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Original Article

From Decline to Re-emergence: State-Level Dynamics of Private Tutoring in India

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Abstract: The private tutoring phenomenon has re-surged from a decline in 2017-18 in India. Its prevalence was 26 percent in 2014; after a modest decline, it increased to 27 percent in 2025 at the school level in India. More importantly, it has increased in eastern states, which already witnessed a high prevalence of private tutoring. Although its prevalence has not increased significantly from the 2014 level, its economic cost has surged substantially, as reflected in average tutoring expenditure and the economic burden. Furthermore, the structure of the tutoring market has remained relatively unchanged over time. The high value of the rank correlation coefficient indicates that the relative position of states has remained stable over time in terms of the attributes of private tutoring. However, a moderate value of the coefficient of variation indicates the existence of structural inequalities in private tutoring phenomena across states in India. Though we witness some anomalies, the variation slightly declined over a decade.

Furthermore, the variation is more drastic in prevalence, moderate in tutoring expenditure, and low in economic burden; the Rural region shows more variation than its urban counterpart in all attributes of private tutoring in India. The increasing economic burden is a concern for poorer states. A complete ban on private tutoring is not a viable solution, as it incurs a monitoring cost and may not be effective. The governments may provide targeted youchers or cash transfers to students belonging to marginalised sections of society so that they are not left behind in the journey of educational mobility.

Keywords: Private Tutoring, Private Tutoring Expenditure, Economic Burden Of Private Tutoring, Rank Correlation, Coefficient of Variation, India.

I. INTRODUCTION

The term "shadow education" was coined to describe fee-based teaching-learning activities (see Stevenson & Baker, 1992; Dang & Rogers, 2008), which occur outside the formal channels of the mainstream education system but within the same curriculum (Bray & Kwok, 2003). Such teaching activities are assumed to enhance students' educational achievement (Buchhman et al. 2011) and to facilitate students' educational mobility. It is evident from the definition that the primary motivation for using private tutoring is to gain a competitive edge in the educational process. Private tutoring can be considered an enrichment strategy in this regard. According to Rational Choice Theory, households make the best choices among the available educational options, considering the expected costs and benefits, within the context of the prevailing education system and their social status in society (Entrich, 2017, p. 76). Therefore, households with high socioeconomic status would invest in private tutoring, hoping for net positive benefits and to avoid downward social mobility. The empirical evidence largely supports this hypothesis. Purchasing power, social identity, and educational level of parents have been identified as positive and significant determinants of private tutoring in various countries, including Turkey (Tansel and Bircan, 2006), Vietnam (Dang, 2007), India (Azam, 2015), Poland (Safarzynska, 2011), and Japan (Matsuoka, 2015).

On the other hand, its prevalence may be driven by the poor quality of schooling, reflecting a *supplementation strategy* where students opt for tutoring to supplement or remedy the learning gap through private tutoring. Some school-related factors behind the supplementation strategy found in the literature are: syllabus not completed on time and class lectures not understandable (Chingthem & Sharma, 2015), and seeking assistance with homework (Bray & Kwok, 2003). Thus, it has a dual nature of enrichment as well as supplementation, which may exist in the same or distinct locations within a region.

The supply side of private tuition has been poorly addressed in the literature in India. A government document from West Bengal reports a range of such providers, including college students, educated unemployed youth, regular teachers, and professionals (SCERT, 2009). Regular, well-paid teachers also indulge in this business when the monitoring of the public education system is low (Jayachandran, 2015). These agents (university professors, lecturers, and school teachers) are often engaged in preparatory courses at the higher secondary level, whose score determines the entry into a good university, technical, and professional programmes (Borodchuk, 2011). In recent times, commercial coaching centres have been changing their functioning to provide a range of allied services, including their own books and study materials based on the school curriculum,



test series, and library facilities. In these classes, specialists, professionals, or regular teachers from schools or colleges provide tutoring services.

Private tutoring is an unintended phenomenon resulting from growing educational aspirations of parents, as well as deteriorating school quality. It harms both mainstream schooling and society. It creates not only the inequality of opportunities but also undermines the mainstream schooling system. So, it warrants an appropriate intervention to achieve the goal of equity and relevance of mainstream schooling. A significant body of literature on private tutoring from secondary data in India has focused on macro-level determinants (Agrawal, Gupta & Mondal, 2024; Azam, 2017; Kumar and Chowdhury, 2021) and outcomes of private tutoring (Dongre & Tewary, 2015; Kumar and Srivastava, 2021; Kumar and Chowdhury, 2023).

On the other hand, the literature from the primary survey provides that a few states provide deeper insights into the attributes of private tutoring. Furthermore, the NSS reports on education itself reveal the prevalence and expenditure on private coaching at both the aggregate and state levels. However, they lack estimates for school education as a whole, and they miss its temporal dynamics.

The present article distinguishes itself from those focusing on spatial-temporal dimensions of private tutoring. The objective of the article is to examine the extent of disparity in private tutoring phenomena across states and whether they have converged or diverged over time. The analysis has been conducted across three attributes of private tutoring: Private Tutoring Prevalence (PTP), Private Tutoring Expenditure (PTE), and Economic Burden of Private Tutoring (PT).

The organisation of the paper is structured as follows: Section 2 presents a survey of the literature on regional disparities in the attributes of private tutoring. Section 3 outlined the data source and methods. Section 4 analyses the dynamics of private tutoring attributes across Indian states. Section 5 investigates the association among the attributes as well as over time, and Section 6 concludes.

II. LITERATURE REVIEW

Though Private tutoring has become a global phenomenon in the educational landscape, significant heterogeneity has been observed. While it has been internalised in East Asian countries, South Asia, Japan, South Korea, Taiwan, and Singapore, countries like China are witnessing similar trends in terms of prevalence, intensity, and expenditure. Xue & Ding's (2008) findings suggest that 66 (53) percent of lower (upper) secondary students have private tutoring in urban China. However, it varies across regions, education levels, and subjects. Zhang (2011) finds a comparatively lower take-up rate of tutoring among higher secondary students in Jinan province, China, with Mathematics being the most tutored subject. Similarly, Ngai & Cheung (2010) found that 72 percent of upper primary students in Hong Kong availed themselves of tutoring services.

Eastern European and Central Asian Countries are another bloc that witnesses the highest prevalence of private tutoring. In Turkey, parental investment in private tutoring is estimated to account for 1.4 percent of the country's GDP (Tansel and Bircan, 2006). The transition from the socialist era to the free market era gave rise to a boom in private tutoring institutions. It has been reported that shadow education in various countries has been studied among first-year university students who received any form of private tutoring during their secondary education. The finding suggests 93 percent in Azerbaijan (Silova & Kazimzade, 2006), 76 percent in Georgia (Matiashvili & Kutateladze, 2006), 59 percent in Kazakhstan (Kalikova & Rakhimzhanova, 2009), and 52.5 percent in Kyrgyzstan (Bagdasarova & Ivanov, 2009).

The South East Asian countries, including those on the Indian subcontinent, comprise the third block of the world, which experiences a significant prevalence of private tutoring. Most of the literature uses the nomenclature coaching/tuition for private tutoring in these regions, and their studies have shown its modest presence. According to the Household Expenditure Survey, Kenaythulla (2013) reports that 20 percent of households incur expenditure on private tuition for any level of education in Malaysia. In Nepal, Jayachandran (2015) found that 49 percent of government and 51 percent of private schools received tutoring, as indicated by the school survey. On the other hand, 68 percent of Class 10 students received tutoring. In Pakistan, a report (ASER, 2013) shows that 34.5% (11.3%) of urban (rural) students received private coaching in elementary education. Furthermore, Pallegendra (2012), analysing the Household survey data in Sri Lanka, finds 64 percent of households reported positive expenditure on tutoring.

The advanced countries of North America and Western Europe, as well as the Emerging countries of Latin America and Africa, exhibit low prevalence (Aruni and Davis, 2004 in Canada, Ayieko, 2014 in Nigeria, Safranyaka, 2013 in Poland, Smith, 2008 in Ireland). Although a little literature on this topic has been found in North America and Latin Africa, a growing body of literature on the topic in Western Europe is indicative of its increasing visibility. To sum up, private tutoring has established a sizable market, mostly in Asia and Europe, although its presence can be seen across the world.

Where can India be in this context? At the aggregate level, more than a quarter of students opted for any kind of private tutoring in 2014, which declined to about one-fifth in 2017-18 (Kumar and Chowdhury, 2021). The decline appears to be driven by increasing enrollments in private schools, especially in urban parts of the country (Sukumar, 2012, August 12). The latest NSS report on education indicates that the percentage increased to 27 percent. So, India can be placed at the bottom among South Asian countries in this regard, but its spatial variation is also very high - a few states record its prevalence as high as 80 percent, while a few others have less than 10 percent. Secondary data puts limits on the assessment of its various features and changing shape. A few primary surveys, especially in states with a high take-up rate of tutoring, suggest that parental aspiration and perceived deterioration of school quality are the major reasons for its demand (Chingthem & Sharma, 2015 in Manipur). On the supplier side, it includes individuals such as college-going students to university professors and other professionals (SCERT, 2009). During the Covid-19 pandemic, a 'new tutoring market' has emerged in the form of online tutoring, where edu-tech companies have emerged as new players operating independently or in private-public partnership (Sharma, 2021).

III. DATA AND METHODS

A) Data

We examine the first and part of the fourth objective through the secondary data analysis. For the first objective, a pooled data of two rounds of national representative survey, namely, National Sample Surveys (NSS), 71st round (2014) and 75th (2017-18), corresponding to schedule number (25.2). Both rounds are based on randomized, nationally representative samples of 65,926 households and 93,515 individuals currently attending any educational institution. Both rounds collects comprehensive background information on households' socio-economic and demographic profile, apart from detail information on education including; level of current attendance, type of educational institutions by management, details of benefits received, if any, such as, free study materials and mid-day meals, fee waived, scholarship, concession on transport and detail components of private educational expenditure (school/college fees, expenses on books, stationary, uniform, transport, private tuition and others) of each member of households in age groups 5-29 year and 5-35 years respectively. However, the 80th round is a comprehensive modular survey (CMS) that has focused on only school education (including pre-schooling). For data comparability, we have considered only those students in the sample who are attending any educational institution from primary to higher secondary education, i.e., school education. The PTEs of 2014 and 2017-18 have been adjusted to the current price of 2025 using the price index.

B) Methods

The present paper uses descriptive measures to measure the prevalence of private tutoring. The scale of private tutoring is estimated as

Scale of Private Tuition =
$$\frac{\text{Proportion of students participating in private tutoring}}{\text{Total students attending any educational institution}} \times 100$$

Furthermore, the average expenditure on tutoring has been estimated for reported students. In contrast, the economic burden of tutoring has been estimated as a proportion of expenditure on private tutoring to household consumption expenditure, and expressed as a percentage.

Economic Burden of Private Tuition
$$\frac{\text{Expenditure on private tutoring}}{(\text{Per capita monthly consumption Exp.} \times 100} \times 100$$

For the analysis of states' dynamics, various data visualization techniques, including bar graphs, box plots, and bubble plots, have been used. To measure state-level variability in scale, average expenditure, and economic burden of tutoring, the coefficient of variation has been estimated for all three rounds of NSS. It tells us about whether the attributes of private tutoring are converging or diverging across states.

Coefficient of variation
$$\frac{Mean(\overline{X})}{Standard\ deviation(\sigma^2)} \times 100$$

The mean (\overline{X}) The percentage of students receiving private tutoring at the national level, then, the standard deviation can be defined as

$$\sigma^2 = \sqrt{\frac{(\bar{X} - X_i)^2}{n}}$$

Where X_i What is the percentage of students receiving private tutoring in this state? n is the number of states (32), including the union territories of mainland India, namely, Delhi, Puducherry, and Chandigarh.

Additionally, Spearman's rank correlation coefficient has been estimated to examine the relationship between attributes of private tutoring over time periods.

$$\rho_s = 1 - \frac{6\sum_{i=1}^n d_i^2}{n(n-1)^2}$$

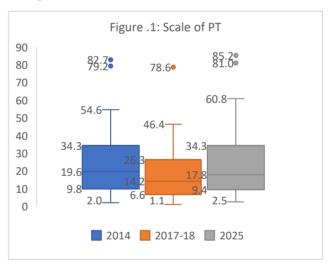
Where n is the number of states=32, the difference in the rank of a state in two NSS rounds for any attributes of private tutoring.

IV. RESULTS AND DISCUSSION

This section presents the results of three rounds of NSS across the Indian states in various dimensions and analyzes the dynamics in the spatial pattern of private tutoring. First, it maps the prevalence, average expenditure, and economic burden of private tutoring across states from 2014 to 2025. Subsequently, it analyses the statistical measures- correlation and coefficient of variation to infer about spatial dynamics.

A) Prevalence of Private Tutoring

The box plot in the figure shows that private tutoring was already a widespread phenomenon in 2014, with wide spatial disparity. The median proportion of tutoring was 19.6 percent, indicating that in at least half of the states, nearly one-fifth of the student population received private tutoring. The interquartile range (IQR), which measures the middle 50 percent of states, spanned from about 9.8 percent to 34.3 percent. This widespread demonstrates the uneven prevalence of tutoring across Indian states. While some states reported very low levels of participation (as little as 2 percent), others had exceptionally high levels, with outliers reaching 79 to 83 percent. By 2017–18, the distribution shifted downward. The median dropped to about 12.2 percent, showing that overall reliance on tutoring had declined. The IQR narrowed slightly, with participation clustering between 6.6 percent and 26.3 percent, but spatial inequality in the prevalence of tutoring persisted. The most recent data of 2025 suggest a resurgence in tutoring participation. The median climbs back to 17.8 percent, nearly reaching the 2014 level, and IQR widens once again, spanning from 9.4 percent to 34.3 percent. The uppermost range of participation shifts slightly upwards from 2014; these states with PTP registered further growth.



a. State-wise Dynamics of PTP

This section is an extension of the previous one and presents a detailed analysis of the spatial-temporal dynamics of PPT across states. The figure below shows the details of the scale of private tutoring and changes in the prevalence. For clarity, the data of the most recent year, 2025, have been depicted. Apart from Delhi, there is a pervasive concentration in eastern states, namely, Jharkhand, Manipur, Bihar, West Bengal, and Tripura. In fact, it has been normalised in the society of the latter two states. One of the possible reasons can be contextualise in the high prevalence of government schools with poor quality of schooling, which is also reflected in their low educational index (NEUPA, 2014). On the other hand, North-East states, except Manipur and Tripura, witness low prevalence of PPT. Interestingly, other states, namely, Chhattisgarh, Rajasthan, Himachal Pradesh, and Telangana, also show a low level of PPT. It might be that the difficult geographical terrain shows lower PPT, while Himachal Pradesh also performs better in educational performance. The southern states have a moderate level of PPT, but above the median range. One of the possible reasons is the better schooling and high prevalence of schooling, as private schools' students have less tendency to attend private tutoring (Kumar and Chowdhury, 2021). Along the temporal dimension, a little variation can be observed in the prevalence of tutoring in the three NSS rounds, except in the case of two union Territories (UTs), namely Puducherry and Chandigarh, where it declined extremely, and two states. It implies that

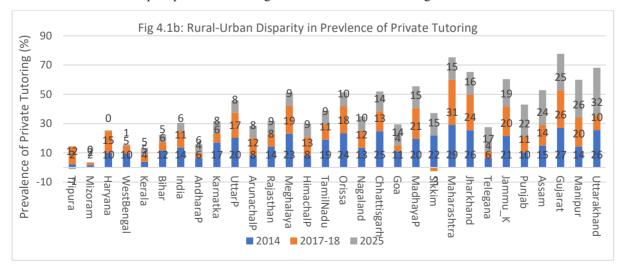
Figure 4.1a: Temporal Dynamics of Prevalence of Private Tutoring across States Diff. 2025 to 2017-18 Diff.(2017-18)-2014 2017-18 2025 85 90 70 57 50 50 23 24 ²⁶ ²⁹ 29 30 13 13 13 ¹⁵ 10 UttarP Tripura Telegana Delhi ArunachalP Mizoram Chhattisgarh Meghalaya Haryana amilNa<mark>d</mark>u Sikkim Nagaland Uttarakhand Assam Kerala Chandigarh Manipur Orissa WestBengal Jharkhand Rajastha Himachal Andharal Madhaya Punja Maharashtr Karnatk Gujara Jamma

structural inequality in PT has not changed over time. On the other hand, Goa and Eastern states have registered significant growth in PPT.

The finding is largely consistent with ASER report 2021, which records a surge in eastern states of Nagaland, Tripura, West Bengal, and Bihar (Bhatnagar, 2021, Nov 17). Tamil Nadu and Karnataka, where it moderately declined in 2017-18. The possibility that they may have switched to online platforms for learning. On the other hand, Sikkim, Nagaland, and Assam witnessed an incline. But all major states witnessed a decline in the prevalence of private tutoring, and this was also true at the national level. But, during the previous 7 years, the private tutoring among school-going students has re-surged in 2025.

b. State-wise Regional Dynamics of PTP

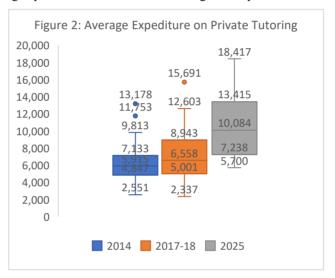
The Rural-urban divide in the prevalence of private tutoring is narrowing at the national level, decreasing from 12 percentage points in 2014 to 11 percentage points in 2017-18 and further reduced to 6 percentage points in 2025. After a decade, it has shown declining trends in most the states. The disparities were pronounced in Maharashtra, Gujarat, Jharkhand, and Uttarakhand in 2014, pointing to entrenched structural inequalities. Conversely, northeastern states such as Tripura and Mizoram reported the least disparities, suggesting a more balanced spread of tutoring access. Further, this disparity in Manipur and Uttarakhand has worsened between 2014 and 2025. The data on rural—urban disparity in PPT across Indian states between 2014 and 2025 reveals a complex picture of convergence in most states and divergence in a few others.



While at the national level disparity has declined, state-level variations remain wide despite a modest decline in major states, reflecting the uneven pace of educational development, parental attitudes, and access to private tutoring facilities.

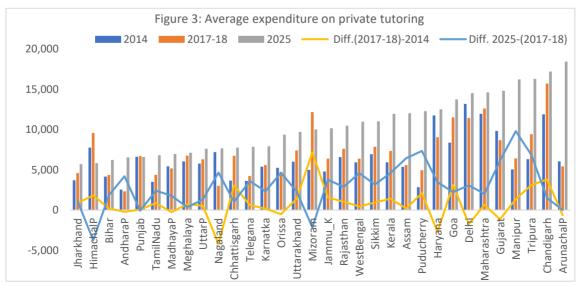
B) Expenditure on Private tutoring

The average expenditure per household shows not only the financial pressure but also the rising cost of PT over time. Data for 2014, 2017–18, and 2025 reveal a steady and significant upward trajectory in tutoring expenses. In 2014, average household spending on private tutoring was relatively moderate. The median expenditure of the median state was about ₹4,847, while the interquartile range (IQR) spanned from ₹2,551 to ₹7,133. This distribution indicates that the majority of households spent between three and seven thousand rupees annually on tutoring. In the top quartile states, households spent as much as ₹9,813 to ₹11,753, with outliers reaching beyond ₹13,000. By 2017–18, not only did the median of average expenditure rise sharply, but the gap between high and low spenders' states also widened. The expenditure for 2025 suggests an even more pronounced escalation. The expenditure on private tutoring of the median state is about ₹7,238, while the IQR stretches from ₹5,700 to ₹13,415. This represents a substantial increase compared to previous years. More strikingly, the top quartile of households could spend upwards of ₹18,000, reflecting both inflationary pressures and the commercialization of tutoring services. It seems that private tutoring is poised to become one of the largest components of household educational expenditure.



a. State-wise Dynamics of Average PTE

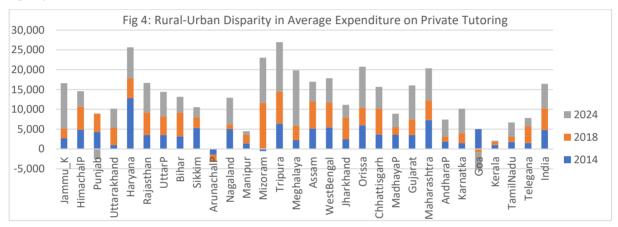
State-level expenditure data between 2014 and 2025 reveal both consistent patterns and stark divergences that reflect underlying socio-economic and educational contexts. We observe drastic changes in 2025, but considering the expenditure together, it can be observed that the PTE is higher for richer states having a moderate level of tutoring. Maharashtra, Gujarat, and Goa, Delhi, and Chandigarh stand out as consistently high-expenditure states.



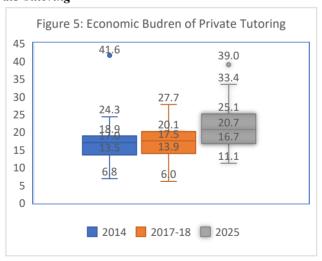
The southernmost states consistently remain low-expenditure states, reflecting perhaps stronger in contrast to the fact that they are comparatively richer states. One possibility is that the tuition take-up rate may be more prevalent among low socioeconomic backgrounds of families in states. The eastern region, represented by Bihar, Jharkhand, Odisha, and West Bengal, along with the North East states, reveals the lowest PTE in the first two NSS rounds, pointing to affordability constraints. However, Manipur, Tripura, and Arunachal Pradesh have become some of the leading states by 2025, all surpassing the upper quartile range of 13 thousand. The states located in the north and central regions have a moderate level of PTE. These states exhibit moderate levels of expenditure, with temporary surges and declines. This suggests that while tutoring is present, its intensity is not as structurally embedded as in northern or western India.

b. State-wise Rural-Urban Dynamics of PTE

The regional disparity in PTE is, again, largely reflected in worsening in small North-East states, with Orissa and Jammu & Kashmir. Other North and central regions show a moderate level of rural-urban disparity. Surprisingly, disparity in poor states like Manipur, Jharkhand, and Bihar, Andhra Pradesh, and Telangana can be clubbed into states having the lowest rural-urban disparity of PTE. Goa and Arunachal Pradesh show persistent reverse disparity of PTE, while Punjab shows a reversal of disparity in 2025.



C) Economic Burden of Private Tutoring

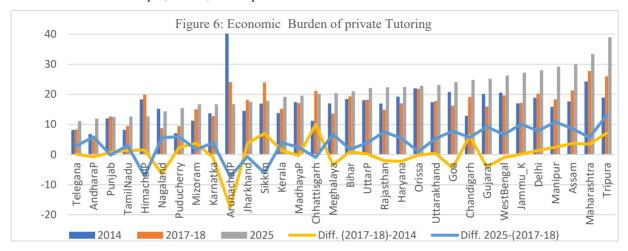


In 2014, the economic burden of tutoring was relatively modest but already visible. The median household spent around 13.5 percent of its total consumption expenditure on private tutoring. The interquartile range (IQR) spanned from 9.8 percent to 18.9 percent, suggesting that the middle 50 percent of households devoted between one-tenth and one-fifth of their budgets to tutoring. At the lower end, some households spent as little as 6.8 percent, while others reached much higher levels, with outliers spending over 41 percent of total household expenditure on tutoring alone. This indicates that for certain families, tutoring represented an overwhelming share of consumption, potentially crowding out spending on essential needs such as food, healthcare, or housing. By 2017–18, the burden of tutoring showed a slight upward shift, reflecting the growing pressure to invest in supplementary education without any outliers. It indicates a reduction in extreme cases of very high spending, but a general

broadening of the financial pressure across more households. In 2025, a sharp escalation in the economic burden of tutoring expenditures. The median rises to 16.7 percent, and the IQR widens significantly to cover 11.1 percent to 25.1 percent. This widening distribution signals that for many households, tutoring will account for an even larger portion of total expenditure. At the upper range, spending reaches 33 percent, and in some outlier cases nearly 39 percent, underscoring how private tutoring could become one of the single largest expenditure heads for families after food and housing.

a. State-wise Dynamics of Economic Burden of PT

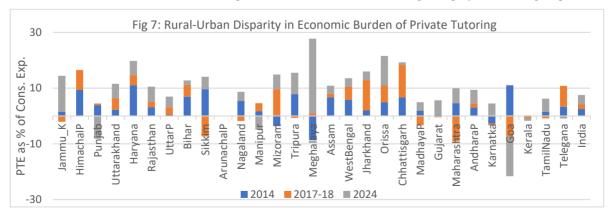
Andhra, Telangana, and Tamil Nadu witness the least incidence of the economic burden of PT. The north and north-central region stands in the middle 50 percent, while the western central states appear in the top quartile states, along with a few Northeast states of Manipur, Assam, and Tripura.



Along the temporal dynamics, the economic burden of PTE is most stable in 2014 and 2017-18 across the states, while a few states observed a surge in 2025, namely Jammu and Kashmir, Manipur, Assam, and Tripura.

b. Rural Urban Dynamics of the Economic Burden of PT

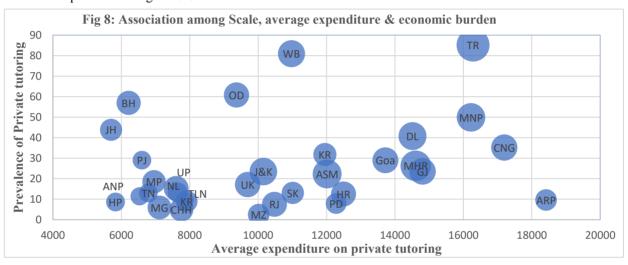
The data on urban—rural disparity (U-R Disparity) reveals that at the national level, differences between urban and rural areas have remained relatively modest, but across states, the pattern is highly uneven and increasingly volatile over time. At the all-India level, disparity stood at 2.5 in 2014, fell slightly to 1.8 in 2017–18, and then rose again to 3.2 in 2025. This suggests that, on average, the gap between urban and rural areas is not very deep. However, some outliers can be clearly seen. Meghalaya jumped from a negative value of –8.7 in 2014 to as high as 26.7 in 2025. Puducherry and Jammu & Kashmir also witnessed steep increases in disparity, while Odisha recorded steady growth, reaching 10.5 by 2025. Himachal Pradesh and Kerala also converged towards near-zero or negative levels. Some states remained relatively stable with moderate disparities. Uttar Pradesh showed a mild increase over the period, while Bihar and West Bengal displayed declining disparities.



Andhra Pradesh also recorded only marginal changes, keeping disparity at relatively low levels. Taken together, the picture suggests that while the national average disparity remains low, the variation across states is expanding. Some states are witnessing rural areas catching up with or even surpassing urban areas, whereas others are experiencing a widening urban advantage.

D) Relation Between Scale, Expenditure, and Economic Burden of Pt

This section investigates how the three attributes of private tuition relate to each other across Indian States using a bubble plot where the size of the bubble shows the economic burden of the tutoring. It is showing a horizontal movement of prevalence of private tutoring, with tutoring expenditure indicating a low level of association between the two attributes. Among the high states of high incidence of tutoring, only Tripura has a high level of private tutoring expenditure. Further, the average expenditure on tutoring is recorded in richer states of Goa, Gujarat, Maharashtra, Delhi, and Chandigarh. Arunachal Pradesh and Manipur, with the highest expenditure on tutoring but low economic burden of tutoring, might seem to reflect that tutoring is only observed by households belonging to the upper economic class. The poorest states of Jharkhand and Bihar, with a high scale of tutoring but low economic burden, show that the tutoring phenomenon is more frequently utilised by poor and middle strata of society. The other richer states like Punjab, Karnataka, and Tamil Nadu also show low average expenditure and low economic burden, despite being richer states, showing a similar line. We observe the weak correlation between scale and average expenditure on tutoring, which implies that economic expenditure doesn't move in the same direction. The rank correlation coefficient shows a weak correlation (0.48) between scale and economic burden, while there is a strong association between expenditure and the economic burden of private tutoring in 2025.



V. GEOGRAPHICAL DIVERGENCE or CONVERGENCE

The persistence and transformation of private tutoring across Indian states can be examined through rank correlations and the coefficient of variation over time. Rank correlation measures the degree to which the relative positioning of states remains stable, thereby capturing the temporal consistency of tutoring attributes such as prevalence, average expenditure, and economic burden. The data indicate a high degree of stability in the prevalence of tutoring across states. The correlation between 2014 and 2017–18 is 0.864, and it rises further to 0.94 between 2017–18 and 2025. Even over the longer horizon of 2014 to 2025, the correlation remains strong at 0.87. In contrast, average expenditure on tutoring exhibits weaker temporal consistency. The correlation between 2014 and 2017–18 is moderate at 0.714, but it drops sharply to 0.537 between 2017–18 and 2025, and further declines to 0.467 over the decade-long span of 2014 to 2025. This pattern suggests that household spending on tutoring is far more fluid, with states changing their relative positions over time. The story of economic burden, which reflects the share of household resources devoted to tutoring, is similar to that of prevalence. These moderate-to-strong values suggest that while states tend to preserve their relative position in terms of burden, there is more room for reordering than in the case of prevalence.

Table 1: Temporal Dynamics of Rank Correlation of the Tutoring Attributes										
	Prevalence Average Expenditure Economic B									
(2014, 2017-18)	0.864***	0.714***	0.656***							
(2017-18, 2025)	0.937***	0.537**	0.703***							
(2014, 2025)	0.873***	0.467**	0.729***							
Source: Author's e	Source: Author's estimation from various NSS rounds									

The coefficient of variation of private tuition attributes across Indian states highlights whether they have diverged or converged over time. The *scale* of private tuition shows substantial volatility, with its dispersion across states rising from 75 in 2014 to 92.2 in 2017-18, before falling back to 74.7 in 2025 (table 4.5a). This indicates that while inequalities in tuition prevalence widened in the mid-period, they have since narrowed, suggesting a possible convergence in participation across states in recent years. In contrast, *average expenditure* exhibits relatively moderate variability. The coefficient of variation was 45.5 in 2014 and

46.6 in 2017-18, followed by a decline to 40.1 in 2025. This downward trend points towards a reduction in interstate disparity in household spending on private tuition, implying that expenditures are becoming more evenly distributed across the country.

The case of *economic burden* shows a sharper pattern of convergence. From a relatively high variation of 34.6 in 2014, it declined to 27.0 in 2017-18, before inching up to 28.8 in 2025. Even with the slight rebound, the overall dispersion remains lower than in the initial period, reflecting that the relative strain of private tuition on household budgets has become more uniform across states. Taken together, the evidence suggests that while the prevalence of private tuition initially became more unequal before converging again, expenditure and economic burden have steadily moved towards greater homogeneity. This convergence may reflect broad structural changes, such as rising parental aspirations and growing similarities in the way the private tutoring market integrates into household budgets across diverse states.

Table 2: Coefficient of Variation of various attributes of private tuition of Indian states											
Years	2014 2017-18 202										
	All	R	U	All	R	U	All	R	U		
Scale	75	85.3	54.4	92.2	106.2	70.2	74.7	80.9	65.5		
Average Expenditure	45.5	57.3	38.5	46.6	60.3	34.5	40.1	60.3	32.7		
Economic Burden	34.6	47.5	28.6	27	35.5	28	28.8	32	32.5		
Source: Author's estimation from various NSS rounds											

VI. CONCLUSION

The private tutoring phenomenon has re-surged from a decline in 2017-18 in India. Its prevalence was 26 percent in 2014; after a modest decline, it increased to 27 percent in 2025 at the school level in India. More importantly, it has increased in eastern states, which already witnessed a high prevalence of private tutoring. Though its prevalence has not increased much from the 2014 level, its economic cost has significantly surged, as reflected in average tutoring expenditure and the economic burden. Further, the structure of the tutoring market has not changed much over time. The high value of the rank correlation coefficient indicates that the relative position of states has been stable over time in the attributes of private tutoring. However, a moderate value of the coefficient indicates the existence of structural inequalities in private tutoring phenomena across states in India. Though we witness some anomalies, the variation slightly declined over the previous decade. Furthermore, the variation is more drastic in prevalence, moderate in tutoring expenditure, and low in economic burden; the Rural region shows more variation than its urban counterpart in all attributes of private tutoring in India. The increasing economic burden is a concern for poorer states. The complete ban on private tutoring is not a solution, and it exerts a monitoring cost and may not be effective. Recently, the Ministry of Education has issued guidelines regarding infrastructure, class hours, counsellor support, false promises of success, etc., for the registration of coaching centres with 50 or more students (MoE, 2024). Though it doesn't restrict the fees of coaching centres, it mentions that 'fair fees' should be charged, it does state the return of money for the remaining duration if a student leaves the coaching in between. It will be helpful for the students attending commercial coaching, but it will not be sufficient to address the issue of educational equity. The governments may provide targeted vouchers or cash transfers to students belonging to marginalised sections of society so that they are not left behind in the journey of educational mobility.

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- [37] The box plot shows five thinks. Minimum value, 25 (Q1) percentiles, Median(Q2), 75 percentile (Q3) and maximum. The figures on the bottom, middle and top of the box shows Q1 (25% percentile), median (50% percentiles), and Q3 (75% percentiles) respectively. The figures at lower end and upper end shows minimum and maximum values respectively if they fall under (Q1-1.5IQR, Q3+1.5IQR). Here, maximum values are outside Q3+1.IQR, so, they are shown as outliers.

Appendices

Table A1: Prevalence of Private Tutoring in School Education in India												
		2014			2017-1			2025			J-R disparity	/
State	All	Rural	Urban	All	Rural	Urban	All	Rural	Urban	2014	2017-18	2025
Jammu & Kr.	31.2	28.0	49.4	18.3	14.4	34.6	23.5	20.1	38.9	21.5	20.2	18.7
Himachal	7.4	6.7	14.8	4.9	3.7	16.3	8.7	7.3	16.4	8.1	12.6	9.2
Punjab	21.8	18.1	28.6	16.6	13.2	23.9	29.1	19.3	41.1	10.5	10.8	21.7
Chandigarh	54.6	23.6	55.8	28.6	26.4	28.6	35.2		35.2	32.2	2.3	35.2
Uttarakhand	17.2	12.4	38.0	14.8	12.6	22.7	17.1	4.7	37.2	25.6	10.1	32.5
Haryana	15.0	12.0	21.9	11.9	7.4	22.4	12.6	12.4	12.9	9.9	15.0	0.5
Delhi	38.3	25.2	38.8	40.2	18.6	40.8	40.8	26.9	41.6	13.6	22.2	14.7
Rajasthan	9.3	5.8	20.1	3.7	2.0	10.5	7.5	5.5	14.5	14.3	8.5	9.0
Uttar Pr.	14.9	10.9	31.2	11.6	8.4	25.6	15.3	13.7	22.1	20.2	17.2	8.3
Bihar	50.8	49.5	61.1	38.5	38.0	43.8	57.0	56.6	61.5	11.6	5.8	4.9
Sikkim	13.2	10.1	32.0	15.6	16.1	13.5	13.1	9.3	24.5	21.9	-2.6	15.3
Arunachal	7.1	5.9	14.1	6.8	5.0	16.9	9.6	8.4	16.7	8.2	11.9	8.3
Nagaland	4.4	1.5	15.0	13.7	10.6	22.2	13.3	10.4	20.2	13.5	11.6	9.9
Manipur	38.8	33.8	48.2	38.1	31.5	51.3	49.9	41.3	67.1	14.3	19.9	25.8
Mizoram	2.0	1.2	2.9	1.1	0.4	2.0	2.5	2.4	2.7	1.6	1.6	0.3
Tripura	82.7	82.3	84.6	79.8	77.5	89.6	85.2	85.4	84.3	2.3	12.1	-1.2
Meghalaya	6.3	2.4	25.5	4.8	1.7	20.7	6.0	5.0	14.0	23.1	19.0	9.1
Assam	19.1	17.6	32.6	22.5	21.2	35.3	22.3	20.0	43.7	15.0	14.1	23.8
West Bengal	79.2	76.8	86.4	78.6	77.3	82.6	81.0	80.8	81.5	9.6	5.3	0.7
Jharkhand	35.3	30.4	55.9	27.6	23.2	47.4	43.8	41.0	56.6	25.5	24.2	15.6
Orissa	50.3	46.6	70.1	46.4	43.6	61.8	60.8	58.7	68.3	23.6	18.3	9.6
Chhattisgarh	7.9	3.4	28.2	3.9	1.6	15.1	4.9	2.4	16.1	24.8	13.5	13.7
Madhya Pr.	18.8	13.9	33.4	11.8	7.0	28.0	18.5	14.6	29.5	19.6	21.0	14.9
Gujarat	20.1	9.8	36.9	14.6	5.5	31.3	23.6	13.7	38.5	27.1	25.8	24.8
Maharashtra	25.4	13.1	42.2	20.0	7.2	38.1	26.3	19.3	34.6	29.1	30.9	15.3
Andhra Pr.	11.5	9.4	15.7	6.5	5.3	8.9	11.4	9.2	15.2	6.3	3.5	6.0
Karnataka	13.6	7.1	24.1	4.7	2.7	8.8	8.9	5.9	14.3	17.1	6.2	8.3
Goa	25.2	18.0	29.1	9.3	6.5	10.7	29.0	20.4	34.6	11.1	4.1	14.3
Kerala	29.8	28.2	32.0	22.6	20.4	25.3	31.8	29.5	34.1	3.9	4.9	4.7
Tamil Nadu	20.3	11.4	30.3	9.5	4.8	15.5	13.1	8.4	17.6	18.9	10.7	9.2
Puducherry	26.5	27.6	25.8	7.2	4.6	9.1	7.9	13.3	3.6	-1.8	4.5	-9.7
Telangana	5.7	3.2	9.4	2.7	0.6	5.1	9.3	2.8	19.6	6.2	4.5	16.9
India	27.0	23.3	37.0	21.2	18.3	29.6	28.8	27.2	32.8	13.7	11.3	5.6
S.D.	20.2	19.8	20.1	19.6	19.4	20.7	21.5	22.0	21.5			
C.V.	75.0	85.3	54.4	92.2	106.2	70.2	74.7	80.9	65.5			

	Table A2: Average expenditure of Private Tutoring on School Education in India											
		2014		2017-18				2025		U-R Disparity		
State	All	Rural1	Urban	All	Rural	Urban	All	Rural	Urban	2014	2017-8	2025
Jammu & Kr.	4797	4146	6839	6370	5452	7965	10153	6778	18155	2693	2512	11377
Himachal Pr.	7752	6894	11744	9567	7376	13247	5831	4695	8546	4850	5871	3851
Punjab	6621	4613	8935	6689	4546	9156	6603	8250	5654	4321	4610	-2596
Chandigarh	11886	13530	11857	15691	11653	15816	17196	•	17196	-1673	4163	
Uttarakhand	6004	5608	6560	7393	5945	10344	9693	5669	10484	952	4399	4815
Haryana	11753	6052	18848	9036	6073	11112	12496	9193	16989	12796	5039	7796
Delhi	13178	9960	13258	11426	10409	11438	14513	10788	14664	3298	1029	3876
Rajasthan	6569	4733	8237	7605	4288	10038	10477	7317	14724	3504	5750	7408
Uttar Pr.	5761	4316	7874	6298	4376	9059	7605	5928	12098	3558	4683	6170
Bihar	4149	3723	6889	4355	3697	9695	6215	5834	9820	3166	5998	3985
Sikkim	6928	5118	10390	7857	7377	10113	11013	9821	12365	5271	2736	2545
Arunachal Pr.	6051	6465	5047	5421	6154	4298	18417	21161	10542	-1419	-1857	
Nagaland	7201	3502	8544	3004	2542	3643	7647	4579	11352	5042	1101	6772
Manipur	5056	4453	5860	6427	5404	7667	16223	15867	16661	1407	2263	794
Mizoram	4996	5347	4829	12157	3553	15172	10016	4551	15965	-518	11619	11415
Tripura	6312	5017	11412	9422	7710	15821	16283	13401	25856	6395	8111	12455
Meghalaya	6046	4537	6755	6758	4179	7822	7116	3444	17403	2218	3642	13959
Assam	5373	4472	9650	5583	4552	11398	12017	11063	15986	5177	6846	4923
West Bengal	5916	4416	9855	6382	4759	10995	10976	9344	15502	5439	6237	6158
Jharkhand	3699	2953	5388	4599	2914	8406	5700	4939	8150	2435	5492	3211
Orissa	5251	3926	9888	4740	3809	8297	9367	6806	17135	5961	4489	10329
Chhattisgarh	3667	1292	4940	6735	2436	8970	7757	4456	9931	3648	6534	5475
Madhya Pr.	5421	3812	7381	5159	4114	6018	6956	5539	8935	3569	1904	3395
Gujarat	9813	7339	10896	8666	5715	9618	14806	9240	17795	3557	3903	8554
Maharashtra	11948	6830	14116	12603	8675	13667	14608	9756	17836	7286	4992	8080
Andhra Pr.	2551	1720	3574	2337	1737	3066	6534	4441	8692	1854	1329	4251
Karanataka	5385	4401	5846	5577	3847	6441	7913	4399	10531	1445	2595	6132
Goa	8358	4611	9611	11501	12276	11387	13721	18593	11837	5001	-889	-6756
Kerala	5913	5456	6448	7330	6881	7761	11952	11822	12059	992	880	237
Tamil Nadu	3498	2247	4026	4377	3418	4754	6789	4354	7920	1779	1336	3567
Puducherry	2844	1122	3948	4948	5674	4641	12280	10514	17514	2826	-1033	6999
Telangana	3611	2631	4109	4237	479	4727	7858	6126	8244	1479	4249	2118
India	5971	4202	8967	6442	4438	9933	9173	7206	13383	4765	5495	6178
S.D.	2719.4	2406.0	3451.3	2999.6	2677.7	3428.8	3678.9	4342.1	4374.6			
C.V.	45.5	57.3	38.5	46.6	60.3	34.5	40.1	60.3	32.7			

Table A3: Economic Burden of Private Tutoring in School Education in India												
	2014			2017-18				2025		Disparity (U-R)		
State	All	Rural	Urban	All	Rural	Urban	All	Rural	Urban	2014	2017-18	2025
Jammu & Kr.	17.0	16.6	18.1	17.1	17.9	15.8	27.2	23.4	36.3	1.5	-2.1	12.9
Himachal	18.3	16.7	26.0	19.8	17.2	24.3	12.7	12.8	12.6	9.4	7.1	-0.2
Punjab	12.0	10.2	14.1	12.7	12.4	13.0	12.5	17.6	9.5	3.9	0.6	-8.1
Chandigarh	12.9	17.9	12.8	19.1	20.6	19.1	24.8		24.8	-5.1	-1.5	
Uttarakhand	17.4	16.5	18.7	17.8	16.4	20.6	23.1	18.8	23.9	2.3	4.1	5.1
Haryana	19.2	14.3	25.3	17.0	14.8	18.5	22.4	20.3	25.3	11.0	3.7	5.0
Delhi	18.9	22.5	18.8	20.2	13.8	20.3	28.0	22.2	28.3	-3.7	6.5	6.1
Rajasthan	16.9	15.3	18.4	14.9	13.8	15.7	22.4	20.1	25.5	3.1	1.9	5.4
Uttar Pr.	18.0	17.9	18.3	18.2	17.1	19.8	22.1	21.1	24.9	0.4	2.7	3.8
Bihar	18.4	17.5	24.4	19.3	18.8	23.1	21.0	20.9	22.4	6.9	4.3	1.5
Sikkim	17.0	13.7	23.3	24.0	25.3	17.9	17.9	15.8	20.2	9.6	-7.3	4.5
Arunachal	41.6	52.2	16.0	24.1	28.1	17.9			27.5	-36.1	-10.2	27.5
Nagaland	15.2	11.2	16.6	8.8	9.5	7.7	14.3	12.8	16.1	5.4	-1.8	3.3
Manipur	15.9	15.2	16.8	18.3	17.0	19.9	29.2	31.4	26.5	1.6	2.9	-4.9
Mizoram	11.3	13.7	10.1	15.0	7.9	17.5	16.7	14.2	19.4	-3.6	9.7	5.3
Tripura	18.9	17.3	25.2	26.0	26.1	25.4	39.0	37.2	44.9	7.9	-0.7	7.6
Meghalaya	17.0	22.9	14.2	13.6	12.9	13.9	20.4	13.3	40.1	-8.7	1.0	26.7
Assam	17.6	16.5	23.2	21.3	21.1	22.4	30.0	29.4	32.3	6.7	1.3	2.9
WestBengal	20.6	19.0	24.8	19.6	18.4	23.1	26.2	25.4	28.5	5.8	4.7	3.1
Jharkhand	14.5	13.9	15.9	18.2	14.8	25.8	17.5	16.8	19.8	2.0	10.9	3.0
Orissa	22.0	20.9	25.9	21.8	20.6	26.6	22.8	20.2	30.8	5.0	6.0	10.5
Chhattisgarh	11.2	6.9	13.5	21.2	13.5	25.1	20.2	19.6	20.6	6.7	11.6	0.9
MadhayaP	17.4	16.6	18.4	17.1	18.9	15.6	19.6	18.3	21.4	1.9	-3.3	3.1
Gujarat	20.1	19.8	20.3	16.0	16.3	15.9	25.2	21.8	27.0	0.4	-0.5	5.2
Maharashtra	24.3	21.1	25.6	27.7	34.9	25.8	33.4	30.2	35.6	4.5	-9.1	5.4
AndharaP	6.8	5.5	8.5	6.0	5.3	6.9	11.9	9.6	14.3	3.0	1.5	4.8
Karnatka	13.7	15.5	12.9	12.8	13.2	12.5	16.7	14.1	18.6	-2.6	-0.7	4.5
Goa	20.8	12.5	23.5	16.3	22.7	15.3	24.1	34.3	20.1	11.0	-7.4	-14.2
Kerala	13.8	13.7	13.9	15.2	15.6	14.9	19.2	19.8	18.7	0.2	-0.7	-1.1
TamilNadu	8.2	7.1	8.6	9.6	10.2	9.3	12.6	9.4	14.1	1.5	-0.8	4.7
Puducherry	7.1	3.9	9.1	9.4	11.8	8.5	15.4	11.9	25.9	5.2	-3.3	14.0
Telegana	8.2	6.0	9.3	8.3	1.7	9.2	11.1	11.9	11.0	3.3	7.5	-0.9
India	18.2	17.3	19.8	19.2	18.6	20.4	23.1	22.0	25.2	2.5	1.8	3.2
S.D.	6.3	8.2	5.7	5.2	6.6	5.7	6.6	7.1	8.2			
C.V.	34.6	47.5	28.6	27.0	35.5	28.0	28.8	32.5	32.5			