Demographic Reconstruction and Electoral Roll Inflation: Estimating the Legitimate Voter Base in Bihar, India (2025)

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Abstract

This paper presents a demographic reconstruction of the legitimate voter base in the Indian state of Bihar for the year 2025. Motivated by concerns over the integrity of electoral rolls in high-migration regions, we develop a three-part accounting framework grounded in official data sources. We estimate the number of surviving voters from the 2003 post-intensive review electoral roll using age-cohort-specific mortality rates; we then add new eligible voters born between 1985 and 2007, adjusting for survival to 2025; and finally, we deduct net permanent outmigration over the 2003–2025 period. Using conservative assumptions throughout, we find that the number of legitimate voters stands at approximately 7.12 crore, compared to the official roll of 7.89 crore, implying an inflation of 9.7 percent.

JEL Classification: D72, J11, R23, O15

Keywords: Electoral Roll, Voter Inflation, Bihar, Migration, Demographic Accounting, Electoral Integrity

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1 Introduction

Free and fair elections are the cornerstone of any democratic polity, and the integrity of the electoral roll is foundational to that ideal. The voter list not only defines the eligible electorate but also serves as a determinant of turnout rates, mandate legitimacy, and political representation. An inflated or inaccurate roll can distort all downstream indicators of democratic health, facilitating both unintentional error and deliberate manipulation.

In India, voter registration is conducted by the Election Commission through periodic revision processes. While commendable efforts have been made to expand enfranchisement, significant concerns remain about the quality of maintenance, especially in states with high levels of demographic mobility. Bihar presents a critical case in this regard. It is one of India's largest states by population and one of the highest by net outmigration. Despite these structural features, the voter roll has historically seen limited systemic correction outside the occasional intensive review.

This paper seeks to develop an independent demographic reconstruction of Bihar's legitimate voter population in 2025. Rather than relying on official enumeration or interpolation from past rolls, we employ a bottom-up accounting identity anchored in population demography. Using official sources and conservative assumptions, we estimate: (i) survivors from the 2003 electoral roll, (ii) additions from birth cohorts turning 18 between 2003 and 2025, and (iii) a downward adjustment for net permanent outmigration. This model yields an evidence-based benchmark against which the inflation in Bihar's current electoral roll can be gauged.

Our contribution is both empirical and methodological. Empirically, we provide the first rigorous demographic estimate of voter eligibility for a state with significant administrative and demographic challenges. Methodologically, we present a replicable approach to electoral roll validation that is grounded in official datasets, making it accessible for broader policy evaluation. The findings have implications for both electoral governance and future efforts to modernize voter registration systems in India.

2 Literature Review

The integrity of electoral rolls has emerged as a critical concern within the broader literature on democratic accountability and electoral administration. Inaccuracies in voter lists - whether due to inclusion errors such as phantom voters or exclusion errors such as disenfranchisement-can distort electoral outcomes and erode trust in democratic institutions [Birch, 2011, Lehoucq, 2003]. These concerns are particularly acute in lower- and middle-income countries, where institutional capacity constraints, weak identity systems, and high rates of internal migration compound administrative challenges [James, 2014].

2.1 Electoral Roll Integrity: Global Evidence

Research across diverse democratic contexts reveals substantial and systematic electoral roll inaccuracies. In Ecuador, Mafla and Gallardo [2018] found 20% over-registration and 27% under-registration, attributing these discrepancies to deceased individuals remaining on rolls, missing migrants, and weak civil registration systems. Similarly, Hidalgo and Nichter [2016] documented how voter buying in Brazil inflated electoral rolls, with subsequent audits reducing electorate figures by 12 percentage points and mayoral reelection rates by 18 percentage points.

In West Africa, Piccolino [2016] identified contrasting patterns: Côte d'Ivoire exhibited less than 73% coverage due to under-registration, while Ghana suffered from 1.5 million phantom voters representing over-registration. Both cases demonstrated how administrative deficiencies and politicization of citizenship criteria undermine roll accuracy. The introduction of electronic systems in Benin improved legibility but faced persistent technical and administrative limitations [Piccolino, 2015].

2.2 The Indian Context: Structural Challenges

In the Indian context, studies have examined electoral roll quality and maintenance processes. Retnakumar [2009] reported that 20 million extra electors appeared on Indian rolls in 2004 due to state-level anomalies, emphasizing the need for improved roll maintenance and demographic audits.

The challenge of migrant registration has received particular attention. Gaikwad and Nellis [2020] conducted a randomized controlled trial in Delhi and Lucknow, finding that bureaucratic barriers significantly impede migrant registration. Their targeted intervention increased registration by 24 percentage points. Joshi et al. [2022] found that while 91% of households were covered in voter rolls across four Indian states, urban areas showed significantly higher exclusion rates (22%) compared to rural areas (4%), with young women particularly likely to be excluded.

The politicization of electoral rolls presents another dimension of concern. Singh and Roy [2019] identified disputes over citizenship and inclusion criteria as persistent challenges in Jammu district.

2.3 Methodological Approaches

The literature reveals diverse methodological approaches to assessing electoral roll integrity, though significant gaps remain in demographic reconstruction techniques. Most studies employ administrative data analysis, comparing electoral rolls to census or household listing data [Herrero, 1991, Joshi et al., 2022]. Herrero [1991] achieved a 95% census-voter list match in Mexico but noted substantial state-level variation (79-91% registration rates).

Field experiments have proven valuable for understanding registration barriers. Gaikwad and Nellis [2020] demonstrated the effectiveness of targeted interventions, while Singh and Roy [2019] used mixed-method field studies to examine the role of Systematic Voters' Education and Electoral Participation programs in addressing registration disputes.

However, migration-adjusted demographic techniques remain underutilized, particularly in the Indian context. Mafla and Gallardo [2018] applied demographic and migration adjustments in Ecuador, while Piccolino [2016] employed comparative demographic studies in West Africa. The absence of cohort-based demographic accounting models in Indian electoral roll assessment represents a significant methodological gap, despite their successful application in Latin America and sub-Saharan Africa [Myagkov et al., 2009, Bratton, 2013, Hartlyn et al., 2008].

2.4 Research Gaps and Contributions

Despite growing attention to electoral roll integrity, significant methodological gaps persist. Most studies rely on survey-based or anecdotal indicators of roll inflation rather than rigorous demographic reconstruction. The absence of migration-adjusted demographic techniques in Indian electoral roll assessment is particularly notable, given the country's high internal migration rates and federal structure.

This paper addresses these gaps by applying a cohort-based demographic accounting model to estimate the legitimate voter population in Bihar, a high-migration Indian state. Grounded in official sources such as Census data and Sample Registration System life tables, our approach offers a transparent and replicable benchmark for assessing electoral roll quality. The methodology contributes to both the empirical understanding of electoral roll inflation in India and the broader methodological toolkit for electoral integrity assessment in federal democracies facing similar administrative challenges.

3 Data and Methodology

This study employs a demographic reconstruction framework to estimate the number of legitimate voters in Bihar in 2025. Rather than interpolating from previous electoral rolls or relying solely on enumeration data, we adopt a bottom-up accounting identity that models population flows based on official demographic sources. Our approach comprises three analytically distinct components:

$$\begin{aligned} \text{Eligible Voters}_{2025} = {} & \text{Survivors}_{2003\ \text{roll}} \\ & + \ \text{New Voters}_{1985\text{–}2007\ \text{births}} \\ & - \ \text{Net Permanent Outmigration}_{2003\text{–}2025} \end{aligned}$$

Each term in this identity is estimated independently using disaggregated age-cohort modeling, fertility and survival projections, and Census-based migration data. The year 2003 is selected as the base year for estimating surviving voters because it marks the most

recent Special Intensive Revision (SIR) conducted in Bihar before the present cycle. Unlike routine annual updates, SIRs involve house-to-house verification and deletion of ineligible or duplicate entries, making the 2003 roll the most recent institutionally reliable benchmark available.

Data Sources

All data used in this study are drawn from publicly available and official Indian sources:

- **Electoral Roll (2003):** Election Commission of India archives, providing total voter count.
- **Census of India (1981, 1991, 2001, 2011):** Age distributions, population estimates, and D-Series migration tables.
- **Sample Registration System (SRS):** Abridged Life Tables for Bihar (2011–2015 and 2018–2022), used for survival probabilities.
- **National Family Health Survey (NFHS-1 and NFHS-2):** Used to backcast birth rates for early birth cohorts.
- **Population Projections for India and States (2011–2036):** Published by the National Commission on Population, used for estimating population baselines.

Estimation Approach

1. **Survivors from the 2003 Electoral Roll:** The total number of registered voters in 2003 is disaggregated into age cohorts using the 2001 Census. These cohorts are then aged by 22 years, and survival probabilities are applied using interpolated l_x values from the SRS Abridged Life Tables. The result is an estimate of how many 2003-registered voters are likely to be alive in 2025.
2. **New Eligible Voters (Born 1985–2007):** Annual birth cohort sizes are estimated using crude birth rates (CBR) and population estimates. Each cohort is then adjusted

for survival to 2025 using SRS-based life tables. Only individuals who would be age 18 or above in 2025 are included.

3. **Net Permanent Outmigration (2003–2025):** Migration data are sourced from the Census 2011 D-Series tables. We estimate net permanent outmigration by extrapolating the 2003–2011 migration rate forward to 2025, assuming constancy for conservatism. Inward migration is also accounted for using Census-reported levels to arrive at a net adjustment.

Conservative Modeling Principles

To avoid overstating the discrepancy between the legal and official voter rolls, the following conservative assumptions are applied:

- No allowance is made for increasing outmigration rates post-2011, despite strong anecdotal and empirical evidence.
- Survival probabilities are derived as hybrid averages of older and recent SRS life tables, balancing improvements in mortality with historical trends.
- All individuals counted as born and surviving are assumed to reside in Bihar unless specifically adjusted for outmigration.

This methodology allows us to produce a credible, lower-bound estimate of the number of voters who should appear on Bihar's electoral roll in 2025, given demographic realities.

4 Estimating the Eligible Voter Base in Bihar

This section implements the demographic accounting model outlined earlier by estimating each of the three components in the identity: legacy voters surviving from 2003, new voters reaching voting age between 2003 and 2025, and net permanent outmigration. Each step is constructed using official data and applies conservative modeling choices to avoid overstating discrepancies.

4.1 Legacy Voters from 2003: Survival-Based Estimation

The first component of our demographic accounting model estimates the number of individuals from Bihar's 2003 electoral roll who are likely to be alive and resident in the state in 2025. This requires adjusting the 2003 voter population for age-specific mortality over a 22-year period.

The Election Commission of India recorded a total of 4.96 crore registered voters in Bihar in 2003. However, this figure is not disaggregated by age. To reconstruct the age profile of the 2003 voter base, we draw on the Census of India, 2001, which provides the age distribution of Bihar's adult population. We allocate the 4.96 crore voters across six broad age cohorts - 18-24, 25-34, 35-44, 45-54, 55-64, and 65+ - in proportion to their shares in the 2001 Census.

To estimate cohort survival from 2003 to 2025, we apply age-specific survival probabilities derived from Bihar's Abridged Life Tables, published by the Sample Registration System (SRS). We used a hybrid average of the 2011-2015 and 2018-2020 life tables across smooth between time periods and reduced year-specific fluctuations. When an exact age is not available in the life table, we use linear interpolation.

Definition of l_x and Survival Probability The core survival measure we use is l_x, defined as the number of individuals in a synthetic cohort of 100,000 live births who survive to exact age x. From this, the survival probability to age x is computed as:

$$S(x) = \frac{l_x}{100{,}000}$$

For a person who was a in 2003, their age in 2025 is $a + 22$, and the survival probability over the period is approximated by:

$$P_{a,2025} = \frac{l_{a+22}}{100{,}000}$$

Cohort-Wise Survivor Estimation Let N_a denote the number of voters in age group a in 2003. Then the number of survivors from that cohort in 2025 is:

$$N_a^{\text{survived}} = N_a \times P_{a,2025}$$

These calculations are performed for each age cohort. For instance, voters aged 25–34 in 2003 (who would be 47 to 56 in 2025) are assigned a survival probability of approximately 87.2%, based on interpolated l_{52} values. All results are summarized in the tables below.

Table 1: Age Distribution and Survival of 2003 Voter Cohorts to 2025

Age Group (2003)	**Share (%)**	**Voters (crore)**	**Age in 2025**	**Survival Probability (%)**
18–24	21.0	1.04	43	90.9
25–34	26.2	1.30	52	87.2
35–44	21.1	1.05	62	77.2
45–54	14.1	0.70	72	55.0
55–64	9.5	0.47	82	23.5
65+	8.2	0.40	92	7.3
Total	100	4.96	–	–

Table 2: Estimated Survivors from 2003 Voter Cohorts in 2025

Age Group (2003)	**Voters (crore)**	**Survivors in 2025 (crore)**
18–24	1.04	0.95
25–34	1.30	1.13
35–44	1.05	0.81
45–54	0.70	0.38
55–64	0.47	0.11
65+	0.40	0.03
Total	4.96	**3.41**

The resulting estimate - 3.41 crore survivors - forms the foundational demographic floor for Bihar's legitimate voter population in 2025, assuming zero net migration. This number reflects individuals who were present on a historically validated roll (2003 SIR), whose continued eligibility is supported by survival-adjusted demographic logic.

4.2 New Voters Born Between 1985 and 2007

The second component of our demographic accounting model estimates the number of individuals who were not part of the 2003 electoral roll but would become eligible to vote by 2025. This includes persons born between 1985 and 2007 who reach the age of 18 within the 2003–2025 period. Since voter eligibility requires being at least 18 years of age on the qualifying date, we construct year-wise birth cohorts for this range and apply age-specific survival adjustments to estimate how many of them are alive in 2025.

Birth Cohort Estimation The number of individuals born in a given year y is calculated using the standard demographic identity:

$$B_y = \left(\frac{\text{CBR}_y}{1000}\right) \times P_y$$

where:

- B_y = estimated number of births in year y
- CBR_y = crude birth rate for Bihar in year y (per 1,000 population)
- P_y = estimated population of Bihar in year y

The values of CBR_y and P_y are drawn from Census data and projections from the National Commission on Population. For years prior to 1991, birth rates are inferred by backcasting using National Family Health Survey (NFHS-1 and NFHS-2) and historical Census fertility patterns.

Survival Adjustment Once the raw birth cohort sizes are estimated, we apply survival probabilities to determine how many individuals from each cohort are expected to be alive in 2025. This is based on the age they would attain in 2025 and survival rates drawn from Bihar's SRS Abridged Life Tables.

For a person born in year y, their age in 2025 is $a = 2025 - y$. Let l_a denote the number of survivors to age a out of a synthetic cohort of 100,000. Then the survival probability is:

Table 3: Estimated Births in Bihar by Period (1985–2007)

Period	**CBR (/1,000)**	**Average Population (crore)**	**Estimated Births (lakh/year)**
1985–1989	33.0	6.0	19.7
1990–1994	32.0	6.6	21.2
1995–1999	31.7	7.6	24.0
2000–2004	28.4	8.5	24.2
2005–2007	25.3	9.3	23.6

$$S(a) = \frac{l_a}{100{,}000}$$

And the number of cohort members alive in 2025 is:

$$N_y^{\text{survived}} = B_y \times S(2025 - y)$$

We use a hybrid average of the 2011–2015 and 2018–2022 SRS life tables for Bihar to generate interpolated survival probabilities for ages 18 through 40, the relevant range for our cohort. A representative set is shown below:

Table 4: Survival Probabilities to 2025 by Age

Age in 2025	**Survival Probability (%)**
18	95.07
25	94.33
30	93.70
35	92.83
40	91.77

Aggregate Estimation Applying this two-step estimation procedure across all 23 birth cohorts from 1985 to 2007 yields a total of approximately 4.83 crore new voters alive and of eligible voting age in 2025. Of these, 4.61 crore are individuals born between 1985 and 2006, while an additional 0.22 crore are from the 2007 cohort, who would turn 18 in 2025.

This component captures all newly eligible voters under the assumption of continued

residence in Bihar. Migration-related adjustments are addressed separately in the next section.

4.3 Adjusting for Net Permanent Outmigration

The third and final component of our demographic reconstruction adjusts for individuals who may be alive and of voting age in 2025 but have permanently migrated out of Bihar and are no longer entitled to be on its electoral roll. In a mobile population like Bihar's, where large-scale interstate migration has been consistently observed, failing to adjust for migration would overstate the pool of legitimate voters.

Framework for Estimation Let $M^{\text{out}}_{t_1,t_2}$ denote the number of permanent outmigrants from Bihar between years t_1 and t_2, and $M^{\text{in}}_{t_1,t_2}$ denote the corresponding number of in-migrants. Then the net permanent outmigration over the period 2003–2025 is defined as:

$$M^{\text{net}}_{2003,2025} = M^{\text{out}}_{2003,2025} - M^{\text{in}}_{2003,2025}$$

This net adjustment is subtracted from the sum of surviving legacy voters and new eligible cohorts to ensure that only individuals currently residing in Bihar are included in the estimate of legitimate voters.

Step 1: Estimating Outmigration (2003–2011) Using Table D05 of the D series of the Census of India 2011, we identified two relevant categories: migrants aged 18 and older, with durations of residence outside Bihar of 1 to 4 years and 5 to 8 years (interpolated from 5-9 years). This is chosen based on the fact that migrants post-2003 would have residency up to 8 years in the 2011 census. These individuals represent those who migrated out of Bihar between 2003 and 2011 and had been away for more than one year at the time of enumeration.

The counts are:

- Migrants with 1–4 years of residence outside Bihar (aged 18+): 24.3 lakh
- Migrants with 5–9 years of residence outside Bihar (aged 18+): 25.35 lakh

This gives a total estimated permanent outmigration of:

$$M^{\text{out}}_{2003,2011} = 24.3 + 25.35 = 49.65 \text{ lakh}$$

Step 2: Forward Projection (2012–2025) To project forward from 2011 to 2025, we assume that the annual rate of outmigration observed between 2003 and 2011 remains constant. While there is strong anecdotal and empirical evidence suggesting a rising trend in migration due to improvements in transport, labor mobility, and urbanization, we adopt a conservative approach to avoid overstating roll inflation.

The average annual rate from 2003–2011 is:

$$r_{\text{mig}} = \frac{49.65 \text{ lakh}}{9} \approx 5.5 \text{ lakh/year}$$

Projecting this forward for 13 years:

$$M^{\text{out}}_{2012,2025} = 5.5 \times 13 = 71.5 \text{ lakh}$$

Thus, total estimated outmigration over 2003–2025 is:

$$M^{\text{out}}_{2003,2025} = 49.65 + 71.5 = 121.15 \text{ lakh} \approx 1.21 \text{ crore}$$

Step 3: Adjusting for In-Migration To estimate inward migration, we use the 2011 Census, which reports that 0.68% of Bihar's population comprises interstate in-migrants. Applying this rate to the 2023 estimated population of Bihar (13 crore from the Caste Census), we get:

$$M^{\text{in}}_{2003,2025} = 0.0068 \times 13 \text{ crore} = 8.8 \text{ lakh}$$

Step 4: Net Adjustment Putting the components together:

$$M^{\text{net}}_{2003,2025} = 121.15 \text{ lakh} - 8.8 \text{ lakh} = 112.35 \text{ lakh} \approx \mathbf{1.12 \text{ crore}}$$

Table 5: Estimation of Net Permanent Outmigration from Bihar (2003–2025)

Component	Estimate (lakh)	Notes
Outmigration 2003–2011	49.65	From Census 2011, D-Series Table D05
Outmigration 2012–2025	71.5	Constant rate assumption (5.5 lakh/year)
Total Outmigration	121.15	Sum of above
In-Migration Estimate	8.8	0.68% of 13 crore (2023)
Net Outmigration	**112.35**	Rounded to **1.12 crore**

This net outmigration figure is deducted from the aggregate of survivors and new additions to derive the best demographic estimate of the eligible resident electorate. Since the assumptions err on the side of underestimating outflows and overestimating inflows, this adjustment remains conservative.

5 Results

Combining the three components of the demographic reconstruction, surviving legacy voters, new eligible cohorts, and net permanent outmigration, we estimate the total number of legitimate voters in Bihar as of 2025. The results are summarized in Table 6.

Table 6: Estimated Legal Voter Population in Bihar (2025)

Component	Estimate (crore)	Computation Basis
Survivors from 2003 voter roll	3.41	Age-cohort survival modeling
New voters (born 1985–2007)	4.83	Birth cohort reconstruction with survival
Less: Net permanent outmigration (2003–2025)	−1.12	Census-based migration adjustment
Estimated Legal Voters (2025)	**7.12**	Final demographic estimate

This estimate stands in contrast to the official electoral roll figure of 7.89 crore voters for Bihar, as released by the Election Commission of India in July 2025. The implied discrepancy is approximately 0.77 crore voters, or 9.7 percent of the registered roll.

$$\text{Discrepancy} = 7.89 - 7.12 = \mathbf{0.77\ crore} \quad \Rightarrow \quad \frac{0.77}{7.89} \approx \mathbf{9.7\%}$$

This gap represents a substantial inflation in the voter list, even under deliberately conservative assumptions at each stage of the modeling process. We do not factor in rising migration trends post-2011, nor do we make any deductions for deceased individuals who were added erroneously post-2003 or duplicate entries across states.

The results thus offer a lower-bound estimate of electoral roll inflation, suggesting that the actual discrepancy may be even larger. The findings provide an empirically grounded rationale for systematic verification of voter rolls in Bihar and underscore the need for institutional reforms in electoral data management.

6 Discussion

The demographic reconstruction yields a legal voter estimate of 7.12 crore for Bihar in 2025, compared to the official electoral roll count of 7.89 crore. The implied inflation of 77 lakh voters (approximately 9.7%) is not trivial. It is equivalent to the population of an entire Indian metropolis and, in a first-past-the-post electoral system, has the potential to decisively alter electoral outcomes in closely contested constituencies.

Several interpretive points merit emphasis. First, the magnitude of discrepancy arises despite the application of conservative assumptions across all three modeling dimensions. We assume constant outmigration rates despite rising mobility; we apply average survival probabilities; and we assume that all new eligible cohorts continue to reside in Bihar unless accounted for through migration data. Each of these choices biases the estimate downward, implying that the actual level of inflation may be even higher.

Second, this discrepancy is structural, not accidental. It reflects systemic limitations in the voter registration process, including the absence of a functional and enforceable deregistration mechanism for migrants, weak integration across state electoral databases, and limited field capacity for detecting death or duplication. This is especially problematic in high-migration states such as Bihar, where static roll maintenance practices fail to account for the dynamic churn of the eligible electorate.

Third, the implications extend beyond Bihar. If similar demographic mismatches exist in other states, especially those with large outmigration or urban slum populations, then aggregate national roll quality may be at risk. In that light, Bihar serves as both a case study and a cautionary signal for electoral governance in India.

Finally, while this paper does not engage in causal attribution of roll inflation to malfeasance, the risk of strategic manipulation becomes more credible in the presence of large and unverifiable voter pools. Inflated rolls can be misused to manufacture turnout, swing margins, or distort representational equity.

7 Policy Implications

The findings of this study carry significant implications for electoral policy and institutional reform.

Need for Special Intensive Revision (SIR): The empirical discrepancy of 77 lakh voters provides strong justification for the Election Commission of India to undertake a Special Intensive Revision (SIR) in Bihar. The last such revision was conducted in 2003, and routine annual updates have proven insufficient to account for large-scale demographic and migratory shifts. A new SIR should incorporate field verification, inter-state duplication detection, and integration with civil registration systems for mortality tracking.

Reform of Deregistration Mechanisms: Current practices rely heavily on Form 8 for the deletion of names from the roll, which places the burden entirely on the migrating individual. In practice, very few voters file these forms, resulting in persistent dual registrations. An institutional mechanism that automatically flags and reconciles interstate duplicates-possibly through linkage with Aadhaar or a national voter database, could address this gap.

Inter-jurisdictional Coordination: The lack of interoperability between state-level electoral databases enables duplicate registrations across constituencies and states. Creating a federated but integrated electoral data architecture would enable cross-verification

and reduce redundancy. This could be piloted in high-migration corridors such as Bihar–Maharashtra or Bihar–Delhi linkages.

Use of Demographic Audits: This paper demonstrates the utility of demographic reconstruction methods as a tool for electoral validation. Such audits could be institutionalized as periodic assessments, particularly in states flagged for abnormal roll growth or high outmigration. Embedding demographic checks within the Election Commission's oversight protocols would enhance both accountability and data-driven policy.

Broader Electoral Integrity Measures: The issues highlighted here intersect with broader concerns of electoral trust, mandate legitimacy, and the integrity of representative democracy. Addressing voter roll inflation is thus not merely a technical correction, it is a democratic imperative.

In sum, the results call for a shift from passive enumeration to active verification, supported by institutional innovation, demographic data integration, and a strong normative commitment to electoral accuracy.

8 Conclusion

This paper presents a demographic reconstruction of the legitimate voter base in Bihar as of 2025, using official data sources and a transparent, conservative modeling approach. Starting from the 2003 electoral roll, the last subject to a Special Intensive Revision, we estimate survival-adjusted legacy voters, add new eligible cohorts based on birth and survival patterns, and subtract net permanent outmigrants to derive a bottom-up estimate of the eligible electorate.

Our results indicate that Bihar's legal voter base stands at approximately 7.12 crore, compared to the officially reported 7.89 crore, implying an inflation of 77 lakh voters or 9.7 percent. Given the conservative assumptions applied throughout, this figure likely understates the true magnitude of roll inflation.

The analysis demonstrates that electoral roll inflation is not simply a function of administrative delay or enumeration error. It is structurally rooted in demographic mobility,

incomplete deregistration mechanisms, and fragmented electoral databases. In this context, Bihar functions as both a high-risk case and a national warning signal.

The policy implications are clear: there is an urgent need for a Special Intensive Revision in Bihar, as well as institutional reforms aimed at making voter rolls dynamic, accurate, and demographically grounded. More broadly, this paper argues for embedding demographic audit tools within the electoral oversight architecture of India.

Finally, the methodology developed here, while applied to Bihar, can be readily adapted to other states and democracies confronting similar challenges. Future research could extend this framework to explore urban-rural discrepancies, gendered registration gaps, and the effects of digital identity systems on electoral integrity.

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