

PUBLIC EXPENDITURE REVIEW OF THE SECONDARY EDUCATION SECTOR IN TAMIL NADU

A Policy Brief

Introduction

Tamil Nadu (TN) is the southern-most state with a population of 72.14 million (2011 census) wherein 34.95 million live in urban areas across 1,097 towns and 37.19 million live in rural areas across 15,979 villages of 32 districts. The share of Scheduled Caste (SC) and Scheduled Tribe (ST) population is 20.01% and 1.1%, respectively. The Other Backward Class (OBC) share stood at 68%.

The sex ratio of TN was 996. It is the most urbanised state at 48.5% and is ahead of Kerala and Maharashtra. The literacy rate of the state was 80.33%, while the rural and urban literacy rates were 87.24% and 73.8%, respectively. The literacy rates of male and female were 86.81% and 73.86%, respectively. The literacy rates of General, SC and ST

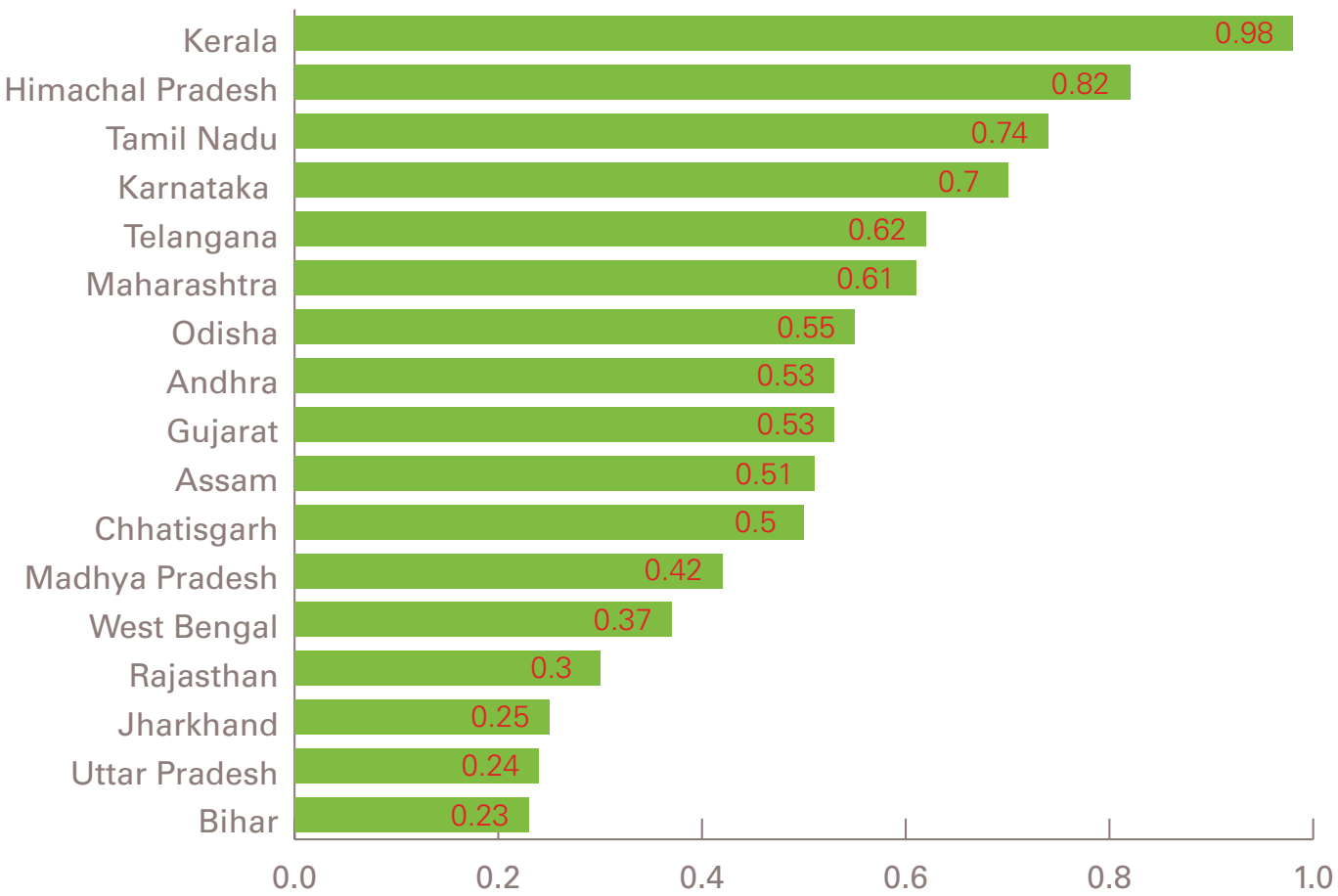
categories stood at 82.15%, 73.26% and 54.34%, respectively. In terms of economic growth, the Gross State Domestic Product (GSDP) in TN has grown consistently between 10-14% over the five years from 2012-13 to 2017-18. The Compound Annual Growth Rate (CAGR) of the GSDP stood at 11.85% in nominal terms.

Tamil Nadu is considered one of the progressive Indian states with a relatively high ranking in education as well as associated social development indicators. Tamil Nadu ranked third with an index value of 0.74 among 17 major Indian states in Education and Empowerment Index¹ behind Kerala (0.98) and Himachal Pradesh (0.82).



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Education and Empowerment Index across Indian states



Tamil Nadu fares much better than the all-India average but is still far behind Kerala, the best performing state in the country. In education, the state has high Net Attendance Ratios (NAR) for the upper-primary and secondary levels but the same is not true for senior secondary levels indicating a high level of drop out between secondary and senior secondary. Secondary education is a critical intermediate sub-sector that not only links elementary to higher education but also prepares children for work in case they want to discontinue schooling and join labour market. This also covers the adolescent phase of childhood that is far more demanding and challenging for children, parents, and school systems. Public policies and expenditure have a high potential of influencing the nature and kind of secondary education available to children.

This study attempted a review of public expenditure for secondary education in the context of existing structures, status of schooling, and the challenges that the state is facing in this respect. It also examined the delivery process of certain schemes in terms of procedures, reach and relevance. The specific objectives of the study were:

- To understand the status of secondary education in TN
- To review the public expenditure on secondary education in TN
- To understand the efficiency and effectiveness of selected schemes in secondary education including the aspects of inter-departmental co-ordination and the associated challenges.

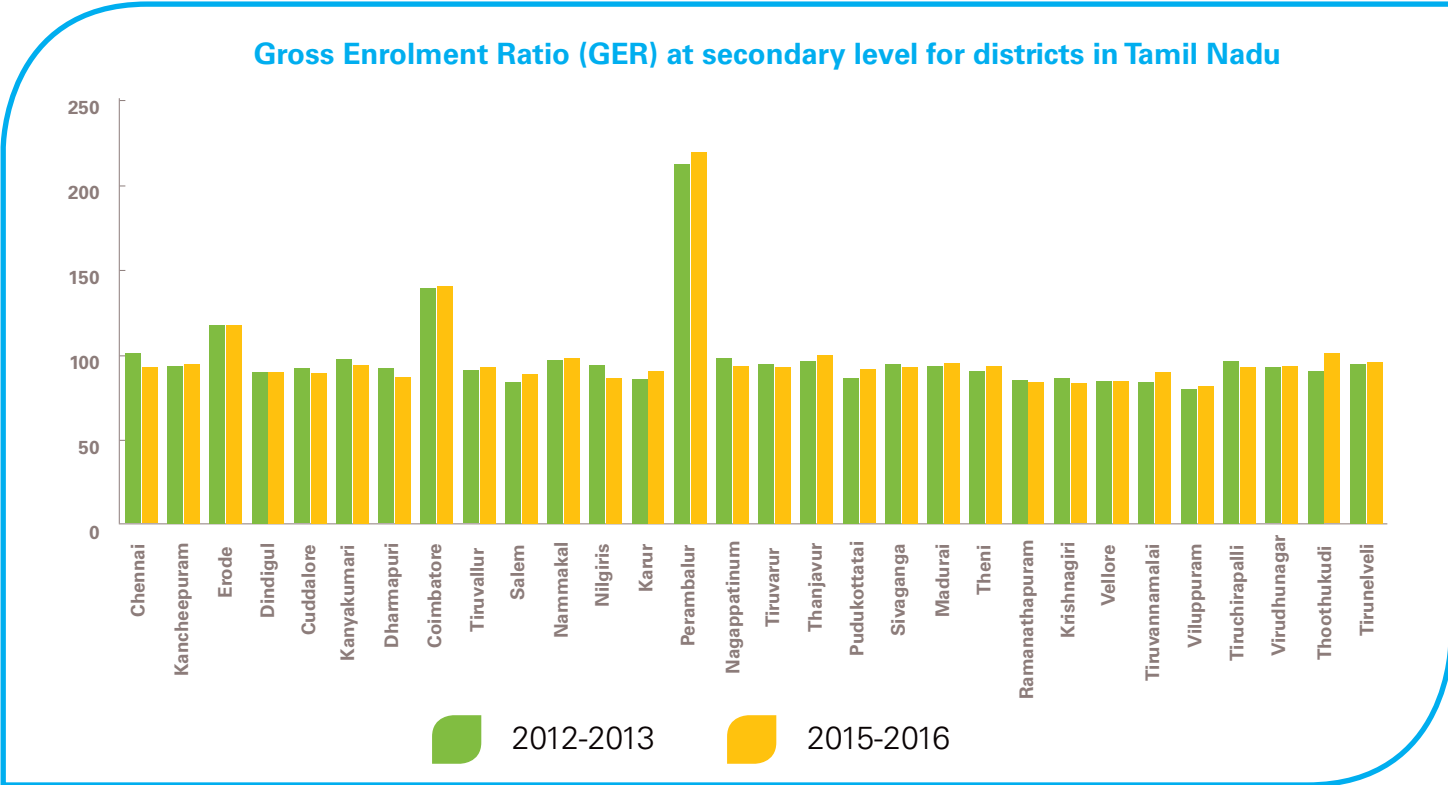
Secondary data review (NSSO 71st round and UDISE), policy and institutional review, public expenditure review and a short field work were employed for the study.

¹ Education and Empowerment Index is calculated using six indicators namely, Net Attendance Ratio for primary, upper primary, secondary and senior secondary stages (NSSO 71st round), women aged 20-24 married before 18 years (NFHS-4) and sex ratio at birth for children born in last five years (NFHS-4).



Secondary Education Status in Tamil Nadu: Key facts

Tamil Nadu has 12 years (10+2) of school education, in which a student studies composite subjects up to class 10, and after that they choose to specialise in a stream. Classes 11 and 12 are situated within the school, unlike a few other states of India. The Department of School Education, Adi Dravidar and Tribal Welfare Department, Social Welfare Department and Municipal Administration Department run the schools in the state. Public and private schools including the unaided in TN broadly fall under Department of School Education, TN (Akila, 2009)², but the department, except for the board exams conducted in classes 10, 11, and 12, has limited control over the private unaided schools, even if they are affiliated to the State Board. The private schools affiliated to State Board, however, have to follow the board of examination and syllabus framed by the government. The State Board is a uniform board that has tried to combine matriculation, Anglo-Indian, and Oriental board to have a form of syllabus called as Samacheer Kalvi since 2010. The state that has taken proactive steps by forming committees for new curriculum and for school fee regulation, and by implementing schemes to enhance student participation and improve the quality of education.



High enrolment but inter-district variations

In 2015-2016, there were 2.25 million and 1.78 million students enrolled in secondary and senior secondary levels respectively in TN. The enrolment in secondary and senior secondary level grew at about 0.63% and 2.20% per annum between 2012-2016 in TN. The Gross Enrolment Ratio (GER) in secondary level in 2012-2013 was about 90.15% which improved to 94.02% during the period 2015-2016 in TN. There existed inter-district variations in GER in TN, where the lowest GER was 80.21% registered by Viluppuram district and the highest GER was 218.71% in Perambalur in 2015-2016. In terms of management, government schools constituted about 40-45% of the total, followed by private-unaided with 35-40%, and private-aided with 15-18% in 2015-2016.

Gender parity in favour of girls visible

The GER for girls was significantly higher in comparison to GER for boys in each of the districts in 2015-2016. The ratio between Girls GER and Boys GER ranges between 1.10 (Viluppuram) to 1.39 (Tiruvarur) and the average ratio was about 1.20 indicating that a greater number of girls were pursuing senior secondary education in TN. The girls’ participation being higher, relative to boys, in secondary and senior secondary level is across caste and location. While there is no significant difference in the transition rate from upper primary to secondary by gender, there exists a significant difference of 14%-15% between the boys and girls transition rate from secondary to senior secondary level in favour of girls; low or no difference was observed in the transition rates at the national level between boys and girls. This is a major concern that needs further investigation and redressal.

No notable rural-urban disparity

Net Enrolment Ratio (NER) by location (rural/urban) revealed that there is generally higher participation in secondary education in the urban sector (51.59%) than rural sector (42.01%) in secondary education in India, while, for TN, there was no discernible difference between the rural (61.48%) and urban (60.77%) in secondary education. In terms of location, about 63% of these schools were located in rural sector similar to the 69% observed at the national level. More than 95% of schools with secondary and senior secondary sections were approachable by all-weather road, with good classroom conditions, girls’ and boys’ toilets, drinking water facility, and electricity for all the districts in the state.

No notable disparity across economic quintiles

There exists a pattern of lower participation in secondary education of those belonging to lowest economic quintile, which increases as one moves up the economic quintile (from first to second quintile and so on) and the highest participation was observed for the highest economic quintile in all-India and this does not hold true for TN. The NER for lowest economic quintile was observed to be 55.91% and 58.67% in rural and urban sector respectively; this did not significantly differ from 53.08% and 64.91% percent in rural and urban sector, respectively, in the highest quintile.

High inter-stage transition rates

The transition rate from upper primary to secondary level was 89.28% in 2012-2013, which increased to 96.67% in 2014-2015. The transition rate from secondary to senior secondary level also improved from 71.24% to 85.15% during the same period. This is significantly better than the transition rate of 69.07% observed at the national level in 2014-2015. The pass percentage was around 90%-93% of those who appear at both secondary and senior secondary levels, and about 90% of those who passed secondary school were found to have appeared for senior secondary examinations.

Basic infrastructure availability better than All-India but far from universal

In terms of student-classroom ratio, the secondary and senior secondary schools are well within the norm of 1:40 specified in the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) , which also is better than the ratio observed at the national level which is at 1:46 and 1:47 ratio for secondary and senior secondary schools, respectively. In terms of availability of computer with internet connection, about 85% of secondary schools and 98% of senior secondary schools have been equipped with this facility in TN. Only 65% of senior secondary schools have laboratories for physics, chemistry, biology, computer, and language in TN; this percentage is higher in comparison to all-India. Only 10% or fewer senior secondary schools have laboratories for mathematics, geography, home science, and psychology.



² Akila, R. (2009). Mapping educational policy structures and processes in Tamil Nadu. Education Policy Research Series, 1(1). <http://righttoeducation.in/sites/default/files/eprsl1.pdf>

Vocational education needs stronger and closer industry interface

The vision document of TN 2023³ indicated the need to increase and strengthen the delivery of vocational education and training apart from universalisation of secondary education. There are 67 schools across 67 educational districts that are offering vocational courses in two trades in accordance with the National Skills Qualification Framework (NSQF) from classes 9 to 12. The trades covered include agriculture, multi-skill foundation course, electronics and hardware, beauty and wellness, automotive, and apparel and home furnishings. About 5,300 students had enrolled in year 2018-19 across the state under these six trades. The national employment and unemployment survey 2015-16 indicated that only 4.7% of the people aged above 15 years had obtained vocational education in the state as against the national average of 5.5%. With increased urbanisation, more suitable trades relevant to the district employment needs have to be encouraged. This would require vocational education to have strong industrial interface in the district.

Out of pocket expenditure increases for higher quintiles.

The average out-of-pocket expenditure incurred by households was in the first and second quintile was about Rs 4,895 in the first quintile, and Rs 4,532 in the second quintile. This increased to Rs 6,188 in third quintile, Rs 10,355 in the fourth quintile, and Rs 19,962 in fifth quintile in the state. The expenditure was found to be more among girls in first, third and fifth quintiles in the state while it was lower across all quintiles for girls in the all-India average.

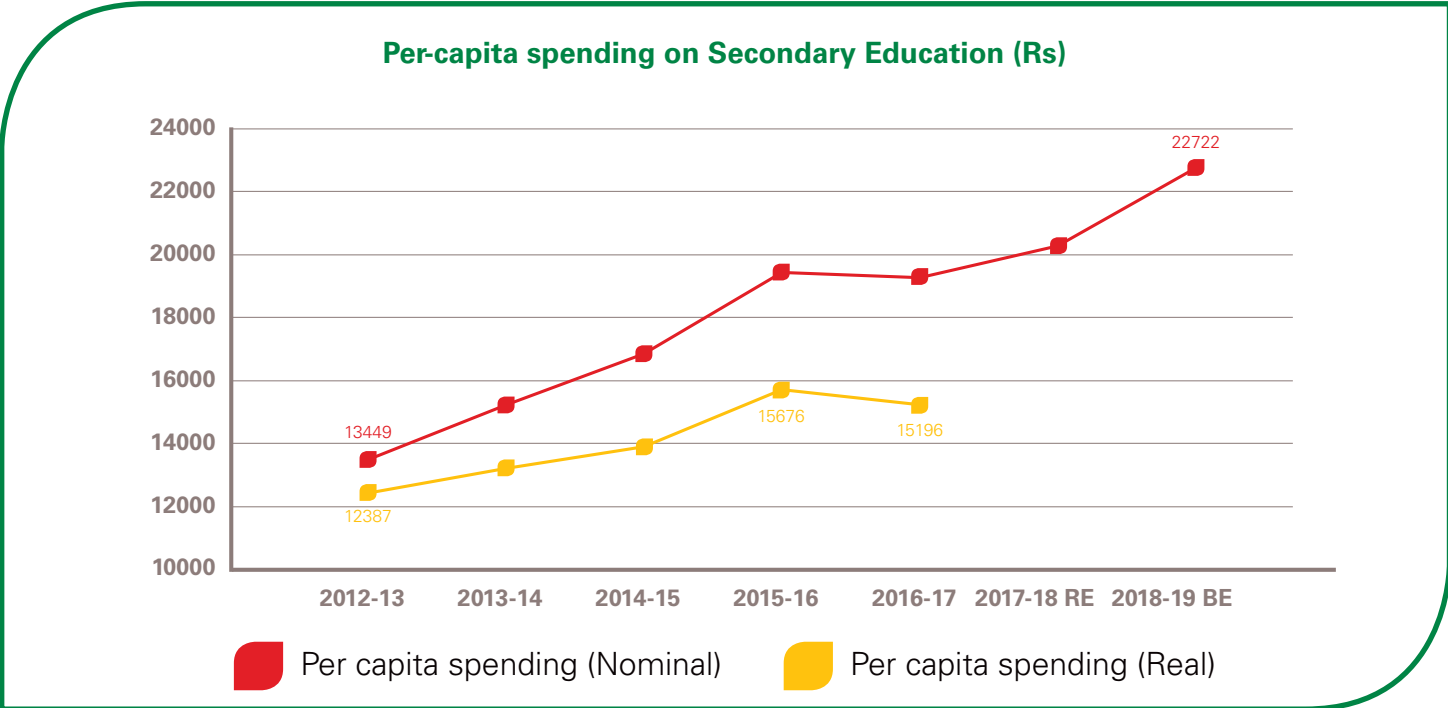


³ [http://tnidb.tn.gov.in/forms/TN%20VISION%202023\(PHASE%202\).pdf](http://tnidb.tn.gov.in/forms/TN%20VISION%202023(PHASE%202).pdf)

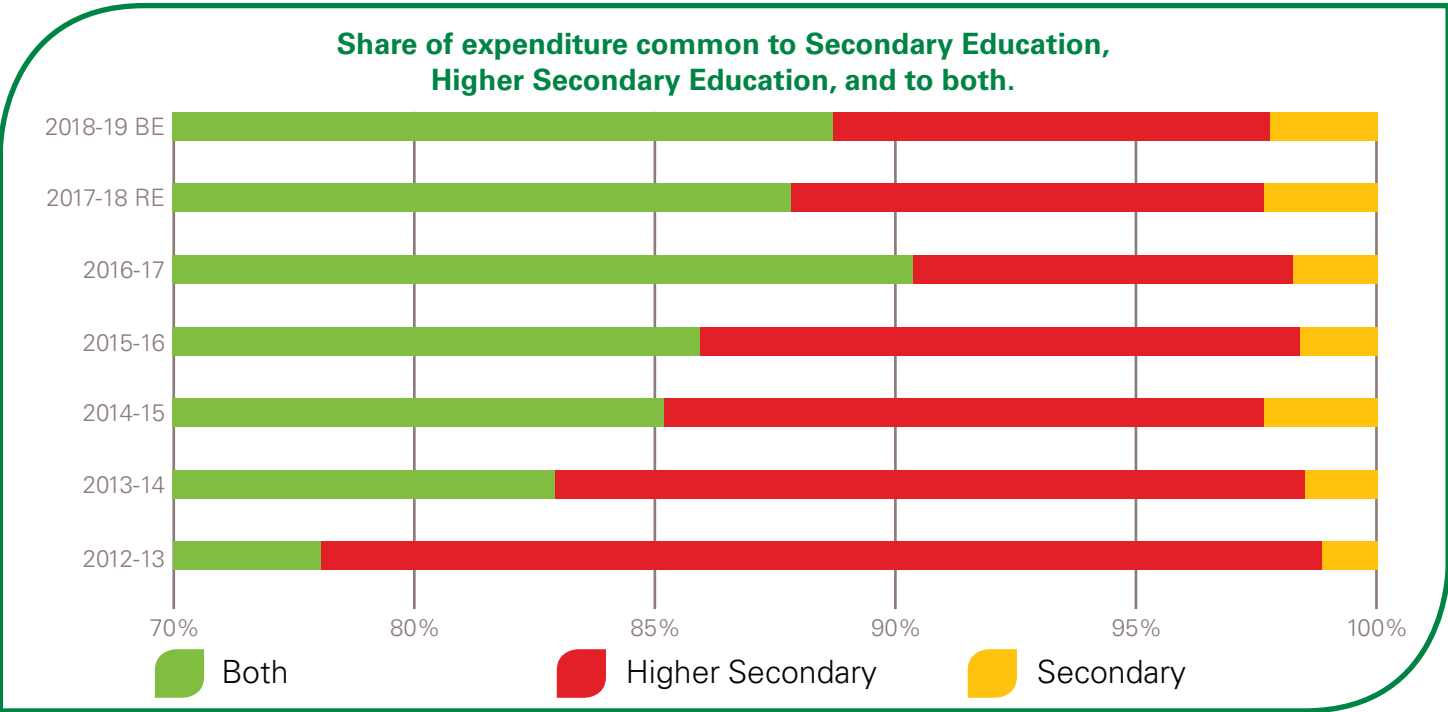


Public Expenditure on Secondary Education: Key facts⁴

Secondary education accounted for 40% of the total education expenditure for the period 2012-13 to 2018-19 and grew from Rs 83.6 billion to Rs 143.1 billion at a CAGR of 7.9% in nominal terms. In real terms, it increased from Rs 77.2 billion in 2012-13 to Rs 95.3 billion in 2016-17.

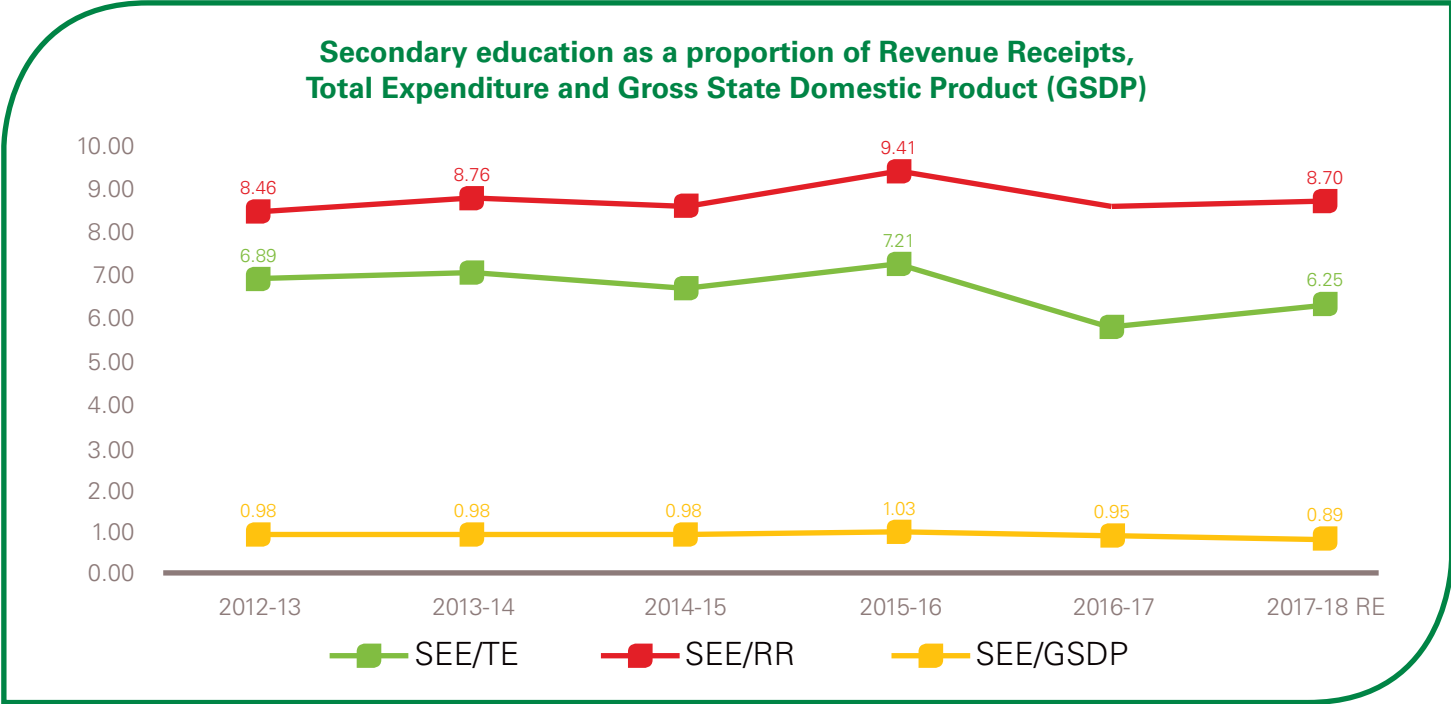


The per-capita expenditure on secondary education increased from Rs 13,449 to Rs 22,722 for the period 2012-13 to 2018-19 in nominal terms. Of the total secondary education expenditure, only about 10% was distinguishable as secondary and senior secondary expenditure, while 90% was meant for entire secondary expenditure.



⁴ Budgetary data for 'Secondary Education' catering to classes 9 to 12 is difficult to find in an exclusive manner. Often the expenditures are included in the budget heads that cater to both upper primary and secondary education. This is because the state follows a system where majority of the post primary schools cover classes 6 to 10. Exclusive secondary education expenditure was deciphered through the reading of scheme description and cross-verifying the details of the scheme with the Policy Note or the list of schemes department which implements it.

The secondary education expenditure as a proportion of GSDP and total expenditure (TE) has seen a decline, while it has seen a mild increase as a proportion of revenue receipts (RR). The dip was more visible during the last two years (2016-17 and 2017-18)



Secondary education expenditure was incurred through eight departments and same number of major heads of expenditure. Department of School Education incurred most of the expenditure followed by Department of Special Programme Implementation; Backward Classes (BC), Most Backward Classes (MBC) and Minorities Welfare Department; Adi Dravidar and Tribal Welfare Department; and Social Welfare and Noon Meals Programme.

Revenue expenditure accounted for nearly 99% of the secondary education expenditure for the period 2012-13 to 2018-19, and the wage expenditure constituted for 81.5% over the same period. The share of direct transfers has significantly dropped from over 23% in 2012-13 to only 11% in 2018-19. Seven departments and two welfare boards together implement 81 schemes, largely focusing on promoting the SC, ST, OBC, minorities, and girls' participation in secondary education. Of these 81 schemes, 21 have universal coverage; about 49 schemes are aimed at providing monetary rewards; 12 schemes are focused on learning enhancement; and 5 on improving access. Of the schemes implemented, 85% constituted for improving the provisioning of secondary education (supply), while the rest, 15%, focused on incentivising the demand for secondary education.





Review of four important Schemes in Secondary Education sector

Four important schemes targeting the secondary school students identified through consultation were reviewed: Puratchi Thalaivar MGR Nutritious Meal Programme, Distribution of Free Bicycles, Distribution of Free laptops, and Special Cash Incentive to reduce dropouts to understand the processes involved in planning, implementation, and supervision through inter-departmental co-ordination. These four schemes together accounted for 21.1 % of secondary education expenditure in 2012-13; it was reduced to 9.3% of secondary education expenditure in 2018-19.

Basic details of selected schemes covered in the study.

	Name of the scheme	Funding Department	Benefits	Eligibility	Coverage	Starting year
1	Puratchi Thalaivar MGR Nutritious Meal Programme	Social Welfare and Noon Meals Department	Free hot cooked mid-day meal	Students of government and government-aided schools	Universal	1980
2	Distribution of Free Bicycles	Backward Classes (BC), Most Backward Classes (MBC) and Minorities Welfare Department	Free Bicycle	Students of government and government-aided schools (class 12)	Universal	2001-02
3	Special Cash Incentive to reduce dropouts	Department of School Education	Cash Incentive for completing classes 10, 11, and 12	Students of government and government-aided schools	Universal	2011-12
4	Distribution of Free laptops	Special Program Implementation Department	Free laptops	Students in government and government-aided schools of Tamil Nadu (classes 11, 12), first-year polytechnic students	Universal	2011-12



1

Puratchi Thalaivar MGR Nutritious Meal Programme (PTMGRNMP)

Puratchi Thalaivar MGR Nutritious Meal Programme (PTMGRNMP) or midday meal has served an important goal of keeping high the nutritional status of children, and over the years, it has become an integral part of the schooling system though delivered through Social Welfare and Noon Meals Programme department for children from classes 1 to 10 in government, government-aided and local body schools throughout the state. About 52 lakhs students were availing this program in 2018-19. The expenditure for classes 9 and 10 alone is borne entirely by the state, while expenses for classes 1-8 are shared with government of India (GoI). Those from poorer backgrounds still view this as the backbone of their school education choices. The scheme has seen changes, with the government improvising and ensuring that the major employees (Noon Meal Organisers-NMO, Cooks and Assistants) and the beneficiaries (students) are assisted in various ways. The Government Order⁵ specifically cites that the newly upgraded menu was developed in consultation with nutrition experts and chefs. In 2018-19, as a part of TN Innovation Initiatives (TANII), iron-fortified rice containing 9 nutrients—Vitamin A, B1, B2, B3, B6, B12, Folic Acid, Iron and Zinc—has been introduced in five districts⁶ in the state on a trial basis.

The scheme, handled by single department, has a fairly streamlined processes and has witnessed smooth implementation. However, a few glitches with respect to inadequate allocations for cooking space, storage, LPG availability, vegetables need to be addressed to make it more complete. The state government has been upgrading new kitchen-cum-store centres with enough storage and cooking place, but most of the centres (80%) still complained of inadequate space for both storage and cooking. Noon meal staff opined that they receive less than required funds for fuel (Re 0.45 per student) which is inadequate to manage cooking for a whole month. The LPG would get exhausted in 10 days and they had to use firewood for the rest of the month. The fund allotted for vegetables comes to only Re 0.87 per student per day. With the rise in the cost of vegetables, students are often left to eat plain rice with an egg on most days, without a good amount of vegetables added to the meal.

2

Distribution of Free bicycle to higher-secondary school students

The distribution of free bicycle scheme for class 9 students in TN had its inception in the year 2001-02 for the Scheduled Castes (SCs) and Scheduled Tribes (STs) government school students, especially for girls; later, it was expanded to all students from the year 2005-06. The Backward Classes (BC), Most Backward Classes (MBC), and Minorities Welfare Department funds all the students except the Open Category (OC). The Open category students are funded by Department of School Education. The number of beneficiaries increased more than twice in a period of fifteen years, i.e., from nearly three lakhs in 2004-05 to more than six lakhs by 2013. But the total spending on the scheme increased nearly five times during the same period: from about 53 crores to about 245 crores in 2016-17.

⁵G.O.(Ms)No.267 dated 02.11.2012, SWNMP Department, Government of Tamil Nadu
⁶The five districts are Madurai, Thanjavur, Thoothukudi, Dharmapuri, and the Nilgiris, chosen on the basis of the level of malnutrition in these districts.

The bicycle scheme implemented by BC MBC and Minorities Welfare Department in coordination with the Department of School Education seemed to be having some issues regarding assembly and high demand on time of personnel but most of these have already been addressed by the Department. However, the bigger issue of relevance still remains. Although students and parents are happy to receive it, the use of bicycles by students to reach school did not seem to be as widespread. Given that the roads and transport system are well-functioning in the state, a dedicated bus service could be provided for the school children. In this regard, there is a need to review both the schemes i.e., providing bus pass and bicycle for their relevance and cost of implementation before arriving at a policy choice.

3 Free laptops for higher secondary students

The distribution of free laptops to students started in the year 2011 and is being implemented by Department of Special Program Implementation. Government of TN procured and distributed free laptops to the students of class 11 (plus one), class 12 (plus two), and first year polytechnic students covering all government and government-aided schools and colleges of the state. The move was expected to aid students in learning by opening them to technology assisted learning and also to use of technology. The distribution of laptops by Department of School Education, Department of Collegiate Education, and Department of Technical Education was done in a phased manner for the first three years. Till 2019, 37.88 lakh students had received laptops at the cost of Rs 5,552 crores.

The Electronics Corporation of TN (ELCOT) has been entrusted with the task of procuring the laptops through a competitive bidding process after finalising the specifications of the laptop considering the usage by the student community. The Department of School Education estimates the number of students eligible for the laptop scheme, and accordingly, it is communicated in the budget process. Once the Special Program Implementation Department receives the budget, ELCOT is requested to submit the proposal to supply the laptops to the Special Program Implementation Department and they release funds to ELCOT. The simultaneous distribution of laptops across all districts needs to be ensured by ELCOT. The order of distribution within the district is decided by District Level Monitoring Committee headed by collector.

The heads of the institutions are responsible for the distribution, for which usually public representatives like ministers, members of legislative assembly, and members of parliament are invited to handover the laptop to the students. Payments are done once the heads of the institutions confirm the receipt of the laptops. Laptops carry a warranty of three years except for the battery that has a warranty for one year. With the Education Management Information System (EMIS) portal coming into existence, which has the complete details of the student across government, government-aided, and private schools, the students have to submit applications online through the designated portal and upload their class 10 marksheet. Following the submission, the student is allotted a registration number which is used to receive the laptop upon the supply of the same to the institution.

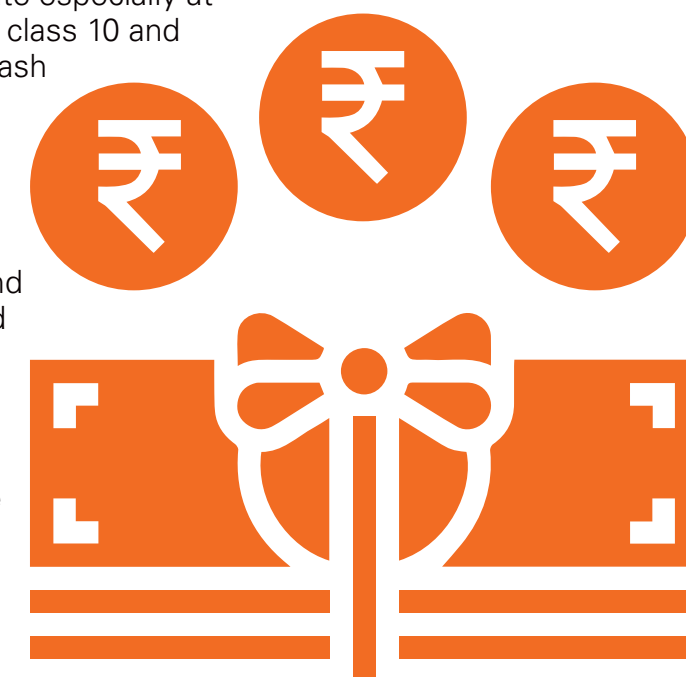


The laptop distribution and special cash incentive use the EMIS portal for distribution and transfers, and, therefore, they are relatively smoother in their process. The laptop distribution process is streamlined to ensure that it reaches the real beneficiary, but it also means heavy demand on the time of related personnel. There is also a need to enhance the utility of the scheme by providing formal computer education at the secondary level, so that the students can make better use of the laptops.

4

Distribution of Special Cash Incentive to students completing higher secondary education

The scheme was introduced to reduce the dropout rate especially at the level of class 10. All students who are studying in class 10 and complete the classes 11 and 12 are provided with a cash incentive of Rs 1,500 each for completing the class 10 and class 11 and Rs 2,000 for completing class 12. The total incentive of Rs 5,000 and interest is made available to the student after completing class 12. The funds are deposited with Tamil Nadu Power Finance & Infrastructure Development Corporation and this fetches interest for the cash incentive transferred from the school education department. Till 2018-19, 113.35 lakh students benefited at the cost of Rs 1,810 crores. The scheme operates through a designated portal where the student can register, login with the EMIS number. The portal populates the data from the EMIS database, and the student has to provide the details of the bank account along with the IFSC code and submit the application. The EMIS data base also gets the results of the students that is used to verify and transfer the funds to the student's bank account.



The cash transfer demands the least time but the need for minimum balance from the bank at times means that the beneficiary receives less than the amount transferred. Both schemes of supply of laptops and transfer of funds. have experienced some delays.



The Policy Implications

1 Improvement of school infrastructure and teacher-provisioning:

Although TN is positioned much better than the all-India average, large proportions of schools at secondary levels need better laboratories, libraries, and related facilities; enhanced public expenditure is definitely needed in this respect. Apart from enhancing subject teachers, innovative solutions in the form of shared teachers in closely located schools in case of singing, music, dance, art may be a good solution.

2 Inter-departmental coordination, school provisioning, and the use of technology:

At present, different departments and bodies run secondary schools. The state may consider transferring all schools to the Department of School Education and have representation of other departments such as Adi Dravidar and Municipal administration to address specific concerns. The use of EMIS in inter-departmental coordination needs improvement.

3 States needs flexibility in Samagra Shiksha planning and greater clarity in its reporting:

The merger of the Sarva Shiksha Abhiyaan (for those aged 6-14 years), Rashtriya Madhyamika Shiksha Abhiyaan, and Teacher Training into a single centrally sponsored programme is a positive initiative, but it has offered only limited flexibility for the states as expenditures continue to be rigidly classified under same heads as before. Southern states including TN need higher funding for secondary education owing to expanding secondary education and funding needs for certain critical components (say adolescent education, training or vocationalisation) could be higher.

Unless the merger comes with greater flexibility for states, it may not serve much purpose. Greater clarity is also needed in its reporting as the funds to the state Samagra Shiksha Abhiyaan society (both state's share as well as the receipts of GOI if represented in either elementary or secondary education without dividing between the two, would increase the expenditures shown in the respective sub-sector's budget significantly, which could be misleading.

4 Addressing higher drop-out rates among boys at higher secondary stages:

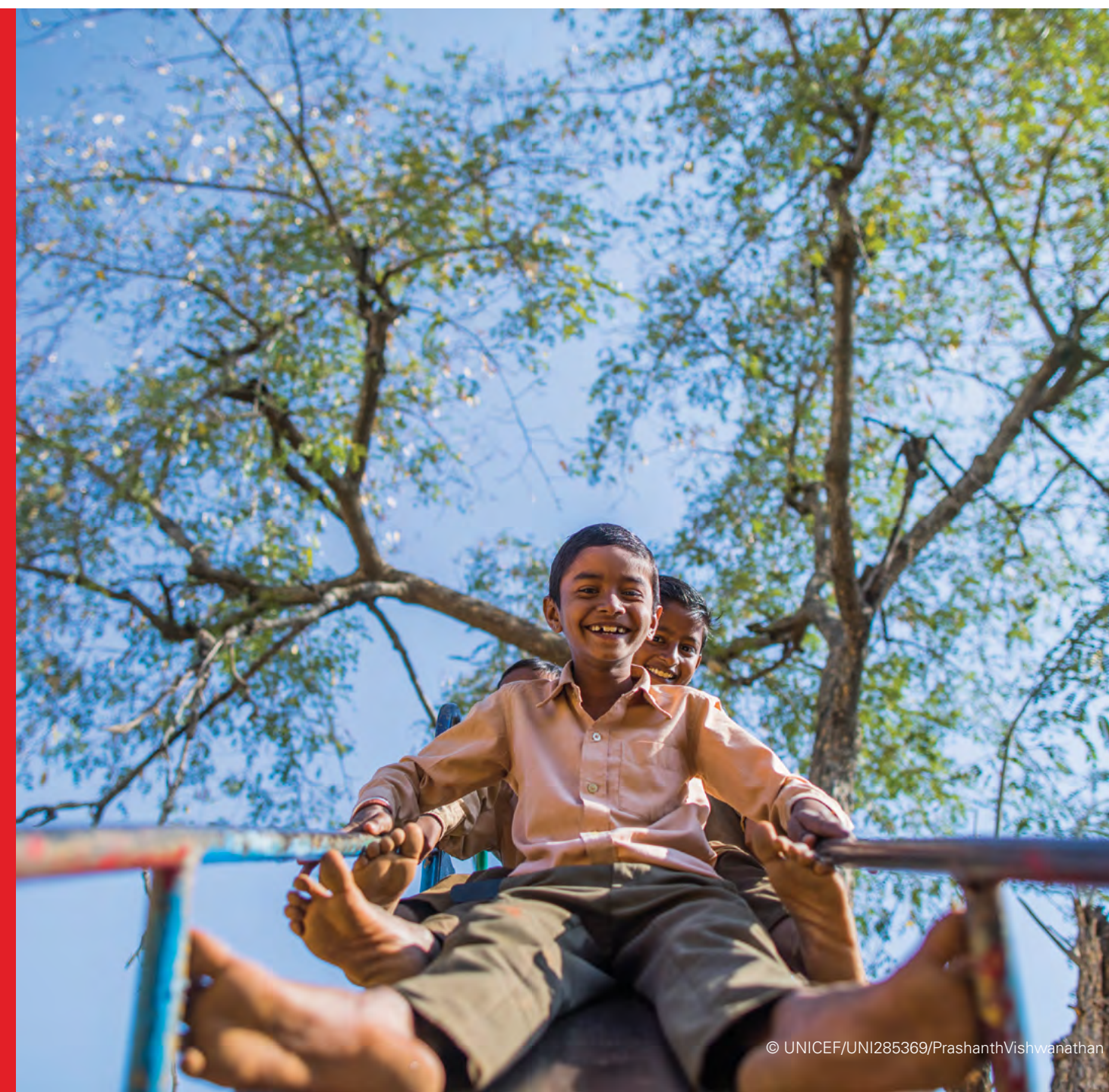
Inter-district variations in Human Development Index (HDI) are less marked as compared to economic indices but the range is higher for education indices. Along with this, the state is experiencing higher drop-out and lower transition rates for boys at secondary stages, which needs to be understood better quickly through a deeper study as the reason stated was the need for supporting the families. An exploration into the issues related to masculinities may also be helpful in understanding the phenomenon better. This also points out to the need for enhancing the vocationalisation of secondary education.

5 Enhancing the vocationalisation of secondary education:

Given the high rate of urbanisation, the state has a lot of potential that could be realised based on district-level skill development plans. Given that more boys are dropping out at the higher secondary level to support the families, it becomes all the more important to emphasise the vocationalisation of secondary education to suit to the industrial demands. This requires a focused deepening of the vocationalisation of secondary education with a strong industrial interface with district as a unit. Given that industrial development has not been as city-centred as in many other states, TN is in a good position to adopt a plan for a district or a cluster of districts for skill-based senior secondary schooling with clear industrial linkages.

6 Review of cash and in-kind transfers for their relevance, efficiency, and effectiveness:

The schemes like the free bicycle at class 9 and free bus pass schemes need to be reconsidered in view of costs of time-spent in delivery. Similarly, the laptop scheme is efficient in its delivery, but the relevance can be improved by complementing it with formal computer courses and trainings at the higher secondary level to make it really useful.





The brief has been prepared by Madhusudhan B. V. Rao and Jyotsna Jha. It is based on a study of public expenditure review by the Centre for Budget and Policy Studies (CBPS), Bangalore. The research team included Madhusudhan B. V. Rao, Jyotsna Jha, Shreekanth Mahendiran, Siddarth Sriram, Thyagarajan R., and Arun Viknesh. Acknowledgements are due to Ms. Akila Radhakrishnana from UNICEF, Chennai for her support and comments.

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