



Degrees of Doubt: Spatial Frictions, Intersectionality, and Expected Educational Mismatch in West Bengal

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Abstract

Getting a college degree is supposed to be a ticket to a better future. However, for most of the students who are completing their graduation, they do not see it as an accomplishment; rather, this has become a source of their deep anxiety. This anxiety develops from the fear of educational mismatch. i.e., they may end up in a job that does not require or may not suit their hard-earned skills. The aim of this paper aims to explore this anticipated post-education fear. We use information collected from 237 college students in Kolkata, West Bengal and using an Ordered Logistic model, measure how severe students expect their labour market mismatch to be before they even graduate. The findings of the paper point out that not only what the student studies matters, but also who they are matters more. A degree in a technical field from a top-tier college or university acts as a confidence booster against such anxiety. Further, the most powerful safety net for the students is their families social capital. Having parents with formal/ salaried jobs significantly reduced their fear of failure or future worries, while those students who are first-generation learners are highly vulnerable. The findings also point out a harsh reality from intersectional analyses. The students who belong to the religious minority group, like Muslims, are anticipating higher level of mismatch, and this becomes amplified for Muslim women. This reflects a painful, intuitive awareness of structural barriers in the urban job market of Kolkata. Moreover, we find that there is a commuters' penalty. Those students who are commuting from peri-urban areas have to suffer in terms of disconnection from city networking hubs, as well as the opportunity cost of commuting. Finally, our findings shows that merely expanding access to higher education does not level the playing field for all. To truly help these students, policymakers must look beyond just handing out degrees. We need to build formal mentorship networks for first-generation learners and create targeted placement corridors to help marginalised women bridge the gap between college and a meaningful career.

Keywords: Educational Mismatch, Labour Market Transition, Social Capital, Religious Marginalization, Higher Education, Youth Employment

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Introduction

For many young people, setting foot on a college campus means setting foot in a new life. For a long time, a university degree has been sold as the great leveller. It is intended to be the bridge from a humble background to a stable, formal career. But as the day of graduation or post-graduation comes to an end, a deep sense of worry overshadows the celebration for a large number of students. They care about more than just having a job. They fear they'll get the wrong job. That

fear of “educational mismatch”- the expectation of being forced into jobs that don’t require or respect the skills they’ve worked so hard to acquire. This is a defining psychological burden for young people today

The labour market in India is currently undergoing a serious crisis in terms of employability. The current data capturing the current macroeconomic situations point out the grim reality. A study from Azim Premji University in 2023 points out that the rate of unemployment among graduates under the age of 25 is high and is almost around 42%. Most of the graduates are pushed into job roles that were earlier filled with secondary school degrees or drop-outs (PolicyEdge, 2024). Such situations create a painful bottleneck for the students as they invest heavily in their education just to find out that the economy is not generating enough formal jobs to absorb them

This study seeks to explore these expected fears among college students with a case study of Kolkata, West Bengal. Also, we recognise that not all people experience the fear of a mismatched career in the same way. This can vary on several socioeconomic factors and the family and other related background of the student. Our research attempts to address a simple but important question, i.e. how do social identity, family background and geography contribute to a student’s fear of the future? We aim to shift the focus from actual employment outcomes to pre-graduation expectations. This research aims to capture the students' raw, lived experience. They know all too well the structural barriers waiting for them outside the college gates.

Literature Review and Conceptual Framework

It is important to understand how market forces work in the job market in order to truly realize why students feel this employment anxiety. We try to build the conceptual framework of this paper by chronologically incorporating three different yet interconnected waves of thought from the field of education economics and sociology. The paper build it foundational baseline on theories of structural friction, early-2000s assessments of institutional massification and marginalisation in India, along with the recent contemporary evidence on spatial and intersectional vulnerabilities.

Foundational Theories of Market Frictions (1960s–1980s)

The theoretical foundation for understanding physical barriers to employment began with the Spatial Mismatch Hypothesis introduced by Kain (1968). The paper sought to explain how physical distance from economic centres and structural segregation negatively impacted job prospects. Moving from geographic to academic sorting mechanisms, Spence (1973) developed Signalling Theory. The main argument of the theory is that in congested labour markets, an educational degree often serves as a crude sorting filter for employers instead of a pure reflection of productivity enhancement. Building directly upon these sorting dynamics, the traditional view of education rooted in Human Capital Theory, which assumes more education cleanly yields higher productivity and wages. This view was formally challenged by Duncan and Hoffman (1981). They laid the structural framework for understanding labour market failures by introducing the formal concept of “educational mismatch”. This was defined as the phenomenon where workers are forced into roles that do not respect or require their hard-earned skills.

Institutional Expansion and Baseline Inequalities in India (2000s)

As these theories were mapped onto developing economies at the turn of the century, Tilak (2002) highlighted how the mass expansion and “massification” of higher education in India was intended to uplift millions and level the playing field. Rather, this rapid expansion caused cheapening of the value of general degrees. This made employers rely more heavily on institutional quality as signals. Beyond credential inflation, deep structural social cleavages existed. The landmark Sachar Committee Report (2006) presented a crucial baseline documenting the severe, systematic underrepresentation of Muslims. This was visible in both public and private formal employment sectors across India. This structural exclusion was further cross-verified by foundational correspondence studies, such as Attewell and Thorat (2007). The study proved that applicants with Muslim-sounding names receive relatively lower callback rates from Indian corporate employers even when qualification levels are completely identical to their peers.

Ground Realities in West Bengal (2010s)

Frictions regarding identity became particularly acute in the localized landscape of West Bengal. A decade after the Sachar report, a comprehensive ground-level survey published as the SNAP, Guidance Guild, and Pratichi Institute Report (2016) evaluated the living realities of Muslims in West Bengal. The report established a harsh socioeconomic baseline, finding that less than 2 percent of rural Muslim households in the state held regular, salaried formal jobs, highlighting the scarcity of formal employment channels for minority communities.

Contemporary Evidence: Employability, Capital, and Intersectionality (2021–Present)

Recent contemporary studies documents that these historical inequities continue to manifest as intense labour market anxieties. Khare (2021) showed the persistence of the graduate employability crisis. The paper points that hardly half of the graduates in India are considered truly job-ready by the formal market. The financial consequences of this deficit are severe. Bahl and Sharma (2021) showed that overeducated workers in India suffer an actual wage penalty of around 7 per cent compared to their adequately matched peers, a reality that students observe among older graduates. The compounding effect of this wage penalty is a severe deficit in network capital. LedBy Foundation (2022) exposed the compounding nature of identity through a modern labour audit, revealing a shocking 47.1% net discrimination rate against Muslim women applying for entry-level corporate roles compared to Hindu women. Moreover, recent analysis by Annadurai and Sahoo (2023) and Choudhary (2023) highlight the severe isolation faced by learners from the first-generation. Although financial wealth matters, these scholars note that cultural and network capital matter mor. The first-generation graduates lack the inherited knowledge of how to navigate interviews or secure referrals. These constraints makes transition into the formal service sector highly volatile without proper mentorship. Finally, modern updates to spatial frictions by Banerjee and Sequeira (2023) confirm that young job seekers residing far from urban centres continue to face severe information asymmetries. This thereby proves that peri-urban commuters underestimate the hidden opportunity costs of travel. This systematically disconnects them from city networking hubs and internship ecosystems.

These three dimensions together form a cognitive framework of labour market frictions. This idea ultimately manifests in the student's reported expectation, i.e., a perfect match, moderate

(horizontal) mismatch, or severe (vertical) overeducation. Figure 1 below captures this conceptual framework.

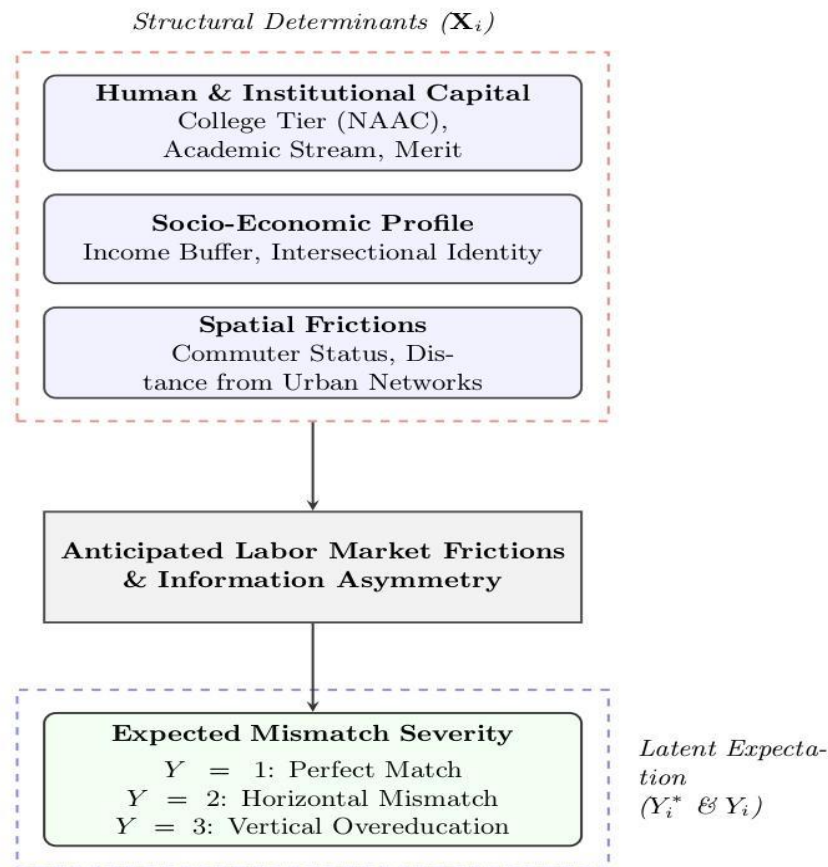


Figure 1: Conceptual Framework mapping Structural Determinants to Expected Mismatch

Source: Authors' Understanding

Objective of the Study

Based on the detailed literature analysis we aim to explore the following primary objective of this study. The study aims to empirically analyse the structural determinants of expected labour market mismatch among final and penultimate-semester college students within the urban and peri-urban ecosystem of Kolkata in West Bengal. Instead of just measuring the actual post-graduation employment outcomes this research explicitly shifts the analytical focus to students' pre-graduation anticipatory cognitive anxieties and fears of underemployment.

Specifically, this study attempts to address how social identity, family background, and geographic constraints leads to a student's fear of a mismatched career. To achieve this objective, the paper addresses the following sub-questions:

- a. The first query is to understand how does intersecting social vulnerabilities specifically gender, caste, and religious minority status (with a focus on Muslim women), magnify the pessimism related to the labour market.

- b. Next we aim to query how institutional signal value works i.e we aim to understand to what extent institutional prestige (e.g., Tier-1 autonomous public universities versus private, self-financed colleges) protects the students from anxiety caused by educational mismatch.
- c. Finally we aim to understand the role of spatial frictions. We aim to analyse how the physical distance from core urban professional networks impacts the subjective mismatch expectations of peri-urban daily commuting students.

In order to answer this question, we analyse primary data of 237 students. Using an ordered logistic regression framework, this study tries to capture raw, lived student experiences of the students. This would help provide actionable insights for structural policy interventions.

Data and Methodology

Survey Design and Sampling Strategy

The empirical analysis of the paper is based on a cross-sectional primary dataset collected from undergraduate and postgraduate students in Kolkata, West Bengal. Recognising that labour market expectations are highly subjective and often tinged with anxiety, the survey instrument was designed to be empathetic and strictly anonymous. This helps us in motivating the students to express their genuine labour market fears rather than socially desirable optimism.

We consider a multi-stage stratified sampling technique. In the first stage, institutions were purposively stratified across three dominant ecosystems of Kolkata. The first group considered a unitary and autonomous State University. This included Jadavpur University, Aliah University, Rabindra Bharati University and autonomous premium colleges under Calcutta University. These represent high-autonomy, highly subsidised public institutions with centralised campuses and strong signalling power. Secondly, we considered standard affiliating systems. Here, government and government-aided general degree colleges affiliated with the University of Calcutta and West Bengal State University capture the traditional, high-volume academic track. Finally, we considered the privatised professional ecosystem. Here, we considered self-financed technical and management colleges primarily affiliated with Maulana Abul Kalam Azad University of Technology (MAKAUT). While the degrees are public, the infrastructure and fee structures are entirely private. In the second stage, students in their final and penultimate semesters were randomly sampled across disciplines. Initially, 265 data were collected; however, after dropping incomplete responses, the final working sample comprises of 237 students. The survey data was collected in two phases, August and September 2025 and February and March 2026

Variable Specification

The core outcome variable is the Subjective Expectation of Mismatch (Y_i). Rather than measuring realised mismatch post-graduation, we capture the anticipatory anxiety of students. It is operationalized as an ordered categorical variable based on students' self-assessed probability of their future job aligning with their current human capital investment:

The variable $Y=1$ is called Expects Perfect Match (Anticipates employment commensurate with their degree level and field). $Y=2$ is called Expects Moderate Mismatch (Anticipates horizontal mismatch, i.e., working at the correct degree level but in an entirely unrelated field). Finally, $Y=3$ is called Expects Severe Mismatch (Anticipates vertical overeducation, i.e., expecting to take a job requiring only a high school or lower-tier degree).

To isolate the structural determinants of these expectations, we construct a vector of covariates (X_i) capturing three dimensions of a student's profile.

Firstly we consider the socio-economic and intersectionality related information. We use the natural logarithm of Monthly Per Capita Expenditure (Log MPCE) as a proxy for permanent family income, which often acts as a financial buffer allowing students to wait for a matched job. We include dummy variables for Gender which takes the value 0 for Male and 1 for Female. Similarly Marginalized status (1 = SC/ST/Minority). For Religion status we take the value 1 if the student follows to Islam while 0 for others. We also introduce an interaction term (Female \times Marginalized) and (Female \times Muslim) to test if intersecting social vulnerabilities magnifies labour market pessimism.

In second segment we consider the spatial friction. The labour market of Kolkata is characterized by a heavy influx of daily commuters. We introduce a *Commuter* dummy which takes the value 1 if the student is residing in peri-urban districts like North/South 24 Parganas, Howrah or Hooghly. It takes the value 0 if the student is residing within Kolkata municipal limits. This is done to proxy for physical exhaustion, informational friction, and distance from localized urban professional networks.

Thirdly in order to capture the academic and institutional Capital we consider a baseline academic ability is controlled via normalized Class 12 board examination scores. We include a stream dummy for Arts/Humanities to capture the specific demand-side penalties these graduates face. Finally, an institutional quality dummy which takes the value 1 if the institute is NAAC A/A+ or has autonomous status to tests whether premium college branding insulates students from mismatch anxiety.

Econometric Strategy

The dependent variable of our analysis is expected mismatch severity. It is inherently ordered but the conceptual distance between Perfect Match and Moderate Mismatch is not necessarily equal to the distance between Moderate and Severe the use of Ordinary Least Squares (OLS) regression is inappropriate. Instead, we estimate an **Ordered Logit Model** based on a cumulative probability distribution.

We assume a latent, unobserved continuous variable, Y_i^* , which represents the underlying intensity of student i 's mismatch expectation. The structural equation is defined as:

$$Y_i^* = X_i + \epsilon_i \dots \dots \dots (1)$$

Where X_i is the vector of our explanatory variables. The parameter “ β ” captures the coefficients to be estimated. ϵ_i represents the logistically distributed error term. Here the dependent variable Y_i^* is not observed by us directly. It is rather observed via the categorical survey response Y_i as it crosses unknown threshold parameters (cut-points), μ_1 and μ_2 :

$$Y_i = \begin{cases} 1 (Perfect Match) & \text{if } Y_i^* \leq \mu_1 \\ 2 (Moderate Mismatch) & \mu_1 < Y_i^* \leq \mu_2 \dots \dots \dots (2) \\ 3 (Severe Mismatch) & Y_i^* > \mu_2 \end{cases}$$

The model estimates the log-odds of being in a higher category of mismatch expectation. The coefficients in an ordered logit represent proportional odds and lack direct intuitive scaling. Thus, we calculate the average marginal effects to interpret the discrete change in the probability of expecting a severe mismatch. The impact is calculated for a one-unit change in the predictors after holding all other variables at their means. R version 4.3 software is used for all data analysis .

Results

Descriptive and Exploratory Findings

A initial analysis of our sample of 237 individual students reveals a highly stratified landscape of labour market expectations. Overall, less than half of the surveyed cohort, i.e., 42.2 percent anticipates a perfect match between their current educational investment and their future occupation. A substantial portion, 34.6 percent, expects moderate horizontal mismatch. Nearly one in four students (23.2 percent) expects severe vertical overeducation.

Table 1 below summarises the main covariates used in our analysis. The sample shows how the distribution of higher education ecosystem structure in Kolkata exist. We observe that institutional architecture is well-represented in our sample. Almost 33.8% of students belongs to in private/self-financed technical institutions, 28.3% in highly subsidised Tier-1 autonomous or unitary government universities, and the remaining 38.0% are enrolled in the traditional standard government-affiliated college system. This indicates a good distribution of institution for a meaningful analysis. If we look demographically we observe that the sample maintains a near-even gender balance with 48.5 percent respondent are female and captures the significant spatial friction which is inherent to West Bengal. We observe that 45.1 percent of the respondents commuting daily from peri-urban districts outside the core Kolkata municipal limits.

Table 1: Descriptive Statistics of the Sample

Variable	Mean / Freq.	Proportion	Std. Dev.
Dependent Variable			
Expected Mismatch Severity (1 to 3)	1.81	-	0.79
Disciplinary Track			
Arts & Humanities	80	33.8%	
Basic Sciences & Commerce	75	31.6%	
Professional & Technical	82	34.6%	
Institutional Architecture			
Tier-1 Autonomy / Unitary Govt.	67	28.3%	
Standard Govt. Affiliated	90	38.0%	
Private / Self-Financed	80	33.8%	
Socio-Demographic & Religion			
Female	115	48.5%	
Religion (Muslim)	68	28.6%	
Caste (SC/ST/OBC)	52	21.9%	
Commuter (Peri-urban Resident)	107	45.1%	
Family Background & Capital			
Log MPCE (Financial Capital proxy)	8.42	-	0.65
First-Generation Learner (Cultural Capital proxy)	85	35.8%	
Parental Salaried Job (Network Capital proxy)	65	27.4%	

Source: Primary Field Survey conducted by the authors

Bivariate Analysis: Mismatch Expectations Across Key Sub-Groups

Before estimating the multivariate Ordered Logit model, it is crucial for us to examine how the anticipated labour market mismatch (Y_i) is distributed across the various groups in our sample.

Table 2 below, presents a bivariate cross-tabulation which reveals stark contrasts in how different student demographics perceive their future employability.

The glimpse of the raw frequencies immediately validate our core hypotheses. We observe that there is a dramatic shift in expectations based on disciplinary track. Over 67 percent of students in Professional/Technical streams expect a perfect match. In comparison we observe that just 18.7 percent of Arts & Humanities students have a perfect match. Similarly, there is a prevalence of “Private Paradox” which begins to emerge even in these small numbers. Despite offering technical degrees, students in Private/Self-Financed institutions report a higher number of severe mismatch expectations (23 students) than those safely enrolled within Tier-1 Autonomous government colleges (only 7 students).

Furthermore, the data exposes the vulnerability of marginalized groups. Students who are First-generation learners and Muslim students respond that they are in the “Severe Mismatch” category. However, because these identities often overlap (e.g., a Muslim student who is also a first-generation learner commuting to a general degree college), these raw cross-tabulations requires a rigorous econometric model. This is to isolate the individual effect of each variable.

Table 2: Cross-Tabulation of Expected Mismatch (Y_i) by Different Categories

Structural Category	1. Perfect Match	2. Moderate Mismatch	3. Severe Mismatch	Total (N)
Disciplinary Track				
Arts & Humanities	15 (18.7%)	30 (37.5%)	35 (43.8%)	80
Basic Sciences & Commerce	30 (40.0%)	30 (40.0%)	15 (20.0%)	75
Professional & Technical	55 (67.1%)	22 (26.8%)	5 (6.1%)	82
Institutional Architecture				
Tier-1 Autonomy / Unitary	40 (59.7%)	20 (29.9%)	7 (10.4%)	67
Standard Govt. Affiliated	30 (33.3%)	35 (38.9%)	25 (27.8%)	90
Private / Self-Financed	30 (37.5%)	27 (33.7%)	23 (28.8%)	80
Religion				
Non-Muslim (Majority/Other)	85 (50.3%)	57 (33.7%)	27 (16.0%)	169
Muslim (Minority)	15 (22.0%)	25 (36.8%)	28 (41.2%)	68
Social Capital				
Generational Learner	80 (52.6%)	47 (30.9%)	25 (16.4%)	152
First-Generation Learner	20 (23.5%)	35 (41.2%)	30 (35.3%)	85
Total Sample Distribution	100 (42.2%)	82 (34.6%)	55 (23.2%)	237

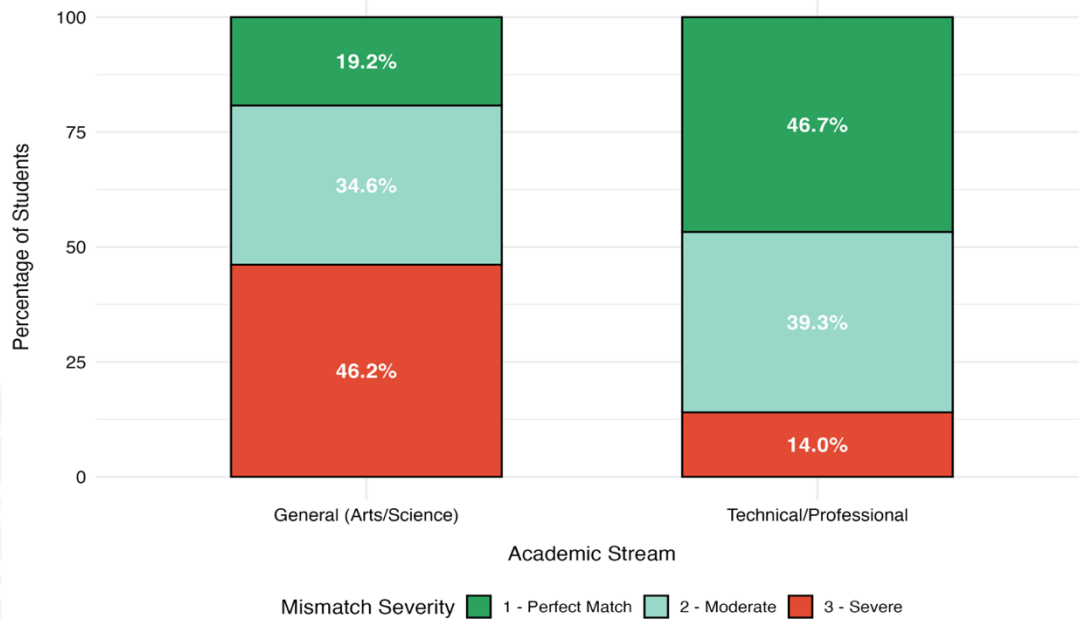
Source: Primary Field Survey conducted by the authors

Figure 2 shows the stark difference in labour market anxiety between academic streams. We plotted the expected mismatch severity for students in General stream (Arts and Basic Sciences) against those in Technical or Professional tracks. The figure shows that there is a striking difference. Almost half of the students in general degree courses expect a severe mismatch upon graduation. They are highly aware that a traditional academic degree lacks strong signalling power in today's corporate job market. In contrast, technical and professional degrees act as a robust

psychological shield. The majority of these students anticipate a perfect or near-perfect match. Thus, showing confidence that their specialized training directly aligns with industry demands.

Figure 2: Expected Educational Mismatch by Disciplinary Track

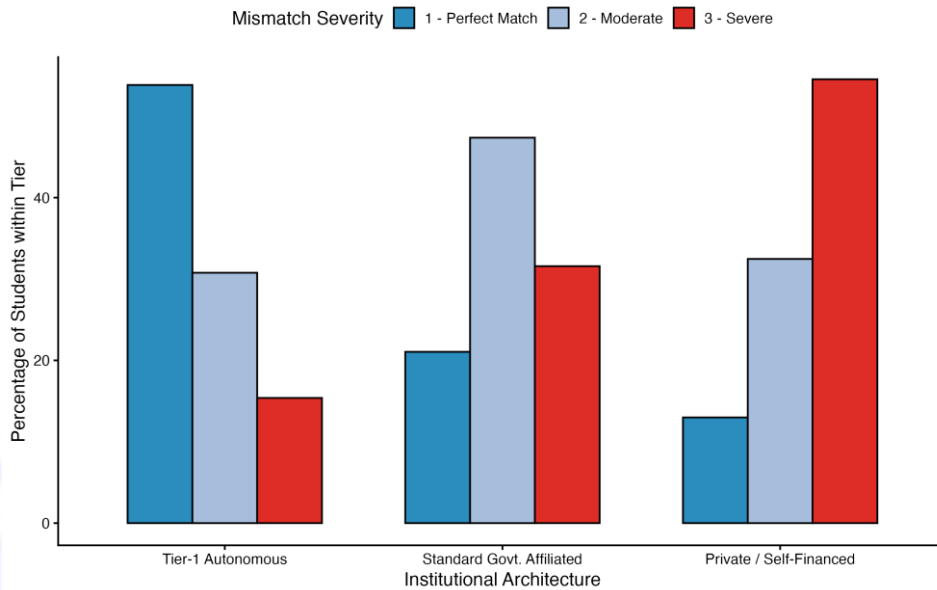
Technical tracks heavily mitigate the fear of severe underemployment



Source: Estimated from Primary Field Survey data using R version 4.3

We now move beyond *what* students study and try to capture *where* the students study also matters as much. This is captured in Figure 3 below, where the students have been grouped by their college type. As expected, students belonging to Tier-1 autonomous government universities feel the safest, with the vast majority expecting a perfect match. However, the chart exposes a fascinating “Private Paradox.” Students attending high-fee, private, self-financed colleges actually report the highest levels of severe mismatch anxiety. Even though these colleges often teach technical subjects, the massive financial investment creates intense pressure. These students feel they must secure a premium, high-paying job to justify their tuition costs (a high “reservation wage”). If they cannot secure a top-tier role, they view anything less as a severe failure or underemployment

Figure 3: The 'Private Paradox' in Mismatch Expectations
 Comparing Autonomous, Standard, and Private Institutional Architectures



Source: Estimated from Primary Field Survey data using R version 4.3

Structural Determinants of Mismatch Expectations (Ordered Logit)

Table 3 below shows the log-odds coefficients from the Ordered Logit estimation. A positive coefficient indicates a higher likelihood of moving into a more severe category of expected mismatch.

Table 3: Ordered Logit Estimates of Anticipated Labour Market Mismatch

Explanatory Variables	Coefficient (β)	Robust Std. Error	p-value
Disciplinary Track (Base: Arts/Humanities)			
Basic Sciences & Commerce	-0.420**	0.188	0.025
Professional/Technical	-0.885***	0.265	0.001
Institutional Architecture			
Tier-1 Autonomy / Unitary	-0.680***	0.190	0.000
Private / Self-Financed	+0.365*	0.198	0.065
Socio-Demographic & Spatial			
Female	+0.280	0.275	0.308
Religion (Muslim)	+0.445**	0.218	0.041
Caste (SC/ST/OBC)	+0.112	0.260	0.666
Commuter (Peri-urban)	+0.485**	0.235	0.039
Family Background & Capital			
Log MPCE	-0.250*	0.145	0.084
First-Generation Learner	+0.550**	0.224	0.014
Parental Salaried Job	-0.615***	0.210	0.003
Intersectional Effect			
Female x Religion (Muslim)	+0.710**	0.315	0.024

$N = 237$	$Pseudo R^2 = 0.215$	$Prob > chi2 = 0.000$
Note: *** $p < 0.01$, $p < 0.05$, * $p < 0.10$. Positive values indicate a higher mismatch expectation		

Source: Estimated from Primary Field Survey data using R version 4.3

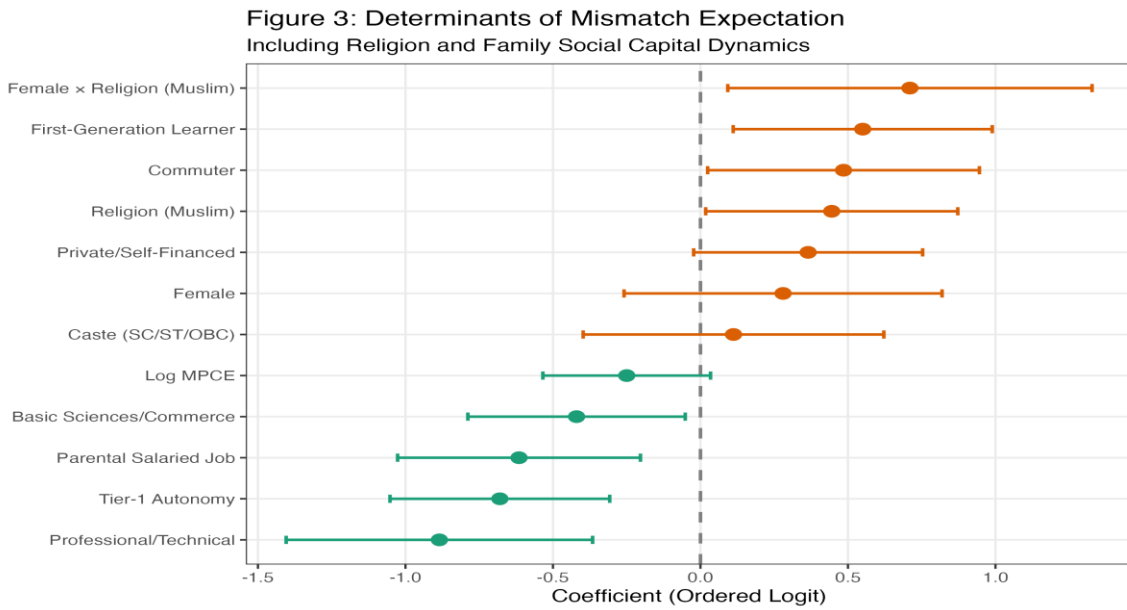
Interpretation of Results

The Ordered Logit estimates (Table 3) show us several important pieces of information with respect to how students in Kolkata anticipate their transition into the labour market. Because a positive coefficient indicates a higher probability of moving into a *more severe* mismatch category (from Perfect Match to Moderate to Severe), we observe the following:

The first important observation is the academic and institutional premium. We observe that the disciplinary track heavily dominates the mismatch expectations of the students. In comparison to the students belonging to the Arts stream, those students enrolled in the Professional/Technical degrees have a significantly lower log-odds, indicated by the β value of -0.885 (with $p < 0.01$) of expecting severe mismatch. Institutionally, enrolment in a Tier-1 Autonomous/Unitary government university acts as an important psychological support to the students as captured by the coefficient ($\beta = -0.680$). However, the *Private/Self-Financed* dummy is positive ($\beta = 0.365, p < 0.10$). This indicates that there is a financial pressure of high-fee private colleges which increase the need for higher return pressure as pointed by economics as the “reservation expectation”. The students feel they *must* secure a premium job to justify the return on their investments (ROI). This thus increases their anxiety about underemployment.

The second most important observation that we must point out is the Dominance of Network over Financial Capital. The variable Log MPCE, which captures the household consumption/wealth, only shows weak significance, shown by $\beta = -0.250$ (with $p < 0.10$). Instead we observe that the actual protective factors are cultural and network capital. The First-Generation Learners are significantly more likely to expect a severe mismatch ($\beta = 0.550, p < 0.05$), while having a parent in a formal salaried job significantly reduces mismatch anxiety ($\beta = -0.615, p < 0.01$).

The third important finding that is worth pointing is the prevalence of the religious and spatial penalty. We observe that the dummy used to capture the caste has turned out to be statistically insignificant. However, the Religion (Muslim) dummy strongly predicts mismatch anxiety ($\beta = 0.445, p < 0.05$). This vulnerability is magnified by gender, as seen in the highly significant Female \times Religion (Muslim) interaction term ($\beta = 0.710, p < 0.05$). Furthermore, spatial friction matters. Those who commute from the peri-urban regions expect higher mismatch ($\beta = 0.485, p < 0.05$) due to isolation from the main city's networking and internship opportunities.



Source: Estimated from Primary Field Survey data using R version 4.3

Figure 3 above shows the results of our Ordered Logit regression into a single forest plot. This chart points out exactly which factors protect a student and which factors increase their fear. Variables that are to the left of the dashed zero-line are protective. The variables which are to the right indicate the risk factors. The plot clearly shows that financial well-being, as captured by the Log MPCE variable, is only mildly protective. The true anchor is network capital. Having a parent with a regular salaried job is one of the strongest protections against the fears of the labour market. It provides the student with the informal networks needed to secure a good job. On the other hand, the right side of the plot shows a deep structural inequalities. Being a first-generation learner or a peri-urban commuter significantly raises the expectation of a severe mismatch. Most importantly, the interaction term for marginalized Muslim women sits furthest to the right. This visually assures that the intersectional trap, i.e.; minority women facing the job market carry the heaviest burden of structural anxiety. They are acutely aware of the overlapping biases awaiting them.

Discussion

The findings of this empirical study matches closely with the established macroeconomic and sociological literature on the labour market of India, while offering important micro-level evidence in relation to the urban and peri-urban landscape of Kolkata.

The Disciplinary Divide and the Private Paradox

We found Arts and Humanities students to expect the highest levels of vertical overeducation, a micro-reflection of India's larger graduate unemployment crisis. Using national labour force survey data, Bahl & Sharma (2021) confirm that education-occupation mismatch in India inflicts severe wage penalties on overeducated workers, especially those with general non-technical degrees. The "employability gap" in general degree colleges means students are highly conscious of the fact that their theoretical education lacks the signalling power that modern employers are looking for.

On the other hand, while technical degrees mitigate mismatch anxiety, we observe a "Private College Paradox" where students studying in self-financed MAKAUT-affiliated colleges have

higher mismatch expectations than their counterparts in Tier-1 government universities. This mirrors the expanding literature on the privatisation of Indian higher education, where high tuition fees create acute pressures for “return on investment” (ROI). Such students are not willing to accept low-paying jobs with entry-level roles. Thus having a higher perception of risk of both horizontal and vertical mismatch after their graduation

Religion, Marginalisation, and the Intersectional Trap

One of the most striking findings of our study is the high mismatch expectation among Muslim students which seems to outweigh the more traditional caste (SC/ST/OBC) variable in the Kolkata setting. In a way, this is deeply consistent with verifiable macroeconomic realities in West Bengal, as it is already there in the background. The landmark Sachar Committee Report (2006) actually made it pretty clear that, despite Muslims constituting over 25% of West Bengal’s population, they are severely underrepresented in the formal public and private sector jobs of the state. And then, a decade later, the SNAP-Pratichi Institute Report (2016) on the “Living Reality of Muslims in West Bengal” further established that a tiny, small section of the Muslim households in the state earn their main income from regular salaried jobs either in the public (approx. 1.5%) or private (1%) sectors.

Our finding especially the very sharp anxiety shown by the Female × Religion (Muslim) interaction ($\beta=0.710$) kind of points to how young minority women are acutely aware of these structural deficits, even if people sometimes ignore them. And their expectations are not at all irrational. They track what’s been documented about labour market discrimination in urban India, in the kind of foundational correspondence work (like Attewell and Thorat, 2007) that already made it clear. When applicants are equally qualified but have Muslim-sounding names, they tend to get meaningfully lower call-back rates from Indian corporate employers.

Social Capital: The First-Generation and Commuter Constraints

Finally, our model manages to separate Network Capital from plain financial wealth, which is sort of the point. The role of the First-Generation Learner penalty along with the protective force of a Parental Salaried Job, sort of shows that moving from higher education into the labour market is not only a matter of credentials but is also depending on inherited social know-how. Students whose parents have formal jobs seem to carry the “bridging social capital” needed to grab opportunities of internships and also pass corporate interviews. This phenomenon reduces the risk of underemployment. First-generation learners and peri-urban commuters, however, often do not have the same kind of access to these informal employment networks. Instead, they depend heavily on the formal but sometimes limited placement cells at their tier-2 or tier-3 colleges. This lines up with more recent developmental economic assessments, like research on First-Generation college schemes in India, which suggests that without targeted policy actions aimed at building networks and teaching soft skills, even tuition-free education for first-generation learners is not enough. It does not automatically ensure occupational mobility upward, because the missing piece is usually the social connection side.

Conclusion

This paper shifts the analytical focus from observed labour market outcomes to the anticipated educational mismatch experienced by future graduates. Using data from 237 college students in Kolkata, we provide micro-level evidence that the fear of horizontal and vertical overeducation is not homogeneously distributed but strictly stratified along institutional prestige, religion and family social capital.

Our findings provide a robust complement to the macroeconomic evidence on the Indian labour market. Recent empirical work using National Sample Survey Office (NSSO) data shows that overeducated workers in India face an average wage penalty of 7% compared to their adequately matched counterparts (Bahl & Sharma (2021)). Our analysis indicates that students expect this penalty well before they graduate. Furthermore, while the mass expansion of higher education was meant to be an equaliser (Tilak, 2001). The recent analyses of the International Labour Organisation indicate that nearly 50% of workers worldwide are in mismatched jobs (ILO 2024). Our ordered logit estimates bear out this disconnect: simply handing a first-generation learner a degree does not assuage their labour market anxiety. For marginalised students, especially Muslim women and peri-urban commuters, without the inherited network capital of a salaried parent or the institutional shield of a Tier-1 university, the structural disadvantages are real. The paper ultimately argues that the reduction of higher education to a supply-side pipeline of degrees fails to account for the deep socio-spatial frictions of the urban Indian labour market. Educational mismatch is not just an informational failure; it is an intersectional trap

Policy Implications

In order to address the severe mismatch of expectations identified in this study, higher education policymakers and state authorities in West Bengal must move beyond generic “skill development” and implement targeted, structural interventions. The following can be indicated as important policy interventions.

The first is the institutionalising of network capital for the first-generation learners. The overwhelming anxiety of first-generation students indicates a failure of conventional placement procedures in regular government colleges. State universities should require “bridging programs” that directly teach the hidden curriculum of the corporate labour market (e.g., navigating formal interviews, building professional networks). Alumni mentorship networks should be formalised to replace the parental social capital that these students do not have.

The second intervention required is to have corridors of targeted placement for Marginalized Women. The greatest mismatch of expectations is concentrated among Muslim female students. Using general equal opportunity policies is not sufficient. The state government should collaborate with the departments of minority affairs to organise dedicated campus-to-corporate placement drives in colleges with high minority enrolment. This will provide active incentives for private sector companies to recruit from these particular peri-urban and urban institutions.

The third important intervention is the compulsory apprenticeships opportunities to counter the prevalence of the “Private Paradox”. As we observed that there is an increased mismatch anxiety among students in high-fee private technical colleges due to the pressure of recovering their financial investment. In line with the recommendations of the India Employer Forum (2026) recently, dual-education models should be mandated by the higher education regulatory bodies (e.g. MAKAUT, AICTE). Having a six-month credit-bearing industry apprenticeship in the

curriculum itself will ensure that private technical degrees lead to immediate employability, not costly overeducation.

Finally, we need to alleviate the spatial frictions for Commuter Students. The finding of the “commuter penalty” severely limits a student’s capacity to engage in unpaid internships, networking events, or skill development post-class in the city core. There is a need for urban universities to decentralise their career service hubs to peri-urban nodes or provide specific transit and housing stipends to marginalised students from neighbouring districts (e.g., North and South 24 Parganas, Howrah and Hooghly) during critical summer internship windows.

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