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Explaining cross-state earnings inequality differentials in India

An RIF decomposition approach

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Abstract: Despite the relevance of geographical disparities in India, earnings inequality occurs mostly within states, but with a broad range of variability in its levels. We investigate the sources of such variability using RIF decompositions of the inequality gaps between most populous states and India. Our results point to substantial compositional effects associated with cross-state variability in the extent of high-skilled formal employment outside the farm and construction sectors, and along the degree of urbanization and some demographic factors. Cross-state differences in conditional earnings structures, however, turn out to be crucial, especially regarding the different degree of earnings stratification by caste in each state.

Keywords: earnings inequality, RIF, states, decomposition, India
JEL classification: D63, I32, J21, J82

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1 Introduction

Income inequality levels in India are higher than OECD average levels, but (as in China) still lower than in other emerging countries, such as Brazil and South Africa (Arnal and Forster 2010). Despite the declining trend in poverty, inequality has increased over time (Chauhan et al. 2016), partly because of the growth of the tertiary sector, with a high duality between very small and very large firms (Mazunder 2010). This shift in employment might have contributed to increasing earnings inequality because most industry and service jobs pay more than agricultural casual labour, even after accounting for levels of education and other individual characteristics (Rama et al. 2015). The importance of demographic factors, especially caste and religion, in determining earnings inequality in India is also well known (e.g. Bhaumik and Chakrabarty 2006), while different research has highlighted the importance of geographical disparities. Increasing inequality has been associated with the growth of urban areas, raising a concern about the accentuation of regional imbalances, the benefits of growth being increasingly concentrated in the already richer states, leaving the poorest and most populous states ever further behind (Arnal and Forster 2010). High growth rates in richer states have led to a boom in commercial and service sector activities, while in most of the poorest states agriculture is still predominant. Regional disparities in poverty increased in the 1990s, southern and western regions doing much better than northern and eastern regions (Deaton and Dreze 2002). Between-district inequality has been shown to be a substantial proportion of total inequality, to a large extent explained by between-state income differences in rural India (Azam and Bhat 2016). Within-state inequalities, however, still explain most of the overall level of inequality and its trend. Economic inequality has increased within states, especially within urban areas, and between urban and rural areas, and tends to be higher in developed regions (Deaton and Dreze 2002; Chauhan et al. 2016).

In this context, the aim of this paper is precisely to identify the main sources of the variability in within-state earnings inequality in India. The methodology is based on the use of the Recentered Influence Function (RIF) of different inequality measures. Using regressions of these functions on worker characteristics, I first estimate the marginal contribution of each characteristic on a given inequality index in India and in a selection of the most populous states. Then, I measure the expected change in inequality when either the distribution of characteristics or the earnings structure of the whole country replaces that of the state. This exercise also serves to illustrate in the case of India the potential and limitations of the use of this regression-based decomposition technique in regional inequality analysis. This technique has been previously used to decompose interdistributional differences in quantiles and, to a lesser extent, in the Gini index. I explore here its use in the analysis of other inequality indices, such as the Generalized Entropy and Atkinson families, to investigate how the sources of inequality vary according to the degree of inequality aversion.

In what follows, Sections 2 and 3 present the methodology and data. Section 4 discusses inequality in Indian states. Sections 5 and 6 discuss the results of the corresponding regressions and decompositions. The concluding section summarizes the results.

2 Methodology: Decomposing the gap in inequality using the Recentered Influence Function

The aim of this section is to show how to obtain a decomposition of the gap in earnings inequality between each target state and the entire country, taken as the reference distribution. One element of the decomposition is the part explained by differences in characteristics (compositional effect). The remaining unexplained part is the differential that is driven by diverging earnings structures (earnings effect). For that, we use the generalization of the Blinder (1973)-Oaxaca (1973) approach proposed by Firpo et al. (2007, 2009).[1] The simplest version of this method applies the conventional Blinder-Oaxaca decomposition to the RIF of the target statistic between two distributions, using a regression of individual values of that function on workers' characteristics. The RIF is just a measure of the influence of each earnings level on the target statistic (i.e. an inequality index in our case). Notably, the $RIF(y;I)$ is a non-monotonic transformation of the earnings level y, in which extremely high/low values will have a disproportionally large influence in the inequality index I, with an intensity that depends on the particular sensitivity of that index to values at each part of the distribution. This is discussed in detail in Appendix 2. The conventional Blinder-Oaxaca decomposition is the special case in which the statistic is the mean of (log-) earnings.

The approach has been extensively used so far for the decomposition of the inter-distributional gap in earnings (or income) quantiles, but it also has great potential for decomposing the difference between inequality indices. I am, however, aware only of decompositions applied to the Gini index (e.g. Becchetti et al. 2014; Ferreira et al. 2014; Firpo et al. 2007; Fortin et al. 2011b; Gradín 2016; Groisman 2014), none of them in regional analysis.

Let us assume that the conditional expectation of $RIF(y;I)$ is a linear function of the explanatory variables, given by matrix X, such that the β-coefficients can be estimated by OLS:

$$E(RIF(y;I)|X) = X'\beta. \quad (1)$$

Then, by the law of iterative expectations:

$$I(y) = E\big(RIF(y;I)\big) = E_X[E(RIF(y;I)|X)] = E(X)'\beta. \quad (2)$$

Each β coefficient reflects the marginal impact on the index of a small change in the average value of the corresponding characteristic. This takes into account the distributional pattern of what levels of earnings are affected most by the change in the characteristic.

Based on (2) it is possible to decompose the inequality index linearly into the total contribution W_k of each characteristic (including the intercept) x_k, $k = 0,1,\ldots,K$, on inequality:

$$I(y) = \bar{X}'\beta = \sum_{k=0}^{K} W_k = \beta_0 + \sum_{k=1}^{K} \bar{x}_k\beta_k. \quad (3)$$

[1] See Fortin et al. (2011a) for a detailed discussion of the approach in the context of other alternatives in the literature.

The total contribution of the k^{th} characteristic is the product of its average value ($\bar{x}_k$) and the marginal impact of this characteristic on overall inequality (β_k). Thus, from (3), the differential in inequality between the reference (India) and target stat (with superscripts 1 and 0, respectively) can be expressed as the sum of the total contributions of characteristics ($W_k^{\Delta X\beta}, k = 0, \ldots, K$):

$$I^1 - I^0 = \bar{X}^{1\prime}\beta^1 - \bar{X}^{0\prime}\beta^0 = \sum_{k=0}^{K} W_k^{\Delta X\beta} = (\beta_0^1 - \beta_0^0) + \sum_{k=1}^{K}(\bar{x}_k^1\beta_k^1 - \bar{x}_k^0\beta_k^0). \quad (4)$$

However, we usually want to break the total contribution into the impact of differences in average characteristics and that of differences in coefficients. One way to do that is by constructing a counterfactual that combines the average characteristics of one distribution with the coefficients of another. We can have at least two alternative counterfactuals with different interpretations.

Let us consider the case in which we combine the Indian conditional earnings structure (coefficients) and each state average characteristics, with inequality given by $I^{01} = \bar{X}^0\beta^1$. This can be interpreted as either giving Indian conditional earnings structure to the target state, while keeping its own characteristics or, equivalently, giving India the average characteristics in the state, while keeping its own coefficients.

Alternatively, we can consider combining Indian characteristics and state coefficients: $I^{10} = \bar{X}^1\beta^0$. This can be viewed as giving the average Indian characteristics to the target state, while keeping its own coefficients or, equivalently, giving India the conditional earnings structure in the state.

By adding and subtracting the inequality level in the counterfactual and re-arranging terms, we can rewrite the inter-distributional differential in earnings inequality as the sum of the explained and unexplained effects:

$$I^1 - I^0 = (\bar{X}^1 - \bar{X}^0)\beta^1 + \bar{X}^0(\beta^1 - \beta^0). \quad (5)$$

$$I^1 - I^0 = (\bar{X}^1 - \bar{X}^0)\beta^0 + \bar{X}^1(\beta^1 - \beta^0). \quad (6)$$

The *aggregate explained effect* captures the impact of India and the state having different average characteristics. For that reason, it is also called the *characteristics* or *compositional effect*. It is valued using the Indian conditional earnings structure in (5), $W^{\Delta X,\beta^1} = (\bar{X}^1 - \bar{X}^0)\beta^1$, and each state earnings structure in (6), $W^{\Delta X,\beta^0} = (\bar{X}^1 - \bar{X}^0)\beta^0$. One advantage of (5) is that the characteristics effect is evaluated using a common earnings structure for all states, unlike the characteristics effect in (6). The latter has the attractive interpretation of estimating inequality if the state had the same characteristics as India. But it also implies that cross-state variation, our focus of interest, may be due to either differences in characteristics or differences in the coefficients used to evaluate it. For this reason, our main reference will be the decomposition in (5).

The *aggregate unexplained effect* reflects the impact of India and the state having different conditional earnings structures, and is valued using the state average characteristics in (5), $W^{\Delta\beta,\bar{X}^0} = \bar{X}^0(\beta^1 - \beta^0)$, and Indian characteristics in (6), $W^{\Delta\beta,\bar{X}^1} = \bar{X}^1(\beta^1 - \beta^0)$.

Thanks to the linearity of the approach, the individual contribution of each variable x_k to the characteristics and coefficients effects can be measured as $W_k^{\Delta X,\beta^j} = (\bar{x}_k^1 - \bar{x}_k^0)\beta_k^j$ and

$W_k^{\Delta\beta,\bar{X}^j} = \bar{x}_k^j(\beta_k^1 - \beta_k^0)$, $j = 0,1$, so that the individual effects sum up the corresponding aggregate effects. The characteristics and coefficients effects of each characteristic also add up to the total contribution of that same characteristic.

As Gradín (2016) discussed, there have been other regression-based decompositions in the literature. Some approaches decomposed only the total effect of characteristics on an inequality measure based on their different decomposition rules (e.g. Fields 2003; Morduch and Sicular 2002) or using Shorrocks' (2007) Shapley approach (Wan 2002; Wan and Zhou 2005). Yun (2006), following Juhn et al. (1993), extended Fields' (2003) approach to incorporate a decomposition of the difference in inequality of two distributions into the characteristics and coefficients effect. However, this was done for a specific index, the variance of logs, which is known to violate the principle of transfers, the most important property in inequality measurement (stating that inequality increases with small progressive mean-preserving transfers).

The RIF method proposed here, on the contrary, is more general, allowing the decomposition of the most popular inequality measures. Furthermore, it verifies other attractive properties. Because of its linearity, the decomposition does not depend either on the path in which we consider the explanatory factors or on their level of aggregation, and the decomposition and standard errors are easy to compute. Furthermore, whenever the statistic of interest is the average, it is equivalent to the classical Blinder-Oaxaca decomposition. It shares some limitations with most counterfactual analyses, though (Fortin et al. 2011a). The aggregate decomposition needs to assume the invariance of the conditional earnings distribution, which requires the absence of general equilibrium effects (simple counterfactual treatment) and of any sorting of individuals based on unobservables (ignorability). The detailed decomposition is based on even stronger assumptions (linearity in the functional form that relates characteristics to RIF, and exogeneity of the explanatory factors).

Another important limitation of our approach, shared with others, is that the detailed decomposition of the coefficients effect suffers from an identification problem (Oaxaca and Ransom 1999). The coefficients effects of categorical variables are not invariant to which dummies are omitted, nor to what normalization is used for continuous variables. Fortin et al. (2011a) pointed out that there is no general solution to this problem and the solutions proposed in the literature (such as Gardeazabal and Ugidos 2004; Yun 2005, 2008) are all ad hoc. For that reason, I will devote most of the analysis to the decomposition of the detailed characteristics effect, and just highlight the most salient coefficients effects.

3 Data

I use for my analysis the 2011/12 India Human Development Survey-II (IHDS-II) obtained from the Inter-University Consortium for Political and Social Research at the University of Michigan. This is a nationally representative, multi-topic survey of 42,152 households, covering 1,503 villages and 971 urban neighbourhoods across India. It is produced by the National Council of Applied Economic Research at New Delhi, and by the University of Maryland. It mostly consists of re-interviews in 2011/12 of households from the first survey wave (2004/05), with an additional replacement sample.

The sample comprises 52,937 (unweighted) observations of workers reporting positive hourly earnings (take-home wage and bonuses, cash or in-kind) and the relevant characteristics, the base of our analysis.

The main analysis is a comparison of India with a selection of 11 of the most populous states—Rajasthan, Uttar Pradesh, West Bengal, Orissa, Chhattisgarh, Madhya Pradesh, Gujarat, Maharashtra, Andhra Pradesh, Karnataka, and Tamil Nadu—with sufficient observations to undertake a sound regression analysis. These states make up 77 per cent of Indian workers and represent the least developed areas of India. Only Tamil Nadu and Maharashtra have average earnings above the country level.

I consider several worker characteristics that might influence earnings and thus inequality. I include area of residence (urban or rural) because inequality has increased mostly in urban areas and between urban and rural areas. Given also the potential importance of demographic factors, I consider gender, age (24 or less, 25–34, 35–44, 45–54, 55 and above), marital status (married or not), caste (Brahmin, other Forward/General castes and those reporting other caste; Other Backward Castes (OBC); Scheduled Castes (SC); and Scheduled Tribes (ST)), and religion (a dummy to identify the Muslim minority). The main determinants of earnings are attained education (8 categories, from none to some post-graduate), as well as several labour market outcomes such as primary activity status and sector (cultivation, agriculture wage labour, construction wage labour, other non-agriculture wage labour, salaried worker, other), type of work (regular/permanent/longer contract, as opposed to casual jobs), and a dummy for managerial or professional occupations.

4 Inequality across Indian states

Geographical inequalities in India are important, but most earnings inequality occurs within states according to the decomposition of several inequality indices, as shown in Table 1. This amounts to 86–87 per cent of total inequality with GE(0) and GE(1). These are the only two additively decomposable indices whose weights for aggregating the within-group component add up to 1 (weights are respectively population and earnings shares). The Atkinson family, whose equality indices (the complementary to inequality) are multiplicatively decomposable, also shows much higher inequality within states than between states, regardless of the level of inequality aversion.

Table 1: Earnings inequality decomposition by states, India 2011/12

	GE(0)	GE(1)	A(0.5)	A(1)	A(2)
Total	0.316	0.378	0.158	0.271	0.433
Within-state	0.270	0.328	0.139	0.241	0.398
% total	85.6%	86.8%	-	-	-
Between-state	0.046	0.050	0.023	0.040	0.058
% total	14.4%	13.2%	-	-	-

Source: Own construction using IHDS-II.

Earnings inequality in India exhibits a high variability across states and union territories (Table 2). For example, the Gini index ranges between only 0.306 in Bihar and 0.545 in Mizoram. Among the selected most populous states, it still varies between 0.331 in Andhra Pradesh or 0.337 in Madhya Pradesh at the bottom, and 0.441 in Maharashtra or 0.443 in Gujarat at the top. This variability might be seen as being related to some prevailing

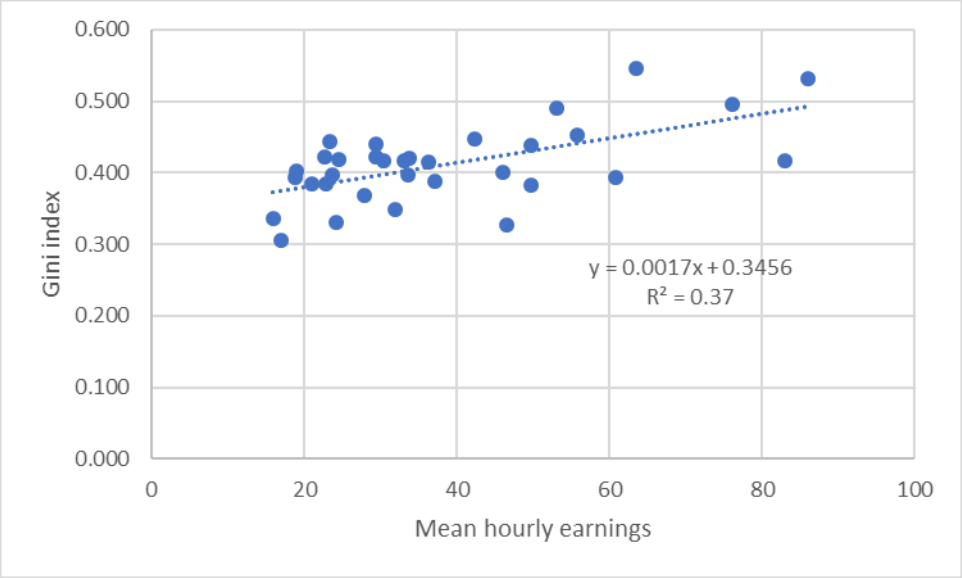
characteristics of workers in each state. In this line, Figure 1 shows the positive and statistically significant association between the Gini index and average earnings across states (R^2 is 0.37). States with relatively higher average earnings also tend to be those with higher education or a larger degree of urbanization, among other things. However, the small number of states does not give us enough degrees of freedom to undertake a complete regression analysis considering all factors at the same time. The RIF approach used here, however, allows us to identify the role of several factors associated with some states having higher or lower inequality in the selected states, considering the particularities of each state.

Table 2: Hourly earnings by state in India 2011/12: mean and inequality

State	Mean	Gini	A(0.5)	A(1)	A(2)	GE(−1)	GE(0)	GE(1)	GE(2)
Jammu and Kashmir	42.6	0.448	0.163	0.302	0.551	0.613	0.360	0.353	0.493
Himachal Pradesh	30.4	0.417	0.152	0.253	0.387	0.315	0.292	0.371	0.712
Punjab	29.4	0.421	0.163	0.282	0.505	0.510	0.331	0.397	0.862
Chandigarh	76.1	0.496	0.195	0.359	0.580	0.689	0.444	0.414	0.515
Uttarakhand	27.9	0.368	0.115	0.209	0.376	0.301	0.234	0.260	0.375
Haryana	37.2	0.388	0.132	0.232	0.405	0.341	0.264	0.309	0.519
Delhi	55.9	0.452	0.164	0.300	0.534	0.572	0.356	0.359	0.506
Rajasthan	24.6	0.419	0.151	0.254	0.388	0.317	0.292	0.366	0.684
Uttar Pradesh	18.9	0.394	0.137	0.237	0.391	0.321	0.270	0.327	0.571
Bihar	16.9	0.306	0.090	0.159	0.285	0.200	0.173	0.217	0.431
Sikkim	53.0	0.490	0.191	0.341	0.526	0.554	0.417	0.415	0.533
Arunachal Pradesh	83.1	0.417	0.153	0.312	0.559	0.633	0.373	0.290	0.286
Nagaland	86.1	0.532	0.238	0.447	0.700	1.164	0.593	0.480	0.557
Manipur	58.8	0.393	0.130	0.263	0.516	0.533	0.305	0.254	0.271
Mizoram	63.6	0.545	0.251	0.482	0.823	2.318	0.658	0.506	0.584
Tripura	31.9	0.349	0.103	0.185	0.319	0.234	0.205	0.231	0.337
Meghalaya	49.6	0.438	0.155	0.272	0.430	0.377	0.317	0.352	0.532
Assam	33.6	0.396	0.136	0.231	0.377	0.303	0.263	0.330	0.706
West Bengal	22.6	0.422	0.162	0.268	0.411	0.349	0.311	0.405	0.801
Jharkhand	22.8	0.385	0.137	0.228	0.348	0.267	0.258	0.335	0.600
Orissa	20.9	0.385	0.136	0.223	0.329	0.245	0.252	0.340	0.660
Chhattisgarh	19.0	0.402	0.158	0.252	0.368	0.292	0.291	0.409	0.837
Madhya Pradesh	15.9	0.337	0.109	0.186	0.312	0.227	0.206	0.268	0.547
Gujarat	23.3	0.443	0.164	0.281	0.443	0.397	0.329	0.394	0.765
Daman and Diu	33.1	0.416	0.150	0.251	0.370	0.294	0.290	0.356	0.554
Dadra and Nagar Haveli	36.2	0.415	0.137	0.246	0.393	0.324	0.282	0.303	0.393
Maharashtra	29.4	0.441	0.156	0.276	0.444	0.400	0.323	0.357	0.639
Andhra Pradesh	24.1	0.331	0.100	0.174	0.296	0.210	0.191	0.244	0.547
Karnataka	23.7	0.398	0.139	0.241	0.418	0.359	0.275	0.344	1.069
Goa	49.8	0.383	0.123	0.225	0.404	0.339	0.255	0.276	0.466
Kerala	46.7	0.328	0.093	0.177	0.343	0.261	0.194	0.203	0.330
Tamil Nadu	33.9	0.419	0.144	0.256	0.422	0.364	0.295	0.330	0.522
Pondicherry	46.0	0.401	0.128	0.248	0.441	0.395	0.286	0.257	0.276
India	25.9	0.434	0.158	0.271	0.433	0.382	0.316	0.378	0.726

Source: Own construction using IHDS-II.

Figure 1: Gini and average earnings across Indian states



Source: Own construction using IHDS-II.

The heterogeneity in the composition of the workforce across Indian states is also large. Table A1 in the Appendix reports the average values of worker characteristics in India and in the selected states. The proportion of workers living in urban areas is 25 per cent or less in some states (Orissa, Chhattisgarh, Uttar Pradesh, Rajasthan, Madhya Pradesh, and West Bengal), but 40 per cent or above in others (Maharashtra, Gujarat, and Tamil Nadu); the Indian average is 30 per cent. More urbanized states also tend to show higher proportions of salaried workers, workers with a college degree, workers in the non-farm sector, or workers with a permanent contract. For example, the proportion of workers with at least graduate studies in Maharashtra (12 per cent) is triple the level in Madhya Pradesh (4 per cent). The proportion of workers with permanent or regular employment ranges between only 9 per cent in Karnataka and 23 per cent in Maharashtra. Similarly, the proportion of managers and professionals goes from 4 per cent in Andhra Pradesh to 8 per cent in Tamil Nadu. Andhra Pradesh also stands out for having half of its workers engaged in either cultivation or agrarian wage labour, as opposed to only 19 per cent in Rajasthan. Maharashtra stands out for having the largest proportion of salaried workers, 34 per cent—more than twice the level of Andhra Pradesh, Chhattisgarh, or Madhya Pradesh (around 15 per cent).

The proportion of women varies between 25 per cent in Uttar Pradesh or West Bengal, and more than 40 per cent in Chhattisgarh or Andhra Pradesh. Regarding caste composition, West Bengal is polarized, with around half of workers belonging to SC and ST and more than 40 per cent to forward castes, while other states (Uttar Pradesh, Andhra Pradesh, Tamil Nadu) have half of their workers or more in OBC. The proportion of ST workers varies between less than 1 per cent in Tamil Nadu and 35 per cent in Chhattisgarh, while the proportion of Muslim workers is around 20 per cent in West Bengal and Uttar Pradesh, but only around 1 per cent in Orissa and Chhattisgarh.

The objective of the next sections is to understand the extent to which these differences in characteristics explain the variation in level of earnings inequality across states, or alternatively to show that they result from different conditional earnings distributions instead. For that, we need to first understand how each worker characteristic helps to shape earnings inequality in India.

5 Factors associated with earnings inequality in India: RIF regressions

In a first stage we estimate the RIF values of each inequality index, as shown in Appendix 2. The richest percentiles, and to a lesser extent also the poorest, contribute disproportionally to each corresponding inequality index (see Table 3). The contribution of top earnings to inequality declines with inequality aversion in the case of the Atkinson family (implying higher sensitivity to inequality in earnings among the poorest). It increases with the GE parameter, but goes out of proportion with extreme values. For that reason, we will analyse Gini and the Atkinson family.

Table 3: The RIF contribution to inequality indices by decile (average=0.1)

Decile	Gini	A(.5)	A(1)	A(2)	GE(−2)	GE(−1)	GE(0)	GE(1)	GE(2)
1	0.15	0.20	0.21	0.23	−0.08	−0.04	0.23	0.19	−219.08
2	0.11	0.11	0.10	0.08	−0.04	−0.03	0.10	0.12	−210.41
3	0.09	0.08	0.07	0.05	−0.02	−0.02	0.07	0.10	−203.70
4	0.08	0.07	0.06	0.05	−0.02	−0.01	0.06	0.09	−200.18
5	0.07	0.05	0.04	0.04	0.00	0.01	0.03	0.06	−191.71
6	0.06	0.03	0.03	0.04	0.03	0.03	0.02	0.04	−178.70
7	0.05	0.02	0.02	0.04	0.06	0.06	0.00	0.02	−157.38
8	0.05	0.00	0.02	0.05	0.11	0.10	0.00	0.00	−124.76
9	0.07	0.01	0.04	0.09	0.22	0.20	0.03	−0.02	−14.48
10	0.29	0.42	0.41	0.34	0.73	0.69	0.46	0.41	1501.25
Total	1. 00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Source: Own construction using IHDS-II.

In the second stage, I estimate the RIF regressions (RIF of each inequality index conditional on worker characteristics), reported for India in Table 4. The estimated coefficients show the effect that a marginal change in the proportion of each characteristic has on the corresponding inequality measure. They help us to understand the net effect of several characteristics on inequality *ceteris paribus*, in a reduced form without uncovering the actual transmission mechanisms. They thus identify what characteristics are more strongly associated with earnings inequality. In the light of the previous discussion, those characteristics with higher prevalence at the extremes of the earnings distribution, but especially at the top, will have a stronger association with inequality.

Earnings inequality measured by the Gini index is significantly associated in India with the location of workers and with some demographic factors such as gender, age, and caste, but more strongly with education and labour characteristics. We can see that earnings inequality in India, indeed, increases with the proportion of workers living in urban areas, given that growing inequality is an urban phenomenon, as consistently pointed out by the literature. This association between inequality and location remains even after controlling for worker education or the share of agrarian labour workers, among other things. Inequality also increases with the proportion of female, older (45+), and married workers, while it declines with the proportion of those aged between 24 and 34. India is a society strongly stratified by caste, especially regarding the occupational distribution, and thus caste is also a factor associated with earnings inequality. Inequality tends to decline with higher proportions of non-Brahmin castes, and thus to increase with Brahmin and ST, respectively the most advantaged and most disadvantaged groups. A much larger increase in inequality goes along with the proportion of workers with higher attained education (especially with a college degree or higher). Inequality tends to increase with the proportion of high-skilled jobs

(managers/professionals) and regular/permanent workers and of those outside the farm and construction sectors.

Table 4: The RIF regressions, India

	Gini	A(.5)	A(1)	A(2)
Urban	0.032***	0.017***	0.033***	0.052***
Female	0.051***	0.037***	0.058***	0.070***
Aged 25–34	−0.041***	−0.036***	−0.046***	−0.038***
Aged 35–44	−0.007	−0.015*	−0.011	0.008
Aged 45–54	0.079***	0.046***	0.079***	0.108***
Aged 55+	0.095***	0.056***	0.096***	0.128***
Married	0.032***	0.023***	0.032***	0.028***
Forward/General Caste (non-Brahmin)	−0.027*	−0.018	−0.026	−0.017
Other Backward Caste (OBC)	−0.044***	−0.029**	−0.044**	−0.040*
Scheduled Caste (SC)	−0.047***	−0.032**	−0.047***	−0.037*
Scheduled Tribe (ST)	0.015	0.012	0.018	0.03
Muslim	0.001	0.001	0.008	0.034***
1–4 years of education	0.017*	0.011	0.017*	0.018
Primary education	0.015	0.008	0.017	0.037***
6–9 years of education	0.017**	0.008	0.018*	0.033***
Secondary education	0.029***	0.01	0.028**	0.062***
Higher secondary education	0.059***	0.025**	0.056***	0.097***
Graduate	0.208***	0.121***	0.207***	0.266***
Some post-graduate	0.468***	0.322***	0.484***	0.526***
Agrarian wage labour	0.017*	0.007	0.014	0.012
Construction wage labour	−0.011	−0.014*	−0.015	−0.009
Other non-agrarian wage labour	0.024**	0.008	0.031***	0.095***
Salaried	0.043***	0.014	0.046***	0.112***
Housework	0.054***	0.030***	0.055***	0.079***
Other work type	0.027**	0.017*	0.034**	0.078***
Regular/Permanent/Longer contract	0.152***	0.087***	0.155***	0.215***
Managerial/Professional occupation	0.307***	0.232***	0.334***	0.378***
Intercept	0.292***	0.081***	0.124***	0.190***
R^2	0.161	0.096	0.140	0.149
N	52,937	52,937	52,937	52,937

Source: Own construction using IHDS-II. Omitted categories: metropolitan area; male; unmarried; 24 years old or younger; Brahmin; non-Muslim; no education; work type: cultivation; non-regular worker; non-managerial/professional occupation.

The regressions for the Atkinson family of inequality indices confirm most of the above, but also reveal a clear distributional pattern. Although most associated effects are higher with higher inequality aversion (implying higher sensitivity to the poorest), they are smaller as a percentage of the corresponding inequality index, especially in the cases of highest education and managers and professionals, indicating that these characteristics are less relevant when inequality is more sensitive to the bottom of the distribution. There are some exceptions, though. The proportions of workers with primary or secondary education completed, and of those receiving a salary or a wage (out of agriculture and construction sectors) tend to increase inequality to a greater extent with higher inequality aversion. Similarly, a higher proportion of Muslims only increases inequality with highest inequality aversion.

These regressions are also run separately for each target state (Table A2 in the Appendix). The main factors associated with earnings inequality in India can be found in most states, although with some relevant exceptions. For example, an increase in urbanization does not significantly increase inequality in highly urbanized states such as Gujarat and Karnataka (nor in Maharashtra and Tamil Nadu, except with high inequality aversion), but neither does it in the much less urbanized Uttar Pradesh. Similarly, the proportion of women has no significant effect in two states with relatively more female workers (Chhattisgarh and Madhya Pradesh—except with highest inequality aversion in the former), but other states with large female participation (Andhra Pradesh, Karnataka, Tamil Nadu, and Rajasthan) show important and significant gender effects. Similarly, the proportion of regular workers has no significant effect in the state with the largest prevalence of this type (Maharashtra, where it is associated with lower inequality with low inequality aversion).

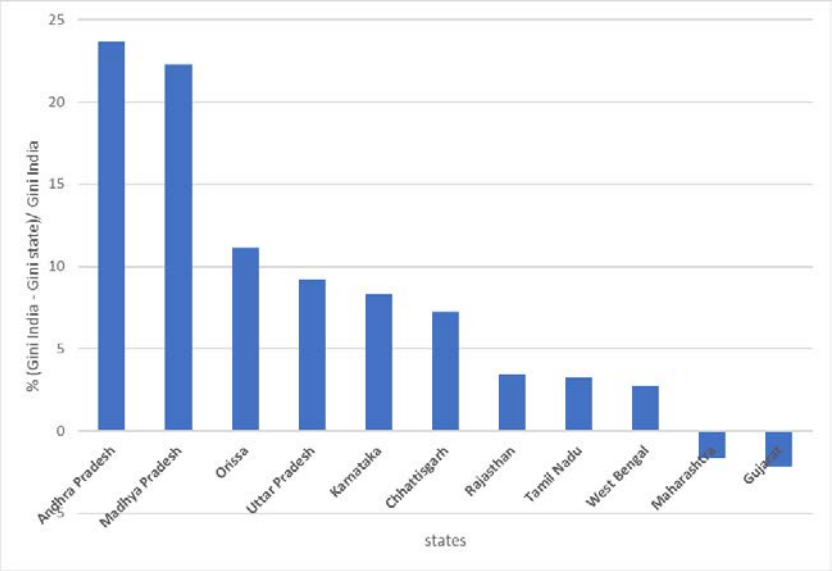
There is also great cross-state variation in the effects associated with various characteristics. For example, the coefficient for college education (0.208 for India) ranges from being statistically non-significant in Andhra Pradesh, to as large as 0.456 in Orissa, although both states have relatively few college graduates. On the other hand, the coefficient for managers and professionals in the state with the lowest prevalence of skilled workers, Andhra Pradesh, is more than twice that for India as a whole (0.635, compared with 0.307). The most striking differences, however, can be found in the contribution of the caste distribution, a sign that earnings stratification by caste diverges greatly across states. While the worker caste distribution seems to have no significant effect in some states (West Bengal, Madhya Pradesh, Maharashtra) and only a moderate effect in others (Rajasthan, Uttar Pradesh, Orissa, Gujarat), the effect is much larger in a few states characterized by a small proportion of very affluent Brahmin and other forward castes.[2] In these states, a higher proportion of forward castes substantially increases inequality. This is true of Chhattisgarh, which also stands out for having the largest proportion of ST; Andhra Pradesh and Tamil Nadu, with large proportions of SC and OBC; and Karnataka, with a distribution more similar to the average of the country.

6 Decomposing the earnings inequality gaps between selected states and India

Most of the selected states have lower inequality than the country as a whole, Andhra Pradesh and Madhya Pradesh standing out with the largest gaps (Figure 2). Gini inequality in these two states is 24 per cent and 22 per cent lower than in India, respectively. In intermediate levels of the gap, inequality is about 7–11 per cent lower in Orissa, Uttar Pradesh, Karnataka, and Chhattisgarh. These are followed by Rajasthan, Tamil Nadu, and West Bengal, with smaller gaps (3 per cent or lower). Only in Maharashtra and Gujarat is the Gini index around 2 per cent higher than in India. Using the information from the previous regressions, Tables A3–A10 in the Appendix report the RIF decomposition of the earnings inequality gap between each state and India using the two alternative counterfactuals.

[2] In these states the average earnings of a Brahmin are more than triple the average of an SC worker, while in India the proportion is 2:1.

Figure 2: Inequality gaps between India and a selection of states (Gini)



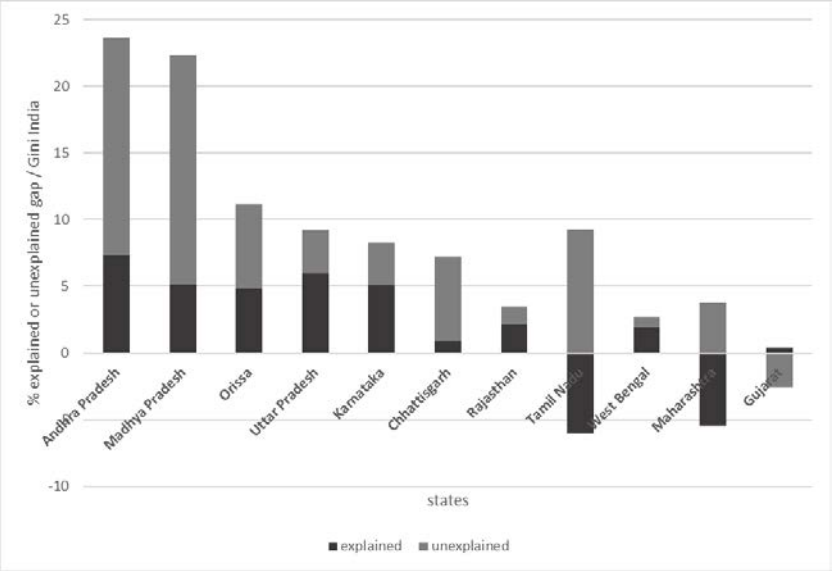
Source: Own construction using IHDS-II. States ranked from lowest to largest Gini.

The compositional or characteristics effect evaluated using the Indian coefficients (first counterfactual, as in (5)) explains a substantial proportion of the Gini gap (about 60–70 per cent) between a few states (Uttar Pradesh, Karnataka, Rajasthan, and West Bengal) and India. The proportion is smaller in relative terms in the two states with the largest gaps (Andhra Pradesh, 31 per cent, and Madhya Pradesh, 23 per cent), where most of the differential remains unexplained. The gap that is explained is also proportionally smaller in Orissa (43 per cent) and Chhattisgarh (13 per cent). The entire inequality gap remains unexplained in Tamil Nadu, where the explained component is negative, indicating that the gap would be larger if the state had the Indian earnings structure (or India had the same characteristics as the state). Regarding the two states with inequality higher than India (negative gap), the differential is fully explained by the compositional effect in Maharashtra, but remains unexplained in Gujarat.

These results for the aggregate decomposition are summarized in Figure 3, with the gaps expressed as a percentage of the Indian Gini index to facilitate the comparison across states. The compositional effects account for a gap that is equivalent to 7 per cent of the total Indian Gini in Andhra Pradesh, 6 per cent in Uttar Pradesh, 5 per cent in Madhya Pradesh, Orissa, and Karnataka, and only 2 per cent in Rajasthan and West Bengal.

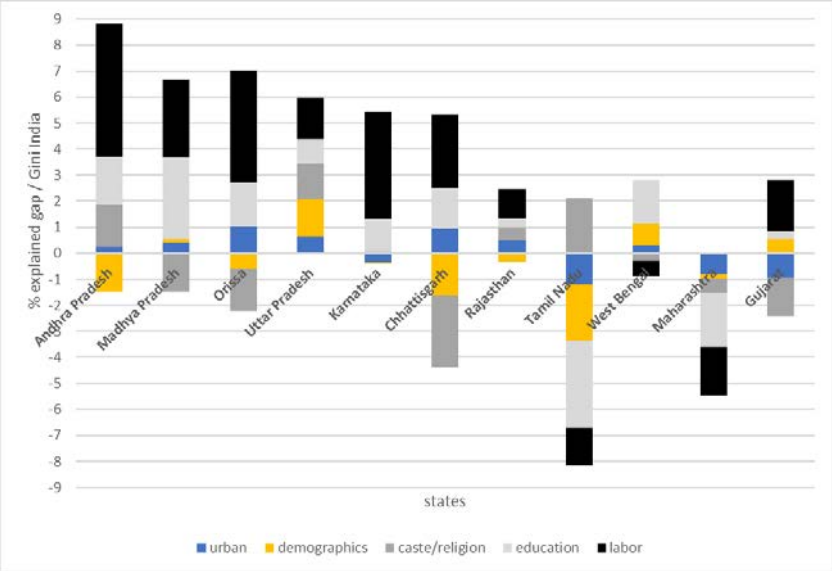
According to the detailed decomposition of the explained effect (summarized in Figure 4), labour variables are the most important: about 5 per cent of the Indian Gini in Andhra Pradesh, 4 per cent in Orissa and Karnataka, and about 3 per cent in Madhya Pradesh and Chhattisgarh. For example, the much lower proportion of regular/permanent workers explains around 4 per cent of the Indian Gini in Karnataka, and around 2 per cent in Andhra Pradesh, Orissa, and Chhattisgarh. The lower proportion of managers and professionals explains an additional 2 per cent in Andhra Pradesh, and around 1.5 per cent in Chhattisgarh and Madhya Pradesh. Lower attained education accounts for another 3 per cent in Madhya Pradesh, and between 1 and 2 per cent in Andhra Pradesh, Orissa, Uttar Pradesh, Karnataka, Chhattisgarh, and West Bengal.

Figure 3: RIF aggregate decomposition: explained and unexplained gaps (Gini)



Source: Own construction using IHDS-II. States ranked from lowest to largest Gini. Counterfactual with Indian coefficients and state average characteristics.

Figure 4: RIF detailed decomposition of the explained gaps (Gini)



Source: Own construction using IHDS-II. States ranked from lowest to largest Gini. Counterfactual with Indian coefficients and state average characteristics.

The distribution of the population by caste additionally helps to explain the lower level of inequality in Tamil Nadu, Andhra Pradesh, and Uttar Pradesh (between 1.4 and 2.1 per cent of the Indian Gini) due to a larger overrepresentation of OBC and SC at the expense of Brahmin and other forward castes, as well as ST. The impact of the lower degree of urbanization accounts for 1 per cent of the Indian Gini in Orissa and Chhattisgarh. Differences among other demographic variables are relevant in Uttar Pradesh (associated with 1.5 per cent lower inequality altogether) because of its higher proportion of younger, male, and unmarried workers.

The value of some average characteristics prevailing in a few low-inequality states, on the other hand, is associated with higher inequality, thus preventing the gap from being even larger. This is true of the caste distribution (with a higher presence of ST and lower of SC

and forward castes) in Chhattisgarh (2.8 per cent), Madhya Pradesh, and Orissa (about 1.5 per cent), and of certain demographic factors in Andhra Pradesh and Chhattisgarh (higher proportion of women: 1.2 per cent and 1.5 per cent, respectively) and Tamil Nadu (higher age of workers: 1.7 per cent).

Regarding the detailed unexplained components (valued using the average characteristics of each state), the largest effects are those associated with caste, especially in Chhattisgarh, Karnataka, Andhra Pradesh, and Tamil Nadu—states in which we have identified the strongest earnings stratification by caste. That is, it seems that although caste distribution explains only a small proportion of the variability in Gini across states, the different degree of earnings stratification by caste in each state (conditional on other characteristics) plays a much more fundamental role.

With the alternative counterfactual used in (6), the compositional effect now reflects the expected impact of equalizing each state's characteristics with those of India, keeping its own conditional earnings structure. However, the fact that the compositional effect is evaluated using the local conditional earnings structure means that differences across states may come from two sources: not only from differences in average characteristics, as before, but also from how they are differently evaluated in each state.

The results shown in Tables A7–A10 in the Appendix indicate that the proportion of the gap that is explained by characteristics in the alternative counterfactual is generally larger. It is for example, 43 per cent and 53 per cent in the states with the largest gaps, Andhra Pradesh and Madhya Pradesh, i.e. 10 per cent or more of the Indian Gini. It is even higher in relative terms in Orissa and Uttar Pradesh (66 per cent and 85 per cent of the gap), while the entire gap is explained in Karnataka, Chhattisgarh, Rajasthan, and West Bengal. There is less difference in the two states with inequality above the Indian level. This larger explanatory power of the compositional effect comes from generally larger contributions of the labour variables when they are evaluated using the local conditional earnings structures in all states. But it also comes from a larger contribution of the caste composition in some states with different caste stratification (like Andhra Pradesh, Madhya Pradesh, Karnataka, and Chhattisgarh), from the different degree of urbanization in others (Orissa, Chhattisgarh, Madhya Pradesh, Tamil Nadu, and Maharashtra), and from sex and/or age composition in Madhya Pradesh and Chhattisgarh. Notably, the role of attained education tends to be substantially larger only in a few cases (West Bengal, Chhattisgarh, or Karnataka), but smaller in Andhra Pradesh.

Finally, the analysis of the Atkinson family of inequality indices reveals whether there is a distributive pattern. The relative gaps explained by specific characteristics tend to be higher than with Gini in some states, but decline with the level of inequality aversion (e.g. from 37 per cent of the Indian value to 32 per cent in Andhra Pradesh, from 31 to 28 per cent in Madhya Pradesh, from 13 per cent to 10 per cent in Uttar Pradesh, from 12 per cent to 3 per cent in Karnataka, and from 9 per cent to 3 per cent in Tamil Nadu). This implies that characteristics become less important as we give more weight to inequality among the poor in these states. On the contrary, the compositional effect increases in other states (from 14 per cent to 24 per cent in Orissa, from 0 per cent to 15 per cent in Chhattisgarh, from 5 per cent to 10 per cent in Rajasthan, and from −3 per cent to 5 per cent in West Bengal).

The role of characteristics using the Atkinson family is similar to that using the Gini index, although their values vary according to the importance of the total gap. Labour variables explain around 8–9 per cent of Indian inequality in Andhra Pradesh, 7 per cent in Orissa and Karnataka, and around 4–5 per cent in Chhattisgarh and Madhya Pradesh. As one might

expect, the role of regular workers or managers and professional workers in shaping inequality tends to be weaker for higher inequality aversion. This is also generally true of caste and gender, but not for urban areas or education, which show less variability. However, in the case of education, this stability involves a shift in the relevant levels, from highest to primary and secondary schooling.

7 Concluding remarks

India is a large and heterogeneous country with undeniable socioeconomic disparities across regions. Earnings inequality in India, however, occurs mostly within states. Nevertheless, inequality levels vary significantly across states, along their potential explanatory factors such as degree of urbanization, economic development, labour force participation, and caste composition.

In this paper, I first used RIF regressions of Gini and Atkinson inequality indices to identify what characteristics are more strongly associated with earnings inequality in India, because of their higher prevalence at the extremes of the earnings distribution, *ceteris paribus*. Then, I used the estimated coefficients to provide decompositions of the inequality gaps between the most populous/least developed states and the entire country to understand why some states have lower (or higher) inequality. For that, I used a counterfactual in which either the coefficients or the average characteristics of one distribution were swapped with those of the other.

With this approach, I have shown that inequality gaps are strongly associated with the composition of the workforce in each state. More specifically, I have shown that lower inequality in some states can be explained because they are lagging behind others in the expansion of regular high-skilled wage earning or salaried labour outside the farm and construction sectors. Differences in the degree of urbanization also matter in some cases, *ceteris paribus*, along the composition of the workforce by demographic factors such as gender, age, or caste. The relevance of this shift in employment to the non-farm sector is in line with the predictions of the Kuznets' inverted-U hypothesis of how inequality changes during the earliest stages of economic development in dual economies (Kuznets 1955).

I have also shown that the importance of the compositional effect depends on the degree of inequality aversion or sensitivity to inequality among the poorest workers, but not in a systematic way. It declines with inequality aversion in some states but increases in others. The importance of some characteristics, such as the proportion of high-skilled regular workers, the caste distribution, and the gender balance, also declines with inequality aversion. Furthermore, my results show that the relevance of the compositional effect tends to be larger when the effect of the difference in the distribution of characteristics is evaluated using local conditional earnings structures. Indeed, cross-state variability in conditional earnings structures, especially the degree of caste stratification, emerges as a fundamental factor associated with the geographical variability in inequality levels.

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Appendix 1: Complementary tables

Table A1: Worker characteristics in India and selected states (% all workers)

Characteristics	India	Rajasthan	Uttar Pradesh	West Bengal	Orissa	Chhattisgarh	Madhya Pradesh	Gujarat	Maharashtra	Andhra Pradesh	Karnataka	Tamil Nadu
Urban	29.7	22.8	21.3	25.3	16.1	17.0	24.3	42.0	40.7	26.3	34.6	45.4
Female	30.7	35.1	25.4	25.8	29.1	43.4	35.7	31.2	31.1	41.2	37.6	35.2
Aged 24 or less	17.9	21.2	21.8	18.4	15.8	18.7	22.9	22.4	18.0	16.1	17.9	10.2
Aged 25–34	25.3	27.4	25.9	25.5	23.8	25.8	25.8	24.3	24.8	24.4	26.4	23.1
Aged 35–44	24.5	20.5	23.7	24.1	25.4	24.0	22.8	23.4	24.4	27.4	25.0	27.2
Aged 45–54	19.1	17.9	16.3	20.9	19.6	19.0	17.8	17.5	20.3	18.8	18.5	21.3
Aged 55+	13.2	12.8	12.3	11.0	15.4	12.6	10.7	12.3	12.5	13.2	12.2	18.1
Married	73.4	76.7	72.5	72.3	74.9	77.9	74.2	70.3	73.0	76.8	68.6	73.6
Brahmin	3.2	4.6	4.0	4.2	3.5	2.2	4.5	4.0	1.7	0.5	1.7	0.8
Forward/General Caste (non-Brahmin)	17.6	13.0	10.8	39.2	10.1	4.2	9.9	17.9	29.6	10.4	16.1	7.0
Other Backward Caste (OBC)	39.8	43.7	49.5	8.0	37.3	46.1	39.9	44.9	32.6	53.6	46.5	54.0
Scheduled Caste (SC)	28.4	30.9	33.4	41.7	24.5	12.4	22.8	12.7	23.4	32.1	23.8	37.4
Scheduled Tribe (ST)	11.0	7.8	2.3	6.8	24.5	35.2	23.0	20.5	12.7	3.4	11.8	0.9
Muslim	10.7	12.1	18.4	22.5	0.7	1.2	6.5	6.4	6.2	6.7	12.8	2.5
No education	33.1	43.7	37.1	35.4	33.4	36.0	38.0	26.9	20.4	46.2	33.1	29.1
1–4 years of education	9.5	7.6	7.2	19.2	13.2	12.1	8.8	12.3	11.7	6.3	12.6	7.0
Primary education	8.5	9.5	11.1	7.1	10.1	11.7	11.7	6.0	3.7	8.2	5.8	10.1
6–9 years of education	24.1	22.6	24.4	21.4	26.2	23.5	27.0	31.2	27.3	16.4	25.0	23.0
Secondary education	10.0	5.8	7.4	6.3	7.1	4.9	5.4	10.3	13.5	12.1	10.6	13.0
Higher secondary education	6.8	3.8	5.8	3.5	4.1	5.8	5.1	6.4	11.4	5.3	6.9	6.6
Graduate	5.1	2.4	4.2	5.2	3.5	3.2	2.4	3.9	10.1	2.7	3.8	5.4
Some post-graduate	3.0	4.6	2.8	1.8	2.4	2.6	1.6	3.0	1.8	2.8	2.3	5.9
Cultivation	11.1	16.4	11.2	8.6	17.3	22.2	16.9	7.8	12.1	11.6	12.4	3.0
Agrarian wage labour	18.9	2.5	10.5	23.7	13.5	9.1	10.4	24.3	28.5	39.6	35.2	22.7
Construction wage labour	13.8	22.0	14.3	13.3	29.2	9.6	14.8	8.2	5.9	9.1	6.1	15.0
Other non-agrarian wage labour	17.2	17.5	26.1	17.5	9.5	11.7	17.2	15.4	8.5	13.5	17.5	25.1
Salaried	23.4	19.8	17.4	20.9	18.4	14.6	15.3	29.3	33.9	14.5	20.7	24.3
Housework	8.7	16.3	12.5	6.5	7.5	29.1	19.1	9.7	6.0	2.3	4.1	2.4
Other work type	7.0	5.3	8.2	9.4	4.7	3.7	6.4	5.3	5.0	9.3	3.9	7.4
Regular/Permanent/Longer contract	18.8	15.8	16.5	21.3	13.2	12.7	14.1	14.4	22.6	11.9	8.6	21.0
Managerial/Professional occupation	7.0	7.3	5.8	6.8	6.2	4.7	5.0	5.1	6.8	4.3	6.4	8.1

Source: Own construction using IHDS-II.

Table A2: The RIF regressions, selected states

	Rajasthan				Uttar Pradesh				West Bengal				Orissa			
	Gini	A(.5)	A(1)	A(2)	Gini	A(.5)	A(1)	A(2)	Gini	A(.5)	A(1)	A(2)	Gini	A(.5)	A(1)	A(2)
Other urban	0.078***	0.055***	0.085***	0.106***	0.004	-0.003	-0.003	-0.007	0.052**	0.036**	0.054**	0.070**	0.146***	0.092***	0.146***	0.200***
Female	0.060***	0.040***	0.061***	0.065***	0.079***	0.050***	0.094***	0.174***	0.093***	0.068***	0.121***	0.241***	0.041**	0.018	0.036*	0.056**
Aged 25–34	-0.060***	-0.045***	-0.061***	-0.054**	-0.066***	-0.053***	-0.075***	-0.087***	-0.073***	-0.057***	-0.079***	-0.067*	0.000	-0.005	-0.002	0.023
Aged 35–44	-0.015	-0.018	-0.018	-0.002	-0.053***	-0.044***	-0.060***	-0.065**	-0.059**	-0.053**	-0.073**	-0.087**	-0.014	-0.016	-0.018	0.007
Aged 45–54	0.115***	0.072***	0.116***	0.148***	0.035*	0.012	0.025	0.025	0.000	-0.011	-0.011	-0.008	0.055*	0.024	0.048*	0.083**
Aged 55+	0.095***	0.062***	0.102***	0.146***	0.103***	0.064***	0.102***	0.122***	0.079**	0.045*	0.076**	0.092**	0.088***	0.050**	0.084***	0.116***
Married	0.025	0.017	0.024	0.026	0.029**	0.023**	0.031**	0.029	0.069***	0.050***	0.076***	0.107***	0.03	0.019	0.028	0.018
Forward/General caste	0.078**	0.055*	0.082**	0.099**	-0.051*	-0.036*	-0.049	-0.04	0.053	0.057*	0.066	0.043	-0.026	-0.001	-0.017	-0.045
Other Backward Caste	-0.005	-0.004	-0.007	-0.009	-0.077***	-0.052***	-0.073**	-0.056	0.064	0.058*	0.077	0.092	-0.135***	-0.074**	-0.125***	-0.169***
Scheduled Caste (SC)	-0.023	-0.016	-0.024	-0.028	-0.087***	-0.060***	-0.086***	-0.087*	0.057	0.053*	0.070*	0.079	-0.129***	-0.071**	-0.121***	-0.168***
Scheduled Tribe (ST)	-0.02	-0.009	-0.022	-0.048	-0.066	-0.051*	-0.066	-0.057	-0.003	0.016	0.004	-0.024	-0.067*	-0.032	-0.06	-0.097*
Muslim	-0.040*	-0.025	-0.040*	-0.052**	0.003	0.001	0.009	0.040	0.001	-0.009	0.007	0.082**	-0.259***	-0.166**	-0.256***	-0.318***
1–4 years education	0.03	0.019	0.036	0.065**	-0.013	-0.007	-0.018	-0.053	0.020	0.012	0.023	0.035	-0.002	-0.009	-0.009	-0.007
Primary education	-0.016	-0.013	-0.015	-0.005	0.012	0.005	0.013	0.030	0.022	0.015	0.027	0.049	0.006	-0.004	-0.001	0.004
6–9 years education	-0.010	-0.008	-0.008	0.005	0.006	-0.001	0.001	-0.004	0.026	0.020	0.030	0.046	-0.007	-0.013	-0.012	-0.008
Secondary education	0.010	0.003	0.012	0.036	0.012	0.000	0.004	-0.004	0.015	-0.002	0.011	0.041	0.024	0.013	0.020	0.017
Higher secondary education	0.120***	0.068**	0.124***	0.190***	0.078***	0.041**	0.072***	0.093**	0.154***	0.079**	0.148***	0.227***	-0.045	-0.058*	-0.065	-0.062
Graduate	0.206***	0.119***	0.203***	0.266***	0.107***	0.042*	0.097***	0.199***	0.258***	0.153***	0.256***	0.351***	0.456***	0.289***	0.448***	0.529***
Some post-graduate	0.533***	0.376***	0.558***	0.635***	0.434***	0.297***	0.436***	0.489***	0.845***	0.577***	0.871***	1.001***	0.189***	0.062	0.149***	0.242***
Agrarian wage labour	0.032	0.017	0.036	0.063	0.060***	0.034**	0.047*	0.012	0.052*	0.035	0.047	0.022	0.067**	0.045**	0.065**	0.058*
Construction wage labour	-0.036*	-0.028*	-0.034	-0.016	-0.012	-0.01	-0.017	-0.032	0.003	-0.003	0.000	0.008	0.000	0.002	-0.001	-0.018
Other non-agrarian wage	-0.038*	-0.028*	-0.033	-0.004	0.029	0.011	0.026	0.060*	0.109***	0.061**	0.122***	0.239***	0.003	-0.003	0.001	0.017
Salaried	-0.096***	-0.081***	-0.105***	-0.089***	0.150***	0.077***	0.132***	0.167***	0.184***	0.109***	0.188***	0.279***	0.000	-0.013	-0.012	-0.020
Housework	0.010	0.008	0.010	0.007	0.075***	0.040**	0.059**	0.043	0.038	0.021	0.038	0.056	0.093***	0.058**	0.093***	0.112***
Other work type	-0.014	-0.02	-0.017	0.010	0.023	0.007	0.015	0.023	0.053	0.044	0.061*	0.080*	-0.042	-0.045*	-0.052	-0.034
Regular contract	0.247***	0.156***	0.254***	0.333***	0.140***	0.081***	0.153***	0.276***	0.105***	0.050**	0.090***	0.101**	0.317***	0.180***	0.308***	0.446***
Managerial/professional	0.343***	0.254***	0.364***	0.389***	0.214***	0.155***	0.222***	0.209***	0.226***	0.121***	0.210***	0.262***	0.306***	0.238***	0.326***	0.329***
Intercept	0.289***	0.072**	0.118***	0.189***	0.345***	0.126***	0.195***	0.292***	0.154***	-0.016	-0.021	-0.011	0.328***	0.104***	0.168***	0.263***
R2	0.293	0.231	0.275	0.307	0.237	0.202	0.222	0.157	0.221	0.144	0.190	0.198	0.289	0.221	0.265	0.300
N	6,802	6,802	6,802	6,802	7,630	7,630	7,630	7,630	5,820	5,820	5,820	5,820	5,364	5,364	5,364	5,364

Table A2 (cont.): The RIF regressions, selected states

	Chhattisgarh				Madhya Pradesh				Gujarat				Maharashtra			
	Gini	A(.5)	A(1)	A(2)	Gini	A(.5)	A(1)	A(2)	Gini	A(.5)	A(1)	A(2)	Gini	A(.5)	A(1)	A(2)
Other urban	0.083***	0.049**	0.076***	0.082**	0.074***	0.039***	0.064***	0.096***	0.022	0.01	0.023	0.036	0.018	0	0.025	0.088***
Female	-0.014	-0.01	-0.013	-0.005	0.024	0.012	0.027*	0.051**	0.041*	0.029	0.046*	0.060*	0.090***	0.057***	0.092***	0.089***
Aged 25–34	-0.035	-0.028	-0.04	-0.054	-0.042**	-0.027*	-0.038*	-0.026	-0.067**	-0.054**	-0.069**	-0.044	-0.040*	-0.033*	-0.044*	-0.034
Aged 35–44	-0.002	-0.004	-0.008	-0.033	-0.027	-0.024*	-0.031	-0.022	0.005	0	0.015	0.076*	0.004	-0.005	0.005	0.03
Aged 45–54	0.110***	0.069***	0.102***	0.079*	0.077***	0.045***	0.073***	0.106***	0.079**	0.046*	0.086**	0.139***	0.112***	0.085***	0.128***	0.172***
Aged 55+	0.133***	0.089***	0.134***	0.152***	0.116***	0.070***	0.112***	0.149***	0.064*	0.035	0.070*	0.135***	0.063**	0.039	0.067**	0.091***
Married	0.044*	0.031*	0.048**	0.078**	0.040**	0.026**	0.036**	0.03	0.033	0.015	0.025	0.002	0.035*	0.023	0.040*	0.052**
Forward/General caste	-0.064	-0.034	-0.068	-0.111	0.05	0.026	0.049	0.079*	-0.033	-0.003	-0.022	-0.029	-0.017	0.018	-0.007	-0.03
Other Backward Caste	-0.353***	-0.239***	-0.364***	-0.432***	-0.004	-0.009	-0.003	0.022	-0.022	0.017	-0.012	-0.054	-0.007	0.02	0.005	0.004
Scheduled Caste (SC)	-0.384***	-0.254***	-0.394***	-0.494***	0.019	0.006	0.023	0.073*	-0.012	0.01	-0.001	0.007	-0.002	0.027	0.008	-0.022
Scheduled Tribe (ST)	-0.323***	-0.219***	-0.330***	-0.373***	0.043	0.02	0.043	0.080*	0.099*	0.086*	0.113*	0.110*	0.015	0.036	0.024	-0.003
Muslim	-0.036	-0.045	-0.051	-0.04	0.015	0.013	0.051*	0.226***	0.038	0.03	0.043	0.053	-0.027	-0.02	-0.033	-0.059*
1–4 years education	0.027	0.017	0.03	0.058	0.031	0.019	0.031	0.049	0.03	0.019	0.028	0.015	0.015	0.012	0.014	0.002
Primary education	0.039	0.025	0.036	0.02	0.018	0.007	0.018	0.048*	-0.006	-0.004	-0.008	-0.023	0.012	0.006	0.011	0.013
6–9 years education	0.034	0.019	0.028	0.015	0.016	0.002	0.013	0.039	0.069***	0.052**	0.077***	0.091***	0.039*	0.03	0.044*	0.059**
Secondary education	0.088**	0.04	0.077*	0.130**	-0.01	-0.018	-0.02	-0.02	0.061*	0.036	0.061*	0.067	0.033	0.018	0.036	0.062*
Higher secondary education	0.266***	0.182***	0.266***	0.278***	0.094***	0.060***	0.086***	0.091*	0.091**	0.060*	0.099**	0.140**	0.054*	0.026	0.058*	0.098***
Graduate	0.159***	0.090**	0.149***	0.203***	0.088*	0.017	0.045	0.046	0.373***	0.258***	0.399***	0.498***	0.257***	0.177***	0.284***	0.371***
Some post-graduate	0.160**	0.053	0.119*	0.187*	0.269***	0.147***	0.223***	0.210***	0.525***	0.368***	0.551***	0.605***	0.221***	0.147***	0.236***	0.285***
Agrarian wage labour	0.094***	0.055**	0.084***	0.080*	0.047*	0.021	0.036	0.033	0.015	0.011	0.017	0.028	0.008	0.006	0.007	0.003
Construction wage labour	-0.013	-0.006	-0.017	-0.066	-0.007	-0.012	-0.017	-0.032	-0.024	-0.018	-0.024	-0.011	-0.049	-0.037	-0.047	-0.017
Other non-agrarian wage	0.071**	0.035*	0.058*	0.058	0.025	0.005	0.018	0.039	0.007	0.016	0.02	0.063	-0.011	-0.008	-0.008	0.014
Salaried	0.119***	0.055*	0.100**	0.140**	0.075**	0.036*	0.061*	0.085*	-0.055	-0.048	-0.051	0.014	0.045	0.027	0.056*	0.120***
Housework	0.086***	0.056**	0.077**	0.038	0.068***	0.037**	0.064**	0.094***	-0.022	-0.017	-0.025	-0.023	0.054*	0.038	0.057	0.062
Other work type	0.033	0.02	0.031	0.032	0.016	0.004	0.017	0.054	-0.061	-0.052	-0.063	-0.033	0.049	0.032	0.067*	0.169***
Regular contract	0.224***	0.144***	0.228***	0.297***	0.112***	0.063***	0.112***	0.177***	0.169***	0.102***	0.170***	0.209***	0.003	-0.038*	-0.009	0.033
Managerial/professional	0.460***	0.298***	0.451***	0.510***	0.307***	0.198***	0.306***	0.421***	0.197***	0.121***	0.201***	0.239***	0.451***	0.359***	0.495***	0.505***
Intercept	0.528***	0.251***	0.392***	0.551***	0.213***	0.051*	0.069*	0.093*	0.305***	0.061	0.122*	0.225***	0.267***	0.025	0.071	0.144*
R^2	0.293	0.238	0.266	0.226	0.120	0.085	0.105	0.103	0.109	0.063	0.094	0.107	0.137	0.078	0.125	0.178
N	4,818	4,818	4,818	4,818	8,654	8,654	8,654	8,654	4,896	4,896	4,896	4,896	8,344	8,344	8,344	8,344

Table A2 (cont.): The RIF regressions, selected states

	Andhra Pradesh				Karnataka				Tamil Nadu			
	Gini	A(.5)	A(1)	A(2)	Gini	A(.5)	A(1)	A(2)	Gini	A(.5)	A(1)	A(2)
Other urban	0.051**	0.039**	0.053**	0.069**	0.022	0	0.013	0.012	0.018	0.01	0.022	0.047**
Female	0.072***	0.044***	0.063***	0.050**	0.084***	0.051**	0.080***	0.075***	0.098***	0.079***	0.095***	0.044*
Aged 25–34	-0.047*	-0.036*	-0.053*	-0.067*	-0.005	-0.007	-0.008	-0.018	-0.026	-0.029	-0.039	-0.087**
Aged 35–44	-0.021	-0.019	-0.028	-0.043	0.008	0.001	0.002	-0.019	0.028	0.004	0.015	-0.021
Aged 45–54	0.045	0.03	0.036	0.009	0.079**	0.062*	0.079**	0.058	0.087***	0.043*	0.075**	0.04
Aged 55+	0.082**	0.057**	0.078**	0.065*	0.097***	0.058*	0.089**	0.075*	0.121***	0.073***	0.113***	0.073*
Married	0.042**	0.027*	0.043*	0.059**	0.031	0.022	0.032	0.038	0.049**	0.032*	0.048**	0.053*
Forward/General caste	-0.638***	-0.560***	-0.701***	-0.654***	-0.452***	-0.332***	-0.469***	-0.468***	-0.424***	-0.331***	-0.456***	-0.458***
Other Backward Caste	-0.612***	-0.535***	-0.676***	-0.660***	-0.451***	-0.331***	-0.469***	-0.462***	-0.444***	-0.343***	-0.477***	-0.479***
Scheduled Caste (SC)	-0.630***	-0.551***	-0.697***	-0.684***	-0.460***	-0.339***	-0.477***	-0.459***	-0.482***	-0.368***	-0.516***	-0.533***
Scheduled Tribe (ST)	-0.572***	-0.509***	-0.641***	-0.637***	-0.466***	-0.347***	-0.479***	-0.432***	-0.485***	-0.375***	-0.522***	-0.531***
Muslim	0.005	-0.002	-0.002	-0.007	0.043*	0.023	0.045	0.060*	-0.032	-0.02	-0.038	-0.075
1–4 years education	0.007	0	0.005	0.014	-0.005	-0.004	-0.007	-0.015	0.064*	0.058**	0.074**	0.073*
Primary education	0.064**	0.059**	0.073**	0.066*	0.03	0.017	0.034	0.065	-0.004	-0.002	-0.004	-0.007
6–9 years education	0.008	0.003	0.004	-0.005	0.034	0.021	0.034	0.034	0.032	0.021	0.034	0.045
Secondary education	0.003	-0.003	0.001	0.012	0.076**	0.071**	0.086**	0.097**	0.034	0.017	0.036	0.067*
Higher secondary education	0.075*	0.039	0.076*	0.155***	0.004	-0.014	0.003	0.080*	0.022	0.009	0.02	0.016
Graduate	-0.045	-0.052	-0.058	-0.046	0.278***	0.153***	0.255***	0.255***	0.092**	0.045	0.084*	0.098*
Some post-graduate	0.291***	0.160***	0.268***	0.359***	0.709***	0.496***	0.710***	0.645***	0.568***	0.395***	0.594***	0.657***
Agrarian wage labour	0.006	0.004	0.006	0.012	-0.01	-0.005	-0.012	-0.025	-0.136***	-0.096***	-0.139***	-0.137**
Construction wage labour	-0.017	-0.019	-0.021	-0.016	-0.053	-0.042	-0.049	0.004	-0.091*	-0.079**	-0.095*	-0.053
Other non-agrarian wage	0.04	0.02	0.054	0.162***	-0.016	-0.012	0.001	0.101**	-0.138***	-0.100***	-0.134***	-0.091
Salaried	0.002	-0.029	-0.014	0.024	-0.035	-0.037	-0.022	0.104**	-0.093*	-0.075*	-0.090*	-0.03
Housework	-0.02	-0.013	-0.019	-0.021	0.016	0.013	0.024	0.051	-0.069	-0.06	-0.074	-0.054
Other work type	0.082**	0.064**	0.089**	0.106**	0.145***	0.162***	0.194***	0.281***	-0.126**	-0.090**	-0.125**	-0.103
Regular contract	0.133***	0.065**	0.113***	0.140***	0.267***	0.165***	0.295***	0.532***	0.149***	0.092***	0.152***	0.183***
Managerial/professional	0.635***	0.490***	0.658***	0.679***	0.227***	0.191***	0.239***	0.215***	0.252***	0.173***	0.264***	0.301***
Intercept	0.802***	0.550***	0.717***	0.796***	0.683***	0.367***	0.538***	0.640***	0.776***	0.444***	0.648***	0.815***
R2	0.143	0.098	0.122	0.124	0.094	0.041	0.073	0.099	0.228	0.184	0.213	0.194
N	6,896	6,896	6,896	6,896	11,948	11,948	11,948	11,948	5,348	5,348	5,348	5,348

Source: Own construction using IHDS-II. Omitted categories: metropolitan area, male, unmarried, 24 years old or younger, Brahmin, non-Muslim, No education, work type: cultivation, non-regular worker, non-managerial/professional occupation.

Table A3: RIF decomposition, selected states: Gini

	Rajasthan		Uttar Pradesh		West Bengal		Orissa		Chhattisgarh		Madhya Pradesh		Gujarat		Maharashtra		Andhra Pradesh		Karnataka		Tamil Nadu	
	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E
Differential	-0.015	0.009	-0.040	0.008	-0.012	0.011	-0.048	0.011	-0.031	0.013	-0.097	0.009	0.009	0.011	0.007	0.007	-0.103	0.010	-0.036	0.010	-0.014	0.008
Total explained	-0.009	0.004	-0.026	0.004	-0.008	0.004	-0.021	0.004	-0.004	0.004	-0.022	0.003	-0.002	0.004	0.024	0.003	-0.032	0.003	-0.022	0.003	0.026	0.005
% Gap	61.4	46.2	64.7	43.3	70.8	39.9	43.3	37.8	12.9	35.1	23.2	33.5	-18.9	37.5	327.3	48.6	31.0	33.0	61.1	27.3	-186.0	57.5
Urbanization	-0.002	0.000	-0.003	0.000	-0.001	0.000	-0.004	0.001	-0.004	0.001	-0.002	0.000	0.004	0.001	0.004	0.001	-0.001	0.000	0.002	0.000	0.005	0.001
Sex	0.002	0.000	-0.003	0.000	-0.003	0.001	-0.001	0.000	0.006	0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.005	0.001	0.004	0.000	0.002	0.001
Age	-0.002	0.001	-0.003	0.001	-0.001	0.001	0.003	0.001	-0.001	0.001	-0.003	0.001	-0.002	0.001	0.001	0.001	0.000	0.001	-0.002	0.001	0.007	0.001
Married	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	-0.001	0.000	0.000	0.000	0.001	0.000	-0.002	0.000	0.000	0.000
Caste	-0.002	0.000	-0.006	0.001	0.001	0.002	0.007	0.001	0.012	0.002	0.007	0.001	0.007	0.001	0.003	0.001	-0.007	0.001	0.000	0.000	-0.009	0.001
Muslim	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
Education	-0.001	0.002	-0.004	0.001	-0.007	0.002	-0.007	0.002	-0.007	0.002	-0.014	0.001	-0.001	0.002	0.009	0.002	-0.008	0.002	-0.006	0.001	0.014	0.002
Agrarian wage labour	-0.003	0.001	-0.001	0.001	0.001	0.000	-0.001	0.000	-0.002	0.001	-0.001	0.001	0.001	0.000	0.002	0.001	0.004	0.002	0.003	0.001	0.001	0.000
Construction wage labour	-0.001	0.001	0.000	0.000	0.000	0.000	-0.002	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.001	0.000	0.001	0.001	0.000	0.000
Other non-agrarian wage labour	0.000	0.000	0.002	0.001	0.000	0.000	-0.002	0.001	-0.001	0.000	0.000	0.000	0.000	0.000	-0.002	0.001	-0.001	0.000	0.000	0.000	0.002	0.001
Salaried	-0.002	0.000	-0.003	0.001	-0.001	0.000	-0.002	0.001	-0.004	0.001	-0.004	0.001	0.003	0.001	0.005	0.001	-0.004	0.001	-0.001	0.000	0.000	0.000
Housework	0.004	0.001	0.002	0.000	-0.001	0.000	-0.001	0.000	0.011	0.002	0.006	0.001	0.001	0.000	-0.001	0.000	-0.003	0.001	-0.002	0.000	-0.003	0.001
Other work type	0.000	0.000	0.000	0.000	0.001	0.000	-0.001	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	0.001	0.000	-0.001	0.000	0.000	0.000
Regular contract	-0.004	0.001	-0.004	0.001	0.004	0.001	-0.008	0.001	-0.009	0.001	-0.007	0.001	-0.007	0.001	0.006	0.001	-0.010	0.001	-0.015	0.001	0.003	0.001
Managerial/professional occupations	0.001	0.001	-0.004	0.001	-0.001	0.001	-0.002	0.001	-0.007	0.001	-0.006	0.001	-0.006	0.001	-0.001	0.001	-0.008	0.001	-0.002	0.001	0.003	0.002
Total unexplained	-0.006	0.008	-0.014	0.007	-0.003	0.010	-0.027	0.010	-0.027	0.011	-0.074	0.008	0.011	0.010	-0.016	0.007	-0.071	0.010	-0.014	0.010	-0.040	0.008
Urbanization	0.012	0.005	0.001	0.004	0.008	0.007	0.027	0.005	0.016	0.006	0.027	0.006	-0.002	0.011	-0.016	0.008	0.008	0.007	-0.001	0.009	-0.015	0.007
Sex	0.001	0.008	0.002	0.006	0.009	0.007	-0.006	0.007	-0.038	0.014	-0.025	0.008	-0.004	0.008	0.014	0.005	0.009	0.009	0.011	0.009	0.037	0.006
Age	0.003	0.017	-0.012	0.017	-0.033	0.024	0.016	0.026	0.030	0.026	0.014	0.019	-0.004	0.023	-0.002	0.018	-0.009	0.027	0.020	0.026	-0.008	0.025
Married	-0.003	0.016	0.006	0.014	0.033	0.018	0.004	0.020	0.021	0.023	0.021	0.017	0.004	0.018	-0.004	0.014	0.014	0.020	0.003	0.017	0.005	0.014
Caste	0.036	0.036	-0.056	0.036	0.078	0.047	-0.115	0.050	-0.395	0.073	0.051	0.040	0.023	0.052	0.040	0.051	-0.660	0.135	-0.464	0.074	-0.337	0.080
Muslim	-0.005	0.003	-0.002	0.004	0.001	0.007	-0.002	0.001	0.000	0.001	0.000	0.002	0.002	0.003	-0.001	0.002	0.000	0.003	0.005	0.004	0.000	0.001
Education	0.000	0.011	0.002	0.011	0.025	0.015	0.001	0.016	0.034	0.018	0.017	0.013	0.036	0.020	-0.007	0.016	-0.007	0.013	0.019	0.017	-0.012	0.014
Agrarian wage labour	0.001	0.001	0.006	0.003	0.008	0.009	0.007	0.005	0.009	0.004	0.005	0.003	-0.001	0.010	-0.004	0.007	-0.003	0.013	-0.010	0.012	-0.036	0.010
Construction wage labour	-0.004	0.006	0.003	0.004	0.003	0.006	0.003	0.008	0.000	0.004	0.004	0.004	0.000	0.004	-0.003	0.002	-0.001	0.004	-0.002	0.003	-0.017	0.007
Other non-agrarian wage labour	-0.011	0.005	0.008	0.007	0.017	0.007	-0.002	0.004	0.005	0.005	0.001	0.005	-0.002	0.007	-0.003	0.003	0.003	0.006	-0.007	0.007	-0.046	0.011
Salaried	-0.028	0.007	0.028	0.006	0.036	0.010	-0.006	0.008	0.019	0.008	0.010	0.007	-0.027	0.014	-0.007	0.011	-0.005	0.007	-0.016	0.009	-0.039	0.012
Housework	-0.007	0.005	0.006	0.004	-0.001	0.003	0.004	0.003	0.016	0.012	0.009	0.007	-0.007	0.005	0.000	0.002	-0.002	0.002	-0.001	0.002	-0.004	0.002
Other work type	-0.002	0.002	0.001	0.003	0.003	0.004	-0.003	0.002	0.000	0.002	0.000	0.003	-0.005	0.003	0.001	0.002	0.006	0.004	0.005	0.002	-0.012	0.004
Regular contract	0.018	0.005	0.004	0.005	-0.006	0.008	0.033	0.006	0.016	0.007	0.001	0.005	0.005	0.005	-0.039	0.005	0.001	0.005	0.013	0.004	-0.010	0.005
Managerial/professional occupations	0.004	0.003	-0.003	0.002	-0.002	0.003	0.004	0.003	0.014	0.003	0.008	0.002	-0.005	0.003	0.006	0.002	0.018	0.003	-0.003	0.003	-0.009	0.003
Intercept	-0.019	0.048	-0.010	0.048	-0.184	0.067	0.008	0.067	0.225	0.088	-0.216	0.055	-0.003	0.074	0.008	0.062	0.556	0.143	0.415	0.089	0.462	0.095

Source: Own construction using IHDS-II. Counterfactual: Indian coefficients, state characteristics.

Table A4: RIF decomposition, selected states: A(0.5)

	Rajasthan		Uttar Pradesh		West Bengal		Orissa		Chhattisgarh		Madhya Pradesh		Gujarat		Maharashtra		Andhra Pradesh		Karnataka		Tamil Nadu	
	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E
Differential	-0.007	0.007	-0.021	0.006	0.004	0.008	-0.022	0.008	0.000	0.009	-0.049	0.006	0.006	0.009	-0.002	0.007	-0.058	0.008	-0.019	0.010	-0.014	0.006
Total explained	-0.003	0.003	-0.016	0.002	-0.005	0.003	-0.011	0.003	0.001	0.003	-0.012	0.002	-0.002	0.003	0.012	0.002	-0.019	0.002	-0.013	0.002	0.016	0.003
% Gap	43.8	42.2	78.1	43.6	-111.9	37.7	51.3	37.5	1401.8	37.3	24.8	33.3	-29.5	30.7	-642.0	36.4	32.2	29.6	68.1	19.3	-113.0	55.3
Urbanization	-0.001	0.000	-0.001	0.000	-0.001	0.000	-0.002	0.001	-0.002	0.001	-0.001	0.000	0.002	0.001	0.002	0.001	-0.001	0.000	0.001	0.000	0.003	0.001
Sex	0.002	0.000	-0.002	0.000	-0.002	0.000	-0.001	0.000	0.005	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.004	0.001	0.003	0.000	0.002	0.000
Age	-0.001	0.001	-0.002	0.001	0.000	0.001	0.002	0.001	0.000	0.001	-0.002	0.001	-0.001	0.001	0.000	0.001	0.000	0.001	-0.001	0.000	0.004	0.001
Married	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	-0.001	0.000	0.000	0.000	0.001	0.000	-0.001	0.000	0.000	0.000
Caste	-0.001	0.000	-0.004	0.001	0.001	0.001	0.005	0.001	0.009	0.002	0.005	0.001	0.005	0.001	0.002	0.001	-0.005	0.001	0.000	0.000	-0.006	0.001
Muslim	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
Education	0.000	0.001	-0.002	0.001	-0.004	0.001	-0.004	0.001	-0.004	0.001	-0.008	0.001	-0.001	0.001	0.004	0.001	-0.005	0.001	-0.004	0.001	0.010	0.002
Agrarian wage labour	-0.001	0.001	-0.001	0.001	0.000	0.000	0.000	0.000	-0.001	0.001	-0.001	0.001	0.000	0.000	0.001	0.001	0.002	0.001	0.001	0.001	0.000	0.000
Construction wage labour	-0.001	0.001	0.000	0.000	0.000	0.000	-0.002	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.001	0.000	0.001	0.001	0.000	0.000
Other non-agrarian wage labour	0.000	0.000	0.001	0.001	0.000	0.000	-0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.001
Salaried	-0.001	0.000	-0.001	0.001	0.000	0.000	-0.001	0.000	-0.001	0.001	-0.001	0.001	0.001	0.001	0.002	0.001	-0.001	0.001	0.000	0.000	0.000	0.000
Housework	0.002	0.001	0.001	0.000	-0.001	0.000	0.000	0.000	0.006	0.002	0.003	0.001	0.000	0.000	-0.001	0.000	-0.002	0.001	-0.001	0.000	-0.002	0.001
Other work type	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	0.000	0.000
Regular contract	-0.003	0.001	-0.002	0.001	0.002	0.001	-0.005	0.001	-0.005	0.001	-0.004	0.001	-0.004	0.001	0.003	0.001	-0.006	0.001	-0.009	0.001	0.002	0.001
Managerial/professional occupations	0.001	0.001	-0.003	0.001	0.000	0.001	-0.002	0.001	-0.005	0.001	-0.005	0.001	-0.004	0.001	-0.001	0.001	-0.006	0.001	-0.001	0.001	0.003	0.001
Total unexplained	-0.004	0.006	-0.005	0.005	0.009	0.008	-0.011	0.007	-0.001	0.008	-0.037	0.006	0.008	0.009	-0.014	0.007	-0.039	0.008	-0.006	0.010	-0.029	0.006
Urbanization	0.009	0.004	0.000	0.003	0.006	0.005	0.017	0.003	0.009	0.004	0.014	0.004	-0.001	0.010	-0.011	0.008	0.008	0.006	-0.005	0.009	-0.008	0.006
Sex	0.000	0.006	-0.001	0.004	0.007	0.005	-0.008	0.005	-0.026	0.010	-0.019	0.006	-0.003	0.007	0.008	0.005	-0.001	0.007	0.002	0.009	0.022	0.005
Age	0.004	0.014	-0.011	0.012	-0.026	0.019	0.007	0.019	0.023	0.019	0.010	0.014	-0.002	0.020	0.005	0.017	-0.001	0.022	0.019	0.027	-0.006	0.019
Married	-0.003	0.013	0.007	0.010	0.024	0.014	0.001	0.015	0.014	0.017	0.013	0.012	-0.003	0.016	-0.002	0.013	0.007	0.017	0.002	0.018	0.000	0.011
Caste	0.023	0.029	-0.041	0.026	0.072	0.037	-0.057	0.037	-0.269	0.053	0.025	0.029	0.039	0.045	0.048	0.049	-0.565	0.111	-0.339	0.078	-0.249	0.059
Muslim	-0.003	0.002	-0.002	0.003	-0.002	0.005	-0.001	0.001	-0.001	0.001	0.000	0.002	0.002	0.002	-0.001	0.002	0.000	0.002	0.003	0.004	0.000	0.001
Education	0.001	0.009	0.000	0.008	0.016	0.012	-0.007	0.012	0.020	0.013	0.006	0.010	0.031	0.018	0.003	0.016	-0.005	0.011	0.015	0.018	-0.005	0.011
Agrarian wage labour	0.000	0.001	0.003	0.002	0.007	0.007	0.006	0.003	0.005	0.003	0.002	0.003	0.001	0.009	-0.001	0.006	0.000	0.011	-0.004	0.013	-0.023	0.007
Construction wage labour	-0.002	0.005	0.002	0.003	0.002	0.004	0.005	0.006	0.001	0.003	0.002	0.003	0.000	0.004	-0.002	0.002	0.000	0.003	-0.001	0.003	-0.011	0.005
Other non-agrarian wage labour	-0.006	0.004	0.004	0.005	0.010	0.006	-0.001	0.003	0.003	0.003	-0.001	0.004	0.002	0.006	-0.001	0.003	0.002	0.005	-0.003	0.007	-0.028	0.008
Salaried	-0.019	0.005	0.016	0.004	0.023	0.008	-0.005	0.006	0.010	0.006	0.006	0.005	-0.018	0.012	0.001	0.010	-0.006	0.006	-0.011	0.010	-0.024	0.009
Housework	-0.003	0.004	0.003	0.003	0.000	0.003	0.003	0.002	0.012	0.009	0.005	0.005	-0.005	0.005	0.000	0.002	-0.001	0.001	-0.001	0.003	-0.002	0.001
Other work type	-0.002	0.002	0.000	0.002	0.003	0.003	-0.003	0.002	0.000	0.002	-0.001	0.002	-0.004	0.003	0.000	0.002	0.005	0.003	0.006	0.002	-0.008	0.003
Regular contract	0.013	0.004	0.002	0.003	-0.006	0.006	0.019	0.004	0.012	0.005	0.000	0.004	0.004	0.004	-0.030	0.005	-0.001	0.004	0.008	0.004	-0.005	0.004
Managerial/professional occupations	0.003	0.002	-0.002	0.002	-0.006	0.003	0.003	0.002	0.008	0.002	0.003	0.002	-0.005	0.002	0.006	0.002	0.013	0.002	-0.001	0.003	-0.008	0.002
Intercept	-0.017	0.039	0.012	0.034	-0.119	0.053	0.012	0.050	0.178	0.064	-0.102	0.041	-0.032	0.065	-0.038	0.059	0.507	0.117	0.304	0.094	0.327	0.070

Source: Own construction using IHDS-II. Counterfactual: Indian coefficients, state characteristics.

Table A5: RIF decomposition, selected states: A(1)

	Rajasthan		Uttar Pradesh		West Bengal		Orissa		Chhattisgarh		Madhya Pradesh		Gujarat		Maharashtra		Andhra Pradesh		Karnataka		Tamil Nadu	
	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E
Differential	-0.017	0.010	-0.034	0.008	-0.003	0.011	-0.048	0.011	-0.018	0.013	-0.084	0.009	0.009	0.012	0.005	0.008	-0.097	0.011	-0.030	0.012	-0.015	0.009
Total explained	-0.009	0.004	-0.026	0.004	-0.008	0.005	-0.023	0.004	-0.004	0.005	-0.023	0.003	-0.003	0.004	0.023	0.004	-0.034	0.004	-0.023	0.003	0.027	0.005
% Gap	49.8	45.9	74.8	44.9	256.5	40.3	48.0	39.8	24.3	37.5	27.1	36.1	-27.2	35.3	419.9	44.2	34.7	33.8	76.0	25.2	-180.1	57.2
Urbanization	-0.002	0.000	-0.003	0.001	-0.001	0.000	-0.004	0.001	-0.004	0.001	-0.002	0.000	0.004	0.001	0.004	0.001	-0.001	0.000	0.002	0.000	0.005	0.001
Sex	0.002	0.001	-0.003	0.001	-0.003	0.001	-0.001	0.001	0.007	0.001	0.003	0.001	0.000	0.001	0.000	0.000	0.006	0.001	0.004	0.001	0.003	0.001
Age	-0.002	0.001	-0.003	0.001	-0.001	0.001	0.003	0.001	-0.001	0.001	-0.003	0.001	-0.001	0.001	0.001	0.001	0.000	0.001	-0.002	0.001	0.007	0.001
Married	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	-0.001	0.000	0.000	0.000	0.001	0.000	-0.002	0.000	0.000	0.000
Caste	-0.002	0.001	-0.006	0.001	0.001	0.002	0.007	0.001	0.012	0.002	0.007	0.001	0.007	0.001	0.003	0.001	-0.007	0.001	0.000	0.000	-0.009	0.001
Muslim	0.000	0.000	0.001	0.001	0.001	0.001	-0.001	0.001	-0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.001
Education	-0.001	0.002	-0.004	0.002	-0.007	0.002	-0.007	0.002	-0.007	0.002	-0.014	0.001	-0.001	0.002	0.009	0.002	-0.008	0.002	-0.006	0.001	0.015	0.002
Agrarian wage labour	-0.002	0.001	-0.001	0.001	0.001	0.000	-0.001	0.000	-0.001	0.001	-0.001	0.001	0.001	0.000	0.001	0.001	0.003	0.002	0.002	0.001	0.001	0.000
Construction wage labour	-0.001	0.001	0.000	0.000	0.000	0.000	-0.002	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.000	0.001	0.001	0.000	0.000
Other non-agrarian wage labour	0.000	0.000	0.003	0.001	0.000	0.000	-0.002	0.001	-0.002	0.001	0.000	0.000	-0.001	0.000	-0.003	0.001	-0.001	0.000	0.000	0.000	0.002	0.001
Salaried	-0.002	0.000	-0.003	0.001	-0.001	0.000	-0.002	0.001	-0.004	0.001	-0.004	0.001	0.003	0.001	0.005	0.001	-0.004	0.001	-0.001	0.000	0.000	0.000
Housework	0.004	0.001	0.002	0.001	-0.001	0.000	-0.001	0.000	0.011	0.002	0.006	0.001	0.001	0.000	-0.001	0.000	-0.004	0.001	-0.003	0.001	-0.003	0.001
Other work type	-0.001	0.000	0.000	0.000	0.001	0.000	-0.001	0.000	-0.001	0.000	0.000	0.000	-0.001	0.000	-0.001	0.000	0.001	0.000	-0.001	0.000	0.000	0.000
Regular contract	-0.005	0.001	-0.004	0.001	0.004	0.001	-0.009	0.001	-0.009	0.001	-0.007	0.001	-0.007	0.001	0.006	0.001	-0.011	0.001	-0.016	0.001	0.003	0.001
Managerial/professional occupations	0.001	0.002	-0.004	0.001	-0.001	0.002	-0.002	0.002	-0.008	0.002	-0.007	0.001	-0.006	0.002	-0.001	0.001	-0.009	0.001	-0.002	0.001	0.004	0.002
Total unexplained	-0.009	0.008	-0.009	0.007	0.005	0.010	-0.025	0.010	-0.014	0.012	-0.061	0.008	0.012	0.012	-0.017	0.008	-0.063	0.010	-0.007	0.012	-0.042	0.008
Urbanization	0.013	0.005	0.000	0.004	0.008	0.007	0.025	0.005	0.013	0.006	0.021	0.006	-0.001	0.012	-0.010	0.010	0.007	0.008	-0.005	0.010	-0.013	0.008
Sex	-0.001	0.008	0.002	0.006	0.014	0.007	-0.010	0.007	-0.040	0.015	-0.027	0.009	-0.005	0.009	0.014	0.006	0.000	0.010	0.005	0.010	0.031	0.006
Age	0.004	0.019	-0.018	0.017	-0.040	0.026	0.010	0.027	0.027	0.027	0.012	0.020	0.002	0.026	0.004	0.021	-0.014	0.028	0.018	0.030	-0.016	0.027
Married	-0.004	0.017	0.009	0.015	0.038	0.019	0.002	0.021	0.023	0.024	0.017	0.017	-0.001	0.021	0.001	0.016	0.013	0.021	0.003	0.020	0.004	0.015
Caste	0.034	0.039	-0.053	0.037	0.091	0.050	-0.099	0.052	-0.399	0.076	0.049	0.040	0.031	0.059	0.045	0.060	-0.714	0.142	-0.472	0.087	-0.357	0.086
Muslim	-0.006	0.003	-0.002	0.004	-0.001	0.007	-0.002	0.001	-0.001	0.001	0.001	0.002	0.002	0.003	-0.002	0.002	-0.001	0.003	0.005	0.005	-0.001	0.001
Education	0.001	0.012	-0.003	0.011	0.024	0.017	-0.009	0.016	0.028	0.018	0.009	0.013	0.041	0.023	0.001	0.019	-0.011	0.014	0.018	0.020	-0.011	0.016
Agrarian wage labour	0.001	0.001	0.004	0.003	0.008	0.010	0.007	0.005	0.008	0.004	0.003	0.003	0.000	0.012	-0.003	0.008	-0.002	0.014	-0.009	0.014	-0.037	0.011
Construction wage labour	-0.003	0.006	0.003	0.004	0.003	0.006	0.004	0.009	0.001	0.004	0.003	0.005	0.000	0.005	-0.002	0.002	-0.001	0.004	-0.002	0.004	-0.017	0.007
Other non-agrarian wage labour	-0.011	0.005	0.004	0.007	0.016	0.008	-0.003	0.004	0.002	0.005	-0.003	0.005	-0.001	0.008	-0.004	0.003	0.003	0.006	-0.005	0.008	-0.046	0.012
Salaried	-0.030	0.007	0.023	0.006	0.034	0.011	-0.010	0.008	0.014	0.009	0.005	0.007	-0.027	0.016	-0.001	0.013	-0.009	0.007	-0.014	0.011	-0.039	0.013
Housework	-0.007	0.006	0.003	0.004	-0.001	0.004	0.003	0.003	0.013	0.012	0.006	0.007	-0.007	0.006	0.000	0.003	-0.002	0.002	-0.001	0.003	-0.004	0.002
Other work type	-0.003	0.002	0.000	0.003	0.003	0.005	-0.004	0.002	0.000	0.002	-0.001	0.003	-0.005	0.004	0.001	0.002	0.006	0.004	0.007	0.003	-0.013	0.004
Regular contract	0.018	0.005	0.004	0.005	-0.011	0.008	0.029	0.006	0.016	0.007	-0.002	0.005	0.005	0.006	-0.040	0.006	-0.003	0.005	0.014	0.004	-0.010	0.005
Managerial/professional occupations	0.004	0.003	-0.004	0.002	-0.006	0.003	0.003	0.003	0.012	0.003	0.006	0.002	-0.006	0.003	0.007	0.002	0.017	0.003	-0.005	0.004	-0.011	0.003
Intercept	-0.018	0.052	0.021	0.050	-0.175	0.073	0.028	0.069	0.272	0.092	-0.161	0.056	-0.019	0.084	-0.029	0.073	0.645	0.150	0.437	0.104	0.496	0.101

Source: Own construction using IHDS-II. Counterfactual: Indian coefficients, state characteristics.

Table A6: RIF decomposition, selected states: A(2)

	Rajasthan		Uttar Pradesh		West Bengal		Orissa		Chhattisgarh		Madhya Pradesh		Gujarat		Maharashtra		Andhra Pradesh		Karnataka		Tamil Nadu	
	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E
Differential	-0.044	0.011	-0.042	0.011	-0.021	0.014	-0.103	0.013	-0.064	0.016	-0.120	0.011	0.009	0.014	0.012	0.010	-0.137	0.013	-0.014	0.013	-0.011	0.012
Total explained	-0.016	0.005	-0.028	0.005	-0.008	0.006	-0.042	0.005	-0.021	0.006	-0.036	0.004	-0.004	0.005	0.031	0.005	-0.052	0.005	-0.033	0.004	0.039	0.006
% Gap	35.5	49.2	66.3	41.0	37.5	41.1	40.3	41.7	33.0	37.2	29.5	36.2	-42.2	38.1	262.1	49.1	37.7	35.5	229.4	29.2	-342.6	51.3
Urbanization	-0.004	0.001	-0.004	0.001	-0.002	0.001	-0.007	0.001	-0.007	0.001	-0.003	0.001	0.006	0.001	0.006	0.001	-0.002	0.000	0.003	0.000	0.008	0.001
Sex	0.003	0.001	-0.004	0.001	-0.003	0.001	-0.001	0.001	0.009	0.001	0.003	0.001	0.000	0.001	0.000	0.001	0.007	0.001	0.005	0.001	0.003	0.001
Age	-0.003	0.001	-0.004	0.001	-0.001	0.001	0.004	0.001	-0.001	0.001	-0.005	0.001	-0.003	0.001	0.001	0.001	0.000	0.001	-0.002	0.001	0.010	0.002
Married	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	-0.001	0.000	0.000	0.000	0.001	0.000	-0.001	0.000	0.000	0.000
Caste	-0.003	0.001	-0.007	0.001	0.003	0.002	0.008	0.001	0.013	0.003	0.007	0.001	0.007	0.001	0.003	0.001	-0.008	0.001	0.000	0.001	-0.010	0.001
Muslim	0.000	0.000	0.003	0.001	0.004	0.001	-0.003	0.001	-0.003	0.001	-0.001	0.000	-0.001	0.000	-0.002	0.000	-0.001	0.000	0.001	0.000	-0.003	0.001
Education	-0.005	0.002	-0.005	0.002	-0.011	0.002	-0.010	0.002	-0.009	0.002	-0.017	0.002	-0.002	0.002	0.014	0.002	-0.011	0.002	-0.007	0.001	0.017	0.003
Agrarian wage labour	-0.002	0.002	-0.001	0.001	0.001	0.001	-0.001	0.001	-0.001	0.001	-0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.000	0.000
Construction wage labour	-0.001	0.001	0.000	0.000	0.000	0.000	-0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.000	0.001	0.001	0.001	0.000	0.000
Other non-agrarian wage labour	0.000	0.001	0.008	0.001	0.000	0.001	-0.007	0.001	-0.005	0.001	0.000	0.001	-0.002	0.001	-0.008	0.001	-0.003	0.001	0.000	0.000	0.008	0.001
Salaried	-0.004	0.001	-0.007	0.001	-0.003	0.001	-0.006	0.001	-0.010	0.001	-0.009	0.001	0.007	0.001	0.012	0.002	-0.010	0.001	-0.003	0.001	0.001	0.001
Housework	0.006	0.001	0.003	0.001	-0.002	0.000	-0.001	0.000	0.016	0.003	0.008	0.002	0.001	0.001	-0.002	0.000	-0.005	0.001	-0.004	0.001	-0.005	0.001
Other work type	-0.001	0.000	0.001	0.000	0.002	0.001	-0.002	0.000	-0.003	0.001	0.000	0.000	-0.001	0.000	-0.002	0.000	0.002	0.001	-0.002	0.000	0.000	0.000
Regular contract	-0.006	0.001	-0.005	0.001	0.005	0.002	-0.012	0.002	-0.013	0.002	-0.010	0.001	-0.009	0.002	0.008	0.001	-0.015	0.001	-0.022	0.001	0.005	0.002
Managerial/professional occupations	0.001	0.002	-0.005	0.001	-0.001	0.002	-0.003	0.002	-0.009	0.002	-0.008	0.001	-0.007	0.002	-0.001	0.002	-0.010	0.001	-0.002	0.001	0.004	0.002
Total unexplained	-0.029	0.010	-0.014	0.010	-0.013	0.013	-0.062	0.012	-0.043	0.015	-0.085	0.011	0.013	0.013	-0.019	0.009	-0.085	0.012	0.019	0.012	-0.050	0.011
Urbanization	0.014	0.006	-0.002	0.006	0.008	0.009	0.032	0.006	0.012	0.008	0.026	0.008	-0.002	0.014	0.007	0.011	0.007	0.009	-0.012	0.011	-0.012	0.011
Sex	-0.002	0.009	0.011	0.008	0.038	0.009	-0.008	0.009	-0.045	0.019	-0.031	0.011	-0.007	0.011	0.012	0.007	-0.001	0.011	-0.004	0.011	0.022	0.009
Age	0.005	0.021	-0.029	0.025	-0.052	0.032	0.018	0.032	0.003	0.035	0.015	0.025	0.024	0.029	0.008	0.024	-0.054	0.034	-0.011	0.032	-0.088	0.038
Married	0.000	0.019	0.011	0.021	0.063	0.024	-0.003	0.024	0.049	0.030	0.016	0.022	-0.011	0.024	0.013	0.018	0.029	0.026	0.010	0.022	0.010	0.022
Caste	0.025	0.044	-0.052	0.052	0.074	0.062	-0.151	0.061	-0.473	0.097	0.072	0.051	-0.002	0.067	0.023	0.068	-0.720	0.171	-0.459	0.093	-0.386	0.122
Muslim	-0.011	0.004	-0.003	0.006	0.010	0.009	-0.003	0.001	-0.001	0.002	0.009	0.003	0.001	0.004	-0.005	0.002	-0.003	0.003	0.003	0.005	-0.002	0.002
Education	0.004	0.014	-0.011	0.016	0.031	0.021	-0.014	0.019	0.023	0.023	0.012	0.017	0.037	0.026	0.000	0.022	-0.018	0.017	0.009	0.022	-0.018	0.022
Agrarian wage labour	0.001	0.002	0.001	0.005	0.003	0.012	0.007	0.006	0.007	0.005	0.003	0.004	0.003	0.013	-0.004	0.009	0.000	0.016	-0.012	0.015	-0.041	0.015
Construction wage labour	-0.001	0.007	0.002	0.006	0.003	0.007	-0.003	0.010	-0.004	0.005	0.001	0.006	0.001	0.005	-0.001	0.003	-0.001	0.005	0.001	0.004	-0.015	0.010
Other non-agrarian wage labour	-0.017	0.006	-0.003	0.010	0.024	0.010	-0.007	0.004	-0.007	0.006	-0.011	0.007	-0.004	0.009	-0.007	0.004	0.013	0.007	0.001	0.009	-0.058	0.017
Salaried	-0.041	0.008	0.017	0.009	0.039	0.014	-0.024	0.010	0.010	0.011	-0.001	0.008	-0.027	0.018	-0.003	0.015	-0.012	0.009	-0.002	0.011	-0.046	0.018
Housework	-0.012	0.006	-0.001	0.006	-0.001	0.005	0.003	0.004	-0.005	0.016	0.007	0.008	-0.009	0.007	-0.001	0.003	-0.002	0.002	-0.001	0.003	-0.004	0.002
Other work type	-0.004	0.003	-0.003	0.004	0.000	0.006	-0.005	0.003	-0.002	0.003	-0.002	0.003	-0.006	0.004	0.004	0.002	0.004	0.005	0.008	0.003	-0.016	0.006
Regular contract	0.022	0.006	0.011	0.007	-0.021	0.010	0.042	0.007	0.017	0.009	-0.002	0.007	0.003	0.006	-0.045	0.007	-0.007	0.006	0.029	0.005	-0.016	0.008
Managerial/professional occupations	0.003	0.004	-0.007	0.003	-0.005	0.004	0.001	0.004	0.013	0.004	0.009	0.003	-0.006	0.004	0.005	0.003	0.017	0.003	-0.009	0.004	-0.011	0.004
Intercept	-0.016	0.059	0.045	0.070	-0.227	0.090	0.053	0.081	0.358	0.117	-0.208	0.070	0.018	0.096	-0.025	0.083	0.663	0.181	0.469	0.111	0.631	0.144

Source: Own construction using IHDS-II. Counterfactual: Indian coefficients, state characteristics.

Table A7: RIF decomposition, selected states (alternative counterfactual): Gini

	Rajasthan		Uttar Pradesh		West Bengal		Orissa		Chhattisgarh		Madhya Pradesh		Gujarat		Maharashtra		Andhra Pradesh		Karnataka		Tamil Nadu	
	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E
Differential	-0.015	0.009	-0.040	0.008	-0.012	0.011	-0.048	0.011	-0.031	0.013	-0.097	0.009	0.009	0.011	0.007	0.007	-0.103	0.010	-0.036	0.010	-0.014	0.008
Total explained	-0.023	0.010	-0.034	0.007	-0.027	0.013	-0.032	0.013	-0.109	0.016	-0.051	0.007	-0.003	0.009	0.016	0.006	-0.044	0.010	-0.048	0.008	0.006	0.011
% Gap	149.6	110.9	84.9	86.8	226.1	122.0	66.4	122.9	348.9	124.4	52.6	72.0	-30.3	80.7	222.7	88.5	42.8	98.1	132.2	79.5	-44.4	139.6
Urbanization	-0.006	0.002	-0.003	0.002	-0.003	0.001	-0.027	0.004	-0.016	0.005	-0.008	0.002	0.004	0.003	-0.001	0.002	-0.002	0.001	0.001	0.001	0.000	0.002
Sex	0.002	0.001	-0.003	0.001	-0.004	0.001	0.000	0.000	-0.005	0.004	-0.001	0.001	0.000	0.000	0.000	0.001	0.008	0.002	0.005	0.002	0.007	0.002
Age	-0.003	0.002	-0.003	0.001	-0.002	0.001	0.003	0.001	-0.002	0.002	-0.006	0.002	-0.001	0.002	0.001	0.001	0.000	0.001	-0.002	0.001	0.006	0.003
Married	0.001	0.001	0.000	0.000	-0.001	0.001	0.001	0.001	0.003	0.001	0.000	0.000	-0.001	0.001	0.000	0.000	0.002	0.001	-0.002	0.001	0.000	0.000
Caste	-0.004	0.002	-0.004	0.004	-0.001	0.011	0.000	0.004	-0.039	0.010	-0.003	0.003	0.010	0.005	-0.001	0.002	-0.021	0.006	-0.007	0.002	-0.009	0.009
Muslim	-0.001	0.000	-0.001	0.002	0.001	0.004	0.033	0.011	0.003	0.009	0.000	0.002	-0.002	0.002	0.001	0.001	0.000	0.002	0.001	0.001	0.001	0.004
Education	-0.002	0.004	-0.004	0.002	-0.017	0.005	-0.011	0.003	-0.014	0.004	-0.014	0.003	0.001	0.003	0.011	0.004	-0.003	0.004	-0.010	0.002	0.012	0.003
Agrarian wage labour	-0.006	0.008	-0.006	0.003	0.003	0.002	-0.004	0.002	-0.011	0.004	-0.005	0.003	0.001	0.002	0.000	0.002	0.002	0.007	-0.002	0.005	-0.005	0.002
Construction wage labour	-0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.002	0.000	0.000	0.001	0.003	0.004	0.003	0.001	0.002	0.004	0.004	-0.002	0.001
Other non-agrarian wage labour	0.000	0.000	0.005	0.002	0.000	0.001	-0.001	0.003	-0.004	0.002	0.000	0.000	0.000	0.001	0.001	0.003	-0.002	0.001	0.000	0.000	-0.013	0.004
Salaried	0.003	0.001	-0.012	0.002	-0.005	0.002	0.000	0.002	-0.015	0.005	-0.009	0.003	-0.003	0.003	0.002	0.003	-0.001	0.004	0.001	0.001	-0.001	0.001
Housework	0.001	0.002	0.004	0.001	-0.001	0.001	-0.001	0.001	0.022	0.008	0.010	0.004	0.000	0.001	-0.001	0.001	0.001	0.004	-0.001	0.003	0.006	0.004
Other work type	0.000	0.001	0.001	0.000	0.001	0.001	0.001	0.001	-0.001	0.002	0.000	0.000	0.001	0.001	-0.001	0.001	0.002	0.001	-0.005	0.002	-0.001	0.001
Regular contract	-0.008	0.002	-0.004	0.001	0.003	0.001	-0.023	0.004	-0.017	0.004	-0.007	0.002	-0.008	0.002	-0.001	0.001	-0.011	0.003	-0.031	0.004	0.002	0.001
Managerial/professional occupations	0.001	0.002	-0.003	0.001	-0.001	0.001	-0.003	0.002	-0.014	0.003	-0.010	0.002	-0.004	0.001	-0.001	0.002	-0.020	0.003	-0.001	0.001	0.002	0.001
Total unexplained	0.007	0.011	-0.006	0.009	0.015	0.015	-0.016	0.015	0.078	0.017	-0.046	0.010	0.012	0.013	-0.009	0.009	-0.059	0.013	0.012	0.012	-0.020	0.013
Urbanization	0.015	0.006	0.002	0.006	0.010	0.008	0.049	0.008	0.028	0.011	0.033	0.007	-0.001	0.008	-0.012	0.006	0.009	0.008	-0.001	0.007	-0.010	0.005
Sex	0.001	0.007	0.003	0.007	0.011	0.008	-0.007	0.008	-0.027	0.010	-0.021	0.007	-0.004	0.008	0.014	0.005	0.007	0.007	0.009	0.007	0.033	0.005
Age	0.004	0.018	-0.012	0.018	-0.031	0.024	0.016	0.025	0.031	0.027	0.017	0.021	-0.004	0.024	-0.003	0.018	-0.009	0.026	0.019	0.026	-0.008	0.023
Married	-0.003	0.015	0.006	0.014	0.034	0.018	0.004	0.019	0.020	0.022	0.021	0.017	0.004	0.019	-0.004	0.014	0.013	0.019	0.003	0.018	0.005	0.014
Caste	0.037	0.036	-0.058	0.036	0.080	0.048	-0.108	0.050	-0.344	0.072	0.060	0.040	0.019	0.052	0.044	0.051	-0.646	0.131	-0.457	0.073	-0.337	0.078
Muslim	-0.005	0.003	-0.001	0.002	0.000	0.003	-0.035	0.012	-0.003	0.010	-0.001	0.004	0.004	0.005	-0.002	0.003	0.001	0.004	0.005	0.003	-0.002	0.005
Education	0.000	0.014	0.002	0.012	0.035	0.017	0.004	0.016	0.041	0.019	0.017	0.015	0.034	0.019	-0.009	0.014	-0.013	0.016	0.024	0.018	-0.009	0.013
Agrarian wage labour	0.004	0.010	0.010	0.006	0.007	0.007	0.010	0.006	0.018	0.008	0.009	0.006	-0.001	0.008	-0.002	0.005	-0.002	0.006	-0.005	0.006	-0.030	0.008
Construction wage labour	-0.003	0.004	0.003	0.004	0.003	0.006	0.001	0.004	0.001	0.006	0.004	0.004	0.000	0.007	-0.006	0.005	-0.001	0.006	-0.005	0.007	-0.015	0.006
Other non-agrarian wage labour	-0.011	0.005	0.005	0.004	0.017	0.007	-0.003	0.006	0.008	0.007	0.001	0.005	-0.002	0.008	-0.006	0.006	0.003	0.007	-0.007	0.007	-0.032	0.008
Salaried	-0.033	0.008	0.037	0.008	0.040	0.012	-0.008	0.010	0.031	0.013	0.015	0.010	-0.022	0.011	-0.005	0.008	-0.008	0.011	-0.018	0.010	-0.038	0.011
Housework	-0.004	0.003	0.004	0.003	-0.001	0.005	0.004	0.004	0.005	0.003	0.004	0.003	-0.006	0.005	-0.001	0.003	-0.007	0.006	-0.003	0.005	-0.013	0.005
Other work type	-0.003	0.003	0.001	0.002	0.002	0.003	-0.005	0.003	0.000	0.004	-0.001	0.003	-0.006	0.004	0.001	0.003	0.005	0.003	0.009	0.004	-0.011	0.003
Regular contract	0.022	0.005	0.005	0.005	-0.005	0.007	0.048	0.008	0.024	0.010	0.001	0.007	0.006	0.007	-0.032	0.004	0.002	0.007	0.028	0.008	-0.009	0.004
Managerial/professional occupations	0.004	0.003	-0.003	0.003	-0.002	0.003	0.004	0.003	0.021	0.005	0.012	0.003	-0.006	0.004	0.006	0.002	0.030	0.004	-0.004	0.004	-0.008	0.002
Intercept	-0.019	0.048	-0.010	0.048	-0.184	0.067	0.008	0.067	0.225	0.088	-0.216	0.055	-0.003	0.074	0.008	0.062	0.556	0.143	0.415	0.089	0.462	0.095

Source: Own construction using IHDS-II. Counterfactual: State coefficients, Indian characteristics.

Table A8: RIF decomposition, selected states (alternative counterfactual): A(0.5)

	Rajasthan		Uttar Pradesh		West Bengal		Orissa		Chhattisgarh		Madhya Pradesh		Gujarat		Maharashtra		Andhra Pradesh		Karnataka		Tamil Nadu	
	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E
Differential	-0.007	0.007	-0.021	0.006	0.004	0.008	-0.022	0.008	0.000	0.009	-0.049	0.006	0.006	0.009	-0.002	0.007	-0.058	0.008	-0.019	0.010	-0.014	0.006
Total explained	-0.012	0.008	-0.020	0.005	-0.017	0.010	-0.016	0.009	-0.065	0.011	-0.027	0.004	-0.001	0.007	0.011	0.006	-0.028	0.008	-0.033	0.008	0.003	0.008
% Gap	158.8	111.0	93.6	84.3	-384.6	123.5	72.3	124.2	-82204.1	125.8	55.9	68.6	-17.5	79.4	-578.7	88.7	47.7	97.5	173.3	78.2	-20.2	139.6
Urbanization	-0.004	0.001	-0.001	0.001	-0.002	0.001	-0.016	0.003	-0.009	0.003	-0.004	0.001	0.002	0.003	-0.001	0.002	-0.002	0.001	0.000	0.001	0.000	0.002
Sex	0.002	0.001	-0.002	0.001	-0.003	0.001	0.000	0.000	-0.003	0.003	-0.001	0.001	0.000	0.000	0.000	0.000	0.004	0.002	0.003	0.002	0.005	0.001
Age	-0.001	0.001	-0.001	0.001	-0.001	0.001	0.002	0.001	-0.001	0.001	-0.004	0.001	-0.001	0.001	0.001	0.001	0.000	0.001	-0.001	0.001	0.003	0.002
Married	0.001	0.001	0.000	0.000	-0.001	0.001	0.000	0.000	0.002	0.001	0.000	0.000	-0.001	0.001	0.000	0.000	0.001	0.001	-0.001	0.001	0.000	0.000
Caste	-0.003	0.001	-0.002	0.003	0.001	0.009	0.000	0.003	-0.030	0.007	-0.002	0.002	0.007	0.004	0.000	0.002	-0.017	0.005	-0.005	0.002	-0.006	0.006
Muslim	0.000	0.000	-0.001	0.001	-0.001	0.003	0.021	0.008	0.005	0.006	0.000	0.001	-0.001	0.002	0.001	0.001	0.000	0.001	0.000	0.001	0.001	0.003
Education	0.000	0.003	-0.002	0.001	-0.010	0.003	-0.006	0.002	-0.007	0.003	-0.007	0.002	0.001	0.003	0.008	0.003	-0.001	0.003	-0.006	0.002	0.007	0.002
Agrarian wage labour	-0.003	0.007	-0.003	0.002	0.002	0.001	-0.003	0.001	-0.007	0.003	-0.002	0.002	0.001	0.002	0.000	0.002	0.001	0.005	-0.001	0.006	-0.004	0.001
Construction wage labour	-0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.001	0.000	0.000	0.001	0.003	0.003	0.003	0.001	0.002	0.003	0.004	-0.001	0.001
Other non-agrarian wage labour	0.000	0.000	0.002	0.002	0.000	0.000	0.000	0.002	-0.002	0.002	0.000	0.000	0.000	0.001	0.001	0.003	-0.001	0.001	0.000	0.000	-0.008	0.003
Salaried	0.003	0.001	-0.006	0.002	-0.003	0.001	0.001	0.002	-0.007	0.004	-0.004	0.002	-0.003	0.002	0.002	0.003	0.003	0.003	0.001	0.001	-0.001	0.001
Housework	0.001	0.002	0.002	0.001	-0.001	0.001	-0.001	0.001	0.015	0.006	0.006	0.003	0.000	0.000	-0.001	0.001	0.001	0.004	-0.001	0.003	0.004	0.003
Other work type	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	-0.001	0.001	0.000	0.000	0.001	0.001	-0.001	0.001	0.002	0.001	-0.005	0.002	0.000	0.000
Regular contract	-0.005	0.001	-0.002	0.001	0.001	0.001	-0.013	0.002	-0.011	0.003	-0.004	0.001	-0.005	0.002	-0.002	0.001	-0.005	0.002	-0.019	0.005	0.001	0.001
Managerial/professional occupations	0.001	0.001	-0.002	0.001	0.000	0.001	-0.002	0.001	-0.009	0.002	-0.006	0.001	-0.002	0.001	-0.001	0.001	-0.015	0.002	-0.001	0.001	0.001	0.001
Total unexplained	0.004	0.009	-0.001	0.006	0.021	0.012	-0.006	0.011	0.065	0.012	-0.022	0.007	0.007	0.011	-0.013	0.008	-0.030	0.011	0.014	0.013	-0.016	0.010
Urbanization	0.012	0.005	0.000	0.004	0.007	0.006	0.031	0.006	0.016	0.008	0.018	0.005	-0.001	0.007	-0.008	0.006	0.008	0.007	-0.004	0.008	-0.005	0.004
Sex	0.000	0.005	-0.001	0.005	0.008	0.006	-0.009	0.006	-0.019	0.007	-0.017	0.005	-0.003	0.007	0.008	0.005	-0.001	0.006	0.002	0.007	0.020	0.004
Age	0.004	0.014	-0.011	0.013	-0.025	0.019	0.008	0.019	0.024	0.019	0.012	0.015	-0.002	0.021	0.004	0.017	-0.001	0.022	0.018	0.027	-0.006	0.017
Married	-0.003	0.012	0.007	0.010	0.025	0.014	0.001	0.014	0.013	0.016	0.013	0.012	-0.003	0.017	-0.002	0.013	0.007	0.016	0.002	0.019	0.000	0.011
Caste	0.025	0.029	-0.043	0.026	0.072	0.038	-0.052	0.037	-0.230	0.052	0.031	0.030	0.037	0.046	0.050	0.048	-0.553	0.108	-0.334	0.077	-0.249	0.058
Muslim	-0.003	0.002	-0.001	0.002	-0.001	0.003	-0.022	0.009	-0.005	0.007	-0.001	0.003	0.003	0.004	-0.002	0.003	0.000	0.003	0.002	0.004	-0.001	0.004
Education	0.001	0.011	0.000	0.008	0.022	0.013	-0.005	0.012	0.024	0.014	0.005	0.011	0.029	0.016	-0.001	0.013	-0.009	0.013	0.018	0.019	-0.003	0.010
Agrarian wage labour	0.002	0.008	0.006	0.004	0.006	0.006	0.008	0.005	0.011	0.006	0.004	0.005	0.001	0.007	-0.001	0.004	0.000	0.005	-0.002	0.007	-0.019	0.006
Construction wage labour	-0.001	0.003	0.002	0.003	0.002	0.005	0.002	0.003	0.002	0.004	0.002	0.003	0.000	0.006	-0.004	0.005	-0.001	0.005	-0.003	0.007	-0.010	0.005
Other non-agrarian wage labour	-0.006	0.004	0.003	0.003	0.009	0.006	-0.002	0.005	0.004	0.005	-0.001	0.004	0.002	0.007	-0.003	0.005	0.002	0.006	-0.003	0.007	-0.019	0.006
Salaried	-0.023	0.006	0.022	0.006	0.025	0.009	-0.006	0.008	0.015	0.010	0.009	0.007	-0.014	0.010	0.001	0.007	-0.010	0.009	-0.012	0.011	-0.023	0.008
Housework	-0.002	0.002	0.002	0.002	0.000	0.004	0.003	0.003	0.004	0.003	0.002	0.002	-0.004	0.004	0.000	0.003	-0.004	0.005	-0.001	0.005	-0.009	0.004
Other work type	-0.003	0.002	0.000	0.002	0.002	0.002	-0.005	0.002	0.000	0.003	-0.001	0.002	-0.005	0.004	0.001	0.002	0.004	0.003	0.011	0.004	-0.007	0.003
Regular contract	0.015	0.004	0.003	0.004	-0.005	0.005	0.027	0.006	0.018	0.007	0.000	0.005	0.005	0.006	-0.025	0.004	-0.002	0.006	0.018	0.008	-0.005	0.003
Managerial/professional occupations	0.002	0.002	-0.003	0.002	-0.006	0.003	0.004	0.003	0.011	0.003	0.005	0.002	-0.007	0.003	0.006	0.002	0.022	0.003	-0.002	0.004	-0.007	0.002
Intercept	-0.017	0.039	0.012	0.034	-0.119	0.053	0.012	0.050	0.178	0.064	-0.102	0.041	-0.032	0.065	-0.038	0.059	0.507	0.117	0.304	0.094	0.327	0.070

Source: Own construction using IHDS-II. Counterfactual: State coefficients, Indian characteristics.

Table A9: RIF decomposition, selected states (alternative counterfactual): A(1)

	Rajasthan		Uttar Pradesh		West Bengal		Orissa		Chhattisgarh		Madhya Pradesh		Gujarat		Maharashtra		Andhra Pradesh		Karnataka		Tamil Nadu	
	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E
Differential	-0.017	0.010	-0.034	0.008	-0.003	0.011	-0.048	0.011	-0.018	0.013	-0.084	0.009	0.009	0.012	0.005	0.008	-0.097	0.011	-0.030	0.012	-0.015	0.009
Total explained	-0.022	0.011	-0.030	0.007	-0.027	0.014	-0.028	0.014	-0.100	0.016	-0.044	0.006	-0.003	0.010	0.022	0.007	-0.041	0.010	-0.053	0.009	0.007	0.012
% Gap	131.7	110.8	88.8	85.7	903.9	122.8	58.8	123.5	540.2	125.4	52.0	70.0	-31.6	80.3	400.5	88.8	42.5	97.6	177.5	78.9	-43.8	139.9
Urbanization	-0.006	0.002	-0.003	0.002	-0.003	0.001	-0.025	0.004	-0.014	0.005	-0.006	0.002	0.004	0.004	0.001	0.003	-0.002	0.001	0.001	0.001	0.001	0.003
Sex	0.002	0.001	-0.003	0.001	-0.005	0.002	0.000	0.000	-0.004	0.004	-0.001	0.001	0.000	0.000	0.000	0.001	0.006	0.002	0.005	0.002	0.007	0.002
Age	-0.003	0.002	-0.003	0.002	-0.002	0.001	0.003	0.001	-0.001	0.002	-0.006	0.002	-0.002	0.002	0.001	0.001	0.000	0.001	-0.002	0.001	0.006	0.003
Married	0.001	0.001	0.000	0.000	-0.001	0.001	0.001	0.000	0.003	0.001	0.000	0.000	-0.001	0.001	0.000	0.000	0.002	0.001	-0.002	0.001	0.000	0.000
Caste	-0.004	0.002	-0.003	0.004	0.000	0.012	0.000	0.004	-0.040	0.010	-0.003	0.003	0.010	0.006	-0.002	0.002	-0.022	0.006	-0.007	0.002	-0.010	0.009
Muslim	-0.001	0.000	0.000	0.002	0.001	0.004	0.032	0.011	0.005	0.009	-0.001	0.002	-0.002	0.002	0.001	0.002	0.000	0.002	0.001	0.001	0.002	0.004
Education	-0.002	0.004	-0.003	0.002	-0.016	0.005	-0.010	0.003	-0.012	0.004	-0.011	0.003	0.001	0.004	0.014	0.004	-0.002	0.004	-0.010	0.003	0.012	0.003
Agrarian wage labour	-0.007	0.009	-0.005	0.003	0.002	0.002	-0.004	0.002	-0.010	0.004	-0.004	0.003	0.001	0.003	0.000	0.003	0.002	0.007	-0.002	0.006	-0.006	0.002
Construction wage labour	-0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.002	0.000	0.000	0.001	0.003	0.004	0.003	0.001	0.002	0.003	0.004	-0.002	0.001
Other non-agrarian wage labour	0.000	0.000	0.004	0.002	0.000	0.001	0.000	0.003	-0.003	0.002	0.000	0.000	0.000	0.001	0.001	0.003	-0.002	0.002	0.000	0.000	-0.012	0.004
Salaried	0.004	0.001	-0.011	0.002	-0.005	0.002	0.000	0.002	-0.012	0.005	-0.007	0.003	-0.003	0.003	0.004	0.004	0.001	0.004	0.001	0.001	-0.001	0.001
Housework	0.001	0.002	0.003	0.001	-0.001	0.001	-0.001	0.001	0.020	0.008	0.009	0.004	0.000	0.001	-0.001	0.001	0.001	0.005	-0.001	0.003	0.006	0.004
Other work type	0.000	0.001	0.000	0.000	0.002	0.001	0.001	0.001	-0.001	0.002	0.000	0.000	0.001	0.001	-0.001	0.001	0.002	0.001	-0.006	0.002	-0.001	0.001
Regular contract	-0.008	0.002	-0.004	0.001	0.003	0.001	-0.021	0.003	-0.017	0.004	-0.007	0.002	-0.008	0.002	-0.001	0.001	-0.009	0.003	-0.033	0.005	0.002	0.001
Managerial/professional occupations	0.001	0.002	-0.003	0.001	0.000	0.001	-0.003	0.002	-0.013	0.003	-0.009	0.002	-0.004	0.001	-0.001	0.002	-0.020	0.003	-0.002	0.001	0.002	0.001
Total unexplained	0.005	0.012	-0.004	0.009	0.024	0.016	-0.020	0.015	0.081	0.018	-0.040	0.010	0.012	0.014	-0.016	0.010	-0.056	0.014	0.023	0.014	-0.022	0.014
Urbanization	0.017	0.007	-0.001	0.006	0.009	0.009	0.046	0.009	0.023	0.011	0.026	0.007	0.000	0.009	-0.007	0.007	0.008	0.009	-0.004	0.009	-0.008	0.005
Sex	-0.001	0.007	0.002	0.007	0.016	0.008	-0.011	0.008	-0.028	0.010	-0.024	0.007	-0.005	0.009	0.014	0.006	0.000	0.007	0.004	0.008	0.027	0.006
Age	0.005	0.020	-0.019	0.018	-0.039	0.026	0.010	0.026	0.028	0.028	0.014	0.021	0.002	0.027	0.003	0.021	-0.014	0.028	0.017	0.030	-0.014	0.025
Married	-0.004	0.016	0.009	0.015	0.039	0.020	0.002	0.020	0.021	0.022	0.016	0.017	-0.001	0.022	0.001	0.016	0.012	0.020	0.003	0.022	0.004	0.015
Caste	0.036	0.039	-0.057	0.038	0.093	0.052	-0.091	0.052	-0.346	0.075	0.059	0.041	0.028	0.059	0.049	0.059	-0.700	0.138	-0.465	0.086	-0.357	0.084
Muslim	-0.005	0.003	-0.001	0.002	0.000	0.004	-0.035	0.012	-0.006	0.010	0.002	0.004	0.004	0.005	-0.004	0.004	-0.001	0.004	0.004	0.004	-0.003	0.005
Education	0.001	0.015	-0.004	0.012	0.033	0.018	-0.006	0.017	0.033	0.020	0.006	0.015	0.039	0.021	-0.004	0.016	-0.017	0.017	0.022	0.021	-0.008	0.014
Agrarian wage labour	0.005	0.010	0.008	0.006	0.007	0.008	0.010	0.007	0.016	0.008	0.006	0.006	0.000	0.009	-0.002	0.005	-0.001	0.007	-0.005	0.008	-0.030	0.009
Construction wage labour	-0.002	0.004	0.003	0.004	0.003	0.006	0.002	0.004	0.001	0.006	0.003	0.004	0.000	0.008	-0.006	0.006	-0.001	0.006	-0.004	0.008	-0.015	0.007
Other non-agrarian wage labour	-0.011	0.005	0.003	0.005	0.016	0.008	-0.005	0.007	0.003	0.007	-0.003	0.005	-0.001	0.009	-0.007	0.007	0.004	0.007	-0.005	0.008	-0.032	0.008
Salaried	-0.035	0.009	0.030	0.008	0.038	0.013	-0.013	0.011	0.022	0.014	0.008	0.010	-0.021	0.013	-0.001	0.009	-0.014	0.012	-0.016	0.012	-0.038	0.012
Housework	-0.004	0.003	0.002	0.003	-0.001	0.005	0.004	0.004	0.004	0.004	0.003	0.003	-0.007	0.005	0.000	0.004	-0.006	0.006	-0.002	0.006	-0.013	0.006
Other work type	-0.004	0.003	0.000	0.002	0.002	0.003	-0.006	0.003	0.000	0.004	-0.001	0.003	-0.007	0.005	0.002	0.003	0.004	0.003	0.012	0.005	-0.012	0.004
Regular contract	0.021	0.006	0.004	0.006	-0.010	0.007	0.042	0.008	0.023	0.010	-0.002	0.007	0.007	0.007	-0.033	0.005	-0.005	0.008	0.031	0.009	-0.009	0.005
Managerial/professional occupations	0.003	0.003	-0.005	0.003	-0.006	0.004	0.004	0.003	0.017	0.005	0.008	0.003	-0.008	0.004	0.008	0.003	0.028	0.004	-0.005	0.004	-0.009	0.002
Intercept	-0.018	0.052	0.021	0.050	-0.175	0.073	0.028	0.069	0.272	0.092	-0.161	0.056	-0.019	0.084	-0.029	0.073	0.645	0.150	0.437	0.104	0.496	0.101

Source: Own construction using IHDS-II. Counterfactual: State coefficients, Indian characteristics.

Table A10: RIF decomposition, selected states (alternative counterfactual): A(2)

	Rajasthan		Uttar Pradesh		West Bengal		Orissa		Chhattisgarh		Madhya Pradesh		Gujarat		Maharashtra		Andhra Pradesh		Karnataka		Tamil Nadu	
	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E	Est.	St.E
Differential	-0.044	0.011	-0.042	0.011	-0.021	0.014	-0.103	0.013	-0.064	0.016	-0.120	0.011	0.009	0.014	0.012	0.010	-0.137	0.013	-0.014	0.013	-0.011	0.012
Total explained	-0.036	0.012	-0.031	0.010	-0.039	0.017	-0.043	0.016	-0.115	0.020	-0.059	0.008	-0.008	0.011	0.036	0.009	-0.053	0.013	-0.090	0.010	0.013	0.017
% Gap	81.0	109.9	74.0	85.5	184.6	122.6	41.9	122.5	178.5	126.4	49.0	70.2	-91.2	80.7	303.8	88.8	38.5	97.4	628.8	79.3	-115.2	143.4
Urbanization	-0.008	0.002	-0.003	0.002	-0.004	0.002	-0.034	0.005	-0.016	0.006	-0.009	0.002	0.006	0.004	0.008	0.003	-0.003	0.001	0.001	0.002	0.004	0.004
Sex	0.003	0.001	-0.006	0.002	-0.011	0.002	-0.001	0.001	-0.004	0.005	-0.001	0.001	0.000	0.000	0.000	0.001	0.007	0.003	0.004	0.002	0.006	0.002
Age	-0.004	0.002	-0.003	0.002	-0.002	0.001	0.003	0.002	-0.002	0.002	-0.007	0.002	-0.004	0.002	0.002	0.001	-0.001	0.001	-0.001	0.001	0.002	0.004
Married	0.001	0.001	0.000	0.000	-0.001	0.001	0.000	0.001	0.004	0.002	0.000	0.000	0.000	0.001	0.000	0.000	0.002	0.001	-0.002	0.001	0.000	0.000
Caste	-0.004	0.002	-0.003	0.006	-0.007	0.015	0.000	0.004	-0.035	0.013	-0.004	0.004	0.005	0.007	-0.004	0.003	-0.024	0.008	-0.007	0.002	-0.011	0.013
Muslim	-0.001	0.001	0.001	0.002	0.009	0.005	0.039	0.013	0.004	0.012	-0.007	0.002	-0.002	0.002	0.002	0.002	0.000	0.002	0.001	0.001	0.005	0.006
Education	-0.006	0.004	-0.003	0.003	-0.021	0.006	-0.011	0.004	-0.017	0.005	-0.011	0.004	0.001	0.004	0.021	0.005	-0.002	0.005	-0.010	0.003	0.015	0.004
Agrarian wage labour	-0.011	0.010	-0.002	0.004	0.001	0.002	-0.003	0.002	-0.009	0.005	-0.003	0.003	0.001	0.003	0.000	0.003	0.002	0.008	-0.004	0.007	-0.006	0.003
Construction wage labour	-0.001	0.002	0.000	0.000	0.000	0.000	-0.003	0.005	0.002	0.002	0.000	0.000	0.000	0.004	0.002	0.004	0.001	0.003	-0.001	0.005	-0.001	0.001
Other non-agrarian wage labour	0.000	0.000	0.007	0.003	0.001	0.002	-0.002	0.003	-0.002	0.003	0.000	0.000	-0.001	0.001	-0.001	0.004	-0.007	0.002	0.000	0.001	-0.011	0.005
Salaried	0.003	0.002	-0.013	0.003	-0.007	0.003	0.001	0.003	-0.016	0.007	-0.008	0.004	0.001	0.004	0.011	0.004	-0.002	0.005	-0.003	0.002	-0.001	0.001
Housework	0.001	0.003	0.003	0.002	-0.001	0.002	-0.001	0.001	0.013	0.011	0.012	0.004	0.000	0.001	-0.002	0.001	0.002	0.006	-0.003	0.003	0.006	0.006
Other work type	0.000	0.001	0.001	0.001	0.002	0.002	0.001	0.001	-0.001	0.003	0.000	0.000	0.001	0.001	-0.003	0.001	0.003	0.001	-0.009	0.002	-0.001	0.001
Regular contract	-0.010	0.003	-0.007	0.002	0.003	0.001	-0.030	0.005	-0.021	0.005	-0.009	0.002	-0.010	0.003	0.001	0.001	-0.011	0.003	-0.056	0.006	0.003	0.001
Managerial/professional occupations	0.001	0.002	-0.003	0.001	-0.001	0.001	-0.003	0.002	-0.015	0.003	-0.011	0.002	-0.005	0.002	-0.001	0.002	-0.021	0.003	-0.001	0.001	0.003	0.001
Total unexplained	-0.008	0.014	-0.011	0.013	0.018	0.020	-0.060	0.018	0.050	0.023	-0.061	0.012	0.018	0.016	-0.024	0.012	-0.084	0.017	0.076	0.015	-0.024	0.020
Urbanization	0.018	0.008	-0.003	0.009	0.009	0.011	0.059	0.010	0.022	0.014	0.032	0.009	-0.002	0.010	0.005	0.008	0.007	0.010	-0.010	0.009	-0.008	0.007
Sex	-0.001	0.008	0.014	0.010	0.046	0.010	-0.008	0.009	-0.032	0.013	-0.026	0.009	-0.006	0.011	0.012	0.007	-0.001	0.009	-0.004	0.009	0.019	0.008
Age	0.006	0.022	-0.031	0.026	-0.050	0.032	0.019	0.031	0.004	0.035	0.017	0.026	0.025	0.031	0.007	0.024	-0.053	0.033	-0.012	0.032	-0.080	0.035
Married	0.000	0.018	0.011	0.021	0.064	0.024	-0.002	0.024	0.046	0.029	0.016	0.021	-0.012	0.025	0.013	0.018	0.028	0.025	0.010	0.023	0.010	0.022
Caste	0.027	0.045	-0.056	0.053	0.084	0.065	-0.143	0.061	-0.425	0.095	0.083	0.051	-0.001	0.068	0.029	0.067	-0.704	0.166	-0.453	0.091	-0.386	0.119
Muslim	-0.010	0.003	-0.002	0.003	0.005	0.004	-0.045	0.014	-0.008	0.013	0.015	0.005	0.002	0.006	-0.009	0.004	-0.005	0.005	0.002	0.004	-0.010	0.007
Education	0.005	0.017	-0.013	0.017	0.042	0.023	-0.013	0.020	0.031	0.026	0.006	0.019	0.034	0.024	-0.007	0.018	-0.027	0.021	0.012	0.022	-0.016	0.020
Agrarian wage labour	0.011	0.012	0.001	0.008	0.002	0.010	0.010	0.008	0.015	0.010	0.005	0.008	0.002	0.010	-0.003	0.006	0.000	0.008	-0.007	0.008	-0.034	0.013
Construction wage labour	-0.001	0.004	0.002	0.006	0.003	0.008	-0.001	0.005	-0.005	0.007	0.001	0.005	0.002	0.009	-0.003	0.006	-0.001	0.008	0.003	0.009	-0.014	0.009
Other non-agrarian wage labour	-0.017	0.006	-0.002	0.006	0.024	0.009	-0.013	0.008	-0.010	0.009	-0.011	0.007	-0.005	0.011	-0.014	0.008	0.017	0.009	0.001	0.009	-0.039	0.012
Salaried	-0.048	0.010	0.023	0.012	0.043	0.016	-0.030	0.013	0.016	0.017	-0.002	0.013	-0.021	0.014	-0.002	0.010	-0.020	0.014	-0.002	0.013	-0.044	0.017
Housework	-0.006	0.003	-0.001	0.004	-0.001	0.006	0.004	0.005	-0.001	0.005	0.003	0.004	-0.008	0.006	-0.002	0.004	-0.009	0.008	-0.002	0.006	-0.015	0.008
Other work type	-0.005	0.003	-0.002	0.003	0.000	0.004	-0.008	0.004	-0.004	0.006	-0.002	0.004	-0.008	0.005	0.006	0.003	0.003	0.004	0.015	0.005	-0.015	0.005
Regular contract	0.026	0.007	0.013	0.008	-0.018	0.009	0.060	0.009	0.025	0.013	-0.002	0.009	0.003	0.008	-0.037	0.006	-0.011	0.009	0.063	0.010	-0.015	0.007
Managerial/professional occupations	0.003	0.004	-0.009	0.004	-0.005	0.004	0.001	0.004	0.019	0.006	0.013	0.004	-0.008	0.005	0.005	0.003	0.028	0.005	-0.010	0.004	-0.009	0.003
Intercept	-0.016	0.059	0.045	0.070	-0.227	0.090	0.053	0.081	0.358	0.117	-0.208	0.070	0.018	0.096	-0.025	0.083	0.663	0.181	0.469	0.111	0.631	0.144

Source: Own construction using IHDS-II. Counterfactual: State coefficients, Indian characteristics.

Appendix 2: RIF of inequality indices in India

The decomposition for the inter-distributional gap in any inequality index (I) can be done using a linear approximation based on its influence function. The influence function IF—or Gâteaux or directional derivative (Gâteaux 1913)—is a tool used for robustness analysis in statistics (introduced by Hampel (1974)) and measures the influence of a small contamination in a particular value of earnings on the statistic. By construction it has zero mean and by adding the value of the target statistic we obtain the recentered influence function (RIF). The IF (and RIF) of several inequality measures—such as Gini and the Generalized Entropy and Atkinson families—has been previously computed (Monti 1991; Cowell and Flachaire 2002, 2007; Essama-Nssah and Lambert 2012).

Let F be the cumulative distribution of earnings z, with mean μ and inequality index $I(F)$. For $0 < \varepsilon < 1, T = (1-\varepsilon)F + \varepsilon\delta_y$ the mixture distribution[3] is obtained by the contamination of F in the level of earnings $z = y$, where δ_y is the cumulative distribution function for a probability measure, which gives mass 1 to y. Then, the influence function of $I(F)$, $IF(y;I)$ is the directional derivative of $I(T)$ with respect to ε at $\varepsilon = 0$, with zero expectation. Table A11 displays these functions. The RIF just adds the index to the corresponding $IF(y;I)$: $RIF(y,I) = IF(y,I) + I(F)$.

Table A11: Influence functions of selected inequality indices

Index			$I(y)$	$IF(y,I)$
Gini	G		$1 - 2\int_0^1 L(p)dp.$	$2\left[\int_0^1 L(p)dp - \mu L(F(y)) + \frac{y}{\mu}\left[\int_0^1 L(p)dp - (1-F(y))\right]\right].$
Gener. Entropy	$GE(\alpha)$	$\alpha \neq 0,1$	$\frac{1}{\alpha(\alpha-1)}\int\left[\left(\frac{z}{\mu}\right)^{\alpha} - 1\right]dF(z).$	$[y^{\alpha} - \int z^{\alpha}dF(z)] - \frac{y-\mu}{(\alpha-1)\mu^{\alpha+1}}\int z^{\alpha}dF(z).$
		$\alpha = 0$	$-\int ln\left(\frac{z}{\mu}\right)dF(z).$	$-[ln(y) - \int lnzdF(z)] + \frac{y-\mu}{\mu}.$
		$\alpha = 1$	$\int \frac{z}{\mu} ln\left(\frac{z}{\mu}\right)dF(z).$	$\frac{1}{\mu}[yln(y) - \int zlnzdF(z)] - \frac{y-\mu}{\mu^2}[\mu + \int zlnzdF(z)].$
Atkinson	$A(\varepsilon)$	$\varepsilon \neq 1$ $\varepsilon > 0$	$1 - \left[\int\left(\frac{z}{\mu}\right)^{1-\varepsilon}dF(z)\right]^{1/(1-\varepsilon)}.$	$\frac{1}{(\varepsilon-1)\mu}[\int z^{1-\varepsilon}dF(z)]^{\varepsilon/(1-\varepsilon)}[y^{1-\varepsilon} - \int z^{1-\varepsilon}dF(z)] + \frac{y-\mu}{\mu^2}[\int z^{1-\varepsilon}dF(z)]^{1/(1-\varepsilon)}.$
		$\varepsilon = 1$	$1 - \frac{1}{\mu}e^{\int \ln(z)dF(z)}.$	$-\frac{1}{\mu}e^{\int \ln(z)dF(z)}[\ln(y) - \int \ln(z)\,dF(z)] + \frac{y-\mu}{\mu^2}e^{\int \ln(z)dF(z)}.$

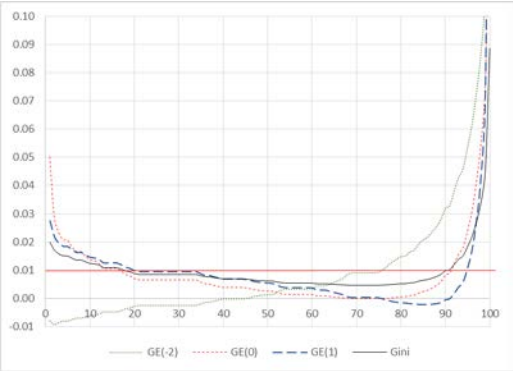
Source: Own construction from Cowell and Flachaire (2002).

We estimate the RIF of each inequality index associated with each earnings level for the country and for a selection of states. Figure A1 displays the contribution of each percentile to the overall value of various indices in India (the average is 0.01 by construction). It becomes evident that in all cases the extremes, especially top earnings (whose values are truncated in the figures), contribute disproportionally to each index, but in some cases more than in others.

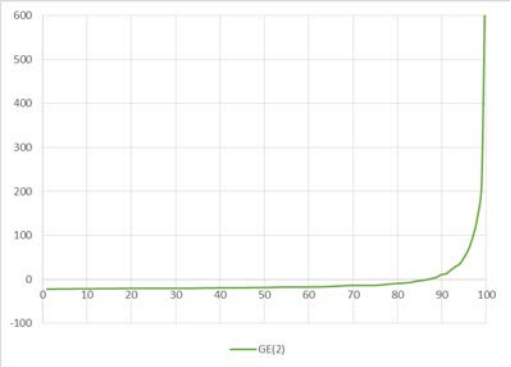
[3] The mixture distribution attaches a probability $1-\varepsilon$ of z being generated by the distribution F and ε of being generated instead by δ_y.

Figure A1: The RIF contribution to inequality indices by percentiles (average=0.01)

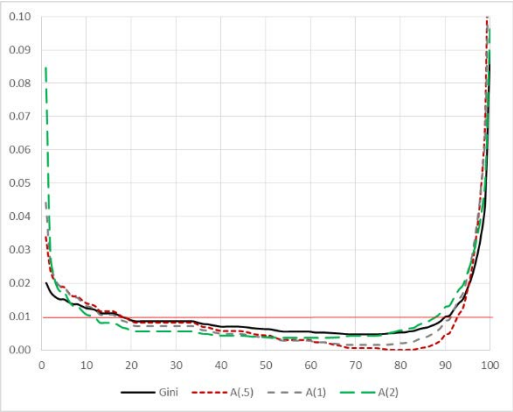
a. Gini and GE



b. GE(2)



c. Gini and Atkinson



Source: Own construction using IHDS-II.

The $IF(y)$ of most inequality indices is unbounded from above, and in fact this property was used by Cowell and Victoria-Feser (1996) to show that inequality indices, in general, are not robust to data contamination in high incomes (in some cases also to low incomes). Cowell and Flachaire (2002, 2007) compared the rate of increase to infinity of the influence function of different inequality indices when y goes to infinity, which is equal to y in the cases of Gini, Atkinson, and Generalized Entropy ($\alpha \leq 1$), and equal to y^{α} for the Generalized Entropy ($\alpha > 1$). When z goes

to 0, Generalized Entropy ($\alpha < 0$) tends to infinity at the rate y^{α}, and the Atkinson ($0 < \varepsilon < 1$) at $y^{1-\varepsilon}$, and Generalized Entropy ($\alpha = 0$) and Atkinson ($\varepsilon = 1$) at the rate $\ln y$.[4]

Let me illustrate this with my data. For example, the total contribution of the bottom and top earnings deciles to the national Gini index are 15 per cent and 29 per cent, respectively (reported in Table 3). In the case of Atkinson, the extremes contribute more: the bottom 20 per cent, 21 per cent, and 23 per cent (for $\varepsilon = .5, 1, 2$), the top 42 per cent, 41 per cent, and 34 per cent. As expected, the contribution of the bottom (top) increases (decreases) with the inequality aversion parameter. The general entropy case is different.[5] The contribution of the bottom generally increases with α (from −8 per cent with $\alpha = -2$ to 23 per cent with $\alpha = 0$, to then decline again: 19 per cent with $\alpha = 1$). The contribution of the top decile, conversely, declines: from 73 per cent ($\alpha = -2$) to 41 per cent ($\alpha = 1$). In the case of $\alpha = 2$ the figures go out of proportion: the contribution is negative until the 87th percentile, and becomes huge in the last three percentiles. This disproportionally large effect of very few observations with high earnings entirely compromises its use in empirical exercises of the type proposed here, especially if we suspect we might have measurement errors at the top of the earnings distribution.

The cases of Gini, GE ($\alpha = 0,1$), and Atkinson ($\varepsilon = .5, 1, 2$) show a similar profile, even if with different intensities. The cases of GE ($\alpha = -2, -1, 2$), however, show very different profiles.

[4] As Cowell and Victoria-Feser (1996) pointed out, this sensitivity of inequality indices to extreme values should not be confused with where in the earnings distribution the impact of a progressive transfer produces the largest increase. For example, in the case of the Gini index, it is around the mode of the distribution.

[5] It is well known that the Generalized Entropy and Atkinson families are ordinally equivalent if $\varepsilon = 1 - \alpha$ for $\alpha > 0$, where ε is the Atkinson's inequality aversion parameter, and α is the corresponding parameter for the Entropy indices.