# III Demographic Transition in India – Implications for State Finances

*India's demographic transition is increasingly influencing the State government finances. While a favourable age profile supports demographic dividend at the national level, the interstate difference in age structure has altered the window of opportunity for the States. The youthful States have a wider window of opportunity benefiting from expanding working age population and stronger revenue mobilisation. In contrast, the window is getting narrower for the ageing States facing fiscal pressure arising out of shrinking tax bases and rising obligations from committed expenditure. The differential fiscal pressure arising out of divergent age structure of States calls for forward-looking policies incorporating population dynamics and the related fiscal challenges. Going forward, youthful States may harness their demographic dividend by strengthening human capital investments, intermediate States may balance growth priorities with early preparation for ageing, and ageing States may enhance revenue capacity alongside healthcare, pension and workforce policy reforms.*

## 1. Introduction

3.1 India's demographic landscape is undergoing a profound shift, reflecting changes in population size, age structure, and age dependencies over time. The demographic transition characterised by declining fertility, rising median age, higher life expectancy and falling dependency, has opened up a 'window of opportunity' to move into a higher growth trajectory supported by demographic dividend. The all-India picture, however, hides the large interstate divergence in age structure. While some States with their young age structure are currently enjoying the 'window of opportunity', there are States with a relatively matured age structure for whom the 'window of opportunity' is gradually closing as they have crossed or move closer towards their 'demographic turning point'. This uneven demographic transition across States necessitates a balanced public policy approach that leverages the economic potential of a youthful workforce while addressing the health and social needs of an ageing population.

3.2 Against this backdrop, this chapter aims to address the following research questions: How uneven is the demographic transition across Indian States? How prepared are the States to handle their current and future demographic challenges? and How do demographic dynamics affect medium-term fiscal sustainability? The chapter is organized as follows. Section 2 analyses demographic transition in India at the national level. Section 3 presents a demographic profile of the Indian States highlighting the unevenness in their age structure. Section 4 analyses the fiscal implications of demographic changes in terms of their impact on State government revenue, expenditure and debt sustainability. Section 5 suggests policy options for States at different stages of demographic transition. Section 6 concludes.

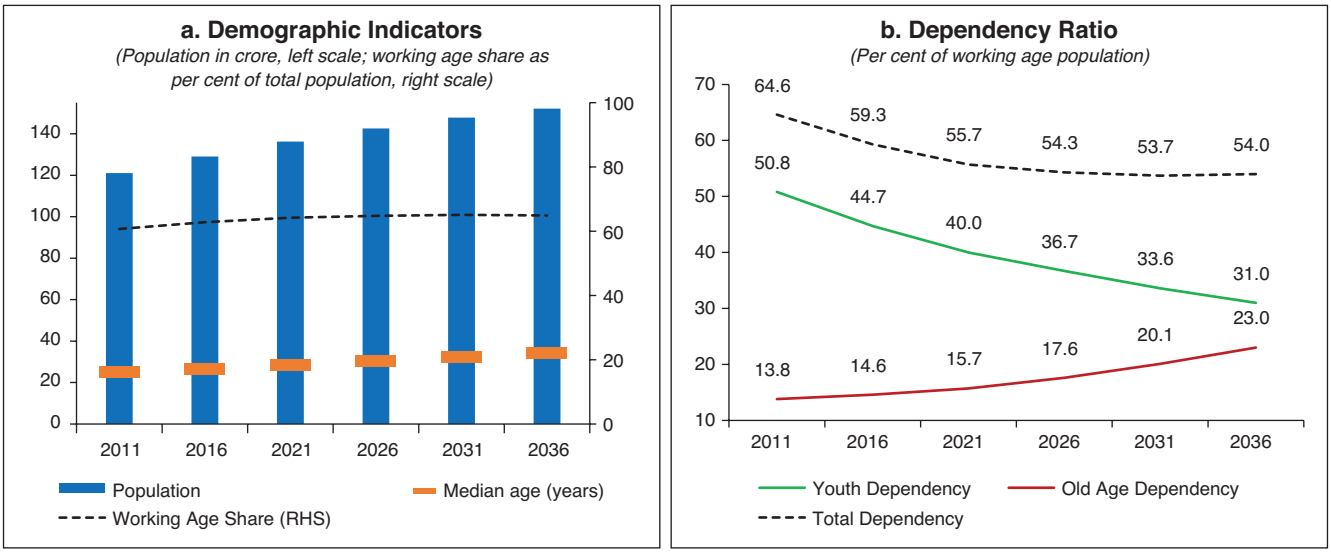
## 2. Demographic Transition in India

3.3 India is currently the most populous country in the world having surpassed China in 2023. As of mid-2025, its population is estimated at

1.46 billion, a figure expected to reach 1.5 billion by 2036, peak around 1.7 billion in the early 2060s and then begin a gradual decline, though remaining the most populous country throughout the century (UN, 2024). Further, median age of the Indian population was just around 28 years in 2022 as compared to above 40 years in developed countries such as the US, Europe, and South Korea[1], making it one of the 'youngest large nations' in the world. The share of the working-age (15-64 years) population in India which was estimated at 64 per cent in 2021 (UNFPA, 2022), is projected to peak around 65.1 per cent in 2031, before stabilising by 2036 (Chart III.1a). The high share of working age population provides a window of opportunity towards faster economic growth by reaping the benefits of a demographic dividend[2]. The demographic dividend can, in turn, enhance aggregate labour supply, productivity, consumption, and savings, fostering economic growth if supported by enabling policies (Bloom *et al.,* 2003).

3.4 The demographic transition in India is being shaped by two major factors - falling fertility rate and increasing life expectancy. India's total fertility rate (TFR) has fallen from 5.9 children per woman in 1950 to 2.0 children per woman in 2021. Further, the country witnessed a significant rise in average life expectancy at birth from just 37 years in the post-independence period to 70 years in 2020 which is projected to reach 81 years by the end of this century (UN, 2019). Consistent with this shift, dependency ratios are also undergoing changes. With lower fertility and higher life expectancy, the youth dependency ratio[3] is expected to fall steadily during 2011 to 2036, while the old-age dependency ratio[4] (OADR) would almost

**Chart III.1 Changing Demographic Patterns – India**




**Source:** Report of the Technical Group on Population Projections (MOHFW, 2020) and Staff estimates.

[1] World Population Prospects, UN 2024.
[2] The term demographic dividend here refers to the economic growth potential during a period when the working-age population surpasses the dependent population.
[3] Youth Dependency Ratio refers to the number of individuals in the 0-14 age group (youth dependents) expressed as a proportion of the working-age population (15-59 years).
[4] Old-Age Dependency Ratio measures the ratio of population aged 60 years and above relative to the working-age population.

double during the same period. As a result, the total dependency ratio, though declining initially, is expected to bottom out by 2031, reflecting the offsetting effects of fewer children and more elderly dependents (Chart III.1b).

3.5 The narrowing gap between youth and old-age dependency ratios captures two critical demographic realities. First, India possesses a short-lived window over the next decade to capitalise on its demographic dividend, as the working-age cohort attains its apex, and the total dependency ratio remains favourable. From 2036 onwards, the share of working age population is expected to decline, whereas the total age dependency ratio is expected to rise, gradually closing the window of opportunity. Second, the nation must concurrently take on board the accelerated onset of population ageing and prepare itself to grapple with the diverse fiscal policy challenges which most of the advanced economies of the world are facing today.

### 3. Demographic Profile of Indian States

3.6 The time and pace of demographic transition vary significantly across the Indian States due to differences in the total fertility rate as well as the life expectancy at birth. The total fertility rate at all India level declined from 2.4 during 2011-13 to 2.0 during 2021-23. While the total fertility rates of all the States have declined during this period, the dip has been particularly sharp for Delhi, Gujarat, Jharkhand, and Jammu & Kashmir (Table III.1). Currently, the total fertility rates of only seven States – Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan, Chhattisgarh, Jharkhand, and Assam are at or above the replacement rate of 2.1[5].

**Table III.1: Total Fertility Rate and Life Expectancy of States/UTs**

| Sl. No. | States | TFR (2011-13) | TFR (2021-23) | Change in TFR (%) | Life Expectancy at Birth in Years (2016-20) |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | Bihar | 3.3 | 2.9 | -12.1 | 69.5 |
| 2 | Uttar Pradesh | 3.2 | 2.6 | -18.8 | 66.0 |
| 3 | Madhya Pradesh | 3.0 | 2.5 | -16.7 | 67.4 |
| 4 | Rajasthan | 2.9 | 2.4 | -17.2 | 69.4 |
| 5 | Chhattisgarh | 2.7 | 2.3 | -14.8 | 65.1 |
| 6 | Jharkhand | 2.8 | 2.2 | -21.4 | 69.6 |
| 7 | Assam | 2.4 | 2.1 | -12.5 | 67.9 |
| 8 | Haryana | 2.2 | 2.0 | -9.1 | 69.9 |
| 9 | Gujarat | 2.5 | 1.9 | -24.0 | 70.5 |
| 10 | Odisha | 2.1 | 1.7 | -19.0 | 70.3 |
| 11 | Karnataka | 1.9 | 1.6 | -15.8 | 69.8 |
| 12 | Andhra Pradesh | 1.8 | 1.5 | -16.7 | 70.6 |
| 13 | Himachal Pradesh | 1.7 | 1.5 | -11.8 | 73.5 |
| 14 | Jammu & Kashmir | 1.9 | 1.5 | -21.1 | 74.3 |
| 15 | Kerala | 1.8 | 1.5 | -16.7 | 75.0 |
| 16 | Maharashtra | 1.8 | 1.5 | -16.7 | 72.9 |
| 17 | Punjab | 1.7 | 1.5 | -11.8 | 72.5 |
| 18 | Tamil Nadu | 1.7 | 1.4 | -17.6 | 73.2 |
| 19 | West Bengal | 1.7 | 1.4 | -17.6 | 72.3 |
| 20 | Delhi | 1.8 | 1.3 | -27.8 | 75.8 |
| | **All India** | **2.4** | **2.0** | **-16.7** | **70.0** |

**Note**: For TFR and life expectancy, Andhra Pradesh, Jammu & Kashmir, and Uttar Pradesh include Telangana, Ladakh and Uttarakhand, respectively.
**Source:** Sample Registration System Statistical Report 2023.

3.7 Total fertility rate of all other States has fallen below the replacement rate. Similarly, there are interstate differences in life expectancy. The average life expectancy at all India level is 70 years. However, life expectancy at the State level ranges from around 65 years in Chhattisgarh to around 76 years in Delhi. Generally, States, which

[5] As per United Nations World Fertility Report (2024), a fertility level of around 2.1 births per woman yields a growth rate of zero in the long run for a population with low mortality and no migration. At this level, known as the "replacement level", each generation is followed or "replaced" by another generation of roughly the same size.

have a lower fertility rate, also have higher life expectancy, resulting in higher share of elderly population than the national average (MoHFW, 2020).

3.8 To assess the demographic profile of Indian States, a modified version of the standard International Labour Organisation (2023) classification has been adopted[6]. In this approach, a State is classified as ageing if the share of population aged 60 years and above is 15 per cent or more, intermediate if it is 10 per cent to below 15 per cent, and youthful if it is below 10 per cent. Data from the Report of the Technical Group on Population Projections, 2020, published by the Ministry of Health and Family Welfare, Government of India, has been used to classify the States under these three categories[7]. In 2016, all the Indian States remained in the youthful or intermediate category (Table III.2). By 2026, Kerala and Tamil Nadu are expected to enter the ageing category, with more than 15 per cent of their population above 60 years of age. Most of the remaining States will be in the intermediate category and a few States under the youthful category during this period. By 2036, however, more than half of the States will be ageing and the rest will fall under the intermediate category with no States remaining in the youthful category.

3.9 India's gradual shift from a predominantly youth-heavy population towards a more mature age structure is depicted in Chart III.2. In the early and mid-transition stages, falling fertility reduces younger cohorts and increases the share of the working-age population, generating a demographic dividend that can accelerate growth (Bloom, Canning and Sevilla, 2003; Lee and Mason, 2006). The dividend can boost per capita income and is often reinforced by higher

**Table III.2: State-wise Share of Population Above 60 Years of Age**

*(Per cent of Total Population)*

| State\Year | 2011 | 2016 | 2021 | 2026 | 2031 | 2036 |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Kerala | 12.7 | 14.5 | 16.5 | 18.7 | 20.9 | 22.8 |
| Tamil Nadu | 10.6 | 12.0 | 13.6 | 15.8 | 18.2 | 20.8 |
| Himachal Pradesh | 10.4 | 11.6 | 13.1 | 14.9 | 17.1 | 19.6 |
| Punjab | 10.5 | 11.4 | 12.6 | 14.3 | 16.2 | 18.3 |
| Andhra Pradesh | 10.1 | 11.2 | 12.4 | 14.1 | 16.4 | 18.9 |
| West Bengal | 8.6 | 9.7 | 11.3 | 13.3 | 15.7 | 18.3 |
| Maharashtra | 10.0 | 10.7 | 11.7 | 13.1 | 15.0 | 17.1 |
| Odisha | 9.3 | 10.3 | 11.5 | 13.0 | 15.0 | 17.0 |
| Karnataka | 9.6 | 10.3 | 11.5 | 13.0 | 15.0 | 17.2 |
| Telangana | 9.2 | 10.1 | 11.0 | 12.5 | 14.5 | 17.1 |
| Uttarakhand | 8.9 | 9.7 | 10.6 | 11.8 | 13.2 | 14.9 |
| Gujarat | 8.0 | 9.0 | 10.2 | 11.8 | 13.6 | 15.4 |
| Jammu & Kashmir | 7.0 | 8.1 | 9.5 | 11.2 | 13.2 | 15.5 |
| Haryana | 8.6 | 9.1 | 9.8 | 10.9 | 12.3 | 14.0 |
| Delhi | 6.9 | 8.0 | 9.3 | 10.8 | 12.5 | 14.2 |
| Chhattisgarh | 7.6 | 8.0 | 8.8 | 10.1 | 11.7 | 13.4 |
| Rajasthan | 7.1 | 7.8 | 8.6 | 9.8 | 11.2 | 12.8 |
| Assam | 6.4 | 7.1 | 8.2 | 9.8 | 11.6 | 13.7 |
| Madhya Pradesh | 7.5 | 7.8 | 8.5 | 9.6 | 11.1 | 12.8 |
| Jharkhand | 6.5 | 7.6 | 8.4 | 9.5 | 10.8 | 12.3 |
| Uttar Pradesh | 7.4 | 7.7 | 8.1 | 9.0 | 10.3 | 11.8 |
| Bihar | 6.3 | 7.1 | 7.7 | 8.5 | 9.5 | 10.9 |
| **India** | **8.4** | **9.2** | **10.1** | **11.4** | **13.1** | **14.9** |

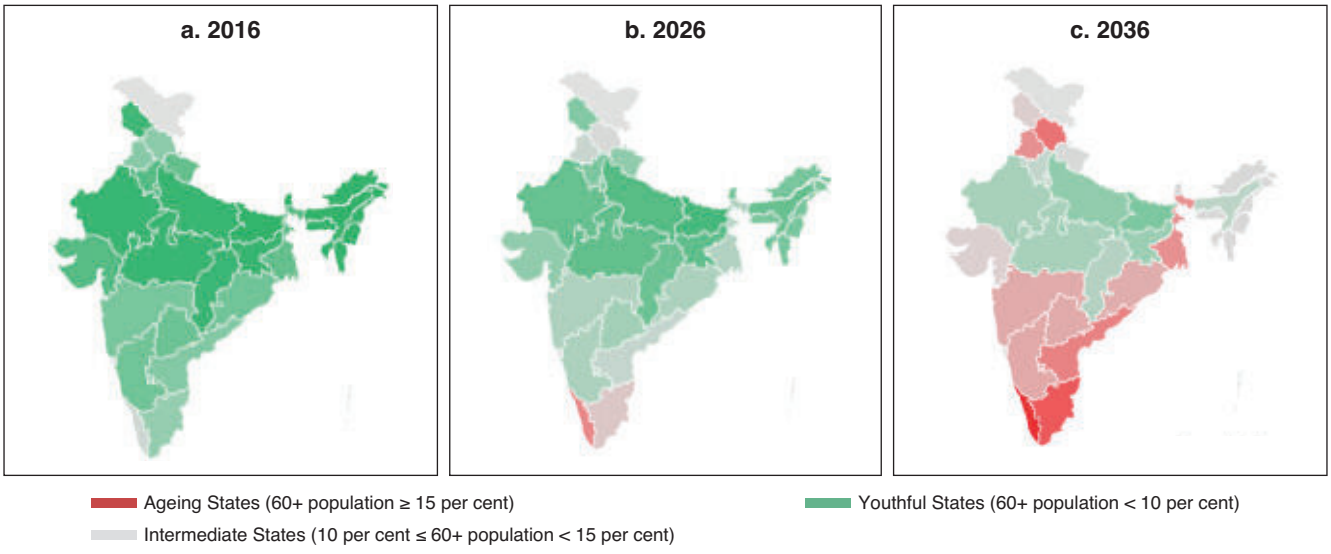
| Colour Code | Classification |
|---|---|
| | Ageing States |
| | Intermediate States |
| | Youthful States |

**Source:** Staff estimates.

[6] The International Labour Organisation (ILO) defines a country as "aged" when the population aged 65 years and above constitutes 14 percent or more of the total, "ageing" when this share lies between 7 and 14 per cent, and "not aged" when it is below 7 percent. In this study, we have chosen 60 years instead of 65 years for demographic classification of States, as in India the retirement age is generally 60 years, and people are categorised as senior citizens for various government entitlements when they cross 60 years of age.

[7] Goa and Union Territories (except Delhi and Jammu & Kashmir) are excluded from the analysis as detailed data on their demographic profile is not available in the Technical Group Report.

**Chart III.2: Demographic Shifts - State-wise**




**Source:** Staff estimates.

investment in health and education, rising female labour force participation, and greater savings. With supportive policies in education, healthcare, gender equality, job creation, and governance, these benefits can be maximised. However, as the transition advances, population ageing becomes the dominant outcome, placing unprecedented demands on public resources while shrinking the working-age tax base that sustains them.

3.10 A country's demographic dividend peaks when its working-age population is at its highest. Several studies highlight that a country's demographic dividend peaks when the share of working age population is approximately two-thirds of the total population (UN, 2023). The share of working age population in India is projected to rise from 64.8 per cent in 2026 to 65.1 per cent in 2031 and then decline to 64.9 per cent by 2036 (Table III.3). India may, however, continue to enjoy demographic dividend for a longer period than other countries due to significant regional heterogeneity in the process of demographic transition (Jain and Goli, 2021).

**Table III.3: State-wise Share of Working Age Population 2026-2036**

*(Per cent)*

| State\Year | 2026 | 2031 | 2036 |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| Bihar | 60.5 | 61.2 | 61.4 |
| Kerala | 62.0 | 60.8 | 59.5 |
| Madhya Pradesh | 62.7 | 63.8 | 64.5 |
| Uttar Pradesh | 62.8 | 64.8 | 66.1 |
| Rajasthan | 63.2 | 64.5 | 65.2 |
| Chhattisgarh | 63.9 | 64.6 | 64.9 |
| Jharkhand | 64.0 | 64.4 | 64.7 |
| Gujarat | 64.8 | 64.8 | 64.6 |
| Odisha | 65.2 | 64.8 | 64.1 |
| Tamil Nadu | 65.9 | 65.0 | 63.6 |
| Haryana | 65.9 | 66.5 | 66.6 |
| Assam | 66.1 | 65.7 | 65.2 |
| Himachal Pradesh | 66.6 | 65.9 | 64.7 |
| Karnataka | 66.6 | 66.5 | 65.6 |
| Uttarakhand | 66.6 | 66.5 | 66.4 |
| Andhra Pradesh | 66.9 | 66.4 | 65.4 |
| Punjab | 67.0 | 66.6 | 65.8 |
| Maharashtra | 67.3 | 66.9 | 66.2 |
| West Bengal | 67.7 | 66.7 | 65.5 |
| Telangana | 67.8 | 67.4 | 66.7 |
| Delhi | 68.9 | 68.3 | 67.3 |
| Jammu and Kashmir | 70.1 | 68.8 | 66.8 |
| **India** | **64.8** | **65.1** | **64.9** |

**Source:** Staff estimates.

3.11 Depending on the age structure, the effective demographic windows of opportunity – when the maximum demographic dividend can be reaped – will vary across the States. For instance, by 2026, States like Kerala and Tamil Nadu will already be ageing, with falling share of working age population, resulting in narrowing of the window of opportunity. In contrast, there are several States with younger population like Bihar, Madhya Pradesh, Uttar Pradesh, Chhattisgarh, Jharkhand and Haryana, where the share of working age population will continue to rise beyond 2031, widening the window of opportunity for a longer period. These States will also serve as the principal source of labour supply to the national economy. In these youthful States, however, reaping demographic dividend will not be automatic but conditional on supportive socio-economic policy environment in terms of investment in human capital and decent employment opportunities. For the intermediate States, the window of opportunity will be narrower than the youthful States, with almost half of the intermediate States of 2026 entering the ageing category by 2031 and the remaining ones by 2036. The share of working age population in some of these States will start moderating from 2026 and for others from 2031. However, the "demographic turning point" - the year when the share of the working-age population in their total population begins to decline - will differ across States even within this group.

3.12 By 2036, more than half of the States are projected to transition into the ageing category, with Kerala at the forefront, with more than 22 per cent of its population as elderly, an indication of advanced ageing. In these regions, the demographic dividend is likely to close earlier than the national average, primarily on account of rapid and sustained decline in fertility levels (UNFPA, 2019). For these States, policy imperatives would gradually shift from employment generation towards old-age support systems.

## 4. Fiscal Implications of Demographic Changes

3.13 Public finances are highly sensitive to demographic changes. Changes in the population age structure can have a significant effect on fiscal sustainability since they can affect both government revenues and expenditures.

### 4.1 Impact on Revenue

3.14 Population age structure has profound implications for government revenue. In the youthful States, a larger workforce, if employed effectively, can create a larger tax base, boosting both direct and indirect tax receipts. Increased urbanisation can further boost tax receipt in these States by shifting away from hard-to-tax sectors like agriculture. In contrast, in the ageing States, a gradually shrinking labour force will lower the long-term growth rate and thus partly erode the tax base, particularly, for personal income taxes (Crowe *et al.,* 2022; Kim *et al.,* 2014). Different revenue indicators constructed as simple averages of States belonging to each demographic cohort *viz.* youthful, intermediate, and ageing, provide insightful outcomes (Tables III.4 and III.5).

3.15 The youthful States consistently display stronger revenue mobilisation, reflected in higher levels of revenue receipts, tax revenues and central transfers (Table III.5). Intermediate States maintain a relatively stable revenue performance, with moderate outcomes across revenue receipts, tax revenues, and central transfers, suggesting steady but less dynamic fiscal capacity. Ageing States exhibit weaker performance, with lower revenue receipts compared to the other two groups on account of lower tax collections as well as lower transfers from the Centre reflecting

**Table III.4: Revenue Indicators for States**

| Major Heads | Components |
|---|---|
| 1 | 2 |
| **1. Revenue Receipts** | Total revenue collected by State, including tax and non-tax revenue |
| **2. Tax Revenue** | Total tax revenue of State, which includes States own taxes and share of central taxes |
| **3. Own Tax Revenue** | Taxes levied and collected directly by the State, excluding central transfers |
| **4. Central Transfers** | Transfers received from the central government, inluding devolution of central taxes and grants |

structural challenges linked to higher demographic pressures and slower growth (Table III.5).

### 4.2 Impact on Expenditure

3.16 Demographic transitions alter established patterns of public outlays and compel governments to recalibrate priorities (Baldacci, 1997). Public expenditure, inherently dynamic, is shaped by demographic, economic, and political undercurrents that define a society's trajectory. With Indian States traversing distinct stages of demographic transition, any straitjacket expenditure rule will be rendered untenable. Expenditure priorities must adapt to the demographic contours of each State and the pace at which they unfold. Youthful States are expected to emphasise education and skilling to harness their demographic dividend (Jain *et al.,* 2025). In contrast, ageing States will require greater public spending on healthcare, pensions, and social security (Bloom, Canning & Fink, 2010). Most studies have found that population ageing leads to an increase in health expenditure of the government (Kim *et al.*, 2014; Matteo, 2005).

3.17 An analysis of the social sector expenditure of States across four benchmark years - 2010-11, 2015-16, 2020-21, and 2024-25 yields interesting results. Here, social sector expenditure includes

**Table III.5: Revenue Indicators of States by Demography**

*(Per cent of GSDP)*

| Category | 2010-11 | 2015-16 | 2020-21 | 2024-25 |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| **Revenue Receipts** | | | | |
| Youthful | 16.8 | 17.8 | 18.5 | 19.5 |
| Intermediate | 13.7 | 13.8 | 13.1 | 15.9 |
| Ageing | – | – | 12.6 | 10.2 |
| **Tax Revenue** | | | | |
| Youthful | 10.7 | 12.2 | 10.8 | 14.3 |
| Intermediate | 9.5 | 9.6 | 8.1 | 10.0 |
| Ageing | – | – | 7.7 | 8.1 |
| **Own Tax Revenue** | | | | |
| Youthful | 6.3 | 6.2 | 5.8 | 6.9 |
| Intermediate | 7.5 | 6.7 | 5.7 | 7.0 |
| Ageing | – | – | 6.2 | 6.4 |
| **Central Transfers** | | | | |
| Youthful | 4.5 | 6.0 | 4.9 | 7.4 |
| Intermediate | 2.0 | 2.9 | 2.4 | 3.1 |
| Ageing | – | – | 1.5 | 1.7 |

**Source:** Staff estimates.

spending under five broad heads - education, health, urban development, social security and welfare, and pension (Table III.6). All aggregates are standardised across States and presented both as ratios to GDP as well as shares in total social sector expenditure.

**Table III.6: Key Social Sector Expenditure Components**

| Major Heads | Sub-Components |
|---|---|
| 1 | 2 |
| **1. Education** | **Education, sports, art, and culture** |
| **2. Health, nutrition, and family welfare** | **Medical and public health**<br>**Family welfare**<br>**Nutrition** |
| **3. Urban development** | **Water supply and sanitation**<br>**Housing**<br>**Urban development** |
| **4. Social security and labour welfare** | **Labour and labour welfare**<br>**Social security and welfare** |
| **5. Pension** | **Pension expenditure** |

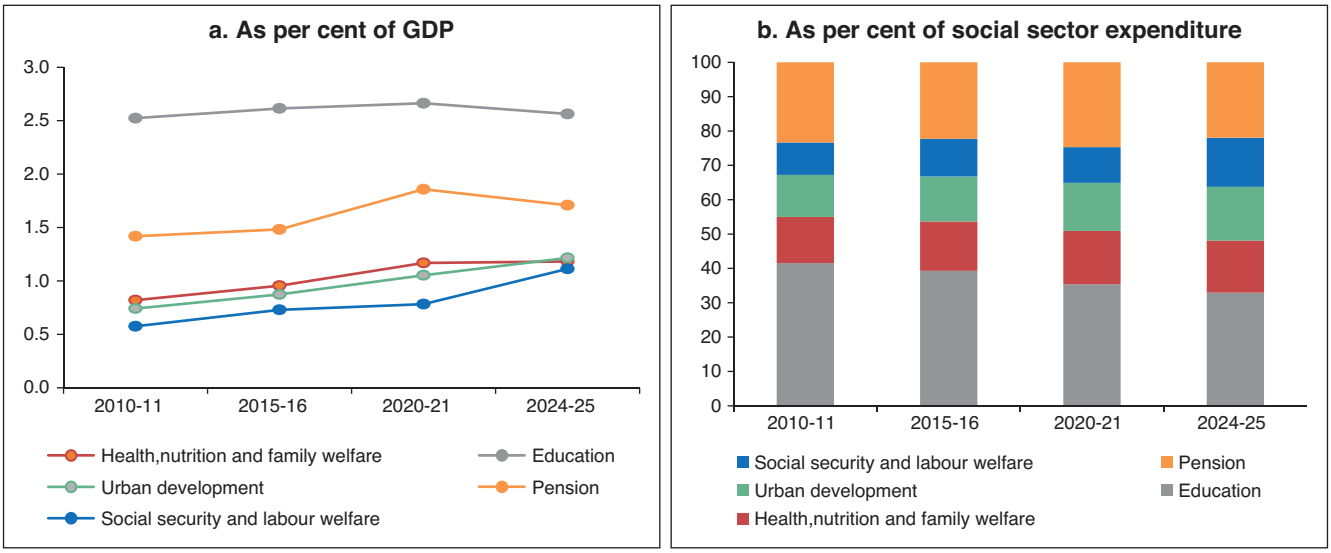
3.18 At the aggregate level for all States, spending patterns have undergone a structural pivot towards infrastructure and social protection. State governments' spending on social security and labour welfare has expanded visibly from 0.6 per cent of GDP in 2010-11 to 1.1 per cent of GDP in 2024-25 (Chart III.3a). Urban development expenditure has also moved upwards, climbing from 0.7 per cent to 1.2 per cent over the same period. Health outlay as per cent of GDP has risen since the pandemic, while education has remained largely flat throughout. Pension, too, has remained broadly stable, barring the pandemic related spike that has since unwound.

3.19 As a share of total social sector spending, expenditure on social security has risen from 9.5 per cent in 2010-11 to 14.3 per cent in 2024-25, largely driven by the expansion of direct benefit transfers that cut across demographic groups (Chart III.3b). The share of urban development has inched up from 12.2 per cent to 15.6 per cent, reflecting the need to cater to the expanding city population. In contrast, the share of education, has steadily receded, from 41.5 per cent in 2010-11 to 32.9 per cent in 2024-25. The sharp decline in the share of education, despite a growing need to invest in human capital, suggests emerging trade-offs in expenditure prioritisation. This trend underscores the need for safeguarding long term growth enablers such as education and health from being crowded out by immediate consumption-based commitments.

### Youthful States

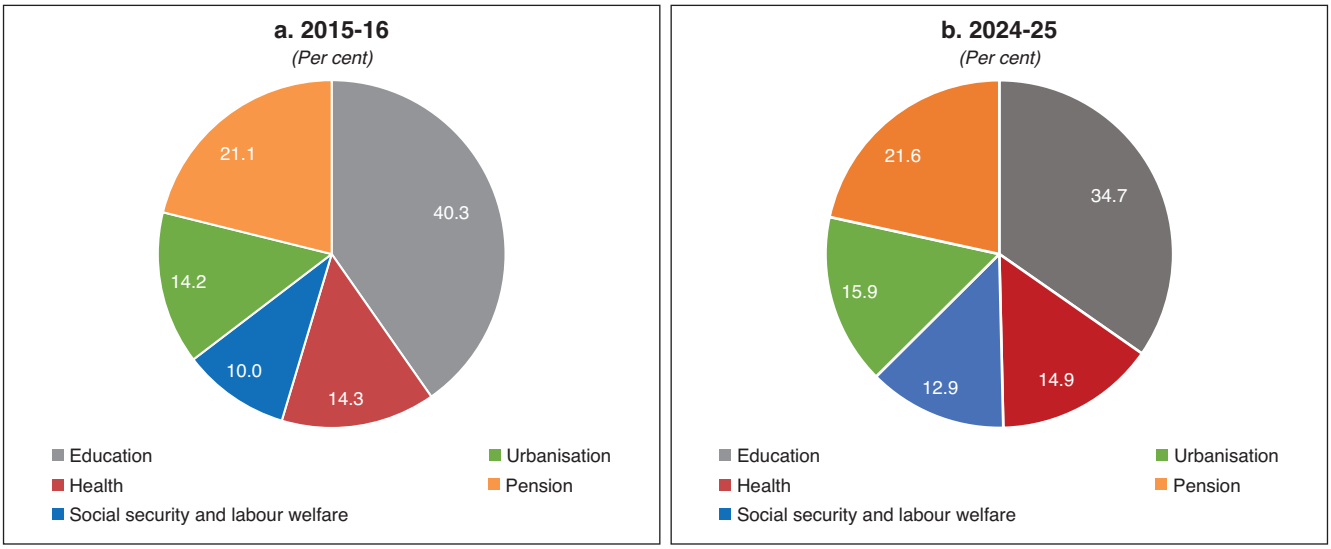
3.20 Demographic groupwise analysis reveals that in the youthful States, education dominates the social sector expenditure followed by expenditure on pension, urbanisation, health and social security. In 2024-25, the youthful States on average devoted a higher share of social sector expenditure (35 per cent) to education compared to the other two groups, underscoring their commitment towards skilling, and building capacities (Charts III.4; III.6; and III.7). Bihar recorded the highest education share (41.8 per cent) among all States, followed by Maharashtra, Rajasthan, and Chhattisgarh in close succession.

**Chart III.3 States' Expenditure on Key Social Sector Components**




**Source:** Staff estimates.

**Chart III.4 Average Share of Social Sector Expenditure Components (Youthful States)**




**Source:** Staff estimates.

However, even within the youthful cohort, the share of education in total social sector spending has moderated from the 2015-16 levels, signalling a gradual shift in fiscal priorities as social and infrastructural needs have expanded. Accordingly, there has been an increase in the share of urbanisation, and social security between 2015-16 and 2024-25, whereas the share of pension and health remained broadly stable (Chart III.4). Among States, Chhattisgarh, Uttar Pradesh, Gujarat, and Telangana recorded the highest allocation towards urban development, as expanding population heightens demand for housing, transport, and civic infrastructure. Health spending as per cent of total social sector spending remained flat between 2015-16 and 2024-25, reflecting States' continued focus towards maternal and childcare, which is critical to help realise the demographic dividend in youthful States.

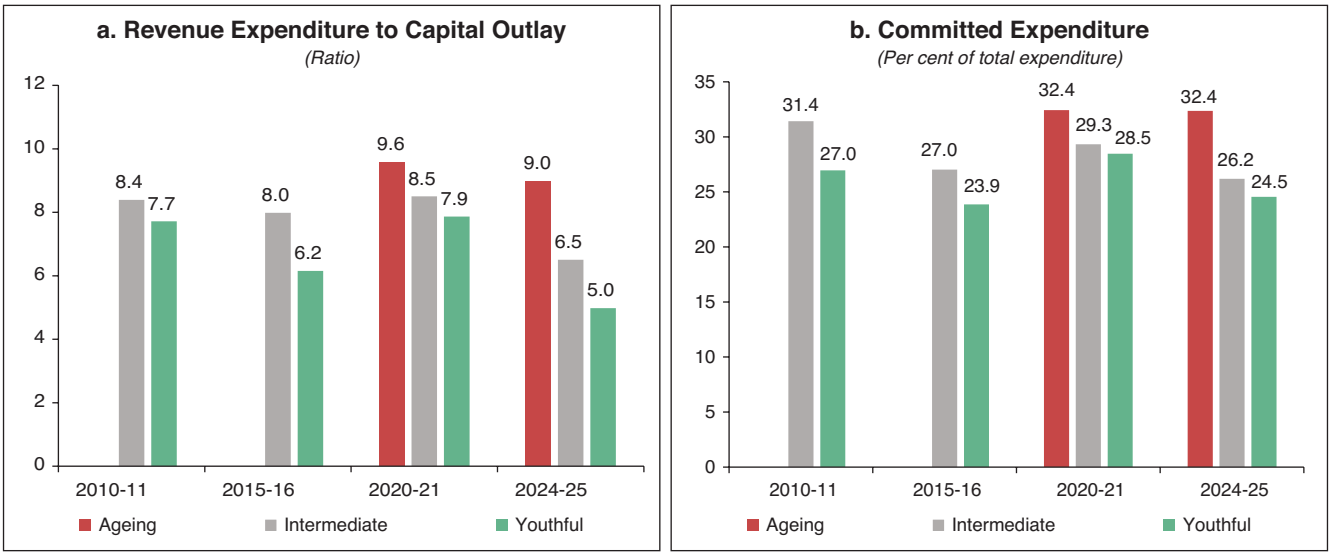
3.21 The youthful States have scaled up their capital spending and improved the quality of expenditure. The revenue expenditure to capital outlay (RECO) ratio has declined from 6.2 in 2015-16 to 5.0 in 2024-25, reflecting their focus on infrastructure and capacity building (Chart III.5a). Their lower committed expenditure[8] compared to the other two groups has generated greater fiscal headroom to prioritise demographically sensitive areas such as education, skilling, health, and infrastructure (Chart III.5b). As these States broaden social support programme, calibrated spending and careful targeting will be essential to ensure that expanding social commitments do not crowd out critical developmental spending.

### Intermediate States

3.22 Broadly similar expenditure pattern was noted for the intermediate States in 2024-25 with education having the dominant share in social sector expenditure followed by pension, urbanisation, health, and social security. Intertemporally, there is a sharp decline in the

[8] Committed expenditure consists of interest payments, administrative services, and pensions.

**Chart III.5: Quality of States' Expenditure Across Demographic Group**

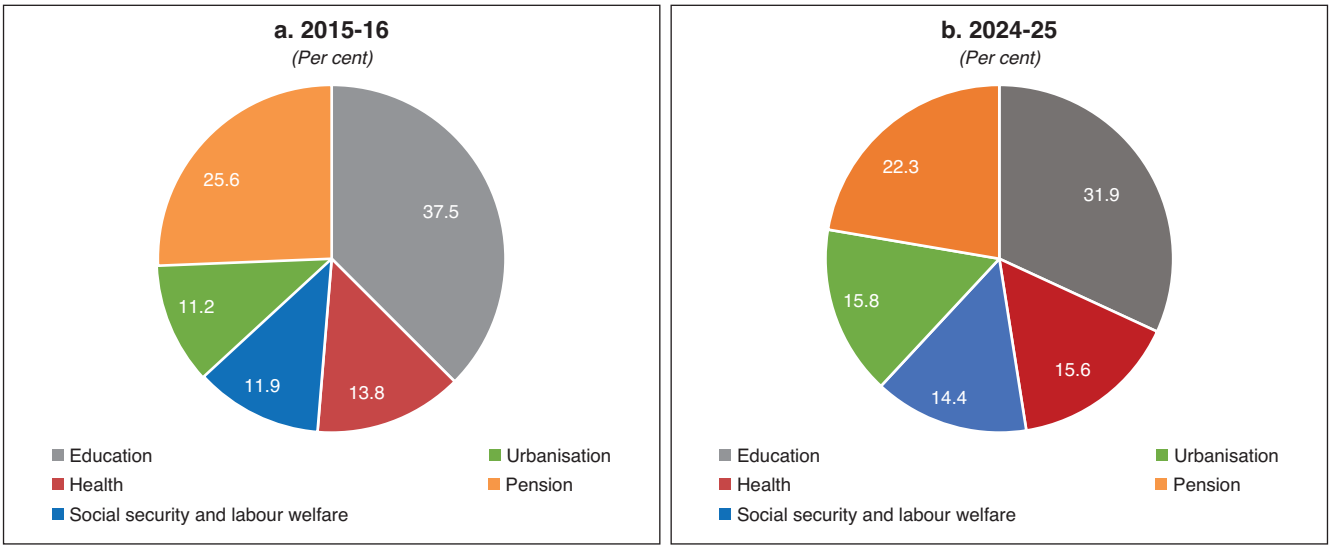



**Source:** Staff estimates.

expenditure shares of education and pension between 2015-16 and 2024-25, whereas the shares of urbanisation, social security and health have increased considerably (Chart III.6). For urban development, the youthful and intermediate cohorts allocate a higher share (around 16 per cent), compared to the ageing States (7 per cent), consistent with their relatively younger age profile.

3.23 Intermediate States have maintained a balanced expenditure profile, with gradual improvement in quality of spending over time (Chart III.5). The RECO ratio has edged down from 8.0 in 2015-16 to 6.5 in 2024-25, reflecting gains in fiscal space to support developmental priorities. Their committed expenditure has also softened from the pandemic peak and dipped

**Chart III.6 Average Share of Social Sector Expenditure Components (Intermediate States)**




**Source:** Staff estimates.

slightly below the 2015-16 levels, indicating measured containment of routine obligations.

### Ageing States

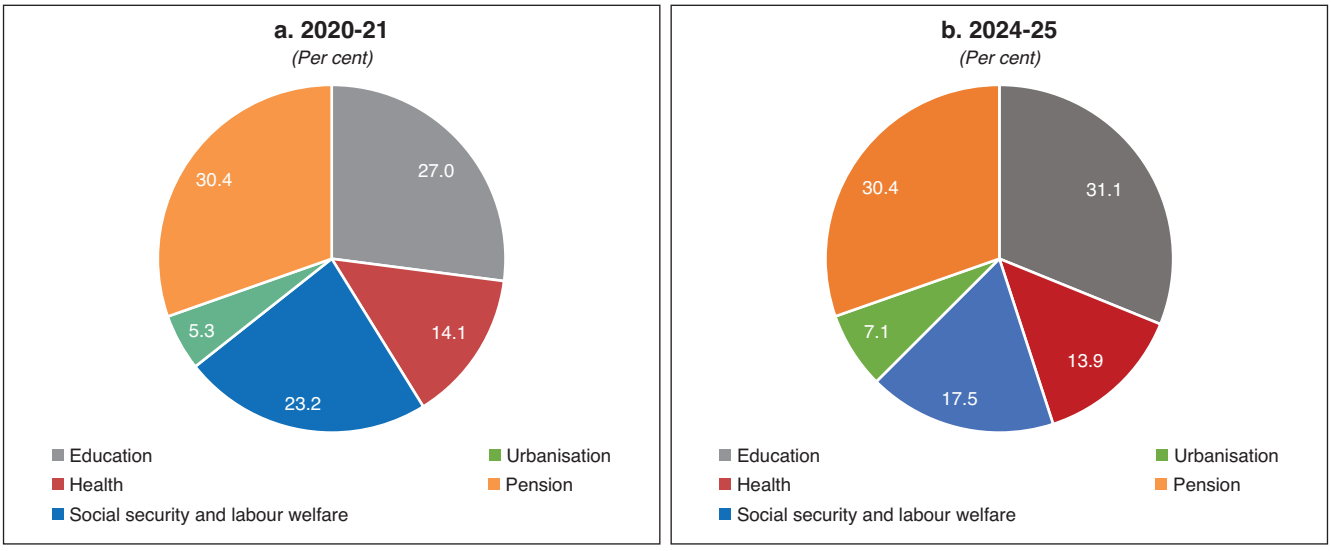
3.24 In the ageing States, education and pension accounted for almost equal share of social sector expenditure, followed by social security in 2024-25. The expenditure share of health was marginally lower than the youthful and intermediate States, whereas the share of urbanisation was less than half of those States (Chart III.7). The considerably lower share of urbanisation in the ageing States compared to the other two age groups reflects their earlier urban transitions and already mature city systems. Similarly, their lower share of education compared to youthful and intermediate States reflects the impact of population ageing.

3.25 The ageing States on average allocate close to 30 per cent of their total social sector spending to pensions - the highest among the three cohorts (Chart III.7). Pension burdens have increased in tandem with the rising share of elderly population in these States. Intermediate States and youthful States spend less for now, but as ageing pressures become ubiquitous, rising life expectancy and expanding coverage mean pension liabilities could escalate rapidly in the years ahead.

3.26 Underscoring the growing fiscal pressure of welfare commitment amid demographic change, the share of social security and welfare - which encompasses expenditure on women, children, the elderly and persons with disabilities - has moved upward for all the cohorts, with ageing States devoting the highest share (around 18 per cent) [Chart III.7]. This spending is largely driven by the expansion of direct benefit transfers, including the surge in cash transfers. Such expenditures have become a structural component of State budgets, driven by broad based policy imperatives rather than demographic pressure alone. If not managed carefully, the rising emphasis on such transfers risks constraining the ability of States to allocate adequate resources towards demographically sensitive areas such as health and education.

3.27 Among the three groups, ageing States exhibit the highest RECO ratio of 9.0 in 2024-25, nearly double that of the youthful States, signalling

**Chart III.7 Average Share of Social Sector Expenditure Components (Ageing States)**




**Source:** Staff estimates.

limited fiscal flexibility to scale up investment in critical areas such as geriatric support, public health, and long-term care systems (Chart III.5a). Committed expenditure also remains elevated at 32.4 per cent of total expenditure, reinforcing the constraints (Chart III.5b). For these States, greater efficiency in spending, targeted social support, and efforts to strengthen revenue mobilisation will be key to generate fiscal space for essential demographic-responsive spending.

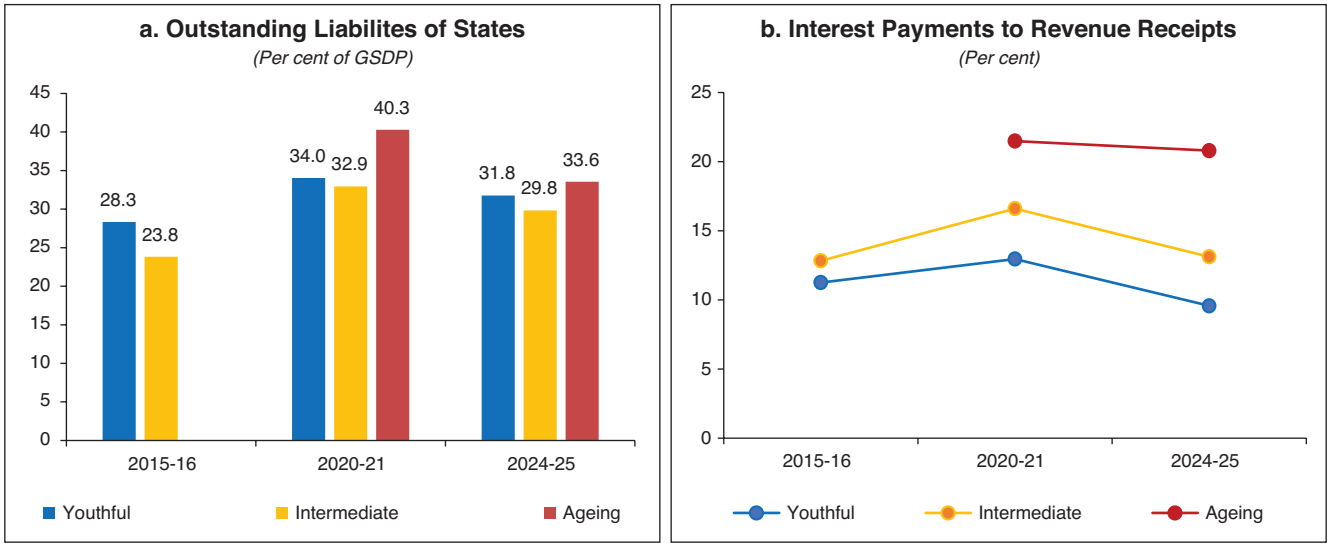
### 4.3 Impact on Fiscal Sustainability

3.28 While population ageing has a negative impact on revenue mobilisation due to lower labour force participation and slower growth, States with higher percentages of elderly population require substantial resource allocation towards elderly care, including healthcare, social security, and infrastructure. This poses significant challenges for fiscal sustainability, limiting fiscal policy space and effectiveness (Bloom *et al.,* 2010). The Organisation for Economic Co-operation and Development (OECD) countries have already experienced rising old-age dependency leading to higher fiscal deficits and debt accumulation. Similar patterns are emerging in advanced Asian economies like Japan and South Korea, where population ageing has intensified fiscal pressures. To safeguard against the adverse economic and fiscal consequences of population ageing, there is a need for fiscal buffers, improved quality of public finances and structural reforms (ECB, 2022).

3.29 The IMF's Debt Sustainability Framework highlights that debt burden indicators, primary balance, and debt service costs are central to assessing medium to long-term vulnerabilities in public finances (IMF, 2013; 2021). Debt-GDP ratio (reflecting the overall debt burden), and interest payments to revenue receipts ratio (capturing the stress of debt servicing on fiscal resources) are the most widely used indicators of debt sustainability of a government. In India, different groups of States face distinct revenue and expenditure pressures, which shape their debt dynamics differently. Linking debt indicators to demographic patterns provides a more nuanced framework for evaluating fiscal sustainability and for designing differentiated fiscal strategies across States. The debt indicators presented here are constructed as simple averages of States belonging to each demographic cohort *viz.* youthful, intermediate, and ageing.

3.30 The Debt-GSDP trends show a clear demographic pattern, with youthful States desplaying relatively higher debt burden compared to the intermediate States in 2015-16 (Chart III.8a). In the Covid year of 2020-21, the debt ratios spiked across all demographic categories. The ageing States faced the maximum stress during this period, with debt levels significantly higher than those of youthful and intermediate States. By 2024-25, there has been some moderation in debt levels across all demographic groups as their economies recover, though the ageing States continue to bear the highest debt burden as they remained structurally vulnerable due to weaker revenues and elevated committed expenditure. The intermediate States registered relatively lower debt burden across the years compared to the other two groups. The lower debt-to-GSDP ratio of intermediate States, such as Odisha, Maharashtra, and Karnataka, compared to youthful States like Uttar Pradesh and Bihar, reflects multiple factors like stronger growth dynamics, robust industrial base, higher fiscal capacity, greater fiscal discipline and sustainable debt management practices (RBI, 2023; Mohan, 2023).

**Chart III.8: Indicators of States' Debt Burden**




**Source:** State Finances: A Study of Budgets, RBI, various issues.

3.31 The interest payment to revenue receipts ratio (debt service ratio) highlights persistent fiscal stress, particularly among the ageing States. During the entire period between 2015-16 and 2024-25, the debt-service burden of the youthful States remained lower than that of the intermediate States with the gap getting wider over time (Chart III.8b). While there has been some moderation in debt service ratio of both youthful and intermediate States in 2024-25 from the Covid high of 2020-21, the ageing States continue to carry a heavier burden. These dynamics underline the fiscal vulnerability of ageing States, where rising interest commitments constrain spending flexibility. High debt service often crowds out productive public spending, such as investment in human and physical capital (Bacchiocchi *et al.*, 2011).

## 5. Policy Options

3.32 The findings of the previous sections are consistent with the broader literature highlighting the role of demographic transitions in shaping fiscal performance. This calls for forward-looking policies incorporating population dynamics and the related fiscal challenges.

### 5.1 Policy Suggestions for Youthful States

3.33 The youthful States with relatively lower share of elderly population, and lower old-age dependency ratios, are in a position to reap the benefits of their large working-age populations. However, reaping demographic dividend in these States is not automatic but conditional on supportive socio-economic policy environment in terms of investment in human capital and employment opportunities. The review of expenditure profile during the last decade reveals that the share of public spending on education by the youthful States has declined over time, even as demographic pressures intensify. Thus, for them the policy priority should be to strengthen revenue mobilisation through broadening the tax base and simultaneously investing heavily in human capital and infrastructure to accelerate growth.

3.34 Second, these States should also proactively expand employment opportunities, particularly for youth, to convert their demographic dividend into sustained fiscal capacity. A boost to labour intensive sectors such as trade, transport, tourism, e-commerce, and other utility services can create jobs for unskilled and semi-skilled workforce. Alongside, it is also critical to ensure that the working age population in general, is suitably educated and skilled for jobs of the future in the era of artificial intelligence and automation. For the skilled workforce, promoting entrepreneurship, business-friendly policies, and labour market reforms are crucial for job creation. The Indian States have adopted various education and skill development policies suitable to their demographic structure (Annex III.1). India's success in exporting Information Technology and Business Process Outsourcing services is a good example of how it has leveraged its demographic advantage.

3.35 Third, as States traverse through different stages of demographic transition, there has been a pronounced expansion in social sector outlays through cash transfer to women, farmers, and youth, pensions, and other welfare schemes. Once introduced, these schemes often acquire a quasi-committed character, making them difficult to scale back or discontinue. Although such interventions have deepened social safety nets, their growing scale calls for periodic review and sharper targeting. In youthful States, where the dividends from investing in early life nutrition, learning and skills are especially high, rising transfer commitments must not overshadow the imperative of building human capital.

### 5.2 Policy Suggestions for Intermediate States

3.36 Intermediate States are entering a phase where ageing pressures are becoming visible, with moderate increases in old-age dependency ratios. Meanwhile, the window for reaping demographic dividends in these States is gradually closing. Their fiscal stance should balance growth-enhancing investments with the need to gradually expand social security and healthcare systems.

3.37 Policies to encourage higher labour force participation - especially among women and older workers - will be critical to sustain economic dynamism. Equally important are productivity-oriented reforms, such as technology adoption, innovation, and industrial diversification, which can help offset the slowdown in labor supply and ease long-term fiscal pressures.

3.38 Looking ahead, strengthening revenue capacity, and improving the quality and efficiency of government expenditure will be essential for creating durable fiscal space as demographic needs evolve. At the same time, early steps in building healthcare and pension buffers will help them avoid sharp fiscal adjustments once ageing pressures begin to mount in the coming decades. The pension reform carried out by Indian States by shifting from the defined benefit Old Pension Scheme (OPS) to the defined contribution National Pension System (NPS) is a major step forward to reduce the fiscal burden of population ageing.

### 5.3 Policy Suggestions for Ageing States

3.39 Ageing States are facing high old-age dependency ratios and rising social sector expenditure obligations. Rising old-age dependency ratios also suggest that the demographic transition currently confronting the ageing States, such as Kerala and Tamil Nadu, will gradually extend to today's intermediate and youthful States (Table III.7). Addressing the mounting fiscal pressures stemming from population ageing and safeguarding public

**Table III.7: State-wise Old-Age Dependency Ratio**

| State/Year | 2011 | 2016 | 2021 | 2026 | 2031 | 2036 |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **India** | **13.8** | **14.6** | **15.7** | **17.6** | **20.1** | **23.0** |
| Jammu & Kashmir | 11.9 | 12.9 | 14.1 | 16.0 | 19.2 | 23.2 |
| Himachal Pradesh | 16.3 | 17.7 | 19.7 | 22.4 | 26.0 | 30.3 |
| Punjab | 16.5 | 17.4 | 18.8 | 21.3 | 24.3 | 27.8 |
| Uttarakhand | 14.8 | 15.3 | 16.2 | 17.6 | 19.8 | 22.4 |
| Haryana | 13.9 | 14.3 | 15.0 | 16.5 | 18.5 | 21.0 |
| Delhi | 10.5 | 11.8 | 13.4 | 15.6 | 18.2 | 21.1 |
| Rajasthan | 12.3 | 12.9 | 13.9 | 15.5 | 17.4 | 19.7 |
| Uttar Pradesh | 13.1 | 12.9 | 13.2 | 14.3 | 15.8 | 17.9 |
| Bihar | 11.8 | 12.7 | 13.1 | 14.0 | 15.6 | 17.8 |
| Assam | 10.5 | 11.3 | 12.7 | 14.8 | 17.7 | 20.9 |
| West Bengal | 13.4 | 14.6 | 16.6 | 19.7 | 23.5 | 27.9 |
| Jharkhand | 11.4 | 12.6 | 13.5 | 14.9 | 16.8 | 19.0 |
| Odisha | 15.0 | 16.1 | 17.7 | 20.0 | 23.1 | 26.6 |
| Chhattisgarh | 12.6 | 12.9 | 13.8 | 15.7 | 18.1 | 20.6 |
| Madhya Pradesh | 12.7 | 12.9 | 13.6 | 15.3 | 17.4 | 19.8 |
| Gujarat | 12.6 | 13.9 | 15.7 | 18.2 | 20.9 | 23.9 |
| Maharashtra | 15.7 | 16.4 | 17.5 | 19.5 | 22.4 | 25.8 |
| Andhra Pradesh | 15.7 | 16.9 | 18.5 | 21.1 | 24.7 | 28.9 |
| Karnataka | 14.9 | 15.7 | 17.2 | 19.6 | 22.6 | 26.2 |
| Kerala | 19.8 | 22.7 | 26.1 | 30.1 | 34.3 | 38.3 |
| Tamil Nadu | 16.0 | 18.0 | 20.5 | 23.9 | 28.0 | 32.7 |
| Telangana | 14.5 | 15.2 | 16.3 | 18.4 | 21.5 | 25.7 |

**Note:** Green corresponds to lower dependency, yellow to moderate dependency, and red to higher dependency.
**Source:** Staff estimates.

finance sustainability requires a comprehensive policy strategy.

3.40 Older people aged 60 or above usually have different needs and behaviour than younger individuals. Older individuals tend to work and save less, implying they offer less labour and capital to economies. They also require more health care and social security support compared to working age population. Thus, the ageing States should prioritise healthcare financing reforms, preventive health systems, and public–private partnerships, while rationalising subsidies and non-merit spending to create fiscal space. Tamil Nadu has implemented measures like doorstep delivery of medical services for elderly households; centres for day care and health services for senior citizens, and State pension schemes for the elderly and the vulnerable (Annex III.1). Ensuring universal access to quality health services together with increasing life expectancy can result in second and third waves of demographic dividend[9] like in the case of East Asian economies (Box III.1).

3.41 Second, due to rising old-age dependency, the ageing States would witness a gradual decline in labour supply resulting in lower productivity and economic growth. In these States, however, healthier ageing could continue to boost labour supply by extending working lives and enhancing older workers' productivity, offering a bright spot amid the rise of the silver economy (IMF, 2025). This will require a change in workforce policy of the States such as increasing the retirement ages beyond 60 years in alignment with the improved life expectancy. Employers may also adopt phased retirement plans, flexible work arrangements, and re-skilling programmes tailored for older workers.

3.42 Third, interstate migration could be another way to boost labour supply in the ageing States. Internal migration in India has been closely linked to regional disparities, with movement predominantly directed from less-developed to more-developed States (Srivastava, 2011; Das & Saha, 2013). Out-migration is currently heavily concentrated in a few States like Uttar Pradesh,

[9] The old age dividend refers to the potential economic and social benefits of an ageing society, particularly if elderly individuals can remain active and engaged in economic, social and familial roles.

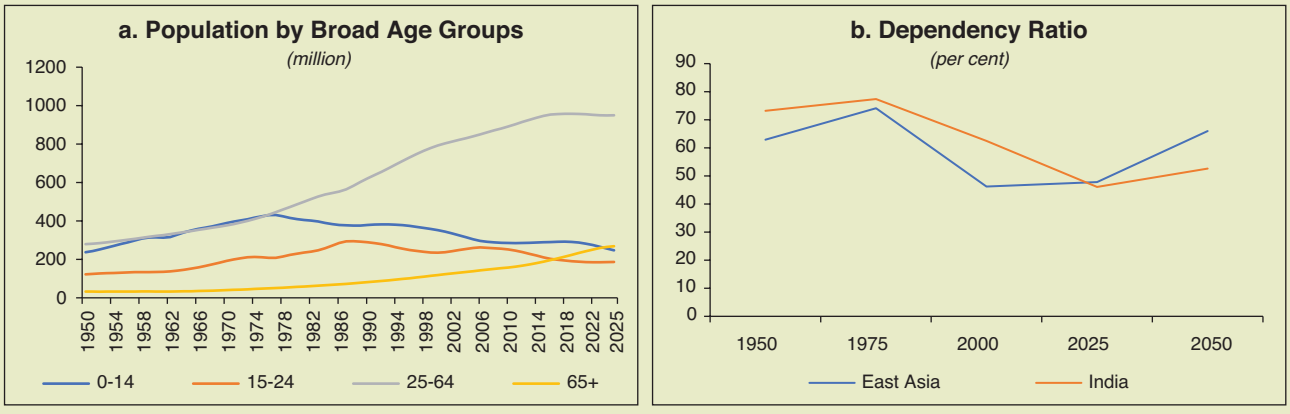
## Box III.1: Leveraging Demographic Dividend: Insights from East Asia

The East Asian countries[10] experienced rapid economic growth in the range of 9-10 per cent on an annual basis during the period 1960s-80s[11], often termed as "East Asian Miracle". Several of these economies were affected by the ravages of World War II and the speed with which these countries transformed themselves thereafter to rise to prominence in the global trade and finance, and sustained the same through decades, was largely unprecedented. Along with high growth rate, these economies often had high savings and investment rates, partly attributable to the export oriented industrial policy (Storm and Naastepad, 2005). Demographic factors also played an important role in the transition of East Asian economies. A rapidly increasing proportion of working age population resulted in increased supply of labour, lower dependency ratio[12] during the late 1970s till mid-2000, coupled with a high potential support ratio (Charts 1a and b)[13]. Lower dependency ratio freed up resources for savings and investment in these countries, thus opening the "demographic window of opportunity". In addition, a higher[14] potential support ratio indicates lower strain on fiscal and social support systems.

While favourable demographic condition aided growth in these economies, the same was further strengthened by public policy aiming universal education and supply of healthy and skilled labour. The duration of compulsory education was kept at nine years in Japan, Hong Kong, Taiwan, and China, covering a portion of secondary education. Compulsory education Acts in Japan, and Korea made it imperative to allocate sizeable resources from national budget. Another striking feature of these countries was emphasis on vocational and technical education, facilitating low unemployment rate. Most of these countries prioritised universal access to basic health services, and health insurance expansion during the early years of their demographic dividend period. Specific examples include establishment of mandatory health savings accounts in Singapore (MediSave, introduced in 1984) and strong workplace health policies for factory workers in Taiwan.

Mirroring the global trend, most East Asian economies witnessed rapid ageing of their population since the 1990s. Japan started facing the problem early amongst them

**Chart 1: Demographic Transition in East Asia**




**Source:** Population data portal, United Nations.

*(Contd.)*

[10] Primarily refers to Japan, South Korea, Taiwan, Hong Kong, Singapore, and China, while several studies on the East Asian miracle also included Malaysia, Indonesia, and Thailand, as the second tier newly industrialised economies (NIEs).

[11] The peak growth rates, however varied across the East Asian countries. While for Japan, the peak growth rates were observed during mid-1950s to early 1970s, for the four Asian Tigers (South Korea, Taiwan, Singapore, and Hong Kong) the peak growth occurred during 1960-1980s. For China, the peak was observed post-reform (1978), during 1980s-2000s, while for Singapore, highest growth was observed during early independence years (1960s-1990s).

[12] Dependency ratio is the ratio of dependents (people younger than 15 or older than 64) to the working-age population (those in age bracket 15-64).

[13] Defined as number of persons in age group 15-64 per old person (aged 65 and above).

[14] East Asian countries' potential support ratio continued to be higher when compared with developing economies, though the gap reduced from mid-1990s.

and reformed its pension system to tackle the problem of mounting fiscal burden by raising retirement age as well as introducing defined contribution scheme and long-term care insurance (introduced in 2000). In South Korea, pension reforms during 1998-2007 were in the form of cutting replacement rates, raising retirement ages and establishing long-term care insurance. Other measures adopted by East Asian countries were moving to a defined contribution system (Hong Kong, Singapore), change from wage-based to price-based indexation (Japan and South Korea) and expanding pension coverage (China). Finally, universal access to quality health services and higher life expectancy in most of these economies resulted in a second and even third wave of demographic dividend. During the second wave, mid-aged professionals save more as they prepare for a longer post-retirement life, thus boosting the national savings, whereas the third demographic dividend refers to exploring untapped resources within the healthier elderly population, which also lowers dependency burden (Ogawa *et al.*, 2021).

The experience of East Asian economies during the years of their demographic dividend and subsequent rise in ageing population provides valuable lesson for countries like India, which is in the midst of demographic transition. For India, the dependency ratio has already fallen below 67 per cent by 2000, indicating the opening of demographic window of opportunity. This low dependency ratio is expected to continue till 2041, after which it will start rising as per the projections of United Nations Population Fund (UNFPA) [Kumar *et al.*, 2023]. One unique feature of the demographic transition in India is that its States are at various stages of transition; hence the demographic dividend will be staggered spatially. Some States like Kerala and Tamil Nadu, which started to derive the benefit of favourable age profile of their population from 2000 onwards, would lose it sooner (around 2040s). In contrast, late entrants like Jharkhand, Madhya Pradesh, Rajasthan, and Bihar would continue to derive benefit from a younger demography even beyond 2061. Hence a one size fits all approach may not yield desired outcome in the case of India. A cluster-based approach involving States with similar demography may be more suitable. Several developed nations in the past resorted to a carefully designed migration policy during the phase of rising dependency. Somewhat similarly, within India, States which are at relatively advanced stages of the transition would depend on the late entrants for migrant workers. In these States, public policy should focus around creating diverse and multi-cultural workplaces, along with thrust on elderly care infrastructure. A healthy elderly population would partially offset the dependency burden in these States. States which are at an early stage of transition, should focus on empowering and educating its young population and skill formation. In addition, reducing gender gap in access to education, and basic health services would be crucial for these States, for ensuring a quicker transition *via* falling fertility rates.

**Table 1: Period of Demographic Dividend: Cross-country Comparison**

| Countries | Period of declining total dependency ratio* | General Government Education Expenditure (per cent of GDP) | General Government Health Expenditure (per cent of GDP) | Human Development Index (HDI) |
|---|---|---|---|---|
| | | (Average during the period specified in Col 2) | Data pertains to 2022 (latest available for cross-country comparison) | Data pertains to 2023 |
| 1 | 2 | 3 | 4 | 5 |
| China | 1977-2010 | 2.19 | 2.94 | 0.80 |
| Hong Kong | 1969-2011 | 2.97 | | 0.96 |
| Indonesia | 1972- ongoing | 2.12 | 1.39 | 0.73 |
| Japan | 1961-1969 | - | 9.82 | 0.93 |
| | 1983-1992 | 5.23 | | |
| Korea, Rep. | 1967-1999 | 3.37 | 5.90 | 0.93 |
| Malaysia | 1965- ongoing | 5.28 | 1.97 | 0.82 |
| Singapore | 1962-2012 | 3.01 | 2.77 | 0.95 |
| Thailand | 1967-2013 | 3.49 | 3.89 | 0.80 |
| India | 1967- ongoing | 3.86 | 1.29 | 0.69 |

**Note:** For countries in highlighted rows, total dependency ratio is still declining. *: Also referred as period of demographic dividend (Komine and Kabe, 2009).
-: Not available.
**Source:** Staff calculations based on data obtained from World Bank, and United Nations Development Programme (UNDP)

*(Contd.)*

India's pattern of development has been primarily services-led and characterised by relatively greater emphasis on tertiary education as compared to vocational education in many East Asian countries. Though predominance of services has helped India to grow fast, there has not been commensurate expansion in productive employment, partly attributed to India's services-led growth (ILO, 2024). Even with a declining fertility rate, population in India would continue to increase till 2063, reflecting the momentum effect (Kumar *et al.,* 2023). In this context, the development of labour-intensive manufacturing and fostering entrepreneurship would become crucial for generating employment in commensurate with rising young population. In India, general government expenditure on health as per cent of GDP stands low when compared to East Asia (Table 1), with high proportion of out-of-pocket expenditure[15] and limited development of voluntary health insurance market. In this context, the experience of successful resource pooling by some East Asian countries through mandated social insurance in the form of employee and employer contribution may provide valuable inputs for policy formulation. Given the presence of large informal sector in India, initiation of *Atal Pension Yojana* is a formative step to tackle the burden of ageing population in the decades to come. In addition, the ongoing reform of the pension system would be imperative to build a sustainable funding model for future, protecting inter-generational equity and limiting fiscal burden.

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Bihar and Rajasthan. Migration might cushion the decline in working-age population due to ageing, and, if fully integrated into the labour market, help by generating fiscal income.

3.43 Fourth, India must address its longstanding gender gap in labour force participation. Though India has witnessed a rise in the female labour force participation rate (LFPR) from 37.0 per cent in 2022-23 to 41.7 per cent in 2023-24, it still lags far behind the male LFPR of 78.8 per cent in 2023-24[16]. To avert an adverse impact of higher female labour force participation on fertility, policies should aim for improving the work-life balance for women, including improved parental leave systems, expanding on affordable childcare options, and promoting flexible work arrangements (Gu *et al.,* 2024).

3.44 Fifth, the demographic transition characterised by an increasing share of elderly population imposes unique fiscal challenges on States. For instance, the ageing States having higher percentage of elderly are financially more burdened compared to the youthful and intermediate States. Integrating the elderly population into the tax devolution formula can significantly alter the distribution of resources

[15] Out-of-pocket health expenditure, as per cent of health expenditure (current) stood at 46 per cent for India, higher than the corresponding number for East Asia and Pacific (25.45 per cent) in 2022 (**Source:** Global Health Infographics, World Development Indicators, World Bank).

[16] According to the Periodic Labour Force Survey 2023-24, LFPR is estimated in usual status.
Link: https://www.pib.gov.in/PressReleasePage.aspx?PRID=2057970&reg=3&lang=2

among States, with those having higher shares of elderly populations benefiting more (Box III.2). Accordingly, with the rapidly changing population profile of States, the future Finance Commissions may explicitly incorporate population ageing as reflected in terms of higher share of elderly population or old-age dependency ratio into their devolution formula to ensure fiscal sustainability of the ageing States (Chakrabarty and Gupta, 2021; Chakrabarty and Singh, 2024).

## Box III.2: Demographic Criteria in Finance Commission Awards - An Evolving Framework

Intergovernmental transfers have been a cornerstone of fiscal federalism in India. These transfers are crucial for ensuring a balanced distribution of resources across States, addressing disparities, and promoting equity (Singh and Chakraborty, 2024). In India, the Finance Commissions (FCs) from time to time have been using several criteria for *inter se* determination of share of taxes to the State governments. The various criteria used by the successive FCs can be grouped into four broad categories, *viz.,* need based criteria (comprising population, area, and demographic change); equity criteria (including income distance, fiscal capacity distance, and index of infrastructure); performance or efficiency criteria (comprising tax effort and fiscal discipline); and lastly, forest cover. Furthermore, an examination of the different criteria used by the FCs reveals that need and equity are the two most important criteria being used by the FCs, together accounting for 80 per cent or more weights being assigned to them (Chakraborty and Gupta, 2021).

Population, considered as a 'neutral indicator of need[17]', has been used by all the first 15 FCs constituted by the Government of India. Population size of a State directly indicates its expenditure requirements for providing economic, social, and general services to its inhabitants. The first 7 FCs assigned weights ranging between 75 and 100 per cent to population. From FC-VIII onwards, there was a shift of emphasis from need based criteria such as population towards equity considerations. Consequently, the weights assigned to population since the FC-VIII have ranged between 20 and 27.5 per cent except for the FC-XI, which had assigned a weight of 10 per cent to the population criteria. The FC-XV introduced a new parameter 'demographic performance', to reward States for their performance in population control, and better outcomes in education and health (Table 1).

**Table 1: Horizontal Devolution Criteria and Weights Assigned by various Finance Commissions**

| Criteria | Weight (per cent) | | |
|---|---|---|---|
| | FC-XIII (2010-15) | FC-XIV (2015-20) | FC-XV (2021-26) |
| Income Distance/ Fiscal Capacity | 47.5 | 50.0 | 45.0 |
| Area | 10.0 | 15.0 | 15.0 |
| Population (1971) | 25.0 | 17.5 | - |
| Population (2011) | - | 10.0 | 15.0 |
| Demographic Performance | - | - | 12.5 |
| Forest Cover | - | 7.5 | - |
| Forest and Ecology | - | - | 10.0 |
| Tax and Fiscal Efforts | - | - | 2.5 |
| Fiscal Discipline | 17.5 | - | - |
| **Total** | **100** | **100** | **100** |

**Source:** Report of the FC-XIII, FC-XIV and FC-XV.

The FC-XV used demographic performance as reflected in terms of population control or total fertility rate as one of the criteria to determine tax devolution across States. This marked a conceptual shift from population as a static indicator of need to one that recognises demographic efficiency and governance outcomes. With States moving through different stages of demographic transition, several States are facing fiscal pressures arising out of population ageing, with Kerala and Tamil Nadu in the forefront. Accordingly, there is a need to consider demographic changes by incorporating the share of elderly population as a criterion by the future Finance Commissions to promote a more equitable and efficient allocation of resources (Chakraborty and Singh, 2024).

Recent studies emphasise that fiscal frameworks must adapt to the evolving balance between working-age and elderly populations (IMF, 2023). Accordingly, old-age dependency ratio - the proportion of elderly (60 years and above) to the working-age population (15–59

[17] Population is considered as a neutral indicator of need since it provides a simple, quantifiable measure of a State's size and the number of people it needs to serve. A larger population generally implies greater expenditure on public services like health, education, and infrastructure.

years) - is constructed for each State and scaled to the 1971 population to maintain consistency with Finance Commission conventions. The average shares of the three groups of States, 'youthful', 'intermediate' and 'ageing' in tax devolution from the Centre are presented under the baseline scenario[18] (Table 2). An alternative scenario is considered, where the old-age dependency ratio of States is introduced as an additional criterion for tax devolution by reallocating 5 per cent of the weight from the population criterion (reduced from 15 to 10 per cent), while maintaining other weights unchanged. As expected, in the alternative scenario, the ageing States make incremental gains in *inter-se* share, whereas the youthful States experience a modest reduction. The coefficient of variation in the *inter-se* share declines modestly from 104.7 in the baseline to 103.9 in the alternative scenario. This indicates a calibrated narrowing of inter-State dispersion that preserves the progressivity of the formula while giving marginal recognition to ageing States.

**Table 2: Average *Inter-se* Shares across Demographic Cohorts under Alternative Scenario**

(Per cent)

| | Baseline (XV FC) | Alternative scenario |
|---|---|---|
| Youthful | 6.90 | 6.84 |
| Intermediate | 3.32 | 3.33 |
| Ageing | 3.00 | 3.20 |

**Source:** Staff estimates.

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## 6. Conclusion

3.45 The demographic transition across States in India is not uniform. The interstate variability in age structure results in diverse fiscal performance in terms of revenue realisation, quality of expenditure and debt sustainability. The youthful States exhibit strong revenue mobilisation supported by higher tax collections as well as higher central transfers; intermediate States display moderate and stable fiscal outcomes; and the ageing States face greater fiscal challenges on account of modest tax growth, and a lower share of central transfers. Regarding expenditure quality, the youthful States have relatively greater fiscal headroom to invest in human capital, and infrastructure; intermediate State show steady consolidation with measured containment of committed expenditure; while ageing States operate with tighter fiscal space due to higher committed outlays and demographic pressures. Supported by higher fiscal space, the youthful States are allocating a larger share to education and infrastructure; intermediate States are balancing developmental spending with welfare commitments; and ageing States are devoting a higher proportion towards old-age support. Taken together, the expenditure patterns across three groups reflect evolving priorities as States balance human capital investment, infrastructure needs, and rising welfare commitments amid changing demographic profiles.

3.46 The share of expenditure on education has moderated in all demographic groups, including the youthful States. Going forward, it is imperative for these States to invest heavily in education, skill building and job creation to take advantage of the demographic dividend of the younger population. Intermediate States need to balance growth-oriented investments with the expansion of social security and higher labour force participation. Ageing States must prioritise healthcare and pension reforms, rationalise subsidies, and harness the silver economy to manage fiscal pressures sustainably.

[18] The classification of States into youthful, intermediate, and ageing cohort follows the same definition used in the Chapter. Goa and North-Eastern States (except Assam) are excluded from the analysis. The group averages are calculated as simple means of State-level shares.

## Annex III.1: State-wise Policy Initiatives to Address Demographic Needs

| Names of State | Education and Skill Development | Health care and Social Welfare | Infrastructure |
|---|---|---|---|
| **1. Arunachal Pradesh** | • The State has expanded school access and quality of education through provision of mid-day meals, free textbooks, sanitary pads for girls, and construction of hostels and school buildings.<br>• The State has introduced multiple merit-based scholarship schemes (*Golden Jubilee Merit Award, AP Scholarship for Academic Excellence, State Merit Scholarships*), one-time financial assistance for higher education, competitive exams, and professional courses to support higher education.<br>• The State has launched *Integrated Scheme for School Education* (ISSE) and vocational initiatives to promote skill-based learning; *Chief Minister's Yuva Kaushal Yojana* and *State Apprenticeship Promotion Scheme* to enhance employability through short-term skill training, apprenticeships, and entrepreneurship support. | • State Social Security Scheme provides old-age, widow, and disability pensions, with enhanced monthly benefits and relaxed eligibility norms approved by the Cabinet.<br>• Schemes for women's empowerment include Women Achievers Awards, exposure visits for rural women, and the State Crèche Scheme to support working mothers. | • To address rising urbanisation and migrant inflows, the State promotes skill mapping, employment programs for migrant workers, and urban livelihood initiatives. |

| Names of State | Education and Skill Development | Health care and Social Welfare | Infrastructure |
|---|---|---|---|
| **2. Chhattisgarh** | • The State has set up Secondary Schools for Basic Minimum Services and Government Primary Schools scheme to strengthen basic amenities such as classrooms, sanitation, and drinking water infrastructure. | • Health services are delivered through a tiered public system. Primary Health Centres (PHC) act as the first point of contact for basic and maternal-child care. Community Health Centre (CHC) function as referral units and District Hospitals provide secondary-level inpatient and specialist care. | • *Mukhyamantri Nagarotthan Yojana* aims to upgrade municipal infrastructure and civic amenities.<br>• Entry-tax linked urban grants are provided as additional resources to urban local bodies (ULBs) for improving core services. |
| **3. Haryana** | • The State has Scholarship and merit-support schemes for the benefit of Schedule Caste (SC) students.<br>• The State has also launched Industrial Training Infrastructure Scheme for ITI upgradation; *Saksham Yuva Scheme* for engineering and construction skilling; *Guru Shishya Kaushal Samman Yojana* for traditional skill apprenticeships. | • Community welfare programs which are in place in the State include *PM-AJAY.* | • Urban Local Bodies (ULB) and Town & Country Planning (TCP) Departments publish joint Development Plans integrating demographic trends, migration patterns and future population growth. |
| **4. Himachal Pradesh** | • The State provides early-grade support through schemes like *Medhavi Chhatravriti Yojana, IRDP/BPL* Scholarship, and Free Textbooks aid participation and retention in Classes 1- 8.<br>• The State provides scholarships such as *Swami Vivekanand Utkrisht, Thakur Sen Negi, Dr. Ambedkar Medhavi, Kalpana Chawla, and Mukhya Mantri Protsahan Yojana* to support meritorious and disadvantaged students in higher classes. | • *The Indira Gandhi Pyari Behna Sukh Samman Nidhi Yojna 2024* had been launched with the objective of providing ₹1500 per month to women in the State.<br>• *Mukhya Mantri Chikitsa Sahayta Kosh* was launched on 20th October 2018 to provide financial assistance to needy poor people of the State suffering from critical ailments. | • The State strengthened urban planning by expanding Himachal Pradesh Town and Country Planning (HPTCP) coverage, enforcing safety norms in high-risk zones, increasing Shimla's green areas, introducing an E-DCR portal for faster building permissions, and operationalising the GIS-based Shimla Development Plan (2041). |

| Names of State | Education and Skill Development | Health care and Social Welfare | Infrastructure |
|---|---|---|---|
| **5. Kerala** | • The State government has made substantial investments in school and higher secondary infrastructure, including classroom upgrades, modernisation, and free/handloom uniform schemes.<br>• The State has strengthened higher education system through university development, skill-focused programs, and research/quality-assurance initiatives, alongside upgrades of engineering and polytechnic colleges.<br>• The State government pursues inclusive education initiatives such as the Autism Park and disability-linked centres of excellence. | • The budget has dedicated allocations for the care economy, including financial assistance to institutions supporting intellectually disabled children, and support for State institutes for the mentally challenged.<br>• Welfare schemes for youth such as the Kerala State Youth Welfare Board, outreach programs, and scholarships for students strengthen social protection for vulnerable and young populations. | • The State regularly upgrades physical, human, and IT infrastructure across higher education institutions, with significant spending on laboratories, digital systems, and capacity expansion.<br>• The State expanded sports and youth infrastructure through setting up of rural playgrounds, elite sports academies, and Kerala State Sports Council facilities. |
| **6. Meghalaya** | • Meghalaya focuses on improving access and quality of education through Mission Education, Samagra Shiksha, and PM SHRI Schools schemes, emphasising infrastructure upgradation, teacher training, and implementation of New Education Policy (NEP)-2020.<br>• The State has taken initiatives like Schools Information Management System and Vidya Samiksha Kendra to strengthen digital monitoring, transparency, and learning outcomes across 9,000+ schools. | • The National Health Mission and Chief Minister's Safe Motherhood Scheme strengthen primary care, maternal health, and disease control with integrated rural–urban healthcare delivery.<br>• Projects like Digitization of Public Health Systems and Emergency Medical Response expand digital health records, real-time data management, and emergency response across all districts. | • The Meghalaya Waste Management Policy (2019) ensures systematic solid waste collection, segregation, and recycling, promoting scientific waste treatment under ULBs.<br>• The State has made massive investments in education and urban development projects like construction of polytechnic colleges, road connectivity to new colleges, and localized composting infrastructure. to enhance sustainability and accessibility. |

| Names of State | Education and Skill Development | Health care and Social Welfare | Infrastructure |
|---|---|---|---|
| | • Under *Skills Meghalaya* and *CM Skills Mission (2025–28)*, over 1 lakh youth will be trained for local, national, and global employment, in areas like IT, hospitality, agriculture, and construction. | • Public–Private Partnerships (PPP) in healthcare has expanded the reach of services in remote and underserved regions.<br>• The *CM-CARE Scheme* provides ₹750 per month to single mothers, senior citizens, and persons with disabilities, covering over 1.2 lakh beneficiaries in FY 2025–26. | |
| **7. Odisha** | • The Odisha government implemented *Godabarisha Mishra Adarsha Prathamik Vidyalaya scheme to* upgrade 7,000 elementary schools.<br>• Schemes like *Mukhyamantri Shikhya Puraskar* and *Gangadhar Meher Shikshya Manakbrudhi Yojana* promote distribution of free bicycles, uniforms, and merit rewards, to enhance learning outcomes.<br>• Expansion of *World Skill Centres* and upgradation of 10 ITIs into zonal hubs with Centres of Excellence aim to make Odisha a skilling hub in emerging sectors like IT and semiconductors. | • Major schemes like *Mukhya Mantri Swasthya Seva Mission* and *Niramaya* strengthen infrastructure, free medicines, diagnostics, and digital health systems under *Ayushman Bharat Digital Mission*.<br>• The government is focusing on cancer care and disease prevention through the *Comprehensive Cancer Care Plan.* It has set up new medical colleges under the *Swasthya Seva Mission* to boost specialised healthcare services.<br>• *Subhadra Yojana* and *Madhubabu Pension Yojana* aim to promote social security and women empowerment. | • Mukhyamantri Sahari Bikas Yojana aims to provide civic amenities, create employment opportunities, and restore water bodies.<br>• *Samruddha Sahara* and New City Development initiatives promote sustainable and smart urban growth, modern drainage and sanitation networks. |

| Names of State | Education and Skill Development | Health care and Social Welfare | Infrastructure |
|---|---|---|---|
| **8. Sikkim** | • *Sikkim INSPIRES* program focuses on inclusive growth, employment linkages and entrepreneurship support for youth and women.<br>• *Sikkim Start-up Policy and Skilled Youth Start-up Scheme (SYSS)* support entrepreneurs with funding and mentorship.<br>• The State has developed tourism skill programs to build capabilities in hospitality and tourism industry. | • The State has strengthened its health infrastructure through hospital upgrades, district dialysis units, new Virus Research and Diagnostic Laboratories (VRDL), and genome sequencing facilities.<br>• *Mukhya Mantri Swasthya Suvidha Yojana, and Chief Minister Medical Assistance Scheme* provide financial support for critical illness to Below Poverty Line (BPL) families. | • State initiatives include upgradation of urban services and major tourism infrastructure like convention centres, ropeways, and skywalks.<br>• *Sikkim Garib Aawas Yojana* aims to expand pucca housing for economically weaker sections.<br>• The State has launched tourist inflow monitoring system and data governance initiatives to support improved urban management and carrying-capacity planning.<br>• The State has undertaken Glacial Lake Outburst Flood (GLOF) mitigation strategy to be implemented by a High-Level Steering Committee and a Multi-Disciplinary Task Force. |
| **9. Tamil Nadu** | • The State focuses on Learning Management Systems, mobile science labs, and improved internet connectivity to strengthen digital learning.<br>• Programmes like *Illam Thedi Kalvi*, Schools of Excellence, and foreign educational tours enhance quality and exposure of students.<br>• *Naan Mudhalvan* scheme provides industry-aligned skilling and placement support across sectors. | • The State expanded cancer care, early screening, and HPV vaccinations to reinforce preventive healthcare.<br>• *The Dr. Muthulakshmi Reddy* Maternity Benefit scheme aims to strengthen maternal and child health.<br>• *Makkalai Thedi Maruthuvam* scheme delivers doorstep care for chronic diseases, especially for elderly households. | • Urban infrastructure is being upgraded through Kalaignar Nagarpura Membattu Thittam and Tamil Nadu Urban Flagship Investment Program (TNUFIP).<br>• Affordable housing is supported through the Tamil Nadu Shelter Fund, PMAY-Urban, and Urban Habitat Development Board initiatives.<br>• Rural roads and basic infrastructure are strengthened under Anaithu Grama Anna Marumalarchi Thittam and Mudhalvarin Grama Salaigal Membattu Thittam. |

| Names of State | Education and Skill Development | Health care and Social Welfare | Infrastructure |
|---|---|---|---|
| | • Women's hostels, SHG lending programmes, and the *Puthumai Penn Thittam* program expand access to higher education and livelihoods.<br>• Schemes such as *Tamil Pudhalvan, Vidiyal Payanam, and Kalaignar Magalir Urimai* Thittam promote women's education, mobility, and income security. | • Anbucholai centres offer day-care and health services for senior citizens.<br>• The State has initiated annual master health check-up for 16.7 lakh construction workers to address occupational risks. The State is also providing mobility subsidies, group insurance, and access to dedicated work lounges in major cities to Gig workers.<br>• The State has implemented pension schemes to support elderly, widowed, disabled, and vulnerable groups. | |

**Source**: Information received from State Governments.