# Role Stressors and Job Insecurity as Predictors of Job Stress: Evidence from a Higher Education Setting

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## ABSTRACT

This study investigates the impact of role stressors, role ambiguity, role overload, and role conflict on job stress among contract-based university lecturers in Jiangsu Province, China, with job insecurity serving as a mediating variable. Drawing on role theory, job stress theory, and the extended Job Demands–Resources (JD-R) model, the research examines the psychological mechanisms through which stressors affect employee well-being. The sample size consisted of 305 valid respondents, who were retrieved using a structured questionnaire and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results show that all three role stressors significantly increase job insecurity, which in turn strongly predicts job stress. Mediation analysis confirms that job insecurity fully mediates the effect of each role stressor on job stress. These findings provide empirical support for the theoretical framework and offer actionable insights for academic institutions. The study highlights the need for clearer role expectations and enhanced employment security to mitigate stress and support faculty well-being in higher education.

**Keywords**: job stress; role stressors; job insecurity; contract lecturers; higher education

## INTRODUCTION

Work-related stress has been widely studied among social science scholars due to its ongoing influence on balancing employees' well-being and organizational performance (e.g., Hassard et al., 2021; Amadi, 2024). Recent studies provide clear evidence of job role complexity, as workloads are not clearly defined for employers, and they often face unexpected workloads without certainty of having a permanent job (Eichberger et al., 2021; Strassburger et al., 2023). Considering intensive research studies, no known study has been conducted on contract-based lecturers in academia who work under enormous pressure without any confirmation of their current job tenure. Such scenarios create fascinating research appeal, where university lecturers are expected to perform under job stressors. In this context, there is a critical interaction between role stressors, such as role ambiguity, role conflict, and role overload, and job insecurity, which warrants continuous study by academics and professionals.

China's higher education sector provides a particularly relevant setting for exploring these dynamics. Over the past two decades, Chinese universities have undergone significant transformation, driven by state policies that prioritize global competitiveness, research output, and academic excellence (Cooke & Xu, 2024; Wang & Jones, 2021). However, the rapid expansion of higher education institutions has also led to a sharp increase in contractbased employment, where lecturers are hired on fixed-term arrangements with uncertain renewal prospects. This has created an academic environment characterized by performance pressure, structural insecurity, and emotional strain, particularly among non-tenured faculty (Guo et al., 2024; Leathwood & Read, 2022).

The presence of role stressors in such settings is well documented. Role ambiguity arises when lecturers are unclear about the expectations associated with their duties, resulting in anxiety and a diminished sense of control over outcomes (Ghasemi, 2025). Role conflict occurs when lecturers face incompatible demands from teaching, research, and administrative tasks. Role overload reflects an excessive burden of responsibilities, often without corresponding institutional support (Beehr et al., 1976; Sohail et al., 2025). These stressors act not in isolation but in conjunction, leading to accumulated psychological strain. In extreme cases, they contribute to burnout, disengagement, and reduced academic productivity (Hart & Rodgers, 2024; Koura et al., 2025).

Job insecurity, in scholarly research, refers to the sense of probable forced replacement of the workforce or doubt about future employment. The extensive literature proved that job insecurity exacerbates the negative outcomes of workplace stressors by developing chronic anxiety, depressing morale, and weakening the professional identity (Debus et al., 2020; Elshaer, 2024). Considering that lecturers face an increased threat to long-term job sustainability, their limited cognitive resources, as well as emotional state, are exhausted at a faster rate in the presence of role-related pressures (Wang et al., 2023; Ansari et al., 2024). Despite extensive research on job stress in general occupational contexts, limited empirical attention has been given to how role stressors and job insecurity interact to influence job stress specifically within the Chinese academic system. Furthermore, existing studies have primarily considered these variables in isolation, without accounting for their combined or interactive effects (Feng et al., 2025; Yao et al., 2024). This oversight is particularly problematic given the structural and policy shifts underway in China's higher education sector, where contract-based employment is becoming increasingly normative.

This study proposes a conceptual model that explores how role-related stress factors interact with perceptions of job insecurity to influence psychological strain. The choice of this population is not incidental; it reflects the increasing reliance on non-permanent teaching staff whose employment terms often lack clarity and stability. In doing so, the research highlights the institutional and structural dimensions that underpin workplace stress in higher education settings. Drawing upon established frameworks, namely, role theory and job stress theory, the analysis focuses on how specific stressors are experienced within localized academic contexts. Rather than addressing broad organizational outcomes such as commitment or productivity, the study centers on the direct psychological impacts of stress, offering theoretical precision and relevant implications for academic labor policy.

## LITERATURE REVIEW AND HYPOTHSES

### Role Stressors, Job Insecurity, and Job Stress

Role stressors are structural and psychological demands that arise when academic employees face unclear, conflicting, or excessive demands. Role ambiguity occurs when a lecturer is uncertain about the expectations of teaching, research, and service responsibilities, leading to lower confidence and a fear of performance (Ghasemi,

2025). Role conflict occurs when the demands of several stakeholders, such as students, administrators, and external evaluators, cannot be fulfilled simultaneously, leading to strain and disengagement (Pillemer, 2024; Feng et al., 2025). Role overload can be described as the occurrence of academic responsibilities being more than the available time and resources, leading to fatigue and decreased well-being (Huo and Jiang, 2023; Sohail and Ahmad, 2025). These three stressors tend to synergize in the context of higher education, particularly among lecturers who work on a contract basis, where a lack of clear criteria, inappropriate expectations, and growing workloads tend to feed off each other. Collectively, they lead to high levels of emotional pressure and undermine the faculty's ability to maintain productivity and presence of resilience (Hart and Rodgers, 2024; Koura et al., 2025).

Job insecurity refers to the perceived threat of job loss or deterioration of employment conditions, a condition heightened by short-term contracts and performance-driven systems in higher education. Recent studies emphasize that insecurity erodes professional identity and increases anxiety, especially among non-tenured faculty in China (Debus et al., 2020; Leathwood & Read, 2022; Ansari et al., 2024). It not only diminishes

morale but also amplifies the harmful effects of role-related pressures, positioning it as a critical risk factor for lecturers' psychological well-being.

Job stress is the psychological strain that results from prolonged exposure to demanding or threatening work conditions. In academic contexts, it manifests through emotional exhaustion, chronic worry, and reduced wellbeing when faculty confront role-related pressures under insecure employment structures (Meyer et al., 2021; Jiang & Lavaysse, 2018). Evidence shows that stress levels are particularly elevated among contract lecturers due to overlapping demands and unstable career pathways (Guo et al., 2024; Feng et al., 2025). Job stress thus represents a central outcome variable in this study, capturing the cumulative strain induced by both role stressors and job insecurity.

**Hypotheses Development**

Research studies show that role stressors, role ambiguity, role overload, and role conflict consistently serve as antecedents of employee insecurity in organizational contexts. The Role Theory, developed by Kahn et al. (1964), suggests that a lack of fit between social demands and job requirements, or misperceptions about job demands, can lead to stress. When an expectation mismatch or work levels exceed acceptable levels, performance levels decline, and psychological discomfort sets in, which may be expressed as job insecurity. Role ambiguity occurs when employees are unclear about their roles, which compromises performance appraisal and results in lowered perceptions of agency to job maintenance (Rizzo et al., 1970; Junca & Rodrigues, 2024). In line with this reading, empirical evidence has established that job role ambiguity is positively associated with higher intensities of job security and career-related issues (Huo & Jiang, 2023), which verifies that these stressors affect the well-being of employees. Therefore, it can be hypothesized that:

H1. Role ambiguity has a significantly positive influence on job insecurity.

Based on the description provided by Jackson and Schuler (1985), the term "role conflict" can be understood as situations where employees are faced with heterogeneous demands arising from different stakeholders and are therefore unable to meet all their demands simultaneously. This kind of feeling has been proven to heighten the insecurity of the perceivers, indicating a weakness in performance or that the role itself is unsustainable. This correlation is affirmed by Pillemer (2024) and Cheng et al. (2025), both in academia and the corporate world. Therefore, it can be hypothesizedd that:

H2. Role conflict has a significantly positive influence on job insecurity.

Role overload refers to the experience of having an abundance of roles or expectations compared to the available time and material resources. It can be cumulated with physical fatigue, psychological distress, and arousal of doubt concerning the ability to maintain a sufficient job performance (Beehr, 1976). According to the COR theory by Hobfoll (1989), long-term demands on personal resources lead to anxiousness about the loss of resources, and the existence of this state is often referred to as job insecurity. These statements are supported by empirical educational experiences (Demerouti & Bakker, 2023). In turn, the hypotheses can be formulated as follows.

H3. Role overload has a significantly positive influence on job insecurity.

Job insecurity, as defined by De Witte (1999), pertains to the perceived threat of job loss or unfavorable changes to job continuity. According to job stress theory (Lazarus & Folkman, 1984), perceived threats in the work environment, such as insecurity, trigger psychological stress responses. Employees who constantly worry about their employment future are more likely to experience chronic stress, emotional fatigue, and reduced psychological well-being (Meyer et al., 2021). Empirical studies across sectors, including education, confirm that job insecurity is a significant predictor of job stress (Huo & Jiang, 2023; Jiang & Lavaysse, 2018). Therefore, it is proposed that:

H4. Job insecurity has a significantly positive influence on job stress.

The mediating role of job insecurity in the relationship between role stressors and job stress can be explained using the extended Job Demands–Resources (JD-R) model (Bakker & Demerouti, 2007). According to this model, role demands, such as role ambiguity, role conflict, and role overload, exert pressure on employees by depleting their physical, emotional, and cognitive resources. When individuals perceive that they lack the necessary resources to cope with these demands, they become more vulnerable to experiencing job insecurity. This perceived threat to continued employment can then trigger emotional exhaustion and psychological strain, ultimately leading to heightened job stress. Hence, role stressors contribute to job stress both directly and indirectly, with job insecurity functioning as a key psychological mechanism in this process. Prior empirical studies conducted in organizational and academic settings have supported this mediating pathway, emphasizing job insecurity as a crucial link between role-related pressures and negative stress outcomes (Huo & Jiang, 2023; Gupta et al., 2025). Therefore, it is hypothesized that:

H5a: The relationship between role ambiguity and job stress is mediated by job insecurity.

H5b: The relationship between role conflict and job stress is mediated by job insecurity.

H5c: The relationship between role overload and job stress is mediated by job insecurity.

**Conceptual Framework**

This study is grounded in three interrelated theoretical perspectives that collectively explain the mechanisms through which role stressors influence job stress and how job insecurity moderates these relationships among contract-based university lecturers in China. These frameworks, including Role Theory, Job Stress Theory, and Conservation of Resources (COR) Theory, offer a comprehensive lens for understanding the generation and amplification of stress in academic work environments.

Role Theory, developed by Kahn et al. (1964) and refined by Rizzo et al. (1970), highlights how unclear expectations (role ambiguity), incompatible demands (role conflict), or excessive requirements (role overload) generate stress, with consistent empirical support demonstrating their predictive power for strain (Bliese & Castro, 2000; Mwakyusa & Mcharo, 2024). Building on this, the Transactional Model of Stress within Job Stress Theory (Lazarus & Folkman, 1984) emphasizes cognitive appraisal processes, wherein role stressors increase psychological load, leading to negative evaluations and stress outcomes that influence job satisfaction and commitment (Ghasemi, 2025; Strassburger et al., 2023). This approach is particularly pertinent in academic settings where resource scarcity, time constraints, and rising performance demands amplify strain.

In line with these views, Hobfoll's (1989) COR Theory highlights the primary role of resource acquisition and resource protection, suggesting that resources one values, such as employment security and financial stability, are perceived as threatened, leading to stress responses. Job insecurity, therefore, becomes a contextual salient factor, particularly in the contract-based academic work when short-term contracts and unpredictable career paths are prevalent (Debus et al., 2020; Leathwood and Read, 2022). Experimental evidence confirms that job insecurity enhances the strains caused by role stressors, which makes an individual even more vulnerable to stress (Elshaer, 2024; Wang et al., 2023). Collectively, these models give a consistent interpretation of how structural role conditions and situational vulnerability interact to cause job stress. Such an integrative framework, illustrated in Figure 1, is especially applicable within the context of contract-based lecturers in Chinese higher education, where the institutional pressures, unstable employment, and role ambiguity come into play to generate high levels of psychological burdens.

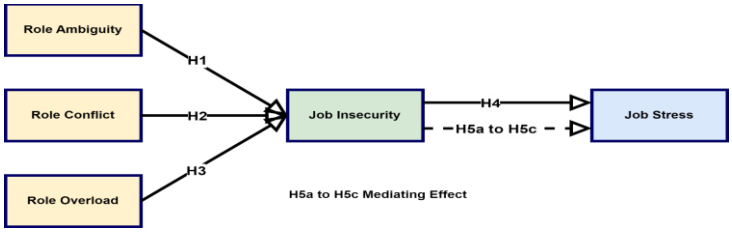


Figure 1. Conceptual framework of this study

# METHODOLOGY

## Research Design

This study adopted a quantitative survey approach to investigate the structural relationships between role stressors (role ambiguity, role overload, and role conflict), job insecurity, and job stress among contract-based university lecturers in Jiangsu Province, China. The survey method was selected for its ability to collect standardized responses and assess hypothesized relationships through statistical modeling. Drawing upon established theories such as role stress theory and conservation of resources theory, the study tested both direct and mediating effects using PLS-SEM via SmartPLS 4.0.

## Measures and Instruments

The current research employs a standardized questionnaire, and all the separate constructs have been previously validated and shown to be reliable using scales that have been used in previous studies. The modified instruments, along with the number of items, are provided in Table 1. Each of the role ambiguity and role conflict was measured using a 6-item scale based on Rizzo et al. (1970); role overload with an 8-item scale based on Beehr et al. (1976); job insecurity with a 7-item scale based on De Witte (1999), and job stress with an 8-item scale based on Cohen et al. (1983). Each of the scales was reflexively measured on a 5-point Likert scale with 1 = Strongly Disagree to 7 = Strongly Agree.

Table 1. Adaptation of Items for Constructs

| Construct | Source of Measurement Items |
|---|---|
| Role Ambiguity | Rizzo et al. (1970) |
| Role Overload | Beehr et al. (1976) |
| Role Conflict | Rizzo et al. (1970) |
| Job Insecurity | De Witte (1999) |
| Job Stress | Cohen et al. (1983) |

To enhance content validity, the questionnaire underwent a multi-step refinement process. First, items were adapted to improve their theoretical relevance and contextual clarity. Next, a panel of academic experts reviewed the questionnaire for semantic appropriateness. A pilot test was then conducted with 30 contract-based lecturers to assess clarity and comprehensibility. Based on feedback, minor linguistic refinements were applied to improve the instrument's cultural sensitivity and readability. The final version was used for the primary survey.

## Sample and Data Collection

The target population consisted of contract-based lecturers from various public and private universities in Jiangsu Province, China. This region was chosen due to its large concentration of academic institutions and increasing reliance on non-permanent faculty, making it a suitable context for examining job-related stressors and insecurity.

Data were collected using both offline and online distribution methods, including email and in-person delivery. A total of 976 questionnaires were distributed. After eliminating incomplete or invalid responses, 305 valid responses were retained for analysis, yielding a valid response rate of 31.3%. The survey targeted academic staff across multiple disciplines, ensuring broad representation in terms of age, gender, academic rank, and institutional affiliation.

Table 2 presents the demographic characteristics of the 305 respondents whose data yielded a valid and analyzable outcome. The gender distribution had a moderate equilibrium (53.1% males and 46.9% females). The positive skewness of the age distribution indicated that 58.7 % of the respondents were between the ages of 31 and 50, and were therefore predominantly mid-career professionals. The educational composition was also varied, with 52.5% holding bachelor's degrees, 29.8% holding master's degrees, and 17.7% holding doctorate

degrees. Regarding salary, the majority of respondents reported a monthly salary in the range of 11,000 to 20,000 RMB.

Table 2. Construct reliability and validity analysis

| **Demographic Variable** | **Category** | **Frequency** | **Percent** |
|---|---|---|---|
| Gender | Male | 162 | 53.1% |
| **Demographic Variable** | **Category** | **Frequency** | **Percent** |
| | Female | 143 | 46.9% |
| Age | 20–30 | 72 | 23.6% |
| | 31–40 | 85 | 27.9% |
| | 41–50 | 94 | 30.8% |
| | 50+ | 54 | 17.7% |
| Degree | Bachelor's | 160 | 52.5% |
| | Master's | 91 | 29.8% |
| | Ph.D. | 54 | 17.7% |
| Monthly Salary (RMB) | 5,000–10,000 | 74 | 24.3% |
| | 11,000–15,000 | 92 | 30.2% |
| | 16,000–20,000 | 83 | 27.2% |
| | 21,000+ | 56 | 18.4% |

**Common Method Bias and Non-Response Bias**

In the study, we carefully evaluated common method bias (CMB) and non-response bias to protect the power and dependability of the study's findings. To address CMB, exploratory and confirmatory single-factor tests, as suggested by Podsakoff et al. (2003), were employed. Harman administered a one-factor test using exploratory factor analysis (EFA), whereby all items of the measurement were loaded into a single factor. The fact that the first factor accounted for only 38.4% of the total variance was barely less than the known standard of 50% reported by Podsakoff et al. (1986) and indicated the absence of significant CMB. Moreover, non-response bias was assessed through the comparison of demographic characteristics between respondents and non-respondents, as well as by identifying the impact of missing data on the outcomes of interest, which revealed a very slight bias.

In the current study, a contemporary factor analysis (CFA) was conducted to investigate whether all the items in the measurement model could be considered as a single latent factor. According to this scenario, performance of the single-factor model results were significantly worse compared to that of the original measurement model in terms of CMIN/DF (Before = 10.372 versus After = 2.381), CFI (Before = 0.562 versus After = 0.945)), IFI (Before = 0.562 versus After = 0.946), RMSEA (Before = 0.213 versus After = 0.062), and SRMR (Before = 0.129 versus After = 0.048). The comparative results confirm that the measurement model does not exhibit significant common-method bias. Following the procedure recommended by Armstrong and Overton (1977), this study assessed the presence of non-response bias. A comparison was conducted between early and late respondents based on key organizational and demographic variables. The analysis utilized independent-samples t-tests, which revealed no statistically significant differences ($p > 0.05$). These results indicate that non-response bias is unlikely to pose a serious threat to the validity of the dataset, thereby confirming its suitability for use in structural modeling and hypothesis testing.

# RESULTS

## Assessment of Construct Reliability and Validity

An exploratory and confirmatory approach was used to measure the reliability and validity of the measurement constructs. Cronbach's alpha and composite reliability (CR) were computed using SmartPLS 4.0 to assess internal consistency. As shown in Table 3, the Cronbach's alpha value exceeded 0.70 in all cases, and the CR was above 0.80, indicating that the internal consistency of the measured items was high (Hair et al., 2017; Bagozzi et al., 1981). Additional support of convergent validity was gained by analyzing the findings regarding item loadings, average variance extracted (AVE), and values of CR. The loading of all items was above 0.70, the AVE was way above the suggested level of 0.50, and the CR consistently remained above 0.70. These outcomes verify that the convergent validity of the constructs yields commendable findings (Fornell & Larcker, 1981; Hair et al., 2019).

Table 3. Internal consistency and convergent validity results

| Construct / Items | Loadings | Composite Reliability (CR) | Average Variance Extracted (AVE) | Cronbach's α |
|---|---|---|---|---|
| **Job-Insecurity** | | 0.962 | 0.784 | 0.954 |
| JI-1 | 0.888 | | | |
| JI-2 | 0.883 | | | |
| JI-3 | 0.874 | | | |
| JI-4 | 0.888 | | | |
| JI-5 | 0.887 | | | |
| JI-6 | 0.886 | | | |
| JI-7 | 0.891 | | | |
| **Job-Stress** | | 0.970 | 0.801 | 0.965 |
| JS-1 | 0.907 | | | |
| JS-2 | 0.881 | | | |
| JS-3 | 0.895 | | | |
| JS-4 | 0.896 | | | |
| JS-5 | 0.897 | | | |
| JS-6 | 0.893 | | | |
| JS-7 | 0.897 | | | |
| JS-8 | 0.894 | | | |
| **Role-Ambiguity** | | 0.962 | 0.807 | 0.952 |
| RA-1 | 0.896 | | | |
| RA-2 | 0.901 | | | |
| RA-3 | 0.907 | | | |

| | | | | |
|---|---|---|---|---|
| RA-4 | 0.891 | | | |
| RA-5 | 0.894 | | | |
| RA-6 | 0.900 | | | |
| **Role-Conflict** | | 0.959 | 0.795 | 0.949 |
| RC-1 | 0.900 | | | |
| RC-2 | 0.885 | | | |
| RC-3 | 0.889 | | | |
| RC-4 | 0.882 | | | |
| RC-5 | 0.900 | | | |
| RC-6 | 0.892 | | | |
| **Role-Overload** | | 0.969 | 0.796 | 0.963 |
| RO-1 | 0.890 | | | |
| RO-2 | 0.909 | | | |
| RO-3 | 0.892 | | | |
| RO-4 | 0.877 | | | |
| RO-5 | 0.892 | | | |
| RO-6 | 0.891 | | | |
| RO-7 | 0.890 | | | |
| RO-8 | 0.893 | | | |

The analysis of discriminant validity was done through the Fornell-Larcker criterion. The square roots of the AVEs (diagonal entries) in Table 4 showed that each construct had a square root AVE, which was greater than all other correlations with other constructs. This indicates that the constructs are empirically distinct from one another, thus meeting the criteria for acceptable discriminant validity (Bagozzi et al., 1981).

Table 4. Discriminant validity using AVE

| AVE | Job Insecurity | Job Stress | Role Ambiguity | Role Conflict | Role Overload |
|---|---|---|---|---|---|
| Job Insecurity | **0.885** | | | | |
| Job Stress | 0.567 | **0.895** | | | |
| Role Ambiguity | 0.278 | 0.271 | **0.898** | | |
| Role Conflict | 0.248 | 0.245 | 0.242 | **0.891** | |
| Role Overload | 0.252 | 0.257 | 0.271 | 0.279 | **0.892** |

**Note:** The bolded diagonal elements indicate the square roots of the AVE values, while the off-diagonal entries reflect the correlations among constructs. Discriminant validity is confirmed when each diagonal entry is greater than the corresponding inter-construct correlations.

Finally, the measurement model fit was examined to validate the adequacy of the construct structure, as shown in Table 5. The model demonstrated good fit indices, with Chi-square = 818.05 ($p < 0.001$), SRMR = 0.031,

NFI = 0.932, d_ULS = 0.590, and d_G = 0.498. These values fall within acceptable thresholds, confirming the robustness of the measurement model (Hu & Bentler, 1999; Henseler et al., 2015).

Table 5. Goodness of fit indices

| Goodness of Fit Index | Model Fit Result |
|---|---|
| Chi-square | 818.05 ($p = 0.000 < 0.05$) |
| SRMR | 0.031 (<0.08) |
| d<sub>ULS</sub> | 0.590 (low discrepancy) |
| d<sub>G</sub> | 0.498 (low discrepancy) |
| NFI | 0.932 (>0.90) |

**Note:** SRMR denotes the Standardized Root Mean Square Residual; d<sub>ULS</sub> refers to the Unweighted Least Squares discrepancy; d<sub>G</sub> represents the Geodesic discrepancy; and NFI stands for the Normed Fit Index. The reported values satisfy the recommended model fit criteria for PLS-SEM (SRMR < 0.08; NFI > 0.90).

SmartPLS 4.0 was employed to evaluate both the measurement and structural components of the model. To assess multicollinearity, variance inflation factors (VIFs) were examined and found to range between 1.000 and 1.139, well within the acceptable limits of 3.3 and 5.0 (Hair et al., 2017), indicating no concerns regarding multicollinearity. For explanatory power, the $R^2$ values for the latent variables, Job Insecurity and Job Stress, were 0.133 and 0.935, respectively. This indicates that the model accounts for 13.3% of the variation in job insecurity and 93.5% of the variation in job stress. According to Hair et al. (2017), $R^2$ values above 0.10 are deemed acceptable. To evaluate predictive relevance, Stone-Geisser's $Q^2$ values were computed using the blindfolding technique. The resulting $Q^2$ values were 0.067 for Job Insecurity and 0.703 for Job Stress, both of which exceeded zero, thus demonstrating predictive accuracy (Stone, 1974; Hair et al., 2019; Wamba et al., 2020). The high $Q^2$ for Job Stress in particular supports strong predictive validity for that construct.

**Direct Effect**

As depicted in the structural model (Figure 2), the relationships among constructs were examined using SmartPLS 4.0 to evaluate the proposed hypotheses (H1–H4). Path coefficients, significance levels, and explained variance ($R^2$) were used to verify the predictive relationships between the variables. Table 6 summarizes the standardized path estimates, standard errors, confidence intervals, and hypothesis decisions.

Table 6. Path coefficient for direct effect

| Hypothesis | Causal Path | Estimate | *S.E.* | *p* | Result |
|---|---|---|---|---|---|
| H1 | Role Ambiguity → Job Insecurity | 0.199 | 0.059 | 0.001** | Supported |
| H2 | Role Conflict → Job Insecurity | 0.157 | 0.061 | 0.010* | Supported |
| H3 | Role Overload → Job Insecurity | 0.154 | 0.059 | 0.009** | Supported |
| H4 | Job Insecurity → Job Stress | 0.967 | 0.004 | 0.000*** | Supported |

Note: $p < 0.05$ (*), $p < 0.01$ (**), $p < 0.001$ (***).

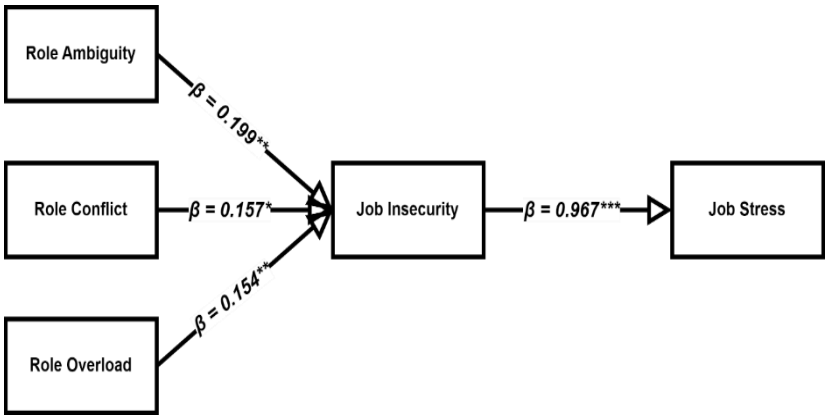


Figure 2. Path Coefficient.

Hypothesis H1 assessed the direct influence of RA on JI. The result revealed a significant positive effect (β = 0.199, $p < 0.01$), thereby supporting H1. Similarly, Hypotheses H2 and H3 tested the impact of RC and RO on JI, respectively. RC demonstrated a significant positive effect on JI (β = 0.157, $p < 0.05$), while RO also showed a considerable positive impact on JI (β = 0.154, $p < 0.01$), supporting both H2 and H3. Hypothesis H4 examined the effect of JI on JS. The result indicated a very strong and significant positive relationship (β = 0.967, $p < 0.001$), providing robust support for H4. The high $R^2$ value for JS (0.935) further suggests that JI plays a major role in predicting JS within the model.

Table 7. Path coefficient of mediating role of job insecurity

| Hypothesis | Causal Path | β (Estimate) | S.E. | Bias-Corrected 95% CI | | *p* | Resutls |
|---|---|---|---|---|---|---|---|
| | | | | Lower | Upper | | |
| H5a | RA → JI → JS | 0.192 | 0.057 | 0.085 | 0.308 | ** | Supported |
| H5b | RC → JI → JS | 0.151 | 0.059 | 0.041 | 0.273 | * | Supported |
| H5c | RO → JI → JS | 0.149 | 0.057 | 0.042 | 0.262 | * | Supported |
| **TOTAL** | Indirect via JI | **0.492** | **0.100** | **0.168** | **0.843** | *** | Supported |

**Note:** RA = RO = Role Overload, RC = Role Conflict, Role Ambiguity, JI = Job Insecurity, JS = Job Stress.

Standardized estimates based on 5000 bootstrap samples. +p < 0.1, *p < 0.05, **p < 0.01, ***p < 0.001.

**Mediating Effect**

Hypotheses H5a, H5b, and H5c examined the mediating effects of JI on the relationships between RA, RC, and RO with JS. The mediation analysis was conducted using a bootstrapping 7procedure with 5000 resamples

(Preacher & Hayes, 2008). As presented in Table 7, the results confirmed that the direct paths from RA, RC, and RO to JI were all positive and statistically significant. Likewise, the path from JI to JS was highly significant (β = 0.967, p < 0.001). The specific indirect effects were also significant. RA showed a significant indirect impact on JS through JI (β = 0.192, SE = 0.057, 95% CI [0.085, 0.308]), supporting H5a. Similarly, RC and RO also exhibited significant indirect effects on JS through JI, with estimates of β = 0.151 (SE = 0.059, 95% CI [0.041, 0.273]) supporting H5b and β = 0.149 (SE = 0.057, 95% CI [0.042, 0.262]) supporting H5c, respectively. The bias-corrected confidence intervals excluded zero, suggesting that the observed mediation effects are statistically significant and dependable (Hair et al., 2019). Furthermore, since the direct impact of RA, RC, and RO on JS was not included in the structural model (i.e., fully mediated paths), these results demonstrate that Job Insecurity

fully mediates the effects of role stressors on Job Stress. Therefore, hypotheses H5, H6, and H7 were all supported.

## DISCUSSION

The results of this study provide empirical support for the hypothesized relationships between role stressors, job insecurity, and job stress among contract-based university lecturers in Jiangsu Province, China. All three role stressors, role ambiguity, role conflict, and role overload, demonstrated significant positive effects on job insecurity, in line with previous findings suggesting that ambiguous or conflicting expectations and excessive work demands heighten employees' sense of employment instability (Jiang & Lavaysse, 2018; Huo & Jiang, 2023). These findings corroborate the Job Demands-Resources (JD-R) theory, which posits that when job demands exceed available resources, employees experience psychological strain, manifested in feelings of insecurity.

The study also revealed that job insecurity significantly predicts job stress, consistent with prior empirical work (De Witte et al., 2016; Cheng & Chan, 2008). High levels of insecurity appear to activate stress responses as individuals attempt to cope with perceived threats to job continuity. Notably, the $R^2$ value of 0.935 for job stress indicates that job insecurity is a dominant predictor in this academic context. This aligns with Debus et al. (2020), who found that insecurity among contract faculty in Chinese universities significantly impairs psychological well-being.

Furthermore, mediation analysis confirmed that job insecurity fully mediates the effects of all three role stressors on job stress. These findings provide support for the extended JD-R model (Bakker & Demerouti, 2007), suggesting that insecurity serves as a key explanatory mechanism linking adverse role conditions to psychological distress. Similar results have been reported in Sirola (2024) and Greenhalgh and Rosenblatt (2010), who found that stress-related outcomes in insecure job environments were often contingent on perceived instability. Thus, this study advances previous literature by situating job insecurity as a critical mechanism that amplifies the stress effects of traditional role-based stressors.

## CONCLUSION

This study investigated how role ambiguity, role conflict, and role overload affect job stress among contractbased lecturers in Jiangsu Province, with job insecurity as the mediating mechanism. Using PLS-SEM in SmartPLS 4.0, the results showed that all three stressors significantly heightened job insecurity, which in turn strongly predicted job stress. Mediation analysis confirmed that job insecurity fully transmitted the effects of role stressors to stress outcomes, highlighting its role as a key psychological pathway. The findings advance theory by validating the extended JD-R model and integrating role theory with job stress perspectives. Empirically, the study addresses a critical gap in understanding stress dynamics among non-tenured academic staff in China. Practically, it emphasizes the need for reforms that improve role clarity, workload management, and employment security. Strengthening these areas can enhance faculty well-being and support institutional effectiveness in increasingly competitive higher education environments.

This study offers several contributions to the theoretical understanding of workplace stress in academic settings. First, it integrates role theory and job stress theory with the JD-R framework, offering a unified lens through which to understand how structural stressors translate into psychological outcomes through job insecurity. Second, it contributes to the literature on contingent academic labor in China, a context that remains underrepresented in stress-related organizational research. Third, by empirically validating the mediating role of job insecurity, the study enhances existing theoretical models that have often treated stressors and job stress as direct relationships, ignoring the psychological intermediary processes that mediate them. From a practical perspective, the findings provide actionable insights for university administrators and policymakers. Institutions can reduce job stress by clarifying role expectations, minimizing conflicting demands across teaching, research, and service, and introducing workload management mechanisms. Furthermore, the evidence highlights the importance of employment stability—multi-year contracts, transparent promotion pathways, and supportive supervision can buffer job insecurity and improve faculty well-being. These measures not only enhance

individual resilience but also strengthen institutional performance by fostering commitment, reducing turnover, and sustaining high-quality teaching and research outputs.

This study acknowledges several limitations that point to important directions for future research and practice. First, the cross-sectional survey design constrains causal inference; future studies should adopt longitudinal or mixed-method approaches to more rigorously examine causal relationships and capture dynamic changes in job insecurity and stress over time. Second, the exclusive focus on contract-based lecturers in Jiangsu Province limits the generalizability of the findings. Expanding the sample to include multiple provinces, both public and private universities, and tenured faculty would enhance external validity and allow for meaningful comparative analyses across institutional contexts. Third, although statistical tests suggest that common method bias is not severe, the reliance on self-reported measures remains a limitation; future research could incorporate objective indicators such as absenteeism records, health outcomes, or supervisor evaluations. Fourth, job insecurity was modeled as the sole mediating mechanism, whereas additional mediators or moderators such as organizational support, coping strategies, leadership style, and work–life balance may further enrich the explanatory power of the model. Finally, cultural and institutional characteristics of Chinese higher education may shape the observed relationships, underscoring the need for cross-national studies to assess the broader applicability of these findings. From a practical perspective, universities should proactively reduce academic staff stress by implementing transparent contract policies, workload regulation systems, and supportive human resource practices.

## REFERENCE

1. Amadi, S. (2024). Impact of human capital development on economic growth in Nigeria. South East Journal of Political Science, 10(1).
2. Ansari, A. N., Ahmad, S., & Bhutta, S. M. (2024). Mapping the global evidence around the use of ChatGPT in higher education: A systematic scoping review. Education and Information Technologies, 29(9), 11281–11321.
3. Armstrong, J. S., & Overton, T. S. (1977). Estimating non-response bias in mail surveys. Journal of Marketing Research, 14(3), 396–402.
4. Bagozzi, R. P. (1981). An examination of the validity of two models of attitude. Multivariate Behavioral Research, 16(3), 323–359.
5. Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. Journal of Educational Psychology, 99(2), 274–284.
6. Beehr, T. A. (1976). Perceived situational moderators of the relationship between subjective role ambiguity and role strain. Journal of Applied Psychology, 61(1), 35–40.
7. Beehr, T. A., Walsh, J. T., & Taber, T. D. (1976). Relationships of stress to individually and organizationally valued states: Higher order needs as a moderator. Journal of Applied Psychology, 61(1), 41–47.
8. Bliese, P. D., & Castro, C. A. (2000). Role clarity, work overload and organizational support: Multilevel evidence of the importance of support. Work & Stress, 14(1), 65–73.
9. Cheng, M., Zhang, L., & Wang, H. (2025). The effect of artificial intelligence awareness on frontline service employees' silence: The roles of psychological contract breach and moral identity. International Journal of Contemporary Hospitality Management, 37(5), 1845–1861.
10. Cheng, G. H. L., & Chan, D. K. S. (2008). Who suffers more from job insecurity? A meta-analytic review. Applied Psychology, 57(2), 272–303.
11. Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24(4), 385–396.
12. Cooke, F. L., & Xu, W. (2024). Extending the research frontiers of employee mental health through contextualisation: China as an example with implications for human resource management research and practice. Personnel Review, 53(5), 1092–1109.
13. Demerouti, E., & Bakker, A. B. (2023). Job demands-resources theory in times of crises: New propositions. Organizational Psychology Review, 13(3), 209–236.

14. De Witte, H. (2005). Job insecurity: Review of the international literature on definitions, prevalence, antecedents and consequences. SA Journal of Industrial Psychology, 31(4), 1–6.
15. De Witte, H., Pienaar, J., & De Cuyper, N. (2016). Review of 30 years of longitudinal studies on the association between job insecurity and health and well-being: Is there causal evidence? Australian Psychologist, 51(1), 18–31.
16. Debus, M. E., Gross, C., & Kleinmann, M. (2020). The power of doing: How job crafting transmits the beneficial impact of autonomy among overqualified employees. Journal of Business and Psychology, 35(3), 317–331.
17. Eichberger, C., Derks, D., & Zacher, H. (2021). Technology-assisted supplemental work, psychological detachment, and employee well-being: A daily diary study. German Journal of Human Resource Management, 35(2), 199–223.
18. Elshaer, I. A., Hasanein, A. M., & Sobaih, A. E. E. (2024). The moderating effects of gender and study discipline in the relationship between university students' acceptance and use of ChatGPT. European Journal of Investigation in Health, Psychology and Education, 14(7), 1981–1995.
19. Feng, R., Wu, J., & Xie, Y. (2025). Does teaching–research conflict affect research performance? The role of research stress, engagement and job insecurity. Cogent Education, 12(1), 2457907.
20. Folkman, S. (1984). Personal control and stress and coping processes: A theoretical analysis. Journal of Personality and Social Psychology, 46(4), 839–852.
21. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39–50.
22. Fox, K. E., Johnson, S. T., Berkman, L. F., Sianoja, M., Soh, Y., Kubzansky, L. D., & Kelly, E. L. (2022). Organisational- and group-level workplace interventions and their effect on multiple domains of worker wellbeing: A systematic review. Work & Stress, 36(1), 30–59.
23. Ghasemi, F. (2025). A systematic narrative review of teachers' occupational stressors and coping strategies: A bioecological systems perspective. Research Papers in Education, 40(1), 136–165.
24. Greenhalgh, L., & Rosenblatt, Z. (2010). Evolution of research on job insecurity. International Studies of Management & Organization, 40(1), 6–19.
25. Guo, L., He, Y., & Wang, S. (2024). An evaluation of English-medium instruction in higher education:
26. Influencing factors and effects. Journal of Multilingual and Multicultural Development, 45(9), 3567–3584.
27. Gupta, R., Chaudhuri, M., Malik, P., & Kakkar, S. (2025). Red tape, role conflict, and organisational injustice in bureaucracies: Exploring the interplay of stressors and coping in public sector burnout. Asia Pacific Journal of Public Administration, 1–24.
28. Hair, J. F., Jr., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: Updated guidelines on which method to use. International Journal of Multivariate Data Analysis, 1(2), 107–123.
29. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLSSEM. European Business Review, 31(1), 2–24.
30. Hart, P. F., & Rodgers, W. (2024). Competition, competitiveness, and competitive advantage in higher education institutions: A systematic literature review. Studies in Higher Education, 49(11), 2153–2177.
31. Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. American Psychologist, 44(3), 513–524.