South India Journal of Social Sciences, December'24, Vol. 22 - No. 4
ISSN : 0972-8945 (Print) | 3048-6165 (Online)

JOB QUALIFICATION MISMATCH IN INDIAN LABOUR MARKET AND RELATED SOCIO-ECONOMIC ISSUES: A CASE STUDY OF JAMMU DISTRICT.

Wasim Akram * **Neelam Choudhary** * *

INTRODUCTION:

The term education-occupation mismatch refers to a difference between the attained years of education of an individual and the required years of education for the occupation (Duncan & Hoffman, 1981). Few scholars have called it an education mismatch (Betti et al., 2007). Thus, the term over education is meaningful when expressed in association with one is job. In other words, an overeducated person has more educational qualifications than that required by his job (Sharma & Sharma, 2017). It has been explained in different ways, e.g., workers possessing more than the required educational skills, getting less than they expected (occupational attainment), or their shifting to a worse economic position (Tsang et al., 1985).

As a concept, it originated in 1870 (Gladwell, 2008) in a report, "Relation of Education to Insanity", by the then United States Commissioner of Education, Jarvis. He reported that about 205 cases of insanity could be identified among a total of 1,741 and that it could be attributed to "overstudy" (cited by Leuven &Oosterbeek, 2011). However, this mismatch between education and job remained unpopular, under-researched, and unaddressed for many decades. It emerged as a serious issue only in the 1970s, when the excess supply of job seekers was considered with seriousness compared to the demand for them (Freeman, 1975). In his book "The Overeducated Americans," Freeman (1975) forecasted that the surplus supply of graduates was going to stay for decades to come.

According to a recent ILO report (Bhattacharya, 2021), only fifty per cent of workers worldwide possess an educational qualification that matches their job requirements. The rest of them are either under-educated or overeducated. Thus, the report has pointed to a significant disconnect between the world of education and the world of work'. It further highlights that though substantial investment has taken place in different countries with regard to raising the level of education, in particular, that of girls, no noticeable progress

* Ph.D. Research Scholar, Department of Economics, University of Jammu,Jammu, Jammu and Kashmir, India.

* * Assistant Professor of Economics, Directorate of Distance & Online Education, University of Jammu, Jammu, Jammu and Kashmir India.

ISSN : 0972-8945 (Print) | 3048-6165 (Online)

has been achieved in 'labour market outcomes.' Moreover, in high-income countries, about 60% of the employees have a matching level of education, whereas the corresponding share of upper-middle and lower-middle income countries are 52% and 43%, respectively. Thus, many developing countries (e.g., Mexico, Pakistan, Philippines, and India) are facing overeducation (Abbas, 2008; Mehta et al., 2011).

The ILO report said, "It is now a global priority to streamline qualifications and occupational skills with a view to ensuring better employment outcomes and employability for workers and increased productivity and competitiveness for their countries. "In India, the figures are quite alarming. Only 39.6 % of the employees' qualifications match their job requirements, as compared to the average of 43 per cent for lower-middle-income countries. As far as developed countries are concerned, the figures are 55.3 %, 55.2% and 60.2% for US, UK, and Russia respectively. The 68th round of National Sample Survey on Employment and Unemployment Situation in India reported that around 68 per cent of graduates and 53 per cent of postgraduates with a background in general education and about 45 per cent of graduates or postgraduates and 51 per cent of graduate or post-graduate diploma holders with technical education fell in the category of unemployed people during 2011-12 (Sengupta, 2017).

REVIEW OF LITERATURE

Many socio-economic factors, such as gender, educational qualifications, and spatial restrictions, have been widely researched in the context of human capital (Bonnal et al., 2009). Gender plays a significant role in the likelihood of being overeducated or underemployed due to different divisions of labour at home. Married women are more likely to be overeducated because they often seek jobs locally based on their husbands' employment (Benson, 2013). This tendency enables women to balance family responsibilities, especially when their income is secondary to their husband's earnings.

Women may find themselves in female-dominated occupations traditionally requiring lower educational levels, although higher-educated women face reduced odds of this outcome (Weiss et al., 2014). Furthermore, both men and women may decline promotions or better job offers if these involve relocation or family separation, reflecting the impact of personal and family considerations on overeducation (Rasheed & Wilson, 2014). However, García and Escalonilla (2022) found that males and females have an equal probability of being overeducated.Family financial conditions also play a significant role in overqualification. Degree holders from wealthy families may avoid low-paid jobs because their families can support them financially. Conversely, degree holders from low-income families often accept mismatched jobs due to immediate financial needs (Weiss et al., 2014). Markussen et al. (2024) found that overeducation has increased among individuals from high-income families.

ISSN : 0972-8945 (Print) | 3048-6165 (Online)

A family's educational background is another predictor of overeducation among highly educated graduates. Individuals with highly educated parents or other family members are less likely to be overeducated (Chuang & Liang, 2022). However, Munsech (2020) reported that overeducation is more prevalent among employees with highly educated mothers, while fathers' educational qualifications are irrelevant in this regard.

Educational mismatches are also prevalent among specific groups, such as minorities and immigrants, who are often compelled to accept unsuitable jobs (Lu & Li, 2021). The consequences of overeducation are profound at both micro and macro levels. At the macro level, overqualification leads to mismatches between workforce skills and job requirements, affecting economic productivity and GDP (Vandeplas& Thom-Thyres, 2019). Overqualification also results in the underutilization of basic skills (Zakariya & Battu, 2013) and contributes to a significant waste of resources invested in education (Chevalier, 2003).At the individual level, overeducated employees earn lower salaries compared to their adequately educated counterparts (Leuven &Oosterbeek, 2011). Surplus education has been linked to wage penalties, with required education levels yielding higher returns (Alba-Ramírez, 1993; Conroy & Watson, 2023; Duncan & Hoffman, 1982; Hartog, 1985; Rumberger, 1987). For instance, Sun and Kim (2021) reported a 6.5% wage loss for overeducated graduates compared to adequately educated peers. Overqualified employees also experience dissatisfaction with job expectations, workplace attitudes, and promotion opportunities, which may lead to quitting (Pan et al., 2024). Martins et al. (2004) further discussed the economic implications of overqualification by analyzing the returns to education.

Objectives of the Study

1. To assess the prevalence of overeducation among employees in Jammu District.
2. To identify the factors causing overeducation among employees in the study area.
3. To explore the reasons behind their choice of current jobs.

METHODOLOGY

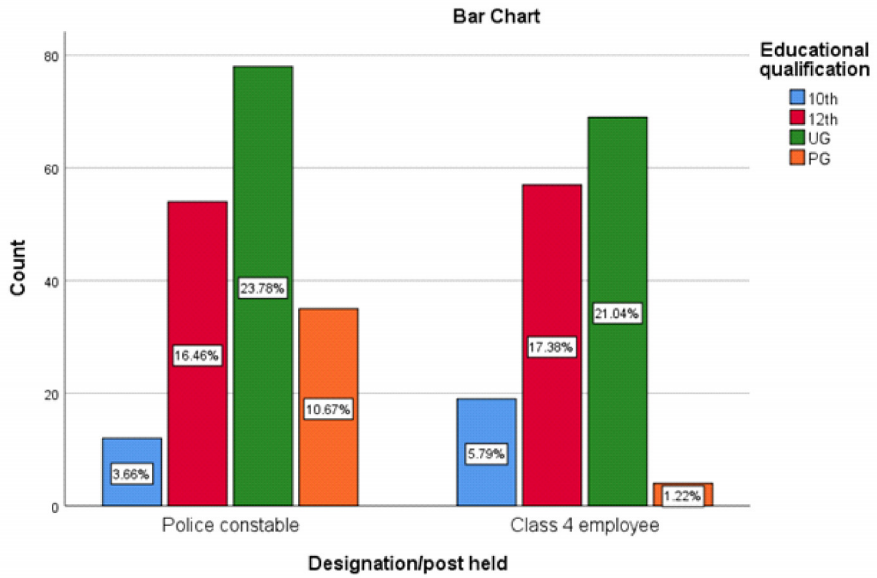
The research study is based on primary data collected within the Jammu District between October 2022 and June 2023 utilizing purposive sampling to select participants relevant to the study's focus on police constables and 4th class employees. Data collection spanned four tehsils and various institutions, including government colleges, the University of Jammu, SKUAST-Jammu, and the Civil Secretariat, where 4thclass employees are found. Data collection also extended to police constables at different police stations, women's cells, chaukis, battalions, and other establishments, specifically emphasising locations with significant numbers of police constables.

The sampling process initially considered 400 potential participants, with a deliberate focus on those who joined after the year 2000, further refining our sample to capture the

ISSN : 0972-8945 (Print) | 3048-6165 (Online)

dynamics of overeducation among relatively recent additions to the workforce. After Applying inclusion criteria and removing incomplete and unusable data, the final sample comprised 179 police constables and 152 4th class employees, totalling 331 eligible respondents. The decision to exclude certain data points was based on a thorough review of participants current job rules. Upon closer examination, it was identified that some individuals have transitioned into roles such as Head constable, clerical and laboratory assistant, which no longer fell within our sample category.

Figure 1. Education Qualification of Employees



Source: Field Survey 2022-2023

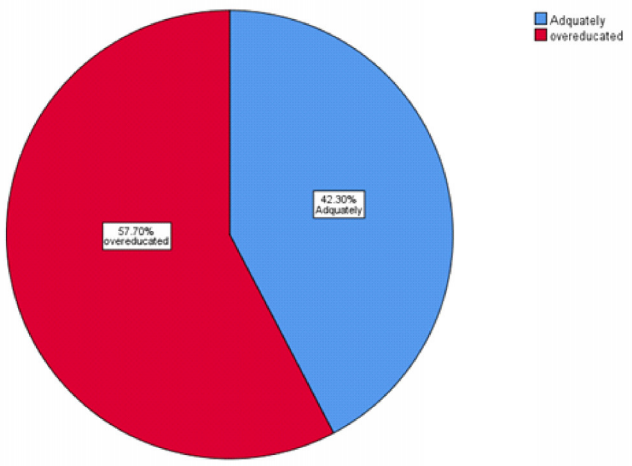
The study found a substantial number of overeducated individuals within each job category in the selected sectors. For instance, in the category of police constables, there are individuals with graduate and postgraduate qualifications, though the minimum requirement is 10th grade. In the category of Class 4 employees, although the minimum requirement is 10th grade, a notable number of people hold undergraduate and postgraduate degrees.

By comparing the required level of education with the level of education reported by the individual, respondents were classified into one of two categories: 0 = Adequately Educated and 1 = Overeducated.

It implies that those who meet the minimum requirements for their roles are adequately qualified, and those who fall into the category of overeducated or overqualified are the ones holding qualifications that surpass the minimum requisites.

ISSN : 0972-8945 (Print) | 3048-6165 (Online)

Figure 2. Status of Employees' Education



Source: Field Survey 2022-2023

The variables include the percentage distribution of respondents categorised as adequately educated and overeducated. As depicted in Figure 2, a significant proportion of the sample, accounting for 42.30%, is classified as adequately educated. These individuals possess educational qualifications that align seamlessly with the requisites of their current positions. In contrast, a substantial majority, comprising 57.70% of the sample, falls into the overeducated category, implying that a considerable segment of the workforce in the study area holds educational qualifications that surpass the necessities of their respective roles.

Predictors of overeducation

The model is formulated as follows:

$$\boldsymbol{Y_i} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1 X_i} + \boldsymbol{\varepsilon_i}$$

Where β_0 =intercept term, β_i = slope coefficients.

X_i =Set of Explanatory Variables

Y_i = Represents the binary variable indicating overqualification status (1 for overqualified, 0 for adequately qualified).

β_0 is the intercept term.

β_i are the slope coefficients.

ε_i is the disturbance term.

It is an independently distributed random variable and follows zero mean and serial independence (or non-autocorrelation) assumptions.

ISSN : 0972-8945 (Print) | 3048-6165 (Online)

As Y_i takes on either 1 or 0 values, we can describe the probability distribution of Y_i by letting

$$P_i = Prob(Y_i = 1) = Over \quad educated$$

$$1 \quad P_i = Prob(Y_i = 0) = \ Adequately\ educated$$

Estimation of the Logit Model

For estimation purposes, we write the equation as follows:

$$Li = ln\left(\frac{Pi}{1 \quad Pi}\right) = \beta_0 + \beta_1 Xi + ui$$

For running binary logistic regression, the presence of overeducation among the employees (1= over-educated, 0= Adequately educated) has been taken as the dependent variable, whereas several categorical independent variables have been included. These are gender, age, marital status, father's education status, father's occupation, mother's education status, mother's occupation, type of family, family income, dream job.

$$= \beta_0 + \beta_1 GEN_i + \beta_2 AGE_i + \beta_3 MAR_i + \beta_4 FEDU_{1i} + \beta_5 FOCC_{2i} + \beta_6 MEDU_i + \beta_7 MOCC_i + \beta_8 FAM_i + \beta_9 FINCM_{1i} + \beta_{10} DREAM + u_i$$

The dependent variable is dichotomously coded, with '1' representing instances of overeducation and '0' denoting individuals adequately educated. Binary logistic regression is used, as it is a more appropriate method when it is binary.

A brief description has been given below for each variable.

(i) Dependent variable and coding

The dependent variable, "status of overeducation," is binary (coded as 0) for adequately employed and (coded as 1) for overeducation.

(ii) Explanatory variables (independent variable) and coding

Gender (GEN) males (coded as 0) and females (coded as 1), Age (AGE) less than 35 (coded as 0) and Above 35 (coded as 1). Marital Status (MAR) married (coded as 0) and unmarried (coded as 1), Father's Educational Status (FEDU) up to 10th (coded as 0) and other sectors (coded as 1), Father's Occupation (FOCC) (0 coded) indicating employment in the government sector or now retired from service but they serviced as a government employee and (1 coded) indicating other occupations, Mother's Educational Status (MEDU) (0 coded) they have no formal education and (1 coded as) above 10th, Type of Family (FAM) (0 coded as) for nuclear families and (1 coded) for joint families, Monthly family income (FINCM) Monthly family income (coded as 0) for less than 80,000 and (1 coded) for greater than 80,000, Dream job (0 coded as) for yes and (1 coded as) for no.

ISSN : 0972-8945 (Print) | 3048-6165 (Online)

Table 1 Logistic regression of overeducation

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
75.617[a]	.304	.374

Variables in the Equation	B	S.E.	Wald	Df	Sig.	Exp (b)
(GEN)	-.455	.291	2.446	1	.118	.634
(AGE)	1.172	.326	12.918	1	.000	3.227
(MAR)	.578	.296	3.811	1	.049	1.782
(FEDU)	-.796	.331	5.763	1	.016	.451
(FOCC)	-.094	.278	.116	1	.734	.910
(MEDU)	-.237	.293	.657	1	.418	.789
(MOCC)	.348	.616	.320	1	.572	1.417
(FAM)	-.596	.285	4.372	1	.037	.551
(FINCM)	-.383	.295	1.685	1	.194	.682
(DREAM)	-.828	.309	7.177	1	.007	.437
Constant	1.228	.614	4.006	1	.045	3.416

Source: Estimation based on field survey data 2022-2023; SPSS-26 software has been used to estimate the binary logit regression model.

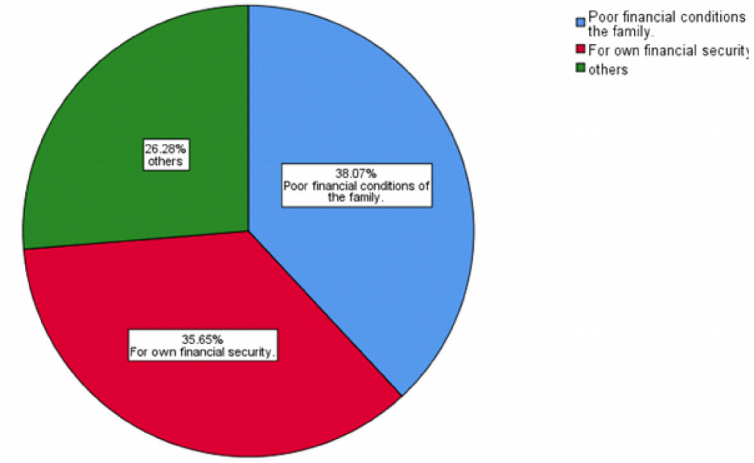
Result and Discussion

The logistic regression analysis explored predictors of overeducation among employee, with the dependent variable indicating overqualification (coded as 1) versus adequate qualification (coded as 0). The model exhibited a good fit, as evidenced by a -2 Log Likelihood of 275.617, Cox & Snell R Square of 0.304, and Nagelkerke R Square of 0.374, indicating that around 30-37% of the variance in overeducation status could be explained by the included predictors. Significant predictors included age (? = 1.172, $p < 0.001$), showing older individuals are more likely to be overeducated, and marital status (? = 0.578, $p = 0.049$), indicating unmarried individuals face a higher likelihood of overeducation. Moreover, individuals with fathers who attained higher education (? = -0.796, $p = 0.016$) and those from nuclear families (? = -0.596, $p = 0.037$) were less likely to be overeducated. Conversely,

ISSN : 0972-8945 (Print) | 3048-6165 (Online)

the absence of a career aspiration (? = -0.828, p = 0.007) was associated with higher odds of overeducation. Non-significant predictors included gender, parental occupation, mother's education and occupation, and family income.

Figure 3 Reason for taking the current job



Source: Field Survey 2022-2023

The data on the reasons for taking the current job reveals that a significant portion of respondents, 38.07%, cited poor financial conditions of the family as their primary motivation. Additionally, 35.65% indicated that their choice was driven by the need for personal financial security. Meanwhile, 26.28% of respondents selected "others" as their reason. This distribution underscores the critical role of financial circumstances in employment decisions.

CONCLUSION

The study highlights a significant prevalence of overeducation among employees, with 57.70% classified as overqualified compared to 42.30% deemed adequately educated. Key predictors of overeducation include age, marital status, father's education, and family structure, with older and unmarried individuals more likely to be overeducated. Additionally, the study found that financial constraints significantly influenced job selection, with 38.07% of respondents citing poor family financial conditions as a primary reason. This suggests that socioeconomic factors may also drive individuals toward roles that do not align with their qualifications. The findings suggest that socio-demographic factors play a crucial role in overeducation, indicating a need for policies that better align educational qualifications with job requirements, thereby optimizing workforce capabilities.

Policy Recommendations

The study's findings highlight the issue of overeducation among employees in the

ISSN : 0972-8945 (Print) | 3048-6165 (Online)

Jammu District, underscoring the need for policies that better align educational qualifications with job roles. To address this, policymakers should enhance skill development programs, improve career guidance, and promote flexible job opportunities that utilize advanced qualifications. Facilitating upward mobility through clear career advancement pathways and mentorship programs is crucial. Strengthening public-private partnerships will align educational outcomes with labour market needs, while recruitment reforms should value skills and competencies alongside formal credentials. Supporting socioeconomic stability through financial assistance and promoting lifelong learning initiatives will help employees adapt to job market changes. Regular monitoring and evaluation will ensure the effectiveness of these policies, ultimately fostering a more efficient and motivated workforce in the region.

References

1. Abbas,Q.(2008).Over-education and under-education and their effects on earnings: Evidence from Pakistan, 1998-2004. SAARC Journal of Human Resource Development, pp. 4, 109-125.
2. Bonnal,M.,Lira,C.,&Addy,S.N.(2009).Under employment and local employment dynamics: New evidence. Review of Regional Studies, 39(3), 317-335.
3. Capsada-Munsech, Q. (2020). Overeducation, skills and social background: the influence of parental education on overeducation in Spain. Compare: a journal of comparative and international education.
4. Chuang, Y. C., & Liang, C. Y. (2022). Overeducation and skill mismatch of university graduates in Taiwan. Review of Development Economics, 26(3), 1693-1712.
5. Conroy, T., & Watson, P. (2023). Overeducation, natural amenities, and entrepreneurship. Small Business Economics, 61(3), 1111-1131.
6. Fleming, C. M., & Kler, P. (2008). I'm too clever for this job: a bivariate probit analysis on over education and job satisfaction in Australia. Applied Economics,40(9),1123-1138.
7. García, D., &Escalonilla, M. (2022). University education, mismatched jobs: are there gender differences in the drivers of overeducation?. Economia Politica, 39(3), 861-902.
8. Lu,Y.,&Li,X.(2021).Verticaleducation-occupationmismatchandwageinequalitybyrace/ethnicity and Nativity among Highly Educated US Workers. Social Forces, 100(2), 706-737.
9. Markussen, S., Nareklishvili, M., & Røed, K. (2024). Overeducation and Economic Mobility.
10. Martins,P.S.andP.T.Pereira(2004).Doeseducationreducewageinequality? Quantileregressi on evidence from 16 countries.Labour Economics, 11 (3), 355-372.

ISSN : 0972-8945 (Print) | 3048-6165 (Online)

11. Pan, Z., Wang, Y., & Liu, Z. (2024). Over-Education, Job Satisfaction, and Intention to Quit: Evidence from China. Social Indicators Research, 1-21.
12. Passaretta, G., Sauer, P., Schwabe, U., &Weßling, K. (2023). The role of overeducation and horizontal mismatch for gender inequalities in labor income of higher education graduates in Europe. Research in Comparative and International Education, 18(1), 123-146.
13. Rasheed,R.,&Wilson,P.R.(2014).Overeducationandtheinfluenceofjobattributes: astudy conducted in the city of Kochi. Journal of Services Research, 14(2), 145.
14. Sengupta,S.(2017).Anexploratorystudyonjobanddemographicattributesaffecting employee satisfaction in the Indian BPO industry, Strategic Outsourcing Journal, 4 (3), 248-273.
15. Sharma,S.,&Sharma,P.(2017).Educationalmismatchanditsimpactonearnings: Evidencefrom Indian labour market. International Journal of Social Economics, p. 4 4(12), 1778-1795.
16. Sun, H., & Kim, G. (2022). The wage effects of overeducation across overall wage distribution on university graduates: incidence, heterogeneity and comparison. International Journal of Manpower, 43(5), 1144-1165.
17. Vandeplas, A.,&Thum-Thysen, A.(2019).Skills mismatch &productivity in the EU. Publications Office of the European Union.
18. Weiss,F.,Klein,M.,& Grauenhorst,T.(2014).Theeffectsofworkexperienceduringhigher education on labour market entry: Learning by doing or an entry ticket? Work, employment and
19. Zakariya, Z., & Battu, H. (2013).The effects of overeducation on multiple job satisfaction towards enhanceing individuals well-being in Malaysia. Business and Management Quarterly Review (BMQR), 4(3&4), 38-51.