EDUCATIONAL PSYCHOLOGY

Relationship between Teachers' Job Satisfaction, Economic Security and Professional Competency: An Integrative Review and a Proposed Comparative Design

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Published November 2026

Abstract

Teacher effectiveness reflects both professional capability and the material conditions under which it is exercised. This integrative review of selected literature examines what is known about how teachers' job satisfaction, economic security and professional competency, usually studied in isolation, relate to one another, and uses that evidence to propose a framework for a comparative study. The corpus of 55 sources (32 empirical studies, 5 policy and statistical documents and 18 theoretical, review or meta-analytic works) was assembled through six documented identification streams; it was not obtained through a comprehensive database search and should not be read as exhaustive. Fifteen empirical studies were appraised in full text for design-specific threats to validity and, separately, for relevance; seventeen were available only as abstracts or records and are given limited weight. The review situates the evidence within the National Education Policy (NEP) 2020 and the National Professional Standards for Teachers (NPST). Mixed-occupation meta-analyses report a modest correlation of pay level with job satisfaction ($r = .15$) and a moderate correlation of job security with it ($\rho = .33$); because these estimates come from different studies, populations and methods, they are reported as separate, largely non-teacher benchmarks rather than as a ranking of the components of security. Several Indian satisfaction instruments include pay and security items, which may inflate published associations. Indian evidence on sectoral and contractual differences in satisfaction is thin and mixed, whereas labour force data document large gaps: 54.3% of private or non-government secondary teachers lack a written contract, against 24.7% of government teachers. Direct evidence on competency and satisfaction is sparse and mostly available only at abstract level; research on teacher self-efficacy, a related but distinct belief construct, shows a positive association, and longitudinal evidence suggests that satisfaction may precede self-efficacy. The paper specifies discriminant boundaries and measurement safeguards and proposes, as hypotheses for testing, a three-level model for a clustered, multi-source study of four employment categories of secondary teachers in Rajasthan, with a simulation-based power analysis and an ethics protocol.

Keywords: Job satisfaction; economic security; professional competency; teacher self-efficacy; construct validity; teacher precarity; contract teachers; NEP 2020; NPST; integrative review

1 Introduction

1.1 Background of the study

Teachers constitute the most consequential school-level determinant of educational quality. Measurement research has shown that teacher competence is associated with instructional quality,

which is in turn associated with students' learning progress (Blömeke et al., 2022). India's National Education Policy 2020 accordingly positions the teacher at the centre of the learning process and commits the system to restoring the respect, status and professional autonomy of the teaching community (Ministry of Education, 2020).

The magnitude of the workforce lends the question considerable policy salience. According to UDISE+ 2024-25, the number of school teachers in India crossed one crore for the first time, at 1,01,22,420, up from 98,07,600 in 2023-24 and 94,83,294 in 2022-23 (Ministry of Education, 2025). About half of these teachers work in government schools and about 30% in the private unaided sector (UNESCO, 2021). Any factor that conditions how these professionals evaluate their work, how financially secure they are and how competently they practise therefore bears on the learning of millions of children.

Job satisfaction is far from an epiphenomenal concern. A meta-analysis and systematic review of 105 records found that higher job satisfaction is associated with lower turnover intention and absenteeism, and with stronger instructional support, classroom management, student motivation and achievement (Wartenberg et al., 2023). Satisfaction, however, is shaped both by extrinsic conditions such as salary, tenure and social security, and by intrinsic conditions such as perceived mastery, recognition and professional growth.

1.2 Rationale and problem context

Indian school education operates within a differentiated employment regime that is better described by four categories than by a simple government-private dichotomy: regular government teachers, contractual government teachers, teachers in government-aided schools, and teachers in private unaided schools (see 'Employment categories'). These categories differ in remuneration, contractual security and social protection (Apat and Swain, 2023; Centre of Excellence in Teacher Education [CETE], 2023; Chudgar and Sakamoto, 2021). Concurrently, NEP 2020 and the NPST guiding document envisage that professional standards will inform tenure, professional development, salary increases and promotion (National Council for Teacher Education, 2023). Whether competency, economic security and job satisfaction co-vary in practice, and whether these associations differ across employment categories, therefore constitutes an empirically open and policy-relevant question.

1.3 Objectives

1. To delineate the conceptual boundaries and operational definitions of job satisfaction, economic security and professional competency, including their discriminant boundaries.
2. To review a documented, selected body of empirical and meta-analytic evidence, appraised for validity and relevance, on the association of job satisfaction with economic security and with professional competency, and with teacher self-efficacy, a related belief construct.
3. To compare these associations across employment categories, in India and internationally.
4. To situate the findings within NEP 2020 and the NPST, and to propose a provisional conceptual model, measurement safeguards and a study design, with a simulation-based power analysis and ethical safeguards, whose hypotheses correspond to the model's paths.

1.4 Research questions

1. What is the nature and strength of the reported association between teachers' economic security and their job satisfaction, and how might construct overlap affect its interpretation?

2. What does the reviewed evidence show about the association of professional competency, as distinct from professional commitment and self-efficacy, with job satisfaction, and about its direction?

3. Do these associations differ across government, contractual, aided and private unaided teachers?

4. How do NEP 2020 provisions and the NPST guiding document address the competency-reward linkage, and what evidence would be needed to establish how they operate across sectors?

2 Methodology of the review

2.1 Design

The paper adopts an integrative review design (Whittemore and Knafl, 2005), appropriate where the aim is to synthesise heterogeneous empirical, theoretical and policy literatures into a conceptual framework rather than to compute a pooled effect size. Its scope is deliberately narrower than that of a systematic review: it is a conceptual synthesis of selected literature intended to justify and specify a proposed study, and it makes no claim of comprehensive coverage. It does not claim compliance with the PRISMA statement: bibliographic databases such as Scopus, Web of Science, ERIC and Shodhganga were not searched with a comprehensive Boolean strategy, so the corpus cannot be assumed to be exhaustive, and statements about what the literature does or does not contain refer only to the sources reviewed here. To keep the selection auditable, every stage of identification is documented: the search logs (Tables 2a to 2c), the record-level screening decisions for Stream 6 (Supplementary File S1), the selection flowchart (Figure 1), the inventory of all 55 included sources (Appendix Table A1) and the excluded synopsis references with reasons (Appendix Table A2). Several logged queries are known-item searches, used to locate or verify a source already identified, rather than discovery searches. Tables 2a and 2c distinguish the two, so that readers can judge how much of the corpus was found rather than confirmed.

2.2 Identification and selection

Sources were identified through five streams. Stream 1 consisted of eight logged web searches conducted on 18 November 2026 using a general web search engine; for each query the first page of results was screened, giving 88 results screened and 8 sources retained (Table 2a). Five of the eight queries were discovery searches and three were known-item searches. Because a general search engine does not report total hits, the number of records beyond the first page is not known (see 'Limitations'). Stream 2 comprised seven full-text studies supplied by the researcher and the 29 references in the bibliography of the doctoral synopsis; 13 synopsis references were retained, 12 were excluded as outside the scope of the constructs or superseded, and 4 were excluded because their bibliographic details could not be verified. Stream 3 added one source through backward citation tracking of retained full texts. Stream 4 comprised seven foundational theoretical works included purposively.

Stream 5 was added at the second revision to close gaps identified in expert review: meta-analytic evidence on pay and job security, research on teacher self-efficacy, experimental and survey evidence on Indian contract teachers, and the principal critique of the two-factor theory. Ten sources were retained from eleven logged searches that located and verified them (Table 2b). Because these sources were identified by expert judgement rather than by systematic search, they are reported as a separate stream.

Stream 6 was added at the third revision in response to the concern that the earlier streams were poorly suited to identifying conflicting evidence. It had two components, both conducted on 18 November 2026 (Table 2c). First, a citation-directed search of a scholarly metadata index, run against the claims of the manuscript, returned 81 records with titles and abstracts; all were screened, and the decision and reason for each are recorded in Supplementary File S1. Four records were retained, five were already in the corpus, one was retained as a methodological reference only, and 71 were excluded, most because they concerned teacher effectiveness and student achievement without measuring any of the three constructs. Second, five web searches (three discovery and two known-item) targeted Indian evidence on contract teachers, on sector comparisons in Rajasthan and on teaching competency and satisfaction, and identified five additional studies; three further searches located open full texts. Four eligible records whose results could not be extracted from the available record are listed in Supplementary File S1 as awaiting full-text retrieval rather than included. One synopsis reference previously excluded because its bibliographic details could not be verified (Geddam et al., 2023) was verified through its DOI and is counted in Stream 6. Stream 6 also located open full texts, working-paper versions or accepted manuscripts for five studies previously appraised only at abstract level (see 'Quality appraisal'). Several Stream 6 studies report results that conflict with, or fail to support, conclusions drawn at earlier revisions (the sections 'Direct evidence on competency' and 'Comparative evidence and its limits').

Duplicates across streams were merged, and the final corpus comprises 55 sources. Twenty further methodological references are cited only for review method, measurement, analysis and ethics recommendations and are not part of the corpus; they are listed in the note to Appendix Table A1.

Table 1. Review protocol.

Parameter	Specification
Review design	Integrative review of selected literature (Whittemore & Knafl, 2005) in support of a proposed study; not a systematic review; comprehensive coverage and PRISMA compliance not claimed
Search date	18 November 2026 (Streams 1, 5 and 6)
Identification streams	(1) Logged web searches; (2) researcher-supplied full texts and synopsis bibliography; (3) backward citation tracking; (4) purposive inclusion of foundational theory; (5) expert-identified sources verified by logged searches; (6) citation-directed search of a scholarly metadata index and further logged web searches, with record-level screening (Supplementary File S1)
Databases not searched	Scopus, Web of Science, ERIC and Shodhganga were not searched systematically; this is the principal limitation of the corpus
Time span	Foundational theory from 1959; empirical studies published 2006 to 2026
Inclusion criteria	Peer-reviewed articles, doctoral theses, working papers of recognised series, large-scale surveys and official reports addressing at least one construct, or teacher self-efficacy as a related construct, among teachers or comparable employees; bibliographic details verifiable against a publisher, repository or bibliographic database record
Exclusion criteria	Outside the three constructs (for example, curriculum, tuition markets or research methods only); bibliographic details not verifiable; duplicate reports
Quality appraisal	All 32 empirical studies appraised: 15 in full text for design-specific threats to validity and, separately, relevance (Table 4a; informed by the Mixed Methods Appraisal Tool, Hong et al., 2018); 17 at abstract or record level only (Table 4b); principal conclusions mapped to their evidence base (Table 4c)
Final corpus	55 sources: 32 empirical (20 Indian, 12 international), 5 policy and statistical, 18 theoretical, review or meta-analytic

Table 2a. Search log for Stream 1.

No.	Search string	Type	Results screened	Sources retained
Q1	teachers job satisfaction economic security professional competency study	Discovery	10	MetLife (2012)
Q2	teacher job satisfaction salary private vs government schools India study	Discovery	10	Sheokand (2019)
Q3	teacher professional competence and job satisfaction correlation research	Discovery	10	Baer & Velasco (2022)
Q4	contract teachers India salary job security job satisfaction	Discovery	18	Kumari (2018)
Q5	Herzberg two factor theory teachers salary job security hygiene factors study	Discovery	10	None (theory confirmation only)
Q6	Chudgar Sakamoto 2021 private school teacher India PLFS findings	Known-item	10	CETE (2023); Lemos, Muralidharan & Scur (2024)
Q7	comparative study of awareness about NEP-2020 among government and private secondary school teachers	Known-item	10	Sharma & Agarwal (2025)
Q8	Skaalvik job demands job resources teacher motivation and well-being	Known-item	10	Skaalvik & Skaalvik (2018)
Total	8 queries	5 discovery, 3 known-item	88	8 sources

Note: 18 November 2026; first results page screened.

Table 2b. Search log for Stream 5.

No.	Search string	Results screened	Source verified and retained
T1	Judge Piccolo Podsakoff Shaw Rich 2010 relationship between pay and job satisfaction meta-analysis	10	Judge et al. (2010)
T2	Sverke Hellgren Näswall 2002 no security meta-analysis job insecurity consequences	10	Sverke, Hellgren & Näswall (2002)
T3	Klassen Chiu 2010 effects on teachers' self-efficacy and job satisfaction years of experience gender job stress	10	Klassen & Chiu (2010)
T4	Caprara Barbaranelli Steca Malone 2006 teachers' self-efficacy beliefs determinants of job satisfaction and students' academic achievement	10	Caprara et al. (2006)
T5	Zee Koomen 2016 teacher self-efficacy and its effects on classroom processes student academic adjustment teacher well-being	10	Zee & Koomen (2016)
T6	Sverke 2002 job insecurity job satisfaction corrected correlation	10	Hur (2022)
T7	Burić Kim 2021 job satisfaction predicts teacher self-efficacy association invariant TALIS 2018	10	Burić & Kim (2021)
T8	Muralidharan Sundararaman contract teachers experimental evidence from India	10	Muralidharan & Sundararaman (2013)

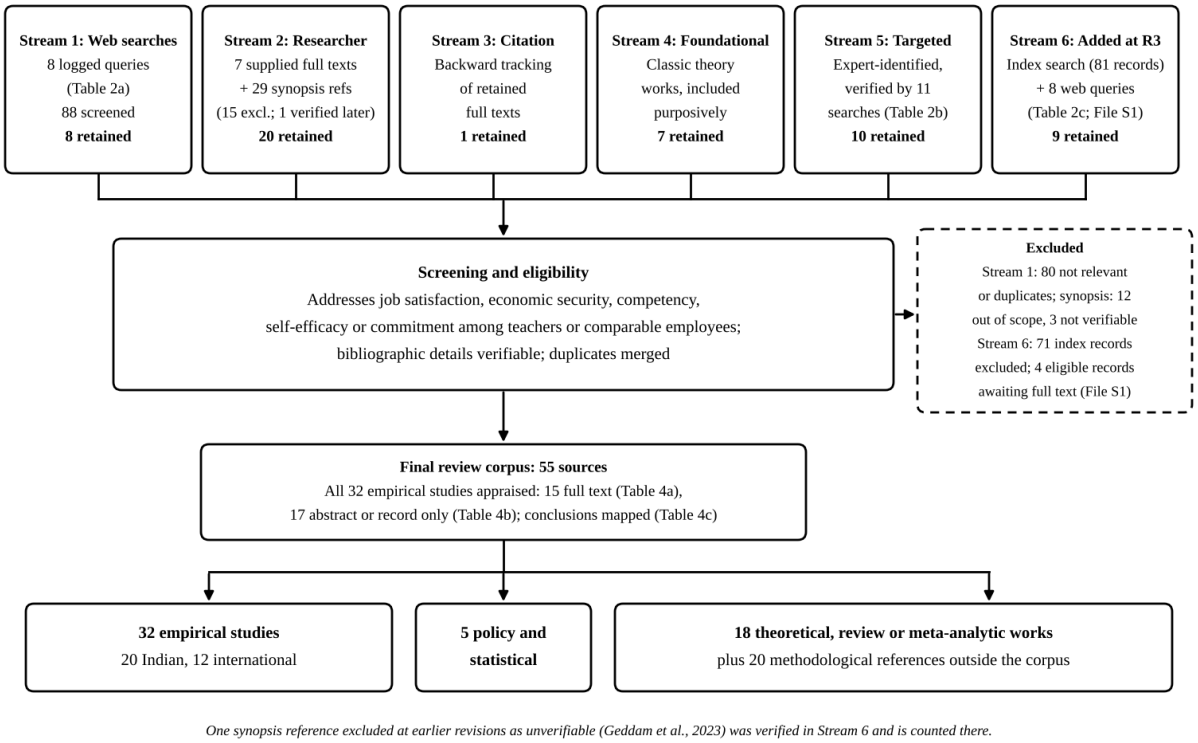
No.	Search string	Results screened	Source verified and retained
T9	Kingdon Sipahimalani-Rao 2010 para-teachers in India status and impact Economic and Political Weekly	10	Kingdon & Sipahimalani-Rao (2010)
T10	House Wigdor 1967 Herzberg's dual-factor theory of job satisfaction and motivation review of the evidence and a criticism	10	House & Wigdor (1967)
T11	"Job security matters" systematic review meta-analysis job security work attitudes	10	None (verification of Hur, 2022)
Total	11 queries	110	10 sources

Note: 18 November 2026; expert-identified sources located and verified.

Table 2c. Search log for Stream 6.

No.	Source and search string	Type	Records screened	Sources retained
S6a	Scholarly metadata index; citation-directed search run against the claims of the manuscript (decision and reason for every record in Supplementary File S1)	Citation-directed	81	Abanto Berrospi et al. (2026); Sahito & Vaisanen (2020); Geddam et al. (2023); Karba (2026); Wiggs et al. (2022) as methodological reference only
U1	contract teachers job satisfaction India survey study regular teachers comparison	Discovery	10	Bhuyan & Mallick (2015); Dogar et al. (2015)
U2	Rajasthan teachers job satisfaction government private secondary school study	Discovery	10	None (two eligible records awaiting full text)
U3	teaching competency job satisfaction secondary school teachers India correlation study	Discovery	10	Gupta & Mir (2012); Parua (2021) (one eligible record awaiting full text)
U4	Bhatt Menaria "job satisfaction" government private school teachers rural Rajasthan 2017 results	Known-item	10	None (result not extractable; one further eligible record awaiting full text)
U5	Bhuyan Mallick "job satisfaction of contract teachers and regular teachers" SRJIS	Known-item	10	Mahajan (2016); verification of Bhuyan & Mallick (2015)
F1 to F3	Known-item searches for open full texts of Lemos, Muralidharan & Scur (2024), Chudgar & Sakamoto (2021) and Burić & Kim (2021)	Full-text retrieval	30	Working-paper version (Lemos et al.) and accepted manuscript (Burić & Kim) located; none for Chudgar & Sakamoto
Total	1 index search; 8 web queries	3 discovery, 2 known-item, 3 retrieval	161	9 sources

Note: 18 November 2026; added at the third revision.



One synopsis reference excluded at earlier revisions as unverifiable (Geddam et al., 2023) was verified in Stream 6 and is counted there.

Figure 1. Identification and selection of the review corpus.

Note: Stream 6 was added at the third revision. The full source inventory, the excluded synopsis references and the Stream 6 screening decisions appear in Appendix Tables A1 and A2 and Supplementary File S1.

2.3 Study characteristics

Table 3 reports the characteristics of the principal quantitative studies on which the synthesis relies, and Table 3b the meta-analytic and review benchmarks that provide context for them. Statistics are reported as published, with recomputed values where the published figures are internally inconsistent; because the studies differ in population, sampling and instrumentation, their coefficients are presented descriptively and are not compared directly.

Table 3. Characteristics of the principal quantitative studies.

Study (country)	Design and sampling	N and population	Instrument(s)	Key reported statistic	Text basis
Kaushik (2026) (India)	Comparative survey; simple random	200 school teachers (100 government, 100 private), Haryana	Job Satisfaction Questionnaire, Kumar & Mutha (29 yes/no items)	Government M = 24.2, SD = 4.11; private M = 22.3, SD = 4.06; reported t = 3.16; recomputed t ≈ 3.29 (Section 2.4)	Full text
Mahajan (2016) (India)	Comparative survey; stratified random	100 school teachers (54 regular, 46 contractual), Himachal Pradesh	Job Satisfaction Scale for Teachers (Dixit)	Regular M = 201.2, SD = 17.28; contractual M = 195.8, SD = 21.42; reported t = 3.93; recomputed t ≈ 1.39 (n.s.)	Full text

Study (country)	Design and sampling	N and population	Instrument(s)	Key reported statistic	Text basis
Muralidharan & Sundararaman (2013) (India)	School-level randomised experiment; non-experimental within-school comparison	200 rural government primary schools (100 treated), Andhra Pradesh	Independent tests in mathematics and language; unannounced visits for absence	Extra contract teacher: +0.16 SD (mathematics), +0.15 SD (language) after two years; absence 18% (contract) vs 27% (regular)	Full text (working paper)
Lemos, Muralidharan & Scur (2024) (India)	Panel value-added analysis; management survey	1,171 teachers (864 private, 307 public) in rural Andhra Pradesh	Teacher value added; self-reported wages	Log wage on value added, with controls: private 0.258 (SE 0.102); public −0.285 (n.s.)	Full text (working-paper version)
Burić & Kim (2021) (Croatia; TALIS countries)	Multi-group CFA (TALIS 2018); three-wave panel at six-month intervals	252,881 TALIS teachers; 3,002 Croatian teachers at wave 1 (1,081 at wave 3)	TALIS scales; Teacher Self-Efficacy Scale; Job Satisfaction Scale	Cross-lagged: satisfaction to self-efficacy β = .088 and .142 ($p < .01$); self-efficacy to satisfaction n.s.	Full text (accepted manuscript)
Kumar & Kayalvizhi (2022) (India)	Correlational survey; stratified random	419 higher secondary teachers, Tamil Nadu	Professional Commitment Scale (Kaur, Ranu & Brar); Job Satisfaction Questionnaire (Anees & Nasrin)	Commitment-JS r = 0.630; sector F = 0.80 (n.s.)	Full text
Shukla (2014) (India)	Correlational survey; convenience	100 primary teachers (50 government, 50 private), Lucknow	Self-developed competency scale; commitment scale (Maiti); TJSS (Gupta & Srivastava)	Competency-JS r = 0.034 (n.s.); commitment-competency r = 0.103 (n.s.)	Full text
Lavanya et al. (2024) (India)	Cross-sectional; multistage random	300 private school teachers, Tamil Nadu	Perceived Stress Scale (PSS-10)	74.3% high stress; income up to Rs 40,000 and classes above 40 associated with high stress ($p < 0.001$)	Full text
CETE (2023) (India)	Secondary analysis of PLFS	National labour force sample of teachers	Periodic Labour Force Survey	No written contract: 24.7% government vs 54.3% private (secondary)	Full text
Peng, Chen & Yen (2019) (Taiwan, China)	Survey with SEM; judgmental	1,307 service-sector employees	Multi-item scales, alpha 0.83 to 0.96	Job security-JS r = 0.536; path β 0.250 (Taiwan), −0.088 (China)	Full text
Assaf & Antoun (2024) (Lebanon)	Cross-sectional online survey	297 public and private K-12 teachers	Seven-factor scale derived by principal component analysis	About 80% cite income and financial security as main concern	Full text
OECD TALIS (2020) (OECD systems)	Large-scale international survey	Lower secondary teachers and principals	TALIS questionnaires	39% of teachers satisfied with salary	Full text

Table 3b. Meta-analytic and review benchmarks.

Source	Scope	Reported association	Use in this review
Judge et al. (2010)	Meta-analysis; 115 correlations from 92 independent samples, mixed occupations	Pay level with job satisfaction r = .15; with pay satisfaction r = .23	Benchmark for the income component of economic security
Hur (2022)	Meta-analysis; 37 studies, 45 samples, public and private sectors	Job security with job satisfaction ρ = .33; with organisational commitment ρ = .25	Benchmark for the employment-stability component
Sverke, Hellgren & Näswall (2002)	Meta-analysis of the consequences of job insecurity	Insecurity associated with poorer job attitudes and health; likely underestimated with single-item measures	Supports multidimensional measurement of security
Zee & Koomen (2016)	Synthesis of 165 articles on teacher self-efficacy	Self-efficacy positively linked with job satisfaction and commitment, negatively with burnout	Related evidence (self-efficacy, not competency)
Wartenberg et al. (2023)	Meta-analysis and systematic review; 105 records on teachers	Satisfaction associated with lower turnover intention and better instructional support	Consequences of teacher satisfaction
Abanto Berrospi, Ugarte Rojas & Choque Quispe (2026)	Systematic review (Scopus, Web of Science); 23 primary studies of teachers	Remuneration positively related to satisfaction; described as stronger in low- and middle-income countries; no pooled estimate	Teacher-specific context for the income component; direction only
Sahito & Vaisanen (2020)	Literature review of 70 studies of teachers in 21 developing countries, many Indian	Fair remuneration among the major reported factors in satisfaction	Context for developing-country settings; no effect size

2.4 Quality appraisal

All 32 empirical studies were appraised. Appraisal at the second revision assessed mainly the completeness of reporting; at this revision, studies whose full text was available were assessed in two separate respects (Table 4a). Methodological quality was judged against design-specific threats, informed by the Mixed Methods Appraisal Tool (Hong et al., 2018): risk of selection bias in sampling and response; whether confounding was addressed for any comparative or associational claim; and whether the measures were suitable for the review's constructs, including overlap between satisfaction and security items (see 'Discriminant boundaries and the problem of construct overlap'). Reporting completeness was summarised from the five earlier criteria: (Q1) sampling procedure described; (Q2) instruments named; (Q3) reliability or validity evidence reported; (Q4) test statistics reported; and (Q5) internal consistency between text, tables and conclusions. Relevance to the review question, including the match of population and construct, was rated separately, so that a well-reported study of non-teachers is not given high weight for that reason alone. Overall weight combines quality and relevance. Fifteen studies were appraised in full text, including five (Apat and Swain, 2023; Burić and Kim, 2021; Kumari, 2018; Lemos et al., 2024; Muralidharan and Sundararaman, 2013) for which open full texts, working-paper versions or accepted manuscripts were located at this revision. The remaining 17 studies, available only as abstracts, publisher records or secondary reports, were assessed on the information available and given limited weight (Table 4b). CETE (2023) is a statistical analysis and is classified among the policy and statistical documents rather than the empirical studies.

Table 4a. Appraisal of empirical studies with available full text (n = 15): design-specific validity, reporting and relevance.

Study	Design	Selection bias	Confounding addressed	Measurement suitability	Reporting (Q1 to Q5)	Relevance	Overall weight
OECD TALIS (2020)	Large-scale survey	Low (probability sample, weighted)	Not applicable (descriptive)	Adequate for descriptive indicators	5 of 5	High (teachers)	High for descriptive claims
Muralidharan & Sundararaman (2013)	School-level randomised experiment plus non-experimental comparison	Low (representative sample of schools)	Yes for school-level effect; not for within-school teacher comparison	Independent tests; unannounced absence checks	5 of 5	Moderate (pay and effectiveness; no competency or satisfaction measure)	High for school-level effect; limited for individual competency
Lemos, Muralidharan & Scur (2024)	Panel value-added; correlational	Moderate (project sample, one state)	Partly (controls)	Value added suited to effectiveness; wages self-reported	5 of 5	Moderate (effectiveness and pay)	Moderate to high
Burić & Kim (2021)	Cross-sectional (TALIS) and three-wave panel	Moderate to high in panel (convenience sample; attrition)	Partly (autoregressive controls)	Validated self-report scales; self-efficacy, not competency	5 of 5	High for direction of self-efficacy and satisfaction	Moderate to high
Peng, Chen & Yen (2019)	Cross-sectional SEM	High (judgmental sampling)	Partly	Multi-item scales	5 of 5	Low (service employees, not teachers)	Low (illustrative only)
Assaf & Antoun (2024)	Cross-sectional online survey	High (voluntary online response)	No	Overlap: income and security form a satisfaction factor	5 of 5	Moderate (teachers; crisis context)	Low to moderate
Lavanya et al. (2024)	Cross-sectional survey	Low to moderate (multistage random)	No (bivariate tests)	Validated stress scale; satisfaction not measured	4 of 5 (Q3 not met)	Low to moderate (stress, not satisfaction)	Low to moderate
Kumar & Kayalvizhi (2022)	Cross-sectional survey	Unclear (frame not described)	No	Standard scales; no sample reliability	4 of 5 (Q3 not met)	Moderate (commitment, not competency)	Moderate for sector comparison; allied only

Study	Design	Selection bias	Confounding addressed	Measurement suitability	Reporting (Q1 to Q5)	Relevance	Overall weight
Shukla (2014)	Cross-sectional survey	High (convenience)	No	Self-developed competency scale; validity evidence not located	4 of 5 (Q3 not met)	High (direct competency and satisfaction test)	Low to moderate
Kaushik (2026)	Comparative survey	Unclear (frame not described)	No (unadjusted comparison)	Overlap: salary-security facet	3 of 5 (Q3, Q5 not met)	High (sector comparison)	Low
Mahajan (2016)	Comparative survey	Unclear (stratified random; procedure brief)	No	Facet-based scale; item content not verified	Q5 not met (published t inconsistent with means and SDs); Q3 not checked	High (regular vs contractual)	Low
Dogar et al. (2015)	Cross-sectional survey	High (purposive; account inconsistent)	No	Facet scale including pay and fringe benefits	Q4 not met (no test); Q3 not checked	Moderate (teacher subsample; Pakistan)	Low
Singh (2023)	Survey	Unclear	No	Instrument partly described	2 of 5 (Q2 partly)	Low (university teachers)	Low
Apat & Swain (2023)	Qualitative; repeated interviews	Purposive (suited to aim)	Not applicable	Thematic analysis of repeated interviews	Not applicable (qualitative)	Moderate (precarity; satisfaction not measured)	Moderate for lived experience; none for magnitude
Kumari (2018)	Qualitative case study	51 teachers in ten schools	Not applicable	Interviews and observation; no statistics	Not applicable (qualitative)	Moderate (contract conditions, Delhi)	Low

Table 4b. Appraisal of empirical studies available only as abstract, record, working paper or secondary report.

Study	Source of information	Design and sample stated	Key statistics stated	Weight in synthesis
Baer & Velasco (2022)	Abstract and partial text	Yes (62 teachers)	Direction only	Limited
Krishnaswamy et al. (2026)	Publisher record	Yes (71 teachers, mixed methods)	Descriptive percentages; no test of association	Limited

Study	Source of information	Design and sample stated	Key statistics stated	Weight in synthesis
Chudgar & Sakamoto (2021)	Abstract	Yes (national employment data)	Direction only	Limited to moderate (national data)
Kanwal, Kamran & Rafiq (2023)	Abstract	Yes (430 surveyed, 25 interviewed)	Direction only	Limited
Sharma & Agarwal (2025)	Abstract and partial text	Yes (400 teachers, Jaipur)	Significance stated	Limited
Sheokand (2019)	Thesis abstract	Partly	Not stated	Limited
Blömeke et al. (2022)	Abstract	Yes (154 classrooms)	Direction only	Limited (contextual)
Skaalvik & Skaalvik (2018)	Abstract and partial text	Partly	Direction only	Limited (theoretical support)
MetLife (2012)	Secondary report (Education Week)	Partly	Percentages	Limited
Klassen & Chiu (2010)	Abstract	Partly	Direction only	Limited to moderate (peer-reviewed; related construct)
Caprara et al. (2006)	Abstract	Yes (over 2,000 teachers, 75 schools)	Direction only	Moderate (SEM; related construct)
Kingdon & Sipahimalani-Rao (2010)	Abstract and repository record	Partly (review plus survey)	Not stated	Limited (contextual)
Gupta & Mir (2012)	Repository record and abstract	Yes (200 secondary teachers, Madhya Pradesh)	Direction only (positive)	Limited
Parua (2021)	Thesis record (Shodhganga)	Partly (secondary teachers, West Bengal)	Direction only; described as a "perfect" positive relationship, which cannot be verified	Limited
Bhuyan & Mallick (2015)	Abstract	Yes (120 secondary teachers: 60 contract, 60 regular)	Direction and significance only	Limited
Karba (2026)	Abstract	Yes (100 secondary teachers, Jharkhand)	Satisfaction difference not stated	Limited
Geddam, Deepthi & Jeyavel (2023)	Abstract	Yes (21 private school teachers; qualitative)	Qualitative themes	Limited (qualitative)

Note: N = 17.

Four observations follow. First, none of the Indian quantitative studies with full text reports a reliability coefficient for its own sample. Second, 17 of the 32 empirical studies could be appraised only at abstract, record or secondary-report level. Table 4c maps each principal conclusion to the

studies on which it rests and states how the conclusion would change if the abstract-level studies were excluded; conclusions that rest only on abstract-level evidence are stated as provisional. Third, several of the Indian full-text studies appear in multidisciplinary open-access outlets that are not indexed in major bibliographic databases; no conclusion in this paper rests on such a study alone. Fourth, the statistics reported by two comparative studies require qualification. For Kaushik (2026), recomputing an independent samples t-test from the published means, standard deviations and group sizes yields t of approximately 3.29 (standard error of the difference = 0.578) rather than the published 3.16; the published value is reproduced when the rounded standard errors printed in the source table (0.6) are used, and both values exceed the critical value of 1.97 (df = 198, two-tailed α = .05). Rounding explains this numerical discrepancy, but it cannot resolve a separate inconsistency in the source: the narrative accompanying the table refers to primary and senior secondary teachers and in one place describes the difference as non-significant. Which account is correct cannot be determined from the published paper, so the study is retained with low weight. For Mahajan (2016), the published means and standard deviations (regular M = 201.2, SD = 17.28, n = 54; contractual M = 195.8, SD = 21.42, n = 46) yield t of approximately 1.39 (df = 98, $p \approx .17$) rather than the published 3.93, so the reported significant difference is not supported by the study's own descriptive statistics.

Table 4c. Principal conclusions and the evidence on which they rest.

Principal conclusion (section)	Studies relied on (text basis)	If abstract-level studies are excluded
Pay level and job security are each positively associated with satisfaction in mixed-occupation meta-analyses (5)	Judge et al. (2010), Hur (2022), Sverke et al. (2002): abstract or partial text; Abanto Berrospi et al. (2026), teacher-specific: abstract and article page	Stated only as reported benchmarks; no estimate verified in full text; no ranking of security dimensions is drawn
Indian evidence on sector differences in satisfaction is thin and mixed (7.2)	Kaushik (2026), Kumar & Kayalvizhi (2022): full text; Chudgar & Sakamoto (2021), Sheokand (2019), Karba (2026): abstract	One full-text study of low weight favours government teachers and one finds no difference; a sector difference is not established
Evidence on regular versus contractual teachers is sparse and inconsistent (7.2)	Mahajan (2016), Dogar et al. (2015), Apat & Swain (2023, qualitative): full text; Bhuyan & Mallick (2015): abstract	Neither full-text quantitative study supports a significant difference; qualitative evidence documents precarity
Large sectoral gaps exist in contracts, benefits and pay (7.1)	CETE (2023): full text	Unchanged
Direct competency and satisfaction evidence is sparse and mixed (6.1)	Shukla (2014): full text; Baer & Velasco (2022), Gupta & Mir (2012), Parua (2021): abstract or record	Only one full-text study remains, with a null result; the association is not established
Self-efficacy is positively associated with satisfaction; direction uncertain (6.2)	Burić & Kim (2021): full text; Caprara et al. (2006), Klassen & Chiu (2010), Zee & Koomen (2016): abstract	Association and ordering rest on one full-text source (TALIS 2018 and one panel)
Pay tracks effectiveness in private but not public schools; lower-paid contract teachers improved learning at school level (6.4)	Lemos et al. (2024), Muralidharan & Sundararaman (2013): full text	Unchanged; both from primary schools in one state

3 Conceptual clarification and discriminant boundaries

3.1 Job satisfaction

Job satisfaction is classically defined as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences (Locke, 1976); Spector (1997) defines it as the extent to which people like their jobs. Two measurement traditions co-exist: facet-based instruments that sum satisfaction with pay, security, promotion, supervision and colleagues, and global instruments that capture an overall affective evaluation of the job (Brayfield and Rothe, 1951). Many instruments used in Indian research are facet-based; the Job Satisfaction Questionnaire of Kumar and Mutha, used by Kaushik (2026), contains a dimension explicitly labelled satisfaction with salary, security and promotion policies. Intention to remain in the job, which is often bundled with satisfaction, is treated here as a distinct outcome (turnover intention) and is excluded from the satisfaction measure.

3.2 Economic security

Economic security denotes a teacher's capacity to derive an adequate and stable livelihood from the profession and to sustain household well-being over time. Following the revised sustainable livelihoods framework (Natarajan et al., 2022), it is specified here as five dimensions: (i) income adequacy, the sufficiency of earnings for household needs; (ii) employment stability, the security and duration of the contract; (iii) social security, coverage by provident fund, pension, gratuity, insurance and medical benefits; (iv) financial independence, the ability to meet obligations without reliance on supplementary income or debt; and (v) future financial confidence, the anticipated stability of income and savings. The construct is therefore broader than salary: a teacher with a regular salary may be economically insecure owing to contractual impermanence or inadequate social protection. Because salary is itself a component of income adequacy, salary band should not be entered as a control variable when testing the association between economic security and satisfaction, as doing so would partial out part of the construct of interest. Because the construct combines perceived and objective dimensions, its measurement model requires care (see ‘Measurement safeguards for the proposed study’).

3.3 Professional competency, self-efficacy and professional commitment

Professional competency refers to the teacher's capacity to mobilise subject knowledge, pedagogical skill, assessment literacy, digital proficiency, inclusive practice and continuous learning in the service of student learning; it is associated with learning outcomes through instructional quality (Blömeke et al., 2022). The NPST guiding document specifies expected competencies across four career stages: Beginner, Proficient, Expert and Lead (National Council for Teacher Education, 2023). Professional commitment, by contrast, denotes the teacher's psychological attachment, loyalty and dedication to the profession. The two are conceptually distinct, and the one reviewed study that measured both found no significant correlation between them (Shukla, 2014; $r = 0.103$), although a single small convenience sample cannot establish discriminant validity. Evidence on commitment is therefore reported separately and treated as allied, not direct, evidence on competency.

Teacher self-efficacy, a teacher's belief in his or her capability to teach, engage students and manage the classroom, is related to competency but distinct from it, and it has been studied far more extensively (Zee and Koomen, 2016). Beliefs about capability can diverge from observed practice, and the reviewed evidence does not establish how closely the two correspond. Self-efficacy research is therefore reviewed in the section ‘Related evidence: Teacher self-efficacy’ as related evidence, but it is

not treated as evidence about competency itself or as a substitute for an NPST-aligned competency measure.

3.4 Discriminant boundaries and the problem of construct overlap

If job satisfaction is measured with a facet-based instrument that already includes pay and security items, any positive correlation between that measure and economic security will partly reflect shared item content. Table 5a identifies the satisfaction instruments used in the reviewed studies and whether their content overlaps with economic security. Overlap is documented for three instruments: the Kumar and Mutha questionnaire used by Kaushik (2026) contains a salary-security facet, the scale of Assaf and Antoun (2024) treats income and financial security as a factor of job satisfaction, and the Job Satisfaction Survey used by Dogar et al. (2015) includes pay and fringe-benefit facets. Overlap is therefore a potential source of inflated association in these studies. Its size cannot be determined from the published reports, because none reports item-level data or an estimate computed without the overlapping facet, and other features of the same studies, such as measures of uncertain reliability, could attenuate rather than inflate the observed correlations. For the remaining instruments, item content could not be verified, and overlap is possible but undocumented.

Table 5a. Satisfaction instruments in the reviewed studies and overlap with economic security content.

Instrument	Used by	Pay or security content	Overlap
Job Satisfaction Questionnaire (Kumar & Mutha)	Kaushik (2026)	Facet on salary, security and promotion policies	Present
Scale derived by principal component analysis	Assaf & Antoun (2024)	Income and financial security form a satisfaction factor	Present
Job Satisfaction Survey (Spector)	Dogar et al. (2015)	Pay and fringe-benefit facets	Present
Job Satisfaction Scale for Teachers (Dixit)	Mahajan (2016)	Facet-based; item content not verified for this review	Possible
Job satisfaction questionnaire	Kumar & Kayalvizhi (2022)	Item content not reported	Unknown
Teacher job satisfaction scale	Shukla (2014)	Item content not reported	Unknown
Instruments in abstract-level studies	For example, Bhuyan & Mallick (2015); Sharma & Agarwal (2025)	Item content not available	Unknown
TALIS job satisfaction scale	OECD (2020); Burić & Kim (2021)	Items on the profession and work environment; salary satisfaction asked separately	Not in the satisfaction scale

Three safeguards are recommended for the proposed study. First, job satisfaction should be measured as a global affective evaluation, or with facet scales from which pay and security items are removed, and associations should be reported both with and without any overlapping facet so that the effect of overlap can be estimated directly. Second, economic security should be measured with a separate instrument covering the five dimensions specified in the section ‘Economic security’. Third, discriminant validity should be tested through confirmatory factor analysis using the Fornell-Larcker

criterion, under which each construct's average variance extracted should exceed its squared correlation with the other constructs (Fornell and Larcker, 1981), and the heterotrait-monotrait ratio, with values below 0.85 indicating adequate discrimination (Henseler et al., 2015). Table 5 sets out the operational boundaries.

Table 5. Operational definitions and discriminant boundaries of the constructs.

Construct	Measured as	Explicitly excluded	Illustrative instruments
Job satisfaction	Global affective evaluation of the job: overall liking and fulfilment	Items on pay adequacy, job security and benefits; intention to remain (measured separately as turnover intention)	Global satisfaction index (Brayfield & Rothe type); facet scales with pay and security items removed
Economic security	Income adequacy, employment stability, social security, financial independence, future financial confidence	Affective liking of the job	Perceptual sub-scale (reflective) plus objective entitlement index (formative); see Section 3.5
Professional competency	Subject mastery, pedagogy and classroom management, assessment, ICT integration, inclusive practice, continuous professional development	Attachment or loyalty to the profession; beliefs about capability	NPST-aligned self-report scale plus principal rating, with classroom observation for a sub-sample
Teacher self-efficacy (related)	Belief in one's capability to teach, engage students and manage the classroom	Observed or rated performance	Established teacher self-efficacy scales (reported separately)
Professional commitment (allied)	Psychological attachment and dedication to teaching	Skills and knowledge	Professional commitment scales (reported separately)

3.5 Measurement safeguards for the proposed study

Three further threats require attention beyond construct overlap. The first is self-report bias in competency. Teachers who rate their own competency may report what is socially desirable, and self-ratings capture beliefs about capability that overlap with self-efficacy. The proposed study will therefore supplement the NPST-aligned self-report scale with a principal's rating on the same NPST domains for every teacher, and with structured classroom observation for a random sub-sample, so that agreement between self and other ratings can be estimated and the competency hypotheses re-tested with a measure that does not depend on self-report.

Principal ratings carry their own threats. A principal may know a teacher's employment category, pay and contract status, and may rate regular, contractual and private-school teachers against different expectations, so that rating differences partly reflect rater knowledge or performance perceptions rather than competency. Research comparing teacher self-reports with administrator observation ratings has found only modest convergence, consistent with the two sources capturing different aspects of practice (Wiggs et al., 2022). The proposed study will therefore (i) train principals on behaviourally anchored NPST descriptors before rating; (ii) collect principal ratings before, and separately from, teacher questionnaires; (iii) obtain observation ratings for the sub-sample from trained observers who are not told the teacher's employment category; (iv) treat principal ratings as nested within schools so that rater effects can be modelled; and (v) report self, principal and

observer ratings separately and test the competency hypotheses with each. Agreement will be summarised with intraclass correlations, and differences between self and principal ratings will be examined by employment category.

The second is common method variance. When predictors and outcome are reported by the same respondent, at the same time and in the same format, part of their covariance can reflect the method rather than the constructs (Podsakoff et al., 2003). Procedural remedies will include anonymity, physical separation of the satisfaction measure from the predictor measures within the instrument, different response formats for different constructs, and use of school records for objective entitlements. Statistical checks will include a marker variable theoretically unrelated to the constructs and a comparison of confirmatory factor models with and without a method factor; Harman's single-factor test will not be relied upon alone.

The third is the measurement model of economic security. Its perceptual dimensions (income adequacy, financial independence, future financial confidence and perceived employment stability) are expected to covary and can be modelled reflectively. Objective entitlements (a written contract, provident fund, pension, gratuity, insurance and paid leave) are causes of security rather than reflections of it and are better modelled as a formative index (Jarvis et al., 2003). The Fornell-Larcker and heterotrait-monotrait criteria will therefore be applied only to the reflective constructs, while the formative index will be examined for indicator collinearity and for external validity against salary and contract records.

Before any comparison across employment categories, the instruments will be developed and validated in four steps. First, the global satisfaction measure, the NPST-aligned competency scale and the perceptual security sub-scale will be reviewed by subject experts for content coverage, and translated and back-translated into Hindi. Second, cognitive interviews with teachers from each category will check that items are understood in the same way. Third, a pilot with about 150 teachers outside the sampled schools will provide item statistics, internal consistency (ω) and initial estimates of variances and intraclass correlations. Fourth, in the main study, measurement invariance across the four categories will be tested by multi-group confirmatory factor analysis at the configural, metric and scalar levels, using changes in CFI and RMSEA as criteria (Putnick and Bornstein, 2016). Mean comparisons (H01) will be interpreted only where scalar invariance holds, and slope comparisons (H06 and H07) only where metric invariance holds; if full invariance fails, partial invariance or the alignment method (Asparouhov and Muthén, 2014) will be used and reported. Missing data will be described by category and handled by full-information maximum likelihood or multiple imputation under a missing-at-random assumption, with auxiliary variables and a sensitivity analysis using complete cases (Enders, 2022).

4 Theoretical underpinnings

Five theoretical lenses furnish the rationale for expecting systematic associations among the constructs (Table 6).

Table 6. Theoretical lenses and their relevance to the study.

Theory	Core proposition	Implication for the present study
Herzberg's Two-Factor Theory (Herzberg et al., 1959)	Hygiene factors (salary, security, policy, conditions) prevent dissatisfaction; motivators intrinsic to the work (achievement, recognition, the work itself, responsibility, growth) generate satisfaction	Economic security is classified as a hygiene factor; competency is not itself a motivator, and the model proposes, as a hypothesis, that it may make achievement, recognition and growth more attainable
Kalleberg's Work Values and Job Rewards (1977)	Satisfaction reflects the congruence between work values and intrinsic, financial, career and resource rewards	The security-satisfaction association should be stronger among teachers who place greater value on financial rewards
Adams' Equity Theory (1965)	Individuals compare their input-outcome ratio with that of referent others; perceived inequity produces dissatisfaction	Equally qualified or equally effective teachers receiving unequal rewards across categories may perceive inequity; perceived inequity has not been measured in the reviewed Indian studies
Human Capital Theory (Becker, 1964)	Education, training and skill are investments expected to yield economic returns	Predicts that competency should be rewarded; the prediction requires testing in segmented teacher labour markets
Job Demands-Resources Model (Demerouti, Bakker, Nachreiner & Schaufeli, 2001)	Job resources are associated with motivation and well-being; job demands with strain; applied to teachers by Skaalvik and Skaalvik (2018)	Economic security and supportive work environments can be treated as resources

Two qualifications govern the use of these lenses. First, the two-factor theory holds that hygiene factors reduce dissatisfaction rather than produce satisfaction. If satisfaction is measured as a global evaluation, as the section 'Discriminant boundaries and the problem of construct overlap' recommends, the theory predicts a weaker association with economic security than a single-continuum view would. Its distinction between the two sets of factors has also been criticised as dependent on the critical-incident method that produced it (House and Wigdor, 1967). A positive security-satisfaction correlation is therefore not, by itself, evidence that security operates as a hygiene factor; testing that claim would require separate measures of satisfaction and dissatisfaction, which lies outside the present design. Herzberg's framework is used here heuristically, to classify job factors, and not as a hypothesis that the data can confirm. Second, competency is an attribute of the teacher, whereas Herzberg's motivators are features of the work. The model therefore proposes, as a hypothesis to be tested rather than a finding, that competency makes motivators such as achievement, recognition and growth more attainable; this is why recognition and professional growth appear as mediators in the section 'Research gap and revised conceptual model'.

Kalleberg's theory adds an individual-level contingency: a reward is associated with satisfaction to the extent that the teacher values it. Teachers in private unaided and contractual employment, whose income is less assured, may place greater value on financial rewards. This offers a second reason, besides range restriction (see 'Discussion and integrative synthesis'), to expect the security-satisfaction association to differ across employment categories. Work values will be recorded in the proposed instrument for exploratory analysis.

5 Job satisfaction and economic security

Meta-analyses of mixed-occupation samples report positive associations of both pay and job security with job satisfaction. Across 115 correlations from 92 independent samples, pay level correlated .15 with overall job satisfaction and .23 with pay satisfaction (Judge et al., 2010). A separate meta-analysis of 37 studies and 45 samples estimated a true-score correlation of .33 between job security and job satisfaction (Hur, 2022), and an earlier meta-analysis found job insecurity to be associated with poorer job attitudes and health, with effects probably underestimated by single-item measures (Sverke et al., 2002). These estimates are not directly comparable. They come from different bodies of studies, occupations and countries; they rest on different measures, since pay level is usually an objective quantity whereas job security is usually perceived; they were synthesised with different procedures; and neither compares income, employment stability and benefits within the same teacher sample. They are therefore reported as separate, largely non-teacher benchmarks (Table 3b) and are not used to rank the dimensions of economic security. Teacher-specific syntheses point in the same direction but provide no pooled estimate: a systematic review of 23 studies of teachers reports a positive association between remuneration and satisfaction that appears stronger in low- and middle-income countries (Abanto Berrospi et al., 2026), and a review of 70 studies from developing countries, many of them Indian, lists fair remuneration among the major factors in satisfaction (Sahito and Vaisanen, 2020). Whether income, employment stability and social protection differ in their association with teachers' satisfaction is therefore an open question, which the proposed study is designed to address (see 'Research gap and revised conceptual model').

The OECD Teaching and Learning International Survey (TALIS) 2018 found that, on average across OECD countries, only 39% of teachers and 47% of principals were satisfied with their salary. Although 18% of teachers were on temporary contracts, the proportion was 48% among teachers under 30. Teachers on contracts of less than one year reported lower self-efficacy, and only 26% believed that their profession was valued by society (OECD, 2020) (Figure 2).

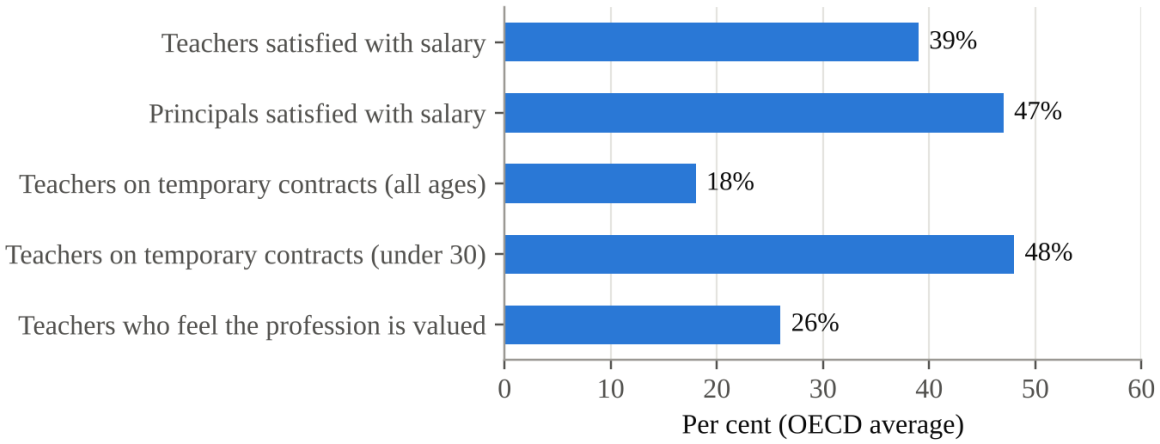


Figure 2. Salary satisfaction, contractual status and perceived social value of teaching, OECD average (TALIS 2018).

Note: Source: OECD (2020).

Survey evidence from the United States, available to this review only through a secondary report, points in the same direction. The MetLife Survey of the American Teacher reported that the share of "very satisfied" teachers fell from 59% in 2009 to 44% in 2011, while the share who felt their job was not secure rose from 8% in 2006 to 34% in 2011 (MetLife, 2012). Because the baselines differ, Figure

3 presents the indicators in separate panels and does not treat them as change over a common interval.

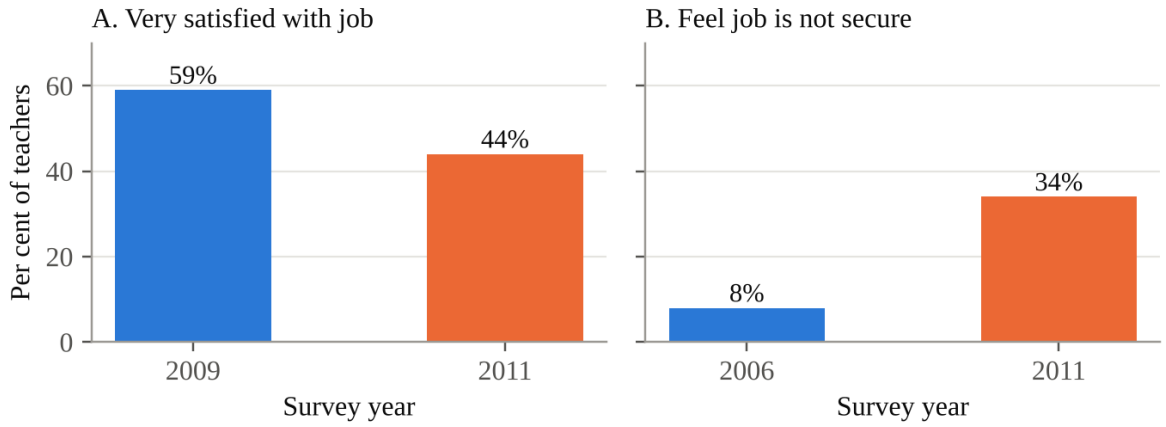


Figure 3. Trends in job satisfaction (2009 to 2011) and perceived job insecurity (2006 to 2011) among American teachers, shown separately because baseline years differ.

Note: Source: MetLife (2012).

Peng et al. (2019), using structural equation modelling on 1,307 employees in Taiwan and mainland China, reported a correlation of r = 0.536 between job security and job satisfaction. The structural path was significant in Taiwan (β = 0.250, p < 0.001) but not in mainland China (β = −0.088), a divergence the authors attribute to differences in social and welfare systems (Figure 4). As the sample was not confined to teachers, the finding is used only to illustrate that an identical antecedent may carry different weight across institutional regimes.

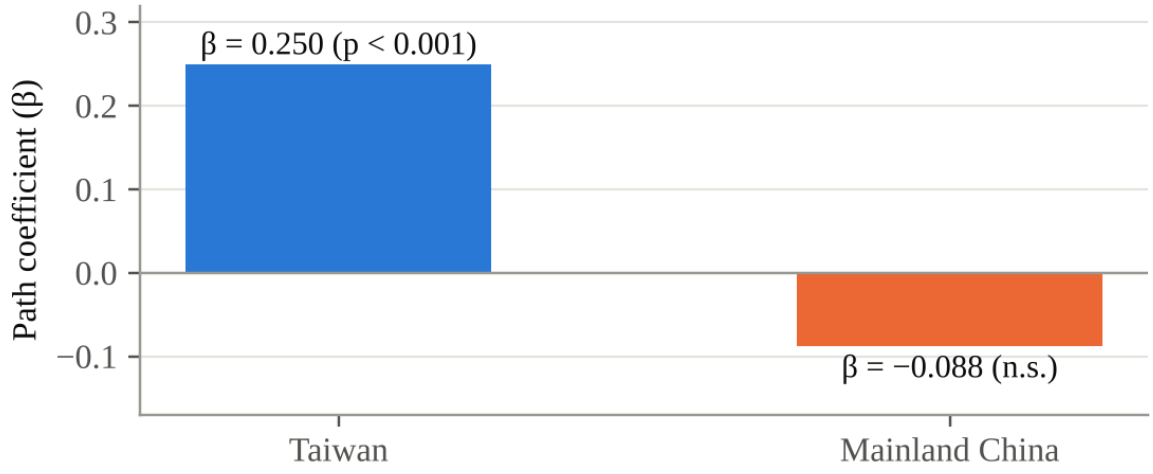


Figure 4. Standardised path from job security to job satisfaction in two institutional contexts (single study, two subsamples).

Note: Source: Peng et al. (2019).

Evidence from crisis contexts corroborates the salience of financial security. Assaf and Antoun (2024) surveyed 297 public and private school teachers in Lebanon; about 80% identified income and financial security as their principal concern, notwithstanding a strong sense of self-efficacy. In India

et al. (2024) found that 74.3% of 300 private school teachers in Chengalpattu district reported high perceived stress, and that high stress was significantly more common among teachers earning up to Rs 40,000 a month and among those teaching classes of more than 40 students ($p < 0.001$). In a qualitative study of 21 private school teachers in Andhra Pradesh, concerns about compensation were among the principal stressors reported (Geddam et al., 2023). Krishnaswamy et al. (2026) reported that 81.7% of 71 government school teachers felt that government employment provides economic security and 60.6% felt that their salaries were commensurate with their work; the study, however, reports no statistical test of the association between economic security and job satisfaction. Singh (2023) identified salary as the predominant source of dissatisfaction among university teachers in Jharkhand, without reporting test statistics. Taken together, the reviewed sources are consistent with a positive association between aspects of economic security and satisfaction, but they do not establish its size for teachers, the relative importance of income, employment stability and benefits, or its strength in Indian employment categories: the Indian studies are few, several are available only as abstracts, and some use satisfaction measures that include pay and security content. As the section 'Theoretical underpinnings' explains, it cannot by itself show that security operates as a hygiene factor in Herzberg's sense.

6 Job satisfaction, professional competency, self-efficacy and commitment

6.1 Direct evidence on competency

Direct evidence on the competency-satisfaction association is limited, mixed and mostly available only at abstract or record level. Three sources report a positive association: Baer and Velasco (2022) among 62 senior high school teachers in the Philippines; Gupta and Mir (2012) among 200 secondary teachers in Madhya Pradesh; and Parua (2021), a doctoral thesis from West Bengal whose record describes a "perfect" positive relationship, a description that cannot be verified and is implausible as a correlation coefficient. None of the three could be appraised in full text, and none reports a coefficient in the available record. The only full-text study, Shukla (2014), found a negligible and non-significant correlation ($r = 0.034$) among 100 government and private primary teachers in Lucknow, and none of the four competency dimensions reached significance (Figure 5). Because the coefficients in Figure 5 come from a single study, sample and instrument, they are comparable with one another but not with other studies. Blömeke et al. (2022) show that competence is associated with instructional quality, but do not measure satisfaction. On present evidence, therefore, the direct competency-satisfaction association is not established; if abstract-level studies are set aside, the only remaining test is null (Table 4c).

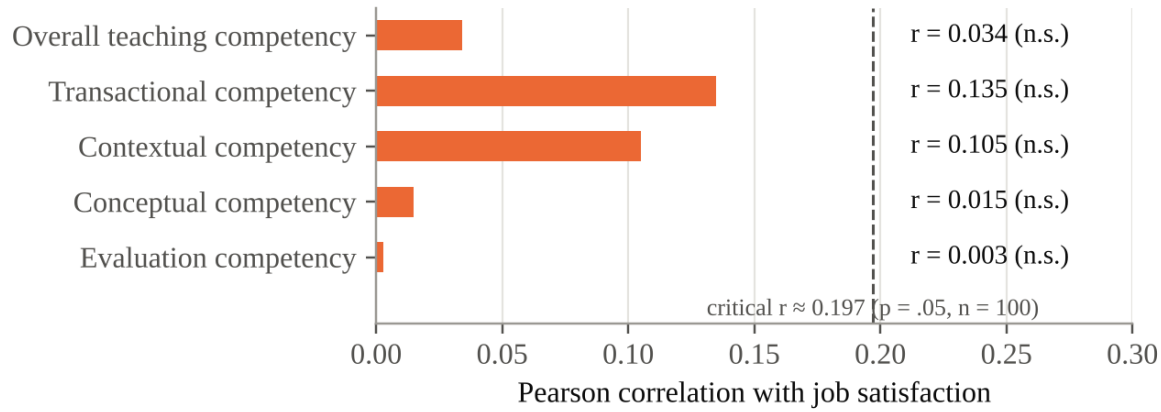


Figure 5. Correlations of teaching competency and its dimensions with job satisfaction within one study (n = 100).

Note: The dashed line marks the critical value of r for a two-tailed test at α = .05 with df = 98 (r = .197); bars to its left are not statistically significant. Source: Shukla (2014).

6.2 Related evidence: Teacher self-efficacy

Research on teacher self-efficacy is larger and more consistent. Caprara et al. (2006), studying over 2,000 teachers in 75 Italian junior high schools with structural equation modelling, found that teachers' self-efficacy beliefs were associated with their job satisfaction and with students' achievement, controlling for prior achievement. Klassen and Chiu (2010) reported that teachers with greater self-efficacy for instructional strategies and classroom management were more satisfied, and that classroom stress was associated with lower self-efficacy. A synthesis of 165 articles found positive links between self-efficacy and both job satisfaction and commitment, and negative links with burnout (Zee and Koomen, 2016). The direction of the association, however, is open. Using TALIS 2018 data from 252,881 teachers and three waves of data, six months apart, from 3,002 Croatian teachers et al. (2021) found the association to be invariant across gender, career stage and educational level; in cross-lagged models, satisfaction predicted later self-efficacy (β = .09 and .14), whereas self-efficacy did not predict later satisfaction. The panel was a convenience sample with substantial attrition, so this ordering is suggestive rather than definitive.

Two implications follow. First, the scarcity of direct competency evidence leaves the competency-satisfaction association open; the positive association found for self-efficacy does not establish that competency, as rated against professional standards or observed in practice, behaves in the same way. Second, because satisfaction may precede perceived capability, the competency-satisfaction path in the proposed model is specified as an association whose direction the cross-sectional design cannot establish. Whether NPST-defined competency, rated partly by others, behaves like self-efficacy is itself an empirical question that the proposed study can address.

6.3 Allied evidence on commitment

Kumar and Kayalvizhi (2022) found a substantial positive correlation between professional commitment and job satisfaction (r = 0.630) among 419 higher secondary teachers in Tamil Nadu. Baer and Velasco (2022), however, report a negative association between commitment and satisfaction. This divergence, together with the non-significant commitment-competency correlation in Shukla (2014), indicates that commitment cannot serve as a proxy for competency.

6.4 Economic security and professional competency

The association between economic security and competency is the least studied of the three, and the available studies measure qualifications or teacher effectiveness rather than competency itself. Human capital theory predicts that higher competency should command superior remuneration and security. Evidence on qualifications is mixed. In a qualitative case study of 51 teachers in ten municipal schools in Delhi, Kumari (2018) reports that contractual teachers were younger than permanent teachers and held qualifications above the required minimum, yet earned a fraction of permanent teachers' pay without allowances or promotion prospects. In Andhra Pradesh, by contrast, contract teachers were far less likely than regular teachers to hold a college degree or a formal teacher training credential (Muralidharan and Sundararaman, 2013). Evidence on effectiveness comes mainly from the experiment reported in that study, in which schools rather than teachers were randomised: after two years, students in schools given an extra contract teacher scored 0.16 and 0.15 standard deviations higher in mathematics and language. This is a school-level effect of adding a teacher and does not by itself compare individual contract and regular teachers. The authors' comparison of the two types of teacher relies on non-experimental estimates: equal effectiveness per unit reduction in the pupil-teacher ratio could not be rejected, and a within-school comparison found no differential learning gains for students taught by contract teachers, although teachers are not randomly assigned to classes within schools. Contract teachers were also less often absent (18% against 27%), despite being paid less than one-fifth of regular teachers' salaries. A review of para-teacher evidence notes wide variation across states in their tenure, remuneration and qualifications (Kingdon and Sipahimalani-Rao, 2010). Using teacher value added in rural Andhra Pradesh et al. (2024) report that pay rises with effectiveness in private schools (about 26% higher wages per standard deviation of value added, with controls), whereas no significant association appears in public schools, where pay follows qualifications and seniority. These studies suggest that, in the settings studied, effectiveness and pay are loosely coupled in public schooling; they concern effectiveness and qualifications rather than NPST-defined competency, and they come from primary schools in one state. Peng et al. (2019) found that job security was positively associated with employability, and TALIS 2018 reports lower self-efficacy among teachers on very short contracts (OECD, 2020). These are cross-sectional associations; a reciprocal relationship between competency and security cannot be inferred from them and is reserved for future longitudinal research.

7 Comparative analysis

7.1 Employment categories

The government-private contrast conceals at least four employment categories whose economic conditions differ (Table 7). National labour force data illustrate the scale of the differences. Among secondary teachers, 54.3% of private or non-government teachers had no written contract, compared with 24.7% of government teachers; 51.6% were not eligible for any benefit, compared with 10.4%; and 15.7% received the full set of pension, gratuity, health and maternity benefits, compared with 63.2% (CETE, 2023) (Figure 6). Average monthly salaries reported in the same source were Rs 38,282 for government and Rs 13,412 for private secondary teachers, and Rs 31,255 and Rs 11,086 respectively at the primary level.

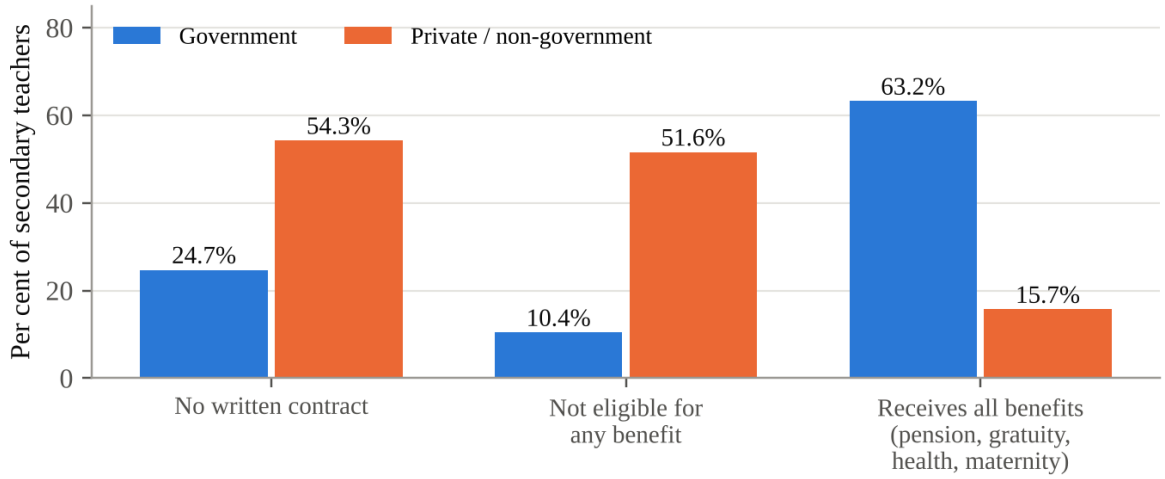


Figure 6. Contractual and social security indicators of secondary teachers by sector, Periodic Labour Force Survey.

Note: Source: CETE (2023). Benefit indicators refer to PLFS 2020-21 and contract indicators to PLFS 2021-22, as reported in the source; the non-government category may include aided schools.

Table 7. Comparative profile of four teacher employment categories in India, as documented in the reviewed sources.

Dimension	Government regular	Government contractual	Government-aided	Private unaided
Remuneration	Statutory pay scales (levels vary by state and cadre)	A fraction of regular salary (Apat & Swain, 2023)	Varies by state; not systematically documented in the reviewed sources	Lower on average and management-determined, with wide variation (CETE, 2023; Kingdon, 2020)
Employment stability	Usually permanent after appointment (not separately documented in the reviewed sources)	Fixed term of one to two years, renewable (Apat & Swain, 2023)	Varies by state	No written contract for about half of non-government secondary teachers (CETE, 2023)
Social security	Pension or NPS, provident fund, medical benefits; full benefit set for 63.2% of government secondary teachers (CETE, 2023)	Not systematically documented in the reviewed sources	Varies by state	51.6% of non-government secondary teachers not eligible for any benefit (CETE, 2023)
Job satisfaction evidence	Higher than private in one full-text study of low weight (Kaushik, 2026) and one national study at abstract level (Chudgar & Sakamoto, 2021); no difference in another (Kumar & Kayalvizhi, 2022)	Precarity reported qualitatively (Apat & Swain, 2023); quantitative comparisons with regular teachers inconsistent (Section 7.2)	No significant difference from government in one study (Kumar & Kayalvizhi, 2022)	Lower in some studies and not in others; evidence limited (Section 7.2)

Note: Terms vary across states and institutions.

7.2 Comparative evidence and its limits

Indian evidence on sectoral differences in satisfaction is thinner than is often assumed. Two of the reviewed sources report higher satisfaction among government than private teachers: Kaushik (2026), with mean scores of 24.2 (SD = 4.11) for government and 22.3 (SD = 4.06) for private teachers in Haryana (Figure 7), subject to the reporting caveats in the section 'Quality appraisal', and Chudgar and Sakamoto (2021), whose abstract reports lower satisfaction among private teachers using national employment data. Sheokand (2019) and Karba (2026) compared the two sectors, in Haryana and Jharkhand respectively, but the direction of the satisfaction difference could not be established from the available abstracts. Kumar and Kayalvizhi (2022) found no significant difference among government, aided and self-financed higher secondary teachers in Tamil Nadu (F = 0.80). A sectoral differential is therefore plausible but not established, and because pay, pension and tenure differ across states, institutions and appointment categories, it should not be generalised beyond the settings studied.

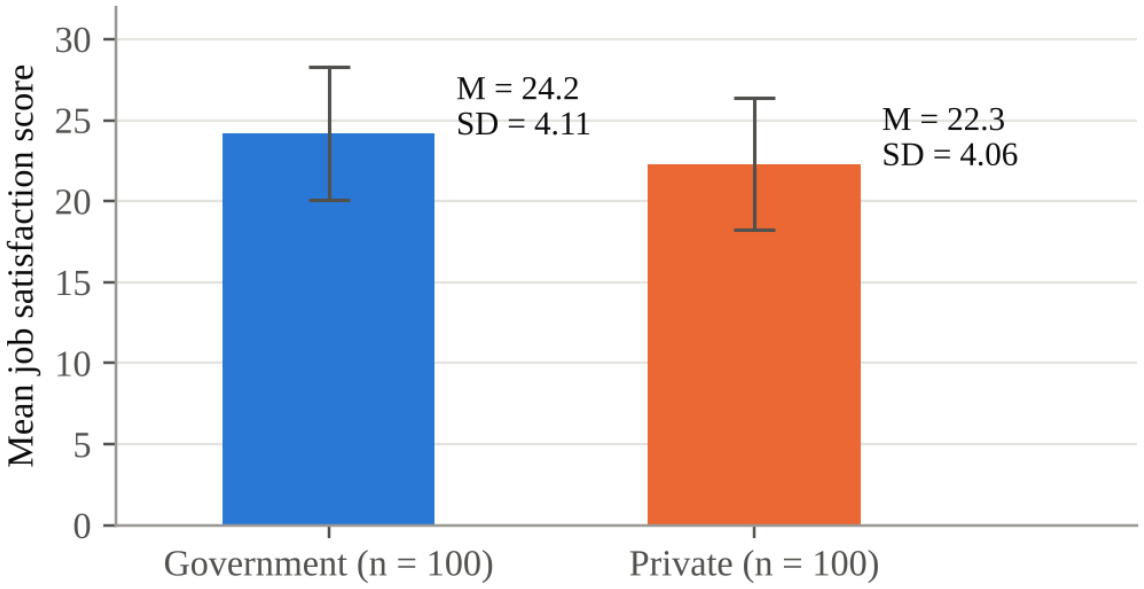


Figure 7. Mean job satisfaction of government and private teachers in Haryana, as published.

Note: Error bars show ±1 standard deviation of individual scores, not standard errors or confidence intervals. Reported t = 3.16; recomputed t ≈ 3.29; the source's narrative is inconsistent with its table (see 'Quality appraisal'). Source: Kaushik (2026).

Where a differential appears, economic conditions are one plausible explanation, but the reviewed studies do not test it: none estimates how much of a sector difference in satisfaction is accounted for by pay, security or benefits. Chudgar and Sakamoto (2021) report, at abstract level, that private school teachers in India do similar work under less favourable monetary and non-monetary benefits and weaker job security and collective bargaining, and report lower satisfaction; these differences co-occur, but their co-occurrence does not show that pay explains the satisfaction difference. Contractual government teachers form a distinct category: approximately 12.7% of all teachers in India are estimated to be contract teachers (Mukhopadhyay et al., 2023), typically engaged for one or two years and remunerated at a fraction of a regular teacher's salary, and repeated interviews with 17

contract teachers in Odisha identify dimensions of precarity including financial hardship, a sense of inferiority and experiences of discrimination (Apat and Swain, 2023).

Quantitative comparisons of regular and contractual teachers' satisfaction are few and inconsistent. Bhuyan and Mallick (2015) report, at abstract level, significantly higher satisfaction among 60 regular than 60 contract secondary teachers. Mahajan (2016) reports the same direction among 100 teachers in Himachal Pradesh, but the published means and standard deviations do not support the reported significance (see 'Quality appraisal'). In Pakistan, Dogar et al. (2015) found a slightly higher mean among 50 contract than among 50 regular public-sector teachers, without a test of significance. Whether contractual status is associated with lower satisfaction in Indian schools therefore remains an open question, and the proposed four-category design addresses it directly.

7.3 International comparison

Kanwal et al. (2023), surveying 430 teachers and interviewing 25 in Punjab, Pakistan, report that privatisation was associated with uncertainty about job security, salaries and job satisfaction. Across OECD systems, temporary contracts are concentrated among early-career teachers (OECD, 2020), and the Taiwan-China comparison indicates that the weight of job security depends on the wider social system (Peng et al., 2019).

8 NEP 2020 and the NPST: Provisions and implementation

A distinction must be maintained between the policy provisions of NEP 2020 and the operational guidance of the NPST guiding document. NEP 2020 is a statement of national policy: Para 5.15 provides for at least 50 hours of continuous professional development annually; Para 5.17 proposes a merit-based structure of tenure, promotion and salary; and Para 5.20 mandates the development of the NPST (Ministry of Education, 2020). The NPST guiding document, issued by NCTE, sets out standards across four career stages and states that they may be adopted by States to determine teacher career management, with promotions and salary increases based on appraisal rather than seniority (National Council for Teacher Education, 2023). Neither document by itself establishes how these provisions operate in private unaided schools, whose pay is set by managements. Their implementation in that sector is therefore treated in this paper as a research question, not an established fact (Table 8).

Table 8. NEP 2020 provisions and NPST guidance mapped onto the constructs.

Provision	Source document	Primary construct	Anticipated mechanism	Implementation status in private unaided schools
Restoration of teacher dignity, status and autonomy	NEP 2020	Job satisfaction	Recognition and professional esteem	Not empirically established
Minimum 50 hours of CPD per year (Para 5.15)	NEP 2020	Professional competency	Upgrading of knowledge and skills	Not empirically established
Merit-based tenure, promotion and salary (Para 5.17)	NEP 2020	Economic security	Linking reward to performance	Not empirically established; private pay set by managements

Provision	Source document	Primary construct	Anticipated mechanism	Implementation status in private unaided schools
Development of national professional standards (Para 5.20)	NEP 2020	Competency	Common standards for the profession	Standards issued; adoption is a State decision
Four career stages and appraisal-based progression	NPST guiding document	Competency and economic security	Standards-based appraisal, increments and promotion	Contingent on adoption by States and, in private schools, by managements

Evidence on awareness is mixed. Sharma and Agarwal (2025), surveying 400 secondary teachers in Jaipur district of Rajasthan, found no significant difference between government and non-government teachers in awareness of NEP 2020. Comparative research cautions that performance-based accountability operates differently under different regulatory models of the teaching profession (Parcerisa et al., 2022).

Policy text, however, is not evidence of implementation, and a teacher survey alone cannot establish whether NEP or NPST provisions operate in a given school. Answering that question requires three further kinds of evidence: the orders and regulations through which a State has or has not adopted the NPST career stages and appraisal-linked increments; school-level records of management practice, such as whether a written appraisal is conducted, whether increments or promotions follow it and whether teachers are provided with 50 hours of professional development; and teachers' reports of the provisions they have experienced. The proposed study will therefore collect, alongside the teacher survey, a short school management schedule completed from records by the principal or manager (appraisal procedures, basis of increments, professional development hours provided, and contract and benefit terms), together with a review of Rajasthan's orders on NPST adoption. These data will describe implementation by category; in a cross-sectional design they will not show that the provisions change satisfaction or competency.

9 Discussion and integrative synthesis

Three provisional propositions emerge, each of which the proposed study is designed to test rather than presume. First, economic security is positively associated with job satisfaction in the reviewed sources, but the size of the association for teachers, and its strength in Indian employment categories, are not established. The meta-analytic benchmarks come from largely non-teacher samples and from different studies and methods (see 'Job satisfaction and economic security'), so they do not show which dimension of security matters more. Part of the association reported in some Indian studies may reflect overlap between satisfaction and security items, but the size of any resulting bias cannot be determined from the published reports.

Second, the direct competency-satisfaction association is unresolved: three studies available only at abstract or record level report a positive association, and the one full-text study reports none. Self-efficacy research shows a positive association, although longitudinal evidence suggests that satisfaction may precede perceived capability rather than follow it. The model therefore proposes, as hypotheses, that competency may make achievement, recognition and growth more attainable and that economic security may condition whether those motivators translate into satisfaction.

Third, the processes linking the constructs may differ by employment category. In regular government employment, where tenure and pay are relatively secure, variance in economic security may be

restricted, so its association with satisfaction may be weaker (a range-restriction effect), and competency may relate to satisfaction mainly through recognition and professional growth. In private unaided and contractual employment, economic security is more variable and possibly more salient, and, following Kalleberg, financial rewards may be more highly valued, so the association is expected to be stronger. The evidence of Lemos et al. (2024), that pay tracks effectiveness in private but not public schools in one state, and of Muralidharan and Sundararaman (2013), that adding lower-paid contract teachers improved learning at the school level, suggests that the link between effectiveness and reward may differ by category; neither study measured competency or satisfaction. Equity theory predicts that comparable qualifications or effectiveness combined with inferior rewards will be perceived as inequitable; Kumari (2018) documents conditions in which such inequity could arise among contractual teachers in Delhi, although perceived inequity was not measured. These category-specific expectations are hypotheses, and they form the basis of the moderation hypotheses in the section 'Research gap and revised conceptual model'.

10 Research gap and revised conceptual model

10.1 Research gap matrix

Table 9 maps the constructs examined by the principal studies in the reviewed corpus. Among these studies, none measures job satisfaction, economic security and professional competency together within a sector comparison situated in the NEP 2020 and NPST framework. Because the corpus is selective (see 'Design'), this is a statement about the sources reviewed, not a claim that no such study exists; a structured database search could identify one.

Table 9. Research gap matrix.

Study	Job satisfaction	Economic security	Competency	Commitment	Sector comparison	NEP/NPST context
Kaushik (2026)	Yes	-	-	-	Yes	-
Sheokand (2019)	Yes	-	-	-	Yes	-
Kumar & Kayalvizhi (2022)	Yes	-	-	Yes	Yes	-
Shukla (2014)	Yes	-	Yes	Yes	Yes	-
Baer & Velasco (2022)	Yes	-	Yes	Yes	-	-
Chudgar & Sakamoto (2021)	Yes	Yes	-	-	Yes	-
Krishnaswamy et al. (2026)	Yes	Yes	-	-	-	-
Lavanya et al. (2024)	-	Partly (income)	-	-	-	-
Assaf & Antoun (2024)	Yes	Yes	Partly (self-efficacy)	-	Partly	-
Lemos et al. (2024)	-	Partly (pay)	Partly (effectiveness)	-	Yes	-
Peng, Chen & Yen (2019)	Yes	Partly (job security)	Partly (employability)	-	-	-

Study	Job satisfaction	Economic security	Competency	Commitment	Sector comparison	NEP/NPST context
Kumari (2018)	-	Yes	Partly (qualifications)	-	Partly (contract vs permanent)	-
Sharma & Agarwal (2025)	-	-	-	-	Yes	Yes
Klassen & Chiu (2010)	Yes	-	Partly (self-efficacy)	-	-	-
Burić & Kim (2021)	Yes	-	Partly (self-efficacy)	-	-	-
Muralidharan & Sundararaman (2013)	-	Partly (pay, contract)	Partly (effectiveness)	-	Partly (contract vs regular)	-
Gupta & Mir (2012)	Yes	-	Yes	-	-	-
Mahajan (2016)	Yes	Partly (contract status)	-	-	Partly (regular vs contractual)	-
Bhuyan & Mallick (2015)	Yes	Partly (contract status)	-	-	Partly (regular vs contract)	-
Karba (2026)	Yes	-	-	-	Yes	-
Proposed study (planned)	Yes	Yes	Yes (multi-source)	Distinguished	Yes	Yes

Note: Yes = measured; Partly = measured indirectly or through an allied construct; - = not measured.

The contribution of the paper is a provisional, corpus-specific integration rather than a demonstration of how the constructs are related. It specifies discriminant boundaries that allow the three constructs to be tested together without built-in overlap; separates direct competency evidence from self-efficacy and commitment evidence; sets Indian findings beside meta-analytic benchmarks without treating them as comparable; and proposes category-specific hypotheses, with measurement safeguards, a clustered design, a simulation-based power analysis and an ethics protocol, through which they can be tested.

10.2 Revised conceptual model

The proposed model is organised in three levels (Figure 8); its paths are hypotheses derived from the review, not established relationships. Level 1 specifies direct associations: economic security and professional competency with job satisfaction, and economic security with competency. Level 2 specifies moderating effects: employment category, a four-level institutional moderator (regular government, contractual government, aided and private unaided), on each of the two satisfaction paths, and economic security, a continuous individual-level moderator, on the competency-satisfaction path. Level 3 specifies exploratory mediating effects of recognition, professional growth and work environment on the competency-satisfaction path, estimated alongside the direct path. A reciprocal relationship between economic security and competency, and the possibility that satisfaction precedes competency, are excluded from the cross-sectional model and reserved for longitudinal research.

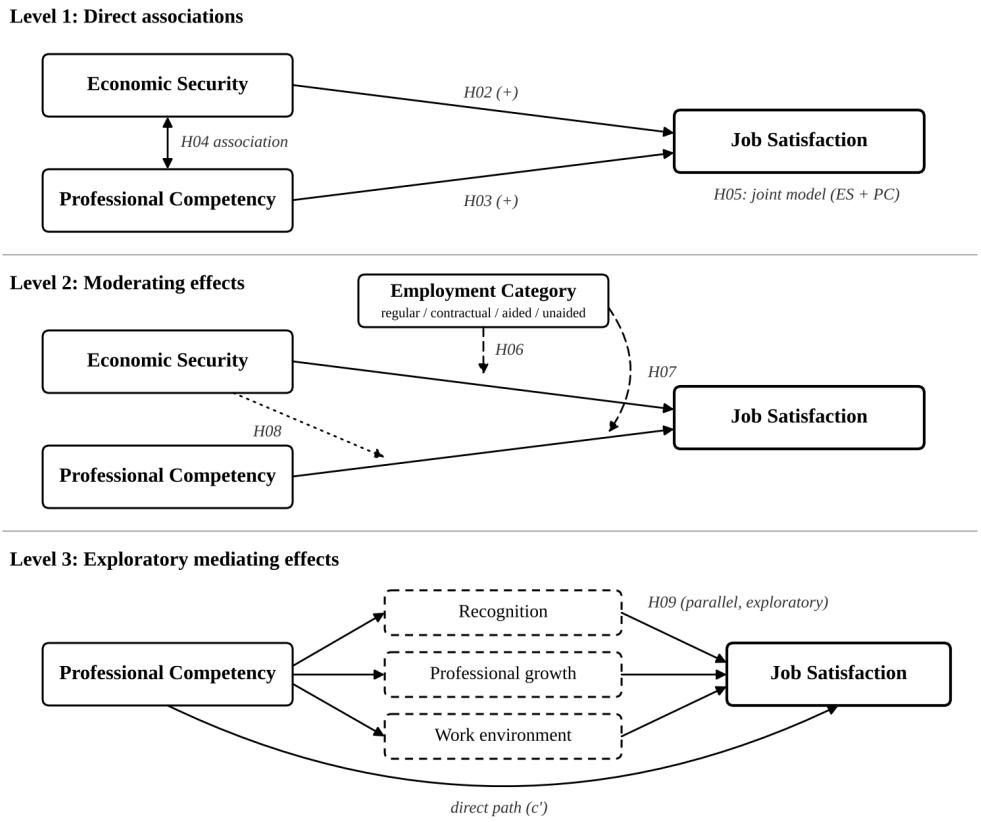


Figure 8. Proposed three-level conceptual model with hypothesis labels (H02 to H09).

Note: Arrows denote hypothesised associations, not established causal effects. H01, a comparison of category means on the three constructs, is not a path and is therefore not drawn; H05 is the joint estimation of the two Level 1 satisfaction paths, and H09 tests the three indirect paths through the mediators.

10.3 Theoretical basis and operational definitions of the mediators

The three mediators are retained as exploratory. Recognition, the perceived acknowledgement of a teacher's work by school leaders, management, colleagues and the community, is proposed because competent teaching is more likely to be noticed and acknowledged, and recognition is a motivator in Herzberg's framework. Professional growth, the perceived availability of and access to professional development and career advancement, is proposed because competent teachers may be better positioned to take up such opportunities, and growth is likewise a motivator. Work environment, the perceived adequacy of collegial support, leadership and resources, is proposed on the basis of the job demands-resources model (Demerouti et al., 2001; Skaalvik and Skaalvik, 2018). The three are treated as distinct, parallel mediators estimated simultaneously, so that the indirect association through each is estimated while controlling for the others. Because mediation estimated from cross-sectional data can be seriously biased (Maxwell and Cole, 2007), and the temporal order of competency, the mediators and satisfaction is uncertain (see 'Related evidence: Teacher self-efficacy'), the mediation analysis is exploratory and descriptive: indirect associations will be reported as patterns of covariation consistent or inconsistent with the proposed mechanisms, not as evidence that the mechanisms operate. Distinguishing the mechanisms would require longitudinal data with at least

three waves, so that competency, the mediators and satisfaction are measured in temporal sequence, or designs in which recognition or growth opportunities change independently of competency.

10.4 Hypotheses and analytical strategy

Table 10 aligns each path in Figure 8 with a null hypothesis, the direction expected under the theory reviewed above, and an analytical procedure. Directional expectations are stated so that results can be read against theory; the null hypotheses are tested two-tailed. Because the design is cross-sectional, all estimates will be interpreted as associations, not causal effects.

Table 10. Hypotheses, expected directions and analytical strategy.

No.	Null hypothesis	Expected direction	Proposed technique and checks
H01	There is no significant multivariate difference among the four employment categories on job satisfaction, economic security and professional competency.	Regular government higher than contractual and private unaided on satisfaction and security; no directional expectation for competency	Multilevel model with school random intercept (one-way MANOVA, Pillai's trace, as a descriptive check); follow-up comparisons with Holm-Bonferroni correction (Holm, 1979); effect sizes; interpreted only where scalar invariance holds
H02	There is no significant relationship between economic security and job satisfaction.	Positive; smaller than published facet-based estimates	Multilevel regression with the prespecified confounder set (Section 10.4); salary band not adjusted, being a component of economic security; sensitivity analysis adding and removing each covariate group
H03	There is no significant relationship between professional competency and job satisfaction.	Positive; weaker for principal-rated than for self-rated competency	Pearson correlation, computed separately for self-rated and principal-rated competency
H04	There is no significant relationship between economic security and professional competency.	Weak in government categories; positive in private unaided schools	Pearson correlation within each category (association only)
H05	Economic security and professional competency, entered jointly, do not explain significant variance in job satisfaction beyond control variables.	Both contribute unique variance	Hierarchical regression: Block 1 controls; Block 2 both predictors; change in R squared and squared semi-partial correlations; tolerance and VIF
H06	Employment category does not moderate the economic security-job satisfaction relationship.	Stronger in contractual and private unaided than in regular government employment	Category × economic security interaction (3 df, mean-centred) in a multilevel model with cluster-robust small-sample inference; simple slopes by category; multi-group SEM after metric invariance is established
H07	Employment category does not moderate the competency-job satisfaction relationship.	Stronger in regular government employment, where security is assured	Category × competency interaction (3 df, mean-centred) in a multilevel model; simple slopes by category; tested separately with self, principal and observer ratings

No.	Null hypothesis	Expected direction	Proposed technique and checks
H08	Economic security does not moderate the competency-job satisfaction relationship.	Positive interaction: competency relates more strongly to satisfaction where security is higher	Competency × economic security interaction within categories; Johnson-Neyman interval
H09 (exploratory)	Recognition, professional growth and work environment do not mediate the competency-job satisfaction relationship.	Positive indirect associations through recognition and growth	Parallel mediation in SEM with the direct path retained; indirect effects with cluster bootstrap by school (5,000 resamples); exploratory and descriptive only (Section 10.3)

H05 differs from H02 and H03 in that it estimates the unique, jointly controlled contribution of each predictor rather than its bivariate association. H06 and H07 test whether the institutional regime, a categorical moderator, changes the slopes, whereas H08 tests whether an individual's level of economic security conditions the competency path within a given category.

Covariates will be selected before data collection on theoretical grounds rather than by statistical significance. Following the disjunctive cause criterion (VanderWeele, 2019), a variable will be adjusted for if it is a plausible cause of economic security, of competency or of satisfaction, and is not plausibly a consequence of them; variables that may lie on the pathway, such as recognition, or that form part of a construct, such as salary as a component of security, will not be adjusted for in estimating total associations. The candidate set comprises teacher age, gender, years of experience, highest qualification, subject, school level, district, rural or urban location, and household size and number of earners. The rationale for each will be documented in a directed acyclic graph registered with the analysis plan before data collection. Because teachers are nested in schools, all models will include a school random intercept or cluster-robust standard errors with a small-sample correction (Pustejovsky and Tipton, 2018).

10.5 Sample and statistical power

The hypotheses will be tested on a two-stage stratified sample of secondary and senior secondary teachers in Sri Ganganagar, Hanumangarh and Bikaner districts of Rajasthan. The school sampling frame will be drawn from UDISE+ records for the three districts and stratified by management type (government, government-aided and private unaided) and district; within each sampled school, all eligible teachers in the relevant category will be listed from staff records and invited. Contractual government teachers are sampled within government schools, so government schools contribute both regular and contractual teachers. The target is about 800 responding teachers in about 140 schools: 50 government schools contributing about four regular and four contractual teachers each, 40 aided schools contributing about five teachers each, and 50 private unaided schools contributing about four teachers each. Assuming a response rate of about 70%, to be checked in the pilot, about 200 schools will be approached and about 1,150 teachers invited. The numbers of eligible schools and teachers in each stratum will be confirmed from the frame before sampling.

The power analysis at the previous revision, a noncentral F calculation of the kind implemented in G*Power (Faul et al., 2009), treated teachers as independent and addressed only one interaction. Power was therefore re-estimated by Monte Carlo simulation (1,000 replications per scenario; Arend and Schäfer, 2019), generating data with school-level clustering of satisfaction (intraclass correlation .05, .10 or .20) and of economic security (.20), and testing the three-degree-of-freedom category × economic security interaction (H06) with cluster-robust standard errors (Cameron and Miller, 2015).

Table 10b summarises the results; the code and full output are provided as Supplementary File S2. With the proposed design, power for the interaction is about .83 to .86 when the category-specific slopes differ moderately ($f^2 \approx .016$) and above .97 when they differ more ($f^2 \approx .027$), but only about .35 when they differ slightly ($f^2 \approx .004$). When slopes also vary randomly across schools, power in the moderate scenario falls to about .78, and the Type I error rate is slightly above the nominal level (.06 to .07), so a small-sample correction will be applied (Pustejovsky and Tipton, 2018). Within a single category of 200 teachers in 50 schools, power to detect a standardised slope of .20 is about .75 to .80, falling below .80 when the intraclass correlation exceeds .05. The study is therefore adequately powered for moderate, but not small, differences between categories, and within-category estimates will be reported with confidence intervals rather than relied upon for significance tests. Comparable simulations will be run for H07 and H08 once pilot estimates of variances and intraclass correlations are available, and the multi-group measurement models will be checked for convergence and for the power of invariance tests in the same way.

Table 10b. Simulated power for the category × economic security interaction and a within-category slope.

Scenario	Effect size	ICC .05	ICC .10	ICC .20
800 teachers, 140 schools; slopes differ slightly (.10, .25, .15, .25)	$f^2 \approx .004$	.35	.35	.37
800 teachers, 140 schools; slopes differ moderately (.05, .30, .15, .35)	$f^2 \approx .016$	.83	.86	.83
800 teachers, 140 schools; slopes differ more (.00, .35, .15, .40)	$f^2 \approx .027$	.98	.98	.98
700 teachers, 120 schools (aided category 100); moderate	$f^2 \approx .016$	.81	.83	.82
Moderate, with random slopes across schools (SD .10 / .15)	$f^2 \approx .016$	-	.84 / .78	-
Within one category (200 teachers, 50 schools); slope .20	-	.80	.77	.75
Type I error rate (equal slopes)	0	-	.06	.06
Note: slopes are standardised and listed in the order regular, contractual, aided, private unaided; cluster-robust (CR1) standard errors; ICC = intraclass correlation of job satisfaction.				

Note: 1,000 replications per cell; $\alpha = .05$.

If a category yields fewer than 150 responding teachers, it will not be merged with another category, because the differences between categories motivate the study. Instead, recruitment in that stratum will be extended to additional schools in the same districts; if a shortfall remains, the category will be retained in all models, its estimates will be reported with confidence intervals and flagged as imprecise, multi-group measurement models, which need adequate samples in each group (Kline, 2023), will be replaced by the alignment method (Asparouhov and Muthén, 2014), and category-specific hypotheses for that group will be treated as exploratory. Measurement models will be validated as described in the sections 'Discriminant boundaries and the problem of construct overlap' and 'Measurement safeguards for the proposed study' before structural paths are estimated.

10.6 Ethical safeguards

The proposed study involves principal ratings and access to employment records, which could expose teachers, particularly those in small contractual or private-school groups, to identification or to perceived consequences for their employment. The following protocol will be submitted for approval to the university's institutional ethics committee before data collection, and follows established guidance for educational research (British Educational Research Association, 2018).

Permission and voluntary participation. Permission will be sought from the district education authorities and from each school's management. Each teacher will receive a participant information sheet in Hindi and English and will give written informed consent separately for the questionnaire, for the principal's rating, for classroom observation and for linkage of school records. Teachers may decline any component, or withdraw before data are anonymised, without giving reasons; principals and managers will not be told which teachers took part or declined.

Separation from employment decisions. Principals will be asked to agree in writing that ratings made for the study will not be used for appraisal, contract renewal, increments or any other employment decision. Teachers will not see the principal's rating of them, and principals will not see teachers' responses. Principal ratings and observation records will be collected directly by the research team and will not be returned to the school.

Data protection and linkage. Names and staff identifiers will be replaced by study codes at collection. The key linking codes to identities will be held separately by the principal investigator in encrypted form and destroyed once teacher, principal and record data have been linked. Only the record fields needed for the study (contract type, salary band and benefit entitlements) will be extracted, and data will be stored on encrypted devices accessible only to the research team.

Reporting safeguards. Results will be reported only in aggregate. No school, or combination of district and category with fewer than ten teachers, will be reported separately, and schools will not be described in ways that identify them. Free-text responses will be checked for identifying details before quotation.

11 Educational and policy implications

The synthesis carries differentiated implications for stakeholders (Table 11), offered as propositions consistent with the reviewed evidence and pending empirical confirmation.

Table 11. Implications for key stakeholders.

Stakeholder	Implication
State governments and regulators	Consider minimum salary norms, written contracts and social security coverage for private unaided school teachers
School managements	Monitor job satisfaction as an organisational outcome; consider aligning increments with NPST-based appraisal
Teacher education institutions	Embed NPST competency domains in pre-service and in-service curricula
Policy bodies (NCTE, SCERTs)	Examine mechanisms for extending CPD access and NPST career stages to private schools

Stakeholder	Implication
Researchers	Use non-overlapping and multi-source measures, control common method variance, distinguish competency from self-efficacy and commitment, separate the four employment categories, and test moderation and mediation with adequate power

12 Conclusion

The reviewed evidence suggests that teachers' job satisfaction, economic security and professional competency are related in ways that are contingent on measurement and context, but it does not show that they form an interdependent system; that proposition is a framework for testing. Economic security is positively associated with satisfaction in the reviewed sources, but mixed-occupation meta-analyses of pay level and of job security cannot be compared to rank its dimensions, and some Indian estimates come from satisfaction instruments that include pay and security facets. Direct evidence on competency is sparse, mixed and mostly available only at abstract level; evidence on self-efficacy shows a positive association but leaves the direction open; and evidence on commitment cannot substitute for either. Differences in satisfaction between government and private teachers, and between regular and contractual teachers, rest on few studies with inconsistent results, whereas national labour force data document large sectoral gaps in remuneration, contractual security and social protection. Evidence from one Indian state shows that pay tracks teacher effectiveness in private but not public schools, and that adding lower-paid contract teachers improved learning at the school level. Whether such patterns amount to a gap between capability and reward that NEP 2020 and the NPST could close, and whether those provisions operate beyond government schools, are empirical questions. The proposed study is designed to examine them with multi-source measures, a clustered sample, explicit power calculations and ethical safeguards, while recognising that a cross-sectional design can describe associations but cannot establish mechanisms.

12.1 Limitations

This paper is a review and presents no primary data. It is an integrative review of selected literature, not a systematic review: bibliographic databases were not searched with a comprehensive Boolean strategy; web searches screened only the first page of results; several queries were known-item searches; Stream 5 sources were identified by expert judgement; and the citation-directed index search in Stream 6 was run against the manuscript's own claims, which may favour confirming sources. Stream 6 nevertheless identified nine relevant sources that the earlier streams had missed, several with conflicting or unsupported results, which indicates that a structured search of Scopus, Web of Science, ERIC, Shodhganga and Indian repositories would probably find further studies, particularly Indian theses and articles in regional outlets, and could change the conclusions on sector and contract differences. Four eligible records could not be included because their results were unavailable. Seventeen of the 32 empirical studies could be appraised only at abstract, record or secondary-report level, and the appraisals of newly retrieved full texts were made from open versions (working papers or accepted manuscripts) that may differ from the published versions. The meta-analytic benchmarks are drawn mainly from non-teacher and non-Indian samples. Several studies measure allied constructs or teacher effectiveness rather than competency itself, two comparative studies report statistics that are inconsistent with their own descriptive data, and one study uses a non-teacher sample. Coefficients drawn from different studies are not directly comparable and are presented descriptively.

12.2 Directions for future research

Future research should update this review through a systematic search of Scopus, Web of Science, ERIC and Shodhganga; develop and validate an NPST-aligned competency measure that combines self and principal ratings, and a five-dimension economic security measure with demonstrated discriminant validity; separate regular, contractual, aided and private unaided teachers in sampling; test moderation within a multilevel framework with power checked by simulation; adopt cross-lagged panel designs with at least three waves to examine the direction of the competency-satisfaction and competency-security associations and the proposed mediating mechanisms; and incorporate qualitative inquiry into the lived experience of precarity.

References

[1] Abanto Berrospi, J. O., Ugarte Rojas, L. E., & Choque Quispe, S. I. (2026). La influencia de la remuneración en la satisfacción laboral docente: Una revisión sistemática [The influence of remuneration on teacher job satisfaction: A systematic review]. *Revista Simón Rodríguez, 6*(12). https://doi.org/10.62319/simonrodriguez.v.6i12.192

[2] Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 267-299). Academic Press. https://doi.org/10.1016/S0065-2601(08)60108-2

[3] Apat, B., & Swain, P. (2023). Precarity in the lives of contract teachers: A qualitative study from Odisha, India. Frontiers in Education, 8, 1043557. https://doi.org/10.3389/feduc.2023.1043557

[4] Arend, M. G., & Schäfer, T. (2019). Statistical power in two-level models: A tutorial based on Monte Carlo simulation. Psychological Methods, 24(1), 1-19. https://doi.org/10.1037/met0000195

[5] Asparouhov, T., & Muthén, B. (2014). Multiple-group factor analysis alignment. Structural Equation Modeling: A Multidisciplinary Journal, 21(4), 495-508. https://doi.org/10.1080/10705511.2014.919210

[6] Assaf, J., & Antoun, S. (2024). Impact of job satisfaction on teacher well-being and education quality. *Pedagogical Research, 9*(3), em0204. https://doi.org/10.29333/pr/14437

[7] Baer, J. S., & Velasco, M. S. (2022). Teaching competencies and professional commitment: Relationship to job satisfaction of senior high school teachers. BOHR International Journal of Advances in Management Research, 1(1), 81-85. https://www.bohrpub.com/journals/BIJAMR/BIJAMR_20221110

[8] Becker, G. S. (1964). Human capital: A theoretical and empirical analysis, with special reference to education. *National Bureau of Economic Research*.

[9] Bhuyan, S., & Mallick, B. P. (2015). Job satisfaction of contract teachers and regular teachers in relation to gender at secondary level. *Scholarly Research Journal for Interdisciplinary Studies*, 2274-2282.

[10] Blömeke, S., Jentsch, A., Ross, N., Kaiser, G., & König, J. (2022). Opening up the black box: Teacher competence, instructional quality, and students' learning progress. Learning and Instruction, 79, 101600. https://doi.org/10.1016/j.learninstruc.2022.101600

[11] Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. Journal of Applied Psychology, 35(5), 307-311. https://doi.org/10.1037/h0055617

[12] British Educational Research Association. (2018). Ethical guidelines for educational research (4th ed.). *BERA*.

[13] Burić, I., & Kim, L. E. (2021). Job satisfaction predicts teacher self-efficacy and the association is invariant: Examinations using TALIS 2018 data and longitudinal Croatian data. Teaching and Teacher Education, 105, 103406. https://doi.org/10.1016/j.tate.2021.103406

[14] Cameron, A. C., & Miller, D. L. (2015). A practitioner's guide to cluster-robust inference. Journal of Human Resources, 50(2), 317-372. https://doi.org/10.3368/jhr.50.2.317

[15] Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. Journal of School Psychology, 44(6), 473-490. https://doi.org/10.1016/j.jsp.2006.09.001

[16] Centre of Excellence in Teacher Education. (2023). Teachers in India: A snapshot from the Periodic Labour Force Survey (Background paper 2, State of Teachers, Teaching and Teacher Education Report for India 2023; P. *M. Sarangapani*, K. Goyal, M. Ramchand & J. Bawane). Tata Institute of Social Sciences. https://archive-cete.tiss.ac.in/dataset/5cfd02cc-a33a-4d74-883f-3cc1dcbb20e8/resource/9ea90321-302d-4dc4-965e-d761573958a4/download/sottter_bp2_plfs.pdf

[17] Chudgar, A., & Sakamoto, J. (2021). Similar work, different pay? Private school teacher working conditions in India. International Journal of Educational Development, 86, 102478. https://doi.org/10.1016/j.ijedudev.2021.102478

[18] Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. Journal of Applied Psychology, 86(3), 499-512. https://doi.org/10.1037/0021-9010.86.3.499

[19] Dogar, I. A., Afzal, S., Ali, M. A., Haider, N., & Asmat, A. (2015). Job satisfaction of physicians and teachers: Regular verses contract basis jobs. The Professional Medical Journal, 22(11), 1525-1530. https://doi.org/10.29309/TPMJ/2015.22.11.2445

[20] Enders, C. K. (2022). Applied missing data analysis (2nd ed.). *Guilford Press*.

[21] Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. Behavior Research Methods, 41(4), 1149-1160. https://doi.org/10.3758/BRM.41.4.1149

[22] Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39-50. https://doi.org/10.1177/002224378101800104

[23] Geddam, S., Deepthi, D. P., & Jeyavel, S. (2023). Salient stressors of teachers employed in private schools in Andhra Pradesh, India. *International Journal of Learning, Teaching and Educational Research, 22*(5). https://doi.org/10.26803/ijlter.22.5.29

[24] Gupta, R., & Mir, B. A. (2012). Dynamics of job-satisfaction and teaching-competency among secondary school teachers: A case study. *Science, Technology and Management Journal of AISECT University, 1*(2). https://gnanaganga.inflibnet.ac.in:8443/jspui/handle/123456789/7042

[25] Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43(1), 115-135. https://doi.org/10.1007/s11747-014-0403-8

[26] Herzberg, F., Mausner, B., & Snyderman, B. B. (1959). The motivation to work. *John Wiley & Sons*.

[27] Holm, S. (1979). A simple sequentially rejective multiple test procedure. Scandinavian Journal of Statistics, 6(2), 65-70.

[28] Hong, Q. N., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., Dagenais, P., Gagnon, M.-P., Griffiths, F., Nicolau, B., O'Cathain, A., Rousseau, M.-C., Vedel, I., & Pluye, P. (2018). The Mixed Methods Appraisal Tool (MMAT) version 2018 for information professionals and researchers. Education for Information, 34(4), 285-291. https://doi.org/10.3233/EFI-180221

[29] House, R. J., & Wigdor, L. A. (1967). Herzberg's dual-factor theory of job satisfaction and motivation: A review of the evidence and a criticism. Personnel Psychology, 20(4), 369-389.

[30] Hur, H. (2022). Job security matters: A systematic review and meta-analysis of the relationship between job security and work attitudes. Journal of Management & Organization, 28(5), 925-955. https://doi.org/10.1017/jmo.2019.3

[31] Jarvis, C. B., MacKenzie, S. B., & Podsakoff, P. M. (2003). A critical review of construct indicators and measurement model misspecification in marketing and consumer research. Journal of Consumer Research, 30(2), 199-218. https://doi.org/10.1086/376806

[32] Judge, T. A., Piccolo, R. F., Podsakoff, N. P., Shaw, J. C., & Rich, B. L. (2010). The relationship between pay and job satisfaction: A meta-analysis of the literature. Journal of Vocational Behavior, 77(2), 157-167. https://doi.org/10.1016/j.jvb.2010.04.002

[33] Kalleberg, A. L. (1977). Work values and job rewards: A theory of job satisfaction. American Sociological Review, 42(1), 124-143. https://doi.org/10.2307/2117735

[34] Kanwal, A., Kamran, F., & Rafiq, S. (2023). Perceptions of teachers on government school privatization in Punjab, Pakistan. Gomal University Journal of Research, 39(4), 404-419. https://doi.org/10.51380/gujr-39-04-02

[35] Karba, A. (2026). Job satisfaction and occupational stress between private and public-school teachers in the context of adjustment. *Journal of Psychology and Social Sciences, 4*(3). https://doi.org/10.61994/jpss.v4i3.2144

[36] Kaushik, N. (2026). Comparative study of job satisfaction of school teachers. *International Journal for Multidisciplinary Research, 8*(5), Article IJFMR260588284. https://www.ijfmr.com/research-paper.php?id=88284

[37] Kingdon, G. G. (2020). The private schooling phenomenon in India: A review. Journal of Development Studies, 56(10), 1795-1817. https://doi.org/10.1080/00220388.2020.1715943

[38] Kingdon, G. G., & Sipahimalani-Rao, V. (2010). Para-teachers in India: Status and impact. Economic and Political Weekly, 45(12), 59-67.

[39] Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. Journal of Educational Psychology, 102(3), 741-756. https://doi.org/10.1037/a0019237

[40] Kline, R. B. (2023). Principles and practice of structural equation modeling (5th ed.). *Guilford Press*.

[41] Krishnaswamy, D., Jagannarayan, N., Kannan, A., & Uma, R. (2026). Economic security and job satisfaction among government school teachers in India: An exploratory mixed-methods study through the lens of Human Capital Theory. *International Journal of Economic Practices and Theories*, 4006-4015. https://doi.org/10.52783/ijept.613

[42] Kumar, C. A., & Kayalvizhi, R. (2022). Relationship between professional commitment and job satisfaction of higher secondary teachers. *International Journal of Enhanced Research in Educational Development, 10*(6).

[43] Kumari, J. (2018, January). *Analysis of work and employment conditions of contractual teachers in India*. NMIMS Journal of Economics and Public Policy (University Day Special Issue). https://epp-journal.nmims.edu/2018/01/analysis-of-work-and-employment-conditions-of-contractual-teachers-in-india

[44] Lavanya, M., Pradeep, M. V. M., Anantharaman, V. V., & Logaraj, M. (2024). Perceived stress among private school teachers in Chengalpattu district, Tamil Nadu, India: A cross-sectional study. Cureus, 16(10), e71848. https://doi.org/10.7759/cureus.71848

[45] Lemos, R., Muralidharan, K., & Scur, D. (2024). Personnel management and school productivity: Evidence from India. The Economic Journal, 134(661), 2071-2100. https://doi.org/10.1093/ej/uead112

[46] Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297-1349). Rand McNally.

[47] Mahajan, G. (2016). Job satisfaction of school teachers in relation to their gender and mode of appointment. Learning Community, 7(1), 95-99. https://doi.org/10.5958/2231-458X.2016.00010.5

[48] Maxwell, S. E., & Cole, D. A. (2007). Bias in cross-sectional analyses of longitudinal mediation. Psychological Methods, 12(1), 23-44. https://doi.org/10.1037/1082-989X.12.1.23

[49] MetLife. (2012). The MetLife survey of the American teacher: Teachers, parents and the economy. *MetLife*, Inc. (Survey conducted by Harris Interactive)

[50] Ministry of Education. (2020). National Education Policy 2020. *Government of India*. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

[51] Ministry of Education. (2025). Report on Unified District Information System for Education Plus (UDISE+) 2024-25. *Department of School Education and Literacy*, Government of India.

[52] Muralidharan, K., & Sundararaman, V. (2013). Contract teachers: Experimental evidence from India (NBER Working Paper No. 19440). National Bureau of Economic Research. https://doi.org/10.3386/w19440

[53] Natarajan, N., Newsham, A., Rigg, J., & Suhardiman, D. (2022). A sustainable livelihoods framework for the 21st century. World Development, 155, 105898. https://doi.org/10.1016/j.worlddev.2022.105898

[54] National Council for Teacher Education. (2023). National Professional Standards for Teachers (NPST): Guiding document. *NCTE*, Government of India. https://ncte.gov.in/website/PDF/NPST/NPST-Book.pdf

[55] OECD. (2020). TALIS 2018 results (Volume II): Teachers and school leaders as valued professionals. *OECD Publishing*. https://doi.org/10.1787/19cf08df-en

[56] Parcerisa, L., Verger, A., Pagès, M., & Browes, N. (2022). Teacher autonomy in the age of performance-based accountability: A review based on teaching profession regulatory models (2017-2020). Education Policy Analysis Archives, 30, 1-29. https://doi.org/10.14507/epaa.30.6204

[57] Parua, M. (2021). Organizational climate, job satisfaction and teaching competency of secondary school teachers [Doctoral thesis, Adamas University]. *Shodhganga*. http://hdl.handle.net/10603/397932

[58] Peng, M. Y.-P., Chen, C.-C., & Yen, H.-Y. (2019). A comparative study of the relationship among antecedents and job satisfaction in Taiwan and mainland China: Employability as mediator. International Journal of Environmental Research and Public Health, 16(14), 2613. https://doi.org/10.3390/ijerph16142613

[59] Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. Journal of Applied Psychology, 88(5), 879-903. https://doi.org/10.1037/0021-9010.88.5.879

[60] Pustejovsky, J. E., & Tipton, E. (2018). Small-sample methods for cluster-robust variance estimation and hypothesis testing in fixed effects models. Journal of Business & Economic Statistics, 36(4), 672-683. https://doi.org/10.1080/07350015.2016.1247004

[61] Putnick, D. L., & Bornstein, M. H. (2016). Measurement invariance conventions and reporting: The state of the art and future directions for psychological research. Developmental Review, 41, 71-90. https://doi.org/10.1016/j.dr.2016.06.004

[62] Sahito, Z., & Vaisanen, P. (2020). A literature review on teachers' job satisfaction in developing countries: Recommendations and solutions for the enhancement of the job. Review of Education, 8(1), 3-34. https://doi.org/10.1002/rev3.3159

[63] Sharma, S., & Agarwal, D. K. (2025). Study of awareness of teachers towards New Education Policy 2020. International Journal of Research - GRANTHAALAYAH, 13(5), 268-272. https://doi.org/10.29121/granthaalayah.v13.i5.2025.6223

[64] Sheokand, U. (2019). A comparative study of job satisfaction among primary school teachers working in government and private schools in Kaithal District Haryana [Doctoral thesis, Panjab University]. *Shodhganga*. http://hdl.handle.net/10603/317268

[65] Shukla, S. (2014). Teaching competency, professional commitment and job satisfaction: A study of primary school teachers. IOSR Journal of Research & Method in Education, 4(3), 44-64.

[66] Singh, S. P. (2023). Job satisfaction among teachers: A comparative study of Vinoba Bhave University, Hazaribag (Jharkhand) and Kolhan University, Chaibasa (Jharkhand). *International Journal of Creative Research Thoughts, 11*(12), i113-i131.

[67] Skaalvik, E. M., & Skaalvik, S. (2018). Job demands and job resources as predictors of teacher motivation and well-being. Social Psychology of Education, 21(5), 1251-1275. https://doi.org/10.1007/s11218-018-9464-8

[68] Spector, P. E. (1997). Job satisfaction: Application, assessment, causes, and consequences. *SAGE Publications*.

[69] Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. Journal of Occupational Health Psychology, 7(3), 242-264. https://doi.org/10.1037/1076-8998.7.3.242

[70] UNESCO. (2021). No teacher, no class: State of the education report for India 2021. *UNESCO New Delhi*. https://unesdoc.unesco.org/ark:/48223/pf0000379171

[71] VanderWeele, T. J. (2019). Principles of confounder selection. European Journal of Epidemiology, 34(3), 211-219. https://doi.org/10.1007/s10654-019-00494-6

[72] Wartenberg, G., Aldrup, K., Grund, S., & Klusmann, U. (2023). Satisfied and high performing? A meta-analysis and systematic review of the correlates of teachers' job satisfaction. *Educational Psychology Review, 35*(4), Article 114. https://doi.org/10.1007/s10648-023-09831-4

[73] Whittemore, R., & Knafl, K. (2005). The integrative review: Updated methodology. Journal of Advanced Nursing, 52(5), 546-553. https://doi.org/10.1111/j.1365-2648.2005.03621.x

[74] Wiggs, N. B., Reddy, L. A., Kettler, R., Hua, A., Dudek, C., Lekwa, A., & Bronstein, B. (2022). Convergence between teacher self-report and school administrator observation ratings using the Classroom Strategies Assessment System. *Assessment for Effective Intervention*. https://doi.org/10.1177/15345084221112858

[75] Zee, M., & Koomen, H. M. Y. (2016). Teacher self-efficacy and its effects on classroom processes, student academic adjustment, and teacher well-being: A synthesis of 40 years of research. Review of Educational Research, 86(4), 981-1015. https://doi.org/10.3102/0034654315626801