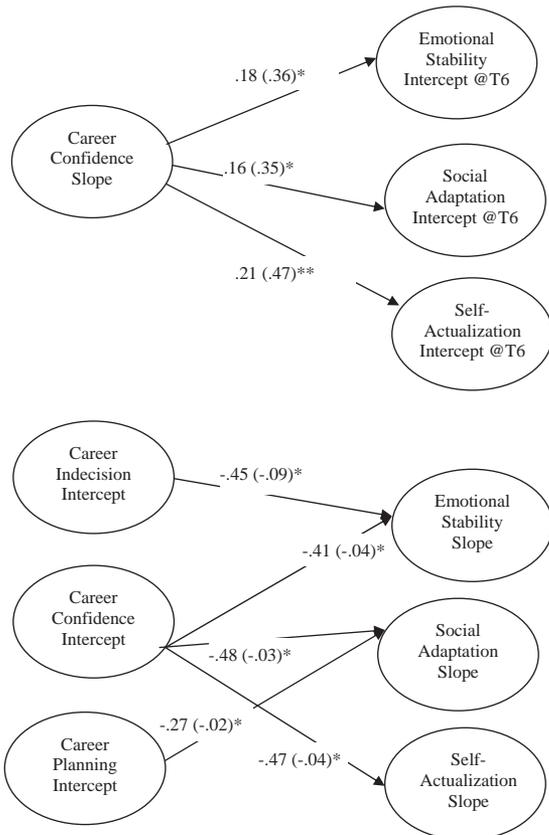


Figure 1. Standardized (and unstandardized) regression estimates for Model A. Fit statistics:  $\chi^2(509) = 874.27$ ,  $p < .001$ ; Tucker-Lewis index = .963; comparative fit index = .954; root-mean-square error of approximation = .040. T = time. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

**Alternative to Hypotheses 1 and 2: Adjustment in the 12th Grade Predicts Growth in Career Preparation, and Change in Adjustment Predicts Career Preparation 4.5 Years Post-High School (Model B)**

**Unconditional growth models.** In order to address the third and fourth hypotheses, each adjustment type had to be centered at T1 and each career preparation dimension had to be centered at T6. Time for the adjustment types was specified as 0, 1, 2, 3, 4, and 5. Career preparation dimensions were centered at T6 in order to test

a model in which change in adjustment predicted career preparation 4.5 years post-high school. Time for career confidence was specified as -5, -4, -3, -2, -1, and 0 for career confidence; time for career indecision and planning were specified as -1, 0, 0, 0, 0, and 0 for the change from T1-T2 and -4, -4, -3, -2, -1, and 0 for the slope from T2-T6. The functional forms of all dimensions of career preparation and adjustment were the same as those reported for Model A.

**Slope and intercept correlations.** Intercorrelations among the intercepts (career preparation at T6 and adjustment at T1) and slopes of career preparation dimensions, emotional stability, and social adaptation were examined (see Table 3). All adjustment intercepts and career preparation slopes were correlated, with the following exceptions: T1 social adaptation was not associated with the slopes of confidence and indecision. T1 emotional stability was not associated with the slope of planning. T1 self-actualization was not associated with the slopes of confidence and indecision. T6 indecision was not associated with changes in social adaptation, and T6 planning was not associated with changes in emotional stability or self-actualization. The changes from T1-T2 in indecision and planning were not associated with any of the slopes or intercepts of the adjustment types and were not included in Table 3.

**Model B.** Standardized and unstandardized parameter estimates for adjustment in 12th grade predicting changes in career preparation and changes in adjustment predicting career preparation 4.5 years post-high school, controlling for interrelations among the career preparation dimensions and career preparation's effect on growth in adjustment, are shown in Figure 2. Model fit indices indicated that the chi square was significant,  $\chi^2(517) = 911.04, p < .001$ ; however, the TLI (.960), CFI (.951), and RMSEA (.041) indicated that the model fit the data well. Variance in the outcomes was predicted as follows: T6 confidence (3%), indecision (6%), and planning (3%); changes in confidence (1%), indecision (6%), and planning (2%).

Model B showed that career planning ( $\pi_{oi} = 5.38, p < .001$ ;  $\pi_{li} = 0.24, p < .01$ ), social adaptation ( $\pi_{oi} = 2.93, p < .001$ ;  $\pi_{li} = 0.03, p < .001$ ), and emotional stability ( $\pi_{oi} = 2.93, p < .001$ ;  $\pi_{li} = 0.02, p < .01$ ) increased over time. Career indecision ( $\pi_{oi} = 1.65, p < .001$ ;  $\pi_{li} = -0.10, p < .001$ ) decreased over time, and self-actualization ( $\pi_{oi} = 2.96, p < .001$ ;  $\pi_{li} = 0.01,$

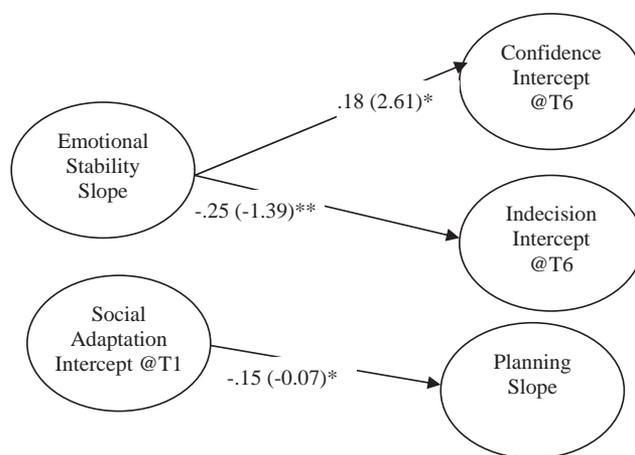


Figure 2. Standardized (and unstandardized) regression estimates for Model B. Fit statistics:  $\chi^2(517) = 911.04, p < .001$ ; Tucker-Lewis index = .960; comparative fit index = .951; root-mean-square error of approximation root-mean-square error of approximation = .041. T = time. \*  $p < .05$ . \*\*  $p < .01$ .

$p = .14$ ) and career confidence ( $\pi_{oi} = 4.61, p < .001$ ;  $\pi_{li} = 0.03, p = .74$ ) were stable. This model showed that social adaptation in the 12th grade negatively predicted growth in career planning, such that greater social adaptation in the 12th grade predicted slower increases in career planning. Changes in emotional stability positively predicted career confidence and negatively predicted career indecision, such that faster increases in emotional stability predicted more career confidence and less indecision 4.5 years post-high school. Results suggested that social adaptation in the 12th grade is particularly important for changes in career planning, and change in emotional stability is important for career confidence and indecision 4.5 years post-high school.

**Discussion**

The current study contributed to extant literature in many ways. First, it extended previous work by investigating each career

Table 3  
Intercorrelations Among Intercepts (Adjustment at T1 and Career Preparation at T6) and Slopes

Latent variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Social adaptation I T1	—											
2. Emotional stabilization I T1	.49***	—										
3. Self-actualization I T1	.80***	.44***	—									
4. Confidence I T6	.44***	.25***	.41***	—								
5. Indecision I T6	-.18**	-.15*	-.23**	-.77***	—							
6. Planning I T6	.53***	.27***	.53***	.45***	-.39***	—						
7. Social adaptation S	-.19*	-.15	-.28*	.18†	-.13	-.41***	—					
8. Emotional stabilization S	-.04	-.31***	-.02	.39***	-.39***	.02	.48**	—				
9. Self-actualization S	.20*	.44***	-.28**	.27***	-.20*	.04	.74***	.44**	—			
10. Confidence S	-.04	-.16*	-.07	.64***	-.77***	-.27**	.52***	.47***	.56***	—		
11. Indecision S	.12	.16†	.11	-.34***	.43***	.27***	-.37*	-.32*	-.47***	-.69***	—	
12. Planning S	-.23**	-.12	-.20**	.31***	-.24**	-.36***	.67***	.27**	.61***	.62***	-.54***	—

Note. I = intercept; S = slope; T = time.  
†  $p < .01$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

preparation dimension's associations with social adaptation, emotional stability and self-actualization from high school to 4.5 years post-high school. Second, it explored the ability of each of the three aspects of adjustment considered in this study to predict change in the career preparation dimensions during the transition to adulthood. Lastly, this study controlled for the relationships among the career preparation dimensions and among the adjustment dimensions, which helps to better understand which career preparation and adjustment dimensions are linked specifically to each other. Results suggested differences in the association of each career preparation dimension's intercept, slope(s), and adjustment, which underscores the need to better understand the process of career preparation over time and how it is associated with adjustment during a critical transition period.

Overall, each career preparation dimension in the 12th grade predicted changes in adjustment, as well as adjustment 4.5 years post-high school. The alternative model showed less evidence of adjustment predicting both changes in and later levels of career preparation. Results for Models A and B suggest that career preparation explained a higher percentage of variance in both change in adjustment and adjustment 4.5 years post-high school than adjustment explained variance in change in career preparation and career preparation 4.5 years post-high school. Career planning and confidence explained the most variance in changes in social adaptation, such that less confidence and planning in the 12th grade predicted faster increases in social adaptation. This finding most likely is a result of the concurrent associations among career confidence, planning, and social adaptation. For example, the 12th grade and changes in social adaptation and career planning were associated positively, such that greater career planning was associated with greater social adaptation cross-sectionally and longitudinally. Greater social adaptation at T1 was associated with slower increases in social adaptation over time, which suggests a ceiling effect, a typical association among intercepts and slopes of the same construct. Therefore, it makes sense that greater career planning would be associated with a slower increase in social adaptation. The initial level of and change in career confidence were the only career preparation dimensions that predicted both growth in and T6 adjustment. These associations showed that greater confidence to achieve career goals in the 12th grade predicted slower increases in adjustment, reflecting that higher confidence also was associated concurrently with higher adjustment, and therefore, less room was available to become better adjusted. Faster increases in career confidence were associated with greater adjustment 4.5 years post-high school. Career preparation's link to adjustment is consistent with what is theorized to be salient during emerging adulthood—making occupational identity commitments (Erikson, 1968) and becoming financially stable (Arnett, 2004), which involve making career decisions and plans and becoming confident in achieving career goals. For example, it may be advantageous for youths to discuss their career plans with their peers, who also are involved in career planning. Therefore, engaging in career planning activities is important for social adaptation.

Career indecision was not linked to changes in self-actualization; nor was the change in career indecision linked to self-actualization 4.5-years post-high school. Our authors' initial reaction was that career indecision or planning may indirectly affect self-actualization through career confidence; however, 12th grade career indecision and planning were not associated with changes in

career confidence. This study suggests that when controlling for other career preparation dimensions, social adaptation, and emotional stability linkages, changes in career indecision and planning are not linked to later self-actualization. This is counterintuitive to Vondracek's (1995) self-realization through a vocational career, which stresses that making career decisions based on knowledge of the self leads to self-actualization. However, according to both Super's (1980) career theory and Arnett's (2004) theory of emerging adulthood, youths in their early 20s are not usually established in their adult careers; Mortimer and colleagues' (2008) empirical study supports this notion. Thus, it may not be developmentally appropriate to expect youths in their early 20s to experience increasing self-fulfillment as a result of their career decisions because they are not yet in, or have just entered, their adult careers. It makes developmental sense—for youths in their early 20s—that the confidence to achieve career goals is linked with self-actualization rather than whether they have made decisions or plans about their future careers.

Overall, our results support developmental theories (Erikson, 1968; Super, 1980; Savickas, 2005) that posit that without successful navigation of career development in young adulthood, adjustment will be compromised. However, it appears that career preparation in the early 20s is most important for social adaptation and emotional stability rather than self-actualization, which may take longer to fully establish.

It also was found that changes in career indecision and planning were not associated with later adjustment. This finding may suggest that role exploration is occurring during ages 17 years to 22 years. As Staff, Harris, Sabates, and Briddell (2010) discussed, and as Arnett (2004) theorized, youths may be using the time from ages 18 years to 25 years to engage in role experimentation in the areas of work, self, and love. This process is theorized to be normative; however, delay of career decisions and planning may be reflected in slower increases in career confidence, which the current study suggested has negative effects on adjustment. For well-adjusted youths, it may be the case that those who are confident about their ability to achieve career goals have already made career decisions and engaged in career planning prior to the 12th grade. In fact, career confidence requires knowing what one wants to accomplish and how. Indeed, our previous research has shown that career decision making and planning precede career confidence (Stringer et al., 2011). Thus, the role of career decidedness and planning in the process of both career development and psychosocial adjustment should not be overlooked. Those adolescents who experienced an increase in their career confidence over the course of the study were likely to have advanced in their career preparation at a younger age, which allowed for progressively viewing themselves as moving in the right direction during the transition to adulthood. Additionally, in future research, it might be important to differentiate between chronically and developmentally undecided adolescents. There is some evidence that only the former are likely to be negatively affected by their lack of progress in career decision making (Skorikov & Uratani, 2008).

Career identity commitment has been defined as a having confidence about one's career decisions (Germeijs & van Geert, 2010), and the finding that increasing career confidence was associated with better adjustment is in line with much of the identity status literature, which suggests that adjustment is affected by identity commitment in general (Kunnen et al., 2008; Luyckx,

Goossens, Soenens, & Beyers, 2006) and, particularly, by making occupational commitments (see Skorikov & Vondracek, 2011, for an extensive review). Theory also suggests that career confidence is important for achieving career goals (Eccles & Wigfield, 2002; Lent et al., 1994; Savickas, 2005), and research shows that achieving career goals is associated with adjustment. For example, research addressing underemployment has shown that not meeting self-imposed career expectations is associated with deficits in positive adjustment (Dooley, 2003). Therefore, as the current study suggests, not having increasing confidence to achieve career goals when youths leave high school has negative effects on adjustment after high school.

Very little variance in career preparation was explained by adjustment. Changes in emotional stability appeared to better explain variance in T6 career preparation than 12th grade adjustment explained variance in changes in career preparation. Findings also showed that all adjustment dimensions were associated concurrently with the dimensions of career preparation; however, only social adaptation predicted change in career planning (i.e., greater social adaptation predicted slower increases in career planning), and change in emotional stability predicted subsequent career confidence and indecision (i.e., slower increases in emotional stability predicted less career confidence and more indecision). Prior studies (Creed et al., 2003; Skorikov, 2007b) did not examine whether adjustment predicted change in career preparation; they only examined whether adjustment predicted later levels of career preparation. The current study addressed whether adjustment had the power to predict change in career preparation, as well as whether change in adjustment predicted later career preparation. Looking across the two models, our results suggest that career preparation better predicts change in adjustment, whereas change in adjustment better predicts subsequent levels of career preparation. During late adolescence and young adulthood, the causal relationships between career preparation and adjustment dimensions may be reciprocal, that is, initial levels of career preparation in high school affect changes in adjustment from the late teens to the early 20s, and changes in adjustment affect later career preparation levels. For example, in the current study, career indecision was linked with changes in emotional stability after high school.

Overall, career planning and social adaptation appeared to be interrelated over time, given that greater 12th grade career planning predicted slower increases in social adaptation, and greater initial levels of social adaptation predicted slower increases in career planning. Similar patterns were seen for career confidence and indecision with emotional stability. Greater 12th grade career confidence and less 12th grade career indecision predicted faster increases in emotional stability, and faster increases in emotional stability predicted more career confidence and less career indecision 4.5 years post-high school. These findings suggest that change in emotional stability may be a mechanism through which career indecision and confidence in 12th grade affect career indecision and confidence 4.5 years post-high school, respectively. The current study supports prior literature (Creed et al., 2003; Skorikov, 2007b) showing that career preparation both predicts and is predicted by adjustment. Our study found this was the case for career indecision and emotional stability, as well as for career confidence and emotional stability.

As mentioned earlier, changes in career indecision and planning were not associated with subsequent adjustment at age 22 years.

This finding indicates that engaging in planning and becoming more decided about one's career during the transition from high school to postsecondary education and/or work do not directly affect adjustment in the beginning of the emerging adulthood. Rather, it is engagement in planning and how decided youths are about their careers in 12th grade that predicts changes in social and emotional adjustment over time. The education system in the United States is designed so that youths must make decisions about their careers during high school (e.g., whether to attend college, selecting a college major, selecting an occupational field), and how sure youths are about their choices and how much they plan for their careers likely affects other factors that may influence adjustment, such as college dropout and employment status. In fact, Staff et al. (2010) found that career indecision at age 16 years negatively affects financial earnings at age 26 years, which in turn most likely affects adjustment. In addition, Clausen (1991) found that adolescents who made careful decisions about their careers and planned for them had more stable careers as adults. It will be important for future studies to examine mechanisms through which career indecision in the 12th grade affects change in adjustment during the years that follow high school, as well as other outcomes of high school career indecision and planning.

Although changes in career indecision and planning were not predictive of adjustment 4.5 years post-high school, changes in career confidence were, and 12th grade indecision and planning predicted changes in adjustment. These findings are relevant for practitioners and applied researchers because they suggest that helping youths identify their skills and strengths and matching career options and plans for potential careers is particularly important for high school-aged and younger youths. More focus on helping youths to make career decisions and formulate career plans should be emphasized earlier than 12th grade because 12th grade career indecision is particularly important for adjustment in the early 20s. When youths feel decided about their career directions, they are more capable of taking the productive next steps toward establishing their careers. Results also suggest that giving youths experiences to build confidence to achieve their career goals is very important to emphasize when youths are between the ages of 17 years and 22 years.

The current study showed differential associations among the career preparation and adjustment dimensions. Specifically, the importance of 12th grade and changes in career confidence for self-actualization, social adaptation, and emotional stability when youths are in their early 20s was illustrated. Surprisingly, 12th grade career indecision was associated only with emotional stability, and 12th grade career planning was associated only with social adaptation. A possible explanation is that career confidence serves as a mediator in the effects of career decision making and planning. Those who are decided and aware of how to achieve their goals can benefit from being progressively more confident about their chosen careers. In contrast, if an adolescent decides on a desirable career but believes that his or her occupational plans will be impossible to accomplish, he or she may experience maladjustment. Overall, our findings suggest that career confidence is essential to build as youths make the transition from high school to postsecondary education and/or work. Youths should be assisted in preparing to assume their adult careers and make career decisions. It will be important for practitioners and counselors to focus on building youths' confidence in attaining their career goals, as this will support youths' career decision making and planning. Making the career decision is only part of the process of

becoming prepared for an adult career. The importance of career confidence and planning for the adjustment of youths in their early 20s cannot be overlooked.

### Limitations and Future Directions

The current study had some limitations, such the exclusion of individuals who dropped out of high school before graduating. Future research should include individuals who drop out of high school because they may be most at-risk for having difficulties making career decisions. Research has highlighted the diverse pathways youths take after high school, combining work and school and moving in and out of school and work (Kerchoff, 2003; Skorikov & Uratani, 2008; Staff & Mortimer, 2008). For example, some young adults work in jobs related to their future careers and attend vocational programs; other young adults attend 4-year colleges full time and work part time in jobs that are not related to their future careers, and still, others only attend school. Yet another complication is that some youths take time off from school and may not return to finish school. The implications of this variability in education and work are not known for career preparation; therefore, future research should examine within-individual predictors, such as patterns of work and school and their impact on the relationship between career preparation and adjustment. As Arnett (2004) suggested, college students typically have more time to delay making occupational commitments that may not negatively impact adjustment as it does for youths who do not go to college.

The results of the LGCA should be considered with caution. Whereas selected goodness-of-fit indices and a low value of the RMSEA indicate acceptable fit, the overall model of the relationships between career preparation and adjustment may be further improved, as evidenced by the highly significant chi-square statistic. Alternative models may have equally good or better fit if additional parameters are introduced. For example, future research should take into account possible effects on each other rather than mere correlations in the relationships among the dimensions of career preparation. Correlations among the slopes and intercepts of the adjustment and career preparation measures shown in Table 2 suggest that the effects of career indecision and planning can be stronger than the ones suggested by the fitted model. It also is important to take into account that the direction of the effects in the relationships between career preparation and adjustment can change during the transition to adulthood Skorikov (2007a). However, the timing of that change may be different for different groups of youths, depending on the educational and work transitions they experience after graduating from high school (e.g., differences between work and college bound youths).

A particularly interesting and potentially fruitful direction for future studies is to investigate the effects of the interaction among the components of career preparation on the course of adjustment during the transition to adulthood. Although career indecision, planning and confidence are correlated (Skorikov, 2007b; Stringer et al., 2011), the sizes of the correlations suggest that there might be considerable individual variation in the relative levels of the career preparation dimensions. Is it possible to be confident about one's career without formulating career goals and plans? Is career decidedness a positive factor in adjustment if it is not associated with career confidence? These are the questions that have never

been addressed in the literature, but answering them would provide theoretically important and practically valuable information.

The current study was unable to address potential moderating effects of SES and ethnicity on the relationship between career preparation and adjustment. Additionally, the results should be replicated in a sample that is more representative of the United States population in general. Given that socioeconomic status may be tied to whether youths have the ability to delay making career decisions and planning (Arnett, 2004; Staff & Mortimer, 2008), it may be that youths who have more financial resources at their disposal, compared with lower resource youths, may not be as affected by being unable to make a career decision or not having strong career plans. Furthermore, research has provided evidence that ethnicity and SES are tied to youths' career aspirations (Booth & Myers, 2011; Howard et al., 2011) and perceived barriers to career (Luzzo, 1993; McWhirter, 1997), which may have an impact on the relationship between career preparation and adjustment. For example, African American college students have been shown to have higher career aspirations than Caucasian women (Booth & Myers, 2011). African American college women may experience poorer adjustment if they are engaging in less career planning. Therefore, it is important that future research assesses SES and ethnicity as moderators of career preparation and adjustment.

Although there were no sex differences found in the functional forms of the career preparation dimensions (Stringer et al., 2011), sex may moderate the association between growth in career preparation dimensions and adjustment. According to gender role theory, men are expected to provide more financial support for the family than women are (Grandey, Cordeiro, & Crouter, 2005); therefore, there might be a stronger association between career preparation and adjustment in men than in women. Alternately, these assumptions may no longer hold true because of the increasing number of women who are pursuing postsecondary education and who regard their careers as important as men do (Perrone et al., 2006).

Lastly, it will be important for future researchers to examine patterns of career preparation beyond 4.5 years after high school graduation. Because this study ended 4.5 years after high school graduation, many individuals who went to college had not finished college by the end of the study. This matters because career development, including career preparation, is a life-long process that continues as context changes and individuals make developmental transitions. It will be important to investigate the associations among adjustment and career preparation after entry into adult occupational careers.

Although the current study had limitations, the contributions were noteworthy. This study included a very diverse sample of youths, which included both college-bound and work-bound youths and adolescents from diverse socioeconomic groups and from many ethnic groups. It also utilized longitudinal data collected annually for 5 years and used LGCA to examine growth and change in career preparation and adjustment. Because growth in each dimension of career preparation affected subsequent adjustment, the information from the current study emphasizes the need for better programs and interventions that help increase career confidence and planning and decrease career indecision during and after high school.

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### Call for Papers for a Special Section of the *Journal of Family Psychology*: Spirituality and Religion in Family Life

**Editors: Annmarie Cano and Annette Mahoney**

This special section of the *Journal of Family Psychology* aims to stimulate the breadth and depth of rigorous scientific studies on the interface of faith and family life. Recent reviews demonstrate that spirituality and religion remain relevant to contemporary families, but critical gaps in the research literature compromise a balanced or deep understanding how faith operates in a family context (see Mahoney, Swank & Tarakeshwar, 2001; Mahoney, 2010; Mahoney, in press). For example, repeated studies suggest that higher religious attendance and salience helps to form (e.g., marital unions) and maintain (e.g., lowers divorce risk) traditional family bonds. But scarce research exists on specific positive or negative roles that spirituality and religion may play in families, especially in nontraditional or distressed families. To help address these gaps, we invite papers that address any of the following ways in which specific spiritual cognitions and behaviors centered on family life may:

- help or harm relational and individual adjustment, including, but not limited to, the sanctification of an aspect of family life, prayer for a family member, positive religious/spiritual coping strategies to cope with family issues, spiritual struggles or negative religious/spiritual coping tied to family difficulties, and perceiving negative family events as a sacred loss and/or desecration.
- facilitate or undermine the formation and maintenance of diverse types of families (e.g., cohabiting unions with and without children, same-sex couples with and without children, blended, foster, adoptive, and multi-generational families).
- be part of the problem or solution in coping with family-related distress. This includes, but is not limited to, difficulties in the formation (e.g., unwanted singlehood or cohabitation, unintended pregnancy, infertility) and maintenance (e.g., coping with infidelity, partner or parent-child violence, chronic relational conflict, divorce, or a family member who has medical, mental health, or developmental problems) of family relationships.

Questions about the special section can be addressed to the section editors, Annmarie Cano, Ph.D. (acano@wayne.edu) or Annette Mahoney, Ph.D. (amahone@bgsu.edu) Submit manuscripts through the *Journal of Family Psychology* portal (<http://www.apa.org/pubs/journals/fam>) no later than **May 3, 2013** and please note that the submission is for this special section.