

*Empirical*

# Career Goal Setting and Goal Pursuit in Young Adults: The Role of Financial Distress

Journal of Career Development  
1-16© Curators of the University  
of Missouri 2020

Article reuse guidelines:

[sagepub.com/journals-permissions](https://sagepub.com/journals-permissions)

DOI: 10.1177/0894845319897136

[journals.sagepub.com/home/jcd](https://journals.sagepub.com/home/jcd)**Peter A. Creed<sup>1,2</sup>** , **Dian R. Sawitri<sup>3</sup>** , **Michelle Hood<sup>1</sup>**, and **Shi Hu<sup>4</sup>**

## Abstract

Informed by goal-setting/self-regulatory theories, we tested the mediating role of career-related effort (i.e., goal striving) in the relationships between career-related indecision (i.e., goal ambiguity) and career-related stress (i.e., affect) and perceived employability (i.e., career-related attitude) and examined the effect of financial distress as a moderator in these direct and indirect relationships. Using a sample of 202 young adults ( $M_{\text{age}} = 19.8$  years, 81.7% female), we found career indecision was related negatively to effort and perceived employability and positively to stress, with effort mediating between indecision and both stress and perceived employability. However, financial distress influenced these relationships. The associations between career indecision and effort and perceived employability were more negative and the associations between career indecision and stress were more positive when financial distress was higher. The study contributes by identifying how financial distress affects the relationships between career indecision, effort, and other career variables.

## Keywords

career goal setting, career self-regulation, career effort, career indecision, career stress, perceived employability, financial distress

Effective career goal management is associated with positive outcomes for the individual including improved motivation, performance, and personal satisfaction (Bandura, 1991; Latham & Locke, 1991). To be effective, goals need to be clear, specific, somewhat challenging, important to the individual, and acceptable to others, and there should be clarity and specificity regarding the path to achieving them (Locke & Latham, 2006). Goal clarity focuses attention on what must be done and increases goal persistence, while process clarity leads to effective plans and strategies and reduces wasted effort. On the other hand, unclear goals reduce motivation and performance and can be

<sup>1</sup> School of Applied Psychology, Griffith University, Gold Coast, Queensland, Australia

<sup>2</sup> Centre for Work, Organisation, and Wellbeing, Griffith University, Gold Coast, Queensland, Australia

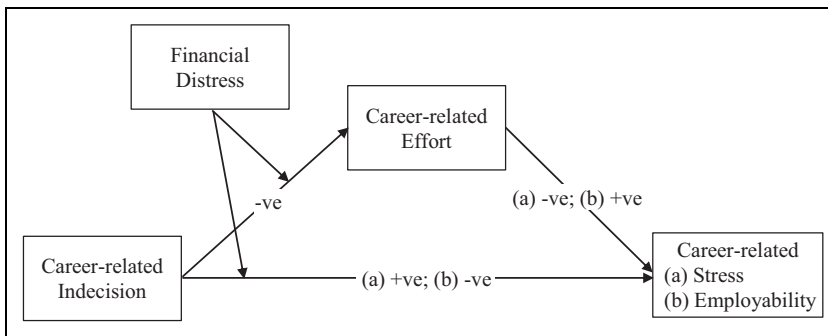
<sup>3</sup> Faculty of Psychology, Diponegoro University, Semarang, Central Java, Indonesia

<sup>4</sup> School of Education Science, Nanjing Normal University, China

## Corresponding Author:

Peter A. Creed, School of Applied Psychology, Griffith University, Gold Coast, Queensland, Australia.

Email: [p.creed@griffith.edu.au](mailto:p.creed@griffith.edu.au)



**Figure 1.** Career-related indecision is associated with career-related stress and perceived employability via career effort, and the relationships between indecision and effort, and between indecision and stress and employability, are affected by financial resource scarcity. Positive indicates positive relationship, and negative indicates negative relationship.

distressing, while unclear processes are wasteful and divert energy from achieving what is desired (Jung, 2012).

Career goal setting and goal pursuit are intimately entwined with, and affected by, the individual's contextual supports and barriers (Lent et al., 1994). However, we know little about contextual conditions that affect career goal management (Hu, Creed, & Hood, 2018). A critical contextual influence for young people is their level of financial security, which directly affects their present functioning and well-being, colors perceptions of the future, and circumscribes the means-end processes for achieving desired outcomes (Baker, 2019; Mukherjee et al., 2017).

We assessed the role of financial distress in career goal processes in young people. We operationalized clarity and specificity of career goals as career-related indecision and goal striving processes as career-related effort. We tested a model based on goal-setting theory (Lord et al., 2010) in which career indecision was related to affective (i.e., career stress) and attitudinal (i.e., perceived employability) career dimensions via effort. Financial distress was examined as a moderator of these direct and indirect relationships (see Figure 1).

### Career-Related Indecision

Unclear career goals have been conceptualized as an underdeveloped career calling (Hirschi, 2011), imprecise career aspirations (Caza et al., 2015), and immature vocational identity (Hirschi, 2012). Consistent with Stringer et al. (2011), we operationalized unclear goals as career indecision, which refers to the individual's inability to settle on a career direction. Indecision reflects perceived discrepancies between abilities and desired direction (Lord et al., 2010), lack of preparation, engagement, and support for the career decision-making process, conflict with others about a career direction, or personality traits (e.g., perfectionism) that sabotage decision-making (Brown et al., 2012).

As career indecision is considered potentially maladaptive (Lent & Brown, 2013), the consequences can be considerable, both in the short term (e.g., choosing a course) and long term (e.g., finding a satisfying job). For example, career indecision can disrupt the development of career maturity (i.e., capacity to manage age relevant, career tasks; Jun, 2018) and vocational identity (i.e., self-perceptions of career goals, interests, and abilities; Stringer et al., 2011) and can affect educational engagement and achievement (Germeijs & Verschueren, 2007), labor force entry (Sabates et al., 2011), and later person–job fit (Fort & Murariu, 2018). It has also been associated with career-related stress (Vignoli, 2015; Walker & Peterson, 2012) and perceived employability (Huang, 2015; Praskova, Creed, & Hood, 2014), which we included in our model.

## *Career Stress and Perceived Employability*

Career stress refers to the negative feelings (e.g., frustration, disappointment) that are generated when individuals encounter adverse experiences in their career goal setting and pursuit (Creed, Hood, et al., 2016). It is one of the most common reasons why students attend college counseling services (Benton et al., 2003) and also acts as an impediment to other career-related actions such as career exploration and commitment (Skorikov, 2007). From a goal-setting/self-regulatory perspective (Bandura, 1991; Latham & Locke, 1991), career stress is the result of appraising a discrepancy between a goal or standard set by the individual and the individual's progress toward that goal or meeting the standard. Career indecision has been shown to be related to career stress in both high school students (Vignoli, 2015) and undergraduates (Walker & Peterson, 2012). It is also related to poorer well-being generally (Viola et al., 2017).

**Hypothesis 1:** Career indecision is related positively to career stress.

Perceived employability is the individual's appraisal of their chances of obtaining and maintaining employment that matches their skills and abilities (Vanhercke et al., 2014). For young people not yet in the adult labor force, it reflects how employable they perceive themselves to be when they complete their formal education (Gunawan et al., 2018). In this way, perceived employability represents one's future occupational self (Cross & Markus, 1991), which drives goal setting and striving activities (Creed & Klisch, 2005). Consistent with this, perceived employability is related to career choice satisfaction (Jackson & Wilton, 2017), having a strong career calling (Praskova, Creed, & Hood, 2014), study commitment (Rothwell et al., 2009), and committing energies and focus to career-related activities (Praskova, Creed, & Hood, 2014). Specific to the current study, career indecision has been shown to be related to lower perceived employability, whether measured with specific indecision scales (e.g., Huang, 2015; Praskova, Creed, & Hood, 2014) or assessed via its component parts (e.g., McIlveen et al., 2013).

**Hypothesis 2:** Career indecision is related negatively to perceived employability.

## *Career-Related Effort*

Effort, expressed as the investment of energy and resources (Lord et al., 2010), is key to goal management, as it underpins motivational systems that focus attention, allocate time and energy, and deal with setbacks (Hall & Chandler, 2005). Goals drive achievement-related effort, and when goals are clear, commitment and effort are higher, and performance is better (Latham & Locke, 2007). Clearer career goals, expressed as higher career calling, are related to greater current and later career effort (Praskova et al., 2015). More broadly, active goal engagement is related to increased career effort (Creed, Kjoelaas, & Hood, 2016), while clarifying goal progress via feedback is related to greater individual and team effort (London, 2008). Career ambiguity is related to lower career goals and goal disengagement (Hu et al., 2017). We were unable to identify any studies that directly tested the relationship between career indecision and career-related effort; however, these studies provide indirect evidence to support a relationship between these two variables.

Thus, we expected (Hypothesis 3) career indecision to be related negatively to career effort.

Exerting effort typically is associated with greater personal satisfaction (Meyer et al., 2002). Specific to the career domain, effort, expressed as career commitment (Wang et al., 2016), time at work (Wrzesniewski, 2002), and goal-directed energy and persistence (Wiese et al., 2002), is related to greater job satisfaction and higher perceived career success. Additionally, career effort is related to

a greater sense of life purpose (Praskova, Hood, & Creed, 2014) and higher life satisfaction (Praskova et al., 2015).

Similarly, goal-directed effort is associated with more positive attitudes about the future (Hall & Chandler, 2005). For example, career commitment is related to more psychological capital (i.e., hope, resilience; Singhal & Rastogi, 2018), career optimism (Haratsis et al., 2015), and subjective career success (Chang et al., 2017), and career engagement is related to greater career optimism (Haratsis et al., 2015). For young adults, career effort is related to current (Praskova et al., 2015) and future perceived employability (Gunawan et al., 2018).

While no studies have tested the direct relationships between career effort and career stress and perceived employability, there is considerable indirect evidence to support these relationships. Thus, we expected: *Career-related effort to be related negatively to career stress (Hypothesis 4) and positively to perceived employability (Hypothesis 5).*

As effort is an important self-regulatory mechanism, which is mobilized when individuals select and commit to a goal (Hall & Chandler, 2005), we considered it as an intervening variable between career indecision and the outcome variables. This is consistent with goal-setting/self-regulatory models of human behavior (e.g., Bandura, 1991; Latham & Locke, 1991) and agentic career development models (e.g., Hall & Chandler, 2005; Lent et al., 1994) and supported in the literature. Chan (2017), for example, found that proactive career behaviors mediated between goal clarity and optimism for the future, Praskova et al. (2015) found that effort and strategy engagement mediated between career calling and life satisfaction and perceived employability, and Ollo-López et al. (2016) found that effort mediated between work goals and work outcomes, including job satisfaction.

Thus, we expected that career effort would mediate between career indecision and career stress (Hypothesis 6) and perceived employability (Hypothesis 7), with greater indecision related to less effort, and less effort, in turn, related to more distress and lower perceived employability.

### *Financial Distress as a Contextual Moderator*

When economic support is inadequate, young adults experience financial distress, which is the “subjective sense of having more needs than resources” (Mullainathan & Shafir, 2013, p. 86). From a goal-setting perspective, financial distress results from an unfavorable discrepancy between needs and resources (Lord et al., 2010). Worries about money (e.g., financing study and living expenses, managing loans, and credit card debt) is the second most important stressor reported by university students after study issues, with two thirds reporting struggling to manage on the money they have (National Survey of Student Engagement, 2015). Financial difficulties for students are related to poorer grades (Joo et al., 2008), dropout (Serido et al., 2014), taking fewer courses (Mukherjee et al., 2017), and poorer mental health (Mulder & Cashin, 2015).

The reason financial distress is important is that people think and act differently when resources are scarce compared to when they are adequate (Morton, 2017). When resources are scarce, individuals focus on pursuing short-term goals to meet current needs; when resources are adequate, they give priority to longer term goals and factor these into their thinking and decision-making. Under conditions of scarcity, survival strategies are activated, and attention is focused disproportionately on making ends meet at the expense of other needs and responsibilities; for young adults in education and training, these other responsibilities relate to study and preparing for the future (Mani et al., 2013).

Recent research suggests that financial scarcity leads to a scarcity mind-set, which reflects a pattern of thinking and prioritizing that produces a “tunnel vision” to focus on current problems at the expense of other issues and longer term outcomes (Mani et al., 2013). As financial distress becomes more pressing, it affects decision-making, increases psychological distress, and, more broadly, interferes with everyday thinking (Mullainathan & Shafir, 2013). In contrast, individuals with adequate finances feel

more in control and do not need to prioritize short-term goals over long-term considerations (Destin et al., 2017). These different mind-sets result in different behavioral responses, as experience conditions individuals to generate different adaptive responses to economic pressures, which generalizes to somewhat different responses and approaches to life (Griskevicius et al., 2013).

Financial hardship affects career development. High school students from more disadvantaged backgrounds have lower occupational aspirations (Eshelman & Rottinghaus, 2015), are less clear about their career goals and the means of achieving them, express less career-related agency (Thompson et al., 2017), do less well academically, and are more likely to dropout (McCarron & Inkelas, 2006). Undergraduate students in financial hardship perceive a more restricted range of occupational choices (Allan et al., 2019), and, on graduation, while they put more effort into job searching, accept lower paid and poorer fitting jobs (Hausdorf, 2007).

However, while studies have tested economic hardship as a correlate of career-related variables (Baker, 2019; White & Perrone-McGovern, 2017), we could find no research examining it as a boundary condition (i.e., moderator) for the underlying mechanisms of career goal setting and goal pursuit, which restricts our understanding of how the relationships in these models might differ for more and less financially distressed individuals. The current study contributes to this understanding by assessing financial distress as a moderating variable in the proposed relationships in Figure 1.

As more financially pressured young people will be disproportionately more concerned about their situation, have a greater focus on meeting basic needs, and will be distracted from focusing on future goals and attainment, we expected: *The relationships between career indecision and perceived employability and career stress will be stronger for those reporting higher financial distress compared to those less financially distressed (Hypotheses 8 and 9, respectively).*

As more financially distressed young people are less likely to be focused on future goals, and, thus, future goal achievement processes, we expected: *The relationship between career indecision and effort will be stronger for those reporting higher financial distress (Hypothesis 10).*

Last, as the relationships between indecision and effort, and effort and stress and perceived employability will be stronger for those reporting higher financial distress, we expected: *The mediated pathway via effort between career indecision and career stress (Hypothesis 11) and perceived employability (Hypothesis 12) will be conditional on the level of financial distress.*

We tested these hypotheses using a sample of undergraduate students, which is an appropriate population to examine as students are exposed to financial and study pressures from the beginning of their university life. In Australia, most tertiary students experience financial pressures associated with funding their education and living expenses and so must work as well as study (Australian Bureau of Statistics, 2013).

## Method

### Participants

These were 202 first-year students ( $M_{\text{age}} = 19.8$  years, 81.7% female) from one, multicampus Australian university. Almost all were domestic students identifying culturally as Australian, consistent with the student body at the participating university. For their typical Grade 12 results, 15.8% indicated *very high achievement*, 59.4% indicated *high achievement*, 22.8% indicated *average*, and 3.0% indicated *below average* ( $M = 2.1$ ).

### Measures

Unless otherwise indicated all scales used a 6-point Likert-type response scale (1 = *strongly disagree* to 6 = *strongly agree*), where higher scores indicated stronger endorsement of the construct.

**Career indecision.** We used the 6-item Career Indecision Scale (Solberg et al., 1995). A sample item is “I need to have a clearer idea of what my career interests are.” The authors reported a Cronbach’s  $\alpha$  of .84 and supported validity by finding negative correlations with career self-efficacy and career identity.

**Career-related effort.** We used the 8-item Effort Scale devised by Butler (2007). A sample item is “I really work hard on progressing my career.” Butler reported an  $\alpha$  of .88 and supported validity by finding positive associations with school attendance, grade point average, and satisfaction.

**Career-related stress.** The 5-item Career Ambiguity Scale (Choi et al., 2011) assesses career anxiety and concern (e.g., “I am anxious because I do not know what my skills and abilities are”).  $\alpha$  has been high for Australian students ( $\alpha = .86$ ), and there were expected correlations with other salient career constructs (e.g., lack of career progress and negative career feedback; Hu, Hood, & Creed, 2018).

**Perceived employability.** We used the 6-item Individual Employability Scale (Rothwell et al., 2009). A sample item is “The skills and abilities that I possess now are what employers are looking for.” The authors reported an  $\alpha$  of .72 and supported validity by finding positive relationships with study commitment and a second Employability Scale.

**Financial distress.** We used a single item, “When you compare yourself to your classmates, how would you describe your current financial situation?” (1 = *much worse off than others* to 5 = *much better off than others*). This has been used previously with students (Baker, 2019) and in the European Social Survey (<http://www.europeansocialsurvey.org/>). Supporting validity, scores were related to higher student debt (Baker, 2019) and poorer academic performance (Baker & Montalto, 2019).

## Procedure

The study was advertised midyear via a first-year course website. Approximately 400 students in the course could select from multiple studies, which were offered to provide research participation experience for which they gained course credit. Each study could recruit ~200 students. Volunteers completed the online questionnaire, which required answers to each item; thus, there were no missing data. In return, they received 30-min course credit and could enter a draw to win a AUS\$50 voucher. The study was conducted under the auspices of the first author’s ethics committee.

## Results

Analyses were conducted using AMOS Version 24. The latent variables for indecision, effort, and employability (each >6 items) were each represented by three parcels (Landis et al., 2000) and the latent variable for stress (5 items) by individual items. There also was one observed variable (financial distress) and one interaction term (Indecision  $\times$  Financial Distress). Item parcels reduce the parameters to be estimated, provide more stable estimates, reduce risk of violating normality assumptions, and provide more parsimonious models to be interpreted (Hau & Marsh, 2004). To create the interaction term, the products of the Financial Distress Indicator  $\times$  Three Indecision Parcels were each regressed onto financial distress and the three indecision indicators, and the residuals from these analyses were used as indicators for the interaction latent variable (see Steinmetz et al., 2011).

We tested a measurement model and then tested the mediation and moderation effects by assessing separate structural models for the two outcomes. We calculated 95% bias-corrected confidence intervals (CIs; 1,000 bootstrap samples) to assess mediation (i.e., assumed present if 95% CIs for the indirect effect do not contain zero; Preacher & Hayes, 2008). A significant path from the interaction term to an outcome indicates moderation (Steinmetz et al., 2011). Model fit was assessed using  $\chi^2$  (with 16 observed variables and sample <250, a significant  $\chi^2$  is expected), standardized  $\chi^2$  ( $\chi^2/df$ ; <3.0 for a

**Table 1.** Summary Data, Correlations (Latent Variables Above Diagonal, Scale Variables Below), and Cronbach's  $\alpha$  Reliability Coefficients (Along Diagonal).

Variables	M	SD	1	2	3	4	5
1. Career indecision	22.78	5.95	.94	-.52***	.82***	-.41***	-.16*
2. Career effort	33.96	5.38	-.43***	.94	-.54***	.59***	.34***
3. Career stress	16.19	6.51	.75***	-.48***	.93	-.34***	-.05
4. Employability	25.29	4.66	-.34***	.52***	-.32***	.83	.32***
5. Financial distress	2.98	0.84	-.15*	.26***	-.05	.31***	—
6. Age	19.84	3.30	-.13	.01	-.25**	.11	-.04
7. Education	2.11	0.69	-.03	-.11	-.05	.03	-.17*
8. Gender	—	—	-.09	.05	-.14*	.18**	.05

Note.  $N = 214$ .

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

good fit), comparative fit index (CFI;  $\geq .95$ ), Tucker–Lewis index (TLI;  $\geq .95$ ), and the root mean square error of approximation (RMSEA;  $< .08$ ; Hair et al., 2010).

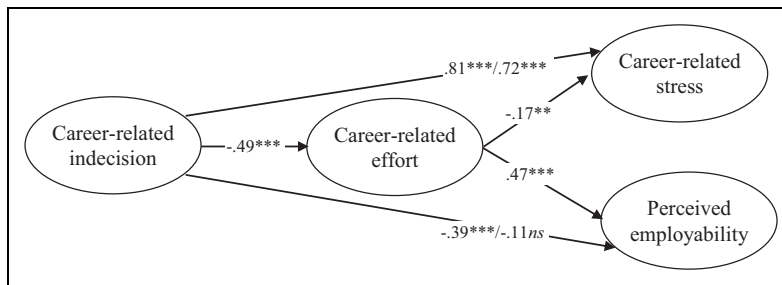
The measurement model fit the data well,  $\chi^2(78) = 121.56$ ,  $p = .001$ ,  $\chi^2/df = 1.56$ , CFI = .98, TLI = .97, RMSEA = .05 [.03, .07]. All factor loadings were  $> .75$  ( $p < .001$ ; range .75–.96) and correlations among latent variables paralleled those for the observed variables (see Table 1). As age was related to stress ( $r = -.25$ ,  $p = .001$ ), this was controlled in all analyses.

### Testing Mediation

First, a direct effects model (indecision  $\rightarrow$  effort, stress, and employability),  $\chi^2(91) = 130.36$ ,  $p = .004$ ,  $\chi^2/df = 1.43$ , CFI = .98, TLI = .98, RMSEA = .05 [.03, .06], confirmed that indecision was related to stress ( $\beta = .81$ ,  $p < .001$ ; Hypothesis 1), employability ( $\beta = -.37$ ,  $p < .001$ ; Hypothesis 2), and effort ( $\beta = -.49$ ,  $p < .001$ ; Hypothesis 3). For the direct and indirect effects model (i.e., mediation paths included),  $\chi^2(91) = 132.46$ ,  $p = .003$ ,  $\chi^2/df = 1.45$ , CFI = .98, TLI = .98, RMSEA = .05 [.03, .07], indecision  $\rightarrow$  stress remained significant ( $\beta = .72$ ,  $p < .001$ ), but the path to employability became nonsignificant ( $\beta = -.11$ ,  $p = .16$ ). Effort was related to both stress ( $\beta = -.17$ ,  $p = .009$ ; Hypothesis 4) and employability ( $\beta = .47$ ,  $p < .001$ ; Hypothesis 5), and the mediated pathways from indecision  $\rightarrow$  effort  $\rightarrow$  stress (95% CI [.03, .15]) and employability (95% CI [-.36, -.15]) were significant (partial mediation for indecision to stress [Hypothesis 6] and full mediation to employability; Hypothesis 7; see Figure 2). Variance explained was 31% (effort), 72% (stress), and 39% (employability). The standardized indirect effect of indecision on stress was .09 and on employability was  $-.24$ .

### Testing Effects of Financial Distress as Moderator

The interaction term was added to the mediation models, with links to effort, stress, and employability. In the direct effects model for stress,  $\chi^2(89) = 133.31$ ,  $p = .002$ ,  $\chi^2/df = 1.50$ , CFI = .98, TLI = .97, RMSEA = .05 [.03, .07], there were significant paths from the interaction to effort ( $\beta = .18$ ,  $p = .007$ ) and stress ( $\beta = -.13$ ,  $p = .013$ ), indicating that financial distress moderated the direct relationships between indecision and effort (Hypothesis 10) and stress (Hypothesis 8). As indecision increased, the decrease in effort and increase in stress were greater for the higher than the lower distressed group (Figure 3). In the direct and indirect effects model, there was an indirect effect for the interaction on stress via effort (95% CI [-.08, -.01; Hypothesis 11): as indecision increased, stress mediated via effort increased more so for the higher financially distressed group than for the lower (standardized indirect effect =  $-.09$ ).



**Figure 2.** Standardized  $\beta$  weights for model with effort mediating between indecision and stress and employability.

For the direct effects model for employability,  $\chi^2(63) = 86.76, p = .025, \chi^2/df = 1.38, CFI = .99, TLI = .98, RMSEA = .04 [.02, .06]$ , financial distress moderated the direct relationships between indecision and effort ( $\beta = .17, p = .016$ ; Hypothesis 10) and employability ( $\beta = .22, p = .003$ ; Hypothesis 9; Figure 3). Thus, as indecision increased, employability reduced more so for the higher financially distressed group than for the lower. The direct and indirect effects model also indicated that financial distress moderated the indirect relationship between indecision and employability (95% CI [.01, .16]; Hypothesis 12; standardized indirect effect =  $-.06$ ): as indecision increased, employability, mediated via effort, reduced more so for those more financially distressed.

## Discussion

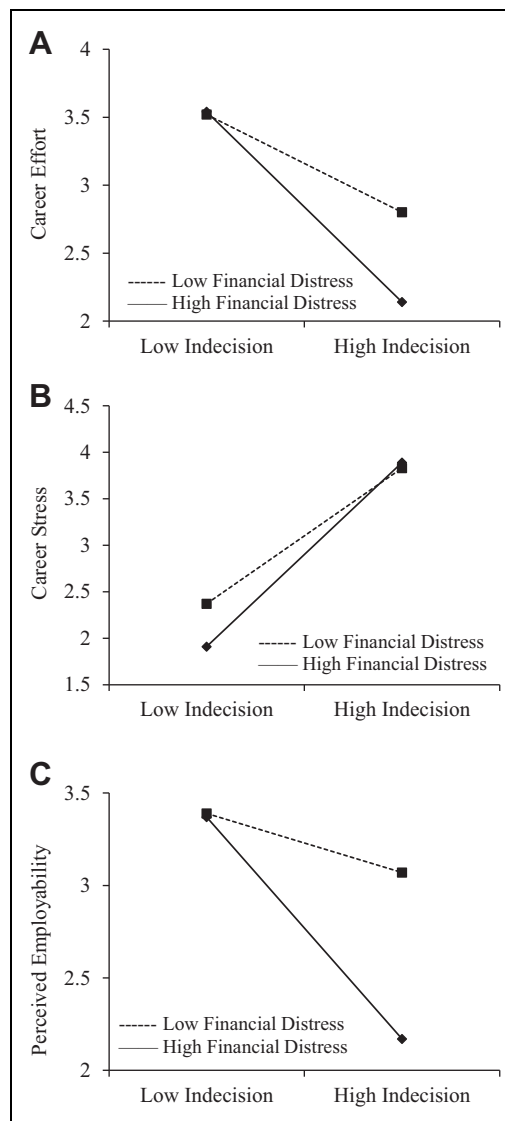
Informed by goal-setting/self-regulatory theories (Bandura, 1991; Latham & Locke, 1991), we examined the mediating role of career effort (i.e., goal striving) in the relationship between career indecision (i.e., poor goal clarity) and career-related stress (i.e., affect) and perceived employability (i.e., attitude). Additionally, we tested the effect of financial distress as a moderator in these direct and indirect relationships.

### Career-Related Effort as Mediator

Consistent with propositions that poor goal clarity can be stressful and disrupt career-related behaviors (Jung, 2012), we found that career indecision was associated with greater stress and lower perceived employability, supporting Hypotheses 1 and 2. These results support findings of previous studies where indecision was related to both stress (Vignoli, 2015) and employability (Huang, 2015). While some previous studies have treated career indecision as an outcome of stress (Vignoli, 2015) and employability (Jackson & Wilton, 2017), we considered stress and poorer perceived occupational future to be outcomes of career indecision. This is consistent with the goal-setting/self-regulatory perspective, which states that having clear, specific goals is both satisfying and motivating (Latham & Locke, 1991). It is plausible, as suggested by Vignoli (2015), that there are reciprocal relationships between career indecision and stress and employability, with, for example, indecision raising stress levels, and the elevated stress resulting in more confusion and indecision. However, we found no research that tested these relationships over time to confirm which causal direction takes precedence.

Additionally, we found that career indecision was associated with lower effort, consistent with Hypothesis 3, again consistent with the goal-setting/self-regulatory perspective (cf. Latham & Locke, 1991). This relationship had not been tested directly previously although there is indirect support for it (e.g., Creed, Kjoelaas, & Hood, 2016). This is an important finding, as it suggests that indecision might





**Figure 3.** As indecision increased: (A) career effort decreased disproportionately more for those higher on financial distress than for those lower, (B) career stress increased disproportionately more for those higher on financial distress than for those lower, and (C) employability reduced disproportionately more for those high on financial distress than those lower.

not only affect career progress (Jun, 2018) but also dampen motivation to engage in the career-related activities that progress career development.

On top of this, we found that effort partially explained the relationship between indecision and stress (Hypothesis 6) and fully mediated that with perceived employability (Hypothesis 7). Previous studies have shown effort is an important self-regulatory strategy that mediates between self- and other-set goals and satisfaction and outcomes (Chan, 2017; Ollo-López et al., 2016), and we add to this literature by showing that effort mediates specifically between career indecision and stress and

perceived employability. These results suggest that young, career-undecided individuals might give less attention/be less motivated to progressing their career when their goals are poorly defined, and as a result be more stressed about their progress and less optimistic about their future.

As the mediation between indecision and stress was partial, other pathways that also account for stress in undecided young people are likely, and these need to be identified. Cognitive (e.g., self-efficacy; Hirschi et al., 2017), affective (e.g., emotional regulation; Praskova et al., 2015), behavioral (e.g., career strategies; Praskova, Hood, & Creed, 2014), and contextual pathways (e.g., external support; Vertsberger & Gati, 2015) have been shown to mediate between goals and career satisfaction and actions and need to be assessed against effort when career decision-making is problematic.

### *Financial Distress as Moderator*

We extended the career research literature by testing the effect of financial distress on the relationships among indecision, effort, stress, and perceived employability. First, financially distressed young people exerted less effort and had lower levels of perceived employability when indecision was higher (i.e., lower levels of financial distress buffered the relationships between indecision and effort and perceived employability), supporting Hypotheses 9 and 10. This suggests that financially distressed young people, when experiencing career indecision, are more accommodating of their current and future situation, compared to their less financially distressed peers whose experiences demonstrate to them that they are in control and their future is bright provided they exert effort (Destin et al., 2017). Thus, financially distressed individuals might deal with indecision by withdrawing effort and potentially aiming for less prestigious and rewarding occupations to resolve their indecision (Hu, Creed, & Hood, 2018).

We also found that financial distress strengthened the positive relationship between career indecision and stress (Hypothesis 8). Less financially distressed young people have better coping skills and strategies and access to more resources to solve problems and avoid distress than the more financially distressed (Dixon et al., 2018). However, less financially distressed students did report more stress than higher financially distressed students when indecision was lower. A potential explanation is that as less financially distressed young people (i.e., those with more resources) are encouraged to achieve more highly (Schoon & Parsons, 2002) and are motivated to achieve these aspirations (Schoon, 2008), they might experience more career stress when they cannot settle on a career direction. This explanation is consistent with the notion that less financially distressed individuals are more focused on personal and family-set goals and achievement and that when these goals are frustrated, they are less accepting and more concerned (Destin et al., 2017; Flores et al., 2017). Future research needs to validate these results and determine if, for example, the underlying mechanisms that lead to career indecision are different for those young people who are more or less financially distressed.

Financial distress also moderated the indirect relationships via effort between indecision and stress (Hypothesis 11) and perceived employability (Hypothesis 12). This suggests that while more financially distressed young people withdraw effort and generate more stress and less optimistic views of the future in the face of indecision, less financially distressed young people increase effort, which reduces stress about their career direction and improves their optimism about the future, even when currently undecided. These results are consistent with a higher likelihood for more financially distressed young people to accommodate to challenging situations and lower their goals, while less financially distressed young people increase goal pursuit when challenged (Destin et al., 2017; Flores et al., 2017; Hu, Creed, & Hood, 2018). Other coping and goal-pursuit strategies need to be identified, and it remains to be determined which strategies are most functional at different levels of financial distress.

Financial distress is an underresearched variable in the career area; however, these multiple outcomes suggest economic conditions might play an important role in career goal setting and regulation and warrant further investigation.

## **Practical Implications**

Practitioners need to be alert when young people present with career indecision, as they might already have begun accommodating, for example, by reducing effort and being less confident about their future employability and be experiencing career stress. Financial distress potentially plays an important role in these linkages, and practitioners need to consider finances when helping young people resolve their indecision, as those with more financial distress might be particularly disadvantaged and need support to manage their resource limitations. Those with less financial distress might be more vulnerable to stressful reactions. Career interventions for career undecided young people might add a focus on the effects of financial distress and not only help young people develop strategies that take into account the specific stressors associated with their economic situation but also assist them to shape their responses so that these do not define their career development and decision-making.

## **Limitations**

We used a single sample of students from one university. To strengthen the generalizability, other populations (e.g., nonstudents and students from developing countries) need to be assessed. Our sample also had disproportionately more young women than men, and while we found no strong associations between the study variables and sex, future research needs to assess structural invariance between women and men, as sex differences in career development have been found previously (Patton et al., 2004). We only measured one self-regulatory variable (i.e., effort) and other intervening variables need to be considered (e.g., emotion regulation, self-efficacy), as do other important career outcome variables (e.g., identity). Finally, while we tested a process model, our study was cross-sectional. Ideally, future studies will examine the long-term effects of financial distress, as such studies will allow stronger causative statements to be made.

## **Conclusion**

This study confirmed and extended previously identified relationships among career indecision, career-related effort, career stress, and perceived employability, and having embedded these relationships in a goal-setting/goal-pursuit clarity perspective, we were able to confirm the mediated associations between career indecision and stress and employability via career-related effort. Last, we assessed the influence of financial distress on these direct and indirect relationships. We found financial distress effects indicating that more financially distressed and career-undecided young people exerted less effort and had lower perceived employability compared to those less financially distressed, whereas less financially distressed young people experienced more stress with career indecision. The study contributes by proposing a mechanism for how career indecision relates to important career process and outcome variables and by demonstrating the effects of financial distress on this underlying mechanism.


## **Declaration of Conflicting Interests**


The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## **Funding**

The author(s) received no financial support for the research, authorship, and/or publication of this article.

## ORCID iDs

Peter A. Creed  <https://orcid.org/0000-0002-8671-501X>

Dian R. Sawitri  <https://orcid.org/0000-0003-3446-6362>

## References

- Allan, B. A., Sterling, H. M., & Duffy, R. D. (2019). Longitudinal relations among economic deprivation, work volition, and academic satisfaction. *International Journal for Educational and Vocational Guidance*, 1–19. <https://doi.org/10.1007/s10775-019-09405-3>
- Australian Bureau of Statistics. (2013). *Australian social trends*. <http://www.abs.gov.au>
- Baker, A. R. (2019). Implications of financial concerns for college goal commitment among undergraduate students in the United States. *Social Psychology of Education*, 22, 63–89. <https://doi.org/10.1007/s11218-018-9467-5>
- Baker, A. R., & Montalto, C. P. (2019). Student loan debt and financial stress. *Journal of College Student Development*, 60, 115–120. <https://doi.org/10.1353/csd.2019.0008>
- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes*, 50, 248–287. [https://doi.org/10.1016/0749-5978\(91\)90022-L](https://doi.org/10.1016/0749-5978(91)90022-L)
- Benton, S. A., Robertson, J. M., Tseng, W. C., Newton, F. B., & Benton, S. L. (2003). Changes in counseling center client problems across 13 years. *Professional Psychology: Research and Practice*, 34, 66–72. <https://doi.org/10.1037/0735-7028.34.1.66>
- Brown, S. D., Hacker, J., Abrams, M., Carr, A., Rector, C., Lamp, K., Telander, K., & Siena, A. (2012). Validation of a four-factor model of career indecision. *Journal of Career Assessment*, 20, 3–21. <https://doi.org/10.1177/1069072711417154>
- Butler, A. B. (2007). Job characteristics and college performance and attitudes. *Journal of Applied Psychology*, 92, 500–510. <https://doi.org/10.1037/0021-9010.92.2.500>
- Caza, A., Brower, H. H., & Wayne, J. H. (2015). Effects of a holistic, experiential curriculum on business students' satisfaction and career confidence. *The International Journal of Management Education*, 13, 75–83. <https://doi.org/10.1016/j.ijme.2015.01.006>
- Chan, M. (2017). The importance of career clarity and proactive career behaviours in predicting positive student outcomes. *Asia Pacific Journal of Education*, 37, 601–614. <https://doi.org/10.1080/02188791.2017.1388214>
- Chang, H. Y., Shyu, Y. I., Wong, M. K., Chu, T. L., Lo, Y. Y., & Teng, C. I. (2017). How does burnout impact the three components of nursing professional commitment? *Scandinavian Journal of Caring Sciences*, 31, 1003–1011. <https://doi.org/10.1111/scs.12425>
- Choi, B., Park, H., Nam, S., Lee, J., Cho, D., & Lee, S. (2011). The development and initial psychometric evaluation of the Korean Career Stress Inventory for college students. *The Career Development Quarterly*, 59, 559–572. <https://doi.org/10.1002/j.2161-0045.2011.tb00976.x>
- Creed, P. A., Hood, M., Praskova, A., & Makransky, G. (2016). The career distress scale. *Journal of Career Assessment*, 24, 732–746. <https://doi.org/10.1177/1069072715616126>
- Creed, P. A., & Hughes, T. (2013). Career development strategies as moderators between career compromise and career outcomes in emerging adults. *Journal of Career Development*, 40, 146–163. <https://doi.org/10.1177/0894845312437207>
- Creed, P. A., Kjoelaas, S., & Hood, M. (2016). Testing a goal-orientation model of antecedents to career calling. *Journal of Career Development*, 43, 398–412. <https://doi.org/10.1177/0894845315603822>
- Creed, P. A., & Klisch, J. (2005). Future outlook and financial strain. *Journal of Occupational Health Psychology*, 10, 251–260. <https://doi.org/10.1037/1076-8998.10.3.251>
- Cross, S., & Markus, H. (1991). Possible selves across the life-span. *Human Development*, 34, 225–230. <https://doi.org/10.1159/000277058>

- Destin, M., Rheinschmidt-Same, M., & Richeson, J. A. (2017). A conceptual approach integrating the social psychological study of SES and identity. *Perspectives on Psychological Science, 12*, 270–289. <https://doi.org/10.1177/1745691616664424>
- Dixson, D. D., Keltner, D., Worrell, F. C., & Mello, Z. (2018). The magic of hope. *Journal of Educational Research, 111*, 507–515. <https://doi.org/10.1080/00220671.2017.1302915>
- Eshelman, A. J., & Rottinghaus, P. J. (2015). Viewing adolescents' career futures through the lenses of socioeconomic status and social class. *The Career Development Quarterly, 63*, 320–332. <https://doi.org/10.1002/cdq.12031>
- Flores, L., Navarro, R. L., & Rasheed Ali, S. (2017). The state of SCCT research in relation to social class. *Journal of Career Assessment, 25*, 6–23. <https://doi.org/10.1177/1069072716658649>
- Fort, I., & Murariu, A. (2018). The paths between gender, barriers, social support, coping efficacy and vocational indecision. *International Journal for Educational and Vocational Guidance, 18*, 241–249. <https://doi.org/10.1007/s10775-018-9359-4>
- Germeijs, V., & Verschueren, K. (2007). High school students' career decision-making process. *Journal of Vocational Behavior, 70*, 223–241. <https://doi.org/10.1016/j.jvb.2006.10.004>
- Griskevicius, V., Ackerman, J. M., Cantú, S. M., Delton, A., Robertson, T., Simpson, J. A., Thompson, M. E., & Tybur, J. M. (2013). Responses to resource scarcity depend on childhood environments. *Psychological Science, 24*, 197–205. <https://doi.org/10.1177/0956797612451471>
- Gunawan, W., Creed, P. A., & Glendon, A. I. (2018). Development and initial validation of a perceived future employability scale for young adults. *Journal of Career Assessment, 26*, 1–15. <https://doi.org/10.1177/1069072718788645>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Prentice Hall.
- Hall, D. T., & Chandler, D. E. (2005). Psychological success: When the career is a calling. *Journal of Organizational Behavior, 26*, 155–176. <https://doi.org/10.1002/job.301>
- Haratsis, J. M., Hood, M., & Creed, P. A. (2015). Career goals in young adults. *Journal of Career Development, 42*, 431–445. <https://doi.org/10.1177/0894845315572019>
- Hau, K. T., & Marsh, H. W. (2004). The use of item parcels in structural equation modelling. *British Journal of Mathematical and Statistical Psychology, 57*, 327–351. <https://doi.org/10.1111/j.2044-8317.2004.tb00142.x>
- Hausdorf, P. (2007). Job search outcomes for university graduates. *Canadian Journal of Career Development, 6*, 22–28. <http://cjdonline.ca/>
- Hirschi, A. (2011). Callings in career. *Journal of Vocational Behavior, 79*, 60–73. <https://doi.org/10.1016/j.jvb.2010.11.002>
- Hirschi, A. (2012). The career resources model. *British Journal of Guidance & Counselling, 40*, 369–383. <https://doi.org/10.1080/03069885.2012.700506>
- Hirschi, A., Jaensch, V. K., & Herrmann, A. (2017). Protean career orientation, vocational identity, and self-efficacy. *European Journal of Work and Organizational Psychology, 26*, 208–220. <https://doi.org/10.1080/1359432X.2016.1242481>
- Hu, S., Creed, P. A., & Hood, M. (2017). Career goal revision in response to negative feedback. *Journal of Counseling Psychology, 64*, 335. <https://doi.org/10.1037/cou0000193>
- Hu, S., Creed, P. A., & Hood, M. (2018). Does social class shape young people's goal revision processes in the face of negative career feedback? *Journal of Vocational Behaviour, 101*, 1–15. <https://doi.org/10.1016/j.jvb.2018.11.011>
- Hu, S., Hood, M., & Creed, P. A. (2018). Career goal importance as a moderator in the relationship between career feedback and career-related stress. *Journal of Career Development, 45*, 3–18. <https://doi.org/10.1177/0894845316667847>
- Huang, J. T. (2015). Hardiness, perceived employability, and career decision self-efficacy among Taiwanese college students. *Journal of Career Development, 42*, 311–324. <https://doi.org/10.1177/0894845314562960>

- Jackson, D., & Wilton, N. (2017). Career choice status among undergraduates and the influence of career management competencies and perceived employability. *Journal of Education and Work, 30*, 552–569. <https://doi.org/10.1080/13639080.2016.1255314>
- Joo, S.-H., Durband, D. B., & Grable, J. (2008). The academic impact of financial stress of college students. *Journal College Student Retention, 10*, 287–305. <https://doi.org/10.2190/CS.10.3.c>
- Jun, J. (2018). The reciprocal longitudinal relationship between career maturity and career indecision in South Korean college students. *Information, 21*, 929–935. <https://search.proquest.com/docview/2038672039?pq-origsite=scholar>
- Jung, C. S. (2012). Why are goals important in the public sector? *Journal of Public Administration Research and Theory, 24*, 209–234. <https://doi.org/10.1093/jopart/mus058>
- Landis, R. S., Beal, D. J., & Tesluk, P. E. (2000). A comparison of approaches to forming composite measures in structural equation models. *Organizational Research Methods, 3*, 186–207. <https://doi.org/10.1177/109442810032003>
- Latham, G. P., & Locke, E. A. (1991). Self-regulation through goal setting. *Organizational Behavior and Human Decision Processes, 50*, 212–247. [https://doi.org/10.1016/0749-5978\(91\)90021-K](https://doi.org/10.1016/0749-5978(91)90021-K)
- Latham, G. P., & Locke, E. A. (2007). New developments in and directions for goal-setting research. *European Psychologist, 12*, 290–300. <https://doi.org/10.1027/1016-9040.12.4.290>
- Lent, R. W., & Brown, S. D. (2013). Social cognitive model of career self-management. *Journal of Counseling Psychology, 60*, 557–568. <https://doi.org/10.1037/a0033446>
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior, 45*, 79–122. <https://doi.org/10.1006/jvbe.1994.1027>
- Locke, E. A., & Latham, G. P. (2006). New directions in goal-setting theory. *Current Directions in Psychological Science, 15*, 265–268.
- London, M. (2008). *Job feedback*. Taylor & Francis.
- Lord, R. G., Diefendorff, J. M., Schmidt, A. M., & Hall, R. J. (2010). Self-regulation at work. *Annual Review of Psychology, 61*, 543–568. <https://doi.org/10.1146/annurev.psych.093008.100314>
- Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. (2013). Poverty impedes cognitive functions. *Science, 341*, 976–980. <http://dx.doi.org/10.1126/science.1238041>
- McCarron, G., & Inkelas, K. (2006). The gap between educational aspirations and attainment for first-generation college students and the role of parental involvement. *Journal of College Student Development, 47*, 534–549. <https://doi.org/10.1353/csd.2006.0059>
- McIlveen, P., Burton, L. J., & Beccaria, G. (2013). A short form of the career futures inventory. *Journal of Career Assessment, 21*, 127–138. <https://doi.org/10.1177/1069072712450493>
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnitsky, L. (2002). Affective, continuance, and normative commitment to the organization. *Journal of Vocational Behavior, 61*, 20–52. <https://doi.org/10.1006/jvbe.2001.1842>
- Morton, J. M. (2017). Reasoning under scarcity. *Australasian Journal of Philosophy, 95*, 543–559. <https://doi.org/10.1080/00048402.2016.1236139>
- Mukherjee, M., McKinney, L., Hagedorn, L. S., Purnamasari, A., & Martinez, F. S. (2017). Stretching every dollar. *Community College Journal of Research and Practice, 41*, 551–565. <https://doi.org/10.1080/10668926.2016.1179602>
- Mulder, A. M., & Cashin, A. (2015). Health and wellbeing in students with very high psychological distress from a regional Australian university. *Advances in Mental Health, 13*, 72–83. <https://doi.org/10.1080/18374905.2015.1035618>
- Mullainathan, S., & Shafir, E. (2013). *Scarcity: Why having too little means so much*. Macmillan.
- National Survey of Student Engagement. (2015). *Engagement insights*. [http://nsse.indiana.edu/NSSE\\_2015\\_Results/pdf/NSSE\\_2015\\_Annual\\_Results.pdf#page=7](http://nsse.indiana.edu/NSSE_2015_Results/pdf/NSSE_2015_Annual_Results.pdf#page=7)

- Ollo-López, A., Bayo-Moriones, A., & Larraza-Kintana, M. (2016). Disentangling the relationship between high-involvement-work-systems and job satisfaction. *Employee Relations*, *38*, 620–642. <https://doi.org/10.1108/ER-04-2015-0071>
- Patton, W., Bartrum, D., & Creed, P. (2004). Gender differences for optimism, self-esteem, expectations and goals in predicting career planning and exploration. *International Journal for Educational & Vocational Guidance*, *4*, 1–17. <https://doi.org/10.1007/s10775-005-1745-z>
- Praskova, A., Creed, P. A., & Hood, M. (2014). The development and initial validation of a career calling scale for emerging adults. *Journal of Career Assessment*, *23*, 91–106. <https://doi.org/10.1177/1069072714523089>
- Praskova, A., Creed, P. A., & Hood, M. (2015). Self-regulatory processes mediating between career calling and perceived employability and life satisfaction in emerging adults. *Journal of Career Development*, *42*, 86–101. <https://doi.org/doi:10.1016/j.jvb.2015.01.001>
- Praskova, A., Hood, M., & Creed, P. A. (2014). Testing a calling model of psychological career success in Australian young adults. *Journal of Vocational Behavior*, *85*, 125–135. <https://doi.org/10.1016/j.jvb.2014.04.004>
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*, 879–891. doi:10.3758/BRM.40.3.879
- Rothwell, A., Jewell, S., & Hardie, M. (2009). Self-perceived employability. *Journal of Vocational Behavior*, *75*, 152–161. <https://doi.org/10.1016/j.jvb.2009.05.002>
- Sabates, R., Harris, A. L., & Staff, J. (2011). Ambition gone awry. *Social Science Quarterly*, *92*, 959–977. <https://doi.org/10.1111/j.1540-6237.2011.00799.x>
- Schoon, I. (2008). A transgenerational model of status attainment. *National Institute Economic Review*, *205*, 72–82. <https://doi.org/10.1177/0027950108096589>
- Schoon, I., & Parsons, S. (2002). Teenage aspirations for future careers and occupational outcomes. *Journal of Vocational Behavior*, *60*, 262–288. <https://doi.org/10.1006/jvbe.2001.1867>
- Serido, J., Shim, S., Xiao, J. J., Tang, C., & Card, N. A. (2014). Financial adaptation among college students. *Journal of College Student Development*, *55*, 310–316. <https://doi.org/10.1353/csd.2014.0032>
- Singhal, H., & Rastogi, R. (2018). Psychological capital and career commitment. *Management Decision*, *56*, 458–473. <https://doi.org/10.1108/MD-06-2017-0579>
- Skorikov, V. B. (2007). Adolescent career development and adjustment. In V. Skorikov & W. Patton (Eds.), *Career development in childhood and adolescence* (pp. 237–254). Sense.
- Solberg, V., Good, G., Fischer, A., Brown, S., & Nord, D. (1995). Career decision-making and career search activities. *Journal of Counseling Psychology*, *42*, 448–455. <https://doi.org/10.1037/0022-0167.42.4.448>
- Steinmetz, H., Davidov, E., & Schmidt, P. (2011). Three approaches to estimate latent interaction effects. *Methodological Innovations Online*, *6*, 95–110. <https://doi.org/10.4256/mio.2010.0030>
- Stringer, K. J., Kerpelman, J. L., & Skorikov, V. B. (2011). Career preparation. *Journal of Vocational Behavior*, *79*, 158–169. <https://doi.org/10.1016/j.jvb.2010.12.012>
- Thompson, M. N., Nitzarim, R. S., Her, P., Sampe, M., & Diestelmann, J. (2017). Financial stress and work hope beliefs among adolescents. *Journal of Career Assessment*, *25*, 254–267. <https://doi.org/10.1177/1069072715621517>
- Vanhercke, D., De Cuyper, N., Peeters, E., & De Witte, H. (2014). Defining perceived employability. *Personnel Review*, *43*, 592–605. <https://doi.org/10.1016/j.ics.2005.02.061>
- Vertsberger, D., & Gati, I. (2015). The effectiveness of sources of support in career decision-making. *Journal of Vocational Behavior*, *89*, 151–161. <https://doi.org/10.1016/j.jvb.2015.06.004>
- Vignoli, E. (2015). Career indecision and career exploration among older French adolescents. *Journal of Vocational Behavior*, *89*, 182–191. <https://doi.org/10.1016/j.jvb.2015.06.005>
- Viola, M., Musso, P., Ingoglia, S., Coco, A., & Inguglia, C. (2017). Relationships between career indecision, search for work self-efficacy, and well-being in Italian never-employed young adults. *Europe's Journal of Psychology*, *13*, 231–250. <https://doi.org/10.5964/ejop.v13i2.1277>
- Walker, J. V., & Peterson, G. W. (2012). Career thoughts, indecision, and depression. *Journal of Career Assessment*, *20*, 497–506. <https://doi.org/10.1177/1069072712450010>

- Wang, P., Sang, J., Li, P., & Zhao, J. (2016). How to make a newcomer happy? *Social Indicators Research*, *127*, 401–412. <https://doi.org/10.1007/s11205-015-0952-3>
- White, A. V., & Perrone-McGovern, K. (2017). Influence of generational status and financial stress on academic and career self-efficacy. *Journal of Employment Counseling*, *54*, 38–46. <https://doi.org/10.1002/joec.12049>
- Wiese, B. S., Freund, A. M., & Baltes, P. B. (2002). Subjective career success and emotional well-being. *Journal of Vocational Behavior*, *60*, 321–335. <https://doi.org/10.1006/jvbe.2001.1835>
- Wrzesniewski, A. (2002). It's not just a job. *Journal of Management Inquiry*, *11*, 230–234. <https://journals.sagepub.com/home/jmi>

## Author Biographies

**Peter A. Creed**, PhD, is a professor in the School of Applied Psychology, Griffith University, Australia. He holds a PhD and a master of applied psychology and has authored ~200 referred research outputs. His research focuses on the application of goal-setting/self-regulation theories to understand how individuals set and adjust goals, respond to goals set by self and others, and how they manage the consequences of goal disruption and implement behavior change to improve performance and reduce stress. He is particularly interested in career development, both in young people and adults in organizational settings. He is current editor of the *Australian Journal of Career Development*.

**Dian R. Sawitri**, PhD, is an associate professor at the Faculty of Psychology, Diponegoro University, Indonesia. She received her PhD in 2013 from Griffith University, Australia, and also holds a master of science in psychology. Her research interests include career and organizational psychology, educational psychology, and cross-cultural psychology. In her free time, she enjoys singing, music, and watching movies.

**Michelle Hood**, PhD, is an associate professor and deputy head of Learning and Teaching in the School of Applied Psychology. Her broad areas of expertise are in career and educational psychology. She is interested in the role of formal and informal educational and work experiences and contextual factors such as SES in academic achievement, career development and employability, and well-being (e.g., burnout, work–study balance, and satisfaction). Most of her work focuses on experiences of young adults during tertiary education. She teaches courses in developmental psychology, career psychology, research methodology and statistics, and psychological assessment. Her hobbies include music, reading, photography, and sewing.

**Shi Hu** is an associate professor in the School of Education at Nanjing Normal University, China. She was awarded the PhD degree (in psychology) at Griffith University, Australia, for her work on negative career feedback. Her major research is concerned with young people's career goal setting and pursuit. In leisure time, she enjoys movies and music.