DELHI SCHOOL OF PUBLIC POLICY & GOVERNANCE
Institute of Eminence, University of Delhi

Policy Paper no. 5

Do Wealthy Politicians Underreport their Income?
Evidence from General Election Data

November 2022

Soumyjit Ray

Ram Singh

Delhi School of Public Policy and Governance
Institution of Eminence, University of Delhi

http://www.ioe.du.ac.in/delhi-school-of-public-policy-and-governance/policy-papers/

DELHI SCHOOL OF PUBLIC POLICY & GOVERNANCE
Institute of Eminence, University of Delhi

Do Wealthy Politicians Underreport their Income?
Evidence from General Election Data

Soumyjit Ray

Ram Singh

Soumyajit Ray
Research Analyst (II), Poverty, Health, And Nutrition Division
International Food Policy Research Institute, New Delhi
Email: s.ray@cgiar.org

Ram Singh
Professor, Delhi School of Economics
Director, Delhi School of Public Policy & Governance, University of Delhi
Email: ramsingh@econdse.org

Cite as: Ray, S. & Singh, R. (2022). Do Wealthy Politicians Underreport their Income? Evidence from General Election Data. Policy Paper No 5. https://www.ioe.du.ac.in/delhi-school-of-public-policy-and-governance/occasional-papers/

Do Wealthy Politicians Underreport their Income?
Evidence from General Election Data

Soumyajit Ray
Research Analyst (II)
Poverty, Health, And Nutrition Division
International Food Policy Research Institute
New Delhi
Email: s.ray@cgiar.org

Ram Singh
Professor, Delhi School of Economics
Director, Delhi School of Public Policy & Governance, University of Delhi
Delhi 110007
Email: ramsingh@econdse.org

ABSTRACT

The income reporting behaviour of wealthy Indians is a critical public finance issue. It has remained under-researched due to the lack of data sources required for the purpose. In this article, we use a new and unique source of information to examine the income reporting behaviour of politicians from across a wide range of wealth spectrums. The new dataset compiled and used by us is based on the affidavits filed by contestants in the 2014 and 2019 Lok Sabha elections. We find that, on average, wealthier candidates and their households report less income relative to their wealth. Consequently, most affluent families do not necessarily figure among those reporting the highest income to tax authorities. The income declared to tax authorities by the 10% least wealthy candidates is more than 300% of their wealth. In contrast, the income level reported by the wealthy group is a tiny fraction of their wealth. The wealthiest 5% of candidates have reported income amounting to only 3.4% of their wealth. The reported income of the wealthiest 0.1% is less than 2% of their wealth. The results are very similar for the households. We show that the abysmally low income reported by the wealthy groups stands in sharp contrast to the returns on assets owned by them. We argue that the missing income of the wealth groups is a result of the creative accounting and financial engineering used by them to avoid paying taxes.

Key Words: Politicians, Income, Wealth, Income-Wealth Ratio, Inequality, Income Tax, Tax Evasion

JEL Classification: D31, D63, H24, H26

Acknowledgement: This work has benefitted from our interactions on the subject with Amit Bhaduri, K.L. Krishna, and J.V. Meenakshi. We thank S.C. Pandey and Richa Udayana for their detailed comments and suggestions. The research has been facilitated by the grant Ref. No./IoE/2021/12/FRP by the IoE, University of Delhi.

1. Introduction

According to media reports, movie stars such as Amitabh Bachchan, Salman Khan and Akshay Kumar are among the top income taxpayers of the country; in contrast, very few of the wealthiest Indians in the Forbes' list[1] figure among highest income taxpayers.[2] Since tax payment depends on reported income, such reports suggest that the wealthiest individuals in the country do not feature among those who report the highest income to tax authorities. This in turn poses a wider question: Does income reported by taxpayers increase with their wealth? The question is especially relevant in the context of politicians, who are generally perceived to be less honest about their finances than the general public.

Indeed, the income reporting behaviour of citizens is an important issue in public finance as tax revenue depends on the income reported by taxpayers. This is of direct concern to the tax department and other government agencies as tax revenue is a significant component of government finances. The above question is critical from an equity viewpoint as well: If wealthy groups can get away with declaring only a part of their income, it can make the country's income tax regime regressive, and thereby can exacerbate income and wealth inequalities.[3]

Notwithstanding its importance, the income reporting behaviour of different wealth groups in India has remained under-studied. The main reason for our limited knowledge on the subject has been a lack of data sources that simultaneously provided information on wealth and income at the individual or household levels.

Recently, however, a new data source has emerged, thanks to the Election Commission of India (ECI). Since 2011, the ECI has mandated that election contestants declare their wealth and income in their filed affidavits. These documents are a valuable information source for examining the relationship between reported income and wealth for politicians. Accordingly, this study is based on affidavits filed by contestants in the last two General Elections (GE) for the Lok Sabha, i.e., 2014 and 2019. These affidavits have been scrutinised by the returning officer for accuracy, correctness, and completeness.

An affidavit provides detailed information on all types of assets and liabilities of the candidates and their families. However, as far as the declared income is concerned, it provides information only on the net taxed income of the candidates and their families. Simply put, these documents do not have information on the total income reported as taxable by candidates in their Income Tax Returns (ITRs).

We estimate the total taxable income reported by the candidates using statistical abstracts published by the Central Board of Direct Taxes (CBDT). For this purpose, we estimate the relationship between the net taxed income and the gross taxable income as it emerges in the statistics published by the CBDT. The details are provided in Section 3.

We show that the income reported by the wealthiest candidates amounts to a tiny fraction of their wealth. In contrast, relatively less wealthy candidates report comparatively high income. On average, wealthier a candidate is, the lower their reported income is relative to their wealth. The same is true for family incomes vis-à-vis its wealth. This decreasing pattern in the income-wealth

[1] Forbes India annually publishes the list of richest one-hundred families and individuals in India based on publicly available documents and interactions with analysts, shareholders, and regulators.
[2] See ProPublica June 2021, Indian Express, and India Today, July 2022.
[3] See Pulin & Satya (1989), Lambert (1993), and Datt, Ray & Teh (2021)

ratio is consistent across two versions of income and two separate estimation techniques employed by us.

The total taxable income reported by the bottom 10% of candidates is more than four times their wealth. In contrast, the taxable income reported by 5% of the wealthiest candidates amounts to only 3.4% of their wealth. The income reported by the wealthiest 0.1% of candidates is less than 2% of their wealth. Consequently, the wealthiest candidates are not necessarily those reporting the highest incomes. For instance, of the wealthiest 100 candidates covered by our study, only 31% declared incomes that figured in the top 100 income levels reported in the data. The trends and values of the income reported by wealthy political families are comparable to those of the candidates themselves.

Our estimates suggest that the income reported as taxable by the wealthiest 0.1% amounts to less than $1/4^{th}$ of the returns from their wealth alone. If we factor in labour income, the reported value of taxable income is an even smaller fraction of the total income of these wealthy groups. Simply put, the income reported as taxable by the wealthiest 0.1% candidates and their families amounts to at most $1/4^{th}$ of their total income!

We argue that misreporting of income by the wealthy groups is one of the reasons behind the relatively low-income levels they declare. However, tax management by them seems to be the main factor that renders the reported taxable income much smaller to their actual income. The wealthy are better at spotting and using loopholes in the complex tax regime applicable to capital income from equities and other financial assets.

Our results are relevant for groups beyond just the political class. On the one hand, it is commonly believed that the average politician is better at evading tax by underreporting income than the average non-politician; indeed, several studies show that the politicians amass wealth through rent-seeking (i.e., corrupt) activities by misusing political office.[4] On the other hand, several empirical works have argued that the politicians have a stronger incentive to report their finances more truthfully than the general public as they are subjected to greater social and official scrutiny.[5] It is worth emphasising that in India, the income reported by non-politician taxpayers is known only to them and the tax department while declarations made by politicians in their affidavits can be scrutinised by the media and other third parties. Therefore, it is possible that non-politician Indians report lower income than politicians do.

In any case, it is important to emphasise that our focus is on the relationship between wealth and reported income, not on wealth holdings per-se. Our findings that the reported income-wealth ratio falls consistently and significantly with wealth due to the accounting practices used by wealthy groups suggest that the decreasing income-wealth relationship emerging from this study is likely to hold true beyond the political class.

The article is organised thus: Section 2 discusses the datasets and summary statistics used in the study. Section 3 reports our estimates of the different types of income reported by the candidates and their families. Section 4 presents estimated income as a ratio of wealth, demonstrating how the ratio decreases continuously till it reduces to a negligible fraction of the wealth of super-wealthy groups. Section 5 examines the proportion of total individual income that goes missing from the reports filed to the tax authorities. Section 6 discusses the mechanisms that underlie partial income reporting by opulent groups and makes some concluding remarks.

[4] For a discussion on rent seeking by Indian politicians, see Fisman et al. (2014), Bhavnani (2012), Lehne et al. (2018), and Asher et al. (2019).

[5] For a review of this literature, see Libman et al. (2016) and Szakonyi (2020).

2 Data Sources and Preliminary Findings

Our main dataset is based on the affidavits filed by the contestants of the 2014 and 2019 Lok Sabha (general) elections, India's lower house of Parliament.[6] These affidavits contain sworn information provided by candidates about themselves and their families. We call this the General Election (GE) dataset. While compiling the GE dataset, we have greatly benefitted from the digitized version of the affidavits available at *Myneta* ("my leader"), an online portal managed by the Association for Democratic Reforms, which uses scanned copies of the affidavits to extract information from them. We have confirmed the accuracy of digital records for a small sample of randomly selected affidavits acquired directly from the Election Commission of India (ECI) website.

The GE data is the only data source that simultaneously offers information on both income and wealth for a household. Furthermore, to the best of our knowledge, this is the first study to examine the relationship between wealth and income using affidavit data. Of 16,097, as many as 8,888 contestants have not reported any information on income or wealth. It is worth mentioning that punishments for false and inaccurate reporting in election affidavits include fines, up to six months in prison, and exclusion from election contests. Therefore, most instances with missing information likely pertain to cases where the candidate's income falls below the ₹2.5 lakh threshold for filing an ITR. Observations with missing income have been excluded from our analysis.

Table 1: Key characteristics of the GE affidavit data

Indicator	Full Sample			Sample Covered in the Study		
	GE 2014	GE 2019	Overall	GE 2014	GE 2019	Overall
Candidates	8,187	7,910	16,097	3,639	3,570	7,209
Mean Age	47.13	47.05	47.09	50.11	49.90	50.00
Gender						
Male	7,518	7,177	14,695	3,348	3,247	6,595
Female	663	718	1,381	291	321	612
Others	6	6	12	0	0	0
Caste						
General Caste	5,480	6,290	11,770	2,761	2,939	5,700
Schedule Caste	2,087	1,191	3,278	666	473	1,139
Schedule Tribe	620	419	1,039	212	156	368

Source: Authors own calculations using 2014 and 2019 GE affidavit data.

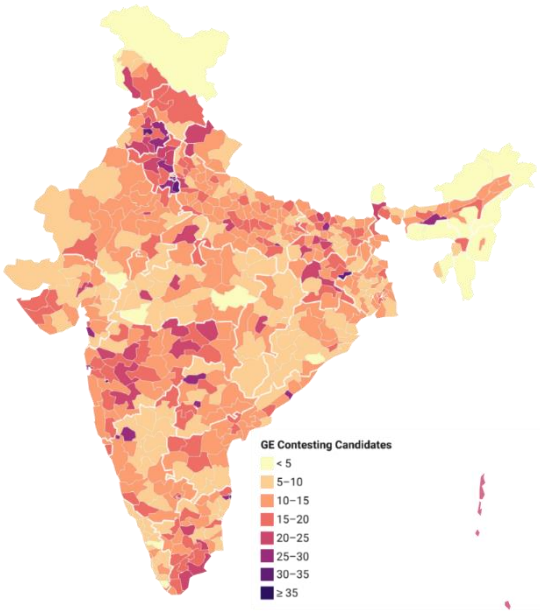
Information on income and wealth is available for the remaining 7,209 candidates. The 2014 and 2019 GEs each account for roughly half of these observations. Specifically, the partial sample used in the study comprises only candidates who have declared wealth as well as income in their affidavits. All the data, plots and tables produced henceforth correspond only to this partial sample, and are based on computations performed by the authors. The demographic characteristics of the candidates are presented in Table 1 above. As can be seen, the gender and

[6] It is only since 2011 that the ECI has mandated election contestants to disclose their assets, liabilities, and income. As a result, only affidavits filed in the last two GEs, i.e., those held in 2014 and 2019, are suitable for the purposes of this paper.

caste distributions from the two GEs are very similar, while the average age of the candidates is identical.

Because some Lok Sabha seats are reserved for members of Scheduled Castes (SC) and Scheduled Tribes (ST), these socially disadvantaged (and historically economically backward) sections of society are proportionately represented in the sample. Moreover, the dataset covers a wide range of educational levels and occupations, including landless labourers, farmers, craftsmen, and landlords in rural areas; wage workers, the self-employed, and businesspersons in urban centres, as well as professionals, CEOs, and promoters of large corporations. Furthermore, as can be seen in Figure 1, the geographical distribution of the candidates included in this study is reasonably representative of the Indian landscape.

Figure 1: Distribution of GE candidates across parliamentary constituencies in India



Note: Candidates from both 2014 and 2019 GEs are pooled together for each parliamentary constituency.

We define a candidate's wealth as the market value of all assets, net of their total financial liability. A family's wealth is the sum of the wealth of all its members minus total liabilities. The GE dataset provides information on the value of the assets as well as dues owed by candidates and their families. Table 2 describes the assets and liabilities reported in the affidavits, and their broad classifications.

Table 2: Categorisation of GE assets and liabilities

Type	Category	GE affidavit data
Assets	Land	Agricultural Land + Non-Agricultural Land
	Durables	Motor Vehicles + Other assets, such as values of claims/interests
	Buildings	Commercial Buildings + Residential Buildings + Other Immovable Assets
	Equity	Bonds, Debentures and Shares in companies and firms
	Deposits	Cash + Deposits in Banks, Financial Institutions and Non-Banking Financial Companies + National Saving Scheme, Postal Savings, etc. + Life or other Insurance Policies
	Jewellery	Gold and Jewellery
	Receivable	Personal loans/advance given

Liabilities	Liabilities from bank & individual	Loans from Banks/FIs + Loans due to Individual/Entity + Any other Liability
	Government Dues	Dues to departments dealing with (government accommodation + supply of water + supply of electricity + telephones + supply of transport) + Income Tax Dues + Wealth Tax Dues + Service Tax Dues + Property Tax Dues + Sales Tax Dues + GST Dues + Any Other Dues

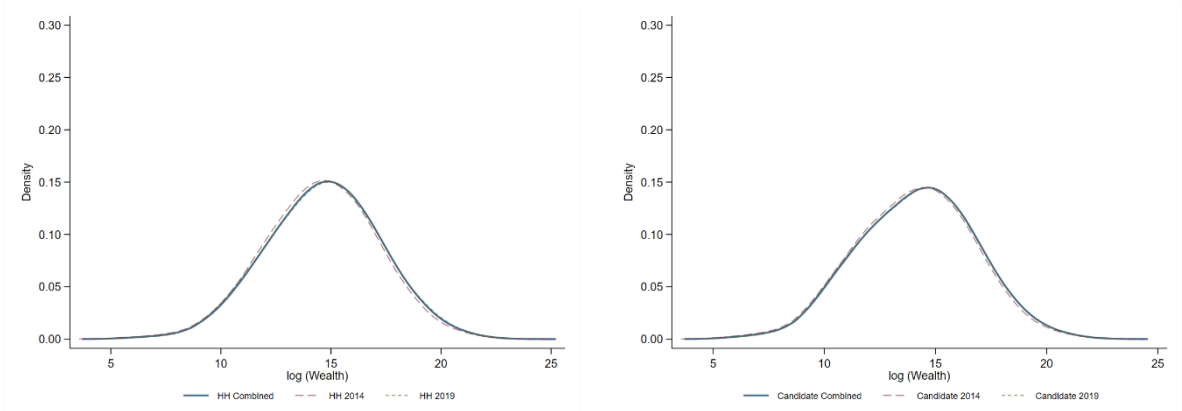
As far as the income reporting requirement is concerned, the candidates are required to declare the 'total income' (TI) reported in their ITR forms. Wherever relevant, a candidate must also declare this income for their spouse and dependent(s).

To present an overall picture, we combine wealth and income data from the 2014 and 2019 GEs. The GDP deflator is used to adjust wealth and income levels to March 2019 prices. For this purpose, we take the value of the adjusted deflator sourced from the Federal Reserve Economic Data[7] in January–March 2014 (around 97.28) and during January–March 2019 (around 112.35). Our main findings, however, are consistent for both combined and un-combined data from the two GEs.

Figures 2 and 3 present the kernel density plot for the log of wealth and the log of income declared by the candidates in the partial sample. The declared values cover a wide range and resemble a normal distribution, with wealth ranging from less than ₹-30 crore (i.e., a negative wealth or debt) to more than ₹4,613 crores, and annual income varying from a minimum of ₹51 to ₹124 crores. Approximately 80% of the candidates/households (HH) reporting income declared income above the taxable threshold of ₹2.5 lakhs. The average wealth and income are higher for 2019 than for 2014.

Figure 2: Wealth density plots for GE data

(a) Household (b) Candidate

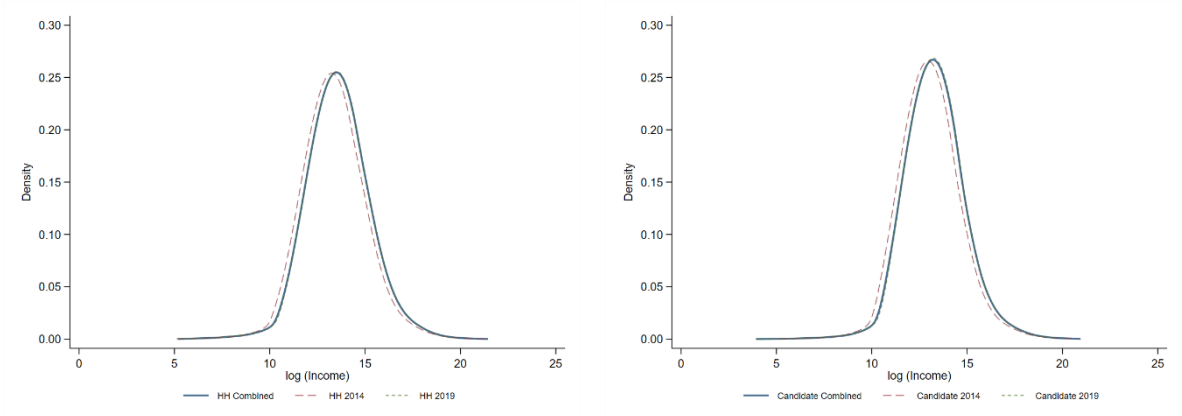


Note: Density plots for log (Wealth) are based on the Epanechnikov kernel function

[7] GDP Implicit Quarterly Price Deflator in India, retrieved from FRED, Federal Reserve Bank of St. Louis

Figure 3: Income density plots for GE data

(a) Household (b) Candidate

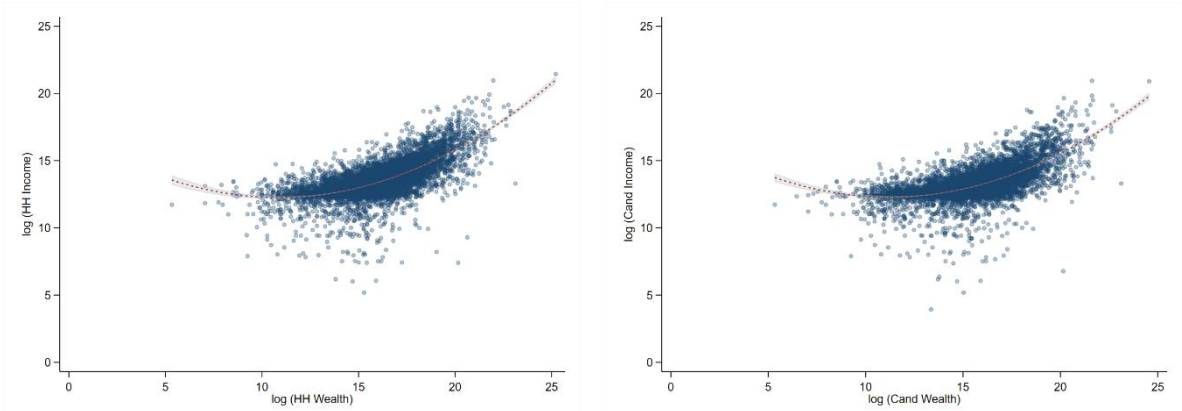


Note: Density plots for log (Income) are based on the Epanechnikov kernel function

Figure 4 below presents scatter plots for the log of wealth and the log of income declared by candidates. As expected, on average, larger wealth is associated with higher income. In the subsequent sections, we will examine in detail the relationship between income and wealth for various subgroups in the sample.

Figure 4: Scatter plots of wealth and income for GE data

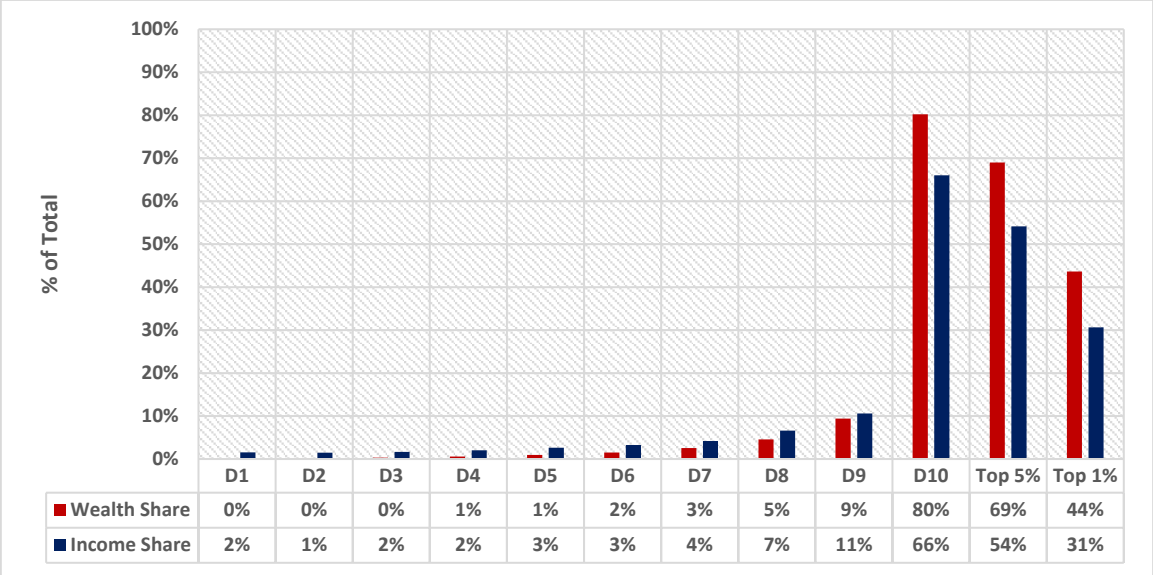
(a) Household (b) Candidate



Note: Quadratic prediction curve is fitted into the scatter plot with 95% confidence interval.

There is an acute concentration of income and wealth at the top. As is evident from Figure 5, the top 10% of the wealthiest candidates own 82% of the overall wealth and 68% of total income in the dataset. Even within the top wealth decile, wealth and income are highly concentrated, with the richest 5% accounting for 71% of total wealth and 56% of total income. The wealthiest 1% own 46% of all wealth and 32% of total income.

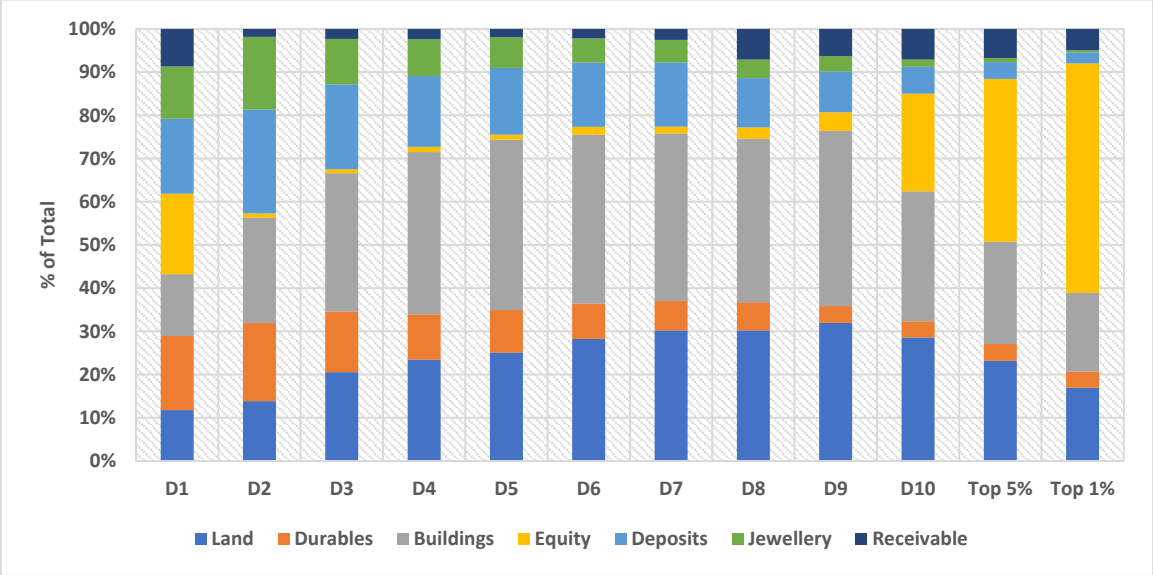
Figure 5: Distribution of household income and wealth across wealth deciles



	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	Top 5%	Top 1%
Wealth Share	0%	0%	0%	1%	1%	2%	3%	5%	9%	80%	69%	44%
Income Share	2%	1%	2%	2%	3%	3%	4%	7%	11%	66%	54%	31%

Figure 6 below illustrates the allocation of average assets to different buckets such as real estate, financial assets, jewellery, receivables, and durables by different wealth groups. For the households in the bottom 50% of the wealth distribution, land and buildings account for one-half of total assets. However, among the top wealth groups, i.e., the top 5% and 1%, equity dominates the assets class.

Figure 6: Decomposition of HH assets across wealth deciles



It is important to clarify that we do not employ GE data to estimate wealth and income distributions, but instead use the data only to investigate the association between reported wealth and income.

3. Estimating the Reported Income and Wealth: Methodology

As mentioned earlier, our definition of wealth includes all assets, including consumer durables, gold, and jewellery, and is consistent with previous research studies[8] based on election affidavits data.[9] GE affidavits contain exact information on the value of total assets and liabilities of candidates and their family members. However, it is challenging to acquire information on the share of family members for a particular type of asset or liability. Hence, in the view of this limitation, we consider candidate wealth as the total value of assets, including consumer durables, gold, and jewellery.

As to the income, we consider two versions of the reported income: 1) the total income reported as taxable by candidates; and 2) their net taxed-in-hand income (which is the net income on which tax has been paid). In the terminology of ITR forms, the first is called the *Gross Total Income* (GTI) while the second is termed as the *Total Income* (TI). The relationship between the two types of income is:

Total Income (TI)= [Gross Total Income (GTI)] *minus* [Exemptions and Deductions]

In other words, the GTI is the total income that is treated as taxable, in principle. This includes salary and wages, interest income, rents, professional income, profits from firms and companies, and other sources of taxable income. However, a part of GTI goes untaxed because of various tax exemptions and deductions available to taxpayers.[10] The amount remaining after exemptions and deductions have been accounted for is the TI, i.e., the net income that actually gets taxed.

Put differently, while the GTI includes parts of the income that qualifies as a 'deduction' or an 'exemption' and hence is not finally subjected to taxation, the TI does not include them. For example, if a taxpayer reports ₹10 lakhs as her taxable income, his GTI is ₹10 lakhs. If she claims tax deductions or exemptions amounting to ₹2.4 lakhs, her net taxed-in-hand income, i.e., his TI, is ₹7.6 (₹10 – ₹2.4 lakhs).

GE affidavits only provide information on the TI for candidates and their families and not the GTI as candidates are only mandated to declare the former in their ITR forms.[11] Thus, if the taxpayer in the above example were to contest an election, the income reported in her affidavit would be ₹7.6 lakhs, even though in the ITR form she would report a taxable income of ₹10 lakhs.

As the deductions and exemptions availed can differ across individuals, depending on their investment and other tax-saving decisions, there is no direct way to infer the GTI from the TI reported in the affidavits. Also, there are no alternative sources of information on the GTI declared by candidates (or any taxpayer) on their ITRs as this is confidential information.

[8] See Fisman et al. (2014) and Asher et al. (2019)

[9] Our definition is somewhat broader than the definition used by the System of National Accounts (United Nations, 2009) which does not include durables, gold, and jewellery. The average share of these assets is around 9% for households. At the top wealth levels, their share is negligible.

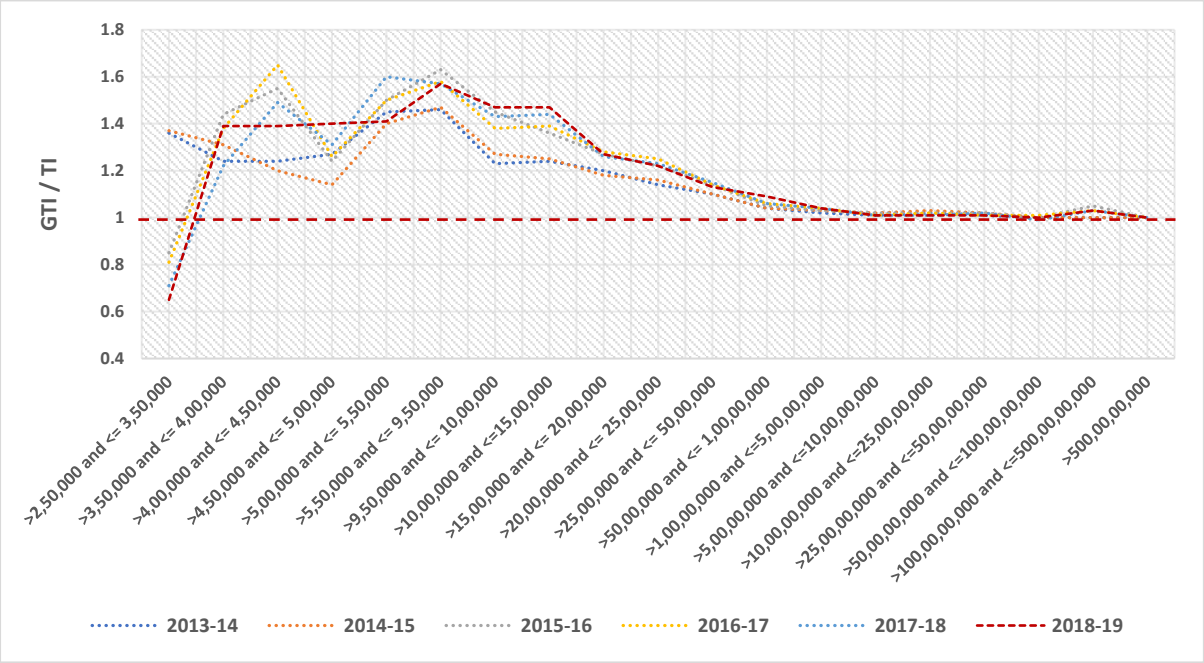
[10] Deductions amounting to ₹2.5 to ₹4.5 lakhs can be availed depending on the investment decisions of the taxpayer.

[11] Generally, no income is reported for individuals who do not file ITRs.

To estimate the GTI for candidates and their families, we use the statistical abstracts published by the CBDT, which combines the GTI and TI reported in tax return forms and publishes them as averages for different income groups. These statistics include the number of taxpayers in the different income categories and their average GTI and TI. We use statistics published for the category of 'Individuals'.

Figure 7 shows the relationship between the average TI and the GTI reported by the different income groups above the taxable income threshold of ₹2.5 lakhs.[12] Six plots in the figure pertain to the six assessment years (AY) from 2013-14 to 2018-19. The first of these assessment years is relevant for the income and wealth reported for the 2014 GE, and the last year applies to the data reported for the second GE studied by us.[13]

Figure 7: Relationship between the average TI and the GTI for different income groups



Note: (a) Income ranges are as per the TI in the CBDT data; (b) The ratio for an income range is calculated by summing and dividing the GTI and TI for that income bracket; (c) For an income range less than or equal to ₹3.5 lakhs, the ratio value of 1.39 is used instead of the computed value, which is less than 1.

As can be seen in Figure 7, the relationship remains consistent across the assessment years. At the low- and middle-income levels, the two types of income can be very different, as tax deductions account for a substantial fraction of the taxable income reported by these groups. If we consider the income category between ₹15 to 20 lakhs, for AY 2018-19, the average TI is only 73% of the GTI, i.e., deductions account for 27% of the reported GTI. On the other hand, deductions are a relatively minor portion of the GTI for the high-income brackets and for these, the levels of the two kinds of income are approximately equal. For taxpayers with taxable income over ₹5 crores, their TI and GTI are approximately equal.

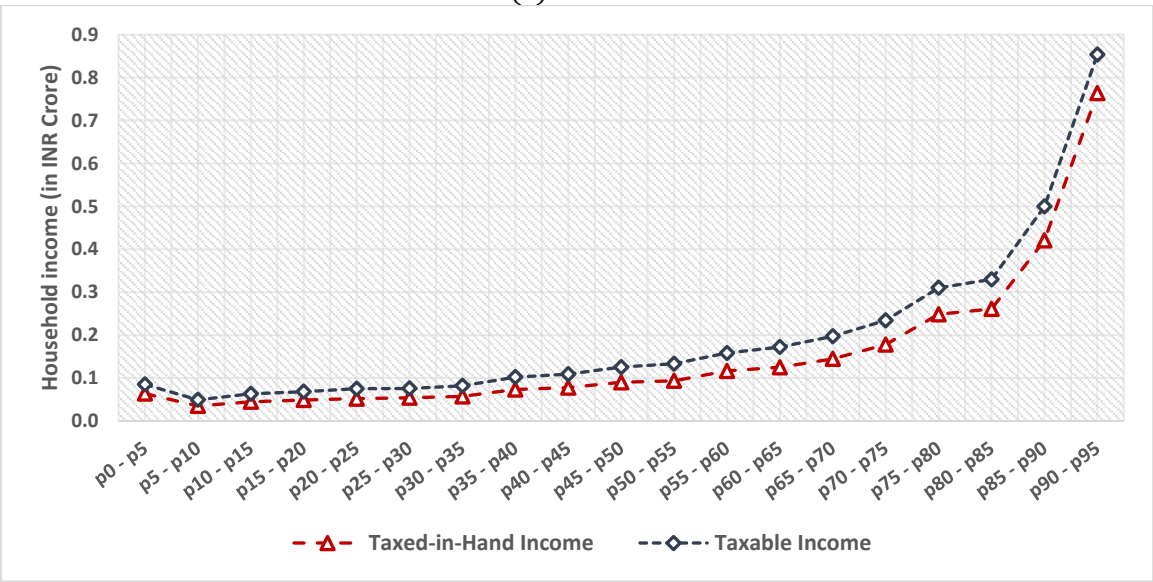
To estimate the total taxable income, we use the relationship between the GTI and the TI for AY 2018-19. This choice is in line with our approach towards price normalisation whereby we have converted the income and wealth reported in the affidavits from both GEs into the equivalent of

[12] As mentioned above, as much as 83% of candidates and 87% of households with reported income have a TI of over ₹2.5 lakhs.
[13] Statistics beyond this period have not been released as of May 2022.

March 2019 prices. A HH's GTI is considered the sum of the estimated GTI of all its members. Figure 8 shows the plots of the TI and GTI of candidates and HHs from across all wealth groups in our dataset. As expected, both types of incomes are increasing functions of wealth.

Figure 8: Average TI and GTI of candidates and HHs across wealth groups

(a) Household



(b) Candidate

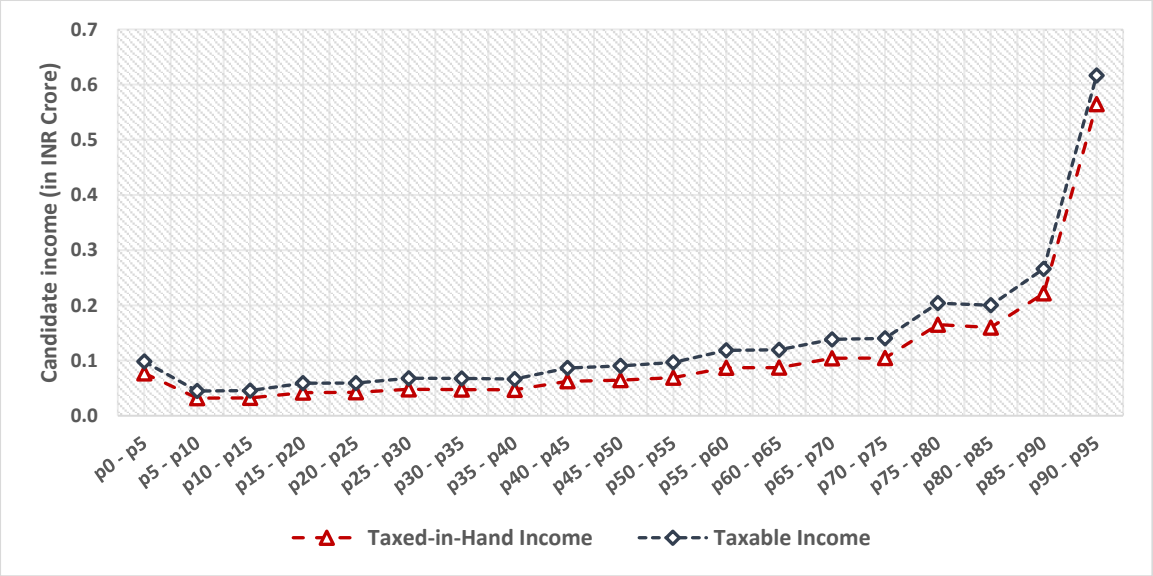
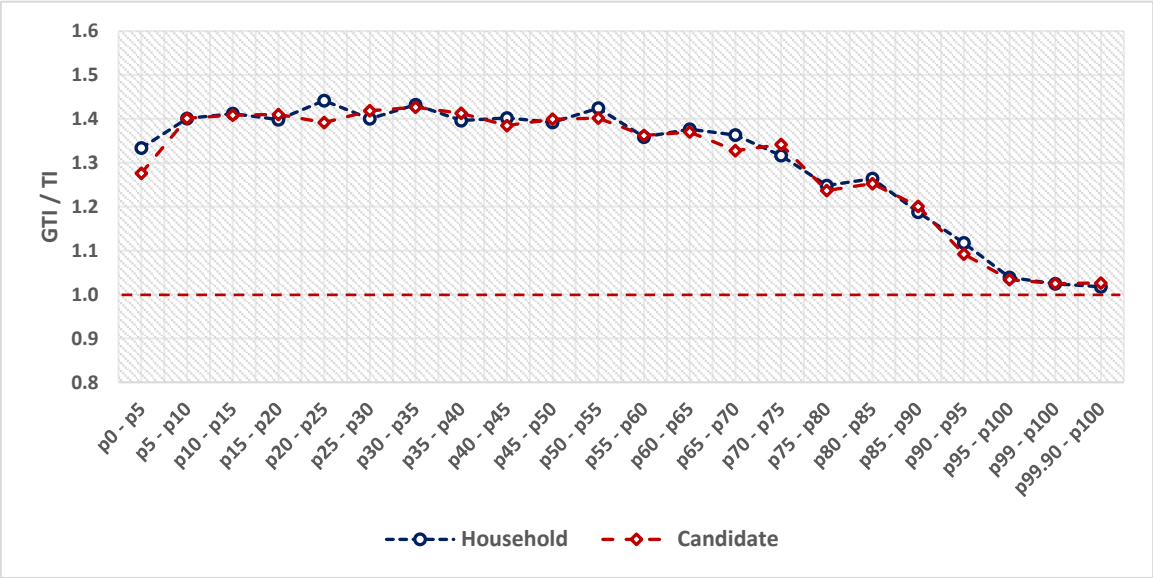


Figure 9 shows plots of the estimated GTI as a ratio of the TI for candidates and HHs from different wealth groups in our dataset. It is evident that for low- and medium-wealth groups, the GTI as a ratio of TI is greater than one, as their GTI is much higher than their TI. However, this difference decreases with wealth and at the top wealth levels, the ratio approaches one, indicating that the tax deductions claimed by wealthy groups are tiny compared to their income levels.

Figure 9: The relationship between the estimated GTI and TI across wealth groups



4. Decreasing Income-Wealth Ratios

In this section, we report our findings on the relationship between the reported wealth and the two versions of the income discussed above. In the previous section, we saw that the wealthier the individual or HH, the higher is their reported income. However, if we compare reported income to wealth, we get interesting patterns. On average, the wealthier a candidate is, the lesser is the income they declare relative to their wealth, and vice versa. In other words, the income-wealth ratio reported by the candidates drops as wealth increases. Patterns for HHs are very similar to the candidates.'

We use two alternative methods to compute the income-wealth ratio. For the first method (approach 1), we compute the ratio for different wealth groups, such as the wealthiest 1%, the wealthiest 5%, the least wealthy 10%, and so on. Under this approach, the income-wealth ratio for the wealthiest 1% is computed as the total income reported by the group as a whole divided by the total wealth of the entire group. Ratios for the other groups are computed similarly.

For an easy illustration, assume a wealth group has only two candidates or HHs. Let the first individual's income and wealth be 1000 and 100 respectively. Let the second person's comparable figures be 1600 and 2500. So, the income wealth ratio of the group will be $\left(\frac{1000+1600}{100+2500}\right) = \left(\frac{2600}{2600}\right) = 1$. That is, the reported income is equal to (i.e., is 100% of) the reported wealth.

For the second method (approach 2), we compute the income-wealth ratio at the unit level, i.e., for each candidate individually. The income-wealth ratio for a wealth group is then calculated as the average of the group's individual income-wealth ratios. For the above example, the individual levels ratios are $\frac{1000}{100} = 10$ and $\frac{1600}{2500}$=0.64 respectively. So, under the second approach, the group level ratio will be: $\frac{10+0.64}{2} = 5.32$.

It is easy to see that the second method is more vulnerable to fluctuations in individual income levels, especially at low wealth levels. Otherwise, the two approaches generate very similar results. As is shown below, the income-wealth ratios decrease as wealth increases, regardless of the method employed and the version of the income used to compute the ratio.

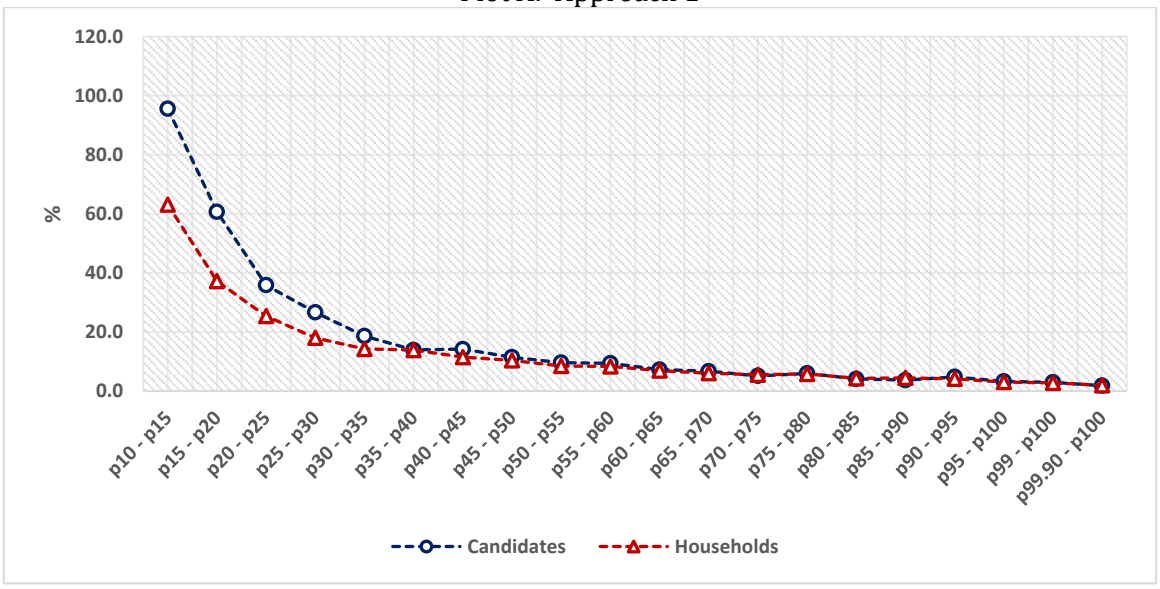
4.1 The Taxed-in-Hand Income (Total Income or TI)

Now we present our findings on the taxed-in-hand income (TI) as a ratio of the reported wealth. The results presented here are for the combined data for the two GE years. Separately too, results for the 2014 and 2019 GEs are very similar and are available on request.

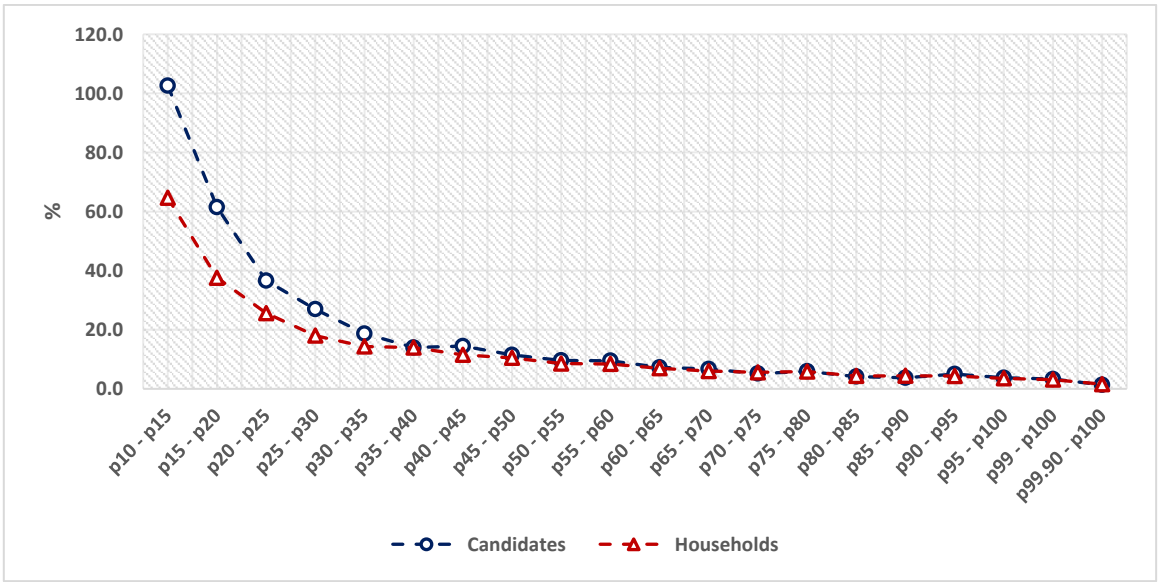
As can be seen from Table 3, except for the bottom 5%, the two methods produce comparable values of the ratio. Figure 10 shows income-wealth ratio plots based on values generated by both methods. In the interest of clarity of exposition, plots in the figure omit the bottom 10% of candidates and HHs.

Figure 10: Taxed-in-Hand Income as a % of wealth across wealth percentile

Plot A: Approach 1



Plot B: Approach 2



The differences in the ratios for the least wealthy 5% arise on account of highly heterogeneous income levels for this group. At extremely low wealth levels (or even "negative" wealth in several cases), fluctuations in income result in erratic jumps in the income-wealth ratios across individuals and HHs. As the second method is more vulnerable to such fluctuations, depending on

the individual ratios it can induce relatively large values of the average income-wealth ratio. On the other hand, the negative income-wealth ratio generated by approach 1 for the bottom 5% is attributable to a negative aggregate wealth for this group, which indicates that for the aggregate group, liabilities exceed collective assets.

Excluding the bottom 5%, the value of the taxed-in-hand income reported by the next least wealthy group (specifically, the 5–10 percentile) is at least 300% of their wealth, i.e., the average reported income is around three times their wealth. The ratio falls continuously and sharply for wealthier groups, dropping to less than 6% for the wealthiest quarter of the candidates, and eventually to 1.8% for the top 0.1%. In other words, for 0.1% of the most affluent candidates, the taxed-in-hand income is less than 2% of their fortune.

Table 3: Taxed-in-hand Income as a % of wealth across wealth percentile

Wealth percentile	Candidates			HH		
	Avg. wealth (in ₹)	Approach 1	Approach 2	Avg. wealth (in ₹)	Approach 1	Approach 2
p0–p5	-5,506,599	-14.0	814.5	-3,962,264	-16.1	737.0
p5–p10	106,764	299.3	365.0	289,908	121.4	134.1
p10–p15	338,009	95.5	102.6	710,167	63.1	64.7
p15–p20	690,152	60.7	61.5	1,315,700	37.2	37.6
p20–p25	1,184,776	35.8	36.6	2,056,127	25.4	25.6
p25–p30	1,793,655	26.7	26.9	3,005,114	18.0	18.0
p30–p35	2,546,757	18.6	18.7	4,019,816	14.3	14.3
p35–p40	3,376,101	13.9	14.0	5,282,231	13.9	14.0
p40–p45	4,405,778	14.2	14.5	6,783,621	11.5	11.5
p45–p50	5,629,287	11.5	11.5	8,674,124	10.4	10.5
p50–p55	7,183,709	9.6	9.6	11,027,253	8.5	8.5
p55–p60	9,250,735	9.4	9.5	13,967,079	8.3	8.4
p60–p65	11,991,223	7.3	7.3	18,142,221	6.9	6.9
p65–p70	15,517,620	6.7	6.7	23,960,570	6.0	6.0
p70–p75	20,355,343	5.1	5.2	32,238,026	5.5	5.6
p75–p80	27,492,309	6.0	5.9	42,860,406	5.8	5.8
p80–p85	38,855,990	4.1	4.1	60,533,677	4.3	4.4
p85–p90	60,291,498	3.7	3.7	93,946,888	4.5	4.4
p90–p95	117,341,304	4.8	5.0	183,624,988	4.2	4.3
p95–p100	790,036,219	3.3	3.7	1,131,648,143	3.1	3.5
p99–p100	2,512,734,793	3.0	3.3	3,576,561,477	2.8	3.1
p99.90–p100	11,417,178,400	1.8	1.3	18,062,750,336	1.9	1.6

Note: Units in the top 1% (p99–p100) and 0.1% (p99.9–p100) are also a subset of observations in the top 5% (p95–p100)

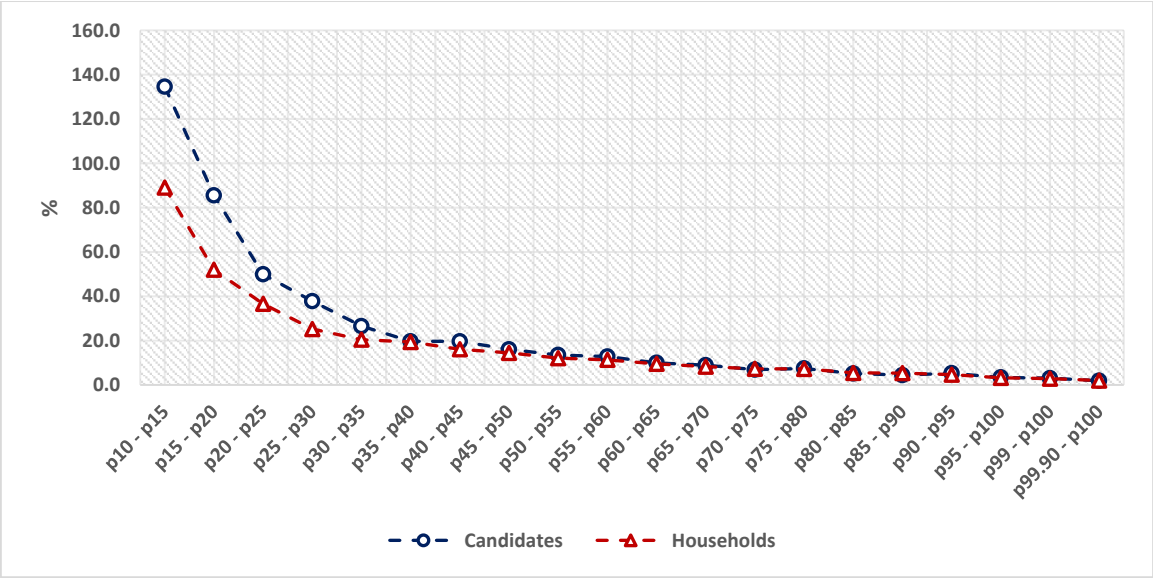
4.2 The Total Taxable Income (Gross total income or GTI)

As explained in Section 3, the GTI is the total income reported by taxpayers as their taxable income, which is inclusive of the tax deductions and exemptions available to them. It can be seen from Figure 11 that even after factoring in tax exemptions and deductions, the reported value of the total taxable income as a ratio of wealth is decreasing in wealth, i.e., candidates' taxable

income as a fraction of their wealth declines sharply as their wealth increases. On average, the wealthier a candidate is, the lesser is the taxable income they report.

Figure 11: Reported Taxable Income as a % of wealth

Plot A: Approach 1



Plot B: Approach 2

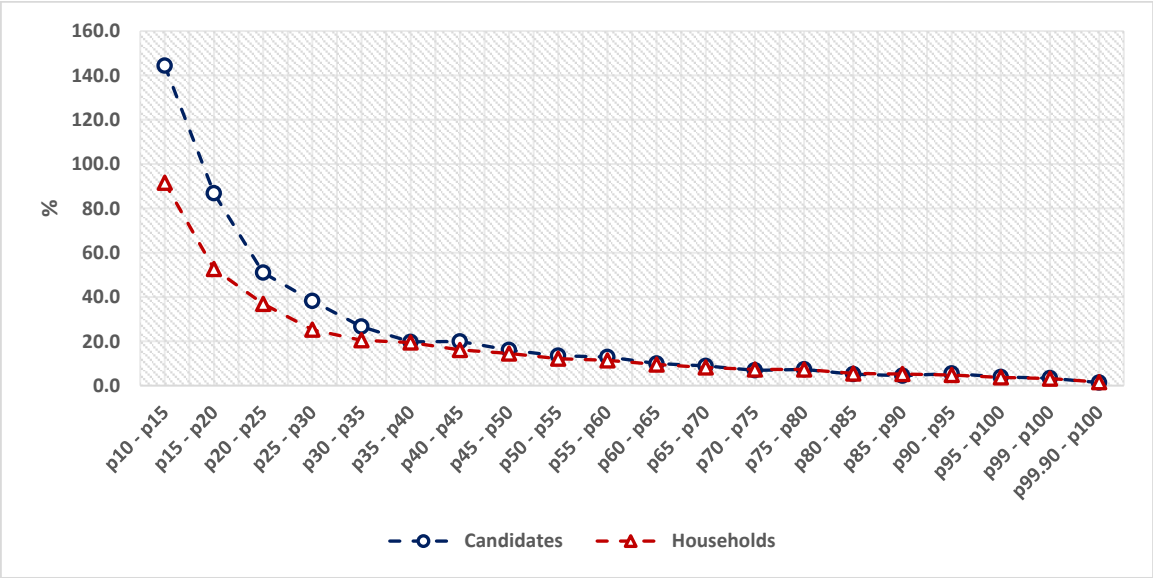


Table 4 indicates that both approaches produce comparable results and trends, except for the least wealthy group. The reasons behind the difference in the average ratios for this group are the same as for the taxed-in-hand income.

As can be seen from Table 4, even after accounting for tax deductions and exemptions available to low-wealth groups, the value of the taxable income reported by the bottom 5–10% candidates is 420% or 4.2 times their wealth. In contrast, the taxable income reported by the 5% wealthiest candidates amounts to only 3.4% of their wealth. The ratio drops to very low levels as one moves further up the wealth pyramid. The income reported by the wealthiest 0.1% of candidates is less than 2% of their wealth. The trends and values of the income-wealth ratios reported by the HHs are comparable to the candidates'.

Table 4: Total Taxable Income as a % of wealth across wealth percentile

Wealth percentile	Candidate		HH	
	Approach 1	Approach 2	Approach 1	Approach 2
p0–p5	-17.8	1167.6	-21.5	1039.9
p5–p10	419.5	509.7	170.0	188.4
p10–p15	134.6	144.4	89.1	91.6
p15–p20	85.5	86.8	52.0	52.7
p20–p25	49.9	51.0	36.6	36.9
p25–p30	37.8	38.2	25.2	25.3
p30–p35	26.5	26.6	20.4	20.5
p35–p40	19.7	19.7	19.4	19.5
p40–p45	19.7	20.0	16.1	16.1
p45–p50	16.0	16.1	14.5	14.5
p50–p55	13.5	13.5	12.1	12.2
p55–p60	12.8	12.9	11.3	11.4
p60–p65	10.0	10.0	9.5	9.6
p65–p70	8.9	8.9	8.2	8.2
p70–p75	6.9	6.9	7.3	7.3
p75–p80	7.4	7.3	7.2	7.3
p80–p85	5.2	5.2	5.5	5.5
p85–p90	4.4	4.5	5.3	5.3
p90–p95	5.3	5.5	4.6	4.8
p95–p100	3.4	3.9	3.2	3.7
p99–p100	3.0	3.4	2.8	3.2
p99.90–p100	1.9	1.4	2.0	1.6

Note: Units in the top 1% (p99–p100) and 0.1% (p99.9–p100) are a subset of observations in the top 5% (p95–p100)

5. Missing income at the top

Our findings show that the income reported by the wealthiest individuals and households is only a tiny fraction of their wealth. In contrast, less wealthy individuals report comparatively higher income. Consequently, the income-wealth ratio decreases with individual wealth and thus, the wealthiest candidates are not necessarily those that report the highest incomes. For instance, out of the wealthiest 100 candidates, only 31% declared incomes that figured in the top 100 income levels reported in the data (see Table 5).

Table 5: Income rank of the top 100 wealthiest candidates and households

Income rank	% Top 100 wealthiest candidates	% Top 100 wealthiest HHs
Top 100	31	34
101–200	20	22
201–300	7	10
Greater than 300	42	34

On average, the wealthier an individual is, the lower is their reported income relative to their wealth. This is also true for family incomes vis-à-vis HH wealth. The decreasing trend in the

income-wealth ratio is consistent across the two versions of income and two the estimation techniques used by us.

On reflection, these findings are not entirely surprising. For individuals and HHs at the bottom of wealth pyramid, the income-wealth ratio tends to be high since these groups have negligible wealth, but their income is high relative to their wealth. The opposite tends to be true at the top of the pyramid, leading to a low ratio for wealthy groups. For instance, consider a landless rural family whose wealth consists only of a tiny house worth ₹40,000 and who lives off an annual wage income of ₹2 lakhs. For this household, the income is 500% of the family wealth. In contrast, consider an ultra-wealthy family with ₹10,000 crores of equity assets as its wealth. Assume the rate of total returns on the equity is 15% (a high rate of return, by all means). Even if this household earns another ₹500 crores as labour income, its cumulative income-wealth ratio will be $0.2 = (1500+500)/10{,}000$, i.e., the family income will be just 20% of its wealth.

Income-wealth ratios are thus expected to be high at low wealth levels and relatively low for wealthy groups. However, the taxable income reported by wealthy groups via-a-vis their wealth seems to be inexplicably small and appears to be rather low even if we ignore their labour income and consider just the returns they enjoy from their capital.

For 2013–19, i.e., the period covered by this study, capital income accounted for more than 40% of the national income.[14] In this period, the national income was 18–20% of the national wealth, most of which was private wealth.[15] Simply put, during this period, the average returns on private wealth was at least 7.2% ($= 0.4 \times 0.18 \times 100$). During this period, one could easily get this kind of return even from fixed deposit accounts with commercial banks. Even at the time of writing in 2022 when the interest rates are relatively low, the returns from fixed deposits can easily be more than 6% of the amount invested. In other words, for people with most of their wealth held as fixed term deposits, the ratio of the taxable income to their wealth would be at least 5–6% even if we assume that they earned nothing by way of wages or other forms of labour income. mutual funds and equity investments offer even higher returns, often upward of 8–9%.

The wealthy have a much larger share of high-risk-high-returns assets in their investment portfolio. Less wealthy people, on the other hand, tend to invest more in low-risk and low-return assets such as bank deposits.[16] Therefore, the rate of return on capital must be significantly higher for wealthy groups than for those at middle and low wealth levels. This implies that the average rate of return on capital enjoyed by wealthy groups should be higher than the national average of 7.2%, which in turn is expected to be higher than the rate of returns for those at the bottom of the wealth pyramid. Moreover, we should bear in mind that most of the wealth belonging to affluent groups is held in the form of income-yielding assets such as equity, commercial buildings, and land. In contrast, the share of income-yielding assets tends to be small for low- and medium-wealth groups (see Figure 6 in Section 2).

Simply put, for top wealth groups, the capital income should be higher than 7.2% of their wealth. The total income should include labour income in addition to the capital income. This means that the total income of the affluent groups has to be significantly more than 7-8% of their wealth.

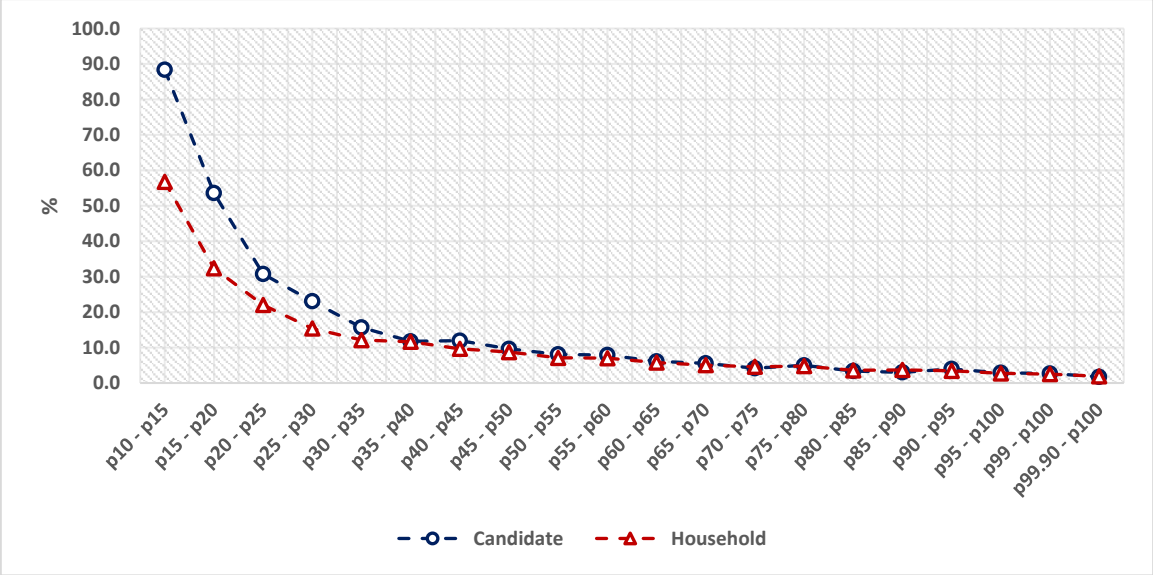
By contrast, our findings show that the income reported by the wealthiest 20% of individuals and HHs is less than 5% of their wealth. The total taxable income reported by the wealthiest 0.1% is less than 2% of their wealth. If we use the national average of the rate of returns as a point of comparison, the income reported as taxable by the wealthiest 0.1% amounts to less than $1/4^{th}$ of

[14] See FRED Economic Data (2022). The ILO (2018) put wage share at 35.4% in 2013.
[15] See Chancel et al. (2022).
[16] See Carroll (2000), Bach et al. (2020), and Fagereng et al. (2020).

the returns from their wealth. If we factor in labour income, the reported taxable income is an even smaller fraction of their income!

Before concluding this section, we should account for the possible underreporting of wealth, which is possible mainly for tangible assets such as land and buildings. Several studies have established that people tend to underreport land and property values.[17] The exact extent of underreporting is hard to estimate in the absence of information required for the purpose. However, as a robustness check, we revisit the ratios presented in Section 4 by simply inflating the declared values of land and buildings by 25%. We find that the income-wealth ratios are still decreasing in wealth (see Figure 12).

Figure 12: Taxed-in-Hand Income as a % of adjusted wealth



Note: a) Wealth is adjusted by inflating values of land and buildings by 25%; b) The bottom 10% of the observations are dropped to preserve the scale; c) Values are computed only via Approach 1, but the results are very similar for the alternative approach.

6. Concluding Remarks

In view of our findings in Sections 4 and 5, we have to ask: What explains the vast difference between the expected income of the wealthy groups on the one hand and the total income reported as taxable by these groups on the other?

This question is relevant for the income reporting behaviour of groups beyond politicians. Even though it is widely believed that politicians hide a large share of their income and wealth, several studies show that due to the media and official scrutiny they face, politicians may have stronger incentives to report their finances more truthfully than members of the general public.[18] It is thus quite possible that the underreporting of income by non-politician affluent groups is an even more serious issue. This hypothesis gains further credence due to media reports indicating that the wealthiest of Indians do not feature among the country's highest income taxpayers. In any case, given the tiny values taken by the income wealth ratios presented above, it is important to look into the possible channels of underreporting income.

[17] See Singh (2012).
[18] For a review of this literature, see Libman, Schultz & Graeber (2016), and Szakonyi (2020).

In principle, several factors can contribute to the difference between actual and reported incomes. That wealthy groups hide part of their true income is a possible explanation; however, this option is available to people from across the income spectrum. Moreover, most of the wealthy group's income is from formal channels, which limits the scope of underreporting.

Income reported under the "tax exempt" category can also account for the above-mentioned mismatch between the reported and actual incomes. Several income types — such as farm income — are allowed to be reported in the ITRs as tax-exempt. For wealthy groups, however, agricultural land is a small fraction of their portfolio (see Figure 6 in Section 2), so farm income would only be a tiny fraction of their total income and thus cannot be a significant factor behind the difference between their actual and taxable income.

During the period relevant for our study, dividend income up to ₹10 lakhs were also tax exempt in the beneficiary's hands. However, this tax-exempt amount is also a small fraction of the wealthy groups' total income that tends to run in the hundreds of crores and hence cannot explain the relatively low taxable income reported by this group.

Misreporting of income by the wealthy groups can be one of the reasons for the relatively low income declared by them. These affluent groups draw income from diverse sources and can (mis)report part of their taxable income tax as exempt farm income or profits from firms and partnerships. Though this option is available to individuals from across wealth categories, it is possible that the wealthy groups use this channel more effectively, given their large income levels. Further, non-agricultural land and commercial properties form a significant share of the asset portfolio of wealthy groups. The cash-based tent incomes often do not leave a verifiable trail of transactions and hence can be manipulated and underreported easily.

More importantly, tax avoidance by the affluent appears to be the leading factor behind the low values of the reported income relative to their actual income.[19] The wealthy are better at spotting and using loopholes in the complex tax regime applicable to capital income from equities and other financial assets. They can also afford to hire financial advisors to minimise their tax obligation.

To conclude, the main contribution of this study is to provide empirical evidence for the relatively low income reported by the wealthy groups. A detailed analysis of the above-mentioned channels of possible under- and misreporting of income by various wealth groups require information beyond what is available in the affidavits and tax statistics. Hopefully a future study will be able to more definitively identify reasons behind the missing income at the top.

References

Alstadsæter, A., Johannesen, N., Herry, S. L. G., & Zucman, G. (2022). Tax evasion and tax avoidance. *Journal of Public Economics*, 206, 104587.

Asher, S., & Novosad, P. (2019). Rent-seeking and criminal politicians: Evidence from mining booms. *The Review of Economics and Statistics*, 1-44.

Bach, L., Calvet, L. E., & Sodini, P. (2020). Rich pickings? Risk, return, and skill in household wealth. *American Economic Review*, 110(9), 2703-47.

[19] See Goolsbee (2000), Saez et al. (2019), Frijters et al. (2020), and Alstadsæter et al. (2022) for a discussion of how the wealthy utilise accounting gimmicks, financial instruments, and tax planning to avoid paying taxes.

Bhavnani, R.R. (2012). Using asset disclosures to study politicians rents: An application to India Annual bank conferences on development economics, Washington, DC 22.

Carroll, C. D. (2000). Portfolios of the Rich. National Bureau of Economic Research, Working Paper 7826, https://www.nber.org/papers/w7826

Chancel, Lucas, Piketty, Thomas., Saez, E., Zucman, G. et al. (2022) World Inequality Report 2022.

Datt, G., Ray, R., & Teh, C. (2021). Progressivity and redistributive effects of income taxes: evidence from India. *Empirical Economics*, 1-38.

Fagereng, A., Guiso, L., Malacrino, D., & Pistaferri, L. (2020). Heterogeneity and persistence in returns to wealth. *Econometrica*, 88(1), 115-170.

FRED Economic Data (2022). Share of Labour Compensation in GDP at Current National Prices for India. (Accessed on August 21, 2022).

Frijters, P., Gangl, K., & Torgler, B. (2020). How to tax the powerful and the sophisticated?. In *Behavioural Public Finance* (pp. 233-252). Routledge.

Fisman, R., Schulz, F., & Vig, V. (2014). The private returns to public office. *Journal of Political Economy*, *122*(4), 806-862.

Goolsbee, A. (2000). What happens when you tax the rich? Evidence from executive compensation. *Journal of Political Economy*, 108(2), 352-378.

ILO (2018). Global Wage Report 2018/19,

Lambert, P. J. (1993). Inequality Reduction Through the Income Tax. *Economica*, 60(239), 357–365.

Lehne, J., Shapiro, J. N., & Eynde, O. V. (2018). Building connections: Political corruption and road construction in India. *Journal of Development Economics*, 131, 62-78.

Libman, A., Schultz, A., & Graeber, T. (2016). Tax return as a political statement. *Review of Law & Economics*, *12*(2), 377-445.

Pulin B. Nayak, & Satya Paul. (1989). Personal Income Tax in India: Alternative Structures and Their Redistributive Effects. *Economic and Political Weekly*, 24(50), 2779–2783.

Saez, E., & Zucman, G. (2019). The triumph of injustice: how the rich dodge taxes and how to make them pay (First). W.W. Norton & Company.

Singh, R. (2012). Inefficiency and Abuse of Compulsory Land Acquisition. *Economic and Political Weekly*, 14-17. 46-53.

Szakonyi, D. (2020). Indecent Disclosures: Anticorruption Reforms and Political Selection. *American Journal of Political Science*.

United Nations (2009). System of National Accounts 2008, https://unstats.un.org/unsd/nationalaccount/docs/sna2008.pdf (Accessed on August 21, 2022).