HIGHER EDUCATION AND OCCUPATIONAL MISMATCH IN NAGALAND

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CHUBAIENLA

Ph.D. REGN NO. Ph.D./ECO/00179

DEPARTMENT OF ECONOMICS

SCHOOL OF SOCIAL SCIENCES

NAGALAND UNIVERSITY

LUMAMI-798627

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By

Name of Candidate: Ms. Chubaienla

Name of Supervisor: Prof. Y. Temjenzulu Jamir

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NAGALAND UNIVERSITY

(A Central University Estd. By the Act of Parliament No. 35 of 1989)

Department Of Economics

School of Social Sciences, Nagaland University, Lumami-798627, Nagaland, India

---

Dr. Y. Temjenzulu Jamir
Professor

Email: temjenzulu@nagalanduniverity.ac.in
Mobile: 8787455477

Date:

CERTIFICATE

This is to certify that the Ph.D. thesis entitled **"Higher Education and Occupational Mismatch in Nagaland"** submitted by Miss Chubaienla, Research Scholar in the Department of Economics, School of Social Sciences, Nagaland University, Lumami, bearing Registration No. Ph.D./ECO/00179 dated 20/08/2018, for the degree of Doctor of Philosophy in Economics of this University, is her original work and personal investigations. According to the best of my knowledge, this thesis has not been submitted for the award of any other degree of this university or any other university. The thesis is therefore forwarded for adjudication and consideration for the award of the Ph.D. Degree in Economics, Nagaland University.

(Prof. Y. Temjenzulu Jamir)
Supervisor and Head
Department of Economics

NAGALAND **UNIVERSITY**

(A Central University Estd. By the Act of Parliament No. 35 of 1989)

DEPARTMENT OF ECONOMICS

School of Social Sciences, Nagaland University, Lumami-798627, Nagaland, India

Date:

DECLARATION

I, Miss Chubaienla, bearing Ph.D. Registration No. Ph.D./ECO/00179 dated 20/08/2018, do hereby declare that my Ph.D. thesis entitled, **"Higher Education and Occupational Mismatch in Nagaland"** is the record of original work done by me, and that the contents of this thesis does not form the basis for award of any previous degree to me or anybody else known to the best of my knowledge. This Ph.D. thesis has not been submitted by me for any other research degree at any other University/ Institute.

This thesis is being submitted in compliance with the University Grants Commission Regulations, 2016. This thesis is being submitted to the Nagaland University, Lumami for the degree of 'Doctor of Philosophy in Economics'.

(Chubaienla)
Ph.D. Candidate

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(Chubaienla)

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(A Central University established by an Act of Parliament No.35 of 1989)
Headquarters: Lumami

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Name of Research Scholar/Student	Miss Chubaienla
Ph.D. Registration Number	Ph.D./ECO/00179
Title of Ph.D. thesis	"Higher Education and Occupational Mismatch in Nagaland"
Name & Institutional Address of the Supervisor	Y. Temjenzulu Jamir Professor, Department of Economics, Nagaland University, Lumami, Zunheboto, Nagaland, India
Name of the Department/School	Department of Economics, School of Social Sciences
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(Prof. Y. Temjenzulu Jamir)
Name & Signature of the Supervisor (With Seal):

(Chubaienla)
Name & Signature of the Scholar

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ACRONYMS

AISHE	All India Survey on Higher Education
BA	Bachelor of Arts
BCA	Bachelor of Computer Application
B.Ed.	Bachelor of Education
B. Music	Bachelor of Music
CAGR	Compound Annual Growth Rate
CIH	Central Institute of Horticulture
DM	Double Mismatch
GER	Gross Enrolment Ratio
HM	Horizontal Mismatch
ICAR	Indian Council of Agricultural Research
ICFAI	Institute of Chartered Financial Analysts of India
MCA	Master of Computer Application
M.Ed.	Master of Education
NECU	North-East Christian University
NIELIT	National Institute of Electronics and Information Technology
NIT	National Institute of Technology
NRCM	National Research Centre on Mithun
PLFS	Periodic Labour Force Survey
PS	Principal Status
SS	Subsidiary Status
VM	Vertical Mismatch

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ABSTRACT

INTRODUCTION

Based on the prevailing economic context, situations in which job requirements in terms of formal education and workers' level of education do not necessarily match are becoming increasingly common (Vermeylen et al., 2014). This phenomenon is referred to as an education-job mismatch. Karymshakov and Sulaimanova (2018) define it as "the situation where qualifications required for specific jobs do not correspond with the educational qualifications of the labour force."

Education-job mismatch is a growing concern globally. However, the nature of the mismatch whether temporary or permanent depends on various factors such as labour market fluctuations and individual choices, including the decision to accept positions for which one is overqualified. Empirical research highlights that overeducated workers often face persistent mismatches and tend to experience less favourable outcomes compared to their correctly matched counterparts. In contrast, undereducated workers may sometimes fare better in certain contexts (Büchel & Mertens, 2000). This mismatch is especially prevalent in developing countries, where rigid labour market structures hinder optimal job allocation.

OBJECTIVES OF THE STUDY

1. To study the mismatch between higher education and occupation.
2. To examine the effect of education-job mismatch on income
3. To examine the effect of education-job mismatch on job satisfaction.
4. To analyse income inequalities and its relationship with education.

HYPOTHESIS

1. There is a significant difference between education-job mismatch and income.
2. There is a significant difference between education-job mismatch and job satisfaction.
3. There is a significant difference between level of education and income inequalities.

METHODOLOGY

The study employed both primary and secondary data sources. Primary data were collected via structured, self-administered questionnaires from 450 employed individuals across three districts in Nagaland: Kohima, Mokokchung, and Tuensang using purposive stratified random sampling, with 75 respondents each from the public and private sectors in every district. Secondary data were sourced from government reports, surveys, and published materials. Analytical methods included statistical averages, percentages, CAGR, OLS and binary logistic regressions, Lorenz curve and Gini coefficient for income inequality, Garrett Ranking to assess higher education issues, Relative Importance Index to evaluate academic programme preferences, and the Job Analysis method aligned with ISCO-08 and ISCED standards to measure education-job mismatch. The data covered the period 2021–22.

SUMMARY OF THE MAIN FINDINGS

The significant insights and results derived from the analysis are given below.

1. Status of Higher Education in Nagaland

Nagaland's journey in higher education began with the establishment of Fazl Ali College in 1959, affiliated initially with Gauhati University. Post-statehood in 1963, the government expanded college infrastructure, which was later complemented by private and missionary initiatives. The state has five universities one central and four private and 77 colleges affiliated to Nagaland University, out of which 57 are privately managed. Additionally, specialized institutions such as NIELIT, NIT Nagaland, and 27 professional colleges (in fields like nursing, teacher training, law, and polytechnic) diversify academic options. From 2014 to 2024, the number of colleges grew from 61 to 71, registering a CAGR of 1.53%, with private colleges growing faster than government colleges. Kohima and Dimapur lead in college concentration, while districts like Kiphire, Zunheboto, and Longleng have only one each. Arts remains the dominant stream, followed by Commerce, Science, and Law. Notably, female enrolment exceeds male enrolment at both UG and PG levels. Teaching staff, however, declined from 573 in 2015-16 to 426 in 2022-23,

while public expenditure on higher education grew at 7% CAGR, reflecting increasing fiscal support.

2. Employment in Nagaland

Employment indicators show mixed progress. The Work Participation Rate (WPR) improved from 42.6% in 2001 to 49.2% in 2011. Rural areas show near gender parity in WPR, while urban gaps remain wide. The Labour Force Participation Rate (LFPR) stands at a high 73.3%, with diploma holders showing 100% participation. Government employment surged from 8,311 in 1964 to 97,576 in 2015, mostly concentrated in Class III and IV roles. Gender disparities persist: only 22.56% of government employees are female. Public sector jobs dominate organized employment (87,311 employees vs. 6,478 in the private sector). Dimapur and Mon have the highest unorganised worker registrations, while youth unemployment remains alarmingly high at 27.4%, especially in urban areas. Unemployment increases with education 27% for postgraduates and 26.2% for diploma holders indicating a severe education-employment mismatch.

3. Profile of the Sample Population

A total of 450 employed individuals across Kohima, Mokokchung, and Tuensang were surveyed, with equal representation from each district. Gender parity was noted in Mokokchung and Tuensang, but Kohima was male-dominated. The majority of respondents were aged between 26 and 45 years, indicating an economically active group. Educationally, 52.67% were undergraduates, 33.11% were postgraduates, and 14.22% held professional or doctoral degrees. Most respondents had academic backgrounds in social sciences and humanities. Employment was concentrated in professional and clerical jobs, with Tuensang reporting the highest share of regular employees. Average monthly income was highest in Kohima (₹33,560), followed by Mokokchung and Tuensang. Kohima also recorded the highest average work experience, indicating a more experienced labour pool.

4. Education-Job Mismatch (Descriptive Statistics)

The study found that 63.78% of respondents experienced education-job mismatch, including 52% who were overeducated and 11.78% undereducated. Horizontal mismatch was experienced by 51.78% of the sample, and 35.33% faced double mismatch. Kohima had the highest mismatch incidence across all types, followed by Mokokchung and Tuensang. These findings reveal a widespread disconnect between educational qualifications and employment role across districts, emphasizing the need for improved job alignment.

5. Factors Influencing Education-Job Mismatch

Binary logistic regression revealed that vertical mismatch is significantly influenced by gender, age, academic discipline, years of schooling, and employment type. Those in social sciences, clerical or unskilled roles, and self-employment were more likely to face mismatch. Horizontal mismatch was influenced by similar factors, but professional and married individuals reported lower mismatch. Double mismatch was strongly linked to higher years of schooling but was less likely among regular employees, public sector workers, and science graduates. Overall, mismatch patterns varied slightly by district but shared common root causes.

6. Effect of Education-Job Mismatch on Income

OLS regression analysis showed that education-job mismatches, especially overeducation and horizontal mismatch, negatively affected income. Adequate educational alignment, public sector employment, regular job status, and professional roles significantly improved income. The adjusted R^2 for Nagaland was 0.73. Kohima had the strongest model ($R^2 = 0.91$), showing steep income declines for mismatched individuals. In Mokokchung, overeducation reduced income by 0.641 times, while in Tuensang, horizontal mismatch showed a slight positive effect possibly due to income-focused job selection over academic alignment. These patterns suggest financial losses due to mismatch and highlight the need for aligning education with labour market demands.

7. Effect of Mismatch on Job Satisfaction

Only 40.22% of respondents were satisfied with their jobs. Overeducation and horizontal mismatch reduced job satisfaction significantly across districts. In Kohima, these mismatches sharply reduced odds of satisfaction, while in Mokokchung, the effects were moderate. Tuensang showed a weak correlation between mismatch and dissatisfaction, possibly due to fewer job choices. Adequate education, regular employment, and public sector jobs positively influenced satisfaction levels. These findings highlight the emotional and psychological costs of mismatch, particularly in urban areas.

8. Problems in Higher Education in Nagaland

Using Garrett Ranking, limited course offerings emerged as the most serious problem in Nagaland's higher education, followed by weak industry-academia linkage and lack of career guidance. Infrastructure and regional disparity were ranked lower. This pattern held true across all districts, pointing to a systemic issue in curriculum breadth and market relevance. Students feel ill-prepared for dynamic job markets due to outdated and narrow educational streams.

9. Factors Influencing Academic Programme Choices

Based on the Relative Importance Index (RII), the key factors influencing programme choices were academic performance, course availability, and job prospects. In Kohima and Tuensang, personal interest was a strong motivator. Mokokchung emphasized academic performance and peer influence. Across all districts, prestige or societal status held the least influence. This implies a growing pragmatism among students, who now prioritize employability and skill relevance over social image.

10. Income Inequalities in Nagaland

The study confirmed that income inequality increases with education, validating Hypothesis 3. Tuensang reported the highest Gini coefficient (35.24), indicating severe disparity, while Kohima had the lowest (30.84). Females, younger individuals, and those unmarried faced more income inequality. Higher inequality

was also seen among PhD holders and professionals, revealing that while education opens opportunities, it does not guarantee equitable income distribution. These findings point toward structural inequalities and the need for targeted policy interventions.

Policy Implications

i. Curriculum Realignment and Academic Diversification

The study identified that 63.78 per cent of respondents experienced education-job mismatch, with a substantial proportion being overeducated or placed in jobs unrelated to their academic discipline. This underscores the urgent need for curriculum realignment to reflect current labour market demands. Academic institutions should expand course offerings in applied sciences, technology, healthcare, and vocational streams, particularly in underserved districts such as Tuensang. The development of interdisciplinary programmes and the inclusion of employability-focused modules would ensure better alignment between academic training and job market requirements.

ii. Institutionalisation of Career Counselling Services

One of the prominent issues revealed by the Garrett Ranking was the absence of structured career guidance, which contributes to mismatched academic and employment decisions. It is recommended that every higher education institution in Nagaland establish a dedicated career counselling cell equipped with trained personnel. These centres should provide aptitude-based counselling, information on employment trends, and guidance on academic planning. Particular attention must be given to first-generation learners and students from rural backgrounds to ensure equity in career planning support.

iii. Equitable Development of Higher Education Infrastructure

Regional disparities in college distribution and the significant decline in teaching staff (from 573 in 2015-16 to 426 in 2022-23) necessitate focused infrastructural development. The state government should prioritise investment in

higher education institutions in districts with limited access, such as Longleng, Kiphire, and Zunheboto. This includes the establishment of new colleges, the recruitment of qualified faculty, and the provision of modern facilities. Incentives such as rural faculty allowances and digital infrastructure enhancement should be explored to attract and retain educators in remote areas.

iv. Promotion of Regular and Skilled Employment

The study established that regular employment and professional roles are positively associated with higher income and job satisfaction, whereas contractual and unskilled roles often lead to overeducation and dissatisfaction. Policymakers should develop sector-specific employment strategies, with an emphasis on generating regular, skilled employment opportunities in sectors like education, IT, Agro-processing, and public services. Initiatives such as targeted skill development programmes and government-industry employment drives can support this effort.

v. Gender and Equity-Oriented Employment Interventions

Significant gender disparities in employment (with only 22.56 per cent of government jobs held by women) and higher income inequality among females and highly educated individuals suggest the need for targeted interventions. Gender-responsive policies such as scholarships for female students, employment incentives for women in STEM fields, and quotas in government employment should be considered. Furthermore, monitoring and evaluating income disparities across gender and education levels will support the development of more inclusive economic and employment policies.

Conclusion

The study highlights an education-job mismatch in Nagaland, wherein a considerable number of educated individuals, particularly postgraduates, occupy positions inconsistent with their degrees, resulting in disparities in pay and decreased job satisfaction. The results highlight structural issues including restricted course specialisation, insufficient industry-academia connections, and poor career counselling. Vertical and horizontal mismatches are widespread throughout districts, with overeducation and field mismatch leading to decreased income and dissatisfaction. Confronting these difficulties via specific policy interventions is essential for transforming higher education in Nagaland into a more effective catalyst for equal and fulfilling employment.

CHAPTER-I

INTRODUCTION

1.1. BACKGROUND

In our constant endeavour to seek greater advancements technologically, economically and socially, the importance of higher education becomes apparent to us as a form of cultural and scientific asset. When equipped, one begins the formal function of exchanging ideas, skills and information that could aid the workforce in the dynamic hustle of job markets. It is only fitting to assert that the human capital, considered an important component of economic growth, may only be fully leveraged with proper channels that invest in continuous education sectors.

In definition, Higher education is the phase of learning that commences after completing the primary and secondary levels. Such advanced and specialised learning may be provided by universities, colleges, and professional schools that offer specialised academic and vocational programs (Ashikuzzaman, 2023). Such a segment of learning ensures that students develop the skills necessary to meet the demands of the labour market. The conceptual framework of higher education centres around the transformative journey of an individual through learning. This is attuned to the transactional nature of all social structures, where a constant interaction with the environment allows one to disseminate knowledge back to society; it is beneficial, if not integral to social progress.

Implementing strategies for uniform and accessible higher education can prove challenging for a lot of countries around the world. The International Covenant on Economic, Social and Cultural Rights (ICESC) recognizes that higher education *shall be made equally accessible to all, based on capacity, by every appropriate means, and in particular by the progressive introduction of free education* (Article 13.2.c) (United Nations, 1966). Such a resolution entails that higher education ought to be equally accessible to all, without any trace of discrimination. Some of the most common forms of inequalities in higher education stem from indirect and systemic discrimination. These can

be socio-economic differences, gender-bias, and ethnic, racial and religious backgrounds, to name a few.

With all the necessary provisions set up following international and humanitarian rule of law, the right to higher education holds tremendous significance for the development of humanity as a species that constantly seeks to ameliorate its standing within the general sphere of human and social systems. With access to higher education, an individual is empowered to specialise, innovate, and attain a sort of intellectual freedom and curiosity that not only shapes the person but allows him/her to contribute to their community and the world at large.

1.1.1. Importance of Higher Education

The benefits of having access to higher education undoubtedly open up a vast channel of prospects, ranging from personal benefits to career enhancement. Average earnings increase with higher levels of education for members of all demographic groups, for both men and women. It is also generally true of the fact that typical college graduates earn more than high school graduates, while those with advanced degrees earn two to three times as much as high school graduates. The incidence of having more educated people in a society ensures higher productivity, in addition to the commensurate economic returns to the individuals and respective societies.

To recognise the importance of higher education, one needs to consider its significance in allowing students to develop a specialisation, subjectively focusing on their field of interest and aptitude. This could better equip the students based on their orientations towards specific industries and/or professions. It also creates opportunities for upward mobility in the job sector, providing the necessary skills/qualifications for leadership roles and higher positions. Higher education provides the added benefit of furthering domain-specific knowledge, where centres of research and development incentivise the creation and innovation of new trends of thought. A study on *Employment Income Quartile in 2011 by Student's Education Level, 2002,* (Ma et al., 2016), revealed the impact of higher education in increasing the chance of adults moving up the

socioeconomic ladder, reducing the chances of poverty and reliance on public assistance. Young adults with a college degree are much more likely to be at the upper end of the income distribution than those from similar backgrounds with only a high school diploma.

1.1.2. Higher Education in India

India has a rich tapestry of intellectual significance that is portrayed through its philosophical and innovative contributions to the collective body of knowledge systems throughout the world. The country's heritage prides itself on ancient centres of learning, such as *gurukuls* and *ashrams* that attracted learners from across the globe. The Indian census of 2011 recorded a literacy rate of 74.04% while the National Statistical Commission surveyed literacy to be 77.7% in 2017–18. The literacy rate in India has always been a matter of concern, but many NGO initiatives and government ads, campaigns and programs are being held to spread awareness amongst people about the importance of literacy. With increasing effort and objectivity through reforms and governmental aids, especially towards female equality rights, India's literacy rate has shown signs of significant improvement in the past 10 years.

In the backdrop of post-independent India, the higher education system seeks to undertake an overhaul of its current structure with an expansionary resolve to establish several more centres of advanced learning throughout the country, with clear intentions of making easy and accessible routes to higher education. Private initiatives in such domains as higher education have also been supported through grants from the public exchequer (University Grants Commission, 2003) to better diversify the educational system. India is not without its share of issues in the implementation of an effective educational system, however. The crux of this problem lies in the stark gender disparity where female literacy level is 65.46% about the male literacy rate, which is over 80%. Another obstacle in the Indian higher educational setup is the constraint on infrastructure and resources across colleges and universities, coupled with a lack of quality faculty and inadequate funding for research and development, which hinders the overall educational process of students.

1.1. 3. Concept of Employment

Employment in its most fundamental aspect refers to the participation of people in the production of goods and services, in other words, being employed by an organisation or individual. The concept of employment in the state machinery serves the purpose of distributing wealth among the population, thus providing purchasing power to workers through wages. Adversely, low national employment rates are indicative of a long-lasting depression and underdevelopment within the country. It also plays a significant social function in society, enhancing one's self-esteem and fostering cooperation and productivity among individuals. The nature of a person's job is a likely determinant of his/her belonging and status in a social group.

The nature of employment has undergone a shift over the recent years with changes in societal norms, economy, and the expanding digital infrastructure. The very notion of progress has become centred on knowledge-based systems rather than the erstwhile mode of mass production. This pace of innovation in science and technology has had a considerable impact on the production process, where knowledge and information are the major determinants of economic growth (Hiraoka, 2002).

1.1.4. Employment in India

India has witnessed a high economic growth since the 1980s following the liberalisation of the economy. Some of the characteristics of the Indian labour market can be reflected in its low open unemployment rate at 2–3 per cent, which increased to about 5.8 per cent in 2019 (further declined in 2022). It is an indication that the lack of livelihood opportunities persists, which is common among developing economies, further signifying the unemployment rate of Indian youths being higher than that of adults. The Indian labour market consists of around 90 per cent of workers being informally engaged in employment (Jigeesh, 2024). The segmented nature of the Indian labour market along lines of gender, location, occupation, and social groups all pose a problem for economic integration. It should also be mentioned that India has recorded one of the lowest female labour force participation rates in the world, at around 25 per cent of the total female working-age

population in 2022 (Institute for Human Development & International Labour Organisation (ILO), 2023a).

According to the India Employment Report 2024 released by the Institute for Human Development (IHD) on labour and employment issues in partnership with the International Labour Organisation (ILO), "The youth unemployment rate has been rising over the past several decades – from 5.6 per cent in 2000 to 6.2 per cent in 2012, and then increasing threefold, to nearly 18 per cent in 2018, and reaching around 15.1 per cent in 2020", (Institute for Human Development & International Labour Organization (ILO), 2023b). Such high unemployment trends among educated youths exceed global averages, as Indian youths generally attain high levels of education; however, there are no adequate employment opportunities.

1.1.5. Education- Job Mismatch

Based on the economic scenario in general, there are "situations in which job requirements in terms of formal education and workers' level of education don't necessarily match" (Vermeylen et al., 2014). This is referred to as an education-job mismatch, outlined in a study by Karymshakov and Sulaimanova (2018), that investigates "the situation where qualifications required for specific jobs do not correspond with the educational qualifications of the labour force." Education-job mismatch is observed to be an increasing phenomenon, however, such a mismatch could either be temporary or permanent, as determined by labour market fluctuations or even workers' choice of taking up a job for which he/she is overeducated.

Empirical studies have shown that the incidence of mismatch is persistent among overeducated workers who are less successful than those of correctly allocated workers; the opposite can be true for undereducated workers (Büchel & Mertens, 2000). This scenario is most observable in developing nations where rigid labour market restrictions and scarce employment opportunities may perhaps persuade individuals to commit to their jobs and accept being mismatched for longer periods.

1.2. REVIEW OF LITERATURE

To have a deeper comprehension of the education-occupation mismatch among employees in Nagaland, it is crucial to examine how various scholars have experienced, perceived and conceptualised this phenomenon. The literature is derived from diverse and pertinent studies conducted in different regions of India and from a global perspective. This chapter provides a comprehensive explanation of the education-job mismatch, explores its causes, and its effects.

1.2.1. THEORETICAL BACKGROUND

i. Human Capital Theory

Human Capital Theory is foundational in labour economics and educational planning. Proposed by Becker (1964), it posits that education is an investment in human capabilities. Individuals enhance their productivity through formal education and training, leading to better employment opportunities and higher wages. However, this theory assumes a perfect match between skills taught in educational institutions and those demanded by employers, which is rarely the case in reality. Education-job mismatches suggest that the returns on educational investment may be lower than expected if graduates cannot find work appropriate to their level or field of study. This misalignment can reflect either a failure of the education system to align with labour market needs or broader macroeconomic and institutional failures.

ii. Signalling Theory

In contrast to Human Capital Theory, Spence's (1973) Signalling Theory argues that education does not necessarily increase productivity, but rather serves as a signal to employers about a worker's inherent abilities. Educational credentials function as a sorting mechanism in the labour market, with employers interpreting higher degrees as indicative of greater competence or diligence. The mismatch arises when education inflates signalling beyond

actual job needs—leading to "credential inflation"—or when employers misinterpret the signal due to a lack of correlation between educational content and job-specific skills. For example, a graduate with a master's degree in philosophy may not possess the technical skills required for an IT support job, despite the high level of education.

iii. Job Competition Model

Thurow (1975) proposed the Job Competition Model as a challenge to Human Capital Theory. This model asserts that jobs, rather than workers, have a defined structure, and employers rank candidates based on the expected cost of training them rather than their qualifications per se. Workers with higher qualifications may be hired over more appropriately trained workers because they appear easier or cheaper to train, even for jobs that do not require their level of education. This results in overqualification and vertical mismatch, where highly educated individuals accept jobs below their skill level, potentially displacing less-educated workers.

iv. Assignment Theory

Assignment Theory integrates elements from both supply-side and demand-side perspectives. According to Sattinger (1993), both job characteristics and individual characteristics interact to determine outcomes. A worker's wage is determined not solely by their education level but by how well their qualifications fit the job. In a perfect assignment, the worker's education, experience, and skills align closely with job requirements. Mismatch, in this view, represents inefficient assignment, which leads to wage penalties, lower productivity, and dissatisfaction. The theory highlights that even highly educated workers can be unproductive in roles that do not utilise their competencies.

1.2.2. Education-Job Mismatch; its Causes, and Effects.

Acosta-Ballesteros et al. (2017) investigated the excessive education among young professionals in Spain and its correlation with their first employment. This investigation utilised the expansion of the bivariate Probit model. Given the potential internal issue and considering the diverse effects of initially hiring workers with different educational backgrounds, the results indicated that being over-skilled is a disadvantage. Specifically, young workers who were initially left behind in their first employment were 40.2 per cent, which was likely to be over-skilled in subsequent jobs compared to workers who were not. Furthermore, the effect of the initial discrepancy differs depending on the level of education and the area of study. More specifically, the suitability of the first employment is particularly crucial for individuals who have completed their university education, and there are significant variations based on their chosen field of study. The empirical research indicates that the outcomes concerning educational mismatches are heavily influenced by the specific measure employed to assess overeducation.

Bahl et al. (2021) studied the relationship between education and occupation to explain differences in returns to education. This study used a National Level Sample Survey on the Indian Labour Market. It produced intriguing findings by implementing a dual bias in sample selection adjustment and Mincerian-Quantile Wage regression estimation. Compared to individuals who have received adequate education, workers who are overeducated see a decrease in wages of 7 per cent, while undereducated workers do not experience an increase in wages. Furthermore, including match status helps decrease the variability of returns among different educational groups. The results indicate that disregarding the mismatch between education and employment and taking a narrow perspective on similarity across employees can overestimate the variation in returns within educational groups. The study also indicated that authorities concerned with mitigating wage disparity should focus on the discrepancy among employees and their attributes, as this is crucial for capitalising on the salary benefits of education. Consequently, the different types of matches will decrease the average returns for a particular education group. Workers believe that labour market institutions should exist to ensure that skills

and education are effectively aligned with the requirements of different occupations. These institutions should not only offer job opportunities but also provide a decent standard of living.

Castagnetti et al. (2017) conducted a study which examined the impact of choosing to be overeducated on the gender pay gap in Italy. The self-assessment indicator was used to quantify the extent of overeducation. Their research revealed that overeducation played a significant role in widening the gender pay gap (GPG). This result remains valid even in the presence of sample selection and endogeneity issues. Failure to address property issues may lead to the inference that discrimination was the primary factor driving the gender pay gap. However, after considering the effects of self-selection and endogeneity bias, it was discovered that overeducation merely replicates unobserved differences in human traits such as intrinsic ability. Their investigation further revealed that overeducated workers have lower unobservable characteristics in comparison to persons with appropriate education. Furthermore, women who choose to be unemployed have inferior unobservable traits in comparison to women who are employed. Our findings indicate that males with lower productivity tend to choose jobs that require higher levels of education than necessary, resulting in overeducation. On the other hand, less productive women either end up in overeducation or leave the workforce, such as becoming housewives. Consequently, men are more prone to being overeducated compared to women. The study stated that if education beyond the necessary level does not sufficiently enhance production to offset its expenses, public investment in overeducation alone will be inefficient.

Clark et al. (2017) examined the career dynamics of US workers who possess higher levels of education compared to their coworkers in the same profession. The researchers utilised data gathered from the National Longitudinal Survey of Youth 1979 (NLSY79) in conjunction with the Current Population Survey (CPS) to examine the mobility into and out of jobs where individuals are overqualified, as well as the resulting impact on salaries. A statistical measure was employed to determine the necessary degree

of education, following the approach adopted by Verdugo & Verdugo (1989) and Kiker et al. (1997). The findings indicate that over-skilling is a very persistent occurrence both at the aggregate and individual levels, as seen by the fact that 66 per cent of workers remain over-skilled even after a year. Blacks and individuals with poor AFQT scores not only experienced a higher prevalence of over-education but also faced longer-lasting effects. Furthermore, the likelihood of being susceptible to overeducation decreases by around 60 per cent within the initial five years of experiencing overeducation. However, the results of the combined proportionate events model indicate that the observed duration dependency is not genuine, but rather a result of selecting unobservable factors. Ultimately, having excessive schooling is linked to both immediate and long-term decreases in wages, and aligns with the negative consequences of scarring.

Croce and Ghignoni (2012) looked into the prevalence of overeducation among university graduates. According to their findings, they developed a random-effects framework for a group of European nations under consideration. The findings of the study failed to offer any evidence to support the hypothesis that a rise in the availability of skilled workers might be regarded as a factor that contributes to excessive schooling. An unfavourable relationship exists between the relative wage of university graduates and their status as over-studiers, as demonstrated by the findings. The findings point to the possibility that the requirement for skilled workers has a role. Cyclic conditions are likewise essential since over-education acts as a mechanism enabling short-term adjustment. This mechanism throws insight into the likely implications of the financial crisis across industrialised countries as well as on the necessary regulatory steps to foster the recovery of the economy.

Datta and Mishra (2019) analysed the effect of educational attainment on salaries within several occupational categories, exploring the correlation between excessive education and wage returns. Current literature suggests that the returns on excess education are inferior to those associated with the optimal degree of schooling necessary for employment, which seems to contradict human capital theory. Numerous studies,

primarily from industrialised nations, indicate that employees who are overqualified for their positions generally earn lower compensation than those with the requisite amount of education for their professions. This tendency had not been confirmed by experiments in developing nations before this investigation. The study sought to examine the correlation between education and wages in the Indian labour market, emphasising the impact of over-education. The study employed the Realised Matches approach to assess over- and under-education across seven specified occupational groups, demonstrating that the results aligned with human capital theory in every job category in India.

Del Mar Salinas-Jiménez (2018) using data on 17 OECD countries over the years 2013-14, examined how educational mismatch and skills mismatches affect wages and satisfaction with jobs. They ran several multivariate regressions to examine how job mismatches affect wages and job satisfaction. In many advanced countries, this is a very substantial problem - there is considerable educational mismatching in the labour market, and roughly 50 per cent of workers are over- or under-educated for their jobs. Skill mismatches were found to be even higher: nearly 90 per cent of workers reported that their skill level failed to match the requirement level for jobs. Over half of the high-skilled workers also feel over-qualified, 26 per cent are under-skilled, and almost forty-two per cent of low-skill workers think that they can handle more complex jobs. Estimations of the wage effects caused by job mismatch showed that overeducation as well as skill underutilization incurred a wage penalty. This finding was in line with the conjecture that overeducation incorporates, to some extent, too, effects of skill underutilisation on wages - a result expected by arguments from allocation theories. But for over-skilled workers, the pay penalty is approximately 3.7 per cent, independent of that associated with training (which results in an extra value reaching a wage penalty of up to 18 per cent). Moreover, estimates of educational mismatch were also roughly consistent with the inclusion of skills mismatch controls and controlling for skills mismatches did little to change the estimated impact on wages.

Diem and Wolter (2014) conducted a study on the factors and outcomes of overeducation among university graduates in Switzerland. The study utilised data from the Swiss university graduate survey to investigate the factors that contribute to job education mismatch and the resulting impact on income. The analysis considered a range of factors, including ability, motivation, socio-demographic characteristics, labour market conditions, and institutional factors. The study sample comprised graduates from the period 2002 to 2008, excluding those from the department of medicine and law. Estimates were made for the factors influencing overeducation and unemployment through the use of multinomial logistic regression techniques. The study findings indicated that individual performance criteria, such as final grades and time of learning, had a substantial impact on the risk of work-education mismatch. It was found that around fifteen per cent of undergraduates were affected by this phenomenon. The survey also revealed that over a quarter of individuals who experience a discrepancy between their educational background and their job one year after graduating, continue to work in a non-college degree-required position even after four years. Job-education mismatch results in an annual reduction in salary of about 4-10 per cent in the near to medium term when measured in monetary terms. When there are fewer graduates, those with lower marks are far more likely to experience a mismatch between their jobs and degrees. To justify expanding the institutions of higher learning, it is only advisable if the additional students' credentials surpass those of less capable graduates in the current confined system, considering the financial implications of overeducation for individuals as well as the community at large.

El-Hamidi (2009) studied addressing a gap in the existing literature by investigating instances when there is a mismatch between education and occupation in Egypt. The empirical findings of this study contradict the prevailing literature, which suggests that workers with higher levels of education obtain lower returns compared to those with similar qualifications. The study utilised Mincer's (1974) modified model of the human capital earnings function to elucidate the variations in pay resulting from disparities in workers' human capital endowments, together with other explanatory

factors. Empirical research has shown that the financial gains from having more education than necessary are bigger for men in white-collar and blue-collar jobs compared to men who have the appropriate level of education. Furthermore, these gains were higher in 2006 compared to 1998. This reinforces the notion that when employers encounter a surplus of highly educated people, they may be inclined to exploit the more competent individuals without raising the qualifications for professions that have traditionally been filled by less skilled workers. In the first era, it is noteworthy that females in white-collar occupations, regardless of their level of education, obtained higher returns compared to the group of workers who had the appropriate level of education. One possible outcome that could indicate a clash between two opposing viewpoints: firstly, a rise in the need for women in low-wage, professional positions. These findings indicate that there is no correlation between salaries and the level of schooling required. Put simply, in a particular job, the benefits of obtaining an extra year of necessary education are lower than the benefits of obtaining additional education for individuals who are already overqualified. Policymakers should focus on identifying the root cause of over-education within the educational system rather than attributing it solely to the labour market. It is crucial to establish a method for evaluating education qualifications that takes over the trend of relying on personal connections when hiring workers. This will help ensure that workers are assigned to appropriate positions in the labour market and will contribute to the development of a transparent and efficient labour market information system. Additionally, it is important to align the increase in academic achievement with higher professional levels to enable the effective utilisation of the resources of the economy.

Frei and Grund (2022) looked into how academics' job satisfaction was impacted by working time, which is the gap between weekly working hours that are worked and those that are predicted. The data was gathered between 2014 and 2018, which were spaced evenly in six-month intervals. The researchers evaluated the association between job fulfilment and differences in working hours among academics while considering the influence of contractual arrangement (part-time versus full-time) and career level (previously versus postdoctoral). The results are derived from periodic surveys conducted

on young scientists who specialise in the fields of natural sciences, technology, engineering, and mathematics. The research looked into the correlation between total work-time nonconformity and satisfaction in the job using Ordinary Least Squares estimates. The findings unveiled a pervasive prevalence of illogical working hours in academics, which exhibited a robust correlation with a decline in job satisfaction. Underemployment has a greater impact on job fulfilment than unemployment. The study also revealed indications of a comparable attitude among undergraduate students and post-doctoral students about job fulfilment concerning inadequate working hours. Part-time employment enhances the association between inadequate working hours and job fulfilment within the framework of being underemployed. The high prevalence of over-employment suggests that there is room for growth in achieving a better balance between personal and professional life. Higher learning institutions should include underemployment as a factor when establishing contractual terms in academia, which is also pertinent to the policies of public colleges and universities.

Gaeta et al. (2022) evaluated how education-job mismatch in the form of vertical mismatch affects graduates with doctorate studies on their earnings from Italy between the period of 2009 and 2018. The study employed an immense Italian National Institute of Statistics database. Using the ordinary least squares estimator, the study brought to light the endogeneity issues and confirmed a link between vertical mismatch and profits. The study improved cross-sectional microdata analysis of Italian PhD students using uneven variance-based instrumental variable estimation. Overeducated individuals, especially in the arts and social sciences field of study, have had a notable impact on earnings during the severe downturn of 2009. Also, the findings revealed that previous similar studies exaggerated the effect of vertical mismatch on earnings. In 2018, doctorates in the sciences suffered more in earning penalties for overeducation than those in the arts and social sciences. From 2009 to 2018, the study also revealed that women had a somewhat greater degree of schooling than men. From the findings, the study suggested that policies where PhDs are financially encouraged should be implemented to enhance their

employment prospects, considering the influence they could have on society by employing innovation and the dissemination of new knowledge.

Gooptu et al. (2023) analysed the significant problem of skill mismatch in the Indian labour market, concentrating on state-specific overeducation rates, a form of vertical skill mismatch wherein workers' educational qualifications exceed job prerequisites. The study connected overeducation to the frequency of vocational training among employees by adopting a regional perspective. The analysis, utilising recent Periodic Labour Force Survey (PLFS) data, indicated that although the adoption of vocational training had risen, it was still inadequate to satisfy industry requirements. The study revealed a troublingly low percentage of individuals obtaining government-funded vocational training, indicating either inadequate quality or restricted access, with a significant bias towards higher-income households. The study highlighted the necessity to improve vocational training programs for greater inclusivity and alignment with industry demands. It emphasised the necessity of certifying and acknowledging skills acquired through educational courses to guarantee effective employment, considering the significant informal labour market. The study urged active participation from diverse stakeholders, including the commercial sector, and suggested learning from effective vocational training programs in other countries to create effective and cohesive efforts.

Grover and Sharma (2020) investigated the influence of education-occupation mismatch (EOM) on the variation in educational returns across various categories. A national labour market survey was conducted in India for this study, and a dual bias in sample selection correction and Mincerian quantile wage regression was utilised in the research project, which resulted in the discovery of several significant discoveries. In the beginning, overqualified persons faced a seven per cent average income shortfall, but individuals who were improperly educated did not achieve a wage benefit in comparison to their counterparts who were appropriately educated. The second thing that was seen was that the match status was shown to lower the amount of variation in pay returns among the educational cohort. After coming to this conclusion, it is clear that ignoring EOM and

making the assumption that all workers are the same could result in an overestimated assessment of the degree to which educational classifications affect the distribution of salaries. The research highlighted the importance of utilising EOM to improve the economic and social benefits of education, encourage productivity, and reduce income disparity.

Hartog (2000) examined an empirical investigation of the relationship between earnings and overeducation in the countries of Spain, the Netherlands, the United Kingdom, the United States, and Portugal. The study was conducted over a two-decade period. Worker Self-Assessment (WA), Job Analysis (JA), and Realised Matches (RM) are the three methods used to measure attendance requirements regarding over- and under-education. Observations indicate that in the European countries studied, the pace of over-education has increased: the Netherlands (1960-1995), Spain (1985-1990), and Portugal (1982-1992). This finding suggested that the strong rise in participation in education has surpassed the increase in the required level of education. The United States exhibits an alternative perspective on evolution. Those who were overeducated experienced a decline. The ORU (Overeducation, Required Education and Undereducation) income function results in five countries were collected from numerous sources in different years, resulting in 45 regression results that show returns go up, required education is above the actual education profit observed from the contrast of the standard Mincer parameter with the individual's educational attainment and the ORU specification. The results also indicated that the payoff for over-education was favourable, the penalty for adequate education was still lower, and the payoff for dropout was negative.

Hur and Bae (2021) examined the impact of disparities on both implicit job choice motivation and satisfaction as well as explicit work choice motivation and satisfaction, and also the effect of education-job mismatch on the returns of nonprofit employees. The study employed both vertical as well as horizontal matching criteria to offer a wider range of information. They analysed the data, which was obtained from the “Graduates Occupational Mobility Survey (GOMS)” carried out by the Korea Employment

Information Service during the year 2024. Their study shows that the influence of the level of dissatisfaction with external factors is more compared to the internal factors for nonprofit employees to leave their jobs. Furthermore, past research has revealed that a misalignment between job requirements and employee skills leads to a higher chance of nonprofit employees leaving their jobs. The results indicate that only when employees do not possess horizontal mismatch, nonprofit employees are less likely to consider leaving their positions, and both horizontal and vertical alignment of job and education favourably influence their choice to pursue employment in the nonprofit sector. The study findings suggest that the nonprofit sector should modify employees' roles to align with their educational qualifications.

In a recent study conducted by Zhang et al. (2020), the focus was on exploring the impact of training on employees' perception of job fit. The researchers utilised data from the Longitudinal Internet Study for Social Sciences (LISS) panel, which is overseen by the Data Centre affiliated with Tilburg University. The panel consisted of around 5,000 Dutch families and showcased the findings of the study. The restudy findings revealed that the training had substantial positive effects on the quality of learning and job suitability, both in the short and long term. The model carefully considers the potential endogeneity of training, offering a thorough analysis of its effects. This paper examines the relationship between job change and the influence of training on the level of job fit. The model takes into account job changes and reveals that training for job change significantly increases the probability of switching jobs, whereas training for other purposes does not have the same beneficial impact. These abrupt changes in work can result in job placements that may or may not be a good fit. Contrastingly, those who opted to switch careers within a year found that undergoing training for their new role resulted in obtaining a position that better matched their abilities and provided superior overall quality. The findings provided additional evidence that training had a positive effect on enhancing work quality.

Jones et al. (2014) examined the association among disability, job mismatch satisfaction and income in Australia. The data for this study were obtained from the initial eight waves of the "Household, Income and Labour Dynamics in Australia (HILDA) survey". The study found no association between work-limiting disability and over-skilled. The findings revealed a positive association, albeit with low significance, between work-limiting disability and overeducation. Also, there exists a correlation between mismatch and disability. Individuals who have work limitations are more likely to be overeducated, and not necessarily over-skilled. Therefore, using one's skills in the job setting can offset the effect of a disability which limits one's calibre to work. However, this adjustment often results in a transition to roles that do not require as much higher education. The results highlighted the urgent necessity for regulations that align seamlessly with the NDIS reform in Australia which has emphasised the recognition of disability, not as an insurmountable obstacle but an impairment that can be effectively managed, which should be practised not just within the workplace, but also beyond its walls and embrace the crucial significance of effectively managing disability in job settings.

Kalleberg (2009) examined the phenomenon of workers who end up in jobs that do not align with their skills and abilities. The study investigated various notable changes in labour markets that have led to the emergence of seven distinct types of mismatches between workers and jobs in the United States. The data from 1972 to 2002 on selected demographic parameters were thoroughly analysed, with a focus on exploring the implications of these findings. According to the findings of the highly qualified results, from 1993 to 2002, around 20 per cent of permanent employees in the United States had qualifications that were higher than what their jobs required. The percentage experienced a notable increase when compared to previous years, reaching a level that was roughly double the recorded amount from 1972 to 1982. There was a clear distinction in the probability of women and men being highly qualified, with the gender disparity in overeducation exhibiting a slight decline over the 30 years from 1972 to 2002. The study mainly examined the earnings mismatches that occur at lower levels, particularly among

the working poor. The study unveils a significant association between income inequality and the absence of benefits, like health insurance, in specific job sectors. The study findings also found that there exists a significant number of individuals on the fringes of the working poor who are inclined to accept low-paying positions if they were offered accompanying benefits. The findings also revealed that matches are often shaped by a blend of individuals' needs, interests, values, and expectations, along with the characteristics and rewards associated with their jobs and organisations.

Kampelmann and Rycx (2012) investigated the impact of educational imbalance on company efficiency. The researchers used data from the Belgian Linked employer-employee panel spanning from 1999 to 2006. The study sought to investigate the issue of cooperation, timeless workplace characteristics, unnoticed elements, effects of cohorts, and the changing nature of the productivity-adjusting technique. According to the study findings, a higher degree in education has a substantial and favourable effect on the productivity of a company. The study also showed that the lack of skills among young workers can significantly hinder a company's productivity, and it is also evident from the study that workers who possess advanced skills consistently maintain a high level of productivity. On the other hand, workers with lower skill levels experience a noticeable decline in productivity. Based on the study findings, it is apparent that individuals with greater experience are in high demand for their work, especially if they possess a higher level of education.

Kim and Choi (2018) investigated the impact of job mismatch on the salary, job satisfaction, and performance of Ph. D.-level researchers, based on the job-environment fit theory. The study examined a sample of 2273 observations, as reported in the '2013 Ph.d.. D. Research Survey' by the National Science Foundation. An in-depth factor analysis was utilised to analyse the data. The results indicated that the lack of alignment between the skills and qualifications of the PhD workforce and their job requirements had a detrimental effect on both their salary and level of job contentment. Moreover, regarding the connection between work mismatch, salary, job satisfaction, and job performance, it

was discovered that pay and job satisfaction played a role as mediators. The study findings indicate variations in the elements that impact research and patent performance. While wage differences and job mismatch do not impact research performance, they do influence patent performance. Job satisfaction exerted a substantial influence on research performance, while it did not have any impact on academic success. The study highlights the need to carefully consider job fit when hiring highly educated PhD professionals. The focus of this research is to show that these attempts result not only in individual financial rewards and job contentment but also in economic accomplishments, such as research productivity and the establishment of patents. The study underlined the need to prioritise research personnel management that is tailored to individual performance objectives, such as research output and patent achievements.

Klein (2011) investigated the impact of horizontal mismatches on higher education and why the subjects differ in terms of early labour market returns. According to the training cost model, the field of study presents employers with different training costs. The higher the training cost, the more difficult it is for graduates to integrate into the job market. The expected average training cost of a course depends on the degree of job specificity and the selective choice of graduates. In particular, "soft fields" such as the humanities and social sciences are not specialised in their duties and are not considered academically difficult. In addition, the findings suggest that the structural relationship between the major and job characteristics acts as an intermediary for the impact of the major on labour market returns. The results of using the 1997 German HIS (Hochschul-Informations-System) graduate panel show that the lack of job specificity is part of the difficulty of "soft-field" graduates entering the labour market. It was also shown that gender measurements did not contribute to the explanation. On the other hand, the nature of the degree, the public sector, and the skills required for work make a big difference in the degree program. This study's findings suggested emphasising the essential role of the structural and institutionalised interaction between education and the job market.

Leuven and Oosterbeek (2011) did a comprehensive investigation on the subject in their paper titled "Overeducation and Mismatch in the Labour Market." The study was motivated by a significant rise in the number of individuals who completed college in the United States in the early 1970s. This increase occurred at the same time as a decrease in the benefits of receiving a college education. The data was obtained from the Mincer pay equation, which breaks down years of schooling into three components: overschooling, obligatory education, and underschooling. The study identified a notable gap between the existing research on overeducation/mismatch and the fields of modern labour economics and education economics. The study also discovered that there are lingering difficulties surrounding the conceptual measurement of overeducation, with variable bias and measurement error being noteworthy factors that should not be ignored. Furthermore, the study highlighted the lack of a coherent emphasis on crucial economic issues.

Li and Lu (2022) examined the impact of education-occupation mismatch on the inequalities experienced by those with high levels of education. The study utilised periodic information from the Survey of Income and Program Participation to examine the variations in the occurrence and financial consequences of education-occupation mismatch among individuals of different nativities. The findings revealed that highly qualified immigrants, especially those who earned their degrees from foreign countries, were more susceptible to experiencing both horizontal and vertical mismatch in the job market. Additionally, they encountered more significant wage penalties when compared to native-born individuals with similar degrees. Further investigations indicated that foreign-educated skilled immigrants encountered significant challenges, particularly if they originated from countries with subpar tertiary education systems, had limited proficiency in English, or possessed levels in non-STEM fields or fields with strict licensing criteria. The results highlighted the restricted applicability of human resources for highly qualified immigrants, which was affected by the calibre of their educational qualifications, language proficiency, and obstacles posed by institutions.

Li et al (2018) examined how well the skills of graduates align with the requirements of the job market. The research examined three types of mismatches. Residual. Using data from the Beyond Graduation Survey (BGS) across three consecutive years, 2012, 2013 and 2014. The study included a total of 23,697 sample observations. A multivariate probit model was employed to analyse factors that might influence mismatch conditions. Researchers also used a Squares (OLS) model to investigate how mismatch impacted earnings shortly after graduation. To minimise the impact of selection bias, Heckman's selection model was utilised to adjust long-term profit estimates. Additionally, linear effects models were used to project profitability impacts. The results indicated a correlation among types of mismatches, with graduates showing incompatibility in various aspects of initial graduation. While mismatch tends to decrease over time, residual and horizontal skill mismatches persist. The research suggests that graduates from fields are more prone to experiencing a mismatch compared to those from courses, and this mismatch often persists for an extended period. Unfortunately, it appears that salary gaps due to mismatched skills are not confined to the area. Graduates with mismatched skills often find themselves in part-time roles on fixed-term contracts or working irregular hours. It is crucial from a policy standpoint to assess graduates' readiness for job roles and their overall employability.

Livanos and Nunez (2012) using both logit analyses, explored the wage regarding a particular academic degree on the gender gap in wages for Greece as well UK. It wanted to analyse the effect of teaching on the log salary equation for men and women, estimate gender wage gaps in both samples and examine how different levels of higher education were associated with structural differences within these gender wage gaps. The researchers also looked at the benefits of a higher level of education in terms of gender, using micro-data from the Labour Force Survey (LFS) for both genders separately. They also quantified the pay premium female graduates receive compared to males, as well as over people with only a teaching background. They also estimated the higher education effect on the unexplained part of wage differential in a more extended framework named the Oaxaca-Blinder decomposition. What the research found was that being

acknowledged correlated with higher pay by a statistically significant amount. Moreover, the impact of higher education on wages was greater in this country than in other European countries and lower levels compared to Greece, where an increase in earnings among those with a degree appeared less impressive when contrasted against wage decreases suffered by individuals without any educational qualification. Due to the surplus of university graduates in Greece, mainly ex-service workers from universities have put downward pressure on wage remuneration.

Montt (2015) studied on the causes and consequences of the Field-of-Study Mismatch, posited from the Programme for International Assessment of Adult Competencies (PIAAC), argued that even if students in their pursuit of education can major in any area but whether or not it will translate to a work career is not entirely up to them Mismatch primarily based totally upon process theories: this shape of mismatch relates as to whether a specific discipline at the labour marketplace is saturated withinside experts and what stage of frequent capabilities are wanted to carry out duties in that respective disciplines. Findings from the study found that all countries have non-trivial levels of field-of-study mismatch, with the highest rates found in Korea and England/N. Ireland (UK), and Italy - nearly 50% of workers are over-educated for their jobs; whereas Austria, Germany and Finland exhibit roughly less than one-third as many mismatches at best. As with previous research, there is a wage penalty for mismatching individuals in PIAAC. The field-of-study mismatch is a minor problem for workers, but if they are forced to take up work that represents professional downgrading, it becomes worse. It identifies lost productivity due to the lack of job-specific skills (models control for skill heterogeneity), which, if related to overqualification, can add up to large national-level costs. This was only one among many other interesting findings (e.g. a negative relationship of field-of-study mismatch with employment protection and union density). On Public Policy - One implication of this research is to adjust students' field-of-study decisions in order the decrease overeducation. Providing individualised career guidance which can depict the likely future path of students may increase informed decision-making, set realistic expectations for students and even lower corrective measures against

mismatch as a long-term goal it might be more efficient to provide general competencies yielding worker adaptability in education (and offer flexibility within work due to such build-up) and move field- or job-specific training towards workplace learning schemes.

Obiols-Homs and Sánchez-Marcos (2018) investigated the correlation between the quality of education, as measured by maths scores from the Programme for the International Assessment of Adult Competencies (PIAAC, 2013), and employment outcomes in the EU-15 countries. The study revealed a clear inverse relationship between the quality of education and both the rate of mismatch (or over-education) and the rate of unemployment. The study employed an employment market framework that included frictions to quantitatively evaluate the impact of education outcomes on labour market dynamics. The study revealed that the skills and qualifications of both educated and uneducated employees had a substantial influence on the incentives of companies in terms of the types of job openings they provided and the job search methods employed by educated workers. The analysis indicated that if Spain's educational system had been on par with the European average, the discrepancy rate would have dropped by 5 to 10 percentage points. Additionally, the rate of unemployment for both categories of employees would have been reduced by 40%. However, the premium in wages for tertiary education would have been slightly smaller in contrast to the benchmark economy.

Paolo and Mañé (2016) in their study entitled 'Misusing our talent? Overeducation, over-skilling and skill underutilisation among Spanish PhD graduates analysed linkages and impacts of qualifications and skills mismatch in this respect on data from a recent survey held by the Catalan University System Quality Assurance Agency (AQU). Examples of the latter include a more or less purely rational causal sequence explaining non-conformity, e.g., over-education without a professional qualification. Subject. The gaps, to some degree, can be accounted for based on job-related attributes, which possess more limited explanations from academic traits, even after controlling for factors such as experience and education. Being "overeducated and under-credentialed" - as studies have found affects a large earnings penalty.) Thus, mismatch decreases net job

satisfaction, and its sum with non-pecuniary aspects of a job also varies by skill: negative for those working below their ability. This study revealed that the issue of mismatch among PhD graduates is strongly associated with labour market constraints caused by factors on the demand side. Future research on possible tactics should focus on enhancing job match and professional skill growth relevant to occupational training interventions.

Park and Luo (2022) investigated the efficacy of several lifelong learning modalities in addressing educational disparities and enhancing job satisfaction among young Korean employees. The research employed a representative sample of 2,559 individuals who graduated from either general or specialised vocational high schools, utilising structural equation modelling to assess the mediating role of lifelong learning in the relationship between educational mismatch and job satisfaction. The investigation, which included multigroup comparisons, revealed that lifelong learning significantly affected the connection between horizontal mismatch and job satisfaction across all models. The impact of informal learning on job satisfaction varied based on the type of high school attended. For individuals from specialised vocational schools, vertical mismatch exhibited a significant correlation with job satisfaction, although informal workplace learning had no considerable effect. The research provided empirical data about lifelong learning's ability to mitigate educational mismatch and highlighted that its effectiveness may differ based on prior vocational education backgrounds.

Park and Shahiri (2015) explored overeducation and its incidence on occupational mobility. Their study addressed various individual-specific skill differences in explaining these perceived occupation-occupation discrepancies by obtaining unique data from the 2009 Graduate Occupational Movement Survey (GOMS) of Korean female graduates who were experiencing a transition to working life, and it deviated significantly from existing research regarding skills as most pushed this diverse group of people into one box. The under-education prevalence estimates also ranged in the traditional measures recalibrated for worker depths of skill, and enumeration bias distorted these measurements. There is a consensus that skills have negative effects on work mobility, evidenced in many data

among which are job changes by young female workers due to being more educated than required qualification levels in the South Korean labour market. The positive correlation does not disappear even under extended specifications where we decompose graduate over-education by perceptual skill mismatches. Further, their study has suggested that the true high performers were far more likely to change employers than their over-qualified-seeming peers.

Patil and Patil (2019) investigated a study of Job-Education Mismatch among working professionals in India, where they measured the various aspects related to it. They aimed to research the extent of job mismatch among working professionals in semi-urban India, leading to reduced employee morale. For this cross-sectional descriptive study, a sample size of 150 was used employing the simple stratified random sampling method among industries and academic institutions selected in each stratum. The chi-square test was used to analyse the data. The research concluded that vertical mismatch is higher in industries compared to academic institutions, and horizontal mismatch is higher in the case of academic institutions against other industrialists. According to the study, nearly one in every two employees across industries and hierarchies believed they would have been better equipped for their jobs only if had a certification or higher degree while potential reasons for such mismatch, as per the study, could be overpopulation created a large supply of workers crawled into the labour market. Studies conducted show that it is quite normal in India where cultural diversities make the lives of many graduates difficult to change the place, he/she could search for opportunities, and hence majority are satisfied with their current job despite their job aligning or misaligning with their education.

Rossen et al. (2019) examined the prevalence of over-education among graduates from twenty-one European Union countries, using data from the 2016 European Labour Force Survey. The main objective of the study was to examine how the field of study contributes to variations in vertical education. The study revealed that the influence of these factors differs across different countries. In addition, there are clear differences in the consequences of certain fields based on gender. When it comes to graduates at the

European level, it has been observed that men in the fields of Services, Natural sciences, and Agriculture tend to have a higher risk. Interestingly, male graduates from fields such as ICT, Health and welfare, Education, Engineering, and even Arts and humanities, face a relatively low risk. The field-specific risks apply to most countries and remain unaffected by changes in educational standards. The study findings indicate that the level of specialisation in study programmes plays a crucial role in determining the variations in overeducation risks across different fields. There is limited statistical significance in gender differences regarding overeducation risks in specific fields. In the services and Natural sciences, female graduates are found to have a significantly lower risk compared to male graduates. However, in the Arts and Humanities, the opposite is true, making it an exception to the overall trend. The strong negative correlation of Services aligns with our initial expectations. It is possible that disparities between genders in choices, field-specific efficiency and demand/supply proportions in the labour market could explain the relatively lower risk of overeducation for women in the realm of Services.

Sahin et al. (2012) measured the effect of the mismatch between job-seekers and available job vacancies on the increasing unemployment rate in the labour market of the United States. Mismatch refers to the disparity between the existing distribution of unemployed people among sectors and the ideal distribution that would be achieved if a theoretical planner were able to allocate labour correctly between sectors. The planner's optimal allocation is determined by the "generalised Jackman-Roper condition," which states that the efficiency-weighted vacancy-unemployment ratios must be equalised across sectors. The study constructed mismatch indexes based on this condition to quantify the extent to which the current rise in unemployment can be attributed to mismatch. The study utilised cross-sectional information from JOLTS and HWOL to analyse vacancies, and CPS to examine unemployment. The findings indicated that a higher level of mismatch between jobs and industries contributes to a recent increase in unemployment, accounting for a range of 0.8 to 1.4 percentage points. However, geographical mismatch does not have a significant impact on unemployment. Furthermore, the influence of occupation mismatch on unemployment varies greatly depending on the degree of education. It

substantially affects highly educated people, accounting for approximately one-third of their increase in unemployment. In contrast, its impact is less noticeable for workers with lower levels of education.

Salas-Velasco (2021), through his study, contributed to the scarce literature on the subject of horizontal education-job mismatch inside the labour marketplace for graduates of universities. Field-of-study mismatch or horizontal mismatch takes place when college graduates, skilled in a specific discipline, pursue some other discipline at their formal qualification level. The statistics used within the evaluation come from the primary national consultative survey of labour insertion of the latest college graduates in Spain. By estimating a multinomial logistic regression, the study recognised in shape reputation four years after commencement, primarily based on self-assessments. The findings confirmed a better chance of horizontal mismatch amongst graduates of Chemistry, Mathematics, Physics, Pharmacy, and Languages and Literature. Only graduates in Medicine multiplied the opportunity of being correctly matched for their jobs. It can be hypothesised that horizontal mismatch becomes much more likely amongst the graduates in diploma fields that offer greater preferred competencies and much less probably amongst the ones from diploma fields supplying greater occupation-specific competencies. Other ranges, including Business Studies, and Management and Economics Studies, growth the opportunity of being vertically mismatched (over-educated). Vertical mismatch preserves at least a number of the unique human capital won via formal instructional qualifications. However, a few employees with backgrounds in Labour Relations and Social Work are in non-graduate positions and examine regions unrelated to their studies. The result of the study additionally confirmed that graduates within the fields of fitness sciences and engineering/structure will increase the opportunity of attaining an education in shape after outside activity mobility.

Schlὸmer (2016) with the help of data from the Labour Supply Panel 2010, examined the differences between self-employment and wage employment, as well as the differences between overeducation and undereducation. This study focused on two main

objectives, i.e., a. How much does vertical mismatching affect income and job opportunities? b. How do people who work for a living and those who work for a living compare in terms of satisfaction? For the study, a stratified sampling technique was used for the Labour Supply Panel, with 39 strata defined. To analyse the data, this study used bivariate statistical tests and multivariate regression analysis. From the findings, the study shows that there appear to be no differences in the effects of vertical mismatching on income between wage- and self-employed workers and it concluded from the results for the over-educated group that the negative effect of over-education was present for both wage-employed and self-employed individuals, but it was not necessarily larger for either.

Somers et al. (2018) presented a comprehensive assessment of the expanding literature on horizontal mismatch, which refers to the discrepancies between the expertise of employees and the employment requirements. They identified the diverse definitions employed in the literature and discovered that the incidences were substantially different for every measure of horizontal discrepancy. The efficiency of various measures was also discussed, and it was determined that a more coherent description of horizontal design disparities was required. Among other factors, the propensity for horizontal discrepancies was determined by the level of both overall and job-specific skills of workers, and it appeared to be more prevalent among older workers. Non-horizontally adjusted workers were more inclined to regret their studies, felt discontented with their work, and received wage penalties in comparison to well-adjusted workers.

Takeuchi (2023) examined vertical and horizontal incompatibilities among highly educated Japanese workers. The study used the distribution approach to avoid considerable indicator variation as another useful objective indication of horizontal mismatch. The study is unusual in Japan since it analyses vertical and horizontal mismatches, contributing to the field. Compared to horizontal mismatch, vertical mismatch decreases annual wages more for both men and women. University graduates' annual salaries decline due to a mismatch in vertical career growth. Highly educated employees with degrees seem unaffected by this disadvantage. Our studies show that

horizontal mismatch is more likely in women than men. Additionally, overeducation penalties significantly affect natural science/medicine/pharmacy performance. With the rising university admission rate in Japan, more people with degrees beyond what they need for their jobs are finding work. The study suggested that educational institutions must offer professional education that matches labour market demands to avoid educational mismatch. As the proportion of women experiencing horizontal mismatch early on grows along with the number of women attending university, it's important to consider women's unique sensitivities when discussing methods for identifying labour market trends in professional demand.

Tansel and Lassassi (2020) examined the effects of educational mismatches on work satisfaction and job-seeking behaviours in Algeria. It utilised Labour Force Surveys from the years 2003, 2005, 2007, 2010, and 2016. The study utilised multinomial probit models to analyse the factors influencing educational mismatch and skills mismatch, independently for men and women. Additionally, probit models were employed to evaluate the impact of educational mismatch on satisfaction with work and job search activities. The models included four sets of control variables: socio-demographic indicators, human capital, labour market features, and household features. In addition, the study examined the impact of educational mismatch on both work satisfaction and job seeking by incorporating it as a variable in the appropriate models. The results indicated that there was a notable impact on satisfaction with work and job-seeking behaviour for both males and females due to educational mismatch, as well as specific job characteristics.

Tao and Hung (2014) evaluated the impact of vertical (over-education and under-education) and horizontal (mismatch between field of study and job) disparities in education on salaries. They utilised data from a survey of Taiwanese college graduates conducted shortly after their graduation. Their investigation, using a polynomial logit model to tackle sample selection difficulties, found that the salary benefit for vertical education matches is greater than for horizontal matches. An improved vertical alignment

was discovered to amplify the salary advantages of a horizontal alignment and vice versa. The study found that horizontal disparities frequently occur due to excessive schooling, with graduates from lower-tier institutions being more susceptible to both vertically overqualified and horizontal mismatches. In contrast, those who have completed their education at renowned universities generally receive higher salaries and encounter fewer instances of job skill mismatches. This is because their educational qualifications not only directly contribute to their income but also decrease the chances of encountering discrepancies, ultimately leading to an indirect boost in their earnings.

Uzair-Ul-Hassan and Noreen (2013) identified the disparity between the skills offered in schools and those required by industry. Using convenience sampling, the study gathered data from 200 recent economics graduates from Punjabi Universities and interviewed 32 employers from different industries. In addition, they looked into the market's necessary talents and included organisations in Sargodha, Pakistan. Applying a t-test and percentages, the data was analysed. Their research showed that recent graduates lacked the expertise that companies were seeking. It was also possible that students' achievement levels would differ from the levels expected by employers. Furthermore, persons who had a poor grade point average in economics were more likely to possess a lower degree of education in comparison to those who had significantly higher levels of education. In addition, there was a considerable gap in the performance levels of men and women in terms of skills. Moreover, the research discovered that there is a substantial disparity between the skill sets possessed by graduates who are working full-time and those who are working part-time. According to the findings of their investigation, the primary causes of educational mismatch include difficulties in the areas of communication, planning, conceptualisation, and research.

Van Den Brink (2019) looked at the different definitions used in the literature and determined that every measure of horizontal discrepancy provided markedly differing incidences. The study discussed the performance of measures and determined that a more constant definition of horizontal design discrepancies was essential. Horizontal mismatch,

which is possible among other things, was decided by their general and job-specific abilities; this appeared to be higher with the older workers. Compared to adequate workers, the majority of non-horizontally adjusted workers experienced wage penalties as well as work dissatisfaction over their qualifications and educational mismatch. This allowed us not only to gain insights into the horizontal mismatch but also to point out directions for further research.

Velciu (2017) studied the effects of work mismatches, which occur when individuals' credentials or skills do not match the needs of their employment, on labour productivity. The study revealed that in the immediate period, employing personnel who possess excessive education or skills might enhance a company's output by effectively utilising their advanced capabilities. Nevertheless, this advantage is frequently short-lived, as prolonged disparities result in decreased job contentment and diminished earnings for workers, who may perceive that their abilities are not being adequately appreciated or utilised. Labour mismatches at a macroeconomic level lead to substantial inefficiencies, resulting in a depletion of the labour force and resources, which declines overall efficiency. These discrepancies result in an ineffective distribution of labour and resources, causing obstacles to individual career advancement and hindering overall economic progress and job opportunities. This demonstrates the negative impact of disparities in skills on both the performance of individual companies and the economy as a whole.

Verhaest et al. (2017) investigated the occurrence of education mismatches in the early careers of European and Japanese graduates. It specifically differentiates between three types of mismatches: full mismatches (FMMS), horizontal mismatches (HMMS), and vertical mismatches (VMMS). The study revealed that (HMMS) are less prevalent in nations with strong employment protection, large benefits for unemployment, and selective education systems. On the other hand, VMMS are predominantly influenced by imbalances in the labour market. The factors that influence (HMMS) and (VMMS) also have an impact on Finite Mixture Models (FMMS), where a broader range of collective

bargaining is associated with an increase in FMMS. The research emphasised that both the characteristics of educational programs and institutional inequities are responsible for the observed discrepancies. These trends are consistent across various majors and nations.

Veselinović et al. (2020) using data from the Measure Bih Youth Survey, explored the impact of education-job mismatch on workers' net income in Bosnia-Herzegovina via OLS linear regression. Using a log transformation to generate a left-side semilog functional form, the study discovered that education-job mismatch has a considerable impact on net income, with disparities ranging from 13 per cent to 15 per cent when education levels do not align with work needs. According to the study, the magnitude of this impact varied with respondents' education level and age. Notably, this study is unique in that it focuses on Bosnia and Herzegovina, illustrating how the repercussions of a mismatch between education and employment can vary depending on the estimating technique used and emphasising the importance of taking into account variable interactions.

Vivatsurakit and Vechbanyongratana (2021) examined the frequency of vertical disparity among formal and informal workers in Thailand. The study investigated the relationship between vertical mismatch and salary penalties and premiums across four categories of workers: formal government employees, formal private firm employees, informal private firm workers, and informal own-account workers. The data utilised for the investigation were acquired from the 2011, 2013, and 2015 Thailand Household Socio-economic Surveys. The findings revealed that the prevalence of excessive education was relatively low among the oldest group (8.7%), but significantly higher among the youngest group (29.3%). The government workers had the most substantial decrease in income as a result of having excessive education, with a penalty of 28.2% compared to persons who have equal qualifications. On the other hand, informal workers who are hired by private enterprises often face more significant reductions in their salaries since they are overqualified, compared to official workers. The analysis highlighted that highly educated young individuals are increasingly being placed in low-skilled informal positions within

private enterprises, resulting in substantial compensation disparities caused by overeducation. This occurrence has raised concerns about the formal employment market in Thailand's ability to efficiently utilise the educational expenditures made by young workers. It underscores the imperative for future modifications in education and employment policies in Thailand.

Wan et al. (2020) analysed Educational Mismatch and Job Satisfaction in China using the 2014 China Labour Force Dynamic Survey (CLDS). According to the survey, a significant fraction of the Chinese workforce has an educational mismatch, with 13% over-educated and 17% under-educated for their current jobs. This mismatch has complicated implications for labour market performance. While it does not appear to have a statistically significant effect on salary levels, over-education is linked to lower work satisfaction. The study also identifies various causes for educational mismatch, encompassing individual factors like gender and language abilities, as well as occupational characteristics like business size and job classification. These findings add to our comprehension of how educational mismatch affects workers, emphasising the significance of establishing tailored policies to increase job fulfilment and align educational outcomes with labour market needs. Addressing these mismatches allows officials to better support workers and improve the overall efficacy of China's educational and labour market systems.

Wanner et al. (2021) in their study, Wanner et al. (2021) investigated the correlation between educational mismatch in the labour market and the decision to emigrate. They conducted the research for both native Swiss workers and former immigrant workers. The study demonstrated that there is a substantial correlation between educational mismatch, which includes both overeducation and undereducation and the decision to emigrate. Workers with less education, who feel that their qualifications are not enough for their current jobs, are more inclined to move to another country to pursue better opportunities that match their abilities. On the other hand, highly educated workers, especially those from non-European backgrounds, often choose to stay in the countries

they have migrated to. They may choose jobs that do not fully utilise their degrees because they see limited opportunities to return to their home countries or go elsewhere. This behaviour exemplifies a larger pattern in which immigrants from countries outside the EU27/EFTA have less motivation to go back to their home countries and are more inclined to accept jobs in Switzerland that do not align with their educational qualifications. This emphasises the intricate connection between educational mismatch and migration patterns, emphasising the necessity for customised migration and labour market policies.

Wen et al. (2023) contributed to the existing body of research on the effects of being over-educated by particularly examining its influence on the decision to quit a job, using a dataset that tracked individuals over time. This study was the first to specifically assess the impact of satisfaction with work and on-the-job training on the likelihood of employees in educationally mismatched positions quitting their jobs. It conducted a detailed analysis that took into consideration factors such as unobserved differences among individuals and the potential influence of external factors. The study results suggested that being over-educated, especially when accompanied by under-utilisation of skills and worse job satisfaction, substantially raised the probability of leaving one's employment. In contrast, it was discovered that providing on-the-job training opportunities improved the ability to retain workers who were first placed in roles that did not match their skills or qualifications. These findings emphasise the need to take into account mismatch data alongside variables like satisfaction with work and training opportunities. This has implications for enhancing worker retention tactics and optimising resource allocation within organisations.

Wicaksono et al. (2023) examined the impact of having more education than necessary for a job on the ability to change jobs and the level of salaries. The data for this analysis comes from four rounds of the National Labour Force Survey (SAKERNAS) performed in February 2017, August 2017, February 2018, and August 2018. The research findings indicated that individuals who were previously overeducated have a 31.64 per cent likelihood of encountering overeducation in their current job. This probability is

notably lower than the 67.35 per cent chance of transitioning to a job that aligns with their qualifications. The analyses employed Multinomial Logistic Regression and Fixed Effect Model methodologies. This result indicates that overeducation frequently functions as an intermediary stage in the process of obtaining a more appropriate job. In addition, the study revealed a wage gap of 16.2 per cent between individuals with excessive education experience and those with relevant employment experience when transferring to a suitable position. The results emphasise the necessity of implementing training programs to improve newly hired employees' productivity. These programs would enable them to adapt more efficiently and prevent any negative impact on their wages due to being overqualified for their positions.

Zimmer (2012) evaluated the discrepancy between the availability of workers and the demand for labour in Belgium by employing a macroeconomic methodology to create an imbalance index based on educational level. The findings indicate that Belgium, especially Brussels, faces a notable disparity in skills. Although Belgium has the highest mismatch score among the EU15 countries, its unemployment rate is not proportionally high. The score emphasises a lack of proficient workers in Brussels compared to employment demands, with a significant discrepancy in labour mobility across different geographical areas. Although labour mobility has the potential to address spatial imbalances, the study reveals that most positions in Brussels are occupied by individuals who dwell in other areas, whereas Flanders and Wallonia see less inter-regional commuting. Belgium's labour market has challenges in terms of both geographic and skills-based mismatches. These challenges are worsened by restrictions such as language barriers, commuting problems, and profession-related fees. Among these challenges, qualifications mismatches are a more urgent concern than mobility limits.

1.2. RESEARCH GAP

Despite growing concerns over educated unemployment in Nagaland, a considerable study deficit persists regarding the occupational mismatch among higher education graduates. Current research has inadequately explored the correlation between

higher education and labour market requirements, specifically regarding skills gaps, curriculum applicability, and employment inequalities between sectors or regions. Furthermore, little focus has been directed into the influence of entrepreneurial education, gender-specific job inequalities, and the enduring career consequences of these discrepancies. Addressing these gaps are crucial for developing effective educational and employment programs suited to Nagaland's distinct socio-economic landscape.

1.3. SIGNIFICANCE OF THE STUDY

The study of the higher education and occupational mismatch in Nagaland is crucial as it highlights the disparity between educational results and labour market demands in the area. Nagaland's distinctive socio-economic and cultural setting creates a context in which traditional educational courses may not correspond with the changing requirements of local and global labour markets. By analysing this discrepancy, the study can pinpoint essential deficiencies in skill acquisition, inform policy measures, and direct educational changes aimed at improving employability and fostering economic growth. Comprehending these factors is essential for cultivating a more efficient education system that adequately equips students for pertinent and sustainable career prospects, hence enhancing regional growth and development.

1.4. STATEMENT OF THE PROBLEM

Higher Education System in Nagaland has undergone substantial growth in recent years, as evidenced by the increasing number of institutions and graduates entering the workforce. The difference between the educational backgrounds that individuals have acquired and the skills that are necessary for employment in the field is becoming more of a concern. The economic growth and personal career trajectories are adversely affected by the discrepancy, which results in graduates holding positions unrelated to their field of study or experiencing underemployment. An intricate issue is the occupational gap in Nagaland. A mismatch between the curriculum and workforce requirements may result from educational programs that are insufficiently aligned with the changing demands of

the regional job market. In contrast, educational institutions and potential employees may not adequately comprehend or communicate the needs and standards of companies.

The purpose of this study is to evaluate the degree of occupational mismatch among the population with higher education in Nagaland. Comprehending these dynamics is essential to creating policies that more effectively align educational outcomes with labour market requirements, thereby promoting economic growth and improving employment opportunities for individuals in the region.

1.6. OBJECTIVES OF THE STUDY

1. To study the mismatch between higher education and occupation.
2. To examine the effect of education-job mismatch on income
3. To examine the effect of education-job mismatch on job satisfaction.
4. To analyse income inequalities and its relationship with education.

1.7. HYPOTHESIS

1. There is a significant difference between education-job mismatch and income.
2. There is a significant difference between education-job mismatch and job satisfaction.
3. There is a significant difference between level of education and income inequalities.

1.8. AREA OF STUDY

Nagaland is the 16th state of India, with an area of 16,577 square kilometers and a population of 1,978,502, with 71.03 per cent residing in rural areas and 28.97 per cent in urban areas, according to the 2011 census. The workforce comprises 49.2 per cent of the entire population and possesses a literacy rate of 79.55 per cent. Nagaland now comprises sixteen districts. Kohima, Mokokchung, and Tuensang were chosen from the districts for this study. These three districts were selected based on the varying Human Capital Index (HDI). The HDI for Kohima is 0.66, ranking second in Nagaland; for Mokokchung, it is

0.61, and for Tuensang, it is 0.53. Consequently, these districts serve as a representative sample for the state of Nagaland.

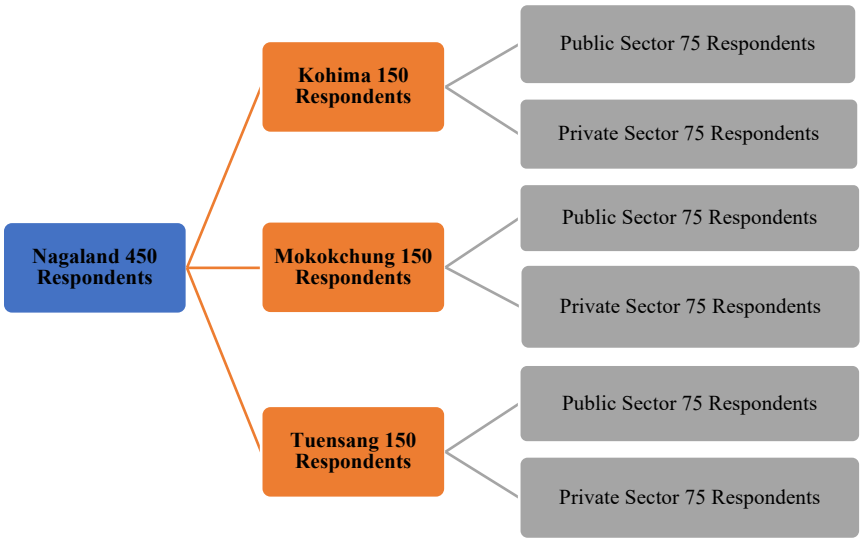
1.9. METHODOLOGY

1.9.1 Sources of Data

The data were collected from both primary and secondary sources. The primary data was collected through pre-test, well-structured questionnaires. Secondary data was drawn from the statistical handbook, NSSO,PLFS administrative reports on higher education, economic surveys, and other published and unpublished sources.

1.9.2 Sample Design and Sample Size

The primary data was gathered from employed individuals via self-administered survey questionnaires utilising purposive stratified random sampling. The districts analysed have been categorised based on employment agency into private and public sectors, with a sample size of 75 from each sector, making 150 samples each from the selected districts.



1.9.3 Analytical Technique

The acquired data has been evaluated at the individual level utilising suitable statistical instruments, including statistical averages, percentages, Compound Annual Growth Rate (CAGR), regression analysis, Lorenz curve, Gini coefficient, Garrett Ranking Index, and Relative Importance Index.

i. Ordinary Least Square Regression (OLS)

Ordinary Least Square Regression measures the relationship between two or more variables in terms of the original units of data. This method was used to examine the effect of education-job mismatch on income. It is expressed as:

$$Y=\alpha + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_n X_n + \varepsilon$$

Where Y is the dependent variable, the Xs are the independent variables, α is the intercept and βs are the coefficients of Xs and ε is the error term.

ii. Binary Logistic Regression Model:

To study the mismatch between education and occupation and also its effect on job satisfaction, a binary logistic regression model was used with Y = 0: Not satisfied and Y = 1: Satisfied. It is expressed as:

$$log_e \left(\frac{P_i}{1- P_i}\right) = \beta_0 + \beta_1 x_i + u_i$$

$$\frac{P_i}{1 - P_i} = e^{\beta_0 + \beta_i x_i}$$

$$P_i = \frac{1}{1+e^{-(\beta_0 + \beta_i x_i)}}$$

iii. Lorenz Curve and Gini Coefficient

The Gini coefficient[1] was employed to measure income inequality using the total income of the respondents through a cumulative distribution function.

The Gini coefficient is calculated using the formula:

$$Gini = \sum_{i=0}^{n-1} (F_i Q_{i+1} - F_{i+1}\, Q_i)$$

Fi denotes the cumulative percentage, while Qi represents the cumulative percentage of income.

iv. Garett Ranking

The Garett Ranking technique was employed to analyse the issues within the higher education system in Nagaland. This technique involved ranking the preferences expressed by the respondents about various factors. The ranks assigned to these factors were then converted into score values using the following formula:

$$\text{Per cent position} = \frac{100(Rij - 0.5)}{Nj}$$

Where,

Rij= Rank given for the ith variable by the jth respondent

Nj = Number of variables ranked by the jth respondent.

v. Relative Importance Index

To study the factors influencing the Choice of Academic Programmes in Nagaland, the Relative Importance Index (RII) was used using the formula:

Relative Importance Index equals= $\Sigma W / (A * N)$

[1] The Gini coefficient quantifies the level of inequality in a given distribution. The Gini coefficient is a numerical measure that ranges between 0 and 1. It is calculated by dividing the area between the Lorenz curve of a distribution and the line representing a perfectly equal distribution by the total area under the line representing a perfectly equal distribution.

Where:

$\Sigma W = 5n_5+4n_4+3n_3+2n_2 +1n_1$

W= Weightage by the respondents to each factor, ranging from 1 to 5 (n_5 = Strongly Agree, n_4= Agree, n_3= Neutral, n_2= Disagree, n_1= Strongly Disagree)

A= Highest weight (in this case, 5)

N= Total number of respondents

vi. Compound Annual Growth Rate

The Compound Annual Growth Rate (CAGR) is a metric that quantifies the average annual growth rate of an investment over a predetermined period, presuming that the investment exhibits a consistent rate of growth.

The formula to calculate CAGR is:

$$\text{CAGR} = \frac{V_{f\,1/n}}{V_i} - 1$$

Where:

V_f = the final value of the investment

V_i= the initial value of the investment

N = the number of years (or periods) over which the investment is held.

vii. Measurement of Education-Job Mismatch

The study employed the Job Analysis (JA) method[2], an objective measure, to quantify the incidence of education-job mismatch. The required level of education for each occupation is determined by the International Standard Classification of Occupations Code (ISCO-08 1 digit level)[3] using the JA measure, as outlined in the

[2] The Job Analysis method of measuring education-job mismatch compares a worker's educational qualifications with the education required for their job, based on objective job data from occupational classifications. It categorizes workers as overeducated, undereducated, or adequately educated, depending on whether their education level aligns with the job's documented requirements.

[3] ISCO-08 1-digit level refers to the broadest classification of occupations in the International Standard Classification of Occupations (ISCO), developed by the International Labour Organization (ILO). The 1-

International Standard Classification of Education (ISCED). For instance, there is no requirement for higher education for menial labourers. As a result, those who are employed in these professions will be perceived as having an excessive amount of schooling (Sam, 2019). Utilising the educational field data from ISCED-F 2013 [4]and its corresponding alignment with the occupational classification of ISCO-08 (Atanasovska et al., 2016 as cited in Sulaimanova, 2022b), the horizontal mismatch was determined.

1.10. PERIOD OF STUDY

The study relies on primary data gathered from the year 2021-22, while the secondary data concerning higher education and employment status in Nagaland is derived from recent available sources.

1.11. LIMITATIONS OF THE STUDY

The present study, while contributing to the understanding of higher education and occupational mismatch in Nagaland, has several limitations that must be acknowledged. Firstly, the geographical scope of the research is confined to three districts—Kohima, Mokokchung, and Tuensang. Although these districts were purposively selected to reflect regional diversity, the findings may not be entirely generalizable to the state as a whole due to contextual differences in educational infrastructure, labour market characteristics, and socio-economic conditions across other districts. Secondly, the study is based on self-reported data collected through structured questionnaires, which may be affected by respondent bias, misreporting, or recall inaccuracies. Thirdly, the classification of occupations and the identification of mismatch types (vertical, horizontal, and double) are based on standard frameworks that may not fully capture subjective interpretations or local employment nuances. Moreover, the study primarily focuses on the formal employment

digit level of ISCO groups occupations into 10 major categories, based on the type of work performed and the skill level required.

[4] ISCED-F 2013 refers to the International Standard Classification of Education – Fields of Education and Training (2013 revision). It is a framework established by UNESCO to categorize and compare academic disciplines across nations and educational systems.

sector, thereby excluding a substantial proportion of individuals engaged in informal or non-standard forms of employment, which are particularly prevalent in the region. Lastly, due to time and resource constraints, the analysis does not explore longitudinal trends or sector-specific dynamics that may influence mismatch patterns over time.

1.12. DEFINITIONS

Higher Education: For the study, higher education is defined as the education which is obtained after completing 12 years of schooling or equivalent.

Overeducation: A situation in which an individual has a higher qualification than the current job requires.

Under Education: A situation in which an individual has a lower qualification than the current job requires.

Vertical Mismatch: A situation in which the level of education is less than or more than the required level of education.

Horizontal Mismatch: A situation in which the type or field of study is inappropriate for the current job.

Double Mismatch: A situation of both the occurrence of vertical as well as horizontal mismatch.

1.13. ORGANIZATION OF THE STUDY

Chapter 1: Introduction

This chapter contains the background of the study, theoretical framework, literature review, research gap, significance of the study, statement of the problem, area of study, objectives, hypothesis, methodology, limitations of the study and organization of the study.

Chapter II: Status of Higher Education and Employment in Nagaland

This chapter deals with an overview of higher education and employment in Nagaland.

Chapter III: Education- Job Mismatch in Nagaland

This chapter analyses the vertical mismatch, horizontal and double mismatches, the effect of education-job mismatch on income and job satisfaction, problem of higher education and the factor influencing choice of academic programs in Nagaland.

Chapter IV: Income Inequalities in Nagaland

This chapter shows the extent of income inequalities between different educational levels, gender, age, and academic discipline.

Chapter V: Summary and Conclusion

This chapter shows the findings, followed by the conclusion and policy implications.

CHAPTER-II

STATUS OF HIGHER EDUCATION AND EMPLOYMENT IN NAGALAND

2.1. HIGHER EDUCATION

Education is imperative in any nation's growth and stimulates economic growth and development, which are integral determinants in increasing a country's GDP. To elucidate, a well-educated workforce far exceeds the antithesis regarding productivity, innovation, and the proficiency to adapt to new and changing technological innovation.

The genesis of higher education in Nagaland is anchored in the extensive socio-political and cultural changes that transpired during and after British colonial rule, missionary endeavours, and India's independence. Although formal higher education was introduced later in Nagaland than in other Indian states, early missionary initiatives laid the groundwork by prioritising literacy and religious education. Over time, they developed into formal educational systems, ultimately creating higher education institutions (Ao, 2004; Baruah, 2003; Longkumer, 2010).

The establishment of Fazl Ali College in Mokokchung in 1959 marked a pivotal milestone in the history of higher education in Nagaland, which was originally affiliated with Gauhati University and subsequently with North Eastern Hill University (NEHU), Shillong. Fazl Ali College was instrumental in establishing official higher education in the region (Ao, 2004).

The formation of Nagaland as the 16th state of the Indian Union in 1963 placed higher education under closer governmental oversight. The state government implemented initiatives to enhance educational accessibility by creating additional colleges in several districts (Government of Nagaland, 2020). Numerous government colleges were established in the ensuing decades. This era witnessed the emergence of private colleges, predominantly operated by missionary organisations (Ao, 2004). The state's Department of Higher Education was established to supervise policy, regulation, and funding for institutions of higher learning. The colleges in Nagaland were initially affiliated with NEHU (North Eastern Hill University), Shillong, which governed higher education in much of Northeast India (Baruah, 2003).

This section provides an overview of the higher education landscape in Nagaland, covering institutional expansion and current structure. It outlines the growth in the number of colleges and universities, both government and private, including professional and theological institutions. The data highlights district-wise and stream-wise distribution of colleges, showing regional disparities and a strong focus on arts education. Trends in student enrolment by gender and academic level are examined, along with changes in GER, which reveal notable gender-based differences. The section also discusses staffing patterns in government colleges and the role of public expenditure in supporting higher education. Overall, it presents a comprehensive picture of the progress, challenges, and evolving dynamics of the higher education sector in Nagaland.

2.1.1. Distribution of Higher Education

Table 2.1 illustrates the distribution of higher education institutions in Nagaland. The higher education landscape of Nagaland represents a varied array of central, government, and private entities. The state comprises five universities: 1 central university and 4 private universities, in addition to a centrally sponsored Institution of National Importance. Nagaland University encompasses the largest cohort of affiliated colleges, comprising 77 institutions, 20 governmental and 57 private. Specialised education is additionally facilitated by a centrally governed National Institute of Electronics and Information Technology (NIELIT). Professional education has 27 colleges, including 3 for law, 9 for teacher training, 4 for nursing, 10 for technical/ Polytechnic, and 33 theological colleges. This organised development signifies a deliberate initiative to enhance higher education via both public and private involvement, addressing a wide range of academic and professional requirements.

Table 2.1. Distribution of Higher Education in Nagaland

Sl. No.	University/College	Type		Total
1.	Universities	Central	1	5
		Private	4	
2.	Institutions of National Importance	Central		1
3.	Affiliated Colleges (Nagaland University)	Government	20	77
		Private	57	
4.	National Institute of Electronics and Information Technology	Central		1
5.	Professional Colleges	Law	3	27
		Teacher training	9	
		Nursing	4	
		Technical/ Polytechnic	10	
		Paramedical	1	
6.	Other	Theological college		33

Source: Department of Higher Education, Government of Nagaland, 2024 - 25, Nagaland University, (2025), College Development Council.

The inception of universities in Nagaland signifies a steady and progressive growth of higher education in the state, commencing with Nagaland University in 1994. (Table 2.2). The establishment of The Global Open University in 2006 initiated a new phase, succeeded by the Institute of Chartered Financial Analysis of India (ICFAI) University in 2009, North-East Christian University in 2013, and St. Joseph University in 2016. This trend illustrates an increasing dedication to enhancing the academic environment, marked by a significant rise in university.

Table 2.2. Number of Universities in Nagaland

Sl. No.	University	Year of Establishment
1.	Nagaland University	1994
2.	The Global Open University	2006
3.	The Institute of Chartered Financial Analysis of India University (ICFAI)	2009
4.	North-East Christian University (NECU)	2013
5.	St. Joseph University	2016

Source: Department of Higher Education, Government of Nagaland, 2024-25.

Table 2.3 presents key national institutions located in Nagaland. NIT Nagaland, situated in Chümoukedima, is an Institute of National Importance under the Ministry of Education, specialising in engineering and technology. The National Research Centre on Mithun (NRCM) in Jharnapani, under ICAR, focuses on research related to Mithun, a culturally significant animal in the region. The Central Institute of Horticulture (CIH) at Medziphema, managed by the Department of Agriculture & Farmers Welfare, promotes modern horticultural practices. Lastly, NIELIT Meriema, overseen by the Ministry of Electronics & IT, provides advanced training in electronics and information technology, contributing to the digital empowerment of the region.

Table 2.3. National Level Institutes in Nagaland

Sl. No.	Name of Institute	Type	Location	Governing Body
1.	National Institute of Technology (NIT) Nagaland	Institute of National Importance	Chümoukedima	Ministry of Education, Government of India
2.	National Research Centre on Mithun (NRCM)	National Research Institute (ICAR)	Jharnapani	Indian Council of Agricultural Research (ICAR)
3.	Central Institute of Horticulture (CIH)	National Horticulture Institute	Medziphema	Department of Agriculture & Farmers Welfare, GoI
4.	NIELIT	National IT Training Institute	Meriema	Ministry of Electronics & IT, GoI

Source: Nagaland University, NIT, ICAR–NRC on Mithun, Central Institute of Horticulture, and NIELIT.

2.1.2. Decade-Wise Affiliated Colleges

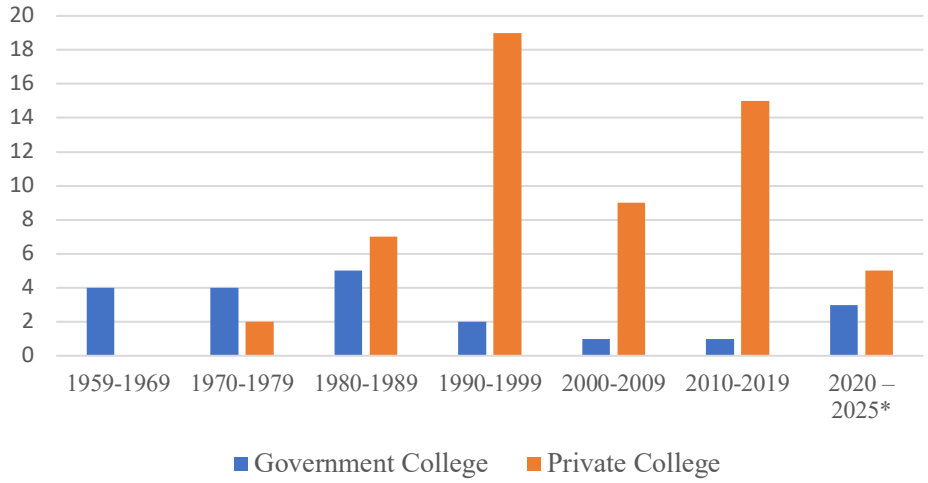
Table 2.4 shows the establishment of government and private colleges in Nagaland, which indicates a notable shift over the decades. From 1959 to 1989, the expansion of colleges was gradual, resulting in the establishment of 22 institutions, largely propelled by government programs. From the 1990s onwards, there was a significant increase in private sector involvement, especially between 1990 and 1999, during which 19 private colleges were built, in contrast to only 2 government colleges. This tendency persisted in subsequent decades, with private colleges constantly surpassing government colleges in number. During the period from 2010 to 2019, 15 private colleges were formed compared to only one Government College, indicating the growing influence of private entities in higher education. The latest era (2020–2025*) demonstrates a continued contribution from the private sector, while government involvement has somewhat risen with the establishment of three new colleges. Of the 77 institutions created in Nagaland, 57 (about 74 per cent) are privately operated, highlighting a distinct tendency towards privatisation in the state's higher education sector.

Table 2.4. Decade-Wise Affiliated Colleges in Nagaland

Year	Government College	Private College	Total
1959-1969	4	0	4
1970-1979	4	2	6
1980-1989	5	7	12
1990-1999	2	19	21
2000-2009	1	9	10
2010-2019	1	15	16
2020 -2025*	3	5	8
Total	20	57	77

Source: Department of Higher Education, Government of Nagaland, 2024-25.

Figure 2.1. Decade-Wise Affiliated Colleges in Nagaland



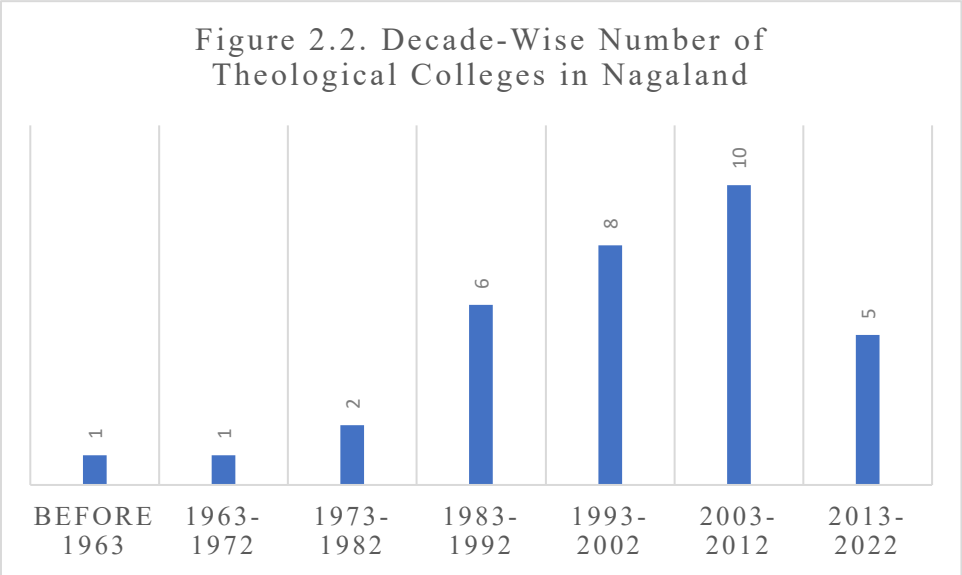
2.1.3. Decade-Wise Theological Colleges

Table 2.5 shows that the growth of theological colleges in Nagaland has been gradual, with a notable rise from the 1980s to 2012. Only one college existed before 1963, but the number increased significantly between 1983 and 2012, peaking with 10 colleges in 2003-2012. However, growth slowed in the following decade, with only five new colleges from 2013 to 2022. In total, 33 theological colleges have been established, reflecting a steady expansion of faith-based education in the state.

Table 2.5. Decade-Wise Theological Colleges in Nagaland

Year	Number of Colleges
Before 1963	1
1963-1972	1
1973-1982	2
1983-1992	6
1993-2002	8
2003-2012	10
2013- 2022	5
Total	33

Source: Department of Higher Education, Government of Nagaland, 2024-25.



2.1.4. Growth of Government and Private Colleges

The state has witnessed a steady growth in the number of institutions of higher learning over the last ten years (2014-24), with Nagaland having a total of 71 institutions of higher learning as of 2023-24 (Table 2.6). Between 2014 and 2024, the aggregate number of private and public institutions exhibited a moderate growth trend. Private institutions expanded from 46 to 54, indicating a compound annual growth rate (CAGR) of 1.62 per cent, whilst government institutions increased from 15 to 17, demonstrating a notable CAGR of 1.26 per cent. The overall number of institutions increased from 61 to 71, reflecting a compound annual growth rate (CAGR) of 1.53 per cent. Although the number of private institutions varied, the consistent expansion of government institutions substantially influenced the total increase.

Table 2.6. Year-wise Growth and CAGR of Private and Government Colleges in Nagaland

Year	Private	% change	Government	% change	Total	% change
2014-15	46	-	15	-	61	-
2015-16	48	4.35	15	0	63	3.28
2016-17	50	4.17	15	0	65	3.17
2017-18	49	-2	15	0	64	-1.54
2018-19	50	2.04	15	0	65	1.56
2019-20	50	0	15	0	65	0
2020-21	51	2	15	0	66	1.54
2021-22	52	1.96	15	0	67	1.52
2022-23	54	3.85	15	0	69	2.99
2023-24	54	0	17	13.33	71	2.90
CAGR	1.62		1.26		1.53	

Source: Department of Higher Education, Nagaland, 2018-2019, 2023-2024.

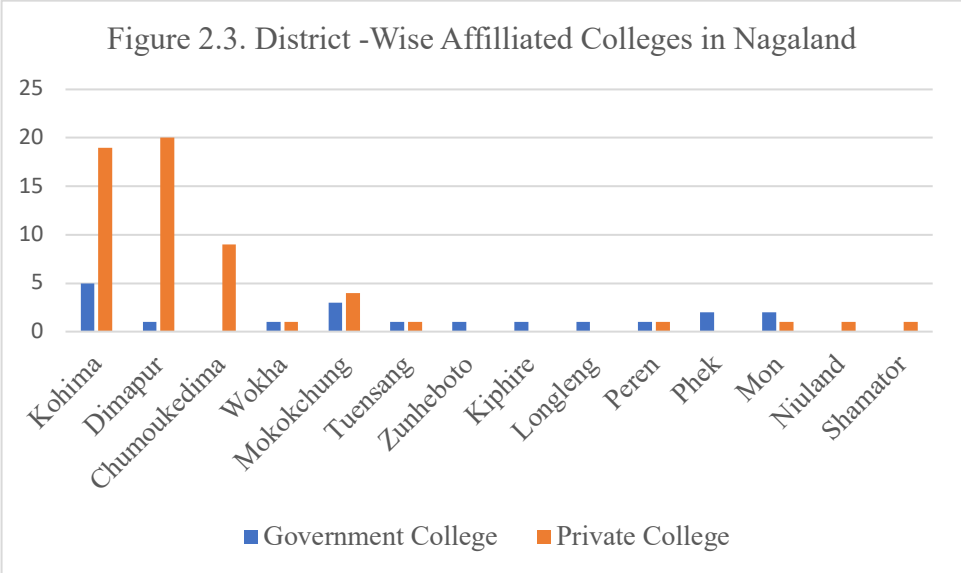
2.1.5. District-Wise Affiliated Colleges

The literacy rate in Nagaland remains perpetuated in an upward trend at 79.55 per cent, per the latest population census. Male literacy is 82.75 per cent, while female literacy is 76.11 per cent (Directorate of Economics and Statistics, Government of Nagaland, 2023). Table 2.7 displays the district-wise distribution of government and private colleges in Nagaland. As per the data, a total of 77 colleges are functioning across the state, comprising 20 government and 57 private institutions. Kohima and Dimapur lead with the highest number of colleges, having 24 and 21, respectively. Notably, Chumoukedima, though a relatively new district, has 9 private colleges but no government college. Several districts like Zunheboto, Kiphire, Longleng, and Phek have only government colleges, while Niuland and Shamator have only one private college each. This distribution highlights regional disparities in access to higher education infrastructure, with urban centres having a concentration of institutions, particularly private ones.

Table 2.7. District-Wise Affiliated Colleges in Nagaland (2024-25)

Sl. No.	District	Number of Government Colleges	Number of Private Colleges	Total
1.	Kohima	5	19	24
2.	Dimapur	1	20	21
3.	Chumoukedima	0	9	9
4.	Wokha	1	1	2
5.	Mokokchung	3	4	7
6.	Tuensang	1	1	2
7.	Zunheboto	1	-	1
8.	Kiphire	1	-	1
9.	Longleng	1	-	1
10.	Peren	1	1	2
11.	Phek	2	-	2
12.	Mon	2	1	3
13.	Niuland	0	1	1
14.	Shamator	0	1	1
Total		20	57	77

Source: Nagaland University, (2025), College Development Council.



2.1.6. Stream-Wise Distribution of Colleges

Table 2.8 delineates a classification of several sorts of colleges, encompassing a total of 93 schools. The predominant participation is in the Arts stream, including 50 colleges, followed by Commerce with 15 and Science with 10. Law colleges are the least numerous, with only three institutions. In the education sector, there exist 8

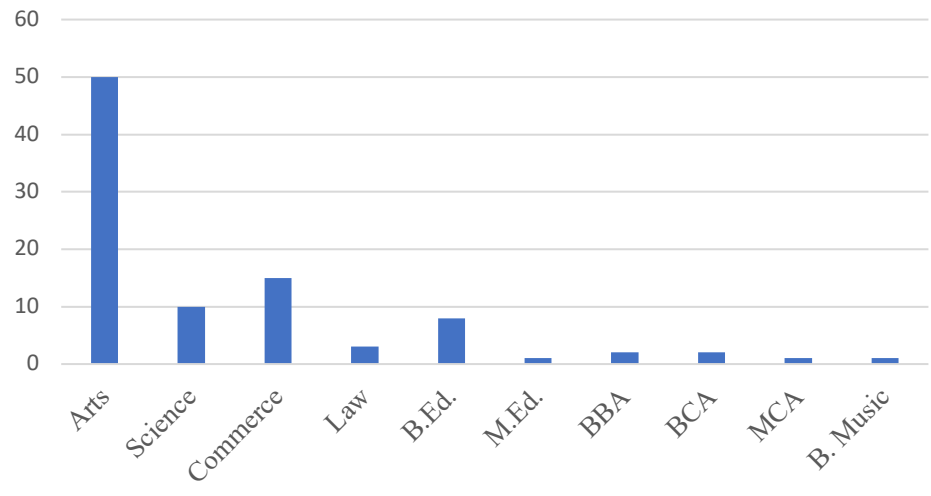
Bachelor of Education (B.Ed.) colleges and just 1 Master of Education (M.Ed.) college. The private institutions comprise two BBA and two BCA colleges, along with one college each for MCA and Bachelor of Music. This distribution highlights a pronounced focus on arts education relative to other fields.

Table 2.8. Stream-Wise Distribution of Colleges in Nagaland

Sl. No.	Types of Colleges	Number of Colleges
1.	Arts	50
2.	Science	10
3.	Commerce	15
4.	Law	03
5.	B.Ed.	08
6.	M.Ed.	01
7.	BBA	02
8.	BCA	02
9.	MCA	01
10.	B. Music	01
Total		93

Source: Department of Higher Education, Government of Nagaland, 2022-23.

Figure 2.4. Stream-Wise Number of Colleges



2.1.7. Enrolment of Students

In the last ten years, the Gross Enrolment Ratio for Nagaland has experienced a Compound Annual Growth Rate (CAGR) of 2.49%, comparable to India's CAGR of 2.82%. When comparing the gender-specific GER, the Compound Annual Growth Rate (CAGR) for males shows a negative trend of -0.06, while the CAGR for females

exhibits a positive trend of 5.18. The decline in male performance may indicate inequalities in educational achievement and motivation between genders (Table 2.9).

Table 2.9. Gross Enrolment Ratio of Higher Education in Nagaland

Year	Gross Enrolment Ratio							
	Male	% change	Female	% change	Total	% change	India	% change
2012-13	16.6		12.8		14.7		21.5	
2013-14	16.9	1.81	13.9	8.59	15.4	4.76	23	6.98
2014-15	15.2	-10.06	16.1	15.83	15.6	1.30	24.3	5.65
2015-16	14.2	-6.58	15.6	-3.11	14.9	-4.49	24.5	0.82
2016-17	16.6	16.90	16.1	3.21	17	14.09	25.2	2.86
2017-18	15.9	-4.22	16.6	3.11	16.2	-4.71	24.6	-2.38
2018-19	15.7	-1.26	18.1	9.04	16.8	3.70	24.9	1.22
2019-20	14.4	-8.28	18.7	3.31	16.4	-2.38	25.6	2.81
2020-21	15.4	6.94	19.3	3.20	17.3	5.49	27.3	6.64
2021-22	16.5	7.14	21.2	9.84	18.8	8.67	28.4	4.03
CAGR	-0.06		5.18		2.49		2.82	

Source: AISHE, 2016-17, 2021-22.

Table 2.10 outlines the enrolment of degree students in private and government institutions over 10 years, along with percentage changes. Private colleges showed steady growth, rising from 14,553 students in 2013-14 to 26,443 in 2023-24, with a CAGR of 6.15%. Despite minor declines (-1.64% in 2021-22), the overall trend was upward, with the highest growth in 2023-24 (11.25%). Government institutions grew from 6,066 to 9,843 students, marking a CAGR of 4.96%. Growth was uneven, with sharp increases in some years (e.g., 34.27% in 2016-17) and declines in others (-11.85% in 2014-15). Total enrolment increased from 20,619 to 36,286, reflecting a CAGR of 5.81%. This indicates sustained demand for higher education, driven more strongly by private sector expansion.

Table 2.10. Student Enrolment in Government and Private Colleges in Nagaland

Year	No. of Degree Students				Total	
	Private	% Change	Government	% Change		% Change
2013-14	14553	-	6066	-	20619	-
2014-15	17007	0.17	5347	-11.85	22354	8.41
2015-16	17977	5.70	6157	15.15	24134	7.96
2016-17	20317	1.17	8267	34.27	28584	18.44
2017-18	22138	8.96	8257	-0.12	30395	6.34
2018-19	21803	2.17	7734	-6.33	29535	-2.83
2019-20	23629	8.37	7852	1.53	31481	6.59
2020-21	23017	3.17	8294	5.63	31311	-0.54
2021-22	22639	-1.64	9211	11.06	31850	1.72
2022-23	23769	4.17	9013	-2.15	32782	2.93
2023-24	26443	11.25	9843	9.21	36286	10.69
CAGR	6.15		4.96		5.81	

Source: Department of Higher Education, Government of Nagaland, 2023-24, Nagaland Statistical Handbook, 2015, 2018, 2021, 2022.

Table 2.11 illustrates gender-wise enrolment across various academic disciplines in Nagaland from 2018-19 to 2022-23. At the undergraduate level, female enrolment continually exceeded male enrolment, with a total growth from 34,062 in 2018-19 to 37,194 in 2022-23, although a decline in 2022-23. Postgraduate enrolment nearly doubled during the period, increasing from 3,295 in 2018-19 to 4,926 in 2022-23, with females consistently outnumbering males. Ph.D. enrolment exhibited a consistent upward trajectory, rising from 492 to 700 throughout the same timeframe, signifying an increasing interest in research-level study among both genders.

Table 2.11. Gender- Wise Students' Enrolment across Academic Disciplines in Nagaland (AISHE Report 2022-23)

Academic Year	Undergraduate				Postgraduate			PhD		
	Male	Female	Transgender	Total	Male	Female	Total	Male	Female	Total
2018-19	16205	17857	0	34062	1299	1996	3295	235	257	492
2019-20	16442	19839	0	36281	1346	2205	3551	270	307	577
2020-21	17094	18734	0	35828	2077	2865	4942	279	314	593
2021-22	18191	19839	0	38030	2181	3138	5319	290	330	620
2022-23	17242	19950	2	37194	1931	2995	4926	343	357	700

Source: Department of Higher Education, Government of Nagaland, 2024-25.

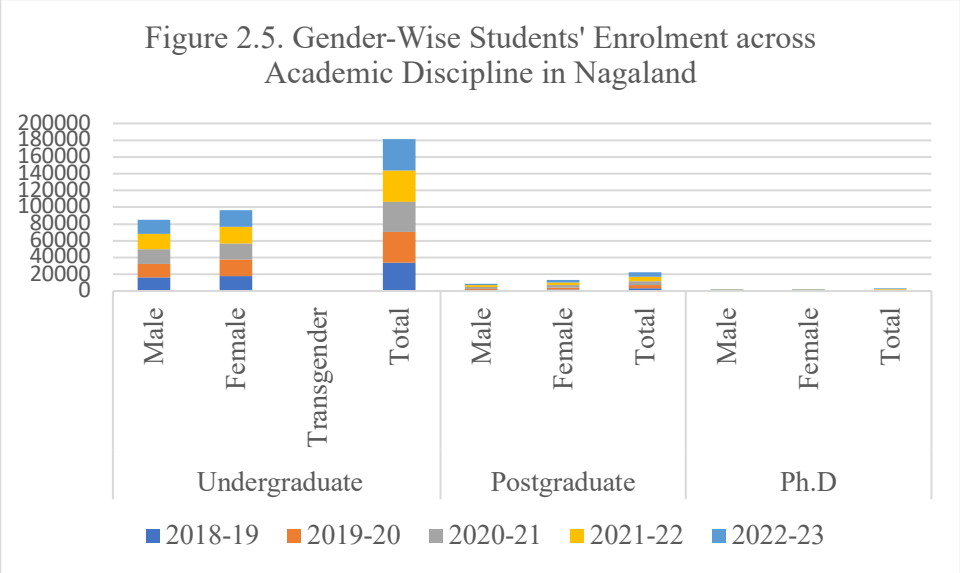


Table 2.12 presents the students' enrolment data for Nagaland University during the academic year 2023–2024. The university comprises 6 schools with a total of 43 departments. Among these, the School of Social Sciences has the highest student enrolment (380), followed by the School of Humanities & Education (290), and the School of Sciences (241). The School of Agricultural Sciences has 208 students, while the School of Engineering and the School of Management Studies have relatively lower enrolments, with 140 and 30 students respectively. Altogether, 1,298 students were enrolled across all schools.

Table 2.12. Students' Enrolment in Nagaland University

Sl. No.	School	No. of Departments	Students Enrolled
1.	School of Sciences	10	241
2.	School of Social Sciences	7	380
3.	School of Humanities & Education	7	290
4.	School of Agricultural Sciences	13	208
5.	School of Engineering	5	140
6.	School of Management Studies	1	30
Total		43	1298

Source: Nagaland University, (2024), 29th Annual Report 2023-2024.

Table 2.13 shows that a total of 3,869 students were enrolled during the academic year, with a higher number of female students (2,033) compared to male students (1,836). This indicates a significant female majority in theological education enrolment for that year, suggesting either a growing interest among women in theological studies or better access and support for female students in this field.

Table 2.13. Enrolment in Theological Colleges 2022-2023

Theological Colleges	Male (%)	Female (%)	Total (%)
	1836 (47.45)	2033 (52.55)	3869 (100)

Source: Department of Higher Education, Government of Nagaland, 2023-24.
Note: Figures in parentheses represent percentages.

2.1.8. Teaching and Non-Teaching Staff

The data compiled on teaching and non-teaching personnel from 2013-14 to 2022-23 indicates considerable variations in staffing numbers throughout the years. Initially, the teaching staff rose from 484 in 2013-14 to a maximum of 573 in 2015-16, followed by a significant drop to 438 by 2016-17, representing a 23.56% reduction. The non-teaching staff experienced a divergent trajectory, marked by significant swings; it reached a zenith in 2018-19 with a 99.38% growth, followed by a decline of 49.38% in 2019-20. The overall staffing numbers reached a zenith of 1124 in 2014-15

but then declined to 792 by 2022-23, indicating a cumulative annual growth rate (CAGR) of -2.72%. The data reveals a concerning decline in both teaching and non-teaching personnel over the past decade, especially following 2016. (Table 2.11).

Table 2.14. Teaching and Non-Teaching Staff at Government Colleges in Nagaland

Year	Teaching Staff	% Change	Non-Teaching Staff	% Change	Total	% Change
2013-14	484	-	560	-	1044	-
2014-15	560	15.70	564	0.71%	1124	7.66
2015-16	573	2.32	587	4.08%	1160	3.20
2016-17	438	-23.56	321	-45.32%	759	-34.57
2017-18	429	-2.05	323	0.62%	752	-0.92
2018-19	409	-4.66	644	99.38%	1053	40.03
2019-20	426	4.16	326	-49.38%	752	-28.58
2020-21	426	0.00	596	82.82%	1022	35.90
2021-22	426	0.00	356	-40.27%	792	-22.50
2022-23	426	0.00	356	0.00%	792	0
CAGR	-1.27		-4.43		-2.72	

Source: Department of Higher Education, Government of Nagaland, 2018-19, 2023-24.

Table 2.15 presents gender-wise enrolment data from six universities in Nagaland, showing a total of 480 students: 274 males and 206 females. Nagaland University has the highest enrolment (197), followed by St. Joseph (164), while NECU has the lowest (10). Most institutions have more male students, except IFCAI and St. Joseph, where female enrolment is higher. The data highlights a noticeable gender gap in higher education participation, with males outnumbering females overall.

Table 2.15. Number of teachers in the Universities of Nagaland (2022-23)

Sl. No.	Name of the University	Male	Female	Total
1.	Nagaland University	124	73	197
2.	The Global Open University	26	09	35
3.	NIT	28	06	34
4.	NECU	06	04	10
5.	IFCAI	13	27	40
6.	St. Joseph	77	87	164
Total		274	206	480

Source: Department of Higher Education, Government of Nagaland, 2024-25.

2.2.9 Public Expenditure in Higher Education

Public Expenditure on education refers to the direct financial resources allocated by government entities to educational institutions, as well as the subsidies provided to households for educational purposes and managed by educational institutions. Public expenditure on higher education, in general, has been increasing owing to the growth of educational institutions being maintained and expanded by the country. State funding is necessary for education, which is considered a public good. As a concurrent subject, it necessitates the joint management of financial, regulatory, and developmental tasks in a federal system. The allocation of funds for education in India accounts for approximately 4 per cent of the country's Gross Domestic Product (GDP). However, the analysis reveals that the Union bears just 1 per cent of the burden, but the states collectively bear 3 per cent. (Motkuri & Revathi, 2023).

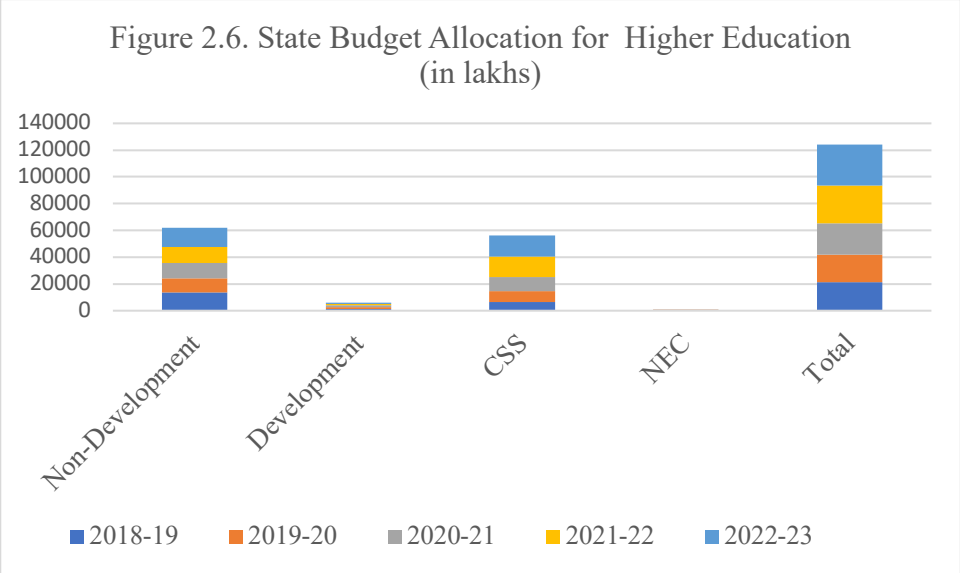
Despite the challenges faced by a physically varied and economically constrained territory, Nagaland has continuously allocated a significant portion of its budget to education. Table 2.15 displays the allocation of funds from the state budget for higher education from 2018-19 to 2022-23. It includes categories such as Non-Development, Development, CSS (Central Sponsored Schemes), and NEC (Northeast Council), along with the overall budget and the percentage change compared to the previous year. The budget witnessed a modest compound annual growth rate (CAGR) of 7 per cent as it rose from ₹ 21,471.19 lakhs in 2018-19 to ₹ 30,555.58 lakhs in 2022-23. The allocations for Non-Development and Development components demonstrate

a consistently increasing trajectory, with significant growth observed in Non-Development expenditure. Nevertheless, there is a substantial decrease in financing for CSS in the fiscal years 2021-22 and 2022-23, whilst money for NEC remains consistently low. The year-over-year percentage change varies, but the overall budget continuously increases, demonstrating a consistent expansion in investment in higher education despite volatility in various funding areas.

Table 2.16. State Budget Allocation for Higher Education (in Lakhs)

Sl. No.	Year Wise	Non-Development	Development	CSS	NEC	Total	% Change
1.	2018-19	13677.59	1304.39	6438.85	50.36	21471.19	-
2.	2019-20	10703.32	1383.11	7966.04	195.11	20247.58	-0.6
3.	2020-21	11079	1630.88	10600.26	101.84	23412.30	0.16
4.	2021-22	12375.48	620.00	15503.30	0.00	28498.78	0.22
5.	2022-23	14048.16	941.62	15565.80	0.00	30555.58	0.07
CAGR	0.07						

Source: Department of Higher Education, Government of Nagaland, 2023-24.



2.2. EMPLOYMENT

A time-honoured component of economic growth has been employment, with job creation and access to income accompanying the expansion of the economy. Developing countries often correlate their development initiatives with high unemployment rates or even underemployment, a situation that impedes the overall progress of a nation. A definitive understanding of employment standards and statistics within a country would alleviate the issues and challenges of a growing economy while facilitating efficient studies of the labour market.

This section reviews the employment landscape in Nagaland, focusing on workforce participation, government employment, and sectoral job distribution. It highlights trends in Work Participation Rate (WPR) across districts and genders, showing significant rural-urban and male-female differences. It also presents the growth of state government employment over decades, including classification by job type, educational qualifications, age, and gender. It further compares public and private sector employment, and analyses workforce distribution in both organised and unorganised sectors. Data from employment exchanges and self-employment schemes reveal patterns of job-seeking behaviour and the mismatch between education and available opportunities. Overall, the section provides insights into employment patterns, challenges, and gaps in the labour market across Nagaland.

2.2.1. Work Participation Rate

Table 2.17 presents data from the Census Reports of 2001 and 2011, highlighting the Workforce Participation Rate (WPR) for males and females in Nagaland. The male WPR rose from 46.7 per cent in 2001 to 53.4 per cent in 2011, while the female WPR increased from 38.1 per cent to 44.7 per cent over the same period. The gender gap in WPR is relatively narrow in rural areas, where male and female participation rates are 55 per cent and 52 per cent, respectively. However, a substantial disparity is evident in urban areas, with 47 per cent for males and only 25 per cent for females. Notably, rural districts such as Mon, Zunheboto, Longleng, and Peren report higher female WPRS. Conversely, Dimapur and Kohima record the lowest WPRS at 40 per cent and 42.8 per cent, respectively. Overall, Nagaland's WPR improved from 42.6 per cent in

2001 to 49.2 per cent in 2011, surpassing the national averages of 39.1 per cent in 2001 and 39.8 per cent in 2011.

Table 2.17. District-Wise Work Participation Rate

District/State	2001			2011		
	Persons	Male	Female	Persons	Male	Female
Kohima	42.6	47.4	37.3	42.8	49.0	36.2
Dimapur	33.4	46.5	18.0	40.0	50.5	28.5
Phek	48.2	48.4	47.9	49.1	49.6	48.6
Mokokchung	47.1	50.5	43.4	51.4	56.5	46.0
Wokha	34.9	37.6	31.9	47.1	49.8	44.4
Zunheboto	36.9	39.4	34.3	56.5	57.8	55.1
Tuensang	41.3	44.0	38.2	49.9	51.9	47.8
Mon	50.2	52.9	47.2	59.0	60.3	57.6
Peren	45.8	46.3	45.3	64.5	64.9	64.0
Kiphire	41.2	41.5	40.8	43.2	44.4	42.0
Longleng	52.6	53.1	52.0	60.5	61.4	59.6
Nagaland	42.6	46.7	38.1	49.2	53.4	44.7
All India	39.1	51.7	25.6	39.8	53.3	25.5

Source: Census of India, 2001 and 2011.

2.2.2. Labour Force Participation Rate (LFPR)

Table 2.18 illustrates LFPR in per cent for individuals aged 15 years and above in both rural and urban areas, categorised by educational attainment, as per the PLFS Annual Report 2023–2024. In Nagaland, LFPR is notably high across all education levels, peaking at 100.0 per cent for those with Diploma or Certificate Courses and remaining strong among graduates (88.6 per cent) and postgraduates and above (85.5 per cent). The overall LFPR for Nagaland stands at 73.3 per cent. In contrast, the national average for India is lower at 60.1 per cent, with the highest LFPR among diploma holders (80.6 per cent), followed by postgraduates and above (71.0 per cent) and graduates (66.2 per cent). Both in Nagaland and at the all-India level, the data show a general pattern where LFPR decreases after secondary and higher secondary education but rises again for those with diplomas and higher qualifications. This suggests a U-shaped relationship between education level and labour force participation, where both lower and higher ends of the education spectrum show stronger engagement with the workforce compared to the middle tiers.

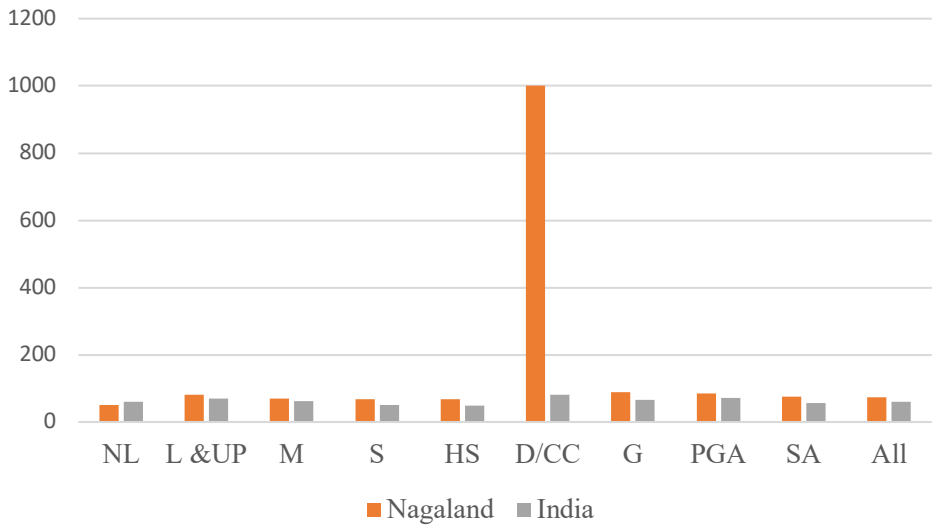
Table 2.18. LFPR (in per cent) according to Usual Status (PS+SS) of 15 years and above (Rural and Urban)

State/ Country	Level of Education									
	NL	L &UP	M	S	HS	D/CC	G	PGA	SA	All
Nagaland	50.8	80.7	70.3	67.1	68.2	1000.0	88.6	85.5	75.2	73.3
India	59.7	68.9	61.7	50.7	48.0	80.6	66.2	71.0	56.1	60.1

Source: PLFS, Annual Report, 2023-2024.

Note: NL = Not Literate, L&UP= Literate & Up to Primary, M = Middle, S= Secondary, HS= Higher Secondary, D/CC= Diploma/ Certificate Course, G= Graduate, PGA= Postgraduate & Above, SA= Secondary & Above.

Figure 2.7. LFPR According to Usual Status (PS+SS)



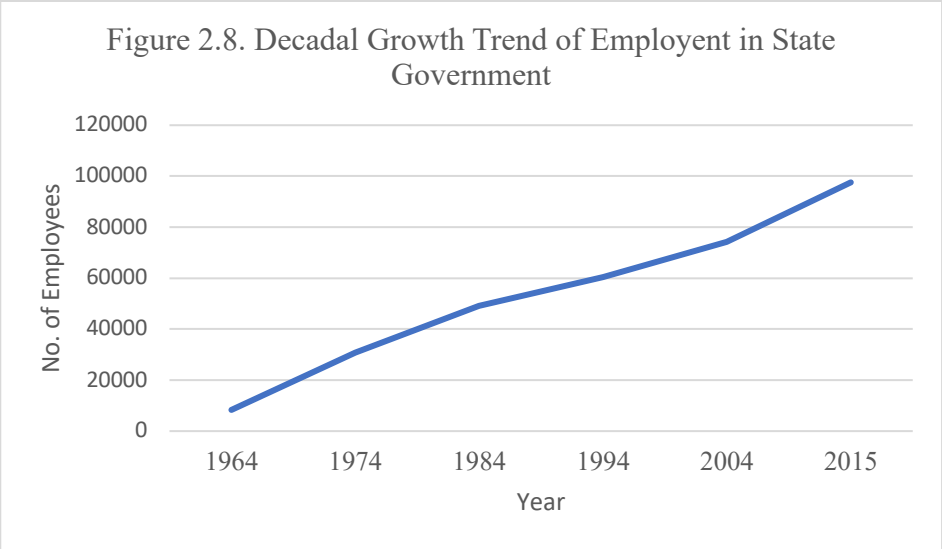
2.2.3. Status of Employment in State Government

The trend of employment in the State Government, as presented in Table 2.19, shows the decadal growth rate of jobs in the public sector. As observed, there has been a tremendous increase in the decadal growth rate, as in 2015, 97576 employees were recorded, in contrast to 8311 employees in 1964.

Table 2.19. Decadal Growth Trend of Employment in the State Government

Year	No. of Employees
1964	8311
1974	30751
1984	49157
1994	60322
2004	74340
2015	97576

Source: Government Employees Census, Nagaland, 2015.



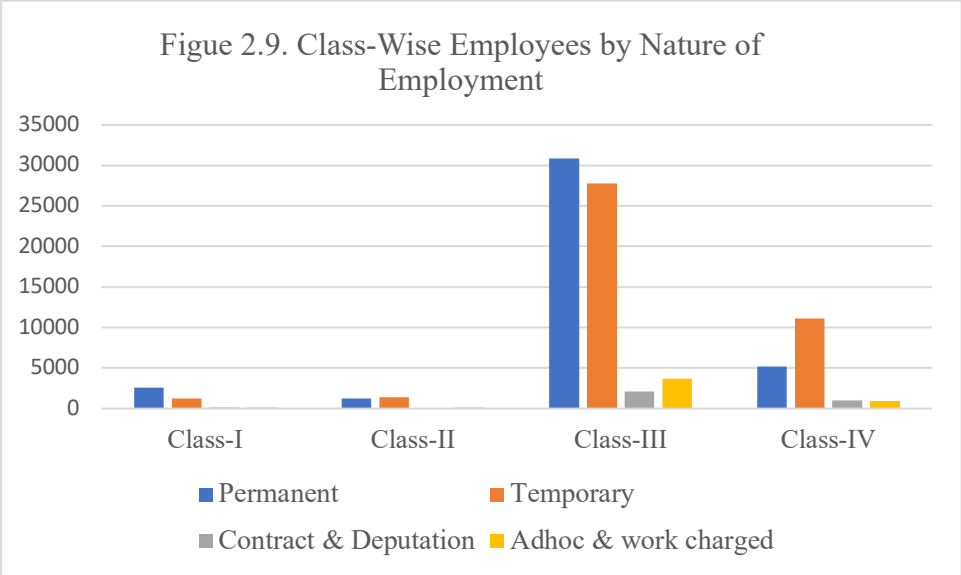
2.2.4. Class-Wise Number of Employees by Nature of Employment

Table 2.20 depicts the total number of government employees in the class, 97576, based on the nature of their employment as of 2015. Under the Class I category, 4062 employees have been recorded, of which 2554 are reserved for permanent jobs. Class II, with a total of 2813 employees, has 1383 individuals under the temporary nature of employment. Class III recorded the highest number of operatives at 64315, with 30830 people holding a permanently employed status. Lastly, Class IV had 18218 employees, of whom 11107 are tied under the temporary nature of employment.

Table 2.20. Class-Wise Employees by Nature of Employment

Nature of Employment	Class-I	Class-II	Class-III	Class-IV	Total
Permanent	2554	1234	30830	5180	39798
Temporary	1278	1383	27740	11107	41508
Contract & Deputation	121	97	2085	1024	3327
Adhoc & work charged	109	99	3660	907	4775
Total	4062	2813	64315	18218	89408

Source: Government Employees Census, Nagaland, 2015.



2.2.5. Educational Qualification of Government Employees

A massive slant towards the public sector marks the state's employees' dispersion. The total number of Government employees was 97576, accounting for 4.73 per cent of the total population (19,78,502) of Nagaland and amounts to 9.60 per cent of the total workforce (9,74,122) in the state as per the 2011 Census. The data concerning government employees in Nagaland indicates a distinct correlation between educational credentials and job categorisation. Within Class I personnel, a notable 44 per cent possess postgraduate degrees, but a negligible percentage (0 per cent) is categorised as under-matriculate. Conversely, Class III employees, constituting the largest cohort, have a significant proportion of under-matriculates (57 per cent) and matriculates (83 per cent), signifying that this class is predominantly

occupied by individuals with lesser educational levels. Class II personnel exhibit moderate educational attainment, with merely 13 per cent possessing postgraduate degrees. Class IV exhibits a predominant proportion of under-matriculates (43 per cent), highlighting the lowest level of educational achievement in this category. The data highlights the influence of educational credentials on employment status, indicating that elevated educational attainment is associated with superior class classifications.

Table 2.21. Distribution of Employees by Educational Qualification

Status	Educational Qualification					Total
	Post Graduate (%)	Graduate (%)	PU/10+2 (%)	Matric (%)	Under Matric (%)	
Class I	1438 (44)	1596 (13)	806 (7)	120 (1)	28 (0)	3988 (4)
Class II	422 (13)	1026 (9)	800 (7)	408 (2)	90 (0)	2746 (3)
Class III	1361 (42)	9146 (77)	9240 (82)	15027 (83)	29245 (57)	64019 (67)
Class IV	14 (0)	151 (1)	460 (4)	2621 (14)	21910 (43)	25156 (26)
Total	3235 (100)	11919 (100)	11306 (100)	18176 (100)	51273 (100)	95909 (100)

Source: Government Employee Census, Nagaland, 2015.

Note: Figures in parentheses represent percentages.

2.2.6. Gender-Wise Distribution of State Government Employees

Table 2.22 shows the percentage distribution of employees by gender across different job classifications. Among the total workforce, males constitute 77.44 per cent while females account for 22.56 per cent. A significant concentration is observed in Class-III positions, comprising 65.91 per cent of the total, with 51.05 per cent male and 14.85 per cent female employees. Class-IV follows with 27.04 per cent of the workforce, where males represent 21.13 per cent and females 5.91 per cent. Class-I and Class-II positions account for a relatively smaller share, with Class-I comprising 4.16 per cent (3.04 per cent male and 1.12 per cent female) and Class-II making up 2.88 per cent (2.22 per cent male and 0.67 per cent female). The data indicates a higher

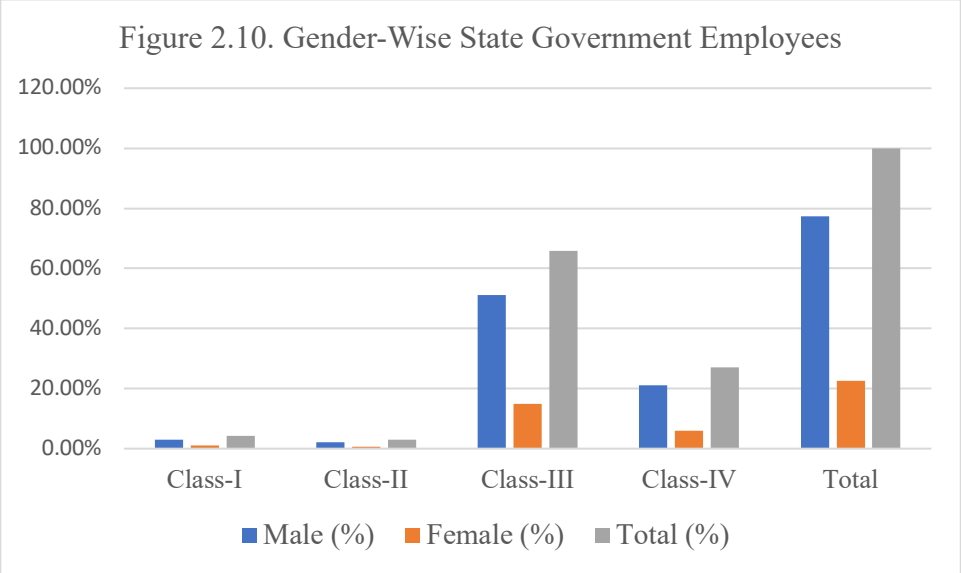
representation of males across all categories, with the gender gap particularly pronounced in the lower job classifications.

Table 2.22. Gender-Wise State Government Employees

Status	Male	Female	Total
Class-I	2965 (3.04)	1097 (1.12)	4062 (4.16)
Class-II	2163 (2.22)	650 (0.67)	2813 (2.88)
Class-III	49828 (51.05)	14487 (14.85)	64320 (65.91)
Class-IV	20617 (21.13)	5769 (5.91)	26381 (27.04)
Total	75573 (77.44)	22003 (22.56)	97576 (100)

Source: Government Employee Census, 2015.

Note: Figures in parentheses represent percentages.



2.2.7. Age-Wise Distribution of Government Employees

Delving closely into the age-wise classification of state government employees in Nagaland, it has been adjudged that most of the state workforce is primarily young, with 63.48 per cent being 26 - 46 years old. 5.63 per cent of the total employees are in accord with the age group of 18-25 years, and 21.06 per cent are linked to the age group of 47-60 years, as disclosed in Table 2.23.

Table 2.23. Age-Wise Distribution of Government Employees

Status	Age							Total
	18-25	26-32	33-39	40-46	47-53	54-60	Not Reported	
Class I	48	380	547	835	1267	644	341	4062
Class II	44	339	516	683	801	262	168	2813
Class III	4017	12878	15592	14441	11127	2553	3707	64320
Class IV	1507	4472	5754	5806	3689	1089	4069	26381
Total	5616	18069	22409	21765	16884	4548	8285	97576

Source: Government Employee Census, 2015.

2.2.8. District-Wise Distribution of Employees

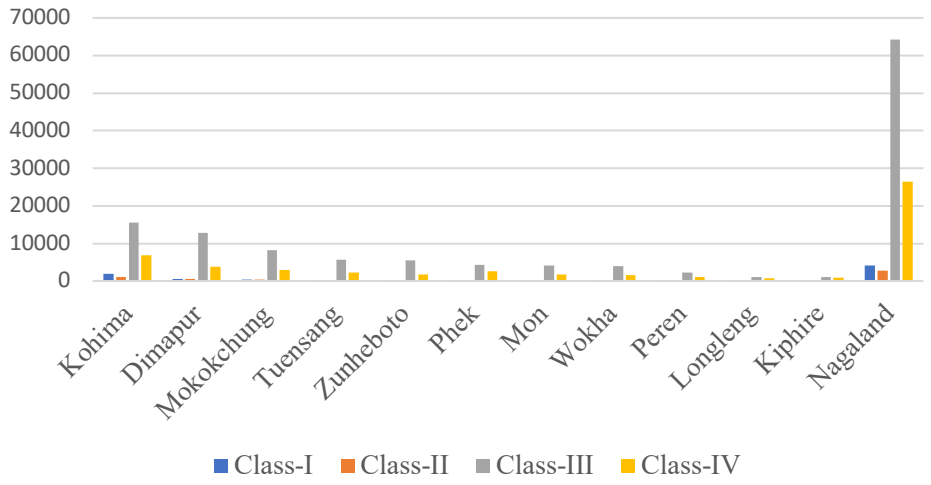
The district-wise allocation of employees in the government sector can be seen in Table 2.24, with Longleng having the least, 1877 employees and Kohima having the highest number with 25549 employees. This is evident in the fact that the State capital of Kohima, the centre of all government operations, should have the highest concentration of employment.

Table 2.24. District-Wise Classification of Employees

District	Class-I	Class-II	Class-III	Class-IV	Total
Kohima	1973	1145	15543	6888	25549
Dimapur	531	512	12784	3815	17642
Mokokchung	370	313	8217	2999	11899
Tuensang	226	164	5667	2221	8278
Zunheboto	163	121	5499	1826	7609
Phek	209	141	4271	2628	7249
Mon	168	141	4079	1754	6142
Wokha	141	104	3883	1579	5707
Peren	128	86	2224	989	3427
Longleng	64	37	1008	768	1877
Kiphire	89	49	1145	914	2197
Nagaland	4062	2813	64320	26381	97576

Source: Government Employee Census, 2015.

Figure 2.11. District-Wise Classification of Employees



2.2.9. Employment in the Organised Sector

A side-by-side comparison between the employment patterns among private and public sectors in the State can be extrapolated through Table 2.25, along with gender-specific classifications about the dual employment sectors. The State Government establishments hold the highest workforce in the public sector, with 78521 employees. The proportion of males constitutes 58230, whereas females represent 20291 of the total aggregate. On the other hand, the private sector comprises Act establishments and shares the majority of employment with 4425 workers, of which males account for 1916, and females account for 2509 of the total workforce.

Table 2.25. Number of Employment in the Organised Sector (2023)

Sl. No	Sector	Employment		
		Male	Female	Total
Public Sector				
1	Central Government Establishments	4048	258	4306
2	State Government Establishments	58230	20291	78521
3	Central Quasi Government Establishments	2085	462	2547
4	State Quasi Government Establishments	967	358	1325
5	Local Bodies Government	498	114	612
Total Public Sector		65828	21483	87311
Private Sector				
1	Act Establishments	1916	2509	4425
2	Non-Act Establishments	959	1094	2053
Total Private Sector		2875	3603	6478
Grand Total (A+B)		68703	25086	93789

Source: Nagaland Economic Survey, 2023-24.

2.2.10. Employment in the Unorganised Sector

Table 2.26 shows the employment shares of the unorganised sector in various districts. Such dispersal is reflected in the eShram (National Database for Unorganised Workers), 'the first-ever national database of unorganised workers including migrant workers, construction workers, gig and platform workers, etc.'

The district-wise enrolment in the unorganised section demonstrates a growing list of registrations, with 221036 people enrolled as of 2024 in 12 districts of Nagaland. Dimapur has the highest number among these, with 39979 enlistments, closely followed by Mon, which has 35195 registrations. The district of Noklak has the fewest enrolled, with only 102 people.

Table 2.26. District-wise Enrolment of e-Shram

Sl. No	District	Total Number of Persons Enrolled
1	Kohima	26529
2	Dimapur	39979
3	Wokha	13469
4	Tuensang	15657
5	Mokokchung	22399
6	Peren	11098
7	Zunheboto	15858
8	Phek	21998
9	Kiphire	8646
10	Mon	35195
11	Longleng	10106
12	Noklak	102
Total		221036

Source: Nagaland Economic Survey, 2023-24.

2.2.11. Self-Employment

Self-employment is another facet of the distribution of the workforce in various spheres of the economy in the State. According to the Nagaland Economic Survey 2023-24 (Table 2.27), a total of 3477 male (1902) and female (1575) registrations under Self-employment have been completed, with a total placement of 730 enlisted individuals. Dimapur is shown to have the highest number of registrations (1149), with males bearing 455 and females having 694 admissions, respectively. The lowest enrolment rate can be seen in Mokokchung, which has a total of 80 registrations, out of which 50 males and 30 females constitute the enlistment made under self-employment.

Table 2.27. Registration & Placement made under Self-Employment during 2023-24

Sl. No.	District	Registration			Placement		
		Male	Female	Total	Male	Female	Total
1	Dimapur	455	694	1149	–	–	–
2	Kohima/Peren	567	293	860	370	194	564
3	Mokokchung/Longleng	50	30	80			
4	Mon	308	187	495	66	54	120
5	Phek	300	192	492	-	-	-
6	Tuensang/Kiphire	40	19	59	-	-	-
7	Wokha	86	69	155	-	-	-
8	Zunheboto	96	91	187	22	24	46
Total		1902	1575	3477	458	272	730

Source: Nagaland Economic Survey, 2023-24.

2.2.12. Unemployment

Table 2.28 shows the total number of unemployed individuals registered at the Employment Exchange, with a total of 70,936 applicants, comprising 48,727 males and 22,209 females. A gender-wise educational analysis reveals that the highest proportion of male applicants was from the 'Below Matric' category (31.47 per cent), whereas the majority of female applicants were graduates (42.06 per cent). This indicates a significant presence of educated women among the unemployed registrants. In contrast, male applicants showed a more even distribution across education levels, with substantial representation in the graduate (25.04 per cent) and matriculate (19.55 per cent) categories as well. The proportion of technically qualified applicants remained low across both genders, with diploma and degree (technical) holders accounting for only 3.43 per cent of the total applicants. These figures reflect a persistent education-employment mismatch and highlight the limited employment absorption for both highly educated and less educated individuals in the state.

Table 2.28. Gender-Wise Unemployed Applicants Registered at Employment Exchange

Level of Education	Male	Female	Total
Post Graduates	2994 (6.14)	3853 (17.35)	6847 (9.65)
Graduates	12203 (25.04)	9342 (42.06)	21545 (30.37)
Pre - University	6997 (14.36)	3861 (17.38)	10858 (15.31)
Matriculate	9528 (19.55)	2437 (10.97)	11965 (16.87)
Below Matric	15336 (31.47)	2003 (9.02)	17339 (24.44)
Degrees (Tech)	1299 (2.67)	560 (2.52)	1859 (2.62)
Diploma	370 (0.76)	153 (0.69)	523 (0.74)
Total	48727 (100.00)	22209 (100.00)	70936 (100.0)

Source: Nagaland Economic Survey, 2023-24.

Note: Figures in parentheses represent percentages.

Figure 2.12. Gender-Wise Unemployed Applicants at Employment Exchange

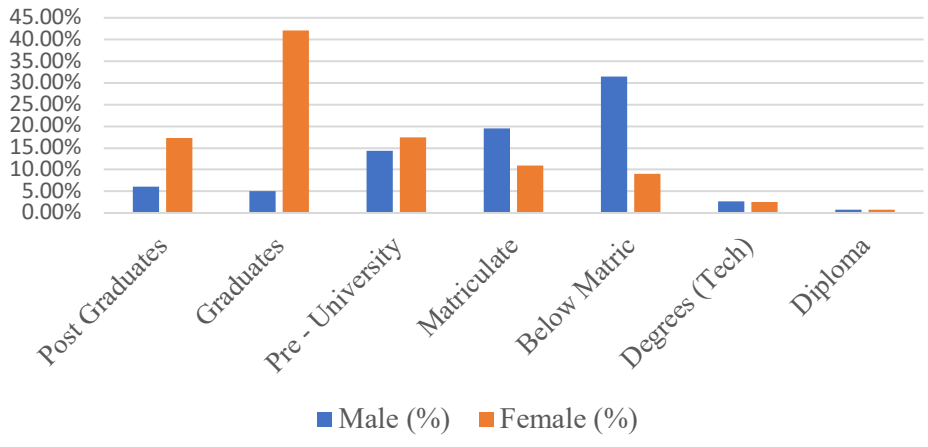


Table 2.29 shows that the unemployment rate in Nagaland much exceeds the national average, indicating more profound structural issues within the region's economy. Nagaland's rural unemployment rates are 5.5 per cent for males and 5.8 per cent for females, in contrast to India's lower rural averages of 2.7 per cent and 2.1 per cent, respectively. The gap is especially apparent in urban areas, where male and female jobless rates in Nagaland are 11.1 per cent and 11.6 per cent, respectively, far above the national urban rates of 4.4 per cent for males and 7.1 per cent for females.

Nagaland's unemployment rate stands at 7.1 per cent for both genders, above the national average of 3.2 per cent by more than double. This significant disparity underscores a crucial employment issue in Nagaland, particularly in urban areas, indicating restricted job generation and economic prospects in comparison to the national landscape.

Table 2.29. Unemployed Rate According to Usual Status (PS+SS) of all Ages

State/ Country	Rural			Urban			Overall		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nagaland	5.5	5.8	5.7	11.1	11.6	11.3	7.0	7.1	7.1
India	2.7	2.1	2.5	4.4	7.1	5.1	3.2	3.1	3.2

Source: PLFS, Annual Report, 2023-2024.

Note: Figures are in percentages.

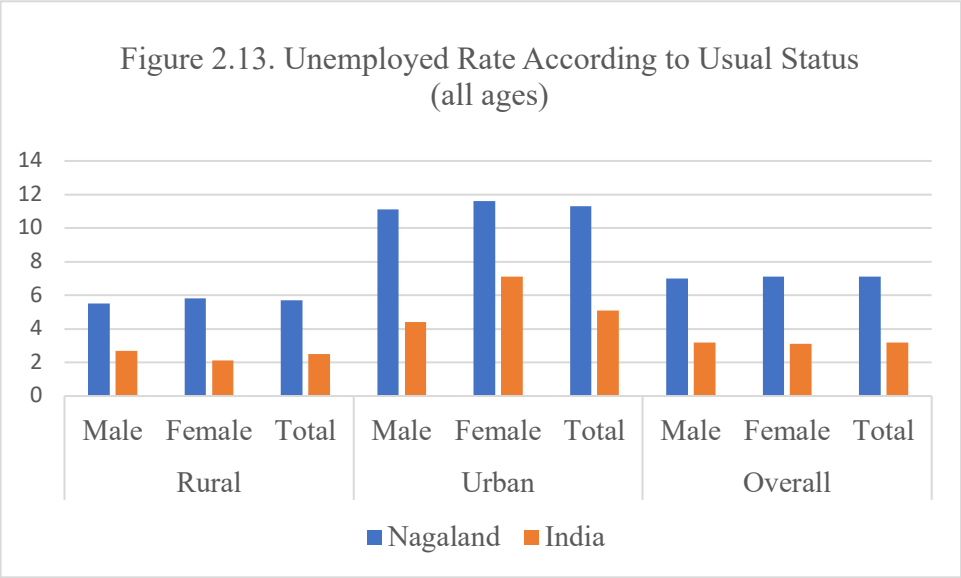


Table 2.30 displays the unemployment rate categorised by educational attainment for individuals aged 15 and older in rural and urban regions of Nagaland and India, according to PLFS 2023–24 data. Unemployment rises with educational attainment, especially in Nagaland. In Nagaland, the unemployment rate is 0.0 per cent for illiterate individuals, increases to 12.2 per cent for those with a higher secondary education, 19.2 per cent for graduates, and reaches a maximum of 27.0 per cent for postgraduates and above. Conversely, the same rates for India are 0.2, 4.4, 13.0, and

12.4 per cent, considerably lower. Individuals possessing diploma or certificate qualifications in Nagaland experience an unemployment rate of 26.2 per cent, in contrast to the national rate of 8.6 per cent. Nagaland reported a 2.1 per cent unemployment rate at the middle education level, significantly exceeding India's 1.6 per cent. This pattern underscores a pronounced differential in job outcomes for the educated demographic in Nagaland, revealing a regional issue where increased education does not correlate with improved work opportunities, in contrast to the national trend, which exhibits a more modest increase.

Table 2.30. Unemployment Rate (in per cent) according to Usual Status (PS+SS) for both Rural and Urban areas of those aged 15 years and above

State/Country	NL	L &UP	M	S	HS	D/CC	G	PGA	SA	All
Nagaland	00	0.7	2.1	5.6	12.2	26.2	19.2	27.0	13.4	7.1
India	0.2	0.6	1.6	1.9	4.4	8.6	13.0	12.4	7.1	3.2

Source: PLFS, Annual Report, 2023-2024.

Note: NL = Not Literate, L&UP= Literate & Up to Primary, M = Middle, S= Secondary, HS= Higher Secondary, D/CC= Diploma/ Certificate Course, G= Graduate, PGA= Postgraduate & Above, SA= Secondary & Above.

Figure 2.14. Unemployment Rate According to Usual Status (Aged 15 years and above)

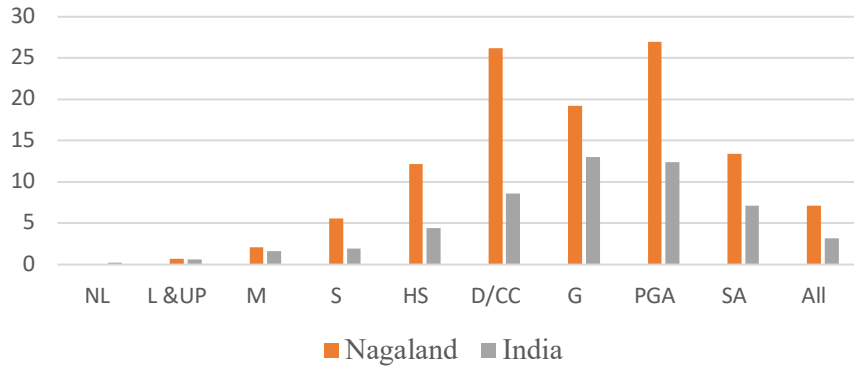


Table 2.31 compares youth unemployment rates (between the ages of 15-29 years) in Nagaland and India, categorised by rural and urban areas and further divided by gender. Nagaland exhibits a markedly elevated youth unemployment rate of 27.4

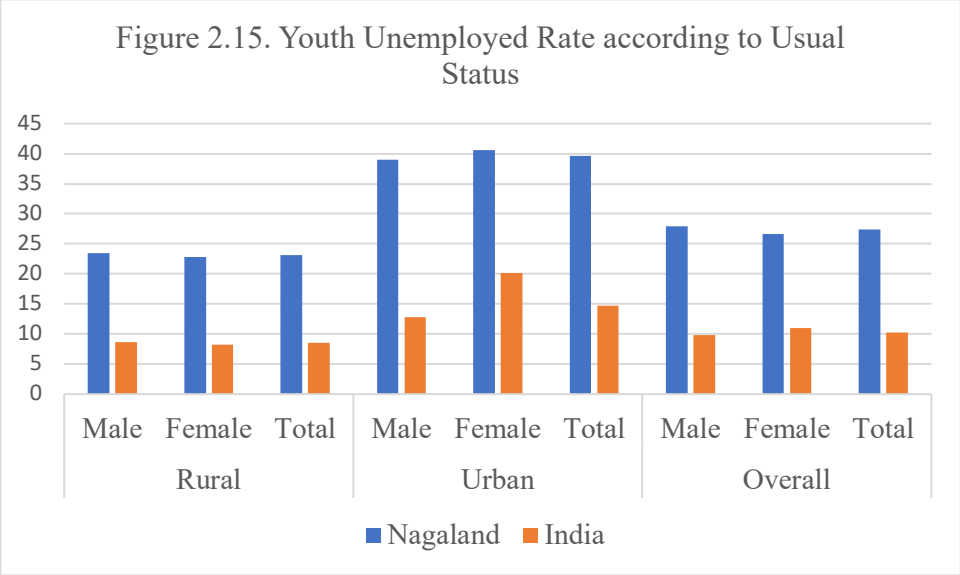
per cent, in contrast to the national average of 10.2 per cent. Rural youth unemployment in Nagaland exceeds that of India, with rates of 23.1 per cent compared to 8.5 per cent, but urban youth unemployment is significantly higher at 39.6 per cent versus 14.7 per cent. Female unemployment rates in Nagaland, both rural (26.6 per cent) and urban (40.6 per cent), exceed national averages (11.0 per cent and 20.1 per cent), underscoring a regional employment crisis among youth, particularly in urban areas and among females.

Table 2.31. Youth Unemployment Rate According to Usual Status (PS+SS)

State/ Country	Rural			Urban			Overall		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nagaland	23.5	22.8	23.1	39.0	40.6	39.6	27.9	26.6	27.4
India	8.7	8.2	8.5	12.8	20.1	14.7	9.8	11.0	10.2

Source: PLFS, Annual Report, 2023-2024.

Note: Figures are in percentages.



2.3. Conclusion

This chapter offers a comprehensive examination of higher education and employment in Nagaland, emphasising notable advancements in educational facilities, mainly due to private sector participation, and a rise in enrolment, particularly among females. Notwithstanding consistent governmental investment and increasing literacy rates, employment difficulties endure, characterised by elevated youth and educated unemployment rates, particularly in metropolitan regions and among women. The data highlights the gap between education and employment prospects, demonstrating an urgent requirement for deliberate measures to connect higher education outcomes with labour market needs and promote inclusive economic development in the state.

CHAPTER-III

EDUCATION-JOB MISMATCH

The nature of the global economy presents a dubious problem in the labour market position, inciting challenges to economic efficiency, social equity, and the skills of workers. Today's dynamic and rapidly shifting job market raises the issue of education-job mismatch as a global phenomenon. With a reported vacuum of 9 million jobs available, the paradigm has shifted to what Economists call “The Great Job Mismatch” (Gernant, 2021). The recent Periodic Labour Force Survey (PLFS) data for 2022-23 shows the intricate nature of India’s labour market. Although the labour force participation rate (LFPR) is increasing, there are notable disparities in the distribution of skills among workers. The data indicates a significant concentration in lower skill levels, with 22.15% of workers categorised as Skill Level 1 (poorly skilled) and 66.89% categorised as Skill Level 2 (semi-skilled). By contrast, 2.37% are classified as Skill Level 3, while 8.59% fall into the highly skilled category of Skill Level 4. The distribution of workers in the Indian labour market reveals a deficiency of people with advanced skills (Kapoor & Zutshi, 2024).

This chapter look into the profile of the respondents, relationship between education and job mismatch by analyzing vertical mismatch, horizontal mismatch, and double mismatch, as well as its effects on income and job satisfaction. The chapter also covers the problem of higher education, and the factors influencing the choice of academic programmes.

3.1. PROFILE OF THE SAMPLE POPULATION

The total sampled population consisted of 450 individual employees, 150 each from Kohima, Mokokchung, and Tuensang Districts.

Table 3.1. Descriptive Statistics of the Sampled Population

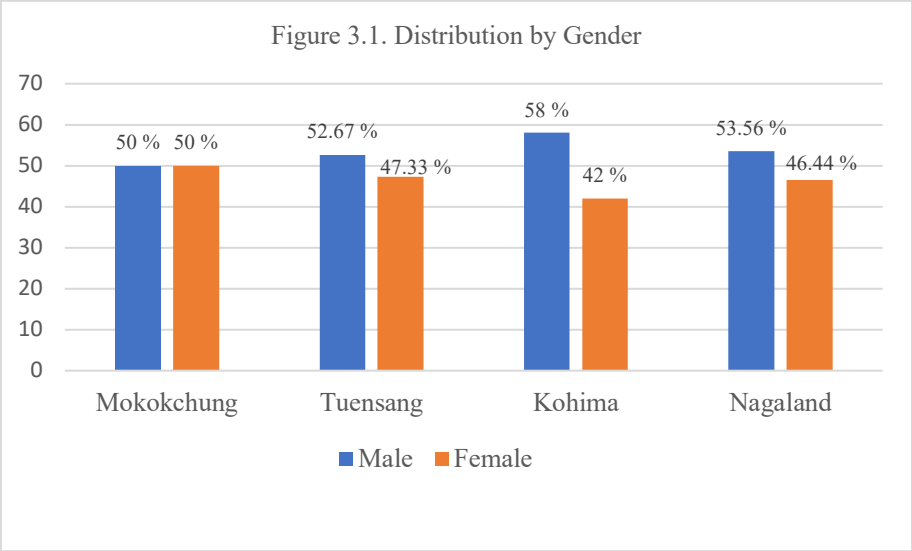
Particulars		Mokokchung	Tuensang	Kohima	Nagaland
Sampled Population		150	150	150	450
Gender	Male	75 (50)	79 (52.67)	87 (58)	241 (53.56)
	Female	75 (50)	71 (47.33)	63 (42)	209 (46.44)
Age	Below 25	17 (11.33)	14 (9.33)	20 (13.33)	51 (11.33)
	26-35	64 (42.66)	51 (34)	47 (31.33)	162 (36)
	36-45	44 (29.33)	53 (35.34)	53 (35.34)	150 (33.33)
	46-55	20 (13.33)	24 (16)	24 (16)	68 (15.11)
	56 and above	05 (3.33)	08 (5.33)	06 (4)	19 (4.23)
Marital Status	Married	74 (49.33)	74 (49.33)	71 (47.33)	219 (48.67)
	Otherwise	76 (50.67)	76 (50.67)	79 (52.67)	231 (51.33)
Educational Level	Undergraduate	74 (49.33)	90 (60)	73 (48.67)	237 (52.67)
	Postgraduate	54 (36)	41 (27.33)	54 (36)	149 (33.11)
	Professionals/PhD	22 (14.67)	19 (12.67)	23 (15.33)	64 (14.22)
Academic Discipline	Social Sciences	75 (50)	58 (38.66)	55 (36.67)	188 (41.77)
	Humanities	27 (18)	37 (24.67)	30 (20)	94 (20.89)
	Sciences	27 (18)	31 (20.67)	33 (22)	91 (20.23)
	Others	21 (14)	24 (16)	32 (21.33)	77 (17.11)
Employment Agency	Public	75 (50)	75 (50)	75 (50)	225 (50)
	Private	75 (50)	75 (50)	75 (50)	225 (50)
Occupation	Managers	22 (14.67)	17 (11.33)	23 (15.33)	62 (13.78)
	Professionals	40 (26.67)	44 (29.34)	36 (24)	120 (26.67)
	Associate Professionals	21 (14)	19 (12.67)	19 (12.67)	59 (13.11)
	Clericals	41 (27.33)	42 (28)	42 (28)	125 (27.7)
	Unskilled workers	26 (17.33)	28 (18.66)	30 (20)	84 (18.67)
Nature of Employment	Regular	87 (58)	90 (60)	61 (40.67)	238 (52.89)
	Contractual	43 (28.67)	33 (22)	61 (40.67)	137 (30.44)
	Self Employed	20 (13.33)	27 (18)	28 (18.66)	75 (16.67)
Working hour per week	Less than 20	27 (18)	19 (12.67)	14 (9.33)	60 (13.33)
	21-40	38 (25.33)	41 (27.33)	55 (36.67)	134 (29.78)
	More than 40	85 (56.67)	90 (60)	81 (54)	256 (56.89)

Source: Field survey, 2021-2022

Note: Figures in parentheses represent percentages.

3.1.1. Gender-Wise Profile

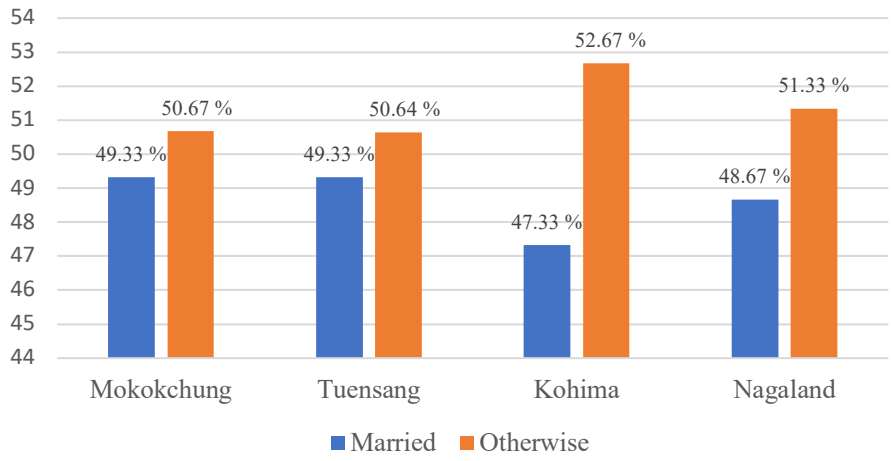
Mokokchung and Tuensang districts exhibit a near-perfect gender balance, with 50 per cent of the population being male and 50 per cent being female in Mokokchung district and 52.67 per cent being male and 47.33 per cent being female in Tuensang district. In Kohima, there is a slight skew towards males, with 58 per cent of the population being male compared to 42 per cent female. The overall gender distribution in Nagaland is relatively balanced, with males constituting 53.56 per cent and females making up 46.44 per cent of the population.



3.1.2. Marital Status Profile

Figure 3.2 exhibit similar proportions of married and unmarried respondents with married slightly outnumbering unmarried respondents in each district. Nagaland's overall marital status distribution is somewhat skewed towards unmarried respondents at 51.33 per cent compared to married individuals at 48.67 per cent.

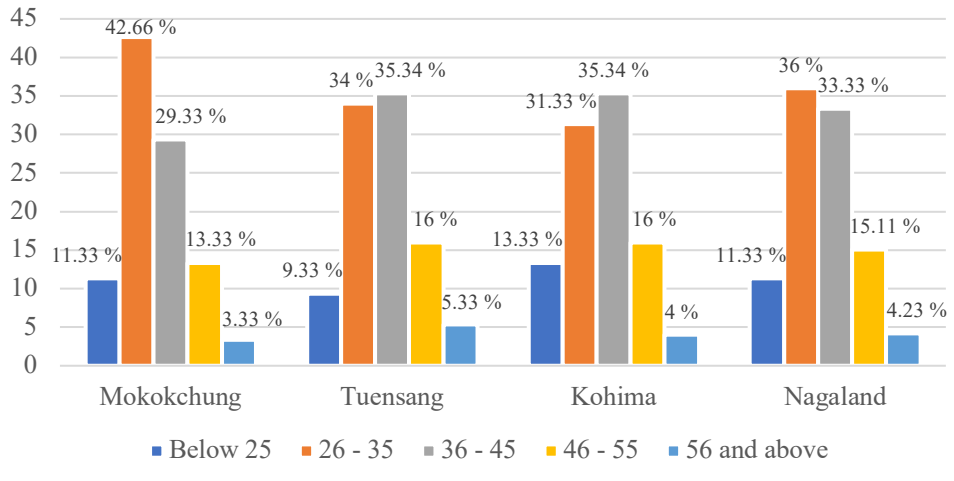
Figure 3.2. Distribution by Marital Status



3.1.3. Age-Wise Composition

The sample population has been divided into five age groups: 25 years and below, 26- 35, 36-45, 46-55, and above 56 years of age. The age distribution in Mokokchung has a slightly higher proportion of people aged 26-35. Tuensang has a higher percentage of people aged 36-45 and a lower percentage of those aged 56 and above. Kohima's age distribution is highest within the age group of 36-45 years. A significant portion of the population in Nagaland falls within the younger age groups, particularly 26-35, accounting for 36 per cent, and the lowest is in the age group above 56 years. This suggests a potentially large youth population.

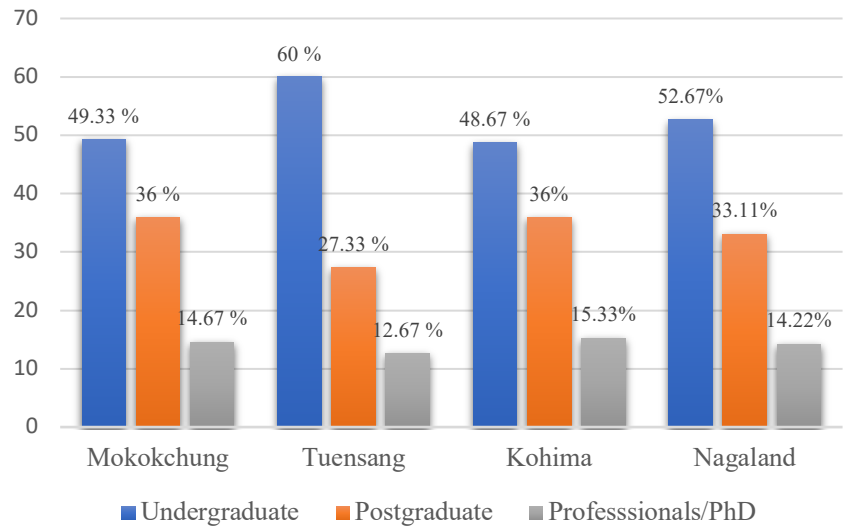
Figure 3.3. Distribution by Age Group



3.1.4. Education profile

The data is classified into three educational tiers: undergraduate, postgraduate, and professional or PhD. Tuensang has the most significant percentage of individuals with an undergraduate degree, with 60 per cent. Kohima and Mokokchung follow closely behind, with percentages of 49.33 and 48.67, respectively. Kohima district has the most significant number of individuals with postgraduate degrees. Nagaland has the most significant proportion of individuals with undergraduate qualifications, with a figure of 52.67 per cent, followed by postgraduate with 33.11 per cent. The proportion of individuals holding professional or PhD degrees is 14.22 per cent, indicating a possible disparity in the state's higher education and professional advancement.

Figure 3.4. Distribution by Level of Education



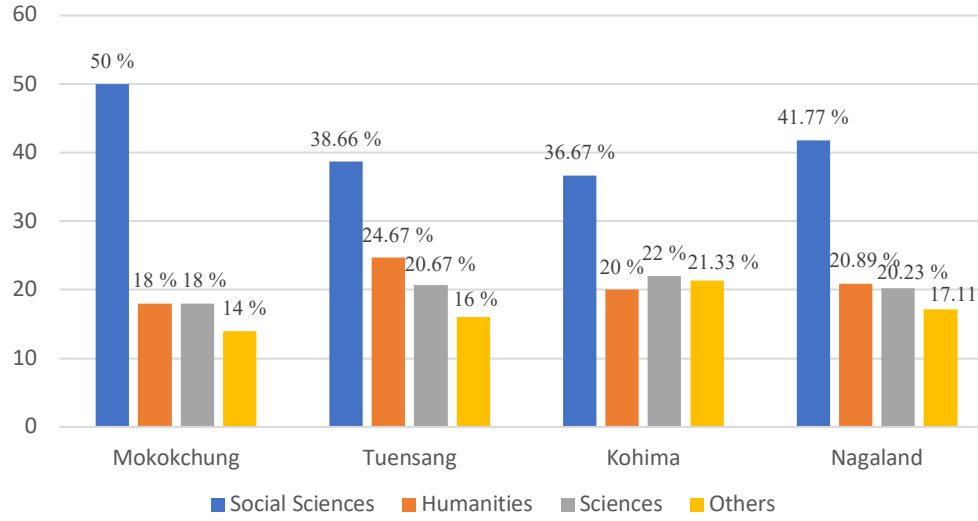
3.1.5. Academic Discipline Profile

The academic discipline is classified into four main classifications: Social Sciences, Sciences, Humanities, and others[1], encompassing health and fine arts. The discipline of Social Sciences is the most favoured among all three districts, with Mokokchung having the highest preference rate of 50 per cent. The preference for

[1] Others, encompassing Engineering/Health/Arts/Fine arts/Business/Technology.

'Others" is substantially lower in all districts, with Mokokchung having the lowest preference rate of 14 per cent. Nagaland has the highest proportion of 41.77 per cent of students who choose to study Social Sciences, followed by Humanities at 20.89 per cent, sciences with 20.23 per cent and the lowest preference for 'others' academic discipline with 17.11 per cent.

Figure 3.5. Distribution by Academic Discipline

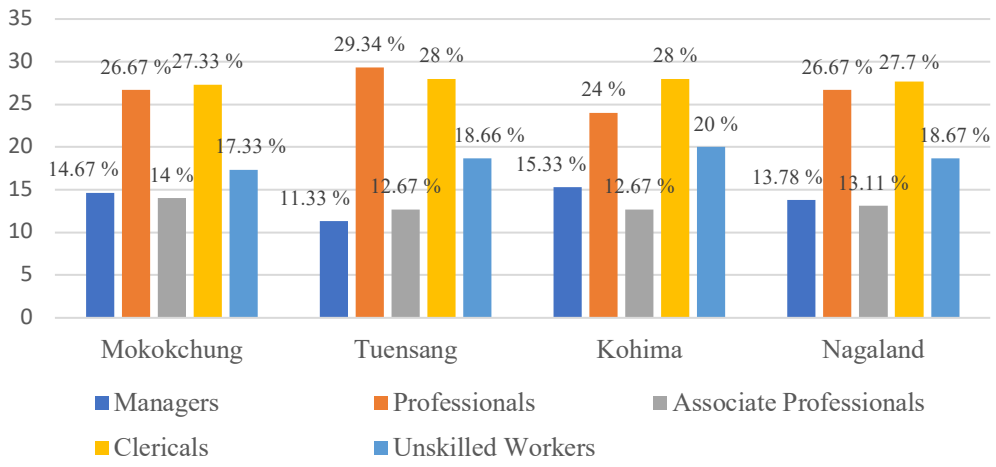


3.1.6. Employment by Nature and Type of Occupation

Occupations are categorised into five different groups based on the International Standard Classification of Occupations Code (ISCO-08)1-digit level. The employment data indicates significant differences in occupation types and employment characteristics across Mokokchung, Tuensang, and Kohima districts. Most workers in each district are professionals, with Tuensang having the highest percentage at 29.34 per cent, followed by Mokokchung at 26.67 per cent and Kohima at 24 per cent. There is also a significant presence of clericals in Mokokchung, Tuensang, and Kohima, with each accounting for approximately 27-28 per cent. The workforce comprises a substantial number of unskilled workers, with Kohima having the highest percentage at 20 per cent, while Mokokchung and Tuensang have slightly lower percentages. Overall, the employment data for Nagaland reveals a diverse and

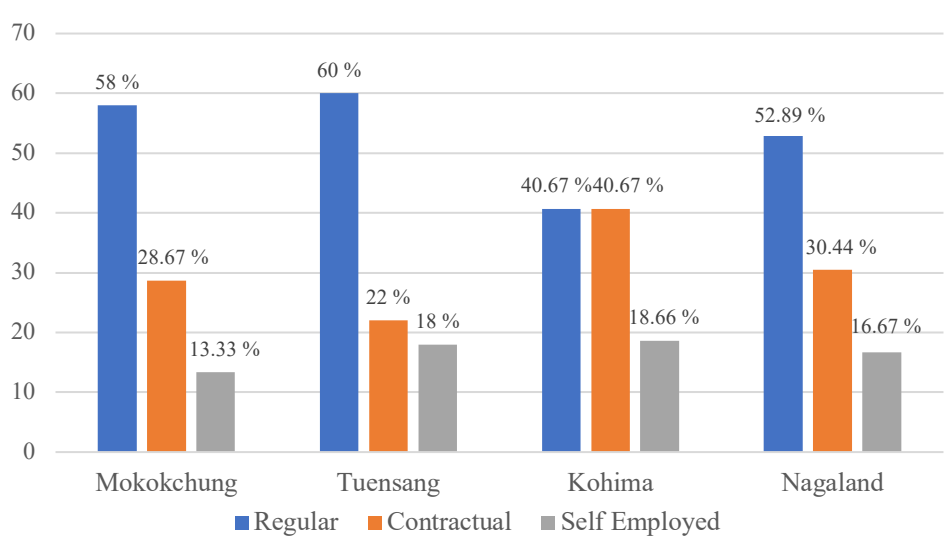
segmented job market. Professionals and clericals constitute the largest occupational group, highlighting a significant presence of skilled labour across the state.

Figure 3.6. Distribution by Type of Occupation



Regarding employment nature, Tuensang has the highest proportion of regular employment, at 60 per cent, while Kohima has a lower percentage, at 40.67 per cent. The percentage of contractual employment in Kohima is significantly higher, at 40.67 per cent, compared to other districts. Self-employment is highest in Kohima, followed by Tuensang at 18.66 per cent and 18 per cent respectively and Mokokchung with the lowest at 13.33 per cent.

Figure 3.7. Distribution by Nature of Employment



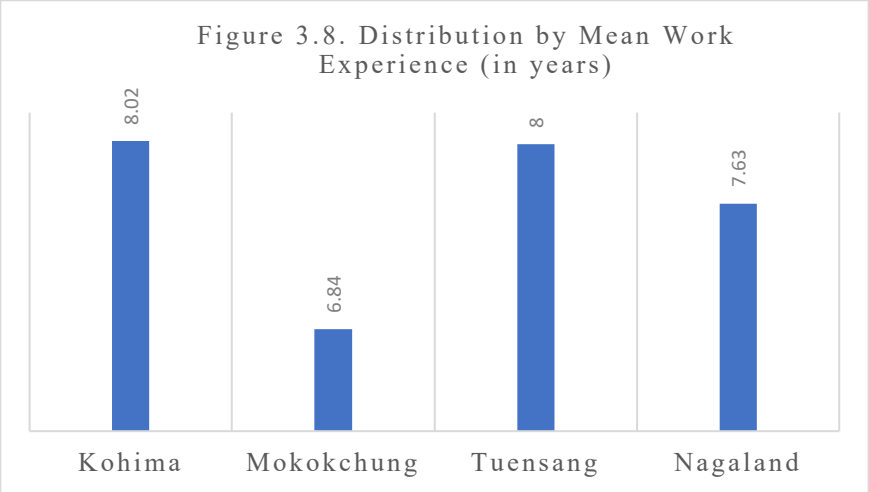
3.1.7. Work Experience Profile

The mean work experience is 8.02 in the district of Kohima, 6.84 in the district of Mokokchung, 8 in the district of Tuensang, and 7.63 throughout the state of Nagaland. Of the three districts, Kohima district had the highest mean working experience.

Table 3.2. Mean Work Experience (in years)

District/State	Mean	SD
Kohima	8.02	6.96
Mokokchung	6.84	6.84
Tuensang	08	08
Nagaland	7.63	6.72

Source: Field Survey, 2021-22



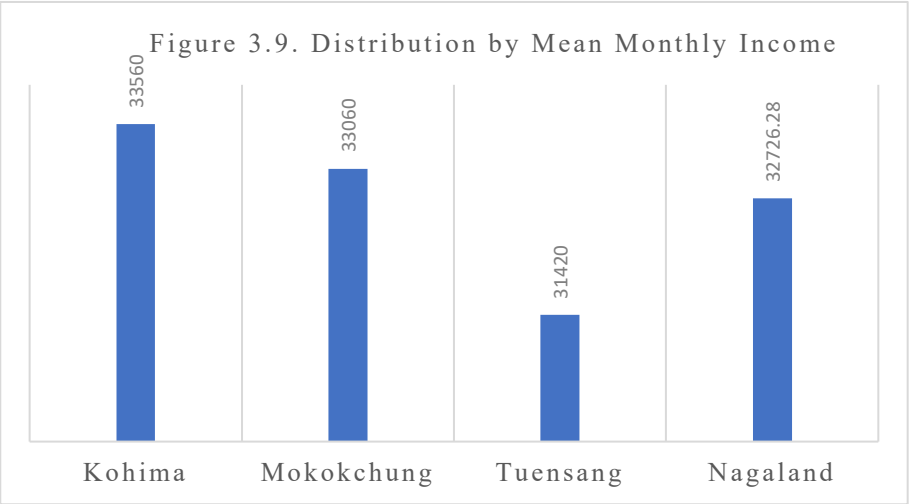
3.1.8. Income Profile

The monthly income for Kohima district was ₹50,34,000; for Mokokchung district, it was ₹49,59,100; and for Tuensang district, it was ₹47,13,000, resulting in a total income of ₹1,47,06,100 for Nagaland. The mean monthly income for the Kohima district is ₹33,560, slightly surpassing the ₹33,060 mean for the Mokokchung district. The mean monthly income for the Tuensang district is the lowest, amounting to ₹31,420. For the entire Nagaland state, it is ₹32,726 shown in Table 3.3.

Table 3.3. Mean Monthly Income (in ₹)

District/ State	Gross Monthly Income	Mean Monthly Income
Kohima	5034000	33560
Mokokchung	4959100	33060
Tuensang	4713000	31420
Nagaland	14706100	32726

Source: Field Survey, 2021-22



3.1.9. Occupations by Level of Education

Table 3.4 presents the distribution of occupations in Nagaland based on educational level. Most undergraduates (55.20 per cent) are employed in clerical occupations, while a significant proportion (70.50 per cent) work in associate professional positions, which aligns with their focus on these jobs. Postgraduates are predominantly found in skilled occupations, accounting for 46.96 per cent of the workforce. However, they need to be more represented in associate professional jobs, with just 13.11 per cent holding such responsibilities. On the other hand, postgraduates have a lesser representation in clerical positions (36 per cent) and unskilled roles (33.33 per cent). The representation of professionals/PhD holders is lowest in clerical (8.8 per cent) and unskilled occupations (13.10 per cent). At the same time, it is evenly distributed between manager (15.38 per cent) and professional roles (19.13 per cent). This data demonstrates that individuals with greater levels of education tend to occupy more specialised positions. However, it also reveals a noteworthy number of

respondents with postgraduate degrees in lower-skilled jobs, indicating possible problems with job matching or industry-specific patterns.

Table 3.4. Distribution of Occupations by Educational Level, Nagaland

Level of Education	**Type of Occupation**				
	Managers	Professionals	Associate Professionals	Clericals	Unskilled Workers
Undergraduate	41 (63.08)	39 (33.91)	43 (70.50)	69 (55.20)	45 (53.57)
Postgraduate	14 (21.54)	54 (46.96)	08 (13.11)	45 (36)	28 (33.33)
Professionals/ PhD	10 (15.38)	22 (19.13)	10 (16.39)	11 (8.8)	11 (13.10)
Total	65 (100)	115 (100)	61 (100)	125 (100)	84 (100)

Source: Field Survey, 2021-2022
Note: Figures in parentheses represent percentages.

Table 3.5 displays the distribution of occupations among various educational levels in Kohima. Most respondents with undergraduate degrees are primarily employed in managerial and associate professional jobs, accounting for 61.54 per cent and 61.90 per cent, respectively. Many of the respondents also occupy clerical positions (42.86 per cent) and unskilled worker roles (46.67 per cent). Most respondents with postgraduate degrees are employed in professional roles (41.94 per cent) and clerical positions (42.86 per cent. In comparison, a smaller percentage hold managerial positions (19.23 per cent) and unskilled jobs (46.67 per cent). The majority of those with professional or PhD qualifications are employed in associate professional jobs (19.05 per cent), while a smaller percentage are in managerial (19.23 per cent), professional (19.35 per cent), clerical (14.28 per cent), and unskilled workers positions (6.67 per cent).

Table 3.5. Distribution of Occupations by Educational Level, Kohima

Level of Education	**Type of Occupation**				
	Managers	Professionals	Associate Professionals	Clericals	Unskilled Workers
Undergraduate	16 (61.54)	12 (38.71)	13 (61.90)	18 (42.86)	14 (46.67)
Postgraduate	05(19.23)	13 (41.94)	04 (19.05)	18 (42.86)	14 (46.67)
Professionals/ PhD	05 (19.23)	06(19.35)	14 (19.05)	06 (14.28)	02 (06.67)
Total	26 (100)	31 (100)	21 (100)	42(100)	30(100)

Source: Field Survey, 2021-2022
Note: Figures in parentheses present percentages.

Table 3.6 presents the occupations by educational level in Mokokchung District. The occupational distribution by educational level indicates that undergraduate degree holders are most prevalent in managerial positions (68.18 per cent) and associate professional roles (66.67 per cent). Clericals (53.66 per cent) and unskilled workers (46.15 per cent) are also substantially represented. Postgraduates are primarily employed in professionals (52.50 per cent) and clericals (39.02 per cent), with a smaller number of respondents in unskilled (34.62 per cent) and managers (22.73 per cent) positions. Those with professionals or PhD qualifications are primarily employed in professional (20.00 per cent) and associate professionals positions (19.05 per cent), with a smaller number in managers (9.09 per cent) and clericals (7.32 per cent) and a minor percentage in unskilled occupations (19.23 per cent).

Table 3.6. Distribution of Occupations by Educational Level, Mokokchung

Level of Education	**Type of Occupation**				
	Managers	Professionals	Associate Professionals	Clericals	Unskilled Workers
Undergraduate	15 (68.18)	11 (27.50)	14 (66.67)	22 (53.66)	12 (46.15)
Postgraduate	05 (22.73)	21 (52.50)	03 (14.29)	16 (39.02)	09 (34.62)
Professionals/ PhD	02 (09.09)	08 (20.00)	04 (19.05)	03 (07.32)	05 (19.23)
Total	22 (100)	40 (100)	21 (100)	41 (100)	26 (100)

Source: Field Survey, 2021-2022
Note: Figures in parentheses represent percentages.

Table 3.7 presents the occupations by educational level in Tuensang District. Majority of undergraduate respondents are employed in clericals (69.05 per cent) and associate professionals (84.21 per cent) occupation, with fewer in managers positions (58.82 per cent). Postgraduate respondents predominantly hold professional roles (45.45 per cent) and clerical positions (26.19 per cent), while those with a PhD mostly occupy managers s (17.65 per cent) and professionals occupation (18.18 per cent).

Table 3.7. Distribution of Occupations by Educational Level, Tuensang

Level of Education	**Type of Occupation**				
	Managers	Professionals	Associate Professionals	Clericals	Unskilled Workers
Undergraduate	10 (58.82)	16 (36.37)	16 (84.21)	29 (69.05)	19 (67.86)
Postgraduate	04 (23.53)	20 (45.45)	01 (05.26)	11 (26.19)	05 (17.86)
Professionals/ PhD	03 (17.65)	08 (18.18)	02 (10.53)	02 (04.76)	04 (14.29)
Total	17 (100)	44 (100)	19 (100)	42 (100)	28 (100)

Source: Field Survey, 2021-2022
Note: Figures in parentheses represent percentages.

3.2. Descriptive Statistics on Education- Job Mismatch

1. Nagaland

Table 3.8 shows that 63.78 per cent of the respondents experience a mismatch between education and job. Of these, 52 per cent are overeducated, and 11.78 per cent are undereducated. 51.78 per cent have a horizontal mismatch, and 35.33 per cent have a double mismatch. Like Sulaimanova's (2022) study, the high value in mismatch may be due to the state's economic condition, fewer job opportunities and the educational system, which is dominated by academic disciplines like social sciences and humanities.

Table 3.8. Education-Job Mismatch, Nagaland

Particulars		Frequency	Percentage	Mean	SD
Vertical Mismatch	Adequate Education	163	36.22	225	87.68
	Overeducation	234	52	225	12.73
	Undereducation	53	11.78	225	243.24
Horizontal Mismatch	Yes	233	51.78	225	11.31
	Otherwise	217	48.22		
Double Mismatch	Yes	159	35.33	225	93.34
	Otherwise	291	64.67		

Source: Field survey, 2021-2022

2. Kohima

Table 3.9 shows that 32.67 per cent has adequate education, i.e., no education-job mismatch 57.33 per cent of the respondents are overeducated, and 10 per cent are undereducated. The table further shows that 60.67 per cent of the respondents have a horizontal mismatch, and 44.67 per cent have a double mismatch.

Table 3.9. Education-Job Mismatch, Kohima

Particulars		Frequency	Percentage	Mean	SD
Vertical Mismatch	Adequate Education	49	32.67	75	36.06
	Overeducation	86	57.33	75	15.56
	Undereducation	15	10	75	84.85
Horizontal Mismatch	Yes	91	60.67	75	22.62
	Otherwise	59	39.33		
Double Mismatch	Yes	67	44.67	75	11.31
	Otherwise	83	55.33		

Source: Field survey, 2021-2022

3. Mokokchung

According to Table 3.10, 42 per cent of respondents have adequate education, showing no education-job mismatch. 46 per cent of the respondents have an education-job mismatch of overeducation, and 12 per cent are undereducated. The table also shows that 53.33 per cent have a horizontal mismatch, and 32.67 per cent have a double mismatch.

Table 3.10. Education-Job Mismatch, Mokokchung

Particulars		Frequency	Percentage	Mean	SD
Vertical Mismatch	Adequate Education	63	42	75	16.97
	Overeducation	69	46	75	8.49
	Undereducation	18	12	75	80.61
Horizontal Mismatch	Yes	80	53.33	75	7.07
	Otherwise	70	46.66		
Double Mismatch	Yes	49	32.67	75	36.77
	Otherwise	101	67.33		

Source: Field survey, 2021-2022

4. Tuensang

Table 3.11 indicates that 52.67 per cent have overeducation,34 per cent have adequate education, and 13.33 per cent have undereducation. The table further indicates that 41.33 per cent have a horizontal mismatch, and 28.67 per cent of the respondents have a double mismatch.

Table 3.11. Education-Job Mismatch, Tuensang

Particulars		Frequency	Percentage	Mean	SD
Vertical Mismatch	Adequate Education	51	34	75	33.94
	Overeducation	79	52.67	75	5.66
	Undereducation	20	13.33	75	77.78
Horizontal Mismatch	Yes	62	41. 33	75	18.38
	Otherwise	88	58.67		
Double Mismatch	Yes	43	28.67	75	45.26
	Otherwise	107	71.33		

Source: Field survey, 2021-2022

3.3. BINARY REGRESSION ANALYSIS FOR THE EDUCATION-JOB MISMATCH

The Education- Job mismatch has been categorized as vertical, horizontal and double mismatch which is examined using binary logistic regression. The dependent variables are vertical mismatch, horizontal mismatch and double mismatch and are regressed against age, gender, marital status, year of schooling, academic discipline, agency, occupation, employment status, employment status and work experience.

3.3.1. Vertical Mismatch in Nagaland

A binary logistic regression model was used to investigate the vertical mismatch, with Y = 0: No mismatch and Y = 1: Mismatch. 12 independent variables out of the 18 independent variables demonstrated a significant correlation with vertical mismatch, at 1%, 5%, and 10% level of significance. Table 3.12 shows that 86.59% of the sample population fell into the appropriate groups of the vertical mismatch, as predicted by the model. The independent variables were responsible for approximately 82.5% of the fluctuations in the vertical mismatch, according to the estimated Pseudo R^2 of 0.825. Furthermore, log-likelihood estimates of 170.33 were statistically significant at $p<0.01$.

The study demonstrated that the independent variables, specifically age, gender, marital status, occupation (clerical and unskilled workers), agency, social sciences, humanities, regular employment, self-employment, and years of education, were statistically significant at various levels concerning vertical mismatch. Each unit increase in the independent variables corresponded to a vertical mismatch increase of 0.955, 0.572[2], 1.330[3], 1.320, 0.077, 0.945[4], 1.865, 0.271, 0.913, 0.181 and 2.241 times, respectively. The results align with the findings of Verhaest and Van der Velden (2013), which indicated that demographic and occupational variables substantially

[2] The odds estimate favored an increase of 35.9% in vertical mismatch for every one unit increase in male population.
[3] The odds estimate favored an increase of 7.3% in vertical mismatch for every one unit increase in unmarried population.
[4] The odds estimate favored an increase of 18.5% in vertical mismatch for every one unit increase in public agency.

affect mismatch patterns. Mavromaras et al. (2013) highlighted that vertical mismatch is more common in some professional and educational categories, especially within social sciences and humanities fields. Moreover, Levels, van der Velden, and Allen (2014) discovered that the likelihood of mismatch increases among self-employed individuals and those with extended educational attainment, absent of corresponding advancements in work levels. At the 5% significance level, an inverse correlation was seen between vertical mismatch and professional occupation, signifying a 0.551 times reduction in vertical mismatch as professional employment increases, which may be due to clearer educational requirements, structured career paths, and higher barriers to entry in professional fields. This finding corresponds with OECD (2017) and Flisi et al. (2017), which indicate that higher-skilled, professional employment typically offers superior educational alignment and reduced frequency of mismatch.

Age has a positive correlation with vertical mismatch, indicating that older people may encounter vertical mismatch, possibly as a result of obsolete skills or restricted mobility. Marital status indicated that unmarried individuals are more susceptible to work mismatches, which could be due to their youth, greater mobility, and readiness to accept any position for experiential gain. Occupational positions such as clerical and unskilled labour suggest that individuals in these classifications are frequently overqualified, underscoring the issue of underemployment. A higher male population lead to increased vertical mismatch may be due to greater competition for jobs, sectoral concentration, and social pressures that drive men to accept positions below their qualifications. Disciplines such as social sciences and humanities had a positive correlation with vertical mismatch, which indicates weaker job connections and restricted specialised positions. Employment categories such as regular and self-employment indicate that individuals may remain in unsuitable positions for reasons of security or necessity. Also, public (government) jobs may attract a wide range of applicants, and some may take positions below their skill level just to gain job security and stable income. Years of schooling exerted the most substantial influence, suggesting that elevated educational attainment frequently surpasses the qualification criteria of available positions, particularly in restricted labour markets, resulting in considerable vertical mismatch.

Table 3.12. Logit Regression Estimates of Vertical Mismatch, Nagaland

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		5.144	2927	-
Age		0.955	4.074*	0.911
Gender (0)		0.572	3.122**	0.641
Marital Status (0)		1.330	5.129*	1.073
Occupation	Managers	-0.793	0.485	0.075
	Professionals	-0.551	3.121**	0.812
	Associate Professionals	-0.097	1.035	0.106
	Clericals	1.320	6.047*	1.082
	Unskilled Workers	0.077	2.681***	0.637
Academic Discipline	Social Sciences	1.865	4.657*	1.013
	Humanities	0.271	3.012**	0.852
	Sciences	0.694	1.144	0.094
	Others	0.18	0.752	0.068
Employment Agency (0)		0.945	3.157**	0.815
Nature of Employment	Regular	0.913	4.331*	1.006
	Contract	0.547	2.004	0.352
	Self Employed	0.181	3.025**	0.721
Year of Schooling		2.241	5.224*	1.022
Work experience		1.007	1.952	0.307
Log Likelihood: 170.33 χ^2: 151, P< 0.01 Pseudo R^2: .825 Predicated Cases: 86.59%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

3.3.2. Vertical Mismatch in Kohima

The data presented in Table 3.13 indicates that 81.53% of the individuals in the sample population have been put into the relevant categories of vertical mismatch, according to a prediction by the model. The independent variables accounted for almost 88.9% of the variations in the vertical mismatch, as indicated by the estimated Pseudo R^2 of 0.889. In addition, the log-likelihood estimates of 123.81 were statistically significant at a significance level of $p<0.01$.

The study shows that the independent variables, including age, gender, marital status, clerical occupation, agency, social sciences, sciences, regular employees, and years of schooling, had positive and statistically significant effects at varying degrees of significance. Each independent variable is associated with an increase in the vertical

mismatch by a factor of 0.627, 0.253[5], 0.381[6], 1.020, 0.681[7], and 0.654. 0.221, 0.610, and 0.451 times, respectively, for every unit increase in these variables. However, professional occupation was found to have an inverse association with the vertical mismatch, statistically significant at a 5% significance level. This indicates that as professional occupation increases, the vertical mismatch will decrease by 0.717 times.

Table 3.13. Logit Regression on Vertical Mismatch, Kohima

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		0.874	0.755	-
Age		0.627	2.619***	0.821
Gender (0)		0.253	2.138***	0.502
Marital Status (0)		0.381	4.011*	0.811
Occupation	Managers	-0.127	1.052	0.185
	Professionals	-0.717	3.716**	0.730
	Associate Professionals	-0.055	0.744	0.116
	Clericals	1.020	3.015**	0.799
	Unskilled workers	0.218	2.010	0.148
Academic Discipline	Social Sciences	0.654	4.351*	0.924
	Humanities	0.095	1.560	0.215
	Sciences	0.221	2.157***	0.341
	Others	0.049	1.518	0.251
Employment Agency (0)		0.681	3.571**	0.629
Nature Employment	Regular	0.610	2.088***	0.511
	Contract	0.049	1.913	0.346
	Self Employed	0.112	1.213	0.028
Year of Schooling		0.451	4.731*	1.071
Work experience		0.033	0.856	0.375
Log Likelihood: 123.81 χ^2: 105, P< 0.01 Pseudo R^2: .889 Predicated Cases: 81.53%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

[5] The odds estimate favored an increase of 49.8% in vertical mismatch for every one unit increase in male population.
[6] The odds estimate favored an increase of 18.9% in vertical mismatch for every one unit increase in unmarried population.
[7] The odds estimate favored an increase of 37.1% in vertical mismatch for every one unit increase in public agency.

3.3.3. Vertical Mismatch in Mokokchung

Table 3.14 shows that 79.35% of the individuals in the sample population have been classified into the relevant categories of vertical mismatch, as predicted by the model. The independent variables explained approximately 77.9% of the variability in the vertical mismatch, as seen by the estimated Pseudo R^2 value of 0.779. Furthermore, the log-likelihood estimates of 115.04 were statistically significant, with a significance level of $p<0.01$.

The study shows that the independent variables, such as age, marital status, clerical occupation, social sciences, agency, regular employees, and years of schooling, had positive and statistically significant effects at the 1%, 5%, and 10% significance levels. Each independent variable is positively correlated with an increase in the vertical mismatch. Specifically, for every unit increase in these variables, the vertical mismatch increases by 0.410, 0.115[8], 0.875, 1.219, 0.557[9], 0.365, and 0.285 times, respectively. However, professional occupation was found to have an inverse association with the vertical mismatch, statistically significant at a 1% significance level. This indicates that as professional occupation increases, the vertical mismatch will decrease by 1.072 times.

[8] The odds estimate favored an increase of 54.5% in vertical mismatch for every one unit increase in unmarried population.
[9] The odds estimate favored an increase of 56.2% in vertical mismatch for every one unit increase in public agency.

Table 3.14. Logit Regression on Vertical Mismatch, Mokokchung

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		1.003	0.891	-
Age		0.410	2.865***	0.663
Gender (0)		0.097	1.007	0.011
Marital Status (0)		0.115	2.272***	0.455
Occupation	Managers	0.088	0.982	0.031
	Professionals	-1.072	4.033*	1.017
	Associate Professionals	-0.113	0.401	0.006
	Clericals	0.875	4.415*	0.903
	Unskilled workers	0.064	1.310	0.031
Academic Discipline	Social Sciences	1.219	5.194*	1.092
	Humanities	0.073	1.300	0.066
	Sciences	0.097	0.872	0.014
	Others	0.038	0.565	0.009
Employment Agency (0)		0.557	2.697***	0.438
Nature of Employment	Regular	0.365	3.100**	0.712
	Contract	0.089	1.188	0.059
	Self Employed	0.034	0.473	0.016
Year of Schooling		0.285	3.376**	0.652
Work experience		0.071	1.008	0.104
Log Likelihood: 115.04 χ^2: 112, P< 0.01 Pseudo R^2: .779 Predicated Cases: 79.35%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

3.3.4. Vertical Mismatch in Tuensang

Based on model prediction, Table 3.15 shows that 83.94% of the members of the sample population fall into the relevant vertical mismatch groups. Based on the estimated Pseudo R^2 of 0.813, the independent variables explained approximately 81.3% of the fluctuations in the vertical mismatch. Furthermore, statistically significant with a p-value of 0.01 were the log-likelihood estimates of 109.74.

The study reveals that at different degrees of significance, the independent variables such as gender, clerical occupation, agency, social sciences, regular employees, and years of schooling had positive and statistically significant effects on vertical mismatch. For every unit increase in each of the independent variables, the

vertical mismatch rises by 0.065[10], 0.327, 0.291[11], 0.741, 0.825, and 0.146 times, respectively. However, professional occupation was found to have an inverse association with the vertical mismatch, statistically significant at a 5% significance level. This indicates that the vertical mismatch will decrease 1.218 times as professional occupation increases.

Table 3.15. Logit Regression on Vertical Mismatch, Tuensang

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		2.033	1.025	-
Age		0.101	1.229	0.044
Gender (0)		0.065	2.081***	0.313
Marital Status (0)		0.121	0.957	0.058
Occupation	Managers	-0.015	0.115	0.047
	Professionals	-1.218	3.046**	0.925
	Associate Professionals	0.005	1.001	0.013
	Clericals	0.327	5.122*	1.041
	Unskilled workers	0.002	0.714	0.062
Academic Discipline	Social Sciences	0.741	3.011**	0.731
	Humanities	0.308	1.045	0.150
	Sciences	0.040	0.119	0.017
	Others	0.018	0.022	0.011
Employment Agency (0)		0.291	3.447**	0.702
Nature of Employment	Regular	0.825	2.581***	0.594
	Contract	0.272	0.875	0.105
	Self Employed	0.083	0.092	0.071
Year of Schooling		0.146	2.185***	0.430
Work experience		0.063	0.542	0.016
Log Likelihood: 109.74 χ^2: 130, P< 0.01 Pseudo R^2: .813 Predicated Cases: 83.94%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

[10] The odds estimate favored an increase of 68.7%% in vertical mismatch for every one unit increase in male population.

[11] The odds estimate favored an increase of 29.8% in vertical mismatch for every one unit increase in public agency.

3.3.5. Horizontal Mismatch in Nagaland

To study the horizontal mismatch, a binary logistic regression model was used with Y = 0: No mismatch and Y= 1: Mismatch. Out of 18 independent variables, 11 independent variables showed significant correlation with horizontal mismatch, at 1%, 5% and 10% level of significance.

Table 3.16 shows that the model predicted 91.10% accuracy of the sample population fall into their respective groups of the horizontal mismatch. The estimated Pseudo R^2 of 0.871 implies that the independent variables explained about 87.1% of the variations in the horizontal mismatch. Also, log-likelihood estimates of 112.09 were significant at $p< 0.01$.

The independent variables, age, gender, clerical and unskilled workers, social sciences, humanities, agency, self-employed and year of schooling, were found to be significant with the horizontal mismatch, statistically substantial at different significance levels. One unit increase in these independent variables will increase the horizontal mismatch by 1.225, 0.998[12], 0.31, 0.844, 2.115, 0.814, 0.691[13] and 1.954 times, respectively. The positive correlation of these independent variables with horizontal mismatch might be ascribed to such factors. Older persons frequently encounter skill obsolescence or career transitions, resulting in employment beyond their original field. Public agency and self-employed workers frequently prioritise income or flexibility over relevance to their area of study due to labour market limitations. Ultimately, more years of education do not guarantee improved alignment; persons with excessive qualifications may find themselves in irrelevant positions when their specialised skills are not sought after. Graduates from the social sciences and humanities frequently encounter horizontal mismatch due to the broad and general nature of their education, which emphasises abilities such as critical thinking and analysis over job-specific certifications. This results in challenges in acquiring opportunities that align with their academic qualifications, prompting people to accept

[12] The odds estimate favored an increase of 2.8% in horizontal mismatch for every one unit increase in male population.
[13] The odds estimate favored an increase of 92.5% in horizontal mismatch for every one unit increase in public agency.

roles in heterogeneous industries where their skills may not be effectively utilised. Also, Clerical and unskilled workers often experience a horizontal mismatch due to factors like gaps in the educational system and economic necessity. Many individuals are forced to take up jobs outside their field of study due to financial pressures or a lack of available opportunities in their area of expertise.

The study also shows that marital status and professional occupation have an inverse association with the horizontal mismatch, statistically significant at 5% and 1% significance levels. This indicates that as marital status and professional occupation increase, the horizontal mismatch will decrease by 0.774[14] and 1.016 times, respectively. The reason may be that more adaptable and likely unmarried individuals are more inclined to pursue positions that are consistent with their field of study. The reason being, they are not constrained by family or relocation obligations and can prioritise career alignment. And professional occupations are generally more specialised and necessitate certain qualifications, hence diminishing the likelihood of workers being employed outside their field of study. This structured connection between higher education and career positions contributes to reducing horizontal mismatch.

[14] The odds estimate showed a decrease of 19% in horizontal mismatch for every one unit increase in unmarried population.

Table 3.16. Logit Regression Estimates of Horizontal Mismatch, Nagaland

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		3.781	1.077	-
Age		1.225	4.126*	1.005
Gender (0)		0.998	3.015**	0.972
Marital Status (0)		-0.774	3.114**	0.810
Occupation	Managers	-0.047	0.075	0.810
	Professionals	-1.016	4.083*	0.096
	Associate Professionals	0.085	0.667	1.012
	Clericals	0.31	2.081***	0.048
	Unskilled Workers	0.844	3.115**	0.815
Academic Discipline	Social Sciences	2.115	7.058*	1.016
	Humanities	0.814	2.983***	1.124
	Sciences	-0.905	1.873	0.955
	Unskilled workers	0.166	0.694	0.411
Employment Agency (0)		0.691	3.452**	0.075
Nature of Employment	Regular	-0.183	2.005	0.919
	Contract	-0.722	1.874	0.257
	Self Employed	0.805	3.069**	0.822
Year of Schooling		1.954	4.431*	1.022
Work experience		0.954	2.001	0.307
Log Likelihood: 112.09 χ^2: 140, P< 0.01 Pseudo R^2: .871 Predicated Cases: 91.10%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

3.3.6. Horizontal Mismatch in Kohima

Table 3.17 indicates that the model acquired an accuracy of 80.42% in predicting the sample population's classification within their respective groups of horizontal mismatch. The estimated Pseudo R^2 of 0.915 indicates that the predictor variables accounted for approximately 91.5% of the fluctuations in the horizontal mismatch. The log-likelihood estimates of 118.49 were statistically significant at $p < 0.01$.

The independent variables, such as age, gender, clerical occupation type, humanities field of study, years of schooling, and work experience, were identified to be significant to horizontal mismatch, demonstrating statistical significance at 5% and 10% levels of significance. A unit increase in these independent variables will result in an increase in horizontal mismatch by 0.781, 0.260,[15], 0.183, 0.115, 0.973, and 0.491 times, respectively. Highly educated individuals may accept jobs in unrelated fields simply to find employment, especially in saturated job markets. Work experience may lead people to seek diverse roles, but sometimes it means they take jobs that do not match their original qualifications, leading to a horizontal mismatch.

Marital status, professional occupation, studies in social sciences, agency and regular employment exhibited an inverse correlation with horizontal mismatch, statistically significant at the 1%, 5% and 10% levels. This signifies that as these variables rise, the horizontal mismatch will decline by 0.329, 0.174, 0.831, 2.048, and 0.491 times, respectively. In regular employment, individuals frequently remain in roles that correspond with their skills and qualifications. Stability enables people to concentrate on positions that align with their qualifications, which may lead to a decreasing horizontal mismatch.

[15] The odds estimate favored an increase of 29.2% in horizontal mismatch for every one unit increase in male population.

Table 3.17. Logit Regression on Horizontal Mismatch, Kohima

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		2.155	1.759	-
Age		0.781	3.004**	0.911
Gender (0)		0.260	2.711***	0.708
Marital Status (0)		-0.329	2.297***	0.447
Occupation	Managers	-0.425	1.507	0.135
	Professionals	-0.174	3.158**	0.822
	Associate Professionals	0.151	1.016	0.130
	Clericals	0.183	2.972***	0.647
	Unskilled Workers	0.254	0.956	0.139
Academic Discipline	Social Sciences	-0.831	2.175***	0.564
	Humanities	0.115	2.068***	0.203
	Sciences	0.230	1.214	0.059
	Others	-0.210	1.635	0.163
Employment Agency (0)		-2.048	4.385*	0.927
Nature of Employment	Regular	-0.491	3.752**	0.612
	Contract	-0.150	1.876	0.074
	Self Employed	0.522	1.202	0.383
Year of Schooling		0.973	2.932***	0.427
Work experience		0.491	2.075***	0.651
Log Likelihood: 118.49 χ^2: 121, P< 0.01 Pseudo R^2: .915 Predicated Cases: 80.42%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

3.3.7. Horizontal Mismatch in Mokokchung

Table 3.18 shows that the model acquired an accuracy of 71.11% in predicting the sample population's classification within their respective groups of horizontal mismatch. The estimated Pseudo R^2 of 0.884 indicates that the predictor variables accounted for approximately 88.4% of the fluctuations in horizontal mismatch. The log-likelihood estimates of 127.04 were statistically significant at $p < 0.01$.

The independent variables, such as age, gender, clerical occupation type, social sciences field of study, years of schooling, and work experience, were identified to be significant to horizontal mismatch, demonstrating statistical significance at 5% and 10% levels of significance. A unit increase in these independent variables will result

in an increase in horizontal mismatch by 0.750, 0.068,[16] 0.267, 0.315, 1.130, and 0.475 times, respectively. Marital status, professional occupation, and regular employment exhibited an inverse correlation with a horizontal mismatch, statistically significant at the 5% and 10% levels. This signifies that as married status, professional occupation, and regular employment rise, the horizontal mismatch will decline by 0.113[17], 0.055, and 0.432 times, respectively.

Table 3.18. Logit Regression on Horizontal Mismatch, Mokokchung

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		1.347	0.924	-
Age		0.750	2.376***	0.835
Gender (0)		0.068	2.628***	0.511
Marital Status (0)		-0.113	3.075**	0.743
Occupation	Managers	-0.195	0.813	0.019
	Professionals	-0.055	3.372**	0.580
	Associate Professionals	0.401	0.601	0.075
	Clericals	0.267	2.503***	0.467
	Unskilled Workers	0.038	1.087	0.091
Academic Discipline	Social Sciences	0.315	3.114**	0.744
	Humanities	0.047	1.042	0.056
	Sciences	-0.522	4.132	0.815
	Others	0.084	0.857	0.525
Employment Agency (0)		-1.067	3.620	0.717
Nature of Employment	Regular	-0.432	2.518***	0.490
	Contract	0.059	1.400	0.375
	Self Employed	0.065	0.589	0.044
Year of Schooling		1.130	3.622**	0.158
Work experience		0.475	2.113***	0.823
Log Likelihood: 127.04 χ^2: 116, P< 0.01 Pseudo R^2: .884 Predicated Cases: 71.11%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

[16] The odds estimate favored an increase of 48.9% in horizontal mismatch for every one unit increase in male population.

[17] The odds estimate showed a decrease of 25.7 in horizontal mismatch for every one unit increase in unmarried population.

3.3.8. Horizontal Mismatch in Tuensang

Table 3.19 shows that the model acquired an accuracy of 68.93% in predicting the classification of the sample population within their respective horizontal mismatch groups. The estimated Pseudo R^2 of 0.702 indicates that the predictor variables explained approximately 70.2% of the variability in horizontal mismatch. The log-likelihood estimates of 102.93 were statistically significant at $p < 0.01$.

The independent variables, such as social sciences field of study, agency and years of schooling, were identified to be significant to horizontal mismatch, demonstrating statistical significance at a 10% level of significance. A unit increase in these independent variables will result in an increase in horizontal mismatch by 0.652, 0.823,[18] and 0.972 times, respectively. Professional and clerical occupations, studies in sciences, and regular employment exhibited an inverse correlation with horizontal mismatch, statistically significant at the 1%, 5% and 10% levels. This signifies that as professional and clerical occupations, science studies, and regular and contractual employment rise, the horizontal mismatch will decline by 0.113, 0.823, 0.074, 0.150 and 0.491 times, respectively. The decrease in horizontal mismatch, corresponding with the increase in professional and clerical positions, fields of science, and regular or contractual employment, can be attributed to the alignment of skills and education with job specifications. Professional and clerical positions generally require particular qualifications and formal training, resulting in improved alignment with fields of study. Science education is typically highly specialised and directly relevant to specific career areas, hence decreasing the probability of mismatch. Moreover, regular and contractual work agreements typically entail more formal recruitment procedures and well-defined job roles, prompting employers to select individuals whose educational qualifications correspond with the position, thus reducing the occurrence of horizontal mismatch.

[18] The odds estimate favored an increase of 40.9% in horizontal mismatch for every one unit increase in public agency.

Table 3.19. Logit Regression on Horizontal Mismatch, Tuensang

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		0.412	0.638	-
Age		0.264	1.045	0.272
Gender (0)		0.134	0.874	0.093
Marital Status (0)		-0.054	1.514	0.169
Occupation	Managers	-0.109	0.332	0.100
	Professionals	-0.113	4.236*	0.736
	Associate Professionals	0.072	0.714	0.332
	Clericals	-0.417	2.154***	0.572
	Unskilled Workers	0.435	0.093	0.022
Academic Discipline	Social Sciences	0.652	2.720***	0.811
	Humanities	-0.009	0.391	0.010
	Sciences	-0.074	2.075***	0.372
	Others	0.006	0.691	0.047
Employment Agency (0)		0.823	2.457***	0.591
Nature of Employment	Regular	-0.491	3.014**	0.811
	Contract	-0.150	0.729	0.105
	Self Employed	0.532	0.098	0.182
Year of Schooling		0.972	2.241***	0.411
Work experience		0.491	1.088	0.159
Log Likelihood: 102.93 χ^2: 100, P< 0.01 Pseudo R^2: .702 Predicated Cases: 68.93%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

3.3.9. Double Mismatch in Nagaland

To study the double mismatch, a binary logistic regression model was performed with Y = 0: No mismatch and Y= 1: Mismatch. Table 3.20 shows that the model predicted an 84.75% accuracy of the sample population falling into their respective groups of the double mismatch. The estimated Pseudo R^2 of 0.904 implies that the predictor variables explain about 90.4% of the double mismatch variations. Also, log-likelihood estimates of 127.35 were significant at p< 0.01.

The independent variable, year of schooling, was determined to substantially impact the double mismatch, with statistical significance at a 5% significance level. In other words, a one-unit increase in this independent variable will result in a 0.522 times increase in the double mismatch. The reason that the higher years of schooling increase the likelihood of a double mismatch may be because individuals may become overqualified for available jobs, leading to both educational and skill mismatches.

Nevertheless, an inverse correlation was observed between double mismatch and independent variables such as gender, married status, professional occupation, social sciences and sciences study, agency, regular employees, and contractual employees. This association was statistically significant at the 1% and 10% significance levels. This implies that for every one-unit rise in these independent variables, the double mismatch will reduce by 0.237[19], 0.180, 0.993, 1.072, 0.841, 1.126[20], 1.425, and 0.074 times, respectively.

Table 3.20. Logit Regression Estimates of Double Mismatch, Nagaland

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		0.252	1.135	-
Age		0.841	2.004	0.103
Gender (0)		-0.237	2.841***	0.730
Marital Status (0)		-0.180	2.5788**	0.699
Occupation	Managers	-0.125	1.751	0.227
	Professionals	-0.993	8.316*	1.183
	Associate Professionals	-0.087	0.853	0.093
	Clericals	-0.055	1.237	0.104
	Unskilled Workers	0.132	2.659***	0.672
Academic Discipline	Social Sciences	-1.072	5.034*	1.006
	Humanities	0.058	0.751	0.084
	Sciences	-0.841	2.495***	0.726
	Others	-0.372	2.011	0.112
Employment Agency (0)		-1.126	6.422*	1.133
Nature of Employment	Regular	-1.425	9.037*	1.132
	Contract	-0.074	2.651***	0.477
	Self Employed	0.136	2.014	0.183
Year of Schooling		0.522	3.250**	0.622
Work experience		0.071	1.429	0.049
Log Likelihood: 127.35 χ^2: 152, P< 0.01 Pseudo R^2: .904 Predicated Cases: 84.75%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

[19] The odds estimate showed decrease of 27% in double mismatch for every one unit increase in male population.

[20] The odds estimate showed decrease of 13.3% in double mismatch for every one unit increase in public agency.

3.3.10. Double Mismatch in Kohima

The model predicted that the sample population fall into their respective groups of the double mismatch with an accuracy of 88.72%, as demonstrated in Table 3.21. The predictor variables are responsible for approximately 84.4% of the double mismatch variations, as indicated by the estimated Pseudo R^2 of 0.844. Additionally, the log-likelihood estimates of 142.10 were statistically significant at a significance level of $p< 0.01$.

The double mismatch is significantly influenced by the independent variables, clerical type of occupation, and year of schooling, with statistical significance at a 10% and 5% significance level. In other words, a one-unit increase in this independent variable will lead to a 0.423 and 0.464 times increase in the double mismatch, respectively. However, an inverse correlation was observed between double mismatch and variables such as gender, professional and associate professional occupation, social sciences, sciences and other studies, employment agency, and regular employees. The statistical significance of this association is observed at the 1%, 5%, and 10% levels. This suggests that the double mismatch will decrease by 0.218, 0.281, 0.156, 0.06, 0.277, 0.098, 0.412[21], and 0.497 times for every one-unit increase in these independent variables, respectively.

[21] The odds estimate showed decrease of 13% in double mismatch for every one unit increase in public agency.

Table 3.21. Logit Regression on Double Mismatch, Kohima

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		0.247	0.311	-
Age		0.451	0.762	0.245
Gender (0)		-0.218	5.327*	1.074
Marital Status (0)		-0.175	0.977	0.318
Occupation	Managers	-0.097	1.204	0.352
	Professionals	-0.281	3.973*	0.741
	Associate Professionals	-0.156	2.255***	0.605
	Clericals	0.423	2.087***	0.374
	Unskilled Workers	0.076	0.865	0.185
Academic Discipline	Social Sciences	-0.064	2.157	0.722
	Humanities	0.129	0.551	0.261
	Sciences	-0.277	2.068***	0.542
	Others	-0.098	2.751***	0.317
Employment Agency (0)		-0.412	6.038*	0.870
Nature of Employment	Regular	-0.497	4.250***	0.753
	Contract	-0.063	0.791	0.092
	Self Employed	0.702	1.148	0.431
Year of Schooling		0.464	3.118**	0.904
Work experience		0.099	1.211	0.627
Log Likelihood: 142.10 χ^2: 123, P< 0.01 Pseudo R^2: .844 Predicated Cases: 88.72%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

3.3.11. Double Mismatch in Mokokchung

The model predicted that the sample population fall into their respective groups of the double mismatch with an accuracy of 87.45%, as demonstrated in Table 3.22. The independent variables are responsible for approximately 78.7% of the double mismatch variations, as indicated by the estimated Pseudo R^2 of 0.787. Moreover, the log-likelihood estimates of 134.07 were statistically significant at a significance level of $p< 0.01$.

The double mismatch is significantly influenced by the independent variable, year of schooling, with statistical significance at a 10% significance level. In other words, a one-unit increase in this independent variable will lead to a 0.322 times increase in the double mismatch. However, an inverse correlation was observed between double mismatch and independent variables such as gender, professional occupation, social sciences and sciences studies, employment agency, and regular

employees. The statistical significance of this association is observed at the 1% and 5% levels. This suggests that the double mismatch will decrease by 0.041[22], 0.504, 0.793, 0.391, 0.092[23] and 1.004 times for every one-unit increase in these independent variables, respectively.

Table 3.22. Logit Regression on Double Mismatch, Mokokchung

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		0.0632	0.736	-
Age		0.175	1.046	0.077
Gender (0)		-0.041	3.051**	0.813
Marital Status (0)		-0.019	1.188	0.150
Occupation	Managers	-0.118	0.647	0.074
	Professionals	-0.504	5.815*	0.899
	Associate Professionals	-0.073	1.561	0.316
	Clericals	-0.128	0.947	0.452
	Unskilled workers	0.057	1.003	0.197
Academic Discipline	Social Sciences	-0.793	4.082*	0.912
	Humanities	0.046	0.052	0.075
	Sciences	-0.391	3.423**	0.890
	Others	-0.174	1.511	0.544
Employment Agency (0)		-0.092	5.645*	1.071
Nature of Employment	Regular	-1.004	5.097*	0.911
	Contract	-0.483	1.618	0.375
	Self Employed	0.007	0.054	0.082
Year of Schooling		0.322	2.295***	0.893
Work experience		0.045	0.873	0.458
Log Likelihood: 134.07 χ^2: 127, P< 0.01 Pseudo R^2: .787 Predicated Cases: 87.45.%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

3.3.12 Double Mismatch in Tuensang

The model predicted that the sample population would fall into their respective groups of the double mismatch with an accuracy of 84.93%, as demonstrated in Table 3.23. The independent variables are responsible for 72.5% of the double mismatch variations, as indicated by the estimated Pseudo R^2 of 0.725. Moreover, the log-

[22] The odds estimate showed decrease of 13% in double mismatch for every one unit increase in male population.

[23] The odds estimate showed decrease of 7.1% in double mismatch for every one unit increase in public agency.

likelihood estimates of 127.98 were statistically significant at a significance level of $p< 0.01$.

An inverse correlation is observed between double mismatch and independent variables such as gender, professional and clerical occupation, social sciences and sciences studies, agency, and regular employees. The statistical significance of this association was observed at the 1%, 5%, and 10% levels. This suggests that the double mismatch will decrease by 0.172[24], 0.527, 0.357, 0.155, 0.409, 0.571[25], and 0.753 times for every one-unit increase in these independent variables.

Table 3.23. Logit Regression on Double Mismatch, Tuensang

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		0.019	0.058	-
Age		0.018	0.167	0.118
Gender (0)		-0.172	4.113*	0.741
Marital Status (0)		-0.215	1.285	0.418
Occupation	Managers	-0.064	1.033	0.187
	Professionals	-0.527	4.756*	0.695
	Associate Professionals	-0.249	1.081	0.094
	Clericals	-0.347	2.712***	0.643
	Others	0.008	0.865	0.017
Academic Discipline	Social Sciences	-0.155	3.524**	0.890
	Humanities	-0.086	1.235	0.511
	Sciences	-0.409	3.008**	0.687
	Unskilled Workers	-0.005	0.482	0.075
Employment Agency (0)		-0.571	4.085**	0.823
Nature of Employment	Regular	-0.753	5.849**	0.857
	Contract	-0.054	1.613	0.058
	Self Employed	0.112	0.017	0.106
Year of Schooling		0.075	1.298	0.635
Work experience		0.018	0.057	0.072
Log Likelihood: 127.98 χ^2: 118, P< 0.01 Pseudo R^2: .725 Predicated Cases: 84.93%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

[24] The odds estimate showed decrease of 25.9% in double mismatch for every one unit increase in male population

[25] The odds estimate showed decrease of 17.7% in double mismatch for every one unit increase in public agency.

3.4. EFFECT OF EDUCATION-JOB MISMATCH ON INCOME.

The Effect of Education-Job Mismatch on income is examined using OLS regression, where income (monthly income) is the dependent variable and independent variables are age and year of schooling: continuous variables , gender, marital status, academic discipline, employment agency, occupation, nature of employment, vertical mismatch (adequate education, overeducation, undereducation), horizontal mismatch and double mismatch: categorical variables.

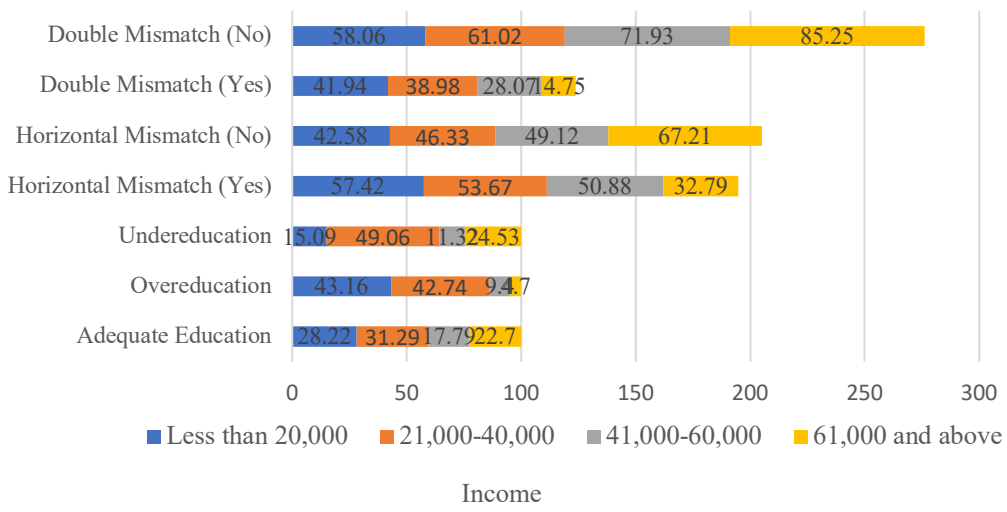
3.4.1. Nagaland

Figure 3.10 illustrates the distribution of income and education-job mismatches in Nagaland. Individuals with earnings below 20,000 exhibit elevated levels of overeducation (43.16 per cent) and horizontal mismatch (57.42 per cent), indicating a significant underutilisation of their skills. Within the income bracket of 21,000 to 40,000, a significant proportion (49.06 per cent) experiences undereducation, suggesting possible underemployment. In contrast, individuals earning between 41,000 and 60,000 have a superior correlation between income and education, with merely 9.4 per cent classified as overeducated. Individuals with higher incomes (61,000 and above) demonstrate reduced incidences of both overeducation and horizontal mismatch, yet they still encounter a degree of undereducation (24.53 per cent).

Among the three districts, in Kohima, 40.7 per cent of individuals earning below 20,000 are overeducated, but a more suitable alignment is noted in higher income tiers, especially among those earning 61,000 and above. Mokokchung indicates that 42.86 per cent of low-income earners possess adequate education, whereas 55.07 per cent of those earning between 21,000 and 40,000 are overeducated, implying an overabundance of qualifications. In Tuensang, 55.7 per cent of individuals earning below 20,000 are overqualified, whilst 55% of those earning between 21,000 and 40,000 are undereducated. In general, lower income is associated with increased educational mismatches in all three districts, whereas higher income levels more efficiently connect education with occupational requirements. This underscores the

necessity for enhanced alignment between educational results and labour market requirements.

Figure 3.10. Distribution of Income by Education- Job Mismatch, Nagaland



a. Testing of Hypothesis

H_1: There is a significant difference between Education- Job Mismatch and Income.

Table 3.24. Results of the Independent T-test

Variables	Categories	Income	t-value
Vertical Mismatch	Yes	297.88	7.211*
	No	471.22	
Horizontal Mismatch	Yes	400.64	11.680*
	No	512.93	
Double Mismatch	Yes	364.47	2.422**
	No	389.50	

**p<0.001, **p<0.01 Sig (2- tailed)*

The significant mean income of individuals who do not experience vertical mismatch is higher (471.22) compared to those who do experience vertical mismatch (297.88), with a statistical significance level of 1%. The significant mean income of individuals who do not have a horizontal mismatch is greater (512.93) compared to the mean income of individuals with a horizontal mismatch (400.64), and is

statistically significant at a 1% level of significance. Further, the significant mean income of individuals without double mismatch is much greater (389.50) compared to those with double mismatch (364.47), with statistical significance at a 5% level. Therefore, we accept the alternative hypothesis and conclude that there is a significant difference between education-job mismatch (vertical, horizontal and double mismatches) and income.

Table 3.25 shows the OLS regression results analysing the effect of education-job mismatch on income. The adjusted R-squared value of 0.73 indicates that 73 per cent of the variation in income can be accounted for by the independent variables. A statistically significant correlation exists between income and the presence of an education-job mismatch. There was a significant negative association between horizontal mismatch and income, and overeducation and income, with a significance level of 1%. There was also a significant relationship between adequate education and income at a 5% level of significance. Concerning extraneous variables, it was found that gender, year of schooling, social sciences studies, employment agency, regularly employed, professionals, and clerical type of occupation have a positive and significant influence on income at a 1% level of significance. Similarly, age, marital status, and contractual workers were found to be statistically significant at 5%, and the sciences study showed a positive significance at a 10% level of significance.

The inverse relationship between horizontal mismatch and income and also between overeducation and income indicates that a unit increase in horizontal mismatch and overeducation will decrease income by 0.235 and 1.190 times respectively, echoing the results of a literature involving the effect of overeducation and horizontal mismatch having a negative impact on earnings Sulaimanova (2022d), aligning with findings by Duncan and Hoffman (1981), who showed that surplus education reduces wage efficiency, and also in line with Robst (2007), who noted significant wage penalties when individuals work outside their trained field. This result reveals that overeducated workers are more income-penalised as compared to horizontally mismatched workers. One reason may be due to unemployment, regional limitations, or a scarcity of appropriate employment opportunities that highly educated

individuals may resort to accepting lower-tier positions, resulting in a mismatch and diminished income. Income increases with adequate education, where a unit increase in adequate education is expected to give rise to a 0.127 times increase in monthly income. Furthermore, it is evident from the study that persons with adequate education earn more than those who have a mismatch between education and employment, a finding that is seen to be consistent with an investigation carried out by Veselinović et al. (2020a), who also discovered that those with a disparity between their degree and their jobs have a lower monthly net income. The study indicates that there is no significant impact on income as a result of double mismatch, mostly because there is a low occurrence of double mismatch among employees. This investigation confirmed the absence of a link between income and undereducation (Orr, n.d.).

A correlation between the year of schooling and the rise in income is also established, with every increase in the year of schooling, 0.073 per cent times increase in income, which is in line with the findings of Veselinović et al. (2020b), as level of income increases with the increase in the level of education, also echoing Becker's (1964) human capital theory. As age increases by one unit, income likewise increases by 0.113 times. These findings suggest that individuals in older age groups have higher incomes compared to those in younger age groups. The findings may be attributed to factors such as increased experience and proficiency of skill that improve over time, promotions, job growth, and the expansion of one's professional network. The positive coefficient for age aligns with Mincer (1974), where earnings typically increase with age/experience. Regarding marital status and contractual workers, a unit increase in these variables leads to income increase of 0.095 and 0.018 times, respectively, at the 5 per cent level of significance, further entailing a positive influence on monthly income, showing that unmarried people get better income which may be due to reduced familial obligations, which afford them increased freedom, extended work hours, and enhanced mobility for professional growth. Income also increases for gender, social sciences study, professionals and clerical type of occupation, employment agency, and regularly employed, where a unit increase in these variables increases the monthly income by 0.006, 0.722, 0.125, 1.063, and 2.015 times respectively. As science studies increase by a unit, income increases by 0.046 times.

Findings point to the presence of a disparity in income between genders, with men earning a greater salary than women. The International Labour Organisation notes that in many regions, women still earn 20 per cent less than men on average, which is consistent with smaller observed income disparities based on gender (The Gender Pay Gap, 2024).

Table 3.25. OLS Regression Results of Education-Job Mismatch and Income, Nagaland

Variables		Coefficient	t- value
Constant		115.067	11.32
Age		0.113**	2.38
Gender (0)		0.006*	4.01
Marital Status		0.095**	2.36
Year of Schooling		0.073*	4.70
Academic Discipline	Social Sciences	0.722*	8.05
	Humanities	0.019	1.07
	Sciences	0.046***	1.92
	Others	0.005	0.75
Employment Agency (0)		1.063*	19.83
Occupation	Managers	0.081	1.22
	Professionals	0.930*	10.70
	Associate Professionals	0.017	0.39
	Clericals	0.125*	13.80
	Others	0.043	1.30
Nature of Employment	Regular	2.015*	18.73
	Contract	0.018**	2.64
	Self Employed	0.005	1.08
Vertical Mismatch	Adequate education	0.127**	2.48
	Overeducation	-1.190*	8.62
	Undereducation	0.851	1.17
Horizontal Mismatch		-0.235*	6.01
Double Mismatch		0.074	1.35
*p<0.01; ** p<0.05; ***p<0.10 Adjusted R^2: 0.73 F. Change: 181.10 N= 450			

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respective

3.4.2. Kohima

Figure 3.11 illustrates the distribution of income based on education-job mismatch in Kohima. Among individuals earning less than 20,000, 12.24 per cent possess an adequate education, 40.7 per cent are overeducated, and 13.33 per cent are undereducated, highlighting substantial educational discrepancies. Within the 21,000-40,000 income bracket, 36.73 per cent possess an adequate education. However, a

significant 45.35 per cent are overeducated, indicating a tendency towards excessive qualifications. In the 41,000-60,000 income range, 18.37 per cent possess adequate education, with no occurrences of undereducation, indicating a more appropriate educational alignment. Finally, among individuals earning 61,000 and above, 32.65 are adequately educated, 26.67 per cent are undereducated, and merely 1.16 per cent are overeducated, suggesting a more favourable alignment overall. In conclusion, lower income is associated with elevated instances of overeducation and educational mismatches, whereas higher income reflects a more advantageous correspondence between education and employment requirements.

Figure 3.11. Distribution of Income by Education- Job Mismatch, Kohima

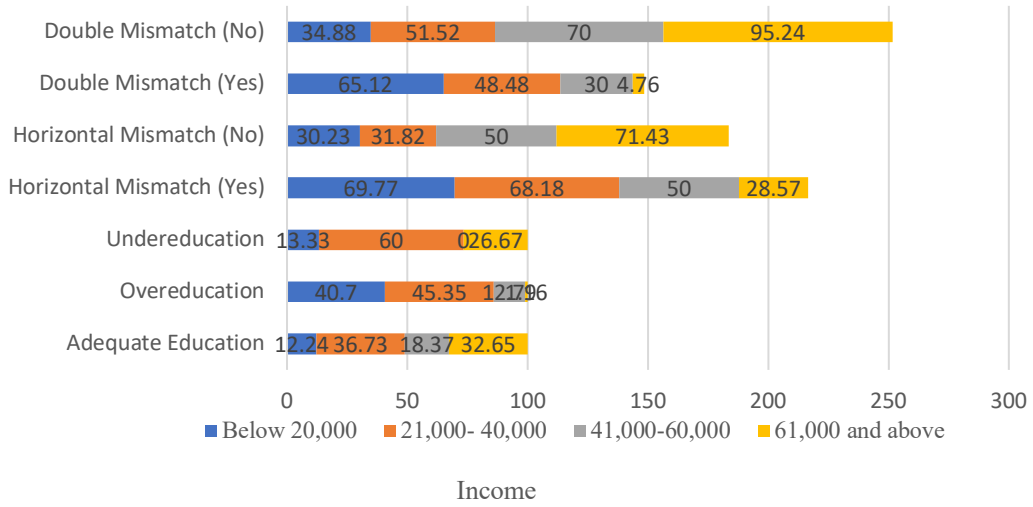


Table 3.26 shows the regression analysis, which examines the effect of Education-Job Mismatch on Income. The adjusted R^2 value of 0.91 indicates that the independent variables can account for 91% of the variability in earnings and wages. An education-job mismatch notably affects income, as supported by statistical evidence. The study revealed a negative correlation between horizontal mismatch and overeducation with monthly income, with a significance level of 1%. About extraneous variables, the study shows that social sciences study, employment agency, regularly employed, occupations in the professional and clerical fields, and adequate education all have a statistically significant positive impact on income, with a substantial level of 1%. Similarly, years of schooling were determined to have a

statistically significant effect at a 5% significance level. Additionally, gender, science studies, and contractual workers were found to have a positive and significant impact at a 10% significance level.

The negative correlation between horizontal mismatch and income and between overeducation and income shows that a one-unit increase in horizontal mismatch and overeducation will drop the income by 0.372 and 0.910 times, respectively.

Various variables positively influence income, including gender, social sciences and sciences studies, employment agency, regular employment, professional and clerical occupations, years of schooling, contractual employees, and adequate education. Each unit increase in these variables is associated with a corresponding increase in monthly income by 0.065, 0.225, 0.051, 1.055, 1.084, 0.204, 0.411, 0.110, 0.711 and 0.312 times, respectively.

Table 3.26. OLS Regression Results of Education-Job Mismatch and Income, Kohima

Variables		Coefficient	t- value
Constant		94.54	5.06
Age		0.077	1.31
Gender		0.065**	2.61
Marital Status		-0.037	1.22
Year of Schooling		0.110**	2.54
Academic Discipline	Social Sciences	0.225*	3.75
	Humanities	0.037	1.26
	Sciences	0.051***	1.87
	Others	0.019	1.14
Employment Agency		1.055*	6.22
Occupation	Managers	0.017	1.18
	Professionals	0.204*	7.01
	Associate Professionals	0.016	0.85
	Clericals	0.411*	4.53
	Others	0.017	1.20
Nature of Employment	Regular	1.084*	7.94
	Contract	0.711***	1.85
	Self Employed	0.122	1.09
Vertical Mismatch	Adequate education	0.312*	4.27
	Overeducation	-0.910*	5.54
	Undereducation	0.114	1.04
Horizontal Mismatch		-0.372*	3.47
Double Mismatch		0.083	1.13
*p<0.01; ** p<0.05; ***p<0.10 Adjusted R^2: 0.91 F. Change: 130.55 N= 150			

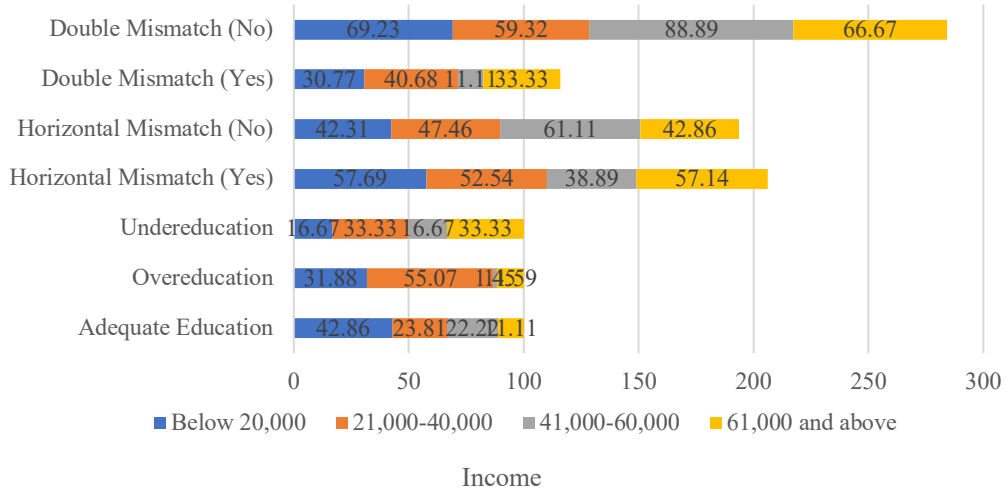
Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

3.4.3. Mokokchung

Figure 3.12 indicates the distribution of income based on education-job mismatch in Mokokchung. Individuals with earnings below 20,000 primarily attain adequate education (42.86 per cent), although a considerable segment also encounters overeducation (31.88 per cent). Conversely, individuals in the 21,000-40,000 income category have a significant incidence of overeducation (55.07 per cent), indicating that their educational abilities may be beyond the demands of their positions. The trend indicates that higher income categories, specifically those earning 41,000-60,000 and

above, have reduced rates of overeducation, with a greater proportion reporting horizontal mismatches (61.11 per cent and 42.86 per cent, respectively). This suggests that when income rises, the probability of undereducation and horizontal mismatches fluctuates, underscoring the intricate link between education, job qualities, and income.

Figure 3.12. Distribution of Income by Education- Job mismatch, Mokokchung



The OLS regression results of the effect of education-job mismatch on income are presented in Table 3.27. The independent variables account for 88 per cent of the variation in income, as indicated by the adjusted R^2 value of 0.88. The income shows an inverse correlation with horizontal mismatch and overeducation at a 5% significance level. Adequate education positively impacts monthly income at a 10% significance level. The study also shows that social sciences studies, employment agency, regularly employed, professionals, and clerical type of occupation positively influence income at a 1% significance level. Similarly, year of schooling shows a positive influence on income, statistically significant at 5%.

The inverse relationship between income and horizontal mismatch and between income and overeducation shows that a one-unit increase in each variable will result in a 0.508 and 0.641 times decrease in income, respectively.

Other extraneous variables also influence income, including the year of schooling, social sciences study, employment agency, being regularly employed, professional and clerical type of occupation, and employment agency. For each unit increase in these variables, income increases by 0.048, 0.472, 0.832, 0.732, 0.183, 0,225, respectively.

Table 3.27. OLS Regression Results of Education-Job Mismatch and Income, Mokokchung

Variables		Coefficient	t- value
Constant		87.32	3.84
Age		0.049	1.26
Gender		0.021	1.07
Marital Status		-0.053	1.15
Year of Schooling		0.048**	2.83
Academic Discipline	Social Sciences	0.472*	5.02
	Humanities	0.011	1.14
	Sciences	0.030	1.32
	Others	0.005	1.05
Employment Agency		0.832*	7.24
Occupation	Managers	0.006	0.88
	Professionals	0.183*	4.55
	Associate Professionals	0.004	0.27
	Clericals	0.225*	3.75
	Others	0.061	0.76
Nature of Employment	Regular	0.732*	9.07
	Contract	0.255	1.33
	Self Employed	0.063	0.58
Vertical Mismatch	Adequate education	0.082***	2.00
	Overeducation	-0.641**	4.11
	Undereducation	0.054	0.854
Horizontal Mismatch		-0.508**	2.73
Double Mismatch		0.114	1.24
*p<0.01; ** p<0.05; ***p<0.10 Adjusted R^2: 0.88 F. Change: 152.33 N= 150			

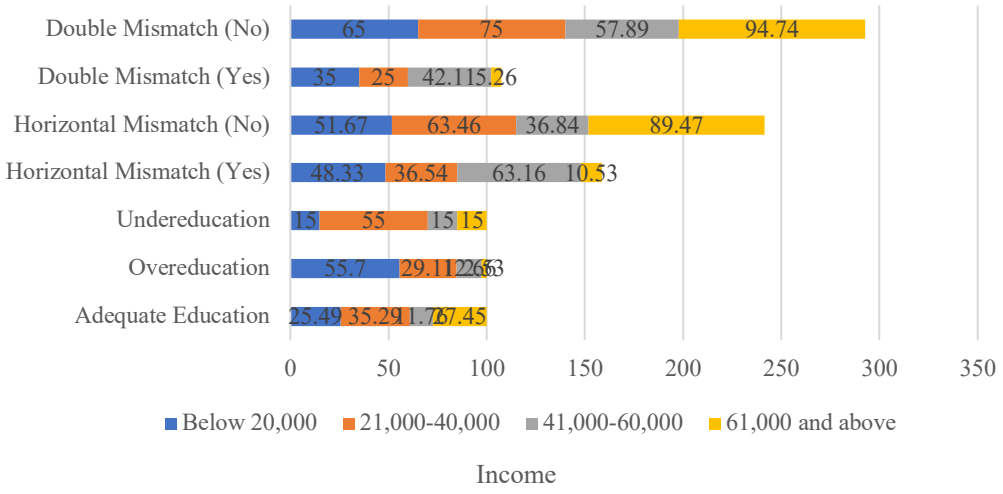
Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

3.4.4. Tuensang

Figure 3.13 indicates the distribution of income based on education-job mismatch in Tuensang. Individuals earning less than 20,000 typically encounter

overeducation (55.7 per cent), indicating that a substantial proportion may hold qualifications surpassing employment requirements. Conversely, individuals within the 21,000-40,000 income range demonstrate a significant incidence of undereducation (55 per cent), suggesting possible skill deficiencies in the labour market. Among higher income categories, specifically those earning 61,000 or more, there is a significant reduction in overeducation (2.53 per cent) and a substantial prevalence of individuals without horizontal mismatches (89.47 per cent), indicating improved alignment between education and employment positions. Lower income levels are associated with more educational mismatches, underscoring the intricacies of job-market dynamics and the possible necessity for improved alignment between educational qualifications and labour market requirements.

Figure 3.13. Distribution of Income by Education -Job mismatch, Tuensang



OLS regression results of the education-job mismatch effect on income are displayed in Table 3.28. With an adjusted R square value of 0.69, the independent variables account for 69% of the variation in salaries and wages. The presence of an education-job mismatch has a statistically significant effect on income. At a 1% significance level, the study shows an inverse correlation between overeducation and income. At the 10 per cent significance level, the study also shows an inverse correlation between horizontal mismatch and income, and adequate education has a positive correlation with income at the 10% level of significance. Regarding

extraneous variables, the study reveals that, at the 1% significance level, social science studies, employment agency, regularly employed, professionals, and clerical occupations positively influence income. Similarly, at the 10% significance level, gender and humanities studies reveal a significant positive relationship with income.

The inverse correlation between overeducation and income shows that with every unit increase in overeducation, it results in 0.351 times decrease on income The positive relationship between horizontal mismatch, adequate education and double mismatch and income reveals that, one unit increase in horizontal mismatch, adequate education and double mismatch will results in 0.105, 0.084 and 0.211 times increase on income respectively. The possible reason why horizontal mismatch and double mismatch lead to an increase in income may be because, in some cases, workers choose mismatched jobs intentionally to enter industries with better long-term earnings prospects.

The study further reveals that for every unit increase in these variables; gender, social sciences and humanities studies, professionals and clerical occupations, employment agency and regular employment, income increases by 0.038, 0.316, 0.053, 0.110, 0.077, 0.883 and 1.113 times respectively.

Table 3.28. OLS Regression Results of Education-Job Mismatch and Income, Tuensang

Variables		Coefficient	t- value
Constant		73.91	1.99
Age		0.221	1.08
Gender		0.038***	1.57
Marital Status		-0.016	0.87
Year of Schooling		0.075	1.15
Academic Discipline	Social Sciences	0.316*	3.81
	Humanities	0.053***	1.84
	Sciences	0.017	1.01
	Others	0.009	0.95
Employment Agency		0.883*	5.02
Occupation	Managers	0.033	0.75
	Professionals	0.110*	4.43
	Associate Professionals	0.042	1.01
	Clericals	0.077*	3.29
	Others	0.015	0.85
Nature of Employment	Regular	1.113*	6.11
	Contract	0.250	1-.5
	Self Employed	0.037	0.78
Vertical Mismatch	Adequate education	0.084***	1.81
	Overeducation	-0.351*	3.27
	Undereducation	0.016	0.64
Horizontal Mismatch		0.105**	2.45
Double Mismatch		0.211***	1.79
*p<0.01; ** p<0.05; ***p<0.10 Adjusted R^2: 0.69 F. Change: 120.55 N= 150			

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

3.5. EFFECT OF EDUCATION-JOB MISMATCH ON JOB SATISFACTION

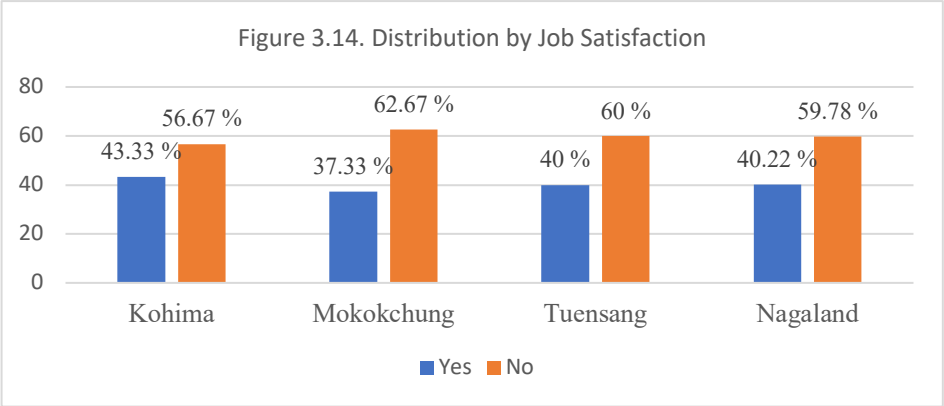
The Education- Job mismatch categorised as vertical, horizontal and double mismatch on Job Satisfaction is examined using binary logistic regression. The dependent variable, Job Satisfaction, is regressed against variables- vertical mismatch, horizontal mismatch and double mismatch and extraneous variables- age, gender, marital status, year of schooling, academic discipline, agency, occupation, employment status, employment status and work experience.

Table 3.29. Distribution by Job Satisfaction

Particulars	Job Satisfaction	
	Yes	No
Kohima	65 (43.33)	85 (56.67)
Mokokchung	56 (37.33)	94 (62.67)
Tuensang	60 (40)	90 (60)
Nagaland	181 (40.22)	269 (59.78)

Source: Field Survey, 2021-2022

Table 3.29 indicates job satisfaction in Nagaland, highlighting a concerning pattern of dissatisfaction throughout every district. In Kohima, 43.33 per cent of participants expressed satisfaction, but 56.67 per cent did not. Mokokchung recorded the lowest job satisfaction rate at 37.33 per cent, while 62.67 per cent indicated dissatisfaction. Tuensang achieved a satisfaction level of 40 per cent, contrasted with a dissatisfaction rate of 60 per cent. In Nagaland overall, only 40.22 per cent expressed job satisfaction, while 59.78 per cent did not, indicating a substantial concern regarding job satisfaction, necessitating efforts to enhance workplace conditions and employee morale.



a. Testing of Hypothesis

H_1: There is a significant difference between education-job mismatch and Job satisfaction.

Table 3.30. Results of the Chi-square test

Variable		Education- Job mismatch		χ^2
Job Satisfaction	Not satisfied	Yes	No	
		65.3	38.1	13.672*
	Satisfied	34.7	61.9	

*p< 0.001, sig (2-tailed)

From Table 3.30, the chi-square test reveals a statistically significant relationship between education-job mismatch and job satisfaction ($\chi^2 = 13.672$, $p < 0.001$). The data show that 65.3% of respondents who reported being dissatisfied with their jobs experienced an education-job mismatch, compared to only 34.7% of satisfied respondents. Conversely, 61.9% of satisfied individuals had no mismatch, while just 38.1% of dissatisfied individuals fell into this category. Therefore, we accept the alternative hypothesis and conclude that there is a significant difference between education-job mismatch (vertical, horizontal and double mismatches) and job satisfaction.

A binary logistic regression model is used to investigate the effect of education job mismatch on job satisfaction, with Y = 0: otherwise and Y = 1: satisfied, as shown in Table 3.31. The independent variables were responsible for 91.08% of the

fluctuations in job satisfaction, according to the estimated Pseudo R2 of 0.794. Furthermore, log-likelihood estimates of 207.11 were statistically significant at $p<0.01$.

The study indicates that both overeducation and horizontal mismatch have a significant adverse effect on job satisfaction. Specifically, job satisfaction decreases by 1.072 times for every unit increase in overeducation, and for every unit increase in horizontal mismatch, job satisfaction decreases by 0.433 times, statistically significant at the 1% and 5% levels of significance, respectively. The reason why overeducation and horizontal mismatch result in job dissatisfaction is possibly because individuals might perceive their abilities and qualifications as underutilised, leading to lower income, restricted job opportunities, and a deficiency in professional fulfilment.

The study further reveals that adequate education has a statistically significant positive effect on job satisfaction, with a significance level of 5%. One unit increase in adequate education is associated with 0.325 times increase in job satisfaction. This study demonstrates that individuals employed in positions that align with their skills and qualifications experience higher levels of job satisfaction.

The study also demonstrates that double mismatch has a statistically significant positive effect on job satisfaction, with a significance level of 1 per cent. Each unit increase in double mismatch results in a 1.271 times increase in job satisfaction. This could be attributed to the complex nature of job satisfaction, which is influenced by various factors such as income, job security, and work-life balance and is not solely dependent on the alignment of the field of study and education with job requirements.

Several extraneous variables, such as age, gender, academic discipline, nature of employment, income and employment agency, also influence job satisfaction. The study shows that there is a statistically significant increase in job satisfaction by 1.304 times for every unit increase in age. This indicates that older workers are more satisfied than younger ones. It might be so that older workers are more prone to possessing enhanced financial stability, expertise, and independence in their jobs. The study further reveals that for each unit increase in gender, job satisfaction increases by

0.943[26] times. The academic discipline of social sciences has a statistically significant negative impact on job satisfaction at a significance level of 1%. Each additional unit of social sciences study is associated with a 0.728 drop in job satisfaction. Undoubtedly, the field of social sciences has a very competitive labour market, which presents obstacles in securing employment that is in line with their skillset and may result in underemployment. The agency (public) and regular employees statistically impact job satisfaction at a significance level of 1%. This means that for every unit increase in these variables, job satisfaction increases by 2.345[27] times for public agency and 1.087 times for regular employees. The findings suggest that employees in the public sector have higher job satisfaction compared to those in the private sector. Unsurprisingly, job security is higher, and work pressure is lower in the public sector compared to the private sector, as confirmed by Sam (2020) study. The data also indicates a statistically significant positive relationship between income and job satisfaction, with a significance level of 1%. For each unit increase in income, job satisfaction experiences a 1.977 times increase, which supports the finding of a substantial and favourable impact of remuneration on job satisfaction (Mabaso & Dlamini, 2017). Income ensures economic stability, fostering a more favourable work disposition.

[26] The odds estimate favored an increase of 52.9% in job satisfaction for every one unit increase in male population.
[27] The odds estimate favored an increase of 12.2% in job satisfaction for every one unit increase in public agency.

Table 3.31. Logit Regression Estimates, Nagaland

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		3.011	4.027	-
Adequate Education		0.325	3.019**	0.794
Overeducation		-1.072	5.028*	1.106
Undereducation		-0.064	1.471	0.155
Horizontal Mismatch		-0.433	3.414**	0.693
Double Mismatch		1.271	4.135*	1.050
Age		1.304	4.526*	0.823
Gender (0)		0.943	3.140*	0.471
Marital Status (0)		-0.417	2.011	0.662
Academic Discipline	Social Sciences	-0.728	4.265*	0.955
	Humanities	0.201	1.775	0.410
	Sciences	-0.533	2.004	0.657
	Others	0.089	0.769	0.228
Employment Agency (0)		2.345	6.871*	1.122
Nature of Employment	Regular	1.087	5.691*	0.905
	Contract	0.720	1.953	0.511
	Self Employed	0.099	0.582	0.219
Income		1.977	8.043*	1.055
Log Likelihood: 207.11 χ^2: 127, P< 0.01 Pseudo R^2: .794 Predicated Cases: 91.08%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

3.5.1 Kohima

From Table 3.32, the independent variables accounted for approximately 80.25% of the variations in job satisfaction, as indicated by the estimated Pseudo R2 of 0.799. Additionally, log-likelihood estimates of 142.10 were statistically significant at p<0.01.

The results demonstrate that overeducation, horizontal mismatch, and studies in social sciences significantly detriment job satisfaction. Job satisfaction decreases by 0.824 times for each unit increase in overeducation, by 0.648 times for each unit increase in horizontal mismatch, and by 1.054 times for each unit increase in social sciences studies, statistically significant at the 1% and 5% significance levels. The study also reveals that adequate education, double mismatch, age, gender, science

studies, agency(public), regular employment, and income significantly influence job satisfaction at various levels of significance. For every unit increase in adequate education, double mismatch, age, gender, studies in sciences, agency (public), regular employment, and income, job satisfaction increases by 0.265, 0.125, 0.753, 0.857[28], 0.211, 2.471[29], 1.859, and 2.851 times, respectively.

Table 3.32. Logit Regression Estimates, Kohima

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		0.871	2.739	-
Adequate Education		0.265	3.418**	0.753
Over Education		-0.824	5.042*	0.911
Under Education		-0.157	1.652	0.275
Horizontal Mismatch		-0.648	3.519**	0.883
Double Mismatch		0.125	2.267***	0.720
Age		0.753	7.204*	0.979
Gender (0)		0.857	2.936***	0.812
Marital Status (0)		-0.133	1.602	0.249
Academic Discipline	Social Sciences	-1.054	4.923*	0.742
	Humanities	0.480	1.417	0.360
	Sciences	0.211	2.265***	0.511
	Others	0.137	0.783	0.294
Employment Agency (0)		2.471	5.845*	1.118
Nature of Employment	Regular	1.859	7.603*	0.947
	Contract	0.413	0.825	0.341
	Self Employed	0.077	0.318	0.455
Income		2.851	8.032*	1.041
Log Likelihood: 142.10 χ^2: 123, P< 0.01 Pseudo R^2: .799 Predicated Cases: 80.25%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

[28] The odds estimate favored an increase of 18.8% in job satisfaction for every one unit increase in male population.
[29] The odds estimate favored an increase of 11.8% in job satisfaction for every one unit increase in public agency.

3.5.2 Mokokchung

From Table 3.33, the independent variables accounted for 82.79% of the variations in job satisfaction, as indicated by the estimated Pseudo R2 of 0.831. Additionally, log-likelihood estimates of 151.84 were statistically significant at $p<0.01$.

The results demonstrate that overeducation, horizontal mismatch, and studies in social sciences significantly detriment job satisfaction. Job satisfaction decreases by 0 times for each unit increase in overeducation, by 0.611 times for each unit increase in horizontal mismatch, and by 1.287 times for each unit increase in social sciences studies, statistically significant at the 1% and 10% significance levels. The study also indicates that adequate education, double mismatch, age, gender, agencies, regular employment, and income exert a statistically significant positive influence on job satisfaction at various levels of significance. Each unit increase in adequate education, double mismatch, age, gender, agency (public), regular employment, and income leads to an increase in job satisfaction by 0.082, 0.097, 0.541, 0.758[30], 2.014[31], 1.278, and 2.013 times respectively.

[30] The odds estimate favored an increase of 35% in job satisfaction for every one unit increase in male population.
[31] The odds estimate favored an increase of 6.1% in job satisfaction for every one unit increase in public agency.

Table 3.33. Logit Regression Estimates, Mokokchung

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		1.557	2.311	-
Adequate Education		0.082	2.653***	0.491
Overeducation		-0.753	6.372*	1.054
Under Education		-0.039	0.364	0.081
Horizontal Mismatch		-0.611	2.275***	0.837
Double Mismatch		0.097	2.169***	0.625
Age		0.541	5.071*	0.973
Gender (0)		0.758	2.186***	0.650
Marital Status (0)		-0.015	0.577	0.032
Academic Discipline	Social Sciences	-1.287	5.352*	0.875
	Humanities	0.453	1.239	0.194
	Sciences	0.267	1.610	0.377
	Others	0.014	0.172	0.068
Employment Agency (0)		2.014	5.176*	1.061
Nature of Employment	Regular	1.278	8.120*	1.154
	Contract	0.125	0.069	0.092
	Self Employed	0.004	0.013	0.105
Income		2.013	6.824*	0.953
Log Likelihood: 151.84 χ^2: 121, P< 0.01 Pseudo R^2: .831 Predicated Cases: 82.79%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

3.5.3 Tuensang

From Table 3.34, the predictor variables accounted for approximately 80.25% of the variations in job satisfaction, as indicated by the estimated Pseudo R2 of 0.799. Additionally, log-likelihood estimates of 142.10 were statistically significant at p<0.01.

The study shows that overeducation and studies in social sciences significantly detriment job satisfaction. Job satisfaction decreases by 0.397 times for each unit increase in overeducation, and by 0.879 times for each unit increase in social sciences studies statistically significant at 5% and 1% level of significance respectively.

The study also reveals that adequate education, age, agency(public), regular employment, and income has a positive correlation with job satisfaction at 1% and

10% level of significance. For every unit increase in adequate education, age, agency (public), regular employment, and income, job satisfaction increases by 0.088, 0.321[32], 0.975 and 1.524 times, respectively.

Table 3.34. Logit Regression Estimates, Tuensang

Variables		Coefficient	Wald Statistics	Odds-estimates
Constant		0.643	1.815	-
Adequate Education		0.088	2.175***	0.627
Over Education		-0.397	3.692**	0.733
Under Education		-0.008	0.115	0.052
Horizontal Mismatch		-0.351	1.274	0.395
Double Mismatch		0.026	0.983	0.247
Age		0.392	4.631*	0.750
Gender (0)		0.477	1.807	0.541
Marital Status (0)		-0.010	0.056	0.116
Academic Discipline	Social Sciences	-0.879	4.211*	0.936
	Humanities	0.291	0.793	0.075
	Sciences	0.055	0.418	0.190
	Others	0.002	0.052	0.004
Employment Agency (0)		3.321	6.092*	1.082
Nature of Employment	Regular	0.975	5.459*	0.837
	Contract	0.076	0.017	0.105
	Self Employed	0.001	0.225	0.284
Income		1.524	5.610*	0.879
Log Likelihood: 140.65 χ^2: 118, P< 0.01 Pseudo R^2: .804 Predicated Cases: 77.91%				

Note: Significance at 1%, 5%, and 10% are indicated by *, **, *** respectively

[32] The odds estimate favored an increase of 8.2% in job satisfaction for every one unit increase in public agency.

3.6. PROBLEMS OF HIGHER EDUCATION SYSTEM IN NAGALAND

India's higher education system ranks as the third-largest globally in terms of student population, trailing only China and the United States. The country now boasts a considerable number of esteemed universities and colleges. Despite its extensive history of learning and knowledge, the Indian education system has encountered several obstacles, such as disparities in educational access, outdated curricula, and insufficient funding (Challenges and Progress in the Indian Education System, 2023).

To study the problem of the higher education system in Nagaland, the Garett Ranking technique is employed. This technique involved ranking the preferences expressed by the respondents about various factors. The ranks assigned to these factors were then converted into score values using the following formula:

$$\text{Percentage position } \frac{100(Rij-0.5)}{Nj}$$

Where,

Rij =Rank given for the i^{th} variable by the j^{th} respondents

Nj=Number of variables ranked by the j^{th} respondents.

In Nagaland, among the options outlined in Table 3.35 relating to the problems of the higher education system based on respondents' perception, "Limited course offerings and specialisation" is perceived as the most critical problem, as indicated by its ranking of I with a mean score of 67.24, which hinders the student's ability to pursue specific careers that require specialised skills. The 'Lack of an association between academia and industry" is the second most prevalent issue, with a mean score of 55.07. This problem highlights the imbalances between skill demand and skill supply in the State. This result suggests that effective industry-academia collaboration can bridge the gap between academic learning and industry needs, enhancing employability. According to the World Economic Forum (2024), building 21st-century education systems requires devising a curriculum and providing a fundamental education to all learners that lays the basis for lifelong adaptation and acquisition of skills. To maximise global talent, specialised education should deliver in-demand skills and bridge the gap between industry needs and instruction. The "Lack of career guidance", with a mean score of 51.50, is also considered a substantial issue. "Infrastructure

Deficiency", with a mean score of 40.91, is ranked fourth, indicating that it is perceived as less critical than the top three issues but more critical than urban and rural disparities. "Regional Disparities", with a mean score of 31.97, is classified as rank V, which indicates that it is perceived as less critical than the other issues. These findings are consistent with earlier research highlighting that higher education institutions in the North-East region face limited programme diversity, poor industry integration, and minimal career counselling services, which adversely affect student preparedness and employability (Singh & Sharma, 2021; Borah, 2020; Das & Baruah, 2022). Additionally, infrastructure gaps and regional imbalances continue to impede equitable access and quality in education, especially in remote and tribal areas (Nongkynrih, 2019; UGC Report, 2021).

As perceived by the respondents, this outcome offers a glimpse into the perceived significance of various challenges in workforce development and higher education. Limited course offerings, specialisation, and the absence of an association between industry and academia are particularly critical. In contrast, areas with regional disparities are considered to be less urgent.

Table 3.35. Garett Ranking on the Problems of Higher Education System, Nagaland

Particulars	Mean Score	Rank
F1- Regional Disparities	31.97	V
F2- Lack of Career guidance	51.50	III
F3- Limited course offerings and specialisation	67.24	I
F4- Lack of association between industry and academia	55.07	II
F5- Infrastructure deficiency	40.91	IV

Source: Field Survey, 2021-22

3.6.1 Kohima

Table 3.36 displays the Garett Ranking for the problems of the higher education system in Kohima. The "limited course offerings and specialisation" issue is considered the most significant challenge, as it has been ranked as the top I with a mean score of 21.95. The "lack of association between academia and industry" is the second most common problem, with an average score of 19.17. The issue of "Lack of

career guidance" is considered significant, with a mean score of 17.04." Infrastructure Deficiency" has a mean score of 13.20, placing it in fourth position. This suggests that it is considered less significant, and "Regional Disparities" has a mean score of 11.02 and is categorised as rank V. This classification indicates that it is considered less important than other problems.

Thus, the most significant issue in Kohima's higher education and workforce development is the restricted range of courses and specialisation options. On the other hand, regional discrepancies are thought to be of the most negligible significance.

Table 3.36. Garett Ranking on the Problems of Higher Education, Kohima

Particulars	Mean Score	Rank
F1- Regional Disparities	11.02	V
F2- Lack of Career guidance	17.04	III
F3- Limited course offerings and specialisation	21.95	I
F4- Lack of association between industry and academia	19.17	II
F5- Infrastructure deficiency	13.20	IV

Source: Field Survey, 2021-22

3.6.2 Mokokchung

Table 3.37 presents the Garett Ranking for the issues about higher education in Mokokchung. The problem of "limited course offerings and specialisation" is regarded as the most critical obstacle, as it has been evaluated as the highest priority, with a mean score of 22.26. The "lack of association between academia and industry" is the second most significant issue, with an average of 19.62. The problem of "Lack of career guidance" is deemed necessary, with an average score of 17.32. "Infrastructure Deficiency" gets an average score of 13.22, ranking it fourth. These findings indicate that "Regional Disparities" is perceived as relatively unimportant, with a mean score of 9.92 and a rank V categorisation. This classification implies that it is seen as relatively less relevant than other issues.

Therefore, the primary concern in higher education and workforce development in Mokokchung is the limited variety of courses and specialisation opportunities. However, regional disparities are considered to be of minimal importance, which is consistent with Kohima's findings.

Table 3.37. Garett Ranking on the Problems of Higher Education, Mokokchung

Particulars	Mean Score	Rank
F1- Regional Disparities	9.92	V
F2- Lack of Career guidance	17.32	III
F3- Limited course offerings and specialisation	22.26	I
F4- Lack of association between industry and academia	19.62	II
F5- Infrastructure deficiency	13.22	IV

Source: Field Survey, 2021-22

3.6.3 Tuensang

Table 3.38 displays the Garett Ranking for higher education and workforce development in Tuensang. The issue of "limited course offerings and specialisation" is considered the most significant barrier, as it has been assessed as the top priority with an average score of 23.03. The issue of "Lack of career guidance" ranks second in significance, with an average score of 17.14. The issue of "insufficient collaboration between academia and industry" is considered significant, with an average rating of 16.29. The term "Infrastructure Deficiency" receives a mean score of 13.22, placing it fourth. The results suggest that "Regional Disparities" is considered of low significance, as indicated by a mean score of 11.03 and a rank V categorisation.

Hence, the main issue in higher education and workforce development in Tuensang revolves around the restricted range of courses and opportunities for specialisation. Nevertheless, the significance of regional discrepancies is deemed negligible, aligning with the conclusions drawn from the studies conducted in Kohima and Mokokchung.

Table 3.38. Garett Ranking on the Problems of Higher Education, Tuensang

Particulars	Mean Score	Rank
F1- Regional Disparities	11.03	V
F2- Lack of Career guidance	17.14	II
F3- Limited course offerings and specialisation	23.03	I
F4- Lack of association between industry and academia	16.29	III
F5- Infrastructure deficiency	14.39	IV

Source: Field Survey, 2021-22

3.7. Factors Influencing Choice of Academic Programmes in Nagaland

To study the factors influencing the Choice of Academic Programmes in Nagaland, the Relative Importance Index (RII) is used using the formula:

Relative Importance Index= $\Sigma W / (A * N)$

Where: $\Sigma W = 5n_5+4n_4+3n_3+2n_2 +1n_1$

W= Weightage by the respondents to each factor, ranging from 1 to 5 (n_5 = Strongly Agree, n_4= Agree, n_3= Neutral, n_2= Disagree, n_1= Strongly Disagree)

A= Highest weight (in this case, 5)

N= Total number of respondents

In Table 3.39, the RII scores indicate the relative importance index of each motivation for pursuing the academic program as perceived by the respondents. A higher RII suggests a more substantial influence on the decision to pursue the educational program. “High grades” is considered the most essential motivation based on its RII of 0.75. **“**Availability of the course” and “More career prospects” share the second rank with an RII of 0.73 each. **“**Status and prestige” has an RII of 0.62, indicating the lowest motivation to pursue the academic program.

The decision of an individual to pursue a professional path is situation-specific and subjective. The findings suggest that in Nagaland, attaining excellent marks is the main driving force for pursuing an academic career. High marks reflect a deep understanding and passion for the course, showcasing one’s self-assurance and boosting confidence in their academic ability. Regarding financial assistance and scholarships, many grants are awarded based on merit, which is assessed through

academic achievements. Moreover, being admitted to various programmes frequently relies on having outstanding marks as a crucial part of a solid academic record. A prominent issue in admissions that is gaining importance is grade inflation, which is becoming more noticeable as we navigate the educational landscape of 2023-24. Because grades have been an essential component of education for a very long time, acting as a measure through which students are evaluated and their progress is monitored, they represent a variety of characteristics of the learning process themselves (*Grade Matters: Significance of Grades in Your Academic Journey*, 2023). The findings also reveal that "Availability of the course" and "More career prospects" are essential in pursuing an academic program in Nagaland. Courses tailored to an individual's desired career path are incredibly inspiring, and programmes that frequently update their curriculum to reflect the latest developments and technology in the industry can also be encouraging. People's motivation can be considerably boosted by participating in programmes developed with flexibility and diversity in mind and programmes that correspond with their future professional objectives and personal interests. Digitex (n.d.) stated that placement options in an institution of study are the most crucial criterion for learners to consider as they discuss their career decisions. Effective placement choices significantly incentivise learners to advance their future career choices. People desire a career that adequately supports their basic needs and sustenance. The study also indicates that "status and prestige" are considered the least significant aspects when selecting an academic programme compared to other aspects. Individuals often choose an academic programme that corresponds to their career objectives and interests without considering their social status or prestige.

Table 3.39. Factors Influencing Choice of Academic Programmes, Nagaland

Statement	RII	Rank
F1. Peer Influence	0.71	IV
F2. Status and Prestige	0.62	VII
F3. High grades	0.75	I
F4. Strong passion for the course	0.72	III
F5. Family Influence	0.68	VI
F6. Availability of course	0.73	II
F7. Affordability	0.70	V
F8. More career Prospect	0.73	II

Source: Field survey, 2021-22

3.7.1 Kohima

In Kohima, the element that is ranked the greatest in influencing the choice of an academic program is having a "strong passion for the course". Its RII score of 0.262 indicates this, which signifies its critical importance. The importance of the "availability of the course" is ranked second, with a score of 0.261. The importance of "career prospects" is equal to the rating of course availability. Students are inclined to select programs they see as having superior future employment prospects. "Peer influence" holds a modest level of importance, ranking third in significance. The data indicates that students are moderately impacted by the choices and opinions of their classmates. "Affordability of the course" is ranked fourth, suggesting that while it is a significant consideration, it is not as crucial as one's passion for the course, the availability of the course, and the potential career prospects. The factor of "family influence" is ranked lower, whereas the variables of "status and prestige" of the program have the least influence.

Students predominantly select academic programs based on their interests and the accessibility of the courses, with employment opportunities also being a significant factor. When considering decision-making factors, affordability and academic performance are less critical, while family influence and program prestige have the

least significant impact. This underscores that individual inclination and pragmatic considerations are the primary catalysts in academic decisions.

Table 3.40. Factors Influencing Choice of Academic Programmes, Kohima

Statement	RII	Rank
F1. Peer Influence	0.225	III
F2. Status and Prestige	0.215	VII
F3. High grades	0.220	V
F4. Strong passion for the course	0.262	I
F5. Family Influence	0.220	VI
F6. Availability of the course	0.261	II
F7. Affordability of the course	0.230	IV
F8. More career Prospect	0.261	II

Source: Field survey, 2021-22

3.7.2 Mokokchung

In Mokokchung, the highest Relative Importance Index (RII) indicates that academic performance, particularly achieving “high grades”, is the most significant factor. This suggests that students prioritise programs that either leverage their existing academic strengths or align with their academic abilities. “Peer influence” is the second most crucial factor, showing that their friends and social circles heavily influence students. “Availability of the course”, “affordability of the course”, and “career prospects” all share the same rank, indicating that practical factors are equally important in decision-making. “Family influence ranks fourth”, showing it has a moderate impact. Family expectations, support, and advice are significant but less dominant than academic performance and practical considerations. “Strong passion for the course” is ranked lower than other factors. This suggests that while students value interest in the subject, it is often secondary to practical considerations and academic performance. Status and prestige are the least influential factors, indicating that students in Mokokchung are less swayed by the reputation of the institution or program.

Table 3.41. Factors Influencing Choice of Academic Programmes, Mokokchung

Statement	RII	Rank
F1. Peer Influence	0.25	II
F2. Status and Prestige	0.19	VI
F3. High grades	0.29	I
F4. Strong passion for the course	0.20	V
F5. Family Influence	0.21	IV
F6. Availability of course	0.24	III
F7. Affordability	0.24	III
F8. More career Prospect	0.24	III

Source: Field survey, 2021-22

3.7.3 Tuensang

In Tuensang, students' choices of academic programs are predominantly guided by their "strong passion for the course" and the potential "career prospects", rated highest in importance. This reflects prioritising personal interest and future job opportunities over other factors. "Family influence" ranks second, indicating that students value familial support and expectations in their decision-making process. "Peer influence" and "high grades" are also significant, sharing the same rank. This shows that while students consider their peers' opinions and academic achievements, these are not as crucial as passion and career prospects. Practical aspects like "availability of the course" and "affordability of the course" are moderately influential, highlighting their role in shaping decisions, but to a lesser extent than personal and future-oriented considerations. The status and prestige of the program are the least significant, suggesting that students in Tuensang place less emphasis on institutional reputation compared to more immediate and practical factors in their academic choices.

Table 3.42. Factors Influencing Choice of Academic Programmes, Tuensang

Statement	RII	Rank
F1. Peer Influence	0.24	III
F2. Status and Prestige	0.22	V
F3. High grades	0.24	III
F4. Strong passion for the course	0.26	I
F5. Family Influence	0.25	II
F6. Availability of course	0.23	IV
F7. Affordability	0.23	IV
F8. More career Prospect	0.26	I

Source: Field survey, 2021-22

CHAPTER-IV

INCOME INEQUALITIES

The unequal income distribution worldwide has become a significant concern for policymakers, economists, and social scientists. A population is said to be experiencing income inequality when there is a disparity in income distribution among its people. The World Inequality Report 2022 reveals a significant gap in worldwide income distribution. The top 10 per cent of the world's population earns over half of the global income, but the bottom 50 per cent jointly receive only 8.5 per cent. The international adult population in 2021 is estimated to be 5.1 billion out of a total world population of 7.8 billion, including children.

India's economic growth has been remarkable, but unfortunately, it is plagued by significant inequality. Inequality has experienced a considerable increase over the past three decades. A substantial portion of the wealth generated has been concentrated in the hands of the wealthiest individuals, primarily through graft capitalism and succession. The wealth gap is widening as the affluent see their fortunes proliferate. The less fortunate face ongoing challenges in earning a living wage and accessing essential services like education and healthcare, which have been consistently underfunded. The most affected by these widening disparities and rising inequalities are women and children. (*India: Extreme Inequality in Numbers | Oxfam International*, 2022). According to research co-authored by a group of economists, including the renowned French economist Thomas Piketty, the disparity between the wealthy and the poor in India has become so significant that, by specific criteria, the income distribution in India was fairer during British colonial rule than it is presently (Rajvanshi, 2024).

Income inequality is not solely determined by globalisation or technological development but by various factors and circumstances. Instead, it has primarily been influenced by multiple institutional political decisions. The preventable causes that have led to inequality have resulted in socio-economic challenges, as the adverse outcomes of inequality have been demonstrated. Extensive research has shown the link between rising economic inequality and many adverse outcomes. From a financial

perspective, negative consequences go beyond the obvious issues of poverty and lack of resources, often associated with low income. Studies have shown that income inequality can negatively affect economic development, innovation, and investment (Polacko, 2021).

The most common measure of income inequality is the Gini coefficient, which quantifies the extent of income inequality within a country by assessing the distribution of income or wealth among its populace. The Gini index was established in 1912 by Corrado Gini, an Italian statistician. The Gini index coefficient varies between 0 (or 0 per cent) and 1 (or 100 per cent), where 0 signifies complete equality and 1 signifies complete inequality. The income Gini index for the top five countries with the highest and lowest Gini values is presented in Table 4.1 and Table 4.2.

Table 4.1.Top 5 Countries with the highest Gini coefficients

Countries	Income Gini
South Africa	63.0
Namibia	59.1
Suriname	57.9
Zambia	55.9
Eswatini	54.6

Source: World Bank Report, 2024

The five countries with the highest Gini coefficients demonstrate significant income disparity, with South Africa having the highest coefficient at 63.0. Namibia, Suriname, Zambia, and Eswatini also face significant income disparities, reflecting the impact of economic and political instability on income distribution.

Table 4.2. Top 5 Countries with the lowest Gini coefficients.

Countries	Income Gini
Norway	22.7
Slovakia	23.2
Slovenia	24.0
Belarus	24.4
Ukraine	25.7

Source: World Bank Report, 2024

Norway is notable for having the lowest Gini coefficient, indicating its progressive economic policy implementation. Slovakia and Slovenia demonstrate very low inequality, but their Gini coefficients are slightly higher than Norway's. On the other hand, Belarus and Ukraine have slightly higher Gini coefficients than the first three countries mentioned.

4.1. Income Distribution in Nagaland

The income distribution for Nagaland is presented in Table 4.3. The study shows that 34 per cent earned less than what accounted for 13 per cent of the total income. A majority of 39 per cent earned between 21000-40000, receiving the highest total income share of 37 per cent. 39 per cent earned between 41000-60000, with their income share being 18 per cent, and 14 per cent of the employees earning above 60000 received a substantial income share of 32 per cent.

Table 4.3. Income Distribution, Nagaland

Income Group	F	%	CF	Income	%	CF
Less than 20000	155	34	34	1900600	13	13
21000- 40000	177	39	73	5425500	37	50
41000-60000	57	13	86	2720000	18	68
61000 and above	61	14	100	4660000	32	100
Total	450	100		14706100	100	

F= Frequency

%= Percentage

CF= Cumulative Frequency

Income per month in `

Source: Field Survey, 2021-22

The income distribution based on marital status can be found in Table 4.4. Among married individuals, a significant portion, 23 per cent, earn less than 20000, accounting for 8 per cent, the lowest share of the total income. Additionally, 41 per cent of married individuals earn between 21000 and 40000, representing 33 per cent of the total income. Another 16 per cent earn between 41000 to 60000, contributing 20 per cent to the total income. Lastly, 20 per cent of married individuals earn above 60000, making up the highest share of total income at 39 per cent. Among unmarried individuals, 45 per cent have an income below 20000, accounting for 20 per cent of the total income. Another 38 per cent earn between 21000 and 40000, making up the highest share of 42 per cent of the income. Additionally, 9 per cent earn between

41000-60000, contributing the smallest share of total income at 16 per cent. Lastly, 8 per cent earn above 60000, representing 22 per cent of the income.

Table 4.4. Income Distribution by Marital Status, Nagaland

Income Group	Married						Unmarried					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	50	23	23	655000	08	08	105	45	45	1245600	20	20
21000 - 40000	90	41	64	2778500	33	41	87	38	83	2647000	42	62
41000 - 60000	36	16	80	1720000	20	61	21	09	92	1000000	16	78
61000 and above	43	20	100	3249000	39	100	18	08	100	1411000	22	100
Total	219	100		8402500	100		231	100		6303600	100	

Source: Field Survey, 2021-22

Table 4.5 provides the income distribution based on gender. Among males, 28 per cent have an income below 20000, contributing 10 per cent of the total income. Additionally, 39 per cent earn between 21000 and 40000, making up 32 per cent of the total income. Furthermore, 15 per cent fall within the income range of 41000-60000, accounting for 21 per cent of the total income. Lastly, 18 per cent of males earn more than 60000, contributing the highest share, which is 37 per cent of the total income. Among females, 42 per cent earn less than 20000, contributing to 18 per cent of the total income. Another 40 per cent earn between 21000 and 40000, making up the highest share, 44 per cent of the total income. Additionally, 9 per cent earn between 41000 and 60000, accounting for 14 per cent of the total income. Lastly, 9 per cent of females earn more than 60000, contributing to 24 per cent of the total income.

Table 4.5. Income Distribution by Gender, Nagaland

Income Group	Male						Female					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	67	28	28	852600	10	10	88	42	42	1048000	18	18
21000-40000	93	39	67	2816000	32	42	84	40	82	2609500	44	62
41000-60000	38	15	82	1870000	21	63	19	09	91	850000	14	76
61000 and above	43	18	100	3247000	37	100	18	09	100	1413000	24	100
Total	241	100		87856000	100		209	100		5920500	100	

Source: Field Survey, 2021-22

The income distribution by age group shown in Table 4.6 indicates a strong correlation between age and income. Among individuals aged 25 and below, 70 per cent earn less than 20000, contributing 40 per cent of the total income, while only 4 per cent earn above 60000, accounting for 19 per cent. In the 26 to 35 age group, income becomes more balanced, 39 per cent earn less than 20000 (17 per cent of income), 41 per cent earn between 21000 and 40000 (46 per cent of income), and 9 per cent earn above 60000, receiving 20 per cent. For those aged 36 to 45, 32 per cent earn less than 20000, while 15 per cent earn above 60000, contributing 35 per cent of the total income. The 46 to 55 group shows a peak in income levels, with only 9 per cent earning less than 20000 and 20 per cent earning above 60000, who receive the highest share of income at 38 per cent. Among those aged 56 and above, 42 per cent fall in the highest income bracket, receiving 62 per cent of total income, while just 11 per cent earn below 20000. This progression highlights that income generally increases with age, with older groups having a larger share in higher income brackets. Overall, the study illustrates a positive correlation between age and income, where older individuals increasingly dominate the higher income brackets, which might be due to accumulated experience, advanced positions, and greater financial stability.

Table 4.7 illustrates the distribution of income across academic disciplines. In the social sciences, a substantial 39 per cent of individuals earn less than ₹20,000, contributing only 16 per cent to the total income. Conversely, 12 per cent earn over ₹60,000, accounting for 30 per cent of the total income, indicating a concentration of income at the higher end.

In the sciences, 36 per cent earn under 20,000, representing 16 per cent of total income, and 47 per cent earn between 21,000 and 40,000, contributing 49 per cent to total income. This distribution indicates a more equitable income spread, with a larger proportion of individuals earning moderate incomes. The higher earnings in this field may be attributed to roles in research, development, and industry positions that value scientific expertise.

In the humanities, 31 per cent earn less than 20,000, contributing 11 per cent to total income, and 13 per cent earn over 60,000, accounting for 29 per cent of total

income. The relatively low earnings in this field may be due to the predominance of academic and educational roles, which often offer lower salaries compared to other sectors.

In other fields such as engineering, business, health, and technology, 27 per cent earn over 60,000, contributing 48 per cent to total income. This indicates a high concentration of income among a significant portion of individuals in these fields. The higher earnings are likely due to the demand for specialised skills and expertise in these areas, leading to well-compensated positions in industry and the private sector.

Overall, these patterns highlight the varying income across academic disciplines, with other fields offering higher financial rewards and the sciences exhibiting a more equitable income distribution.

Table 4.8 presents the income distribution across different levels of education. At the undergraduate level, 34 per cent of individuals earn less than 20,000, but contribute only 13 per cent to the total income, while 43 per cent earn between 21,000 and 40,000, making up 42 per cent of the total income. A smaller portion, 10 per cent, earn between 41,000 and 60,000, accounting for 16 per cent of the total income, and 13 per cent earn more than 60,000, contributing 29 per cent to the total income. For postgraduates, 34 per cent earn less than 20,000, contributing 13 per cent of total income, while 38 per cent earn between 21,000 and 40,000, making up 36 per cent of total income. Additionally, 14 per cent earn between 41,000 and 60,000, contributing 20 per cent, and 14 per cent earn more than 60,000, contributing 31 per cent to the total income. Among professionals and PhD holders, 39 per cent earn less than 20,000, contributing 13 per cent of the total income, 28 per cent earn between 21,000 and 40,000, making up 23 per cent, and 19 per cent earn between 41,000 and 60,000, contributing 23 per cent to the total income. Lastly, 14 per cent earn more than 60,000, representing a significant 41 per cent of the total income. Overall, the analysis indicates that while lower-income groups dominate the distribution at all educational levels, the higher-income earners are more concentrated among postgraduates and professionals/PhD holders, reflecting the potential impact of advanced education on higher income opportunities.

Table 4.6. Income Distribution by Age Group, Nagaland

Income Group	Age group																											
	Below 25						26-35						36-45						46-55						56 and above					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	36	70	70	420500	40	40	63	39	39	767500	17	17	48	32	32	597600	12	12	6	09	09	80000	03	03	2	11	11	35000	03	03
21000 - 40000	11	22	92	322000	31	71	67	41	80	2092000	46	63	61	41	73	1813000	36	48	34	50	59	1076500	36	39	4	21	32	122000	11	14
41000 - 60000	2	04	96	100000	10	81	18	11	91	780000	17	80	18	12	85	890000	17	65	14	20	69	699000	23	62	5	26	58	251000	24	38
61000 and above	2	04	100	200000	19	100	14	09	100	915000	20	100	23	15	100	1752000	35	100	14	20	100	1123000	38	100	8	42	100	1078000	62	100
Total	51	100		1042500	100		162	100		45545000	100		150	100		5052600	100		68	100		2978500			19	100			100	

Source: Field Survey, 2021-22

Table 4.7. Income Distribution by Academic Discipline, Nagaland

Income Group	Academic Discipline																							
	Social Sciences						Sciences						Humanities						Others					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	74	39	39	910000	16	16	34	36	36	424000	16	16	28	31	31	325600	11	11	19	25	25	241000	08	08
21000-40000	68	36	75	2014000	34	50	44	47	83	1285500	49	65	42	46	77	1409000	46	57	23	30	55	717000	23	31
41000-60000	24	13	88	1140000	20	70	10	11	94	522000	20	85	9	10	87	384000	12	69	14	18	73	674000	21	52
61000 and above	22	12	100	1783000	30	100	06	06	100	407000	15	100	12	13	100	960000	31	100	21	27	100	1510000	48	100
Total	188	100		5847000	100		94	100		2638500	100		91	100		3078600	100		77	100		3142000	100	

Source: Field Survey, 2021-22

Table 4.8. Income Distribution by Level of Education, Nagaland

Income group	Level of Education																	
	Undergraduate						Postgraduate						Professionals/PhD					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	80	34	34	992000	13	13	50	34	34	591600	13	13	25	39	39	317000	13	13
21000-40000	103	43	77	3161500	42	55	56	38	72	1694000	36	49	18	28	67	570000	23	36
41000-60000	24	10	87	3373000	16	71	21	14	86	963000	20	69	12	19	86	574000	23	59
61000and above	30	13	100	1183000	29	100	22	14	100	1477000	31	100	09	14	100	993000	41	100
Total	237	100		7526500	100		149	100		4725600	100		64	100		2454000	100	

Source: Field Survey, 2021-22

4.1.1 Kohima

Table 4.9 displays the income distribution in Kohima district. Out of a sample size of 150 employees, it was discovered that a substantial proportion, 29 per cent, had an income below 20000. These individuals represented the lowest share of income at 11 per cent. Forty-four per cent of individuals earned an income ranging from 21000 to 40000, accounting for the highest total income share of 39 per cent. Another 13 per cent earned between 41000-60000, their part of the total income was 19 per cent, and 14 per cent of the employees earned above 60000 and obtained a significant income share of 31 per cent.

Table 4.9. Income Distribution, Kohima

Income Group	F	%	CF	Income	%	CF
Less than 20000	43	29	29	541000	11	11
21000- 40000	67	44	73	1975000	39	50
41000-60000	19	13	86	975000	19	69
61000 and above	21	14	100	1543000	31	100
Total	150	100		5034000	100	

Source: Field Survey, 2021-22

Table 4.10 shows the distribution of income by marital status in Kohima. 17 per cent of married individuals make less than 20,000, accounting for 6 per cent of total income. Furthermore, 44 per cent of married individuals earn between 21,000 and 40,000, accounting for 32 per cent of total income. A further 15 per cent make between 41,000 and 60,000, accounting for 19 per cent of total income. 24 per cent of married persons make more than 60,000, accounting for 43 per cent of total income. 39 per cent of unmarried people make less than 20,000, accounting for 17 per cent of total income. Another 45 per cent make between 21000 and 40000, accounting for the most significant part of 48 per cent of total income. In addition, 11 per cent earn between 41000 and 60000, accounting for 20 per cent of total income. Finally, 5 per cent earn more than 60,000, accounting for the smallest percentage of the overall income at 15 per cent.

Table 4.10. Income Distribution by Marital Status, Kohima

Income Group	Married						Unmarried					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	12	17	17	154000	06	06	31	39	39	387000	17	17
21000 - 40000	31	44	61	901000	32	38	35	45	84	1074000	48	65
41000 - 60000	11	15	76	526000	19	57	9	11	95	449000	20	85
61000 and above	17	24	100	1195000	43	100	4	5	100	348000	15	100
Total	71	100		2776000	100		79	100		2258000	100	

Source: Field Survey, 2021-22

Table 4.11 displays the distribution of income according to gender in Kohima. Among males, 27 per cent have an income below 20000, representing 10 per cent of the total income. Further, 41 per cent have an income between 21000 and 40000, accounting for 34 per cent of the total income. Furthermore, 15 per cent have an income between 41000 and 60000, representing 21 per cent. Lastly, 17 per cent of males earn more than 60000, accounting for 35 per cent of the total income. Among females, 32 per cent earn less than 20000, contributing 12 per cent of the total income. Further, 48 per cent earn between 21000 and 40000, contributing to 47 per cent of the total income. Furthermore, 11 per cent earn between 41000 and 60000, contributing 17 per cent of the total income. Lastly, 9 per cent earn more than 60000, contributing 24 per cent of the total income.

Table 4.11. Income Distribution by Gender, Kohima

Income Group	Male						Female					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	F
Less than 20000	23	27	27	296000	10	10	20	32	32	245000	12	2
21000-40000	36	41	68	1055000	34	44	30	48	80	920000	47	9
41000-60000	13	15	83	638000	21	65	7	11	91	337000	17	6
61000 and above	15	17	100	1073000	35	100	6	9	100	470000	24	00
Total	87	100		3062000	100		63	100		1972000	100	

Source: Field Survey, 2021-22

The income distribution by age group in Kohima, as shown in Table 4.12, reveals significant differences across age brackets. Among those aged 25 and below, 45 per cent earn less than 20,000, contributing 18 per cent of the total income, while 35 per cent earn 21,000–40,000 (34 per cent), 10 per cent earn 41,000-60,000 (16 per cent),

and another 10 per cent earn above 60,000 (32 per cent). In the 26-35 age group, 28 per cent earn below 20,000 (12 per cent), 57 per cent earn 21,000-40,000 (61 per cent), 13 per cent earn 41,000-60,000 (21 per cent), and 2 per cent earn above 60,000 (6 per cent). Among those aged 36-45, 34 per cent earn less than 20,000 (12 per cent), 28 per cent earn 21,000-40,000 (22 per cent), 13 per cent earn 41,000-60,000 (18 per cent), and 25 per cent earn above 60,000 (48 per cent). In the 46-55 age group, only 4 per cent earn less than 20,000 (2 per cent), while 67 per cent earn 21,000-40,000 (55 per cent), 21 per cent earn 41,000-60,000 (27 per cent), and 8 per cent earn above 60,000 (16 per cent). Lastly, in the 56 and above age group, 33 per cent earn below 20,000 (14 per cent), 17 per cent earn 21,000-40,000 (10 per cent), and 50 per cent earn above 60,000 (76 per cent), with no individuals in the 41,000-60,000 range. Income distribution in Kohima shows a clear age-based disparity, where younger individuals predominantly earn less, while older age groups, particularly those above 45, command higher income brackets and a larger share of total earnings, indicating a correlation between age and income level.

Table 4.13 presents the distribution of income among various academic disciplines in Kohima. In social sciences, most individuals (42 per cent) earn 21,000-40,000, contributing 41 per cent of the income, while only 9 per cent earn above 60,000 but account for 26 per cent. Science graduates mainly earn 21,000-40,000 (60 per cent, 64 per cent income share), with none earning above 60,000. Humanities follow a similar trend, with 52 per cent earning 21,000-40,000 (50 per cent income share), and only 9 per cent earning above 60,000. In contrast, fields like Engineering, Health, Business, and Technology show higher income levels, with 40 per cent earning above 60,000, contributing 61 per cent of total income in those disciplines. Individuals from other disciplines earn significantly more in Kohima, while those from social sciences, humanities, and sciences are concentrated in lower to mid-income brackets.

Table 4.14 shows income distribution by level of education in Kohima. Among those with undergraduate education, 27 per cent earn below 20,000 (10 per cent of total income), while 50 per cent earn between 21,000-40,000 (45 per cent of income). Only 9 per cent earn 41,000-60,000 (15 per cent of income), and 18 per cent earn above

60,000 (37 per cent of income). For postgraduates, 33 per cent earn below 20,000 (13 per cent of income), while 46 per cent fall in the 21,000-40,000 range (49 per cent). Another 13 per cent earn 41,000-60,000 (22 per cent), and only 8 per cent make above 60,000 (16 per cent). Among professionals and PhD holders, 13 per cent earn below 20,000 (4 per cent), 35 per cent earn 21,000-40,000 (23 per cent), another 35 per cent earn 41,000-60,000 (37 per cent), and 17 per cent earn above 60,000 (36 per cent).

Kohima District

Table 4.12. Income Distribution by Age Group, Kohima

Income group	Age group																													
	Below 25			26-35									36-45						46-55						56 and above					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	9	45	45	109000	18	18	13	28	28	156000	12	12	18	34	34	226000	12	12	1	04	04	15000	02	02	2	33	33	35000	14	14
21000-40000	7	35	80	209000	34	52	27	57	85	827000	61	73	15	28	62	432000	22	34	16	67	71	482000	55	57	1	17	50	25000	10	24
41000-60000	2	10	90	100000	16	68	6	13	98	288000	21	94	7	13	75	351000	18	52	5	21	92	236000	27	84	0	00	50	0	00	24
61000 and above	2	10	100	200000	32	100	1	02	100	82000	06	100	13	25	100	920000	48	100	2	08	100	143000	16	100	3	50	100	198000	76	100
Total	20	100		618000	100		47	100		1353000	100		53	100		1929000	100		24	100		876000	100		06	100		258000	100	

Source: Field Survey, 2021-22

Table 4.13. Income Distribution by Academic Discipline, Kohima

Income Group	Academic Discipline																							
	Social Sciences						Sciences						Humanities						Others					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	21	38	38	269000	16	16	8	27	27	100000	12	12	9	27	27	117000	11	11	5	16	16	55000	04	04
21000 - 40000	23	42	80	685000	41	57	18	60	87	546000	64	76	17	52	79	530000	50	61	8	25	41	214000	15	19
41000 - 60000	6	11	91	274000	17	74	4	13	100	208000	24	100	4	12	91	203000	19	80	6	19	60	290000	20	39
61000 and above	5	09	100	431000	26	100	0	00	100	0	0	100	3	09	100	215000	20	100	13	40	100	897000	61	100
Total	55	100		1659000	100		30	100		854000	100		33	100		1065000	100		32	100		1456000	100	

Source: Field Survey, 2021-22

Table 4.14. Income Distribution by Level of Education, Kohima

Income Group	Level of Education																	
	Undergraduate						Postgraduate						Professionals/PhD					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	22	30	30	295000	12	12	18	33	33	206000	13	13	03	13	13	40000	04	04
21000-40000	33	45	75	982000	40	52	25	46	79	750000	49	62	08	35	48	243000	23	27
41000-60000	05	07	82	258000	11	63	07	13	92	327000	22	84	08	35	83	390000	37	64
61000and above	13	18	100	920000	37	100	04	08	100	247000	16	100	04	17	100	376000	36	100
Total	73	100		2455000	100		54	100		1530000			23	100		1049000	100	

Source: Field Survey, 2021-22

4.1.2. Mokokchung

The income distribution in Mokokchung district is presented in Table 4.15. Among a sample size of 150 employees, it was found that a significant part, 35 per cent, had an income below 20000. These individuals accounted for only 13 per cent of the total income. Thirty-nine per cent had an income between 21000 and 40000, representing the largest per cent of the overall income at 36 per cent. An additional 12 per cent of individuals earned incomes ranging from 41000 to 60000. This group accounted for 19 per cent of the overall income. Furthermore, 14 per cent of employees earned above 60000 and received a substantial share of 32 per cent of the total income.

Table 4.15. Income Distribution, Mokokchung

Income Group	F	%	CF	Income	%	CF
Less than 20000	52	35	35	646600	13	13
21000- 40000	59	39	74	1784500	36	49
41000-60000	18	12	86	917000	19	68
61000 and above	21	14	100	1611000	32	100
Total	150	100		4959100	100	

Source: Field Survey, 2021-22

Table 4.16 displays the distribution of income based on marital status in Mokokchung. 15 per cent of married individuals earn less than 20,000, constituting 4 per cent of the overall income. A significant proportion of married individuals, 43 per cent, has an income ranging from 21,000 to 40,000. This income bracket contributes to 31 per cent of the overall total income. Further, 19 per cent of individuals earn income ranging from 41,000 to 60,000, 23 per cent of the overall income. 23 per cent of married individuals earn more than 60,000, contributing to 42 per cent of the total revenue. Among unmarried persons, 54 per cent earn less than 20,000, constituting 29 per cent of the overall income. Additionally, 36 per cent of individuals earn an income ranging from 21000 to 40000, forming the highest portion of 46 per cent of the total income. Furthermore, 5 per cent of individuals earn from 41000 to 60000, comprising 11 per cent of the overall income. A mere 5 per cent of individuals get an income above 60,000, constituting 14 per cent of the total income.

Table 4.16. Income Distribution by Marital Status, Mokokchung

Income Group	Married						Unmarried					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	11	15	15	144000	04	04	41	54	54	502600	29	29
21000 - 40000	32	43	58	985500	31	35	27	36	90	799000	46	75
41000 - 60000	14	19	77	720000	23	58	4	05	95	197000	11	86
61000 and above	17	23	100	1356000	42	100	4	05	100	255000	14	100
Total	74	100		3205500	100		76	100		1753600	100	

Source: Field Survey, 2021-22

Table 4.17 presents the income distribution by gender in Mokokchung. Among males, 23 per cent earn below 20,000 (8 per cent of total income), while the largest group, 37 per cent, earn between 21,000-40,000 (27 per cent of income). 17 per cent fall in the 41,000-60,000 range (22 per cent), and 23 per cent earn above 60,000, contributing a significant 43 per cent of the total income. Among females, 47 per cent earn below 20,000 (22 per cent of income), and 41 per cent earn between 21,000-40,000 (50 per cent). Only 7 per cent earn between 41,000-60,000 (12 per cent), and a small number earn above ₹60,000, accounting for 16 per cent of the total income.

Table 4.17. Income Distribution by Gender, Mokokchung

Income Group	Male						Female					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	17	23	23	234600	08	08	35	47	47	412000	22	22
21000 - 40000	28	37	60	834000	27	35	31	41	88	950500	50	72
41000 - 60000	13	17	77	678000	22	57	5	07	95	239000	12	84
61000 and above	17	23	100	1313000	43	100	4	05	100	298000	16	100
Total	75	100		3059600	100		75	100		1899500	100	

Source: Field Survey, 2021-22

Table 4.18 shows income distribution by age group in Mokokchung. Among those aged 25 and below, 76 per cent earn less than 20,000, accounting for 58 per cent of total income, while 35 per cent earn between 21,000 and 40,000, contributing 42 per cent. No one in this group earns above 40,000. In the 26-35 age group, 41 per cent earn below 20,000 (17 per cent), 39 per cent earn 21,000-40,000 (43 per cent), 13 per cent earn 41,000-60,000 (15 per cent), and 11 per cent earn above 60,000 (25 per cent).

For ages 36-45, 27 per cent earn under 20,000 (11 per cent), 52 per cent earn 21,000-40,000 (50 per cent), 12 per cent earn 41,000–60,000 (19 per cent), and 9 per cent earn over 60,000 (20 per cent). In the 46-55 bracket, only 5 per cent earn below 20,000 (2 per cent), while 30 per cent earn 21,000-40,000 (15 per cent), 25 per cent earn 41,000-60,000 (25 per cent), and 40 per cent earn above 60,000 (58 per cent). Among those aged 56 and above, 20 per cent earn 21,000-40,000 (7 per cent), 40 per cent earn 41,000-60,000 (30 per cent), and another 40 per cent earn above 60,000, receiving the highest income share at 63 per cent. Income in Mokokchung increases significantly with age, with older age groups earning higher incomes and contributing a larger share to total income.

Table 4.19 presents the distribution of income among various academic disciplines in Mokokchung which reveals notable disparities in income. In social sciences, a significant 40 per cent of individuals earn below 20,000, contributing only 16 per cent to the total income, while just 13 per cent earning above 60,000 command the largest income share at 33 per cent, indicating high income concentration at the top. Sciences show a more balanced profile, with 54 per cent of individuals in the 21,000-40,000 range contributing 53 per cent to the income, though the top earners (33 per cent) still claim 31 per cent of total income. Humanities are skewed, with 52 per cent in the mid-income bracket contributing 60 per cent of income, but only 7 per cent of high earners capturing 18 per cent, reflecting limited upward mobility. In contrast, disciplines like engineering, health, and technology display a more even individual distribution across income brackets, yet the highest earners (24 per cent) disproportionately command 44 per cent of the income, underlining a strong concentration of wealth despite broader participation. This overall pattern underscores the varying economic returns of different academic paths and the need to address income inequality in lower-paid disciplines.

The income distribution based on level of education, as shown in Table 4.20, highlights marked differences in income across education levels in Mokokchung. Among individuals with undergraduate qualifications, the largest group (45 per cent) earns between 21,000 and 40,000, contributing 40 per cent to the total income.

However, 30 per cent still earn below 20,000, accounting for just 12 per cent of income, while a smaller segment, 14 per cent earns above 60,000 and contributes a significant 30 per cent, indicating some upward income mobility. For postgraduates, the income spread is more balanced, with 33 per cent each in the lowest and lower-middle brackets, contributing 13 and 32 per cent respectively, while 17 per cent in each of the higher brackets (41,000-60,000 and above 60,000) collectively account for 55 per cent of income, demonstrating enhanced earning potential. In contrast, professionals and PhD holders show a stark imbalance: 64 per cent earn less than 20,000 (contributing only 22 per cent), while just 9 per cent earn above 60,000 but capture a dominant 49 per cent of the total income. This reflects income polarization at the highest education levels, where a small elite earns disproportionately more, suggesting structural barriers that prevent equitable income distribution despite higher qualifications.

Mokokchung District

Table 4.18. Income Distribution by Age Group, Mokokchung

Income Group	Age group																											
	Below 25						26-35						36-45						46-55						56 and above					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	13	76	76	154500	58	58	26	41	41	314500	17	17	12	27	27	159600	11	11	1	05	05	18000	02	02	0	00	0	0	00	0
21000 - 40000	04	24	100	113000	42	100	25	39	80	780000	43	60	23	52	79	691000	50	61	6	30	35	175500	15	17	1	20	20	25000	07	07
41000 - 60000	0	00	100	0	0	100	06	09	89	260000	15	75	5	12	91	258000	19	80	5	25	60	281000	25	42	2	40	60	118000	30	37
61000 and above	0	00	100	0	0	100	07	11	100	445000	25	100	4	09	100	274000	20	100	8	40	100	647000	58	100	2	40	100	245000	63	100
Total	17	100		267500		-	64	100		1799500	100		44	100		1382600	100		20	100		1121500	100		5	100		388000	100	

Source: Field Survey, 2021-22

Table 4.19. Income Distribution by Academic Discipline, Mokokchung

Income Group	Academic Discipline																							
	Social Sciences						Sciences						Humanities						Others					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	30	40	40	379000	16	16	7	26	26	79000	09	09	10	37	37	116600	15	15	5	24	24	72000	08	08
21000 - 40000	24	32	72	684000	28	44	15	56	82	439500	53	62	14	52	89	467000	60	75	6	28	52	194000	21	29
41000 - 60000	11	15	87	553000	23	67	1	04	86	60000	07	69	1	04	93	54000	07	82	5	24	76	250000	27	56
61000 and above	10	13	100	815000	33	100	4	14	100	254000	31	100	2	07	100	138000	18	100	5	24	100	404000	44	100
Total	75	100		2431000	100		27	100		832500	100		27	100		775600	100		21	100		920000	100	

Source: Field Survey, 2021-22

Table 4.20. Income Distribution by Level of Education, Mokokchung

Income Group	Level of Education																	
	Undergraduate						Postgraduate						Professionals/PhD					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	20	27	27	249000	10	10	18	33	33	223600	13	13	14	64	64	174000	22	22
21000 - 40000	37	50	77	1102500	45	55	18	33	66	541000	32	45	04	18	82	141000	17	39
41000 - 60000	07	09	86	371000	15	70	09	17	83	447000	26	71	02	09	91	99000	12	51
61000and above	10	14	100	723000	30	100	09	17	100	487000	29	100	02	09	100	401000	49	100
Total	74	100		2445500	100		54	100		1698600	100		22	100		815000	100	

Source: Field Survey, 2021-22

4.1.3. Tuensang

Table 4.21 illustrates the income distribution in the Tuensang district. A survey of 150 employees revealed that 40 per cent of individuals earned less than 20000, accounting for 15 per cent of the total income. A substantial proportion of 34 per cent earned between 21,000 and 40,000, with the most significant total income share of 35 per cent. The income share of 13 per cent of the employees who earned between 41,000 and 60,000 was 18 per cent. The income share of another 13 per cent of the employees who earned over 60,000 was a substantial 32 per cent.

Table 4.21. Income Distribution, Tuensang

Income Group	F	%	CF	Income	%	CF
Less than 20000	60	40	40	713000	15	15
21000- 40000	52	34	74	1666000	35	50
41000-60000	19	13	87	828000	18	66
61000 and above	19	13	100	1506000	32	100
Total	150	100		4713000	100	

Source: Field Survey, 2021-22

Table 4.22 illustrates the income distribution based on marital status in Tuensang. Thirty-six per cent of married individuals earn less than 20,000, making up 19 per cent of the overall income. Another group of married individuals, also 36 per cent, has an income ranging from 21,000 to 40,000, accounting for another 19 per cent of the total income. Furthermore, 15 per cent of individuals earn between 41,000 and 60,000, which constitutes 25 per cent of the overall income. Thirteen per cent of married individuals earn more than 60,000, contributing to 37 per cent of the total revenue. Among unmarried individuals, 43 per cent earn less than 20,000, making up 15 per cent of the overall income. Additionally, 33 per cent of individuals earn an income ranging from 21000 to 40000, which represents the largest portion at 37 per cent of total income. Eleven per cent earn an income between 41000 and 60000, comprising 15 per cent of the overall income, while 13 per cent of individuals earn above 60,000, which constitutes 13 per cent of the total income.

Table 4.22. Income Distribution by Marital Status, Tuensang

Income Group	Married						Unmarried					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	27	36	36	357000	19	19	33	43	43	356000	15	15
21000-40000	27	36	72	892000	19	38	25	33	76	774000	37	52
41000-60000	11	15	87	474000	25	63	08	11	87	354000	15	67
61000 and above	09	13	100	698000	37	100	10	13	100	808000	33	100
Total	74	100		2421000	100		76	100		2292000	100	

Source: Field Survey, 2021-22

Table 4.23 provides the income distribution based on gender. Among males, 34 per cent have an income below 20000, contributing 12 per cent of the total income. The most significant portion of 37 per cent earns between 21000-40000, making up 35 per cent of the total income. Furthermore, 15 per cent fall within the income range of 41000-60000, accounting for 21 per cent of the total income. Lastly, 14 per cent of males earn more than 60000, contributing a large share of 32 per cent of the total income. Among females, the majority, 47 per cent, earn less than 20000, which contributes to 19 per cent of the total income. Another large portion, 32 per cent, earns between 21000 and 40000, making up the highest share, 36 per cent of the total income. Additionally, 10 per cent earn between 41000 and 60000, accounting for 13 per cent of the total income. Lastly, 11 per cent of females earn more than 60000, contributing to 32 per cent of the total income.

Table 4.23. Income Distribution by Gender, Tuensang

Income Group	Male						Female					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	27	34	34	322000	12	12	33	47	47	391000	19	19
21000 - 40000	29	37	71	927000	35	47	23	32	79	739000	36	55
41000 - 60000	12	15	86	554000	21	68	07	10	89	274000	13	68
61000 and above	11	14	100	861000	32	100	08	11	100	645000	32	100
Total	79	100		2664000	100		71	100		2049000	100	

Source: Field Survey, 2021-22

Tuensang's income distribution by age group is seen in Table 4.24. The income distribution in Tuensang reveals a strong relationship between age and income. Individuals aged 25 and below are entirely concentrated in the lowest income bracket, earning below 20,000. Income diversity begins in the 26-35 age group, where nearly half earn below 20,000, but a substantial share earns between 21,000 and 60,000, with 20 per cent earning above 60,000 and contributing significantly to total income. The 36-45 age group displays peak economic productivity, with the majority earning above 21,000 and generating a dominant share of income. The 46-55 group, while showing a high proportion of individuals in upper brackets, contributes only modestly to overall income, likely due to population size. Those aged 56 and above have no representation in the lowest bracket, with 75 per cent earning over 41,000 and accounting for over 80 per cent of their group's income. This pattern reflects increasing income with age, peaking in midlife and consolidating in older age, underscoring the importance of age-based economic strategies in regional development.

Table 4.25 shows the income distribution across academic disciplines in Tuensang, highlighting notable disparities tied to academic discipline. In social sciences, 40 per cent earn below 20000, contributing only 15 per cent to total income, while 36 per cent earn between 21000 and 40000, accounting for 37 per cent, making this range the most economically concentrated. A balanced share of 12 per cent each is earned in higher brackets, contributing 18 per cent each to income, suggesting modest upward mobility. In contrast, science disciplines show a larger low-income population, with 51 per cent earning under 20000 and contributing 26 per cent of

income. Higher brackets are less populated, with just 5 per cent earning above 60000, reflecting limited income escalation. Humanities show a more favourable spread, where only 29 per cent are in the lowest bracket, and 23 per cent earn above 60000; this group alone contributes a significant 49 per cent of total income, indicating higher returns in the field's upper tier. Meanwhile, professional and technical disciplines like Engineering, Arts, Business, and Health show strong performance in higher income ranges: 49 per cent earn above 60000, though they contribute only 27 per cent of income, implying income is more evenly spread. Despite 38 per cent earning below 20000, this group only holds 8 per cent of total income, suggesting skewed but improving income dynamics in these fields. Overall, the data illustrate that professional and humanities disciplines yield greater income concentration at higher levels, while science and social sciences remain more income-fragmented, highlighting the economic advantage of skill-intensive fields in Tuensang.

Table 4.26 demonstrates the level of education-based income distribution in Tuensang. The education-based income distribution in Tuensang reveals clear income disparities aligned with academic attainment. Among undergraduates, the largest group, 42 per cent, earns less than 20000, yet contributes only 17 per cent to total income. A sizable 37 per cent earn between 21000 and 40000, contributing the highest share at 41 per cent. Only 8 per cent of undergraduates earn above 60000, but they still account for a significant 21 per cent of income, indicating some upward mobility. Postgraduates show a shift toward higher earnings: while 34 per cent still earn less than 20000, they account for only 11 per cent of total income. The proportion earning above 60000 rises to 22 per cent, contributing a substantial 50 per cent to the income pool, demonstrating the economic value of postgraduate education. For professionals and PhD holders, income is more polarised. While 42 per cent earn below 20000, this group contributes just 17 per cent of income, and 32 per cent earn between 21000 and 40000, matching their income share. Only 16 per cent earn above 60000, yet they generate 37 per cent of the group's total income, underscoring how advanced qualifications can still yield high returns for a minority. Overall, higher education correlates with greater income potential, but also reveals persistent income inequality even among the highly educated.

Tuensang District

Table 4.24. Income Distribution by Age Group, Tuensang

Income Group	Age group																											
	Below 25						26-35						36-45						46-55						56 and above			
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	14	100	100	157000	100	100	24	47	47	297000	21	21	18	34	34	212000	12	12	4	17	17	47000	05	05	0	00	0	0	00	0
21000 - 40000	0	00	100	0	00	100	15	29	76	485000	35	56	23	44	78	690000	40	52	12	50	67	419000	43	48	2	25	25	72000	17	17
41000 - 60000	0	00	100	0	00	100	6	12	88	232000	16	72	6	11	89	281000	16	68	4	16	83	182000	18	66	3	38	63	133000	31	48
61000 and above	0	00	100	0	000	100	6	12	100	388000	28	100	6	11	100	558000	32	100	4	17	100	333000	34	100	3	37	100	227000	52	100
Total	14	100		157000			51	100		1402000	100		53	100		1741000	100		24	100		981000	100		8	100		432000		

Source: Field Survey, 2021-22

Table 4.25. Income Distribution by Academic Discipline, Tuensang

Income Group	Field of Study																							
	Social Sciences						Sciences						Humanities						Others					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	23	40	40	262000	15	15	19	51	51	245000	26	26	09	29	29	92000	07	07	9	38	38	114000	15	15
21000-40000	21	36	76	645000	37	52	11	30	81	300000	33	59	11	35	64	412000	33	40	9	38	76	309000	40	55
41000-60000	07	12	88	313000	18	70	5	14	95	254000	25	84	04	13	77	127000	11	51	3	12	88	134000	18	73
61000 and above	07	12	100	537000	30	100	2	05	100	153000	16	100	07	23	100	607000	49	100	3	12	100	209000	27	100
Total	58	100		1757000	100		37	100		952000	100		31	100		1238000	100		24	100		766000		

Source: Field Survey, 2021-22

Table 4.26. Income Distribution by Level of Education, Tuensang

Income Group	Level of Education																	
	Undergraduate						Postgraduate						Professionals/PhD					
	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF	F	%	CF	Income	%	CF
Less than 20000	38	42	42	448000	17	17	14	34	34	162000	11	11	08	42	42	103000	17	17
21000 - 40000	33	37	79	1077000	41	58	13	32	66	403000	27	38	06	32	74	186000	32	49
41000 - 60000	12	13	92	554000	21	79	05	12	78	189000	12	50	02	10	84	85000	14	63
61000and above	07	08	100	547000	21	100	09	22	100	743000	50	100	03	16	100	216000	37	100
Total	90	100		2626000	100		41	100		1497000	100		19	100		590000	100	

Source: Field Survey, 2021-22

4.2. Income Inequalities

Table 4.27 indicates Kohima, Mokokchung, and Tuensang's Gini coefficient values of 30.84, 33.71, and 35.24, respectively. Tuensang exhibits the highest Gini coefficient among these three districts, which signifies greater income inequality. The value for Nagaland, which denotes the combined value of its three districts, is 32.15, which closely aligns with India's Gini value of 32.8 (World Bank, 2023).

The income inequality for females in the Kohima district is more significant than that of males, with an index of 31.39. In the Mokokchung and Tuensang districts of 31 and 36.61, income inequality is higher for females than males.

The income inequality in Kohima district is more significant for unmarried individuals than for married individuals, with a value of 30.72. Similarly, in Mokokchung and Tuensang districts, income inequality is more critical among unmarried individuals than married individuals, with rates of 29.55 and 36.64, respectively.

Kohima exhibits the most prominent income inequality among those aged 25 and below, with an index of 38.60, signifying substantial inequality in income within this age cohort. Conversely, persons aged 46-55 have the lowest level of income inequality, with an index of 16.06, indicating a fairer income distribution within this age range. The age group of 26-35 in Mokokchung exhibits the highest degree of income inequality at 32, while persons aged 25 and below experience the lowest level of income inequality. The age group of 36-45 in Tuensang exhibits the highest degree of income inequality, with an index of 36.08. Conversely, persons aged 25 and younger represent complete income equality.

The Gini coefficient for the discipline of social sciences in Kohima is 33.19, suggesting a significant degree of income inequality. Mokokchung exhibits a higher level of inequality in the field of social sciences, as shown by a Gini coefficient of 36.04. Like Kohima and Mokokchung, Tuensang likewise exhibits a higher Gini coefficient of 34.84. The level of inequality in the sciences in Kohima is lower

compared to the social sciences, as indicated by a Gini coefficient of 21.08. The Gini coefficient for sciences in Mokokchung is 29.00, higher than Kohima.

Similarly, the income inequality among the sciences in Tuensang is relatively high, with a Gini value of 32.02. Among Kohima's educational fields, humanities majors have the lowest income inequality, as indicated by a Gini coefficient of 22.30. Like Kohima, Mokokchung also exhibits a relatively low level of disparity in the humanities, with a value of 28.63. Individuals who have academic disciplines classified as "Others", which includes Engineering, Arts, Fine Arts, Health, Business, and Technology, face a moderate level of inequality, as indicated by Gini coefficients of 26.99, 29.88, and 31.58 for the districts of Kohima, Mokokchung, and Tuensang, respectively.

Based on the Gini coefficient of 30.21, it is evident that there is a notable level of income inequality at the undergraduate level of education in Kohima. Mokokchung demonstrates a Gini coefficient of 29.75, indicating a comparatively lower level of income inequality among individuals with undergraduate education. Tuensang has the highest Gini coefficient of 32.98 among the three districts at the undergraduate level of education. Regarding income inequality among individuals with a Postgraduate level of education, both Kohima and Mokokchung have a similar Gini coefficient value. Kohima's Gini coefficient stands at 27.51, while Mokokchung is slightly higher at 27.78. Tuensang has the highest level of income inequality among postgraduate-educated individuals, as shown by a Gini coefficient of 37.02. The Gini coefficient for Professionals and PhD level of education in Mokokchung is 53.25, which stands out as the highest among the three districts. The income disparity between Professional and PhD levels of education in Tuensang is noticeably higher than in Kohima, with a Gini value of 34.46 for Tuensang and 27.51 for Kohima.

In Nagaland, the income inequality is lower for married individuals, with an average of 29.55, compared to unmarried individuals, whose income inequality is 33. Tuensang exhibits the most significant disparities among both married and unmarried persons. The age group of 25 and below shows the highest level of inequality, with an average of 34.26 in Nagaland, showing significant income inequalities among younger

individuals. On the other hand, the age group of 46-55 exhibits the lowest level of inequality, with an average of 18.41, suggesting relatively more equality in this age group. Income inequality is slightly greater among females in Nagaland, with an average of 32.18, compared to males, at 31.83. Tuensang shows the highest level of income disparity among the districts, specifically in terms of female earnings.

The discipline of social sciences has greater income inequality than other disciplines in all regions, with an average of 34. Among those studying social sciences, Mokokchung district indicates the highest level of inequality. Also, the humanities exhibit the lowest income inequality at an average of 29.72. Tuensang consistently shows higher income inequality than Kohima and Mokokchung across all academic disciplines.

The Gini coefficient value for Nagaland representing the three districts (Kohima, Mokokchung and Tuensang) for the undergraduate level of education stood at 31.51, for Postgraduate level, it stood at 31.84, and for Professionals and PhD, it stood at 40.90 showing that the income inequalities are higher among the professionals and PhD level of Education. This result indicates that income inequality increases with the increase in the level of education.

Table 4.27. Income Gini Coefficient Index

Variables	Gini Index			
	Kohima	Mokokchung	Tuensang	Nagaland
Male	30.76	30.50	33.32	31.83
Female	31.39	31.00	36.61	32.18
Married	27.69	28.62	36.30	29.55
Unmarried	30.72	29.55	36.64	33.00
Age 25 and below	38.60	18.00	0.00	34.26
Age 26-35	22.60	32.00	31.80	28.64
Age 36-45	33.86	26.47	36.08	33.25
Age 46-55	16.06	22.65	26.19	18.41
Age 56 and above	26.92	26.20	15.04	24.62
Social sciences	33.19	36.04	34.84	34.00
Sciences	21.08	29	32.02	28.57
Humanities	22.30	28.63	34.96	29.72
Others	26.99	29.88	31.58	30.32
Undergraduate	30.21	29.75	32.98	31.51
Postgraduate	27.51	27.78	37.02	31.84
Professionals/ PhD	28.90	53.25	34.46	40.90
Total	30.84	33.71	35.24	32.15

Source: Field survey, 2021-22

4.2.1. Income Lorenz Curve for Nagaland

The Lorenz Curve illustrates income distribution among different segments of the population based on the size of their incomes (Gastwirth, 1971). The income Lorenz curve by gender, marital status, age group, academic discipline, and level of education for Nagaland is presented in figures 4.1 to 4.5. The vertical line shows the cumulative percentage of income, the horizontal line shows the cumulative percentage of the population, and the straight diagonal line shows the 45° line of equality.[1] The further the Lorenz curve deviates from the line of equality, the greater the level of inequality.

[1]The Line of Equality is a diagonal straight line with an upward slope of 1, representing a precise depiction of income distribution equality.

Based on the analysis of the Lorenz curve, it is evident that there is a higher level of income inequality among females than males. The curve also indicates minimal variation in income inequality between unmarried and married individuals. This suggests that marital status does not significantly impact the determination of income inequalities in Nagaland. Different age groups exhibit varying levels of income inequality. Notably, individuals aged 25 and below experience the highest income inequality, while those aged 46 to 55 have the lowest income inequality. In addition, there is a noticeable disparity in income among different academic disciplines, with the social sciences having the highest levels of inequality and the sciences having the lowest. The income disparities are most pronounced among professionals and those with a PhD level of education.

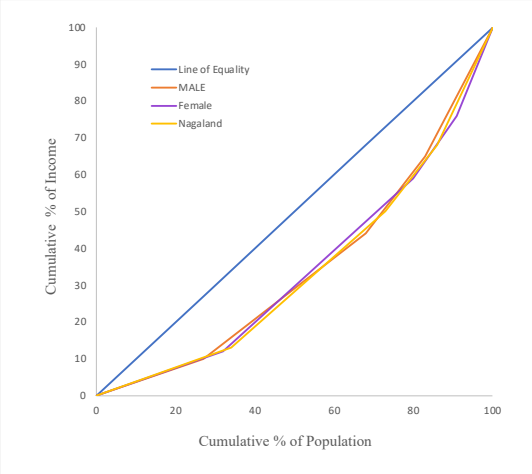


Figure 4.1 Income Lorenz Curve by Gender, Nagaland

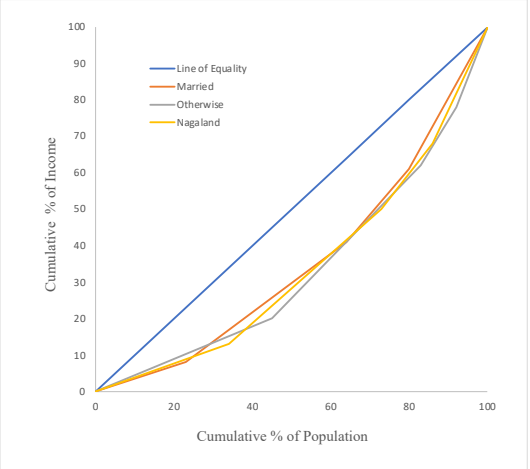


Figure 4.2 Income Lorenz Curve by Marital Status, Nagaland

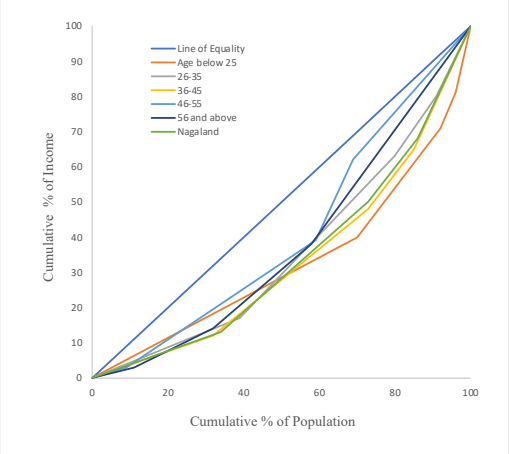


Figure 4.3 Income Lorenz Curve by Age group, Nagaland

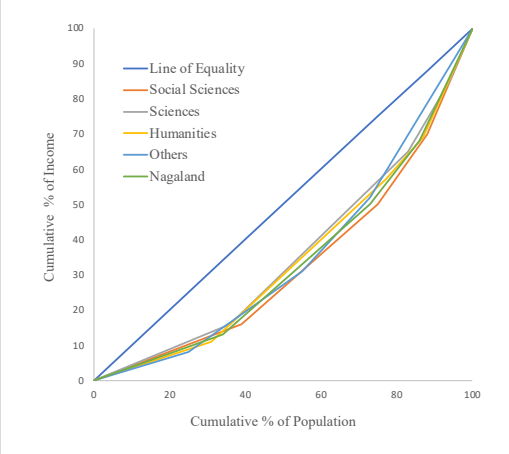


Figure 4.4 Income Lorenz Curve by Academic discipline, Nagaland

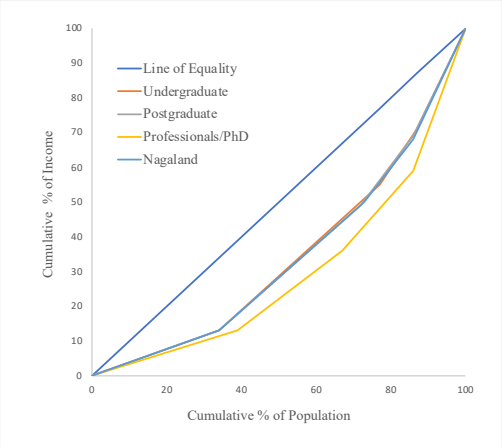


Figure 4.5 Income Lorenz Curve by Level of Education, Nagaland

4.2.2. Income Lorenz Curve for Kohima

The income Lorenz curve by gender, marital status, age group, academic discipline and level of education for Kohima is presented in figures 4.6 to 4.10.

The Lorenz curve study shows a more significant income disparity among females than males. This is the case because of a clear gender gap. In addition, the curve reveals a more substantial income disparity between persons who are not married and those who are married. There is no denying the fact that different age groups display varying degrees of various levels of income inequality. Noteworthy is that

persons aged 25 and younger are subject to the most significant income inequality, whereas those aged 46 to 55 have the least income inequality. Furthermore, there is a substantial gap in income amongst the various academic disciplines, with the social sciences exhibiting the highest levels of inequality across the board. The discrepancies in income are pronounced at the undergraduate level of education.

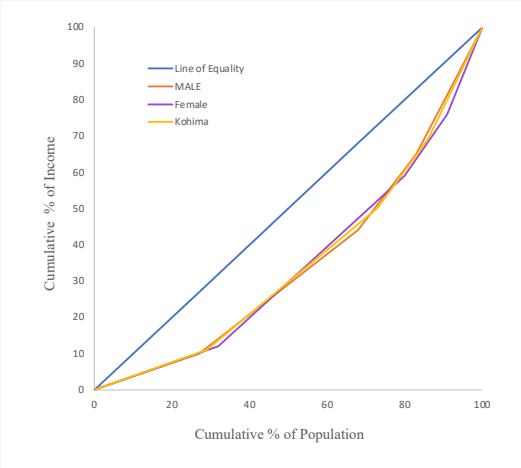


Figure 4.6 Income Lorenz Curve by Gender, Kohima

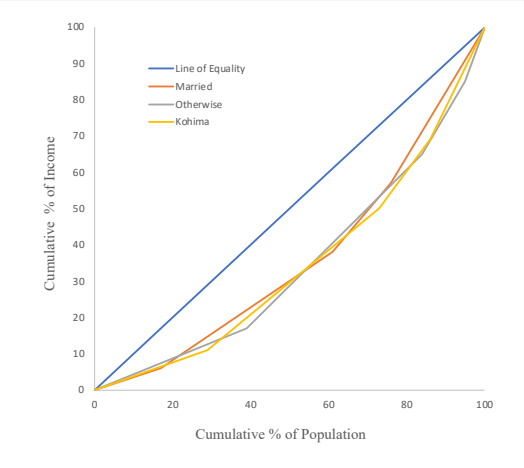


Figure 4.7 Income Lorenz Curve by Marital Status, Kohima

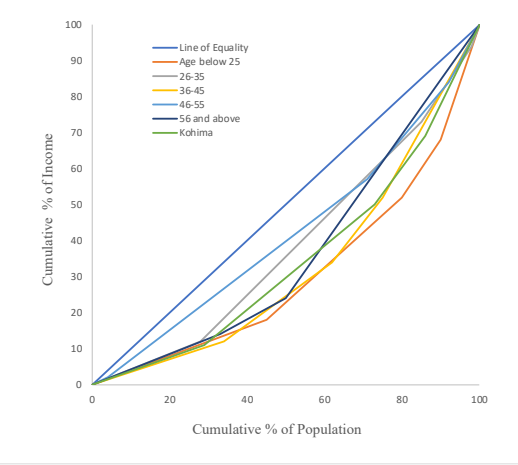


Figure 4.8 Income Lorenz Curve by Age group, Kohima

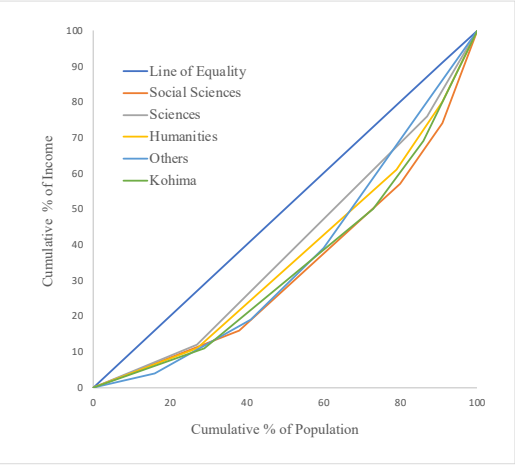


Figure 4.9 Income Lorenz Curve by Academic discipline, Kohima

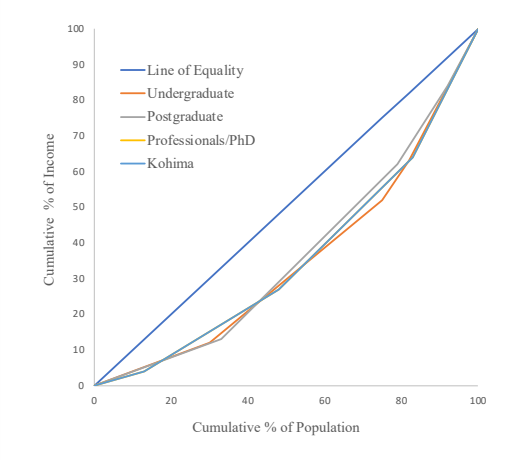


Figure 4.10 Income Lorenz Curve by Level of Education, Kohima

4.2.3. Income Lorenz Curve for Mokokchung

Figures 4.11 to 4.15 present the income Lorenz curve for Mokokchung, categorised by gender, marital status, age group, academic discipline, and level of education.

The Lorenz curve suggests a difference in income inequality between males and females. It can be inferred that gender has little influence on determining income inequalities in Mokokchung. Furthermore, the curve indicates a significant difference in income between unmarried individuals and those who are married. Inequality in income varies among different age groups. It is interesting to observe that individuals 25 years old or younger experience the highest level of income inequality, while those between the ages of 46 and 55 have the lowest. In addition, there is a notable disparity in income among different academic disciplines, with the social sciences showing the most significant levels of inequality overall. The income disparities are particularly noticeable among professionals and individuals with a PhD level of education.

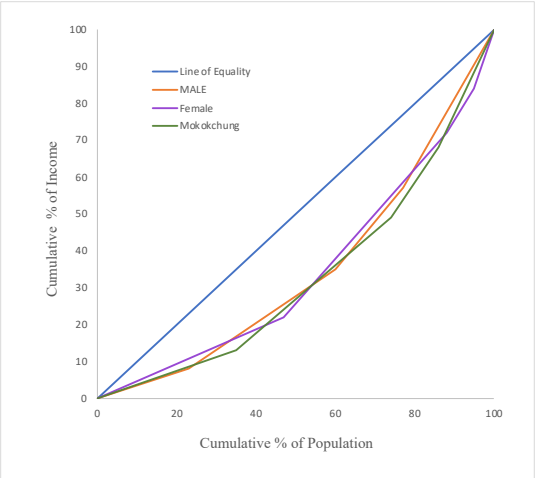


Figure 4.11 Income Lorenz Curve by Gender, Mokokchung

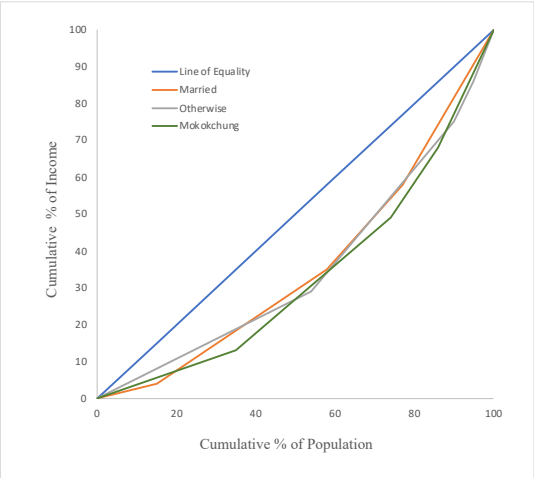


Figure 4.12 Income Lorenz Curve by Marital Status, Mokokchung

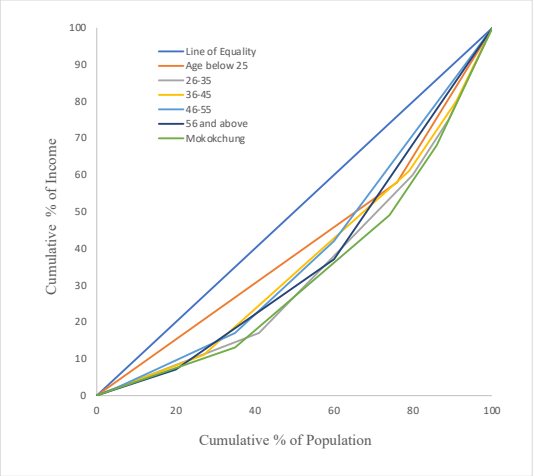


Figure 4.13 Income Lorenz Curve by Age group, Mokokchung

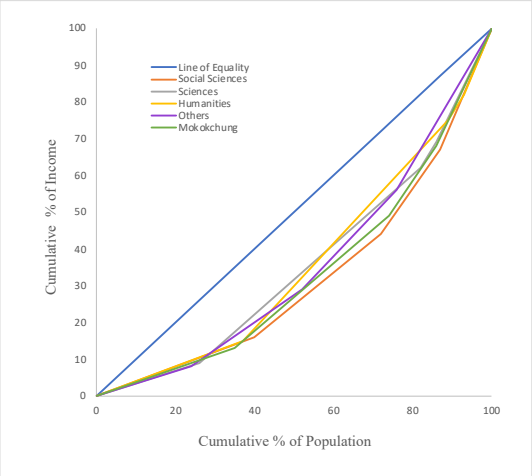


Figure 4.14 Income Lorenz Curve by Academic discipline, Mokokchung

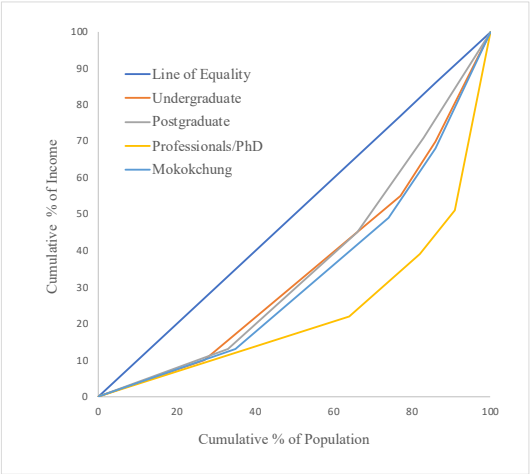


Figure 4.15 Income Lorenz Curve by Level of Education, Mokokchung

4.2.4. Income Lorenz Curve for Tuensang

The income Lorenz curve for Tuensang is presented in Figures 4.16 to 4.20. This curve illustrates income distribution according to gender, marital status, age group, academic discipline, and level of education.

The Lorenz curve study shows a more significant income disparity among females than males. This is the case because of the apparent gender gap. The curve also suggests little difference in the degree of income disparity between persons who are not married and those who are married. Marital status has a minor role in determining income disparities in Tuensang. There is no denying the fact that different age groups display varying degrees of various levels of economic inequality. It is important to note that those between the ages of 36 and 45 have the highest prevalence of income inequality, whilst people aged 56 and older have the lowest prevalence of income inequality. In addition, there is a discernible gap in income between the various academic fields, with the humanities and social sciences having the same or even higher levels of income inequality as other academic fields. Individuals with postgraduate levels of study are the ones who have the most significant income inequalities.

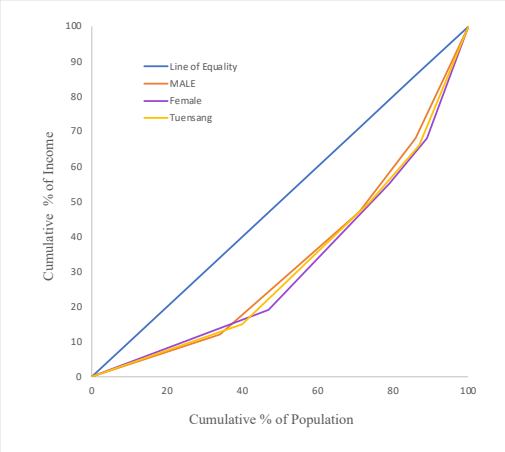


Figure 4.16 Income Lorenz Curve by Gender, Tuensang

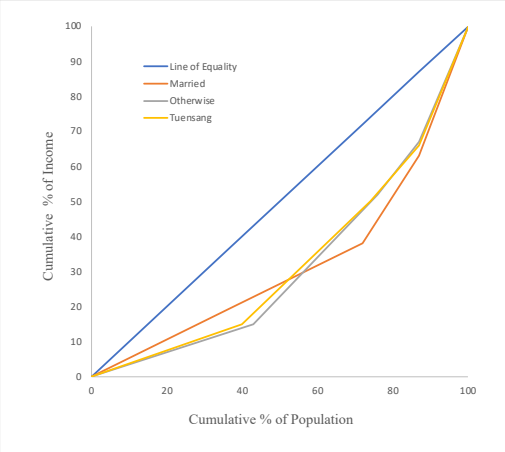


Figure 4.17 Income Lorenz Curve by Marital Status, Tuensang

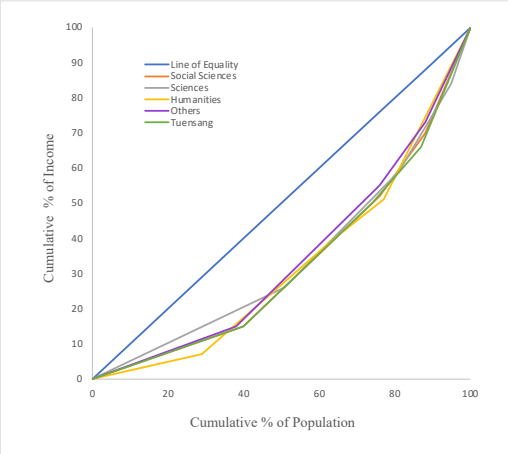


Figure 4.18 Income Lorenz Curve by Age group, Tuensang

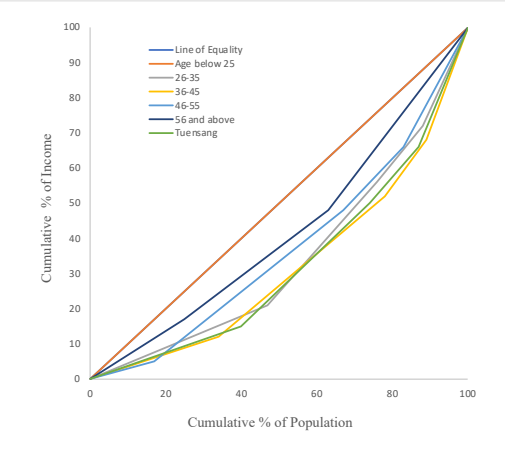


Figure 4.19 Income Lorenz Curve by Academic discipline, Tuensang

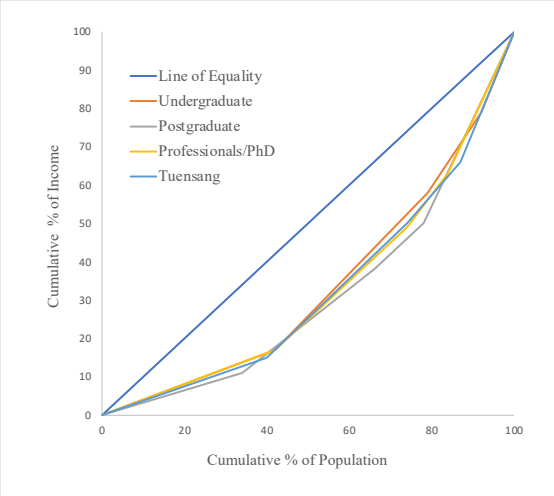


Figure 4.20 Income Lorenz Curve by Level of Education, Tuensang

4.3. Relationship between Income Inequalities and Education

a. Testing of Hypothesis

H_1: There is a significant difference between the level of education and income inequalities.

Table 4.28. Regression results for Years of schooling and Income Gini

Model	**Unstandardized Coefficient**		**Standardized Coefficient**	**t value**	**Sig**
	β	Std. Error	β		
Constant	27.106	7.223	2.804	1.359	-
Gini Coefficient	.711	3.251		2.053	.05

Dependent variable: Gini coefficient

R^2: 0.721

F Change: 112.05

*p< 0.05, significant at 5%

A simple regression is conducted to study the effect of education on income inequality, as presented in Table 4.28. The results reveal a positive relationship between years of schooling and income inequality. The R^2 value of 0.721 indicates that the dependent variable explains 72.1% of the variation in the model. The unstandardized coefficient value between the dependent and the independent variable

shows a direct and positive relationship, statistically significant at a 5% significance level. This means that a one-unit increase in years of schooling will increase the Gini coefficient by .711 times. Therefore, we accept the alternative hypothesis and conclude that there is a significant difference between the level of education and income inequalities.

4.4. Conclusion

The study shows that income inequality differs significantly among the Kohima, Mokokchung, and Tuensang districts. Tuensang has the highest Gini coefficient of 35.24, while Kohima has the lowest at 30.84. Income inequality among females exceeds that of males, and unmarried individuals typically experience higher levels of inequality than their married counterparts. Income gaps are more severe among younger individuals and those with greater levels of education. Tuensang exhibits the most significant disparity in several categories, such as age and academic fields. Professionals and individuals with PhDs have more pronounced income inequality than those with lower education levels.

The study also reveals a direct and positive relationship between income inequality and the year of schooling, indicating that income inequality increases as the level of education increases.

CHAPTER-V

SUMMARY AND CONCLUSION

This chapter presents a comprehensive summary of the findings and draws conclusions based on the objectives formulated. It also presents the broader policy implications of the study. The objectives of the study were: to study the mismatch between higher education and occupation, to examine the effect of education-job mismatch on income, to examine the effect of education-job mismatch on job satisfaction, to analyse income inequalities and its relationship with education.

5.1. Status of Higher Education in Nagaland

The establishment of Fazl Ali College in 1959, initially affiliated with Guwahati University, marked a foundational moment in the state's formal higher education system. With the formation of Nagaland as the 16th state in 1963, the state government expanded educational access through the establishment of new government colleges and later saw a growing contribution from private and missionary-run institutions.

Currently, Nagaland hosts five universities: one central and four private. 77 affiliated colleges function under Nagaland University, of which 57 are privately managed and 20 are government colleges. Specialised institutions such as NIELIT and 27 professional colleges (including teacher training, nursing, law, polytechnic, and paramedical institutions), along with 33 theological colleges, contribute to the academic diversity of the state.

The establishment of universities such as The Global Open University (2006), ICFAI (2009), North East Christian University (2013), and St. Joseph University (2016) reflects the progressive expansion of higher education in the last two decades. National-level institutes such as NIT Nagaland, NRCM, CIH, and NIELIT support regional development in technology, agriculture, and horticulture.

Decade-wise data reveals a sharp increase in private colleges since the 1990s, with 74 per cent of total colleges now privately run. Between 2014 and 2024, the total

number of colleges increased from 61 to 71, recording a compound annual growth rate (CAGR) of 1.53 per cent. Government colleges showed a growth rate of 1.26 per cent, while private colleges expanded at 1.62 per cent.

Kohima and Dimapur together host 45 colleges, while districts like Zunheboto, Kiphire, and Longleng have only one each. Stream-wise, out of 93 institutions, Arts dominates with 50 colleges, followed by Commerce (15), Science (10), and Law (3). Education-related courses include eight B.Ed. Colleges and one M.Ed. college.

Student enrolment trends show an increase from 20,619 in 2013–14 to 36,286 in 2023–24, with private colleges showing a stronger CAGR (6.15 per cent) than government colleges (4.96 per cent). Gender-wise data reveals that female students outnumber males at the undergraduate and postgraduate levels. The GER for females increased significantly (CAGR of 5.18 per cent), while that for males declined slightly by 0.06 per cent.

Nagaland University recorded the highest enrolment in the School of Social Sciences, followed by Humanities and Sciences. Theological colleges also experienced a female majority, with women comprising 52.55 per cent of total enrolment in 2022–23.

However, staffs in higher education shows a concerning decline. Teaching staff decreased from 573 in 2015–16 to 426 in 2022–23. Non-teaching staff experienced fluctuations, reaching 644 in 2018–19 but declining to 356 in 2022–23. The overall CAGR in staffing stood at –2.72 per cent.

Public expenditure on higher education increased from ₹21,471.19 lakhs in 2018–19 to ₹30,555.58 lakhs in 2022-23, with a CAGR of 7 per cent. Funding rose consistently in the non-development and development categories, though support for CSS and NEC declined or remained negligible in recent years.

5.2. Employment in Nagaland

Employment trends show both progress and persistent challenges. The Work Participation Rate (WPR) increased from 42.6 per cent in 2001 to 49.2 per cent in 2011. While rural WPRs show minimal gender gaps (55 per cent male, 52 per cent female), urban areas show wider disparities (47 per cent male, 25 per cent female). Districts such as Mon and Peren report higher female WPRs, whereas Dimapur and Kohima report the lowest.

The Labour Force Participation Rate (LFPR) in Nagaland stands at 73.3 per cent, which is significantly above the national average of 60.1 per cent. Participation is highest among diploma holders (100 per cent), graduates (88.6 per cent), and postgraduates (85.5 per cent), following a U-shaped trend.

Government employment has seen a sharp rise, from 8,311 employees in 1964 to 97,576 in 2015. Most employees (67 per cent) are in Class III, followed by Class IV (26 per cent). Permanent employees constitute 39,798, while 41,508 are on temporary terms. Education levels correlate with class: Class I has the highest share of postgraduates (44 per cent), while Class IV shows the highest under-matriculates (43 per cent).

Gender disparities are significant, with males accounting for 77.44 per cent and females only 22.56 per cent of total government employees. Youth dominate the workforce, with 63.48 per cent in the 26–46 age range. Kohima district employs the most government staff (25,549), followed by Dimapur (17,642).

In the organised sector, public sector jobs dominate with 87,311 employees, compared to 6,478 in the private sector. Female representation is higher in private establishments (55.6 per cent of Act Establishments).

Unorganised sector data from the e-Shram portal reports 2,21,036 registered workers in Nagaland. Dimapur and Mon have the highest enrolment, while Noklak reports the lowest. Self-employment initiatives reached 3,477 people in 2023–24, with Dimapur accounting for one-third of total registrations.

Unemployment remains a serious concern. A total of 70,936 job seekers are registered, with females constituting 42.06 per cent of graduates and 17.35 per cent of postgraduates. Technical degree holders comprise only 2.62 per cent of total registrants. The unemployment rate in Nagaland is 7.1 per cent, more than double the national average of 3.2 per cent.

Unemployment increases with educational attainment: postgraduate unemployment is at 27.0 per cent, and diploma holders at 26.2 per cent. This indicates a stark education-employment mismatch. Youth unemployment is particularly severe, with 27.4 per cent overall, 23.1 per cent in rural areas, and 39.6 per cent in urban settings, much higher than the national average of 10.2 per cent.

5.3. Profile of the Sample Population

The study surveyed a total of 450 employed individuals across three districts of Nagaland: Kohima, Mokokchung, and Tuensang, with 150 respondents drawn from each district to ensure balanced regional representation. In terms of gender distribution, Mokokchung and Tuensang exhibited near gender parity, whereas Kohima showed a male-dominant profile, with 58 per cent male respondents.

Marital status revealed a slightly higher proportion of married individuals across all districts. The age composition of the sample was largely concentrated in the 26–35 and 36–45 age groups, indicating a predominantly young and economically active population.

Regarding level of education, a majority of the respondents were undergraduates (52.67 per cent), followed by postgraduates (33.11 per cent), and those with professional or PhD qualifications (14.22 per cent).

Academic discipline-wise, social sciences were the most pursued field (41.77 per cent), trailed by humanities (20.89 per cent), sciences (20.23 per cent), and others (17.11 per cent), which includes health and fine arts. Most respondents were employed as professionals or clerical workers.

Nature of employment varied by district, with Tuensang reporting the highest share of regular employees (60 per cent), while Kohima had a notable concentration of contractual workers (40.67 per cent), and Mokokchung recorded the lowest proportion of self-employed individuals (13.33 per cent).

The average monthly incomes reflect the pattern, with Kohima at ₹33,560, Mokokchung at ₹33,060, and Tuensang at ₹31,420. Nagaland's average income is ₹32,726, underscoring income differences across the districts.

The average work experience in Nagaland has moderate variance among districts, with Kohima having the highest mean at 8.02 years. Mokokchung and Tuensang exhibit marginally lower averages, although the state-wide mean is 7.63 years. This signifies that Kohima district leads in worker experience, implying a more experienced labour pool relative to other areas in the state.

The employment scenario in Nagaland, in the districts of Mokokchung, Tuensang, and Kohima, has a diversified job market mostly characterised by skilled workers. Based on the ISCO-08 classification, professionals constitute the predominant employment sector, with Tuensang at 29.34 per cent, Mokokchung at 26.67 per cent, and Kohima at 24 per cent. Clerical workers constitute a notable proportion in all three districts, representing around 27 to 28 per cent of the total. Furthermore, unskilled labour is significantly prevalent, particularly in Kohima, where it constitutes 20 per cent, reflecting regional disparities in employment attributes. The data indicates that the workforce is predominantly made up of professionals and clerical workers, emphasising the dominance of skilled employment in the state.

The distribution of occupations by educational level in Nagaland reveals notable disparities in job alignment. Individuals with undergraduate degrees are largely employed in clerical and associate professional roles, reflecting a concentration in mid-skill occupations. Postgraduates are predominantly found in professional and clerical jobs, though a significant portion are engaged in unskilled work, suggesting a potential mismatch between qualifications and job opportunities. Those with professional or doctoral degrees tend to occupy higher-skilled roles such as managers

and professionals, with limited presence in lower-tier occupations. In Kohima, undergraduates are mostly placed in managerial and associate professional positions, while postgraduates are concentrated in professional and clerical roles. Mokokchung displays a similar pattern, with undergraduates holding a majority of managerial and associate positions, and postgraduates prevailing in professional occupations. In Tuensang, undergraduate respondents are primarily in clerical and associate professional roles, while postgraduates are more involved in professional work. Overall, while higher educational attainment generally leads to more specialised employment, the presence of postgraduates in lower-skilled occupations highlights existing mismatches and underutilization of qualifications within the labour market.

5.4. Education-Job Mismatch (Descriptive Statistics)

The findings reveal that 63.78 per cent of respondents in Nagaland experienced education-job mismatch. Of these, 52 per cent were overeducated, while 11.78 per cent were undereducated. Horizontal mismatch affected 51.78 per cent, and 35.33 per cent faced double mismatch involving both vertical and horizontal components.

At the district level, Kohima recorded the highest rates of mismatch, with 57.33 per cent overeducated, 60.67 per cent facing horizontal mismatch, and 44.67 per cent experiencing double mismatch. Mokokchung followed with 46 per cent overeducated, 53.33 per cent horizontally mismatched, and 32.67 per cent with double mismatch. Tuensang had 52.67 per cent overeducated, 41.33 per cent with horizontal mismatch, and 28.67 per cent facing double mismatch. These figures highlight the widespread nature of mismatch across districts, underscoring the need for improved alignment between education and employment opportunities.

5.5. Factors Influencing Education-Job Mismatch

Binary logistic regression was used to examine the factors influencing vertical, horizontal, and double mismatches in Nagaland. The results revealed distinct patterns across the state and sampled districts: Kohima, Mokokchung, and Tuensang.

A. Vertical Mismatch

In Nagaland, Vertical mismatch was significantly associated with gender, age, years of schooling, occupation (particularly clerical and unskilled jobs), academic discipline, and nature of employment. Those from social sciences and humanities, self-employed individuals, and those in non-professional roles experienced higher levels of mismatch. In Kohima**,** vertical mismatch was more pronounced among regular and self-employed individuals, especially those in clerical jobs and with social sciences backgrounds. In Mokokchung**,** mismatch was strongly linked to longer years of schooling and social science qualifications, while professional roles were associated with lower mismatch. Tuensang showed similar trends, where males and those in clerical roles faced higher mismatch, whereas professionals had better alignment with their education.

B. Horizontal Mismatch

Horizontal mismatch in Nagaland was influenced by age, gender, education level, field of study (particularly social sciences and humanities), and employment type. Professionals and married individuals experienced less mismatch, while those in clerical and unskilled jobs, or employed in public agencies or self-employment, faced higher odds. In Kohima**,** mismatch increased with age, gender, and humanities background, while social sciences showed a negative correlation. In Mokokchung**,** mismatch was prevalent among clerical workers and social science graduates, but lower among professionals and regular employees. In Tuensang**,** mismatch was higher among those in public employment and with social sciences backgrounds, but lower for professionals and science graduates.

C. Double Mismatch

In Nagaland, double mismatch was mainly driven by higher years of schooling. However, it was significantly reduced by gender, marital status, public employment, and professional occupations. In Kohima, double mismatch was lower among professionals, science and social science graduates, and those in

public or regular employment. Mokokchung showed similar trends, where mismatch was reduced for men, science-background respondents, and those in regular jobs. In Tuensang**,** double mismatch was lowest, and notably reduced for professionals, clerical workers, and those with science qualifications or regular employment. Overall, the analysis highlights that mismatch is shaped by both educational background and employment structure. Professional roles, regular employment, and science-based education consistently reduce the likelihood of mismatch across all districts.

5.6. Effect of Education-Job Mismatch on Income

To assess the effect of education-job mismatch on income, an Ordinary Least Squares (OLS) regression analysis was conducted, with monthly income as the dependent variable.

H_1: Individuals without vertical, horizontal, or double mismatches consistently earn higher incomes compared to those experiencing mismatches, with statistically significant differences observed in each category. Therefore, the results support the hypothesis that there is a significant difference between education-job mismatch and income.

The analysis of income and education-job mismatch in Nagaland reveals a clear link between lower income levels and higher rates of educational mismatches, such as overeducation and horizontal mismatch, indicating underutilisation of skills. Conversely, higher income brackets show better alignment between educational qualifications and job roles, although some undereducation persists. District-level patterns reflect this trend: Kohima shows improved educational alignment with higher income, Mokokchung exhibits overqualification among mid-income earners, and Tuensang reveals both overeducation at low incomes and undereducation at mid-levels. Overall, the data highlights the pressing need for better alignment between educational outcomes and labour market demands.

In Nagaland**,** the model showed a good fit, with an adjusted R^2 value of 0.73, indicating that 73 per cent of the variation in income could be explained by the included variables. The findings revealed a significant negative relationship between income and both overeducation and horizontal mismatch. Specifically, individuals who were overqualified or working in fields unrelated to their area of study earned notably lower incomes. In contrast, those with adequate educational alignment earned higher wages, highlighting the financial advantage of proper job-education matching. Additionally, other variables such as gender, years of schooling, public sector employment, and professional roles showed a significant positive influence on income.

In Kohima, the capital district, the OLS model yielded the highest explanatory power with an adjusted R^2 of 0.91, indicating that 91 per cent of the variation in income was accounted for by the model. Overeducation and horizontal mismatch had a strong and statistically significant negative effect on income. A one-unit increase in overeducation and horizontal mismatch corresponded with a 0.910 and 0.372 times decrease in income, respectively. Conversely, factors such as adequate education, science discipline, public employment, professional and clerical occupations, and regular job status contributed positively to income. These findings underscore the importance of job alignment and sectoral structure in influencing earnings in urban labour markets.

In Mokokchung**,** the regression model was also performed with an adjusted R^2 of 0.88. Overeducation remained a key determinant of income reduction, with a negative impact of 0.641 times. Horizontal mismatch similarly lowered income, though to a slightly lesser extent. On the other hand, years of schooling, social sciences background, employment in public agencies, and engagement in professional or clerical occupations all showed a significant positive influence. Regular employment was another important factor associated with higher earnings. These results indicate that although Mokokchung has a strong educational base, the financial return on education is diminished when job roles do not correspond with qualifications.

In Tuensang, the model reported a lower explanatory power (adjusted R^2 = 0.69), yet still demonstrated significant trends. Overeducation had a negative impact on income, reducing it by 0.351 times. Interestingly, horizontal mismatch showed a slight positive relationship with income, which may be explained by strategic job choices where individuals opt for better-paying opportunities outside their academic field. Adequate education, gender, humanities and social sciences background, and employment in the public sector or professional roles were positively associated with income. Regular employees also earned higher incomes compared to contractual or self-employed workers. These findings suggest that in resource-constrained regions like Tuensang, individuals may prioritise income over field alignment, leading to atypical but rational employment decisions.

Overall, across all districts, overeducation consistently reduced income, while adequate education and regular employment were strongly associated with higher earnings. The patterns suggest that when educational attainment does not translate into suitable employment, individuals face real financial losses. Conversely, aligning one's qualifications with job requirements not only improves occupational satisfaction but also leads to tangible income benefits.

5.7. Effect of Education-Job Mismatch on Job Satisfaction

Job satisfaction in Nagaland indicates a prevalent concern, as all three districts, Kohima, Mokokchung, and Tuensang, exhibit greater levels of dissatisfaction compared to satisfaction. Although Kohima exhibits slightly better outcomes, a predominant number of respondents in each district express dissatisfaction with their employment. Mokokchung has the lowest satisfaction rating, closely followed by Tuensang. Approximately 40 per cent of individuals statewide express job satisfaction, underscoring an urgent necessity to enhance workplace conditions and elevate employee morale.

H_2: The chi-square test results indicate a significant difference between education-job mismatch and job satisfaction in Nagaland. A higher proportion of individuals who are dissatisfied with their jobs report a mismatch between their

qualifications and employment, while the majority of those who are satisfied do not experience such a mismatch.

Binary logistic regression was conducted to examine how different forms of education-job mismatch affect job satisfaction among employees in Nagaland. In Nagaland, only 40.22 per cent of respondents reported being satisfied with their current job. The results show that overeducation and horizontal mismatch negatively influenced job satisfaction, while adequate education had a significant positive effect. Interestingly, double mismatch, though generally expected to reduce satisfaction, showed a weak positive association, possibly due to non-skill-related factors such as job security, location, or personal preferences. Other factors such as gender, age, marital status, income, employment type, and sector also emerged as important predictors.

In Kohima, job satisfaction was significantly lower among those experiencing overeducation and horizontal mismatch. Overeducation reduced the odds of being satisfied by 0.824 times, and horizontal mismatch by 0.648 times. In contrast, those with adequate education, science backgrounds, higher income, and those employed in the public sector and regular jobs reported higher satisfaction levels. This suggests that in Kohima's competitive job market, alignment between qualifications and work roles contributes to greater job fulfilment, while mismatch leads to dissatisfaction and potential underutilisation of skills.

In Mokokchung**,** similar trends were observed. Overeducation and horizontal mismatch both reduced job satisfaction, although their effects were less pronounced compared to Kohima. Respondents with science and social science backgrounds, employed in regular and professional roles, and those in public agencies showed higher job satisfaction. Notably, the strong educational base and lower mismatch rates in Mokokchung appear to create a more favourable work environment, although dissatisfaction persists among those underemployed or misaligned with their qualifications.

In Tuensang**,** the overall rate of job satisfaction was the lowest among the three districts. Overeducation had a negative effect, though weaker than in other districts. Interestingly, horizontal mismatch did not significantly reduce job satisfaction in Tuensang and was slightly positively associated in some cases, indicating that employees may prioritise income, location, or job stability over field relevance in a context of limited employment options. Adequate education, public sector employment, and regular job status were positively associated with satisfaction, while gender and academic discipline (particularly social sciences) influenced satisfaction levels to a lesser extent.

Overall, the findings across districts reinforce that education-job mismatch, especially overeducation and horizontal mismatch, leads to lower job satisfaction**.** However, the extent of this effect varies depending on local labour conditions and personal trade-offs. Ensuring that individuals are employed in roles that match both the level and field of their education not only enhances productivity but also significantly improves job satisfaction, which is essential for long-term workforce stability and motivation.

5.8. Problems of Higher Education in Nagaland

The problem of higher education in Nagaland, using the Garett Ranking technique, reveals that the most pressing issue across the state is the limited course offerings and specialisation, which restricts students' career prospects and skill development. This is followed by the lack of association between industry and academia, highlighting a disconnect between academic learning and market demands. Lack of career guidance is another major concern, while infrastructure deficiency and regional disparities are seen as relatively less significant.

District-wise analysis reflects consistent patterns. In Kohima, the primary concern is limited course options, followed by insufficient academia-industry linkage and a lack of career guidance. Regional disparities are considered the least critical issue. Similarly, Mokokchung respondents ranked limited specialisation opportunities highest, followed by weak industry ties and inadequate guidance, with regional

imbalance perceived as least significant. Tuensang also identified limited course offerings as the most serious issue, while career guidance and industry association follow closely. Regional disparities again ranked lowest.

5.9. Factors Influencing Academic Programme Choices in Nagaland

In terms of factors influencing academic programme choices, the Relative Importance Index (RII) shows that across Nagaland, students prioritise high grades, course availability, and career prospects. These practical factors outweigh social motivations such as status and prestige, which ranked lowest. In Kohima, students are driven by passion for the course, availability, and job prospects, reflecting a strong personal interest in academic choice. Mokokchung places emphasis on academic performance and peer influence, while Tuensang prioritises personal interest and career prospects, followed by family influence. Across all districts, status and prestige consistently hold the least importance in decision-making.

Overall, the findings underscore the need to expand course options, enhance industry-academia collaboration, provide robust career guidance, and ensure equitable infrastructure development to align Nagaland's higher education system with evolving academic and workforce demands.

5.10. Income Inequalities in Nagaland

H_3: The study revealed a direct and positive relationship between income inequality and the year of schooling, indicating that income inequality increases as the level of education increases. Therefore, the hypothesis is accepted and concludes that there is a significant difference between the level of education and income inequalities.

The study showed that income inequality differs significantly among the Kohima, Mokokchung, and Tuensang districts. Tuensang has the highest Gini coefficient of 35.24, while Kohima has the lowest at 30.84. Income inequality among females exceeds that of males, and unmarried individuals typically experience higher levels of inequality than their married counterparts. Income gaps are more severe among younger individuals and those with greater levels of education. Tuensang exhibits the most significant disparity in several categories, such as age and academic

fields. Professionals and individuals with PhDs have more pronounced income inequality than those with lower education levels.

5.11. Policy Implications

Based on the key findings of the study, several policy implications emerge, which are critical for addressing the persistent issues of education-job mismatch, income inequality, and job dissatisfaction in Nagaland. These implications aim to guide state policymakers, educational institutions, and stakeholders toward a more inclusive and effective higher education and employment system.

i. Curriculum Realignment and Academic Diversification

The study identified that 63.78 per cent of respondents experienced education-job mismatch, with a substantial proportion being overeducated or placed in jobs unrelated to their academic discipline. This underscores the urgent need for curriculum realignment to reflect current labour market demands. Academic institutions should expand course offerings in applied sciences, technology, healthcare, and vocational streams, particularly in underserved districts such as Tuensang. The development of interdisciplinary programmes and the inclusion of employability-focused modules would ensure better alignment between academic training and job market requirements.

ii. Institutionalisation of Career Counselling Services

One of the prominent issues revealed by the Garrett Ranking was the absence of structured career guidance, which contributes to mismatched academic and employment decisions. It is recommended that every higher education institution in Nagaland establish a dedicated career counselling cell equipped with trained personnel. These centres should provide aptitude-based counselling, information on employment trends, and guidance on academic planning. Particular attention must be given to first-generation learners and students from rural backgrounds to ensure equity in career planning support.

iii. Equitable Development of Higher Education Infrastructure

Regional disparities in college distribution and the significant decline in teaching staff (from 573 in 2015-16 to 426 in 2022-23) necessitate focused infrastructural development. The state government should prioritise investment in higher education institutions in districts with limited access, such as Longleng, Kiphire, and Zunheboto. This includes the establishment of new colleges, the recruitment of qualified faculty, and the provision of modern facilities. Incentives such as rural faculty allowances and digital infrastructure enhancement should be explored to attract and retain educators in remote areas.

iv. Promotion of Regular and Skilled Employment

The study established that regular employment and professional roles are positively associated with higher income and job satisfaction, whereas contractual and unskilled roles often lead to overeducation and dissatisfaction. Policymakers should develop sector-specific employment strategies, with an emphasis on generating regular, skilled employment opportunities in sectors like education, IT, Agro-processing, and public services. Initiatives such as targeted skill development programmes and government-industry employment drives can support this effort.

v. Gender and Equity-Oriented Employment Interventions

Significant gender disparities in employment (with only 22.56 per cent of government jobs held by women) and higher income inequality among females and highly educated individuals suggest the need for targeted interventions. Gender-responsive policies such as scholarships for female students, employment incentives for women in STEM fields, and quotas in government employment should be considered. Furthermore, monitoring and evaluating income disparities across gender and education levels will support the development of more inclusive economic and employment policies.

5.1.2. Conclusion

The study highlights an education-job mismatch in Nagaland, wherein a considerable number of educated individuals, particularly postgraduates, occupy positions inconsistent with their degrees, resulting in disparities in pay and decreased job satisfaction. The results highlight structural issues including restricted course specialisation, insufficient industry-academia connections, and poor career counselling. Vertical and horizontal mismatches are widespread throughout districts, with overeducation and field mismatch leading to decreased income and dissatisfaction. Confronting these difficulties via specific policy interventions is essential for transforming higher education in Nagaland into a more effective catalyst for equal and fulfilling employment.

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APPENDICES

Table A.1. Description of Variables for Education- Job Mismatch and Income

Variables	**Description**
Income (Dependent variable)	Monthly income of employees/own account workers
Independent variable	
Age	Continuous variable
Gender	1 if female, 0 = male
Marital status	1 if married , 0 = unmarried
Year of schooling	Continuous variable
Academic Discipline	1 if social sciences, 0 = otherwise
	1 if humanities, 0= otherwise
	1 if sciences, 0= otherwise
	1 if others (Engineering/Health/Arts/Fine arts/Business/Technology), 0= otherwise
Employment Agency	1 if private, 0 as Government
Occupation	1 if manager, 0= otherwise
	1 if Professionals, 0= otherwise
	1 if Associate Professionals, 0= otherwise
	1 if Clerical/service worker/ shop/market sales worker, 0 = otherwise
	1 if unskilled workers, 0= Otherwise
Nature of Employment	1 if regular, 0= otherwise
	1 if Contractual, 0= otherwise
	1 if self -employed, 0= otherwise
Adequate Education	1 if adequate education, 0= otherwise
Overeducation	1 if overeducation, 0= otherwise
Undereducation	1 if undereducation, 0= otherwise
Horizontal Mismatch	1 if horizontal mismatch, 0= otherwise
Double Mismatch	1 if double mismatch , 0= otherwise

Table A.2. Per cent Position and Garrett Value

Sl. No.	Percent Position [100(Rij-0.5)/Nj]	Percent Position Value	Garett Score
1	100 (1-0.5)/5	10	75
2	100 (2-0.5)/5	30	60
3	100 (3-0.5)/5	50	50
4	100 (4-0.5)/5	70	40
5	100 (5-0.5)/5	90	24

Source: Field Survey, 2021-22

Table A.3. Number of Ranks Given by the Respondents, Nagaland

Particular	Rank Given by the Respondents				
	1st	2nd	3rd	4th	5th
F1	0	0	34	169	247
F2	25	106	239	67	13
F3	281	102	51	8	8
F4	69	206	84	54	37
F5	25	36	88	172	129

Source: Field Survey, 2021-22

Table A.4. Estimation of Average Score of the Total Respondents, Nagaland

Particular	Rank Given by the Respondents						
	1*75	2*60	3*50	4*40	5*24	Total	Mean Score
F1	0	0	1700	6760	5928	14388	31.97
F2	1875	6360	11950	2680	312	23177	51.50
F3	21075	6120	2550	320	192	30257	67.24
F4	5175	12360	4200	2160	888	24783	55.07
F5	1875	2160	4400	6880	3096	18411	40.91

Source: Field Survey, 2021-22

Table A.5. Number of Ranks Given by the Respondents, Kohima

Particular	Rank Given by the Respondents				
	1st	2nd	3rd	4th	5th
F1	0	0	16	59	75
F2	16	10	91	33	0
F3	87	40	13	4	6
F4	21	86	22	18	3
F5	10	10	32	40	58

Source: Field Survey, 2021-22

Table A.6. Estimation of Average Score of the Total Respondents, Kohima

Particular	Rank Given by the Respondents						
	1*75	2*60	3*50	4*40	5*24	Total	Mean Score
F1	0	0	800	2360	1800	4960	11.02
F2	1200	600	4550	1320	0	7670	17.04
F3	6525	2400	650	160	144	9879	21.95
F4	1575	5160	1100	720	72	8627	19.17
F5	750	600	1600	1600	1392	5942	13.20

Source: Field Survey, 2021-22

Table A.7. Number of Ranks Given by the Respondents, Mokokchung

Particular	Rank Given by the Respondents				
	1st	2nd	3rd	4th	5th
F1	0	0	0	54	96
F2	2	48	86	8	6
F3	91	28	27	4	0
F4	33	72	36	1	8
F5	3	10	17	90	30

Source: Field Survey, 2021-22

Table A.8. Estimation of Average Score of the Total Respondents, Mokokchung

Particular	Rank Given by the Respondents						
	1*75	2*60	3*50	4*40	5*24	Total	Mean Score
F1	0	0	0	2160	2304	4464	9.92
F2	150	2880	4300	320	144	7794	17.32
F3	6825	1680	1350	160	0	10015	22.26
F4	2475	4320	1800	40	192	8827	19.62
F5	225	600	850	3600	720	5995	13.32

Source: Field Survey, 2021-22

Table A.9. Number of Ranks Given by the Respondents, Tuensang

Particular	Rank Given by the Respondents				
	1st	2nd	3rd	4th	5th
F1	0	0	18	56	76
F2	7	48	62	26	7
F3	103	34	11	0	2
F4	15	48	26	35	26
F5	12	16	39	42	41

Source: Field Survey, 2021-22

Table A.10.Estimation of Average Score of the Total Respondents, Tuensang

Particular	Rank Given by the Respondents						
	1*75	2*60	3*50	4*40	5*24	Total	Mean Score
F1	0	0	900	2240	1824	4964	11.03
F2	525	2880	3100	1040	168	7713	17.14
F3	7725	2040	550	0	48	10363	23.03
F4	1125	2880	1300	1400	624	7329	16.29
F5	900	960	1950	1680	984	6474	14.39

Source: Field Survey, 2021-22

Table A.11. Level of Agreement using Likert Scale, Nagaland

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
F1	94	143	152	41	20
F2	66	104	161	52	67
F3	136	130	137	27	20
F4	135	112	141	17	45
F5	85	128	158	39	40
F6	130	140	124	14	42
F7	88	136	158	40	28
F8	86	146	190	23	5

Source: Field Survey, 2021-22

Table A.12. Distribution based on Level of Agreement, Nagaland

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total (A)	Total Number (N)	A*N
F1	470	572	456	82	20	1600	450	2250
F2	330	416	483	104	67	1400	450	2250
F3	680	520	411	54	20	1685	450	2250
F4	675	448	423	34	45	1625	450	2250
F5	425	512	474	78	40	1529	450	2250
F6	650	560	372	28	42	1652	450	2250
F7	440	544	474	80	28	1566	450	2250
F8	430	584	570	46	5	1635	450	2250

Source: Field Survey, 2021-22

Table A.13. Level of Agreement using Likert Scale, Kohima

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
F1	22	51	44	27	6
F2	28	35	42	33	12
F3	27	38	52	18	15
F4	54	49	34	8	5
F5	24	33	65	19	9
F6	57	46	32	7	8
F7	23	43	66	15	3
F8	57	46	32	7	8

Source: Field Survey, 2021-22

Table A.14. Distribution based on Level of Agreement, Kohima

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total (A)	Total Number (N)	A*N
F1	110	204	132	54	6	506	450	2250
F2	140	140	126	66	12	484	450	2250
F3	135	152	156	36	15	494	450	2250
F4	270	196	102	16	5	589	450	2250
F5	120	132	195	38	9	494	450	2250
F6	285	184	96	14	8	587	450	2250
F7	115	172	198	30	3	518	450	2250
F8	285	184	96	14	8	587	450	2250

Source: Field Survey, 2021-22

Table A.15. Level of Agreement using Likert Scale, Mokokchung

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
F1	36	66	30	7	11
F2	20	31	48	8	43
F3	73	54	22	1	0
F4	19	44	43	4	40
F5	19	62	26	15	28
F6	49	35	43	2	21
F7	39	43	48	5	15
F8	16	58	75	1	0

Source: Field Survey, 2021-22

Table A.16. Distribution based on Level of Agreement, Mokokchung

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Total Number (N)	A*N
F1	180	264	90	14	11	559	450	2250
F2	100	124	144	16	43	427	450	2250
F3	365	216	66	2	0	649	450	2250
F4	95	176	129	8	40	448	450	2250
F5	95	248	78	30	28	479	450	2250
F6	245	140	129	4	21	539	450	2250
F7	195	172	144	10	15	536	450	2250
F8	80	232	225	2	0	539	450	2250

Source: Field Survey, 2021-22

Table A.17. Level of Agreement using Likert Scale, Tuensang

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
F1	36	26	78	7	3
F2	18	38	71	11	12
F3	36	38	63	8	5
F4	62	19	64	5	0
F5	42	33	67	5	3
F6	24	59	49	5	13
F7	26	50	44	20	10
F8	48	44	46	7	5

Source: Field Survey, 2021-22

Table A.18. Distribution based on Level of Agreement, Tuensang

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Total Number (N)	A*N
F1	180	104	234	14	3	535	450	2250
F2	90	152	213	22	12	489	450	2250
F3	180	152	189	16	5	542	450	2250
F4	310	76	192	10	0	588	450	2250
F5	210	132	201	10	3	556	450	2250
F6	120	236	147	10	13	526	450	2250
F7	130	200	132	40	10	512	450	2250
F8	240	176	138	14	5	573	450	2250

Source: Field Survey, 2021-22

Table A.19. The Incidence of Education -Job Mismatch, Nagaland

Particulars		VERTICAL MISMATCH			HORZONTAL MISMATCH		DOUBLE MISMATCH	
		AM	OE	UE	YES	NO	YES	NO
Age	Below 25	17 (10.43)	32 (13.68)	02 (3.78)	40 (17.17)	11 (5.07)	25 (15.73)	26 (8.94)
	26-35	52 (31.90)	99 (42.31)	11 (20.75)	84 (36.05)	77 (35.48)	63 (39.62)	98 (33.67)
	36-45	54 (33.12)	75 (32.05)	21 (39.62)	71 (30.47)	78 (35.94)	50 (31.45)	99 (34.02)
	46-55	32 (19.63)	21 (8.97)	15 (28.30)	28 (12.02)	42 (19.35)	15 (9.43)	55 (18.90)
	56 and above	08 (04.91)	07 (2.99)	04 (7.55)	10 (4.29)	09 (4.14)	06 (3.77)	13 (4.47)
Gender	Male	92 (56.44)	126 (53.85)	24 (45.28)	132 (56.65)	109 (50.23)	90 (56.60)	151 (51.89)
	Female	71 (43.56)	108 (46.15)	29 (54.72)	101 (43.35)	108 (49.77)	69 (43.40)	140 (48.11)
Marital Status	Married	88 (53.99)	100 (61.35)	30 (56.60)	101 (43.35)	118 (54.38)	61 (38.36)	158 (54.30)
	Otherwise	75 (46.01)	134 (38.65)	23 (43.40)	132 (56.65)	99 (45.62)	98 (61.64)	133 (45.70)
Academic Discipline	Social Sciences	68 (41.72)	103 (44.02)	18 (33.96)	100 (42.92)	88 (40.55)	67 (42.14)	121 (41.58)
	Humanities	20 (12.27)	55 (23.50)	18 (33.96)	51 (21.89)	37 (17.05)	41 (25.79)	47 (16.15)
	Sciences	37 (22.70)	44 (18.80)	10 (18.87)	38 (16.31)	59 (27.19)	26 (16.35)	71 (24.40)
	Others	38 (23.31)	32 (13.68)	7 (13.21)	44 (18.88)	33 (15.21)	25 (15.72)	52 (17.87)
Occupation	Managers	37 (22.70)	09 (3.85)	19 (35.85)	19 (8.15)	43 (19.82)	06 (3.77)	56 (19.24)
	Professionals	75 (46.01)	06 (2.56)	34 (64.15)	37 (15.88)	83 (38.25)	10 (6.29)	110 (37.80)
	Associate Professionals	40 (24.54)	21 (8.97)	-	30 (12.88)	29 (13.36)	06 (3.77)	53 (18.21)
	Clericals	11 (6.75)	114 (48.72)	-	65 (27.90)	60 (27.65)	59 (37.11)	66 (22.68)
	Unskilled Workers	-	84 (35.90)	-	82 (35.19)	02 (0.92)	78 (49.06)	06 (2.06)
Employment Agency	Public	92 (56.44)	105 (44.87)	28 (53.83)	105 (45.06)	120 (55.30)	70 (44.02)	155 (53.26)
	Private	71 (43.56)	129 (55.12)	25 (47.17)	128 (54.94)	97 (44.70)	89 (55.98)	136 (46.74)
Nature of Employment	Regular	101 (61.94)	105 (44.87)	31 (58.49)	113 (48.50)	125 (57.60)	68 (42.76)	170 (58.41)
	Contract	50 (30.67)	68 (29.05)	20 (37.74)	61 (26.18)	76 (35.02)	42 (26.42)	95 (32.66)
	Self Employed	12 (7.36)	61 (26.07)	02 (3.77)	59 (25.32)	16 (7.38)	49 (30.82)	26 (8.93)
Working Hour/week	Less than 20	21 (12.88)	31 (13.25)	08 (15.09)	28 (12.02)	32 (14.75)	19 (11.95)	41 (14.09)
	21- 40	34 (20.86)	76 (32.48)	24 (45.28)	74 (31.76)	60 (27.65)	56 (35.22)	78 (26.80)
	More than 40	108 (66.26)	127 (54.27)	21 (39.63)	131 (56.22)	125 (57.60)	84 (52.83)	172 (59.11)
Educational Level	Graduate	62 (38.04)	122 (52.14)	53 (100)	126 (54.08)	111 (51.15)	90 (56.60)	147 (50.51)
	Postgraduate	71 (43.56)	78 (33.33)	-	75 (32.19)	74 (34.10)	49 (30.82)	100 (34.37)
	Professionals/PhD	30 (18.40)	34 (14.53)	-	32 (13.73)	32 (14.75)	20 (12.58)	44 (15.12)
Income	Below 20,000	46 (28.22)	101 (43.16)	08 (15.09)	89 (57.42)	66 (42.58)	65 (41.94)	90 (58.06)
	21,000-40,000	51 (31.29)	100 (42.74)	26 (49.06)	95 (53.67)	82 (46.33)	69 (38.98)	108 (61.02)
	41,000-60,000	29 (17.79)	22 (9.40)	06 (11.32)	29 (50.88)	28 (49.12)	16 (28.07)	41 (71.93)
	61,000 and above	37 (22.70)	11 (4.70)	13 (24.53)	20 (32.79)	41 (67.21)	09 (14.75)	52 (85.25)

Source: Field survey, 2021-2022

Note: Figures in parentheses represent percentages.

AE= Adequate Education, OE= Overeducation, UE= Undereducation

Table A.20. The Incidence of Education -Job Mismatch, Kohima

Particulars		VERTICAL MISMATCH			HORIZONTAL MISMATCH		DOUBLE MISMATCH	
		AM	OE	UE	YES	NO	YES	NO
Age	Below 25	07 (14.28)	13 (15.12)	0	16 (17.58)	04 (6.78)	10 (14.93)	09 (10.84)
	26-35	11 (22.45)	32 (37.21)	04 (26.67)	31 (34.07)	16 (27.12)	26 (38.81)	22 (26.51)
	36-45	19 (38.78)	29(33.72)	05 (33.33)	30 (32.97)	23 (38.98)	22 (32.84)	31 (37.35)
	46-55	10 (20.41)	09 (10.47)	05 (33.33)	10 (10.99)	14 (23.73)	07 (10.45)	18 (21.69)
	56 and above	02 (4.08)	0 3 (3.48)	01 (6.67)	04 (4.39)	02 (3.39)	02 (2.98)	03 (3.61)
Gender	Male	37 (75.51)	42 (48.84)	8 (53.33)	52 (57.14)	35 (59.32)	36 (53.73)	51 (61.45)
	Female	12 (24.49)	44 (51.16)	7 (46.67)	39 (42.86)	24 (40.68)	31 (46.27)	32 (38.55)
Marital Status	Married	29 (59.18)	33 (38.37)	9 (60)	36 (39.56)	35 (59.32)	23 (34.33)	48 (57.83)
	Otherwise	20 (40.82)	53 (61.63)	6 (40)	55 (60.44)	24 (40.68)	44 (65.67)	35 (42.17)
Academic Discipline	Social Sciences	13 (26.53)	35 (40.70)	07 (46.68)	30 (32.97)	25 (42.37)	26 (38.81)	29 (34.94)
	Humanities	05 (10.20)	21 (24.42)	04 (26.66)	23 (25.27)	07 (11.86)	19 (28.36)	11 (13.25)
	Sciences	13 (26.53)	20 (23.25)	-	21 (23.08)	12 (20.34)	13 (19.40)	20 (24.10)
	Others	18 (36.74)	10 (11.63)	04 (26.66)	17 (18.68)	15 (25.43)	09 (13.43)	23 (27.71)
Occupation	Managers	19 (38.78)	03 (3.49)	01 (6.67)	8 (8.79)	15 (25.42)	-	23 (27.71)
	Professionals	17 (34.69)	05 (5.81)	14 (93.33)	17 (18.68)	19 (32.21)	07 (10.45)	29 (34.94)
	Associate Professionals	12 (24.49)	07 (8.14)	-	08 (8.79)	11 (18.64)	02 (2.98)	17 (20.48)
	Clericals	01 (2.04)	41 (47.67)	-	28 (30.77)	14 (23.73)	28 (41.79)	14 (16.87)
	Unskilled Workers	-	30 (34.89)	-	30 (32.97)	-	30 (44.78)	-
Employment Agency	Public	32 (65.31)	32 (37.21)	11 (73.33)	40 (43.96)	35 (59.32)	27 (40.30)	48 (57.83)
	Private	17 (34.69)	54 (62.79)	04 (26.67)	51 (56.04)	24 (40.68)	40 (59.70)	35 (42.17)
Nature of Employment	Regular	26 (53.06)	28 (32.56)	07 (46.67)	33 (36.26)	28 (47.46)	21 (31.34)	40 (48.19)
	Contract	17 (34.69)	37 (43.02)	07 (46.67)	34 (37.36)	27 (45.76)	27 (40.30)	34 (40.96)
	Self Employed	06 (12.25)	21 (24.42)	01 (6.66)	24 (26.38)	04 (6.78)	19 (28.36)	09 (10.85)
Working Hour/week	Less than 20	03 (6.12)	08 (9.30)	03 (20)	07 (7.70)	07 (11.86)	06 (8.96)	08 (9.64)
	21- 40	13 (26.53)	37 (43.03)	05 (33.33)	42 (46.15)	13 (22.04)	33 (49.25)	22 (26.51)
	More than 40	33 (67.35)	41 (47.67)	07 (46.67)	42 (46.15)	39 (66.10)	28 (41.79)	53 (63.85)
Educational Level	Graduate	24 (48.98)	34 (39.53)	15 (100)	40 (43.96)	33 (55.93)	30 (44.78)	43 (51.81)
	Postgraduate	15 (30.61)	39 (45.35)	-	39 (42.86)	15 (25.42)	30 (44.78)	24 (28.91)
	Professionals/PhD	10 (20.41)	13 (15.12)	-	12 (13.18)	11 (18.65)	07 (10.44)	16 (19.28)
Income	Below 20,000	06 (12.24)	35 (40.70)	02 (13.33)	30 (69.77)	13 (30.23)	28 (65.12)	15 (34.88)
	21,000-40,000	18 (36.73)	39 (45.35)	09 (60.00)	45 (68.18)	21 (31.82)	32 (48.48)	34 (51.52)
	41,000-60,000	09 (18.37)	11 (12.79)	0 (0.00)	10 (50.00)	10 (50.00)	06 (30.00)	14 (70.00)
	61,000 and above	16 (32.65)	01 (1.16)	04 (26.67)	06 (28.57)	15 (71.43)	01 (4.76)	20 (95.24)

Source: Field survey, 2021-2022

Note: Figures in parentheses represent percentages.
AE= Adequate Education, OE= Overeducation, UE= Undereducation

Table A.21. The Incidence of Education -Job Mismatch, Mokokchung

Particulars		VERTICAL MISMATCH			HORIZONTAL MISMATCH		DOUBLE MISMATCH	
		AM	OE	UE	YES	NO	YES	N0
Age	Below 25	06 (9.53)	09 (13.04)	02 (11.11)	15 (18.75)	02 (2.86)	10 (20.41)	07 (6.93)
	26-35	23 (36.51)	35 (50.72)	06 (33.33)	32 (40)	31 (44.28)	22 (44.90)	41 (40.59)
	36-45	17 (26.98)	22 (31.89)	05 (27.78)	23 (28.75)	20 (28.57)	14 (28.57)	29 (28.71)
	46-55	14 (22.22)	02 (2.90)	04 (22.22)	07 (8.75)	15 (21.43)	03 (6.12)	19 (18.81)
	56 and above	03 (4.76)	01 (1.45)	01 (5.56)	03 (3.75)	02 (2.86)	-	05 (4.95)
Gender	Male	29 (46.03)	33 (47.82)	13 (72.22)	41 (51.25)	34 (48.57)	26 (53.06)	49 (48.51)
	Female	34 (53.97)	36 (52.17)	05 (27.78)	39 (48.75)	36 (51.43)	23 (46.94)	52 (51.49)
Marital Status	Married	32 (50.79)	32 (46.38)	10 (55.56)	36 (45)	38 (54.29)	18 (36.73)	56 (55.45)
	Otherwise	31 (49.21)	37 (53.62)	08 (44.44)	44 (55)	32 (45.71)	31 (63.27)	45 (44.55)
Academic Discipline	Social Sciences	38 (60.32)	31 (44.93)	06 (33.33)	43 (53.75)	32 (45.72)	22 (44.90)	53 (52.48)
	Humanities	06 (9.52)	16 (23.19)	05 (27.78)	14 (17.50)	13 (18.57)	12 (24.49)	15 (14.85)
	Sciences	08 (12.70)	14 (20.29)	05 (27.78)	09 (11.25)	18 (25.71)	09 (18.37)	18 (17.82)
	Others	11 (17.46)	08 (11.59)	02 (11.11)	14 (17.50)	07 (10)	06 (12.24)	15 (14.85)
Occupation	Managers	07 (11.11)	05 (7.25)	10 (55.56)	07 (8.75)	15 (21.43)	03 (6.12)	19 (18.81)
	Professionals	31 (49.21)	01 (1.45)	08 (44.44)	13 (16.25)	27 (38.56)	04 (8.16)	36 (35.65)
	Associate Professionals	17 (26.98)	04 (5.80)	-	11 (13.75)	10 (14.29)	01 (2.04)	20 (19.80)
	Clericals	08 (12.70)	33 (47.83)	-	24 (30)	17 (24.29)	20 (40.82)	21 (20.79)
	Unskilled Workers	-	26 (37.67)	-	25 (31.25)	01 (1.43)	21 (42.86)	05 (4.95)
Employment Agency	Public	34 (53.97)	34 (49.28)	07 (38.89)	34 (42.50)	41 (58.57)	20 (40.81)	55 (54.46)
	Private	29 (46.03)	35 (50.72)	11 (61.11)	46 (57.50)	29 (41.43)	29 (59.18)	46 (45.54)
Nature of Employment	Regular	41 (65.08)	36 (52.17)	10 (55.56)	47 (58.75)	40 (57.14)	27 (55.10)	60 (59.41)
	Contract	21 (33.33)	15 (21.74)	07 (38.89)	17 (21.25)	26 (37.14)	09 (24.49)	34 (33.66)
	Self Employed	01 (1.59)	18 (26.09)	01 (5.55)	16 (20)	4 (5.72)	10 (20.41)	10 (6.93)
Working Hour/week	Less than 20	15 (23.81)	09 (13.04)	03 (16.66)	13 (16.25)	14 (20)	06 (12.24)	21 (20.79)
	21- 40	11 (17.46)	17 (24.64)	10 (55.56)	21 (26.25)	17 (24.29)	14 (28.57)	24 (23.76)
	More than 40	37 (41.27)	43 (62.32)	05 (27.78)	46 (57.50)	39 (55.71)	29 (59.19)	56 (55.45)
Educational Level	Graduate	21 (33.33)	35 (50.73)	18 (100)	47 (58.75)	27 (38.57)	30 (61.22)	44 (43.57)
	Postgraduate	33 (52.38)	21 (30.43)	-	24 (30)	30 (42.86)	11 (22.45)	43 (42.57)
	Professionals/PhD	09 (14.29)	13 (18.84)	-	09 (11.25)	13 (18.57)	08 (16.33)	14 (13.86)
Income	Below 20,000	27 (42.86)	22(31.88)	3 (16.67)	30 (57.69)	22 (42.31)	16 (30.77)	36 (69.23)
	21,000-40,000	15(23.81)	38(55.07)	6 (33.33)	31 (52.54)	28 (47.46)	24 (40.68)	35 (59.32)
	41,000-60,000	14(22.22)	01(01.45)	3 (16.67)	07 (38.89)	11 (61.11)	02 (11.11)	16 (88.89)
	61,000 and above	07(11.11)	08(11.59)	6 (33.33)	12 (57.14)	09 (42.86)	07 (33.33)	14 (66.67)

Source: Field survey, 2021-2022

Note: Figures in parentheses represent percentages.

AE= Adequate Education, OE= Overeducation, UE= Undereducation

Table A.22. The Incidence of Education -Job Mismatch, Tuensang

Particulars		VERTICAL MISMATCH			HORIZONTAL MISMATCH		DOUBLE MISMATCH	
		AM	OE	UE	YES	NO	YES	NO
Age	Below 25	04 (7.85)	10 (12.66)	-	09 (14.52)	05 (5.68)	05 (11.63)	09 (8.42)
	26-35	18 (35.29)	32 (40.51)	01 (5)	21 (33.87)	30 (34.10)	15 (34.88)	36 (33.64)
	36-45	18 (35.29)	24 (30.38)	11 (55)	18 (29.03)	35 (39.77)	14 (32.56)	39 (36.45)
	46-55	08 (15.69)	10 (12.66)	06 (30)	11 (17.74)	13 (14.77)	06 (13.95)	18 (16.82)
	56 and above	03 (5.88)	03 (3.79)	02 (10)	03 (4.84)	05 (5.68)	03 (6.98)	05 (4.67)
Gender	Male	26 (50.98)	48 (60.76)	05 (25)	39 (62.90)	40 (45.45)	28 (65.12)	51 (47.66)
	Female	25 (49.02)	31 (39.24)	15 (75)	23 (37.10)	48 (54.55)	15 (34.88)	56 (52.34)
Marital Status	Married	27 (52.94)	36 (45.57)	11 (55)	29 (46.77)	45 (51.14)	20 (46.51)	54 (50.47)
	Otherwise	24 (47.06)	43 (54.43)	09 (45)	33 (53.23)	43 (48.86)	23 (53.49)	53 (49.53)
Academic Discipline	Social Sciences	17 (33.33)	37 (46.84)	04 (20)	27 (43.54)	31 (35.23)	19 (44.18)	39 (36.45)
	Humanities	09 (17.65)	18 (22.79)	10 (50)	14 (22.58)	23 (26.14)	10 (23.26)	27 (25.23)
	Sciences	16 (31.37)	10 (12.65)	05 (25)	09 (14.52)	22 (25)	04 (9.30)	27 (25.23)
	Others	09 (17.65)	14 (17.72)	01 (05)	12 (19.36)	12 (13.63)	10 (23.26)	14 (13.09)
Occupation	Managers	11 (21.57)	01 (1.27)	05 (25)	02 (3.23)	15 (17.05)	01 (2.33)	16 (14.95)
	Professionals	28 (54.90)	01 (1.27)	15 (75)	08 (12.90)	36 (40.91)	02 (4.65)	42 (39.25)
	Associate Professionals	10 (19.61)	09 (11.38)	-	11 (17.74)	08 (9.09)	02 (4.65)	17 (15.89)
	Clericals	02 (3.92)	40 (50.63)	-	13 (20.97)	29 (32.95)	10 (23.26)	32 (29.91)
	Unskilled Workers	-	28 (35.45)	-	28 (45.16)	-	28 (65.11)	-
Employment Agency	Public	26 (50.98)	39 (49.37)	10 (50)	31 (50)	44 (50)	23 (53.49)	52 (48.60)
	Private	25 (49.02)	40 (50.63)	10 (50)	31 (50)	44 (50)	20 (46.51)	55 (51.40)
Nature of Employment	Regular	34 (66.67)	41 (51.90)	15 (75)	34 (54.84)	56 (63.64)	20 (46.51)	70 (65.42)
	Contract	12 (23.53)	16 (20.25)	05 (25)	09 (14.52)	24 (27.27)	06 (13.95)	27 (25.23)
	Self Employed	05 (9.80)	22 (27.85)	-	19 (30.64)	8 (9.09)	17 (39.54)	10 (9.35)
Working Hour/week	Less than 20	03 (5.88)	14 (17.72)	02 (10)	08 (12.90)	11 (12.50)	07 (16.28)	12 (11.21)
	21- 40	10 (19.61)	22 (27.85)	09 (45)	11 (17.75)	30 (34.09)	09 (20.93)	32 (29.91)
	More than 40	38 (74.51)	43 (54.43)	09 (45)	43 (69.35)	47 (53.41)	27 (62.79)	63 (58.88)
Educational Level	Graduate	17 (33.33)	53 (67.09)	20 (100)	39 (62.90)	51 (57.96)	30 (69.76)	60 (56.07)
	Postgraduate	23 (45.10)	18 (22.78)	-	12 (19.36)	29 (32.95)	05 (11.63)	36 (33.64)
	Professionals/PhD	11 (21.57)	08 (10.13)	0	11 (17.74)	08 (09.09)	08 (18.61)	11 (10.28)
Income	Below 20,000	13 (25.49)	44 (55.70)	03 (15.00)	29 (48.33)	31 (51.67)	21 (35.00)	39 (65.00)
	21,000-40,000	18 (35.29)	23 (29.11)	11 (55.00)	19 (36.54)	33 (63.46)	13 (25.00)	39 (75.00)
	41,000-60,000	06 (11.76)	10 (12.66)	03 (15.00)	12 (63.16)	07 (36.84)	08 (42.11)	11 (57.89)
	61,000 and above	14 (27.45)	02 (02.53)	03 (15.00)	02 (10.53)	17 (89.47)	01 (05.26)	18 (94.74)

Source: Field survey, 2021-2022

Note: Figures in parentheses represent percentages.
AE= Adequate Education, OE= Overeducation, UE= Undereducation

Table A.23. Mapping of ISCO-88 Major Groups to Skills Levels

Sl. No	Major Groups	Skill Level
1.	Managers	3+ 4
2.	Professionals	4
3.	Associate Prfessionals	3
4.	Clericals	2
5.	Unskilled Workers	1

A. Definitions of Major Groups

1. **Managers**

   Managers plan, direct, coordinate, and evaluate the overall activities of enterprises, governments, and other organizations or organizational units. They formulate policies and strategies and ensure their implementation.

2. **Professionals**

   Professionals typically are engaged in work that requires a high level of theoretical knowledge, such as scientists, engineers, doctors, and teachers.

3. **Associate Professionals**

   These workers perform technical and related tasks that support professionals. Their work requires practical and theoretical knowledge, often gained through advanced vocational training or tertiary education.

4. **Clericals:**

   Clerical workers perform administrative and office tasks, including data entry, record keeping, and customer service.

5. **Unskilled Workers**

   These workers carry out simple and routine tasks which may require the use of hand tools and physical effort. Minimal formal education or training is typically needed, and tasks are usually learned through short-term experience or instruction.

Table A.24. Skill Level

Skill Level	ISCED-2011
I	Primary Education ISCED-02 (Up to 10 years of formal education)
II	Secondary Education ISCED 3-4 (11-13 years of formal education)
III	ISCED-5 First University Degree (14-15 years of formal education)
IV	ISCED-6-7 Post Graduate University degree (More than 15 years of formal education)

These skill levels indicate the complexity of tasks and the education or training required for each occupation.

B. To measure the horizontal mismatch, the study used this broad Fields of education in ISCED-F 2013:

00 – Generic programmes and qualifications
01 – Education
02 – Arts and humanities
03 – Social sciences, journalism and information
04 – Business, administration and law
05 – Natural sciences, mathematics and statistics
06 – Information and Communication Technologies
07 – Engineering, manufacturing and construction
08 – Agriculture, forestry, fisheries and veterinary
09 – Health and welfare
10 – Services

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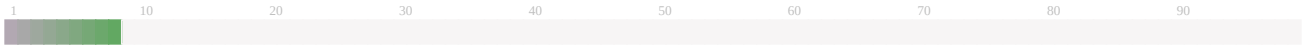

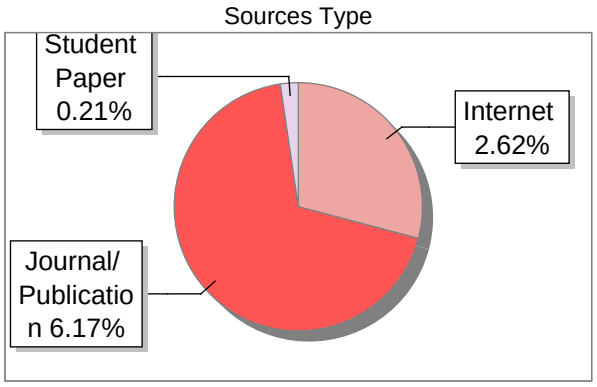

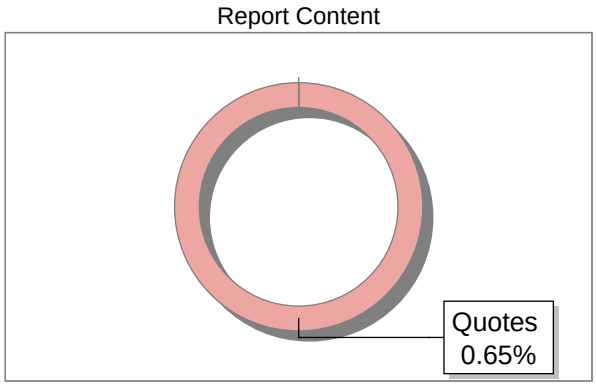

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