

Precarious Employment and Subjective Career Success During the School-to-Work Transition

Haiyan Zhong, Jingbo Xu

School of Marxism, Northeast Agricultural University, Harbin City, Heilongjiang Province, People's Republic of China

Correspondence: Jingbo Xu, No. 600 Changjiang Road, Xiangfang District, Harbin City, People's Republic of China, Tel +86 13633611611, Email xujingbo1329@163.com

Purpose: The transition from school to work is an important stage in the career development of university students, and precarious employment during this period can significantly impact their early career success. In today's unstable employment environment, this study examines how employment instability during the transition from school to work directly and indirectly affects college students' subjective career success. This contributes to a thorough understanding of this transitional period and provides university students with the necessary resources to cope with a smooth transition from school to work.

Patients and Methods: We recruited senior students at five universities in Harbin, China, from May to July 2022. After obtaining participants' consent, questionnaires were distributed via social media, resulting in 967 valid questionnaires. Based on this sample, we examined the chain mediating effect of financial stress and occupational self-efficacy in the association between precarious employment and career success and the moderating effect of employability.

Results: The study found that precarious employment hurts career success and can also affect career success by increasing financial stress and decreasing occupational self-efficacy among college students. At the same time, financial stress can also decrease students' self-efficacy. Finally, employability can reduce the adverse effects of precarious employment on career success and occupational self-efficacy.

Conclusion: The link between employment instability and subjective career success during the transition from school to work has been demonstrated for university students. Employment instability not only increases college students' financial stress but also reduces career self-efficacy, which in turn affects college students' perceptions of early subjective career success. Importantly, employability plays a positive role in the smooth school-to-work transition and subjective career success of university students.

Keywords: school-to-work transition, precarious employment, career success, financial stress

Introduction

The transition from school to work is an important stage for graduates. During this transition, young people need to integrate into the labor market and develop a professional identity. Their practical completion of this transition bodes well for early career success and often predicts their long-term career success.^{1,2} However, over the past few years, COVID-19 exacerbates many of the labour market challenges faced by graduating university students. COVID-19 has profoundly impacted various social and economic aspects, resulting in new entrants to the labor market during the epidemic, often more likely to experience job mismatches and precarious employment. The International Labor Organization's recent report *World Employment and Social Prospects: Trends to 2023*, says that the number of unemployed worldwide is expected to rise slightly to 208 million in 2023, bringing the global unemployment rate to 5.8%. This means there will still be 16 million more people unemployed globally than in the 2019 baseline before the outbreak of the new crown epidemic. Youth unemployment is also a severe problem in China; where according to, *Overview of new urban jobs in January-April*, a statistical report by the China Development and Reform Commission, the youth unemployment rate reached 20.4% in April 2023, which is the first time more than exceeded 20% since 2018. These recent university graduates are even more affected by labor market instability as a vulnerable group.^{3,4} Employment instability not only gives rise to a wide range of "physical and psychological vulnerabilities" (financial, physical, and mental stress, etc.)^{5,6} but also hurt individuals' early

and long-term career success.⁷ Given the threat of employment instability to the career success of university students, it is of great importance to providing newcomers with the necessary resources to cope with the school-to-work transition to prevent underemployment, long-term unemployment, and negative impacts on their future careers. Therefore, more academic, policy-level, and educational attention is needed to understand better and increase graduates' chances of entering the labor market and early career success.

Precarious Employment on Career Success

Precarious employment is often defined as work that accumulates several unfavorable characteristics of employment quality, such as job insecurity (eg, temporary nature of contracts, insecure contractual relationships, underemployment and holding multiple jobs), inadequate earnings and limited rights and protections (eg, lack of unionization, social security, regulatory support, and workplace rights), are more common among disadvantaged or vulnerable groups.^{8–10} Subjective career success refers to the degree to which employees are subjectively satisfied with their occupation, including enjoyment of work and pride in achievement. It is a positive psychology from work experience.^{11,12} Subjective career success strongly impacts employees' happiness and personal self-esteem. When employees have high subjective career success, their happiness and personal self-esteem in the organization also increase substantially.

Likewise, subjective career success enhances employees' loyalty to the business organization and improves their performance and motivation to continue to develop.¹³ Employees' subjective career success is important for them and the company's management. However, employment instability brings more change and uncertainty to individual career development, making people feel more threatened in their daily work.¹⁴ This instability may, in turn, create psychological stress for individuals and negatively influence their work and career-related cognitive decisions, for example, thereby reducing their perception of subjective career success.^{15,16} In particular, newcomers entering the labor market during the COVID-19 pandemic are more likely to become more precarious. They are likely to face unemployment without being formally dismissed (eg, non-renewal of contract and reduced working hours, etc.) or even be subject to unfair treatment, abuse, and exploitation. This directly leads to the failure of their first job in the labor market and hinders their future career outcomes and professional success.^{7,17–20} On this basis, we propose the first hypothesis:

H1: Precarious employment can negatively predict students' career success.

The Mediation Effect of Financial Stress

For many people, money is an extremely important resource used to obtain other resources needed for survival. It is a source of self-worth and an indicator of personal achievement.²¹ Financial stress occurs when resources such as money are unavailable to meet an individual's needs.²² The sources of financial stress for many college students are multifaceted. They may include living expenses, tuition, student loan debt, work-school-life balance, financial pressures from family, and uncertain employment after graduation.^{23–25} Indeed, any threat to finances (eg, financial inadequacy and actual financial loss) can lead to stress. Financial inadequacy, in this case, may be more likely to lead to higher financial stress for individuals than actual financial losses.^{26,27} Low wages and underpayment are recognized features of employment insecurity. Particularly for many individuals in precarious employment, financial stress, poverty, and material deprivation are critical pathways to poor career progression.^{8,28} More specifically, stress triggered by the perceived inability to meet financial obligations as a stressor may be the most important factor affecting an individual's career performance.²⁹ This is confirmed by recent studies that, following the COVID-19 outbreak, employees in precarious jobs tend to suffer from high financial stress and anxiety and experience high burnout and low life satisfaction, which can have a significant impact on their health and work.^{30–33}

In addition, previous research has suggested that financial stress may be a barrier that may prevent individuals from investing time in career engagement and professional competence.³⁴ For example, the Job Demands-Resources (JD-R) model states that finances are an essential need and that financial inadequacy or financial insecurity exacerbates the negative consequences resulting from the depletion of physical and mental resources. This continuous state of lack is closely related to employee disengagement.³⁵ Lack of resources is the primary antecedent that leads to lower-than-expected levels of employee engagement.³⁶ Therefore, we argue that employment instability can hinder college students'

career development by increasing financial stress. Both unmet financial needs/lack of financial resources may lead to college students' early job goals falling short of expectations and, thus, early career success is hindered. Based on previous evidence, we propose the following hypothesis.

H2: Financial stress mediates the relationship between precarious employment and career success.

The Mediation Effect of Occupational Self-Efficacy

Social Cognitive Career Theory (SCCT) has been widely used as a specific theory for the study of career interest, choice, performance, and satisfaction.^{37,38} SCCT elucidates the relationship between the influence of career domains and career development.³⁸⁻⁴⁰ It focuses on an individual's ability to shape career behavior and highlights the triadic interaction between key person variables: self-efficacy, outcome expectations, and career domain-specific goals.³⁹ Self-efficacy is considered to be individuals' beliefs about their ability to master certain tasks and is one of the most studied psychosocial variables associated with STWT, demonstrating the role of these beliefs as predictors of STWT success.^{7,37,41} In the context of this study, occupational domain self-efficacy is "the beliefs of individuals in the occupational domain about their ability to perform the tasks and demands of the occupation" and is "considered to be all content-related self-efficacy across an individual's occupational domain".^{42,43}

According to the SCCT, the core elements driving career behavior are self-efficacy, outcome expectations, and goal selection.³⁸ The chain between these elements further addresses how individuals achieve career development success. In recent years, explorations of the mechanisms influencing subjective career success have broken away from the traditional focus on objective competencies and placed greater emphasis on the key mediating role played by social cognitive variables, emphasizing the importance of career self-efficacy in influencing individual performance, achievement, and career development.³⁹ In the context of precarious employment, an individual's attitudes and beliefs about their abilities can have a significant impact on the extent of career development.⁴⁴ Many previous studies have also confirmed that precarious employment can diminish occupational self-efficacy, reduce social integration, and more broadly affect individuals' career development, including subjective and objective career success.^{42,45} Therefore, we suggest that employment instability may indirectly affect early subjective career success by reducing college students' career self-efficacy.

H3: Occupational self-efficacy mediates the relationship between precarious employment and career success.

The Chain Mediating Effect of Financial Stress and Occupational Self-Efficacy

Previous research has shown that a wide range of factors influence levels of self-efficacy, including but not limited to individual differences and self-perceptions, situational cues, and learning experiences.^{38,46} The SCCT emphasizes how situational barriers may facilitate or hinder career development and potentially impact career self-efficacy, interests, and goals.⁴⁷ Previous research on barriers to career decision-making supports the argument that individuals' self-efficacy to pursue career-related tasks is significantly reduced when they perceive significant barriers to their career ambitions.^{48,49} Among these, significant barriers may be the lack of financial resources or conflicts related to family needs, for example, as such barriers may prompt them to reassess their occupational abilities and lead to lower occupational self-efficacy.⁵⁰

Many studies on adult individuals have shown that feelings of security about occupations promote occupational self-efficacy, while financial stress reduces occupational self-efficacy.⁵¹⁻⁵³ For example, Some scholars suggest that financial stress has a direct negative relationship with occupational self-efficacy and an indirect negative relationship with job search outcome expectations and goals.⁵⁴ Financial stress may act as a harmful form of feedback that directly indicates poor performance in the employment arena.⁵⁰ This is consistent with social cognitive mechanisms that emphasize that when individuals face financial stress, they may internalize their difficulties as evidence of a history of failure, thereby reducing career-related self-efficacy.⁵⁵ Based on previous research, we know that financial stress can have a negative impact on individuals' career self-efficacy.

Given the possible association between higher financial stress and career self-efficacy, we believe examining the possible chain mediating effects of financial stress and career self-efficacy in relation to employment instability and subjective career success is necessary. Therefore, we propose the following hypothesis:

H3: Financial stress and occupational self-efficacy play a chain mediating role in the relationship between employment insecurity and subjective career success, and financial stress is negatively related to occupational self-efficacy.

The Moderating Effect of Employability

The development of employability is considered to play a crucial role in graduates' career success.⁵⁶ Employability refers to the chances of an individual finding a job in the internal and external labor market.⁵⁷ As highlighted by several studies, career success depends on continuous learning, adaptation to new job demands or shifts in expertise, and acquiring skills through career changes in different organizational settings.⁵⁸ Empirical research suggests that one way to facilitate successful school-to-work transitions is through appropriate preparation for employment, as better practice can help individuals to successfully search for and find jobs and improve employability.^{59–63} Notably, upon entering the labor market, young people may often experience a period of employment volatility.^{64–66} Their judgment of their ability to remain employed during these fluctuations is crucial to their job integration. This is because, in this critical period, employability has been shown to reduce the risk of unemployment and job insecurity and maintain their confidence that they can effectively engage in career development. Those who perceive themselves as more employable experience less financial stress than those less employable.⁶⁷ It is, therefore, reasonable to assume that university students' perceptions of employability can reduce financial stress caused by employment instability and low career self-efficacy, positively contributing to early and long-term career success.^{7,68,69}

Based on the above, we propose that:

H5a: Employability moderates the relationship between precarious employment and financial stress

H5b: Employability moderates the relationship between precarious employment and occupational self-efficacy

H5c: Employability moderates the relationship between precarious employment and career success.

Current Study

Previous research has established the importance of a smooth transition from school to work for early and long-term career success. However, until now, we have lacked a thorough understanding of how employability contributes to the successful transition from school to work for graduates. At the same time, the vast majority of empirical research to date has remained less focused on the actual transition itself. The core elements identified by SCCT as driving career/employment behavior are self-efficacy, outcome expectations, and goal choice.³⁸ The chain between these elements further addresses how individuals achieve career development success. Therefore, SCCT forms the theoretical basis for this study.^{38,70,71} This study helps to fill in previous relevant research and thus provides insights into their actual transition into the labor market. Key objectives include: (1) examining how employment instability experienced by college students transitioning from school to work acts on early career outcomes, ie, early subjective career success, through financial stress and career self-efficacy, based on a model of social cognitive career theory. (2) Given the strong relationship between employability and career success in today's employment environment, we believe that introducing an examination of employability will help to reveal the mechanisms at play between employment instability and subjective career success. (3) Answer the question that if graduates are actively building their careers in terms of employability, can they achieve a smooth transition leading to early career success? The research framework of this study is shown in [Figure 1](#).

Materials and Methods

Participants

The traditional employment pathway for Chinese university students is to start looking for a job in the labor market between the summer holidays of their third year of university and their senior year (usually July to next year July). If this goes well, they can generally start an internship with the company and stay on after graduation. This stage represents the transition from school to work for many university students. Students from 5 universities in Harbin, China, were invited to participate in this study from May to July 2022. The participant selection criteria were fourth-year university students who were in internships (or already in the workforce but not yet formally employed) and planned to enter the workforce

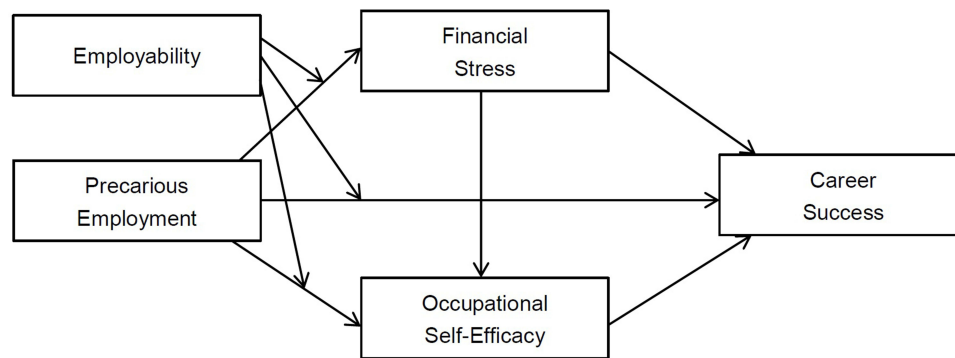


Figure 1 Research framework.

after graduation. We advertised and recruited volunteers in schools, and if students were willing to participate in the study, the research assistant distributed questionnaires via social media (eg, WeChat and QQ). Before the survey, the research assistant explained to all participants the specific purpose of the study and the detailed description of the questionnaire and ensured that the privacy of personal information in the questionnaire would be protected. All participants completed the questionnaire voluntarily and were compensated appropriately.

A total of 992 documents were distributed for this study. After excluding the sample of missing responses, the final result was 967 valid questionnaires, whose average age was 22.036 ± 1.451 years, 561 male students (58.014%), 508 from science disciplines (eg, Computer Engineering, Mechanical Engineering, and Civil Engineering, etc.), who had been working for an average of 3.683 ± 1.318 months.

Measures

Precarious Employment

The employment precarious Scale (EPRES) is a theory-based multidimensional measurement tool to assess employment instability.⁷² It consists of 23-item 0–4 scale divided into six dimensions: temporariness (contractual stability), deprivation of power, worker vulnerability, material rewards (wages and economic deprivation), workplace rights, and the ability to exercise these rights.⁷² The scale is calculated by first calculating the mean value for each dimension and subsequently calculating the mean value for each dimension, where higher values indicate higher levels of employment instability. The Cronbach's Alpha of this scale is 0.938.

Career Success

The Subjective Occupational Success Scale measures occupational success developed by Greenhaus.⁷³ The 5-item Subjective Career Success Scale measures individuals' perceptions of their financial/non-financial goals and achievements and their satisfaction with them. Example items include, "I am satisfied with my success in my career" and "I am satisfied with the progress I have made towards my income goals". Items are rated on a five-point scale from 1 = strongly disagree to 5 = strongly agree. The Cronbach's Alpha of this scale is 0.797.

Financial Stress

The 7-item Financial Anxiety Scale is based primarily on items from the GAD-7 and is adapted to financial stress (eg, "I feel anxious about my financial situation" or "I feel fatigued because I am worried about my financial situation").²² Answers were shown to be frequent on a 7-point scale (1 = never, 7 = always), with higher mean scores indicating more financial stress. The Cronbach's Alpha of this scale is 0.859.

Occupational Self-Efficacy

Using Schyns and Collani's professional self-efficacy, a total of nine questions were included (eg, "I feel prepared to meet more demands at work").⁷⁴ The questionnaire is based on a 5-point scale, (1= totally disagree and 5 = strongly agree). The higher the score represents the greater the sense of professional self-efficacy. The Cronbach's Alpha of this scale is 0.895.

Employability

Van Dam's 6-item employability scale is applied to graduates, and it assesses the activities individuals undertake to improve and maintain their employability, such as extending their work experience and engaging in training activities (eg, "I am actively trying to develop my knowledge and work experience").⁷⁵ Using a 4-point score ranging from 1 = completely disagree to 4 = completely agree. The Cronbach's Alpha of this scale is 0.846.

Statistical Analysis

The statistical analysis for this study was conducted using SPSS 24.0 and the Process v3.3 plug-in. Firstly, the basic characteristics of our sample and the relationships between the main variables were analyzed. Secondly, we tested the chain mediating effect of financial stress and occupational self-efficacy between precarious employment and occupational success. Finally, we examined the moderating role of employability. Confidence intervals were calculated for each pathway using the Bootstrap method to avoid bias introduced by the sample distribution. All the main variables were z-score standardized in the second and third steps of the analysis.

Results

Preliminary Analysis

The results of preliminary analyses, including descriptive statistics and Pearson correlation coefficients, were showed in Table 1. The results showed that college students who scored high levels of career success were more likely to have low levels of precarious employment ($r=-0.379$, $p<0.010$) and financial stress ($r=-0.361$, $p<0.010$) and high levels of occupational self-efficacy ($r=0.272$, $p<0.010$). Besides, precarious employment was positively associated with financial stress ($r=0.386$, $p<0.010$) and negatively associated with occupational self-efficacy ($r=-0.388$, $p<0.01$). In addition, employability was positively associated with career success ($r=0.222$, $p<0.010$) and occupational self-efficacy ($r=0.169$, $p<0.010$), but was negatively associated with precarious employment ($r=-0.245$, $p<0.010$) and financial stress ($r=0.071$, $p<0.050$).

Examination of the Mediating Effects of Financial Stress and Occupational Self-Efficacy

Hypothesis 1~4 predicted that the relationship between precarious employment, career success, financial stress and occupational self-efficacy. We used Model 6 of the PROCESS macro to examine these hypotheses, and the results were presented in Table 2.⁷⁶

As Model 1 showed that precarious employment was negatively associated with career success ($\beta=-0.312$, $p<0.001$). Therefore, H1 has supported. Model 2 and model 3 showed that precarious employment was positively associated with financial stress ($\beta=0.368$, $p<0.001$) and positively associated with occupational self-efficacy ($\beta=-0.317$, $p<0.001$). Model 4 verified financial stress was negative associated with career success ($\beta=-0.211$, $p<0.001$), and occupational self-efficacy was positive associated with career success ($\beta=0.090$, $p<0.01$), Therefore, H2 and H3 has supported. In addition, model 3 verified the negative relation between financial stress on occupational self-efficacy ($\beta=-0.140$, $p<0.001$), Therefore, H4 has supported.

The results of bias-corrected percentile bootstrap method confirmed above inferences. The bootstrap mediated effect estimate for financial stress is -0.078 (BootSE = 0.014, 95%BootCIs = $[-0.107, -0.052]$), the bootstrap mediated effect estimate for occupational self-efficacy is -0.029 (BootSE = 0.010, 95%BootCIs = $[-0.049, -0.010]$), and the bootstrap chain

Table 1 Descriptive Statistics and Correlation Analysis

	Mean	SD	1	2	3	4	5
1.Career Success	16.903	4.494	I				
2.Precarious Employment	1.149	0.619	-0.379**	I			
3.Financial Stress	27.778	7.024	-0.361**	0.386**	I		
4.Occupational Self-Efficacy	26.613	8.276	0.272**	-0.388**	-0.275**	I	
5.Employability	16.454	4.448	0.222**	-0.245**	-0.071*	0.169**	I

Note: ** $p<0.01$; * $p<0.05$.

Table 2 Examination of the Mediating Effects of Financial Stress and Occupational Self-Efficacy

	Model 1: Career Success	Model 2: Financial Stress	Model 3: Occupational Self-Efficacy	Model 4: Career Success
Precarious Employment	-0.312 (0.029***)	0.368 (0.030***)	-0.317 (0.032***)	-0.201 (0.031***)
Financial Stress			-0.140 (0.032***)	-0.211 (0.030***)
Occupational Self-Efficacy				0.090 (0.030**)
Age	0.086 (0.054)	-0.028 (0.058)	0.158 (0.057**)	0.065 (0.053)
Gender	-0.311 (0.065***)	0.118 (0.069)	-0.122 (0.069)	-0.273 (0.064***)
Domain	-0.051 (0.059)	0.006 (0.063)	-0.017 (0.062)	-0.048 (0.057)
Subject	0.755 (0.066***)	-0.190 (0.070**)	0.152 (0.069*)	0.698 (0.064***)
R ²	0.248	0.156	0.179	0.297
F	63.509***	35.497***	34.891***	57.961***

Notes: ***p<0.01; **p<0.01; *p<0.05.

mediated effect estimate for financial stress and occupational self-efficacy is -0.005 (BootSE = 0.002, 95%BootCIs = [-0.009,-0.001]). Since the 95%BootCIs for each mediating effect did not contain 0, they were all significant.

Examination of the Moderating Effect of Employability

Hypothesis 5a~c predicted that employability would moderate the indirect and direct pathways between precarious employment and career success. We used Model 85 of PROCESS macro to examine these hypotheses.⁷⁷ The results were presented in Table 3.

Model 1 showed that precarious employment was positively associated with financial stress ($\beta=0.372$, $p<0.001$), but the regression coefficient of the interaction term of precarious employment and employability was not significant

Table 3 Examination of the Moderating Effect of Employability

	Model 1: Financial Stress	Model 2: Occupational Self-Efficacy	Model 3: Career Success
Precarious Employment	0.372 (0.031***)	-0.312 (0.033***)	-0.185 (0.032***)
Financial Stress		-0.146 (0.031***)	-0.221 (0.029***)
Occupational Self-Efficacy			0.066 (0.030*)
Employability	0.027 (0.031)	0.080 (0.030**)	0.126 (0.028***)
Precarious Employment ×Employability	0.025 (0.028)	0.131 (0.027***)	0.072 (0.026**)
Age	-0.028 (0.058)	0.156 (0.056**)	0.069 (0.052)
Gender	0.121 (0.070)	-0.103 (0.068)	-0.267 (0.063***)
Domain	0.004 (0.063)	-0.022 (0.061)	-0.056 (0.057)
Subject	-0.198 (0.070**)	0.110 (0.068)	0.672 (0.063***)
R ²	0.157	0.204	0.318
F	25.567***	30.748***	49.471

Notes: ***p<0.001; **p<0.01; *p<0.05.



Figure 2 Employability moderated the relationship between precarious employment and occupational self-efficacy.

($\beta=0.025$, $p>0.050$). Therefore, employability did not significantly moderate the relationship between precarious employment and financial stress. So, H5a has not supported.

Model 2 showed that the regression coefficient of the interaction term of precarious employment and employability was significant ($\beta=0.131$, $p<0.001$). Thus, the pathway between precarious employment and occupational self-efficacy was moderated by employability. Simple slope tests showed that for the students with high levels of employability, the negative relation between precarious employment and occupational self-efficacy was weaker ($\beta_{\text{simple}} = -0.181$, 95% CI=[-0.260, -0.101]) than low levels one ($\beta_{\text{simple}} = -0.443$, 95% CI=[-0.530, -0.355]). We use a simple slope figure to reflect the change in the relationship between precarious employment and occupational self-efficacy under different levels of employability (See Figure 2). So, H5b has supported.

Model 3 showed that the regression coefficient of the interaction term of precarious employment and employability was significant ($\beta=0.072$, $p<0.010$). So, the pathway between precarious employment and career success was moderated by employability. It meant that for the students with high levels of employability, the negative relation between precarious employment and career success was weaker ($\beta_{\text{simple}} = -0.113$, 95% CI=[-0.188, -0.039]) than low levels one ($\beta_{\text{simple}} = -0.257$, 95% CI=[-0.342, -0.172]). Again, we use a simple slope figure to reflect the change in the relationship between precarious employment and career success under different levels of employability (See Figure 3). So, H5c has supported.

Discussion

In this study, we examined the mechanisms underlying the role of employment instability on subjective career success during the school-to-work transition of university students based on the social cognitive career theory. The findings highlight the critical role of employment instability in predicting career outcomes during the school-to-work transition. Indeed, employment instability hinders university graduates' smooth transition from school to the labor market and affects their subjective career success. Second, precarious employment can affect students' career success by mediating the effects of increased financial stress and reduced career self-efficacy. At the same time, financial stress may also cause university students' early job goals to fall short of expectations, thereby reducing their career self-efficacy, putting a damper on early career success.⁵¹⁻⁵³ Finally, the findings confirm that employability can play a crucial role in graduates' career success as a personal resource in the context of employment instability, with high employability



Figure 3 Employability moderated the relationship between precarious employment and career success.

implying the maintenance of confidence that they can engage effectively in their careers as well as self-efficacy, and positive protection against subjective career success.

Firstly, the associations found in our study are consistent with the direction of previous scientific evidence. When graduates perceive employment instability, this uncertainty and insecurity directly affects their career development. Specifically, when graduates are dissatisfied with their career status, the achievement of their career goals, and their career prospects, they are more likely to believe that their career development is hindered, and affect early career success.⁷⁸

However, for recent graduates, the economic crisis caused by COVID-19 has led to a significant deterioration in their working conditions and increased job uncertainty, gradually causing them to lose control of their careers. This job instability (including job security, job discontinuity, or lack of social protection) has been shown to hinder their future career expectations and the effects may be irreversible.⁷⁹ Not surprisingly, precarious employment is rising for all graduates in China (MOE). In 2022 China's university graduates will account for around 80% of the new labor force, almost equal to the number of new urban jobs. Thus, in recent years, the employment of Chinese university students has become difficult, with a large number of delayed employment or even non-employment, which leads to the employment situation of college students becoming more and more severe.

Second, our findings further support the mediating role of financial stress and career self-efficacy between precarious employment and career success during school-to-work transition period and that financial stress can directly influence career self-efficacy. Unstable employment can affect subjective career success by increasing students' financial stress and decreasing career self-efficacy. Early career stability is crucial for university students leaving school and entering the workforce. Unstable employment is often accompanied by inadequate income, low job security, and lack of power, leading to higher financial stress and lower job beliefs and drives, ultimately reducing their perceptions of career success.^{8,34,42,45}

Also, it has been confirmed that economic stress reduces career self-efficacy among college students.^{50,54} From a mastery perspective, financial resources can indicate an individual's level of achievement at work.⁸⁰ A lack of financial resources may limit an individual's ability to develop a career.³⁴ Thus, financial stress caused by a lack of financial resources can lead to lower individual occupational self-efficacy and act as an environmental barrier to occupational success. This also confirms the findings of the school-to-work transition and the study of barriers to career decision-making. On the one hand, a lack of financial resources (higher financial stress) may hinder individuals' career development, and career-related self-efficacy may be significantly reduced.^{48,49} On the other hand, financial resources

can indicate an individual's level of achievement in the workplace, and a lack of financial resources can limit an individual's ability to develop career skills and move to the next job.³⁴ In summary, an individual's income and financial situation (varying levels of financial stress) are the most important factors influencing occupational self-efficacy.⁸⁰

We add strong evidence for school-to-work transition period by introducing employability as a moderating factor between precarious employment and subjective career success. More specifically, the findings find that graduates' employability is an important protective factor for their early career success during the challenging transition from education to the labor market, reducing the adverse effects of precarious employment on occupational self-efficacy and career success. It is crucial for graduates to develop their employability skills early on.^{79,81} The success of university students' employability development efforts during their education may be a powerful contextual resource that can trigger young people to actively build their careers.⁸² This is because providing employability skills may make them more resilient in the face of such large career shocks, leading to a smooth transition to work.^{56,83} Specifically, graduates who actively build their careers in terms of employability can achieve a smooth transition leading to early career success, as perceptions of employability reflect career-related self-efficacy.⁵⁶ High levels of employability reflect individuals' beliefs about their ability to perform behaviors that will lead to desired outcomes (ie, self-efficacy).³⁷ Similarly, as employability as a personal resource tends to be associated with psychological resilience, individuals with high levels of personal resources are perceived to have higher levels of control. This control can help them to cope more effectively with risks and disadvantages such as those they face (employment instability) and to reduce the negative impact of such risks on their career development (career self-efficacy and career success). Thus, equipping university students with higher levels of employability can also help graduates succeed as they prepare for the transition to work in a period of increased employment uncertainty. This finding is particularly agreed upon in the face of the COVID-19 pandemic, which reduces graduates' risk of greater unemployment and long-term career disadvantage.⁴ Similarly, graduates' high awareness of their employability helps protect them from negative outcomes such as reduced career self-efficacy and stunted career progression due to precarious employment. The findings of the study further emphasize the importance of personal resources on school-to-work transition.

Limitation

Although the relationship between employment instability and college students' subjective career success has been explored, several significant limitations remain. First, our SCCT-based model is not exhaustive but rather highlights key factors in the school-to-work transition process that influence college students' subjective career success. Another potentially important personal (eg, personality traits) and contextual factors (eg, family resources) deserve further attention. Similarly, many studies have highlighted the important role of social support in the STWT process, and individuals who have networks of social connections that provide them with material and emotional support tend to sail through the period.⁸⁴ Yet the proximal mechanisms behind the relationship between different types of social support and subjective career success remain under-explored. A more accurate understanding of how other social supports, if acting on college students' work overload, could help future career development. Secondly, given that the time of investigation in this study was still during the COVID-19 pandemic, this may have some implications for participants' work experiences. Finally, quantitative research can examine causal relationships between model factors, while qualitative research can explore underlying processes and challenges vulnerable groups face. Our study population of a sample of university graduates limits the ability to generalize the findings of this study to all groups with precarious employment. Future research will require a broader and more representative sample.

Conclusion

Overall, the findings of this study highlight the importance of employment stability during the school-to-work transition for the early career success of university students. First, we find that the increased employment instability faced during the school-to-work transition has a significant negative impact on young people's early career success. Second, the findings suggest that unstable employment not only leads to higher financial stress among university students but also reduces career self-efficacy, which in turn affects their perceptions of early subjective career success. Higher financial stress also reduces their career self-efficacy. Importantly, our results confirm that employability is crucial for a smooth

school-to-work transition and future career development. Therefore, education systems and businesses need to help young people think about career paths, and employability can be used as an intervention to guide actions that contribute to the early career success of university students.^{85,86} Human resources policies can focus on developing graduates' employability-related skills and growing practices that enhance their employability.

Ethics Approval

The Academic Committee of the Northeast Agricultural University approved this study. Participants were informed of the study, and consent was obtained before the start of the study.

Acknowledgments

Thank you to all the volunteers who took part in the questionnaire.

Funding

This study was supported by the National Studio of Master Teachers of Civic Studies in Universities (Northeast Agricultural University) (approval number: 21SZJS23010224).

Disclosure

The authors report no conflicts of interest in this work.

References

- González-Romá V, Hernández A, Gamboa JP. Instructional factors and over-education of university graduates over time. *2018*.
- Wendlandt NM, Rochlen AB. Addressing the college-to-work transition: implications for university career counselors. *J Career Dev.* **2008**;35(2):151–165.
- Bell DN, Blanchflower DG. US and UK labour markets before and during the Covid-19 crash. *Natl Inst Econ Rev.* **2020**;252:R52–R69.
- Blustein DL, Duffy R, Ferreira JA, Cohen-Scali V, Cinamon RG, Allan VB. Unemployment in the time of COVID-19: a research agenda. *J Vocation Behav.* **2020**;119:103436. doi:10.1016/j.jvb.2020.103436
- Näsström S, Kalm S, Putonti C. A democratic critique of precarity. *Data Brief.* **2015**;5(4):556–573. doi:10.1016/j.dib.2015.10.005
- Aronsson G, Dallner M, Lindh T, Göransson HS. Flexible pay but fixed expenses: personal financial strain among on-call employees. *Int J Health Services.* **2005**;35(3):499–528. doi:10.2190/KOD9-RYQ5-TKEW-Y1RW
- Ng TW, Feldman VB. The school-to-work transition: a role identity perspective. *J Vocation Behav.* **2007**;71(1):114–134.
- Benach J, Vives A, Amable M, Vanroelen C, Tarafa G, Muntaner C. Precarious employment: understanding an emerging social determinant of health. *Ann Rev Public Health.* **2014**;35:229–253. doi:10.1146/annurev-publhealth-032013-182500
- Hadden W, Muntaner C, Benach J, Gimeno D, Benavides F. A glossary for the social epidemiology of work organisation: part 3, terms from the sociology of labour markets. *J Epidemiol Commun Health.* **2007**;61(1):6–8. doi:10.1136/jech.2004.032656
- Landstedt E, Brydsten A, Hammarström A, Virtanen P, Almqvist YB. The role of social position and depressive symptoms in adolescence for life-course trajectories of education and work: a cohort study. *BMC Public Health.* **2016**;16(1):1–16.
- Seibert SE, Crant JM, Kraimer ML. Proactive personality and career success. *J Appl Psychol.* **1999**;84(3):416. doi:10.1037/0021-9010.84.3.416
- Groysberg B, Abrahams R. Manage your work, manage your life. **2014**.
- Presti AL, Capone V, Aversano A, Akkermans CD. Career competencies and career success: on the roles of employability activities and academic satisfaction during the school-to-work transition. *J Career Dev.* **2022**;49(1):107–125.
- Spurk D, Abele AE, Volmer CA. The career satisfaction scale in context: a test for measurement invariance across four occupational groups. *J Career Assess.* **2015**;23(2):191–209.
- Ng T, Feldman VB. Subjective career success: a meta-analytic review. *J Vocation Behav.* **2014**;85(2):169–179.
- Ngo HY, Hui L. Chinese traditionality and career success. *Career Dev Int.* **2015**;2014(6):15170.
- Richards VB. Early employment situations and work role satisfaction among recent college graduates. *J Vocation Behav.* **1984**;24(3):305–318.
- Richards VB. Undergraduate preparation and early career outcomes: a study of recent college graduates. *J Vocation Behav.* **1984**;24(3):279–304.
- Akkermans J, Brenninkmeijer V, Huibers M, Blonk CD. Competencies for the contemporary career: development and preliminary validation of the career competencies questionnaire. *J Career Dev.* **2013**;40(3):245–267.
- Kuijpers M, Scheerens J. Career competencies for the modern career. *J Career Dev.* **2006**;32(4):303–319.
- Sinclair RR, Cheung J. Money matters: recommendations for financial stress research in occupational health psychology. *Stress Health.* **2016**;32(3):181–193. doi:10.1002/smi.2688
- Archuleta KL, Dale A, Spann FC. College students and financial distress: exploring debt, financial satisfaction, and financial anxiety. *J Financial Counsel Plan.* **2013**;24(2):50–62.
- Beiter R, Nash R, McCrady M, et al. The prevalence and correlates of depression, anxiety, and stress in a sample of college students. *J Affect Disord.* **2015**;173:90–96. doi:10.1016/j.jad.2014.10.054
- Heckman S, Lim H, Montalto FT. Factors related to financial stress among college students. *J Financial Ther.* **2014**;5(1):154.
- Nelson MC, Lust K, Story M, Ehlinger E. Credit card debt, stress and key health risk behaviors among college students. *Am J Health Promotion.* **2008**;22(6):400–406. doi:10.4278/ajhp.22.6.400

26. Bilgin B. Losses loom more likely than gains: propensity to imagine losses increases their subjective probability. *Organ Behav Human Decis Process.* 2012;118(2):203–215.
27. Gilbert DT, Pinel EC, Wilson TD, Blumberg SJ, Wheatley T. Immune neglect: a source of durability bias in affective forecasting. *J Person Soc Psychol.* 1998;75(3):617. doi:10.1037//0022-3514.75.3.617
28. Muntaner C, Chung H, Solar O, et al. A macro-level model of employment relations and health inequalities. *Int J Health Services.* 2010;40(2):215–221. doi:10.2190/HS.40.2.c
29. Kulikowski K, Sedlak P. Can you buy work engagement? The relationship between pay, fringe benefits, financial bonuses and work engagement. *Curr Psychol.* 2020;39(1):343–353.
30. Banerjee D, Rai M. Social isolation in Covid-19: the impact of loneliness. *Int J Soc Psychiatry.* 2020;66:525–527. doi:10.1177/0020764020922269
31. Tan BY, Kanneganti A, Lim LJ, et al. Burnout and associated factors among health care workers in Singapore during the COVID-19 pandemic. *J Am Med Direct Assoc.* 2020;21(12):1751–1758. e1755. doi:10.1016/j.jamda.2020.09.035
32. Price RH, Choi JN, Vinokur A. Links in the chain of adversity following job loss: how financial strain and loss of personal control lead to depression, impaired functioning, and poor health. *J Occup Health Psychol.* 2002;7(4):302. doi:10.1037//1076-8998.7.4.302
33. Rasdi RM, Zaremozhzabieh Z, Ahrari P. Financial insecurity during the COVID-19 pandemic: spillover effects on burnout–disengagement relationships and performance of employees who moonlight. *Front Psychol.* 2021;12:610138. doi:10.3389/fpsyg.2021.610138
34. Vinokur AD, Schul Y. The web of coping resources and pathways to reemployment following a job loss. *J Occup Health Psychol.* 2002;7(1):68. doi:10.1037/1076-8998.7.1.68
35. Bakker AB, Demerouti E. Job demands–resources theory: taking stock and looking forward. *J Occup Health Psychol.* 2017;22(3):273. doi:10.1037/ocp0000056
36. Parzefall MR, Hakanen MP. Psychological contract and its motivational and health enhancing outcomes. *J Manage Psychol.* 2010;25(1):4–21.
37. Bandura A, Bandura S, Bandura A. Social foundation of thoughts and actions: a social cognitive theory. 1986.
38. Lent RW, Brown SD, Hackett GJ. Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *J Vocation Behav.* 1994;45(1):79–122.
39. Lent RW, Brown SD. Integrating person and situation perspectives on work satisfaction: a social-cognitive view. *J Vocation Behav.* 2006;69(2):236–247.
40. Burga R, Leblanc J, Rezanian D. Exploring student perceptions of their readiness for project work: utilizing social cognitive career theory. *Project Manage J.* 2020;51(2):154–164.
41. Lent RW, Hackett G, Brown SD. A social cognitive view of school-to-work transition. *Career Dev Quart.* 1999;47(4):297–311.
42. Abele AE, Spurk D. The longitudinal impact of self-efficacy and career goals on objective and subjective career success. *J Vocation Behav.* 2009;74(1):53–62.
43. Spurk D, Abele AE. Synchronous and time-lagged effects between occupational self-efficacy and objective and subjective career success: findings from a four-wave and 9-year longitudinal study. *Int J Med Inform.* 2014;84(2):119–132. doi:10.1016/j.ijmedinf.2014.10.003
44. Sullivan SE, Baruch Y. Advances in career theory and research: a critical review and agenda for future exploration. *J Exp Psychol.* 2009;35(6):1542–1571. doi:10.1037/a0014492
45. Macmillan R, Shanahan M, Francis SM. Why precarious work is bad for health: social marginality as key mechanisms in a multi-national context. *Am J Phys Med Rehabil.* 2021;100(2):821–851. doi:10.1097/PHM.0000000000001818
46. Pajares F. Gender and perceived self-efficacy in self-regulated learning. *Theory Pract.* 2002;41(2):116–125.
47. Gist ME, Mitchell TR. Self-efficacy: a theoretical analysis of its determinants and malleability. *Acad Manage Rev.* 1992;17(2):183–211.
48. Creed PA, Patton W, Bartrum D. Internal and external barriers, cognitive style, and the career development variables of focus and indecision. *J Career Dev.* 2004;30(4):277–294.
49. Quimby JL, O'Brien KM. Predictors of student and career decision-making self-efficacy among nontraditional college women. *Career Dev Quart.* 2004;52(4):323–339.
50. Trougakos JP, Bull RA, Green SG, MacDermid SM, Weiss HM. Influences on job search self-efficacy of spouses of enlisted military personnel. *Human Perform.* 2007;20(4):391–413.
51. Goldsmith AH, Veum JR, Darity W. The psychological impact of unemployment and joblessness. *J Socio Econ.* 1996;25(3):333–358.
52. Mortimer JT, Kohn ML, Schooler C. Work and personality: an inquiry into the impact of social stratification. *Plos One.* 1984;13(3):356.
53. Pearlman LI, Lieberman MA, Menaghan EG, Mullan J. The stress process. *J Health Soc Behav.* 1982;22(4):337–356.
54. Dahling JJ, Melloy R, Thompson MN. Financial strain and regional unemployment as barriers to job search self-efficacy: a test of social cognitive career theory. *J Counsel Psychol.* 2013;60(2):210. doi:10.1037/a0031492
55. Hassard J, Morris J. Contrived competition and manufactured uncertainty: understanding managerial job insecurity narratives in large corporations. *Work Employ Soc.* 2018;32(3):564–580.
56. Akkermans J, Tims M. Crafting your career: how career competencies relate to career success via job crafting. *Appl Psychol.* 2017;66(1):168–195.
57. Forrier A. Flexibility, turnover and training. *Human Resource Manage.* 2003;24(2):148–168.
58. Heijde C. A competence-based and multidimensional operationalization and measurement of employability. *Human Resource Manage.* 2006;45(3):254.
59. Creed PA, Hughes CD. Career development strategies as moderators between career compromise and career outcomes in emerging adults. *J Career Dev.* 2013;40(2):146–163.
60. Hirschi A, Niles SG, Akos P. Engagement in adolescent career preparation: social support, personality and the development of choice decidedness and congruence. *J Adolesc.* 2011;34(1):173–182. doi:10.1016/j.adolescence.2009.12.009
61. Jepsen DA, Dickson G. Continuity in life-span career development: career exploration as a precursor to career establishment. *Career Dev Quart.* 2003;51(3):217–233.
62. Koivisto P, Vinokur AD, Vuori J. Effects of career choice intervention on components of career preparation. *Career Dev Quart.* 2011;59(4):345–366.
63. Saks AM, Ashforth BE. Change in job search behaviors and employment outcomes. *J Vocation Behav.* 2000;56(2):277–287.
64. Krahn HJ, Howard AL, Galambos NL. Exploring or floundering? The meaning of employment and educational fluctuations in emerging adulthood. *Youth Soc.* 2015;47(2):245–266.
65. Ling TJ, O'Brien KM. Connecting the forgotten half: the school-to-work transition of noncollege-bound youth. *J Career Dev.* 2013;40(4):347–367.
66. OECD Publishing. *Jobs for Youth/Des Emplois Pour Les Jeunes off to a Good Start? Jobs for Youth.* OECD Publishing; 2010.

67. Peeters E, Nelissen J, De Cuyper N, Forrier A, Verbruggen M, De Witte CD. Employability capital: a conceptual framework tested through expert analysis. *J Career Dev.* 2019;46(2):79–93.
68. Blossfeld H-P. *Young Workers, Globalization and the Labor Market: Comparing Early Working Life in Eleven Countries.* Edward Elgar Publishing; 2008.
69. Burgess S, Propper C, Rees H, Shearer A. The class of 1981: the effects of early career unemployment on subsequent unemployment experiences. *Labour Econ.* 2003;10(3):291–309.
70. Liu X, Peng MY-P, Anser MK, Chong W-L, Lin B. Key teacher attitudes for sustainable development of student employability by social cognitive career theory: the mediating roles of self-efficacy and problem-based learning. *Front Psychol.* 2020;11:1945. doi:10.3389/fpsyg.2020.01945
71. Zhao W-X, Peng MY-P, Liu F. Cross-cultural differences in adopting social cognitive career theory at student employability in PLS-SEM: the mediating roles of self-efficacy and deep approach to learning. *Front Psychol.* 2021;12:586839. doi:10.3389/fpsyg.2021.586839
72. Julià M, Vanroelen C, Bosmans K, Van Aerden K, Benach HS. Precarious employment and quality of employment in relation to health and well-being in Europe. *Int J Health Services.* 2017;47(3):389–409. doi:10.1177/0020731417707491
73. Greenhaus JH, Parasuraman S, Wormley J. Effects of race on organizational experiences, job performance evaluations, and career outcomes. *Acad Manage J.* 1990;33(1):64–86.
74. Schyns B, Von Collani G. A new occupational self-efficacy scale and its relation to personality constructs and organizational variables. *Eur J Work Organ Psychol.* 2002;11(2):219–241.
75. Van DK. Antecedents and consequences of employability orientation. *Eur J Work Organ Psychol.* 2004;13(1):29–51.
76. Hayes AF, Preacher KJ. Conditional process modeling: using structural equation modeling to examine contingent causal processes. 2013.
77. Hayes AF. *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach.* Guilford publications; 2017.
78. Ng T, Feldman VB. A conservation of resources perspective on career hurdles and salary attainment. *J Vocation Behav.* 2014;85(1):156–168.
79. Akkermans J, Nykänen M, Vuori M. Practice makes perfect? Antecedents and consequences of an adaptive school-to-work transition. In: *Sustainable Working Lives: Managing Work Transitions and Health Throughout the Life Course.* Springer; 2015:65–86.
80. Ng T, Eby LT, Sorensen KL, Feldman DC. Predictors of objective and subjective career success: a meta-analysis. *Person Psychol.* 2005;58(2):367–408. doi:10.1111/j.1744-6570.2005.00515.x
81. Okaysomerville B, Scholarios D. Job search anxiety and perceived barriers to labour market entry. 2017.
82. Tims M, Akkermans S. Job and career crafting to fulfill individual career pathways. In: *Career Pathways—School to Retirement and Beyond.* Oxford University Press; 2020;165–190.
83. Blokker R, Akkermans J, Tims M, Jansen P, Khapova VB. Building a sustainable start: the role of career competencies, career success, and career shocks in young professionals' employability. *J Vocation Behav.* 2019;112:172–184.
84. Tran AG, Lam CK, Legg E. Financial stress, social supports, gender, and anxiety during college: a stress-buffering perspective. *Counsel Psychol.* 2018;46(7):846–869.
85. De Vos A, Akkermans J, Van der Heijden B. From occupational choice to career crafting. In: *The Routledge Companion to Career Studies.* Routledge; 2019:128–142.
86. Parola A, Fusco L, Marcionetti J. The parental career-related behaviors questionnaire (PCB): psychometric properties in adolescents and young adults in the Italian context. *Curr Psychol.* 2022;2022:1–11.

Psychology Research and Behavior Management

Dovepress

Publish your work in this journal

Psychology Research and Behavior Management is an international, peer-reviewed, open access journal focusing on the science of psychology and its application in behavior management to develop improved outcomes in the clinical, educational, sports and business arenas. Specific topics covered in the journal include: Neuroscience, memory and decision making; Behavior modification and management; Clinical applications; Business and sports performance management; Social and developmental studies; Animal studies. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <https://www.dovepress.com/psychology-research-and-behavior-management-journal>