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Abstract

With a growing economy and declining poverty, India faces a curious challenge in providing a social safety net to its citizens. Using data from three rounds of the India Human Development Survey (IHDS), collected in 2004-5, 2011-12, and 2022-24, this paper shows that households face considerable transition in and out of poverty as the economy grows. Historically, India's approach to social safety nets has involved identifying the poor and providing them with priority access to various social protection programmes that include both in-kind and cash assistance—however, the nature of poverty changes with economic growth. This churn in households' economic circumstances makes it difficult to identify and target the poor precisely.

Traditional approaches to identifying the poor through the provision of Below Poverty Line (BPL) cards, now dubbed priority cards, assume long-term stability of poverty and tend to focus on chronically poor households that usually come from poor regions or have enduring characteristics that predispose them to poverty (e.g., belonging to Scheduled Castes and Tribes). The IHDS data shows that with a decline in chronic poverty, transient poverty begins to dominate. This suggests that our approach to social protection must pay greater attention to circumstances of life that push people into poverty rather than circumstances of birth associated with social identity or region of birth. This paper discusses various approaches to providing safety nets and examines the experiences of some critical programs in reaching the poor.

* Preliminary draft. Please do not circulate beyond the **NCAER India Policy Forum 2024**, for which this paper has been prepared.

This paper draws on data from the newly completed Wave 3 of the India Human Development Survey (IHDS) as well as data from Waves 1 and 2 of the IHDS. The IHDS Wave 3 was completed in June 2024, and the results presented in this paper are preliminary. Slight changes are possible following data validation and survey weight generation after detailed sample attrition analysis. Hence, the results should be treated with caution.

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Introduction

The pandemic highlighted the need for governments the world over to intervene to ensure households could meet their basic needs. As the lockdowns were implemented, production and transportation bottlenecks led to shortages and price rises, and small businesses suffered tremendous losses. The pandemic experience also highlighted the importance of rethinking how governments provide social protection under unforeseen conditions.

The Indian approach to social protection was developed at a time when a vast proportion of the population lived below the poverty line and unequal access to productive resources such as land and education led to endemic poverty among some sections of the society (e.g., the Scheduled Castes and the Scheduled Tribes) and some areas (e.g. poorest districts such as Dahod, Gadchiroli, and Dhubri). This has led to safety nets structured around identifying the poorest sections of society and providing them with a host of benefits ranging from subsidized or free food grains to health insurance and pensions.

However, a growing economy creates both new opportunities and challenges. This paper seeks to address whether this time-honored strategy continues to be relevant in 21st-century India. We rely primarily on three waves of the India Human Development Survey (IHDS) conducted in 2004-5, 2011-12, and 2022-24. As a nationwide panel study of over 41,000 households, IHDS offers unique opportunities for exploring changes in the lifestyles of ordinary Indians, but it is more useful in understanding changes and relationships over time than offering cross-sectional estimates of parameters of policy interest such as poverty. See Appendix A for a description of the IHDS sample and attrition over time. However, we caution readers that the last household interview was conducted on June 15, 2024. Hence, our present results are preliminary in nature and should be treated cautiously. In particular, while the weights take into account differential urban and rural growth rates for each state based on the projections by the Ministry of Health and Family Welfare, at present, they do not take into account sample attrition.

With these caveats, some stylized observations on India's poverty transition and social protections are helpful as we reflect on emerging priorities in social protection.

Changing Nature of Poverty and Social Safety Nets: Insights from IHDS

1. Poverty has declined substantially

Estimating poverty in India has historically been a contentious issue (Deaton & Kozel, 2005). In its modern avatar, a lively debate ranges about whether these poverty lines are too low and whether the consumption basket underlying CPI indices need to be recalibrated (Ghatak & Kumar, 2024). The absence of comparable consumption data, the staple source of poverty estimation in India, in recent years, has also led to divergent opinions on the extent of poverty decline in India, the divergence between results from employment data and consumption data, and the role of changing methodology on estimates of poverty (see an e-symposium on measuring poverty in Ideas for India, October 2022). The recent release of Household Consumption Expenditure Survey (National Sample Survey Office, 2024) should lay to rest some of these controversies but will require detailed analyses to ensure comparability.

Although crucial for estimating poverty, these debates are outside this paper's scope. As T.N. Srinivas noted, poverty lines serve two purposes, normative and monitoring, where normative standards reflect a social contract about the basic standard of living that should be available to all individuals while monitoring standards track lifestyle changes over time (Srinivasan, 2007). Following this monitoring approach, we focus on understanding the poverty dynamics at the household level, using panel data for the purposes for which they are designed, with no attempt at critiquing existing poverty lines.

The three rounds of the India Human Development Survey administered identical questions to respondents about consumption of food and frequently used items with a reference period of 30 days and about infrequently purchased items with a reference period of 365 days, somewhat analogous to the Mixed Recall Period used by the National Sample Survey. However, since the IHDS relies on a more limited set of items than the NSS, it is not ideal for estimating poverty levels (for a comparison of IHDS design characteristics with that of NSS, see Appendix 2). Nevertheless, it offers comparable data for the same households over 20 years, allowing for critical analytical insights.

Figures 1 and 2 show the change in the distribution of monthly per-capita consumption expenditure for the cross-sectional samples over the period 2004-5 and 2022-24 (containing both panel and refresher households) and only the panel households, respectively. Both document a rightward shift, showing increasing consumption in constant terms and a slightly greater dispersion.

Figure 1: Distribution of consumption expenditure has shifted rightward over time as documented by HDS sample consisting of both panel and refresher households (in 2024 ₹)

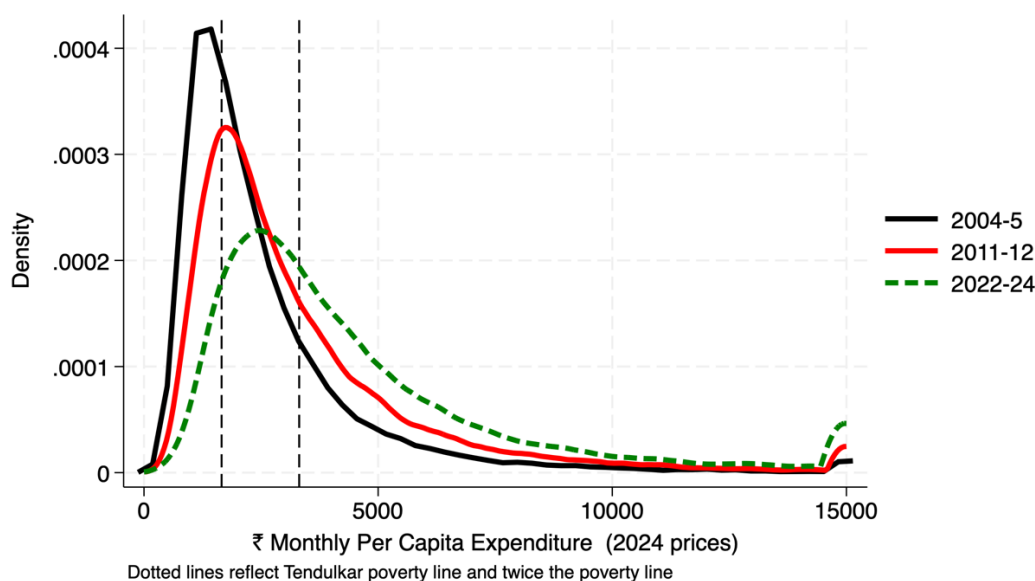


Figure 2: Household consumption has grown longitudinally for panel households in IHDS (in constant ₹)

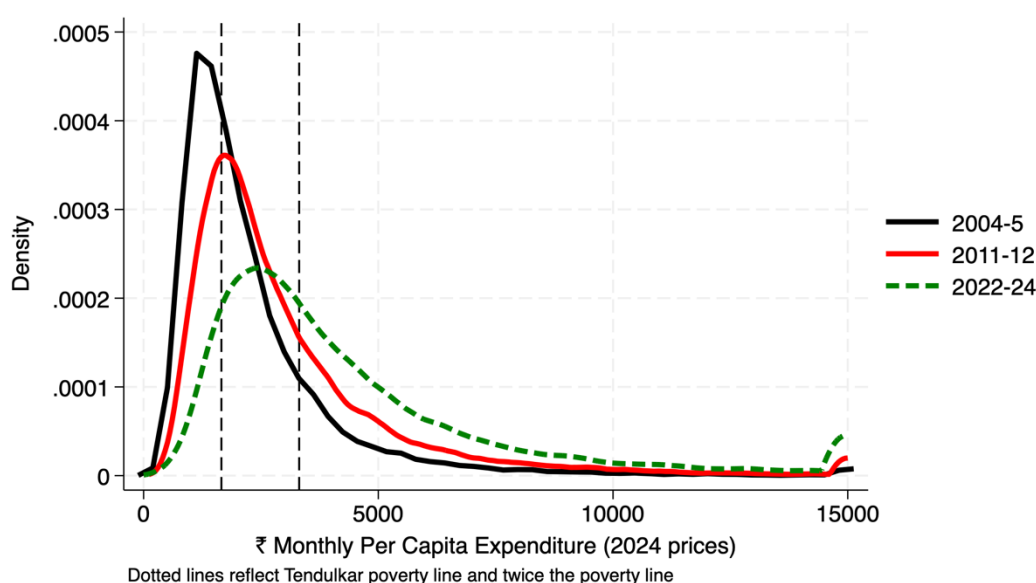


Table 1 presents the headcount poverty ratios (HCR) based on the IHDS data using the inflation-adjusted poverty line recommended by the Tendulkar Committee (The Planning Commission, 2012). Given the widespread agreement that the poverty line is set too low, we differentiate between the poor (individuals living below the poverty line recommended by the Tendulkar Committee) and the vulnerable whose monthly per-capita consumption is above the poverty line but below twice the poverty line. The results document a substantial poverty decline with many of the formerly poor moving up to a lower middle income but vulnerable category and households in this lower middle income category becoming non-poor and moving out of the vulnerability zone.

While the IHDS is not the best source of the contemporaneous estimate of poverty, directionally, it offers the same insights as other studies and validates the general conclusion that extreme poverty in India has declined substantially. According to the IHDS findings presented in Table 1, poverty declined significantly between 2004-5 and 2011-12 (from a headcount ratio of 38.6 to 21.2), and it continued to decline between 2011-12 and 2022-24 (from 21.2 to 8.5) despite the challenges posed by the pandemic. The poverty line recommended by the Tendulkar Committee Report was set to ₹447 and ₹579 for rural and urban areas, respectively, but varied between states for 2004-5. These poverty thresholds were subsequently adjusted by The Planning Commission to ₹860 and ₹1000 for 2011-12. We have updated these thresholds using state and sector-specific Consumer Price Indices provided by the Ministry of Statistics and Programme Implementation to calculate head-count poverty ratios. We also highlight vulnerable households located just above the poverty line and having monthly consumption expenditures below that of twice the poverty line.

Table 1: Head-count ratios of poverty has declined substantially over the three waves of IHDS between 2004-5 and 2022-4

		2004-2005			2011-2012			2022-24		
		HCR	LCI	UCI	HCR	LCI	UCI	HCR	LCI	UCI
Rural	Poor	42.5	41.4	43.5	24.8	24.0	25.7	8.6	8.1	9.0
	Vulnerable	41.5	40.4	42.5	47.7	46.8	48.7	37.5	36.6	38.4
	Non Poor	16.1	15.4	16.7	27.5	26.7	28.3	54.0	53.1	54.9
Urban	Poor	27.9	27.0	28.8	13.4	12.7	14.1	8.4	7.8	9.0
	Vulnerable	43.0	42.0	44.0	42.1	41.2	43.1	37.2	36.2	38.2
	Non Poor	29.1	28.3	30.0	44.5	43.6	45.5	54.4	53.4	55.4
Total	Poor	38.6	37.8	39.4	21.2	20.6	21.8	8.5	8.1	8.9
	Vulnerable	41.9	41.1	42.7	45.9	45.2	46.7	37.4	36.7	38.1
	Non Poor	19.6	19.0	20.1	32.9	32.2	33.5	54.1	53.4	54.8

Poverty defined using Tendulkar line and vulnerability defined as being above poverty but below

twice poverty line. LCI and UCI refer to upper and lower confidence intervals at 95% level.

The poverty figures presented by IHDS in 2004-5 and 2011-12 are comparable to those estimated using the 61st and 68th rounds of NSS data. They are slightly higher than the figures of 4.6 for urban areas and 7.2 for rural areas, as estimated by the SBI Research using the fact-sheet for Household Consumption Expenditure Survey (HCES) data (National Sample Survey Office, 2024). The differences between the IHDS methodology and the HCES methodology are presented in Appendix B. Given the small sample size of IHDS compared to the HCES (47882 households for IHDS vs. 261746 households for HCES), fewer items included in IHDS consumption module (52 vs. 405), and limitations on sample representation due to a panel design, we recommend that for cross-sectional estimates of poverty, readers refer to the HCES data, relying on the IHDS to explore the dynamic nature of poverty.

2. Accidents of life are more critical than accidents of birth

Even during periods of relative economic stability, when poverty rates move slowly, individual households may experience income and consumption changes as household composition changes, workers retire, and children grow up and find employment. Illness, marriage expenses, and natural disasters may influence incomes. However, the practice of measuring poverty based on consumption may dampen the impact of these life cycle changes and sudden shocks as households calibrate their expenditures to their long-term incomes.¹ During relatively stable economic conditions, the forces that shape the long-term earnings of individuals, such as their human capital, health, local labour market conditions, and labour market discrimination, and accidents of birth associated with caste, religion, inheritance of productive assets and regional location may dominate economic fortunes of individuals.

¹ For one of the earliest investigations linking income and consumption for India, see (Bhalla, 1979)

Table 2: Estimates of poverty transitions in late 20th century show stagnation in both chronic and transient poverty

Poverty status	% of sample rural panel households			
	Gaiha (1968-70)	NCAER (1970-71 to 1981-82)	Bhide and Mehta (1970-71 to 1981-82)	Dhamija and Bhide (1981-82 to 1998-99)
Chronically poor	33	28	25	23
Entry	13	17	13	20
Exit	24	25	23	18
Non-poor	30	30	39	39

Source: Mehta et al. 2011 India Chronic Poverty Report. Table 3.3 Page 43.

How has the relative importance of these two aspects of poverty changed over time? Whereas studies from the 1970s through the 1990s, summarized in Table 2, show a relatively large amount of chronic poverty as well as transient poverty during an era of relative economic stagnation with the number of non-poor (using a different poverty threshold) staying relatively stable. In contrast, the IHDS data show considerable churn in the poverty status of the households and the growing importance of transitory poverty. Figures 3 and 4 summarize the changes in the poverty status of households between 2004-5 and 2011-12 and 2011-12 and 2022-24, respectively.

During an era of economic growth, when opportunities increase, the long-term determinants of poverty may decline in significance while accidents of life associated with natural disasters, illness and death, and changes in occupation-specific opportunities may become more important. Accidents of birth are more likely to affect long-term chronic poverty, accidents of life may have a transitory effect on moving in and out of poverty.

Figure 3 documents the movement in and out of poverty for 38% of households that were poor in 2004-5 and 62% of households that were not poor. By 2011-12, poverty had declined, and 25% of families had moved out of poverty, with 13% still mired in poverty. At the same time, of the 67% of households that were non-poor in the prior wave, 8% had now become poor. These newly poor comprised about 39% of all impoverished households in 2011-12. A similar exercise with 2022-24 data in Figure 4 shows a similar trend, with 18.1% of households moving out of poverty and 5.3% falling back. The change between the two sets of transitions is that the overall poverty level in 2022-24 is substantially lower, and the newly poor form a more significant part of all poor households, about 62%. Most of the households falling into poverty come from the group we have classified as vulnerable – between the poverty line and 200 percent of the poverty line.

Figure 3: Poverty transition between IHDS Wave 1 and 2 documents both chronic and transient poverty, while overall poverty declined

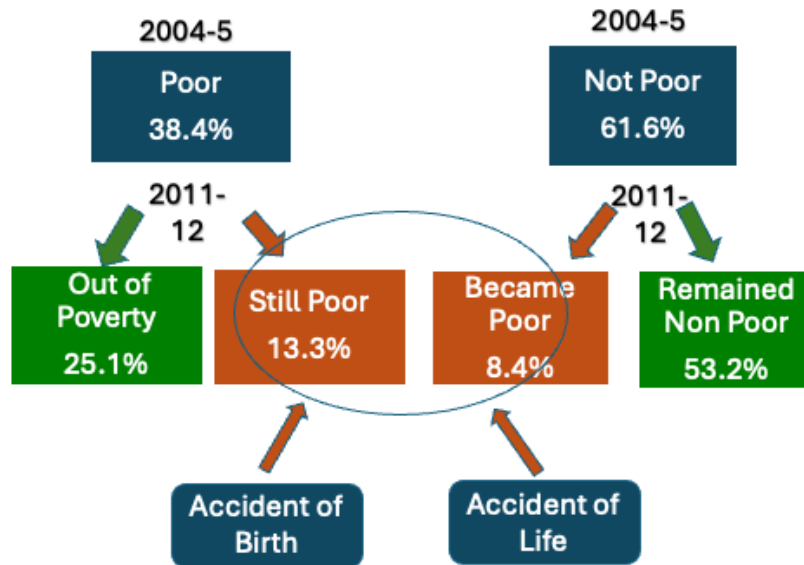
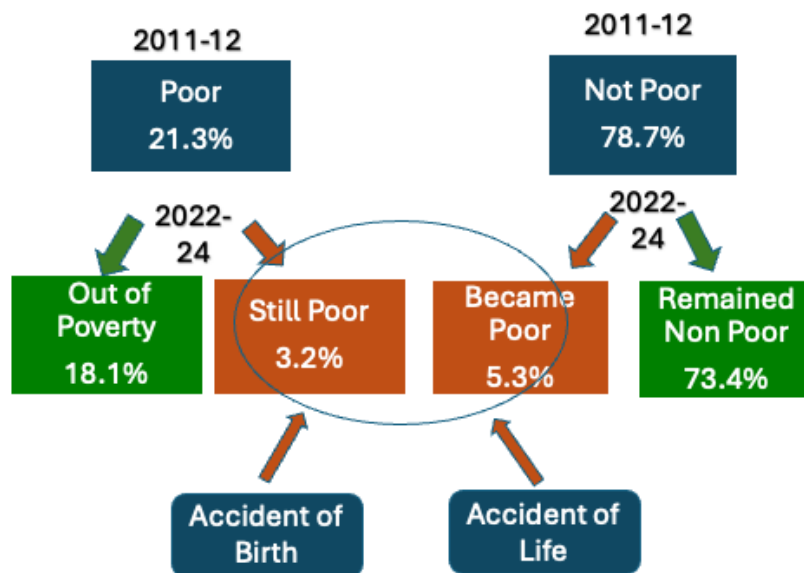


Figure 4: As poverty further declined, transient poverty became more important between IHDS Wave 2 & 3



For the poverty transitions in 2011-12, we have undertaken a detailed analysis of the characteristics of entry into and exit from poverty (Thorat, Vanneman, Desai, & Dubey, 2017), which documents that this movement out of poverty is greater for historically disadvantaged groups like the Scheduled Castes. However, these groups retain higher vulnerability to falling back into poverty, suggesting a precarious perch in

lower-middle-class status. Other studies using IHDS Waves 1 and 2 data have tried to examine underlying conditions at Wave 1, such as household size, presence of the elderly, land ownership, and caste/religion that may predict the potential of slipping into poverty in Wave 2 (Bandyopadhyay & Bhattacharya, 2022) and found that their ex-ante vulnerability measure is a positive and significant predictor of future poverty but the coefficients are relatively small, reflecting our inability to predict accidents of life ex-ante perfectly. This is in sharp contrast to the observations from studies in the 20th Century (Mehta, Shepherd, Bhide, Shah, & Kumar, 2011), which found considerable persistence of chronic poverty among Scheduled Castes, Scheduled Tribes, land-less households, and large households. It is important to note that Scheduled Tribes remain consistently mired in chronic poverty in both 20th and 21st Century studies.

3. Food subsidies have grown substantially, further reducing poverty

India established a Public Distribution System (PDS) in the early periods after Independence when food shortages necessitated large food imports under PL-480 grants from the United States. This program was continued and substantially expanded with internal resources after the PL-480 grants ended. In its early years, PDS was focused on urban areas and regions with food shortages, but as we will show below, this bias has reversed now. In 1997, the PDS system was streamlined by introducing the Targeted Public Distribution System in which households were divided into BPL (Below Poverty Line) and APL (Above Poverty Line) families, with BPL households receiving subsidized grain and APL households receiving grains at an economic cost. Moreover, sugar and kerosene were also distributed through the PDS shops (known as ration shops). PDS also covers several other categories of households at extremely low cost and higher allocation. This includes Antyodaya Anna Yojana (AAY), directed at extremely poor households, and Annapurna Yojana for the elderly poor. The National Food Security Act (NFSA) passed in 2013, expanded the pool of households eligible for subsidized rations to 50% of the urban households and 75% of the rural households; it also added millets and pulses to the items to be covered under NFSA.

During the pandemic, access to food through the PDS was expanded through Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY), providing an additional 5kg of rice or wheat and 1 kg of pulses to eligible individuals at no cost. This was in addition to the regular entitlement of 5kg cereals under the NFSA. The APL or Non-Priority households also received an allocation during the pandemic, but this was discontinued thereafter.²

The overall estimates of food subsidies in the three rounds of IHDS surveys, along with their implied impact on poverty estimates, are presented in Tables 3 and 4. It is essential to highlight that between IHDS Waves 2 and 3, while food subsidies grew, sugar and kerosene subsidies were withdrawn, although some states still subsidized them. Thus, the overall increase in PDS subsidies from a household perspective is moderated, although the access to food grains has widened substantially.

In calculating the PDS benefits to the households, it is important to recognize that PDS has existed for a long time, and households in all three waves of

² However, since some of our interviews took place in 2022 before discontinuation of the APL allocation and some states like Tamil Nadu are far more generous in their eligibility criteria, some of the IHDS non-BPL households also report PDS grain allocation.

IHDS benefitted from it. However, whereas the first two waves record the use of PDS for food grains as well as sugar and kerosene, in the third wave, the majority of the PDS usage relates to food grains. For example, in 2011-12, whereas 79% of the households made some purchase from the PDS shop, only 52% purchased grain; in contrast in 2022-24 all of the purchases were for food items. We calculate the value of the PDS subsidy by subtracting the amount spent at ration shops for rice, wheat, other cereals, kerosene, and sugar from the market price. Since pulses are only now being distributed under PDS, data on the PDS purchase of pulses is only available for Wave 3. Table 3 shows basic statistics on the type of PDS purchase and the imputed subsidy value.

Table 3: PDS usage and imputed value of subsidies increased over time and moved to cover food grains instead of kerosene and sugar

	Rural	Urban	Total
2004-5			
Any PDS Purchase	78%	48%	70%
Any grain purchased vis PDS	32%	21%	29%
Imputed PDS subsidy per person per month (in 2024 ₹)	38	28	35
2011-12			
Any PDS Purchase	86%	64%	79%
Any grain purchased vis PDS	56%	46%	52%
Imputed PDS subsidy per person per month (in 2024 ₹)	91	76	87
2022-23			
Any PDS Purchase	73%	61%	69%
Any grain purchased vis PDS	73%	61%	69%
Imputed PDS subsidy per person per month (in 2024 ₹)	109	97	105

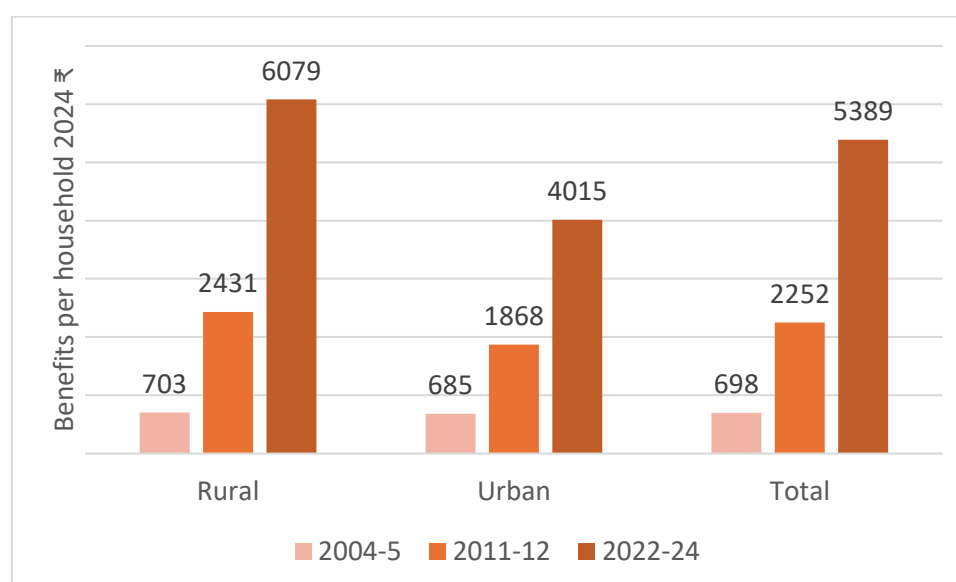
In each of the three waves, adding this imputed value to household consumption reduces the proportion of households who are poor. However, this effect is largest for the third wave in proportional terms, suggesting that expanding food subsidies while curtailing sugar and kerosene subsidies led to a more pro-poor outcome. Other research undertaken by NCAER National Data Innovation Centre immediately before and after the pandemic also suggests that enhanced access to PDS rations kept food consumption stable during the pandemic even as household incomes declined (Choudhuri & Desai, 2024).

Table 4: Adding imputed value of subsidy to consumption reduces poverty HCR substantially

		2004-5			2011-12			2022-24		
		HCR	LCI	UCI	HCR	LCI	UCI	HCR	LCI	UCI
Without PDS Subsidy										
Rural	Poor	42.5	41.4	43.5	24.8	24.0	25.7	8.6	8.1	9.0
Urban	Poor	27.9	27.0	28.8	13.4	12.7	14.1	8.4	7.8	9.0
Total	Poor	38.6	37.8	39.4	21.2	20.6	21.8	8.5	8.1	8.9
Including Imputed Value of PDS Subsidy										
Rural	Poor	40.8	39.8	41.9	21.4	20.6	22.2	6.9	6.5	7.3
Urban	Poor	26.8	25.9	27.7	11.7	11.0	12.4	7.0	6.4	7.6
Total	Poor	37.1	36.3	37.9	18.3	17.7	18.9	6.9	6.6	7.3

4. Government benefits have expanded substantially since 2012

Even between 2004-5 and 2011-12, the share of government benefits in total income had increased from 0.7% to 2% and played a small but important role in the poverty decline between 2004-5 and 2011-12 (Balcázar, Desai, Murgai, & Narayan, 2016). Since then, several new programs have been introduced, and the benefits given through existing programs have increased and we anticipate that future analyses will show these data will show an even large role of subsidies.

Figure 5: Government benefits increased over time, with a sharp jump between Waves 2 & 3

These include Old Age Pension Programs and Widow Pension Programs for the poor, and PM-KISAN provides cash benefits to farmers. Many states have introduced their own versions of these programs, such as Rythu Bandhu in Telangana and Kalia in

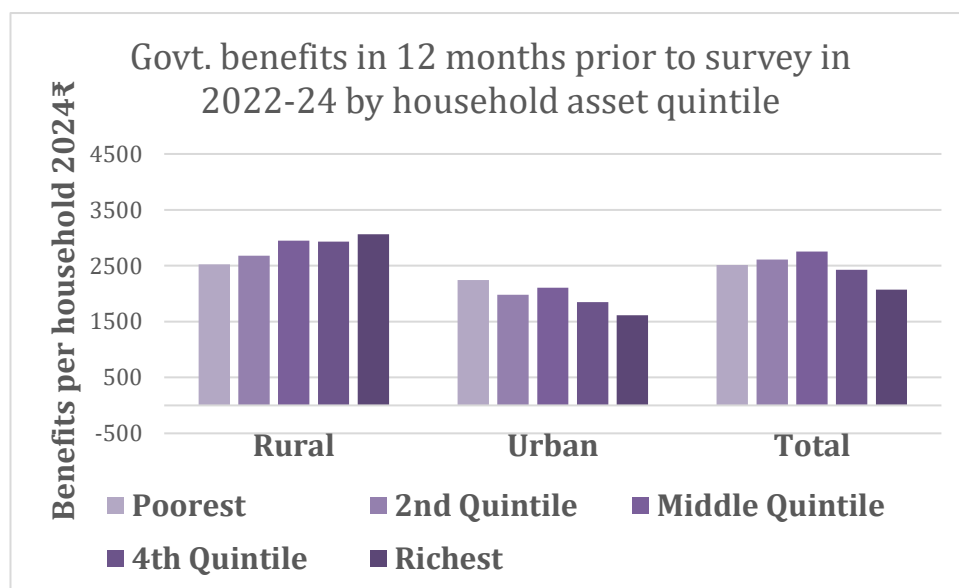
Odisha. While these are the major programs, there are many other benefit schemes, including maternity schemes, girl child welfare schemes, and scholarship programs.

In each of the waves of IHDS, an effort was made to capture the benefits households receive from major social programs. As Figure 5 shows, the total benefits received from these programs have increased substantially in constant terms.

The number of welfare schemes in any district is large, and survey respondents often cannot distinguish between centrally sponsored and state schemes. However, two schemes predominate: PM-KISAN, which provides cash benefits to farmers (and its different state-level formulations, such as Kalia in Odisha), and the old age pension scheme. Consequently, as Figure 5 documents, the distribution of these benefits is somewhat skewed towards rural areas.

Exploring the pro-poor nature of benefits, or lack thereof, is hampered by the endogeneity of consumption expenditure to increased income through benefits, particularly since the value of benefits is substantial in 2022-24. Hence, Figure 6 shows the extent of benefits received in Wave 3 by households at different levels in the ownership of assets, a slow-moving measure of economic well-being. Our past research (Barik, Desai, & Vanneman, 2018), as well as work by others, suggests that ownership of consumer durables and housing conditions act as a long-term marker of household economic status (Filmer & Pritchett, 2001), while consumption expenditure is more short-term in nature. Nonetheless, to avoid potential endogeneity, we index household economic status by data collected over 10 years ago in 2011-12. The results suggest that benefits are reasonably evenly distributed across households at different asset ownership levels in rural areas with a slight concentration at the upper end, while in urban areas, the poor receive more benefits than those in the upper asset quintiles. How these benefits shape the well-being of households in the current period and influence their consumption behaviour is an area that deserves future attention.

Figure 6: Benefits in urban areas are concentrated among the poor; rural benefits are distributed across all sections with a slight concentration at the top



5. Identification of poor through proxy-means testing is imperfect

The prior section suggests that although many benefits were meant to target the poor, this targeting is imperfect. It is important to locate the targeting process in a historical context to understand the processes leading to this weak correlation.

While consumption expenditure surveys provide estimates of poverty in the country, they do not tell us who is poor when it comes to delivering social safety nets. The crucial link between poverty estimates and safety nets is provided by designating households as being poor, or in the words of Indian officialdom, being “Below Poverty Line” or BPL households.³ The Ministry of Rural Development made this identification through nationwide censuses in 1992, 1997, 2002, and 2011 (Saxena, 2015). The latest exercise in 2011 was carried out through the Socio-Economic Caste Census (SECC) conducted by the Ministry of Rural Development in rural areas and the Ministry of Housing and Urban Poverty Alleviation in urban areas. Identification of households as being deprived was based on criteria for automatic exclusion (e.g., having an automobile or government job), automatic inclusion (e.g., primitive tribal groups or people living on alms), and a graded score based on occupation, living conditions, caste/tribe, and family composition. These criteria were selected for use in rural areas based on the recommendation of a working group headed by Dr. N.C. Saxena for rural areas (Ministry of Rural Development, 2009) and Prof. Hashim for urban areas (The Planning Commission, 2012). Local government authorities make a provision for the validation of the target households. While this method produces a ranked list, the cut-off of households deemed eligible is determined by the proportion of households deemed poor in a state based on the 2011-12 National Sample Survey.

Following Akerlof (1978) proxy-means testing without verifiable income for social benefits has a long history (Akerlof, 1978) (Banerjee, Hanna, Olken, & Sverdlin Lisker, 2024). However, the validity of specific criteria used in identifying deprived households as a part of issuing BPL cards has come under considerable criticism (Alkire & Seth, 2013; Dreze & Khera, 2010; Sharan, 2011), even from one of the originators of the identification schema (Saxena, 2015). These reviews found that many poor households were excluded from the BPL list, while many non-poor households were included. With some innovation, it may be possible to improve the identification of the poor using carefully crafted inclusion and exclusion criteria (e.g., see (Asri, Michaelowa, Panda, & Paul, 2022)), but little attention has been paid to how these targeting strategies may fare in a rapidly changing economy. As we have shown earlier, the movement of households in and out of poverty becomes more important as chronic poverty declines, but the cost and logistic difficulties in undertaking major initiatives like SECC imply that these exercises will be infrequent and may not be effective in an era of rapid change.

Using data from different waves of IHDS, we examine the correlation between possession of BPL cards and per capita consumption expenditure. Table 5 shows ownership of BPL/AAY/Annapurna card for households in different economic strata. The results highlight that while the poor are more likely to hold a BPL card, we find both types of households at each expenditure level. While the distributions have

³ In recent years the terminology has changed to Priority Households as the segment covered has grown to expand a larger share of the population, but BPL remains popular in common parlance and we continue to use it in this paper.

progressively converged (results not shown), exclusion and inclusion errors continue to operate.

Table 5: Acces to BPL/AAY/Annapurna card grew over time but errors of exclusion still persist

		Percent households with access to BPL(PHH)/AAY/Annapurna Cards		
		2004-5	2011-12	2022-24
Rural	Poor	50%	61%	72%
Rural	Vulnerable	40%	49%	69%
Rural	Not poor	29%	37%	62%
Urban	Poor	35%	49%	62%
Urban	Vulnerable	25%	37%	57%
Urban	Not poor	13%	21%	45%
Total	Poor	47%	59%	69%
Total	Vulnerable	36%	46%	65%
Total	Not poor	21%	30%	56%
All India		36%	41%	60%

At the time of IHDS Waves 1 and 2, the BPL cards would have been issued using the 2002 survey, but by IHDS Wave 3, the SECC survey of 2011 was used for BPL designation. The total number of households eligible for BPL cards expanded slightly between IHDS-1 and IHDS-2 but expanded substantially by the time IHDS-3 was conducted. This expansion was due to implementing the National Food Security Act (NFSA), which mandated that 75% of rural and 50% of urban households be covered for highly subsidized food distribution. This massive expansion should have addressed the exclusion errors, and all poor households should have received BPL (or PHH- Priority Household) cards. In contrast, inclusion errors would have increased due to the program's expansion, an acceptable form of error under NFSA.

This hope has been only partially fulfilled. As Table 5 shows, while BPL cards became more common, about 30% of the poor do not have access to them, nor do 35% of the households above poverty line but still in a zone that they can slide into poverty. Ironically, between Wave 2 and Wave 3, poor households' BPL card access increased from 59% to 66%, but the expansion for non-poor households was far greater, from 30% to 56%. Research shows that elite capture and social networks play an important role in who can get a BPL card (Besley, Besley, Pande, & Rao, 2005; Panda, 2015).

However, focusing on elite capture may overstate the issue. A part of the exclusion of the poor may be due to the original design for BPL cards being linked to residential locations, which led to the exclusion of migrants. One Nation, One Ration card (ONOR) initiative may help enhance the portability of BPL cards, reducing vulnerability among poor urban migrant workers. A larger problem may be that this

inconsistency is due to poverty decline, with many poor households (who correctly held BPL cards when the cards were issued) having now moved up to the non-poor category but retaining these cards due to infrequent identification of the poor. Conversely, households that were not poor during SECC survey may have fallen into poverty or non-poor but vulnerable category, but their initial designation could not be changed without new assessment and hence were excluded from gaining BPL cards.

This imprecision in the identification of the poor has concrete consequences. Eligibility for many benefits, particularly access to government-provided health insurance under the Aayushman Bharat Yojana, is tied to the household's designation as being poor although working in selected occupations may also confer some of these benefits. We find that households in different consumption categories, with and without BPL cards, differ substantially in their access to public insurance. Whether they are poor, vulnerable, or rich, among households with a BPL card, about 40-43% have access to government insurance including both central and state schemes, but without a BPL card, this number drops to about 23-25%. While private insurance access is also rising, it does not fill the hole for the poor households without a BPL card.

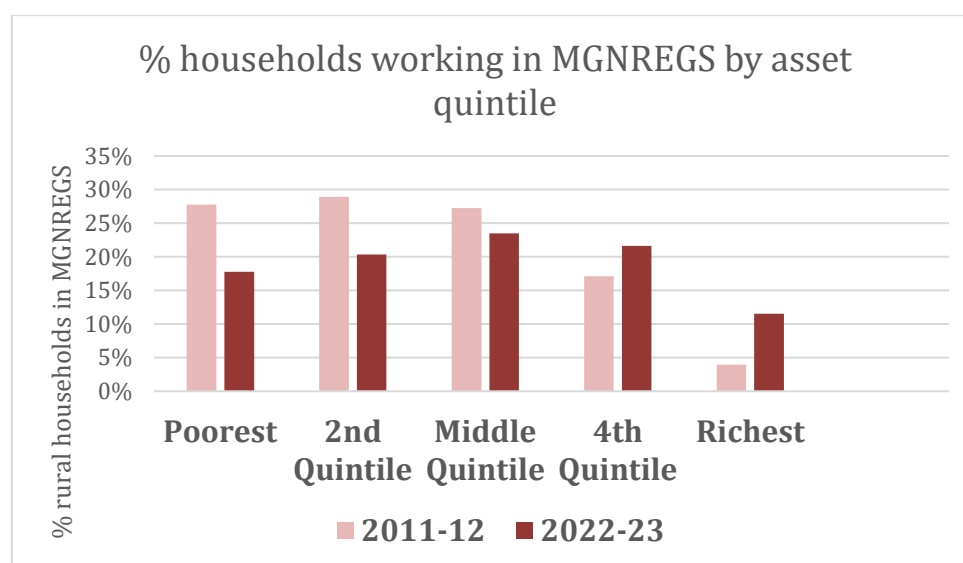
Universalizing benefits, or a vast expansion of eligible recipients, may be seen as one way of addressing imperfect targeting. However, as discussed above, even the tremendous expansion of eligible households under NFSA has yet to eliminate the exclusion of some poor households.

Universalization of employment guarantee programs offers a different perspective on this issue. Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) of 2005 adopted a rights-based approach to guarantee 100 days of manual labour for any household that asked for it. Tremendous safeguards were put in place to ensure that the financial allocation would not be siphoned off into administrative expenses or the procurement of materials. This involved mandating that 60% of all funds be allocated to labour costs, work undertaken through the program should not replace other regular employment, and households (and states and districts) should not face any eligibility restrictions in their ability to obtain work under the MGNREGA program.

The program relied on natural targeting, assuming that households with other sources of income would not want to work in MGNREGA, creating a natural self-targeting mechanism. While early evaluations of this program were highly positive, noting various benefits, including a decline in debt and improvement in household welfare (Desai, Vashishtha, & Joshi, 2015) some of its fissures in reaching the most vulnerable have begun to emerge in recent years, as Figure 7 shows.

The data from IHDS Wave 2 and Wave 3 presented in Figure 7 are not strictly comparable and should not be used to compare the proportion of households who worked in MGNREGS in the two waves. However, we can examine the existence of this natural targeting mechanism by looking at work in the program for different social classes defined by asset ownership within each wave. suggests that the natural targeting aspect of MGNREGS has declined over time at an all-India level. While in 2011-12 households in the bottom three quintiles were most likely to be employed in MGNREGS, by 2022-24, employment in the 3rd and 4th quintiles (defined by asset ownership) has outpaced employment in the bottom 40%.

Figure 7: Self-targeting feature of MGNREGS has been progressively diluted with middle-income households more likely to work than the poorest



A deeper analysis in Table 6 shows that this decline is mainly due to differential access to MGNREGS work between states, with differential income growth between southern states and northern plains, creating the unanticipated relationship documented by Figure 7.

Table 6: Regional differences in economic status and implementation dilute the self-targeting nature of MGNREGS

Asset Quintile	Asset Quintile Distribution		NREGS Employment	
	Northern Plains	Southern States	Northern Plains	Southern States
Poorest	36.01	8.36	15%	40%
2nd Quintile	26.09	17.58	15%	43%
Middle Quintile	17.24	29.64	12%	43%
4th Quintile	8.69	22.79	10%	37%
Richest	11.97	21.64	4%	23%
Total	100	100	14%	39%

* Only data for IHDS Wave 3 - 2022-23 are presented for parsimony

The IHDS data are not representative below the all-India level but combining the five southern states (Karnataka, Tamil Nadu, Kerala, Andhra Pradesh and Telangana) on the one hand and North-Central states (Madhya Pradesh, Uttar Pradesh, Bihar, Chhattisgarh and Jharkhand) on the other, offers interesting insights. Within each region, the program continues to be self-targeting, with higher-class households less likely to obtain work in MGNREGS than poorer households. But overall, the programme

usage in Southern states is higher than that in the Northern states, and more households in the Southern states are likely to be in upper asset quintiles, thus diluting the self-targeting at an all-India level.

The conundrum of richer states accessing MGNREGS more than the poor states is well recognised in policy discourse (Chatterji, 2022), but its implications for households are less clearly recognised. A clearer understanding of program structure (mandated by the MGNREGA act) that may reduce the effectiveness of this highly popular and important programme to be pro-poor deserves greater attention.

Key Challenges

The preceding sections have tried to provide empirical contours to declining poverty and changes in social safety nets over the past two decades, mainly using data from the three waves of IHDS. As we think about implications of these trends for public policies, it is important to keep in mind two observations that emerge from the data presented above:

a. Dealing with uncertainty

The uncertainty of predicting the future based on current conditions has increased, as evidenced by the increasing importance of events resulting in non-poor households falling into poverty. Life events such as death, illness, and job losses combined with external disasters like drought and pandemics cannot be predicted. As long as chronic hard-core poverty continued to dominate the fortunes of Indian households, safety nets based on the designation of long-term poverty status continued to serve their purpose by covering most people in need. However, as chronic poverty declines, it is important to develop safety nets that take these unforeseen events into account.

b. Addressing implementation difficulties

Consistent with the observations of many other studies (The World Bank, 2011), we have highlighted implementation challenges in several areas. The list of studies documenting elite capture and leakages in various safety net programs is long. It is not our intention to make recommendations about reducing elite capture but rather to suggest that it may be time to accept that under conditions of scarcity and social inequality, ensuring failsafe mechanisms to limit beneficiaries to a limited pool may be challenging. Moreover, even the best-designed programs, such as the MGNREGS, may fail to serve the poorest.

Policy Implications: Principles for Redesigning Safety Nets

With these twin challenges of uncertainty and implementation difficulties, how should we think about redesigning social safety nets? We propose three principles for thinking about safety nets:

1. Universal programs for a limited set of basic safety nets

Holding the resources invested in any program constant, targeting programs to the poor implies much greater levels of benefits to the recipients than if the benefits were made universally available (Hanna & Olken, 2018). Nonetheless, societies provide universal services in many areas, including basic education, healthcare, and sewage collection, which have spillover benefits for society. This is particularly crucial for in-

kind provision of goods and services that require institutional structures for distribution. As we saw with the pandemic, a network of fair-price shops and existing distribution mechanisms ensured the government could ramp up food allocation and avoid mass starvation. With sharp price rises during the lockdown and transportation difficulties, simply providing cash may not have been effective.

Universally available does not mean universally used. Mid-day meals provide an interesting example. While school mid-day meals are universally available to primary school children in government schools, with the increasing privatization of education, they have been self-targeting in that most middle-class children do not avail of them.

Identifying and keeping this core set limited and fully funded is the challenge. Massive expansion of the number of programs without concomitant resource increase would render this approach futile.

2. Risk insurance

With the rising importance of accidental events in pushing households into poverty, risk insurance must form a part of a comprehensive package of safety nets. The challenge with these insurance programs is that without careful design and regulatory oversight perverse incentives can render them ineffective. Evaluations of Rashtriya Swasthya Bima Yojana (RSBY) found that since it only covered hospital costs, there was an incentive on the part of both patients and providers to admit patients to the hospital even for ailments that could be treated in outpatient clinics (Palacios, Das, & Sun, 2011).

In our fieldwork, we have observed an emergence of for-profit players setting up hospitals to explicitly cater to the Ayushman Bharat beneficiaries. Some of this inefficiency may be impossible to eliminate, but a careful review of the insurance sector, particularly the health insurance sector, is needed to ensure that we do not set in motion inflation of medical costs that will affect all patients, regardless of their insurance access.

3. Building in flexibility and institutional framework

During the pandemic, governments worldwide struggled with the means of getting cash in the hands of consumers. The US government sent \$600 per eligible adult and child to households as income support during the pandemic. An Urban Institute study (Holtzblatt & Karpman, 2020) found that although the funds were sent out by mid-April, more than a month later, only 70% had received them. This proportion was particularly low among the poor who most needed these funds. The reason for non-receipt was that money was sent first to people who filed income tax returns and had linked their bank accounts to receive refunds, leaving out non-filers and people who don't receive refunds. The Indian experience of migrants being left out of extra ration distribution is another instance where the absence of a transfer mechanism excluded some of the most vulnerable. In contrast, it was easy to send money to the recipients of PM-KISAN since they were already in the system.

These examples of transferring cash where one has bank linkages are like looking for keys under the lamppost. When a disaster strikes whole communities, be it drought, earthquake, or the pandemic, normal channels of help from family and friends are unavailable since everyone is facing the same problem. This is precisely when the government needs to step in but cannot do so with some sort of social registry to identify potential recipients. We already have extensive Aadhar and bank account

linkages. Ensuring these registries contain extensive geographic location codes and regularly updating them would make it possible to provide timely disaster assistance.

Flexibility remains key to ensuring effective programme design that can respond to changing conditions. Rights-based approaches that institute programs through legislative acts sometimes create such inflexible systems that they fail the purposes for which they were designed. MGNREGS offers an interesting illustration. Since the program's inception, it has never been fully funded, leading to rationing of work (Dutta, Murgai, Ravallion, & van de Walle, 2014; Pankaj, 2023). This has led to several unexpected consequences, most importantly, greater access to MGNREGA employment in states that need it less. Southern states have the financial resources to implement work programme from their own resources and wait for reimbursement, increasing the work allocation in the south while north-central states languish. Modifying the program rules is against the legislation, creating a conundrum that dilutes the self-targeting structure, as shown in Table 6.

This example has important lessons. Instead of legislating programs as rights, it may be useful to allow flexibility in program structures to respond to long-term social changes. Instituting programs is easy but changing them is difficult. Hence, it might make sense to put programs in place for a finite duration where they can be reevaluated and restructured, if needed, before continuation. This would be relevant for both programs that are struggling as well as those that are successful and the goalpost needs to be expanded. Maternity benefits schemes provide an interesting example. This program has been extremely successful. For example, maternity benefit schemes have achieved their objective of encouraging hospital delivery, even among families who do not receive these benefits. As data from the National Family Health Survey (NFHS) show, hospital delivery increased from 39% to 89% between 2005-6 and 2019-21. However, antenatal care is failed to keep pace, increasing from 9% to 26% over the same period (Barik & Desai, 2024). The next avatar of the programme can be restructured to move the goal post to include both antenatal care and hospital delivery through clearer milestones for incentives. Setting a sunset clause when programs can be extended, restructured or eliminated allows for flexibility and reduces political costs. The extension of free food grains under PMGKAY in 2023 offers a valuable example of this approach, which should be used for all programs.

While we have emphasised the importance of transient poverty in this paper, we would be remiss if we did not note a small but significant segment of the population that remains mired in chronic poverty. Members of Scheduled Tribes living outside the Northeast states are most likely to be poor and stay poor. However, some strategies mentioned above can easily be tailored to meet their unique needs. For example, most of the Scheduled Tribe poverty is located in small pockets of the country. Geographically based cash distribution, discussed above, could be useful in addressing this hard-core poverty.

In sum, economic growth and poverty decline create a dynamic climate that requires nimble social protection programs. Traditional strategies designed to address chronic poverty in a large segment of society may be less effective as accidents of birth become less important than accidents of life. Ensuring that social protection systems keep up with the pace of social transformation will be a key challenge facing India as it strives towards equitable development.

Appendix - 1

Overview of India Human Development Survey:

India Human Development Surveys Wave 1 (2004-5), Wave 2 (2011-12) and Wave 3 are part of a collaborative research program between researchers from the National Council of Applied Economic Research and University of Maryland. The IHDS is a multi-topic survey designed to examine changes in livelihoods and life-styles of Indian households in an era of rapid social transformation. The IHDS research program is governed under guidance from an advisory panel headed by Dr. Pronab Sen, former Chairman, National Statistical Commission and consists of representatives from several ministries as well as researchers from universities and civil society institutions.

IHDS data for Waves 1 and 2 are available in public domain for cost-free download. They have been downloaded by over 11,000 users worldwide and have resulted in over 1200 papers and dissertations.

Strengths of IHDS include: (1) A multi-purpose multi-topic design including questions on income, consumption, health, education, employment, social networks, gender relations etc. (2) Many innovative features including administration of short reading, writing, and arithmetic tests to children aged 8-11, questions about symbolic aspects of gender (e.g. purdah, men and women eating together in the household), information on social networks; and, (3) Information on village infrastructure and facility survey for two schools/medical facilities in each sampling unit.

The IHDS has a unique niche, even as a cross-sectional survey. However, its longitudinal dimension makes it especially important for studying a society undergoing a rapid transition. With surveys of the same households in 2004-5, 2011-12 and 2022-24, IHDS is the first panel study of urban and rural households in India that covers all age ranges. Substantial field efforts were made in IHDS-I to secure contact information (telephones, neighbours' names, family contacts) so that the IHDS-I households could be easily relocated, even in the event of a move. While many international surveys today are part of panel designs, in India the most widely used surveys, the NSS and NFHS, remain repeated cross-sections. There is, therefore, an important role to be played by IHDS in providing panel data for one of the world's most important regions. Panel designs are favoured for good reasons, despite their added cost and the difficulties of re-contacting a shifting and often busy population.

Advantages of panel data include:

- Estimates of entry, exit and duration in such vital phenomena as poverty, education and migration.
- Research on path-dependent changes such as the impact of childhood health on adult outcomes, the interaction between population growth and environment or household response to rising incomes in switching from biofuels to clean fuels.
- Application of better statistical models for controlling unobserved heterogeneity enhanced the possibility of computing fixed-effects models that own for unmeasured, time-invariant characteristics of the household or individual (e.g. overtime growth in academic skills when comparing public and private schools).
- Better analysis of the role of exogenous shocks between fielding various rounds of the survey.

Sample Attrition:

In 2011-12, IHDS-II was able to reinterview 83% of the original 41,554 households interviewed in IHDS-I (2004-5). A fresh sample of 2,134 urban households was added to the original sample to keep the sample cross-sectionally representative. Since IHDS-II interviewed all household splits between 2004-5 and 2011-12 as long as the respondents resided in the same locality, the sample for IHDS-II included 42,152 households. For IHDS-3, a fresh sample of 7440 households was added, covering two new households in each rural PSU and 5 new households in each urban PSU.

The fieldwork for IHDS-3 was only completed in June 2024. Hence full analysis of data quality has not been undertaken. However, since attrition remains a major challenge in any panel survey, we present the basic characteristics of the households we lost during the current round from the prior wave.

The sampling weights (multipliers) used in this analysis are adjusted from the weights in IHDS Wave 2 and take into account expected urban and rural population growth predicted by the Ministry of Health and Family Welfare. However, these weights have yet to be adjusted for attrition.

Appendix Table 1: Number of households included in each of the three waves of IHDS

Interview Status	Wave - 1	Wave - 2	Wave 3
	2004-5	2011-12	2022-24
2005 Only	4992		
2012 Only		915	
2022 Only			7,440
2005 & 2012, no 2022	6278	6503	
2005 & 2022	1304		1,657
2012 & 2022		991	1,241
All 3 waves	26595	31540	37,504
Total Sample	39119	39949	47,842

* Due to household splits, number of households increase over time

Appendix Table 2: Characteristics of the household that were not reinterviewed between waves 1 & 2 and 2 & 3

Characteristics at Prior Wave	Between 2004-5 & 2011-12	Between 2011-12 & 2022-24
Residence		
Rural	10%	11%
Urban	28%	35%
Owns or cultivates farmland		
Does not farm	23%	26%
Farms	8%	11%
Consumption Quintile		
Lowest	16%	17%
2nd	14%	12%
Middle	16%	16%
4th	17%	22%
Richest	20%	28%
Asset Quintile		
Lowest	11%	12%
2nd	12%	10%
Middle	14%	14%
4th	18%	23%
Richest	25%	36%
Social Group		
Forward Caste	21%	26%
OBC	15%	18%
SC	13%	15%
ST	15%	13%
Muslim	19%	21%
Christian, Jain, Sikh	21%	34%
Highest Adult Education in Household		
None	14%	16%
1-4	13%	15%
Completed Primary	14%	14%
6-9	14%	15%
Secondary (10 & 11)	17%	19%
Higher Secondary, some college	18%	21%
Graduate	25%	33%
Family size categories		
1	43%	45%
2-3	25%	25%
4-5	18%	19%
6+	9%	14%
Total	17%	19%

** About 20% of the households lost between waves 1 and 2 were recovered in wave 3 but are not included in this table.*

Appendix Table 3: Characteristics of IHDS sample at each of the three waves

Key Characteristics	Unweighted Distribution			Weighted Distribution		
	IHDS-1	IHDS-2	IHDS-3	IHDS-1	IHDS-2	IHDS-3
Residence						
Rural	64.3	65.4	69.0	71.3	68.1	66.6
Urban	35.7	34.6	31.0	28.7	31.9	33.4
Owns or cultivates farmland						
Does not farm	58.1	55.4	53.5	55.3	55.5	55.2
Farms	41.9	44.6	46.5	44.7	44.5	44.8
Consumption Quintile						
Lowest	17.7	17.1	18.9	20.0	20.0	20.0
2nd	17.9	18.8	19.4	20.0	20.0	20.0
Middle	19.6	19.9	20.0	20.0	20.0	20.0
4th	20.9	21.4	20.6	20.0	20.0	20.0
Richest	23.9	22.7	21.1	20.0	20.0	20.0
Asset Quintile						
Lowest	21.8	18.8	20.6	26.6	23.0	22.5
2nd	16.7	18.0	21.6	18.5	19.0	22.6
Middle	15.7	20.7	22.3	16.2	20.3	21.7
4th	22.6	21.5	14.7	20.3	20.0	14.4
Richest	23.1	20.9	20.8	18.5	17.7	18.8
Social Group						
Forward Caste	23.0	21.9	20.0	20.5	20.4	19.0
OBC	33.8	33.9	32.7	35.6	35.8	35.5
SC	20.1	21.2	22.1	22.0	22.1	22.6
ST	8.3	8.7	9.8	7.8	8.3	9.2
Muslim	11.4	11.5	12.8	11.3	11.3	11.7
Christian, Jain, Sikh	3.5	2.9	2.7	2.7	2.2	2.0
Highest Adult Education in Household						
None	20.7	17.0	11.8	23.4	19.4	12.5
1-4	7.5	6.0	4.8	8.3	6.3	5.1
Completed Primary	7.1	7.2	5.3	7.5	7.5	5.5
6-9	24.2	24.6	21.7	24.2	24.4	21.4
Secondary (10 & 11)	14.9	14.5	14.0	13.6	13.7	13.5
Higher Secondary, some college	10.5	13.4	17.9	9.6	12.3	17.1
Graduate	15.2	17.3	24.6	13.5	16.5	24.9
Family size categories						
1	1.9	2.9	3.9	2.1	3.2	4.2
2-3	20.3	24.4	29.6	20.8	25.7	30.1
4-5	41.5	41.3	41.3	40.7	41.2	41.0
6+	36.3	31.4	25.3	36.4	29.9	24.7
Sample Size	41554	42152	47842	41554	42152	47842

Appendix - 2

Measuring Consumption Expenditure: IHDS and NSS

India Human Development Survey (IHDS)	National Sample Survey (NSS)
<p>Reference Period: Mixed Recall Period (MRP) - Food items 30 days - Consumables 30 days - Durables and major expenditures 365 days</p>	<p>Reference Period: Modified Mixed Recall Period (MMRP) - Some food items 7 days - Cereals and other foods 30 days - Consumables 30 days - Durables and major expenditures 365 days In earlier surveys NSS used MRP but now switched to MMRP</p>
<p>Consumption Items Included - 53 items combining many items (e.g. salt and spices) under a single heading - Data on PDS as a source collected but not other items</p>	<p>Consumption Items Included - Detailed item list - Source information collected</p>
<p>Number of Visit Single visit, although interviewer may pause the interview and may return within next day or so to accomodate respondent time constraints</p>	<p>Number of Visit In the latest round, data collected over 3 visits, spaced about a month apart. Overall consumption may be influenced by short-term adjustments made in response to sudden expenditures introducing measurement error.</p>
<p>Household Size (unweighted) 4.6 Rural 4.2 Urban Due to detailed household member follow up, better recording of household size. But may also lead to slight overestimation as some of the non-resident members may get included.</p>	<p>Household Size (calculated from unweighted numbers in Appendix Table) 4.5 Rural 3.8 Urban NSS underestimation of urban household size is well recognized. Compare to average urban household size of 4.2 recorded by NFHS-5.</p>
<p>Comparability over Time: No change in questionnaire, reference period. Designed for comparability across 3 waves.</p>	<p>Comparability over Time: Substantial design changes over time in question wording, reference period and number of visits.</p>
<p>Sample Representativeness Longitudinal data affected by attrition of panel households. Addition of households from the same block/village to refresh the sample do not make up for fixed panel of PSU. PSU selection done in Wave 1 excludes some the per-urban areas that have grown recently</p>	<p>Sample Representativeness Far more representative sample due to inclusion of newly growing areas and larger sample size.</p>
<p>Fruitful Use: Understand changes in household living conditions over time, link to other life events and access to diverse public programs such as MGNREGA and AAY</p>	<p>Fruitful Use: Obtaining current estimate of poverty levels, access to certain types of welfare benefits. State level estimates.</p>

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