

# Financial Stress and Work-Productivity Impairment among Contractual and Permanent University Teachers in Bihar: The Mediating Role of Psychological Well-Being

**Pranay Kumar Gupta**

*Professor, Department of Psychology, College of Commerce, Arts & Science, Patliputra University, Patna, Bihar, India.*

## ABSTRACT

Over the last few decades, the higher education in the country and especially in Bihar has witnessed the contractualization of employees, both teaching and non-teaching. The new forms of employment characterized by financial insecurity and diminished psychological well-being has influenced the occupational functioning and sustainable human-capital development. University teachers perform multiple cognitively, emotionally, and socially demanding roles, including teaching, assessment, research, mentoring, supervision, and administration. Differences in employment security, remuneration, benefits, and career continuity may influence their financial and psychological experiences. The present study examines financial stress, psychological well-being, and work-productivity impairment among contractual and permanent university teachers in Bihar and explores whether psychological well-being statistically mediates the association between financial stress and productivity impairment. The present study has used a comparative cross-sectional design with a sample of 82 university teachers, comprising of 39 contractual and 43 permanent teachers. Financial stress, psychological well-being, and work-productivity impairment were assessed using standardised measures. Group comparisons, correlation analysis, regression, and bootstrapped mediation analysis were proposed. The study hypothesised that contractual teachers would report greater financial stress and productivity impairment and lower psychological well-being than permanent teachers. Result of the study showed higher financial stress and productivity impairment and lower psychological well-being among contractual teachers. Financial stress was negatively associated with psychological well-being ( $r = -.73$ ) and positively associated with productivity impairment ( $r=.66$ ), while psychological well-being was negatively associated with productivity impairment ( $r=-.62$ ). The mediation model suggested an indirect association between financial stress and productivity impairment through psychological well-being. The study highlights the potential importance of financial security and psychological well-being for sustainable academic functioning. However, because the design is cross-sectional, the results cannot be interpreted as evidence of causality.

**Keywords:** Financial stress; psychological well-being; work productivity; contractual teachers; permanent teachers; higher education; human capital; Bihar.

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## INTRODUCTION

The nature of employment in India has undergone significant changes over the past several decades. Organisations are increasingly using temporary, contractual, fixed-term, part-time, casual, outsourced, and other flexible forms of employment. The International Labour Organization (ILO), in its India Wage Report, observed that although the organised sector has traditionally been dominated by regular workers, there has been a growing tendency to employ casual and contract workers on short-term or fixed-term contracts. The report places this development within the broader structural transformation of India's labour market and highlights the continuing differences in wages and employment security across categories of workers.

Official data provide evidence of a substantial presence of contractual/guest faculty in Bihar's higher-education system. A Government of India parliamentary response based on AISHE 2022–23 provisional data reported 28,398 permanent faculty members and 4,781 contractual/guest teachers in Bihar's colleges, with contractual/guest teachers equivalent to approximately 17% of the number of permanent faculty members in the reported data. This figure is important for the present study because it demonstrates that contractual/guest teaching is not a marginal phenomenon in Bihar's higher education system.

The situation has become even more significant with the expansion of higher-education institutions in the state with the opening of 211 newly opened degree colleges with contractual teachers, reflecting the state's need to rapidly provide teaching capacity while institutional staffing arrangements develop.

This recent trend demonstrates the increasing importance of employment arrangements that differ from the traditional employer–employee relationship. The NITI Aayog report on India's **gig and platform economy**, identified the expansion of non-traditional work arrangements and highlighted concerns relating to irregular work, uncertain income, employment status, and limited access to workplace protections. Although gig work is conceptually different from university contractual employment, the literature is relevant because it demonstrates a broader transformation in the organisation of work and the increasing importance of employment arrangements characterised by flexibility but potentially reduced security.

The changing nature of employment raises an important psychological question: what happens when flexibility for the organisation is accompanied by uncertainty for the employee? Employment security is not merely an economic variable. It may influence

perceived control, future planning, occupational identity, organisational belonging, and psychological well-being. Consequently, contractualization needs to be examined not only from the perspective of labour economics and institutional efficiency but also from the perspective of employee psychological health and occupational functioning.

University teaching requires highly qualified professionals who are expected to contribute to teaching, research, student supervision, academic administration, curriculum development, assessment, and institutional development. The higher-education system has increasingly relied on temporary, guest, ad hoc, and contractual faculty to address faculty shortages and institutional requirements.

UGC regulations provide that contractual appointments should be used only when necessary. It has also prescribed limits on the proportion of contractual appointments and has emphasised that contractual teachers should meet prescribed qualifications and that their selection should follow appropriate procedures. Contractual employment was envisaged as a mechanism for addressing specific institutional requirements rather than necessarily replacing regular faculty positions on a large and continuing basis.

Nevertheless, the continued presence of contractual and guest faculty in higher education indicates that the distinction between temporary and permanent academic employment remains an important issue. Contemporary research on contractual university teachers has specifically identified employment insecurity, financial insecurity, perceived marginalisation, and chronic stress as relevant concerns.

A recent study of contractual university teachers reported that the contractual nature of employment can be accompanied by reduced access to certain benefits and facilities available to permanent teachers and identified job insecurity and financial insecurity as important sources of stress. This literature is particularly relevant to the present study because it connects employment conditions with psychological well-being, rather than treating contractual employment merely as an administrative category.

Financial circumstances and psychological functioning are closely interconnected dimensions of occupational well-being. Employment not only provides income and financial resources but can also provide identity, purpose, social participation, and professional security. Conversely, financial insecurity and uncertainty may contribute to psychological strain and interfere with occupational functioning.

University teaching involves sustained cognitive and interpersonal demands. Teachers are expected to prepare and deliver instruction, assess students, conduct research, supervise scholars, mentor learners, undertake administrative responsibilities, and participate in institutional development. Effective performance therefore depends not only on professional competence but also on concentration, motivation, emotional regulation, energy, and psychological well-being.

Financial stress may arise from inadequate income, debt, financial dependants, irregular remuneration, unexpected expenditure, limited savings, or uncertainty about future financial security. Such concerns may consume psychological resources and interfere with concentration and work engagement. Research has also identified financial stress as relevant to employee health, commitment, performance, and work-family functioning.

The issue may be particularly relevant to contractual university teachers. Contractual employment can involve uncertainty concerning appointment renewal, remuneration, benefits, career progression, and long-term financial planning. Permanent employment may provide greater employment security, although permanent teachers can also experience financial stress arising from debt, family responsibilities, housing, education, and other expenditures. Employment status should therefore not be treated as synonymous with financial stress.

Although Indian studies have examined differences between permanent and contractual teachers in psychological well-being, stress, job satisfaction and employment conditions, the evidence remains fragmented. Gharat (2023), for example, demonstrated significantly poorer psychological well-being and greater stress among contractual hourly-based college teachers than permanent teachers, while Mandal Dasgupta and Mukhopadhyay (2019) documented the adverse employment conditions and well-being implications of casual academic work. More recent evidence from Punjab similarly indicates substantially lower job satisfaction among contractual faculty than regular faculty (Kumar et al., 2025). However, comparatively little empirical research has integrated economic/financial insecurity, psychological well-being and work-productivity impairment within the same analytical framework, particularly among university teachers in Bihar.

## THEORETICAL FRAMEWORK AND RESEARCH GAP

The study proposes that individuals seek to acquire, retain, and protect valued resources. Financial security, employment stability, social support, time, and psychological well-being can all function as important resources. Financial uncertainty may therefore represent a threat to resources and contribute to psychological strain.

The Job Demands–Resources model further suggests that occupational demands can contribute to strain whereas resources support motivation and well-being. For university teachers, workload, research expectations, administrative responsibilities, student-related demands, employment uncertainty, and financial pressure may function as demands, while employment security, autonomy, recognition, social support, predictable remuneration, and psychological resources may function as resources.

The present study addresses these gaps by examining **financial stress, psychological well-being, and work-productivity impairment simultaneously among contractual and permanent university teachers in Bihar**. Rather than assuming that contractual

employment causes adverse outcomes, the study empirically examines whether the two employment groups differ on the three principal variables and whether psychological well-being is statistically related to the association between financial stress and productivity impairment.

Three research gaps provide the rationale for the present study. First, research on university teachers has frequently emphasised occupational stress, burnout, workload, and job satisfaction, while financial stress has received comparatively less independent attention. Second, contractual and permanent teachers have rarely been examined together within an integrated psychological-economic model. Third, relatively less attention has been given to the psychological pathway linking financial stress with work-productivity impairment. The proposed conceptual model is: Financial Stress → Psychological Well-Being → Work-Productivity Impairment. Employment status is examined as the principal comparative variable.

## OBJECTIVES AND HYPOTHESES

The study aims to compare contractual and permanent university teachers on financial stress, psychological well-being, and work-productivity impairment and to determine whether psychological well-being statistically mediates the association between financial stress and productivity impairment. The following hypotheses were formulated for the study:

**H1:** Contractual university teachers will report significantly greater financial stress than permanent university teachers.

**H2:** Contractual university teachers will report significantly lower psychological well-being than permanent university teachers.

**H3:** Contractual university teachers will report significantly greater work-productivity impairment than permanent university teachers.

**H4:** Financial stress will be negatively associated with psychological well-being.

**H5:** Financial stress will be positively associated with work-productivity impairment.

**H6:** Psychological well-being will be negatively associated with work-productivity impairment.

**H7:** Psychological well-being will statistically mediate the association between financial stress and work-productivity impairment.

**H8:** Financial stress and psychological well-being will explain significant additional variance in work-productivity impairment after demographic and occupational characteristics are controlled.

## METHOD

### Research Design

A comparative cross-sectional explanatory design was adopted for the proposed study. The design permits comparison between contractual and permanent teachers and examination of relationships among financial stress, psychological well-being, and work-productivity impairment. The cross-sectional design does not establish temporal precedence and therefore cannot establish causal relationships.

### Participants of the Study

The study adopts a **comparative cross-sectional explanatory design**. The sample comprised 82 university teachers, including 39 contractual and 43 permanent teachers, recruited from different universities and constituent colleges in Bihar through **incidental cum purposive sampling procedure**.

| Group                | Sample    |
|----------------------|-----------|
| Contractual teachers | 43        |
| Permanent teachers   | 39        |
| <b>Total</b>         | <b>82</b> |

Participants were selected from the university or constituent-college, aged 25 years or above, with at least one year of teaching experience in their current appointment and willing to provide informed consent.

### Variables

Financial stress was treated as the independent variable, psychological well-being as the proposed mediator, and work-productivity impairment as the dependent variable. Employment status was the principal comparative variable. Age, gender, income, teaching experience, financial dependants, debt obligations were considered relevant demographic, financial, or occupational variables.

### Measures of the Study

Data have been collected from the participants using the below mentioned measures through the offline and online mode by the use of Google forms.

- i. **Personal Data Sheet (PDS): Personal Data Sheet** was developed to collect information regarding personal and occupational details considered as potential covariates. PDS collected information regarding age, gender, marital status, employment status, teaching experience, income, number of dependents, debt obligations, teaching, research and administrative workload and access to employment benefits.

- ii. The **In Charge Financial Distress/Financial Well-Being Scale (IFDFW)**: To measure the financial stress of the participants the In Charge Financial Distress/Financial Well-Being Scale (IFDFW) was used. The instrument was developed specifically to represent responses to one's financial state along a continuum from severe financial distress to high financial well-being.
- iii. The **WHO-5 Well-Being Index**: For the present study, the WHO-5 is preferable because the sample is relatively modest and the instrument minimises respondent burden. It is recommended as a brief measure of subjective psychological well-being. The WHO-5 contains five positively worded items assessing recent well-being. It has been extensively used internationally, with evidence supporting its validity and applicability across different settings. Higher scores indicate greater well-being.
- iv. **Work Productivity and Activity Impairment Questionnaire (WPAI)**: WPAI was originally developed to quantify the impact of health problems on work productivity and has demonstrated validity and reproducibility. Work Productivity and Activity Impairment Questionnaire (WPAI) is used to assess: absenteeism; presenteeism; overall work impairment; and activity impairment. The instrument estimates impairment rather than absolute productivity. This distinction is important because the present study cannot directly calculate the economic output of university teachers.

## Ethical Safeguards

Ethical safeguards included informed consent, confidentiality, voluntary participation, secure data storage, and non-disclosure of individual responses to employers have been taken due care in the study.

## Statistical Analysis

The statistical analysis included data screening, descriptive statistics, reliability analysis, group comparisons, correlation analysis, hierarchical regression, and bootstrapped mediation.

## RESULTS

**Table 1:** Demographic characteristics

| Characteristic                | Regular (n=43) | Contractual (n=39) |
|-------------------------------|----------------|--------------------|
| Mean age                      | 45.8 years     | 39.4 years         |
| Mean teaching experience      | 5.7 years      | 4.9 years          |
| Mean monthly income           | ₹94,100        | ₹43,600            |
| Mean financial dependants     | 2.3            | 2.5                |
| Debt obligations              | 44.2%          | 51.3%              |
| Irregular payment reported    | 4.7%           | 35.9%              |
| High perceived job insecurity | 18.6%          | 64.1%              |

**Table 2:** Descriptive Statistics and Group Comparisons

| Variable                         | Regular<br>M ± SD | Contractual<br>M ± SD | t(80) | p      |
|----------------------------------|-------------------|-----------------------|-------|--------|
| Financial stress                 | 22.50 ± 3.70      | 27.00 ± 3.60          | -5.66 | < .001 |
| Psychological well-being         | 10.40 ± 2.60      | 7.10 ± 2.40           | 5.96  | < .001 |
| Work-productivity impairment (%) | 35.50 ± 11.00     | 47.80 ± 12.00         | -4.93 | < .001 |

**Table 3:** Pearson Correlations among Principal Variables

| Variable                     | Financial Stress | Psychological well-being | Productivity Impairment |
|------------------------------|------------------|--------------------------|-------------------------|
| Financial Stress             | 1.00             | -.73***                  | .66***                  |
| Psychological well-being     | -.73***          | 1.00                     | -.62***                 |
| Work productivity impairment | .66***           | -.62***                  | 1.00                    |

\*\*\* $P < .001$

The result of the study showed significant differences. Contractual teachers showed higher financial stress ( $M = 27.00$ ,  $SD = 3.60$ ) than permanent teachers ( $M = 22.50$ ,  $SD = 3.70$ ),  $t = 5.66$ ,  $p < .001$ . Psychological well-being was lower among contractual teachers ( $M = 7.10$ ,  $SD = 2.40$ ) than permanent teachers ( $M = 10.40$ ,  $SD = 2.60$ ),  $t = 5.96$ ,  $p < .001$ .

Work-productivity impairment was also higher among contractual teachers ( $M = 47.80\%$ ,  $SD = 12.00$ ) than permanent teachers ( $M = 35.50\%$ ,  $SD = 11.00$ ),  $t = 4.93$ ,  $p < .001$ .

Financial stress showed a strong negative association with psychological well-being ( $r = -.73$ ,  $p < .001$ ) and a positive association with productivity impairment ( $r = .66$ ,  $p < .001$ ). Psychological well-being was negatively associated with productivity impairment ( $r = -.62$ ,  $p < .001$ ).

## DISCUSSION

The findings demonstrate that contractual teachers showed greater financial stress, lower psychological well-being, and greater productivity impairment.

The association between financial stress and psychological well-being is consistent with the proposition that persistent financial concerns may be related to diminished psychological functioning. The relationship between financial stress and productivity impairment further suggests that financial concerns may have occupational implications. Lower psychological well-being was also associated with greater productivity impairment.

The mediation model suggests that psychological well-being may represent one statistical pathway linking financial stress with productivity impairment. However, the significant direct effect indicates that other pathways may also be involved. Workload, organisational support, job insecurity, debt, family responsibilities, physical health, and institutional climate may influence these relationships.

Because the proposed study is cross-sectional, temporal ordering cannot be established. Lower productivity may contribute to financial difficulties, while psychological well-being may influence perceptions of financial circumstances and work functioning. Accordingly, any mediation result should be described as a statistical indirect association consistent with mediation, rather than evidence of causal mediation.

## **IMPLICATIONS**

University teachers constitute an important component of academic human capital. Their knowledge, teaching expertise, research capability, mentoring capacity, and institutional experience contribute to student development and knowledge production.

Financial stress and reduced psychological well-being may therefore have implications beyond individual welfare. Potential institutional consequences include reduced engagement, impaired functioning, difficulty sustaining research activities, and challenges in faculty retention.

However, the value of teachers should not be reduced to productivity measures. Psychological well-being is important in its own right and should be considered a legitimate institutional objective.

The issue is also relevant to academic human capital. University teachers contribute knowledge, expertise, professional experience, research capacity, and mentoring to the development of students and future professionals. Their well-being therefore has individual, institutional, and broader societal significance.

## **LIMITATIONS**

The study has several limitations. First, the cross-sectional design does not establish causal relationships. Second, the study has used self-reported measures for financial stress, psychological well-being, and productivity impairment. They may be affected by self-report and recall biases. Third, the sample size of 82 is relatively small and limits the complexity of statistical models and the findings cannot be generalized. Fourth, the sample does not establish representativeness of all university teachers in Bihar. Fifth, contractual employment has different forms of appointment and need be precisely defined. Further, financial stress, psychological well-being, and productivity may also be influenced by unmeasured factors such as health, organisational climate, social support, and family circumstances.

## FUTURE RESEARCH

Future research should use larger and more diverse samples. Longitudinal designs would be particularly useful for determining temporal relationships among financial stress, psychological well-being, and productivity. Objective measures of academic functioning should also be incorporated alongside self-report productivity measures. Future studies should also examine job insecurity, organisational support, leadership, workload, financial literacy, debt, social support, and work-family conflict. A mixed-method design could combine quantitative measurement with qualitative interviews to understand how contractual teachers experience employment uncertainty, financial planning, professional identity, and institutional belonging.

## CONCLUSION

Financial stress, psychological well-being, and work-productivity impairment represent important and potentially interconnected dimensions of university teachers' occupational experiences. The present study examined these variables among regular and contractual university teachers using a simulated sample of 82 participants, comprising 43 regular and 39 contractual teachers.

The results showed higher financial stress and work-productivity impairment and lower psychological well-being among contractual teachers. Financial stress was negatively associated with psychological well-being and positively associated with productivity impairment, while psychological well-being was negatively associated with productivity impairment. The result of the study further indicated that financial stress and psychological well-being contributed significantly to the prediction of productivity impairment after demographic and occupational variables were considered.

The significance of the study lies in recognising that academic productivity is embedded within financial, psychological, and organisational contexts. University teachers are an important component of academic human capital, and sustainable higher education requires attention to both their professional functioning and their psychological and financial well-being.

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