DEMOGRAPHIC INEQUALITIES AND IMPLICATIONS FOR POLITICAL REPRESENTATION IN INDIA

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Abstract

The pattern of representation of the states in national Parliament of India will undergo a dramatic change in the coming years on account of varying pace of demographic transition among the states. Considering this, the Government of India imposed a freeze on further expansion of representation of states in Parliament till 2026. The focus of this paper is to identify the gainer and loser states in terms of representation, once the seats were re-distributed on the basis of population size of the states. Also, it examines how the value of vote has been changing with the growing demographic inequalities. The findings suggest that, all the northern states with higher population growth will gain substantial number of representations compared to those southern states with lower population growth. The emerging pattern of representation could lead to numerous conflicts in inter-state relationships and can endanger the federal-set up of India.

1.1 Introduction

The history of demographic transition across the globe indicates that there would be variations in its pace on account of socio-economic and cultural differences. India too is not an exception to this process. The country is well known for its socio-economic-cultural-political–geographic-linguistic and demographic diversity (Sopher 1980, Dyson and Moore 1983, Satia and Jejeebhoy 1991, Basu 1992). Considering this diversity, the decline in fertility from a high level of more than five children per women in 1970 to about three children per women within a short span of three decades is a noteworthy achievement. The fertility decline in India has not followed a pattern marked by administrative boundaries, rather it is conditioned by socio-cultural and historical considerations (Bhat 1996, Bhat and Zavier 1999, Guilmoto and Rajan 2001, Dyson 2004).

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There are rural-urban and inter-state variations in fertility transition among the regions of India. Kerala and Tamil Nadu attained a TFR below replacement level by late 1990's. Andhra Pradesh and Karnataka show a TFR level less than 2.5 children per women. In contrast, the northern states of Uttar Pradesh and Bihar had the TFR level of more than four children (Registrar General 2005). With different sets of data, other studies also pointed out that southern states have experienced a faster fertility decline (Bhat and Zavier 1999, Guilmoto and Rajan 2001, Dyson 2002, Visaria 2004). Similar examination of mortality indicators too suggest that northern states have unfavorable trend with higher levels of death rates, infant and child mortality rates and lower levels of life expectancy compared to southern states[1].

The demographic variations among northern and southern states have led to significant divergence in the population size of these states. For instance, the total population of northern and southern states constituted 144 million and 94 million respectively in 1951. The northern states contributed 39.9 percent and the southern states contributed 26.1 percent in India's total population increase during 1951-2001. During the same period, the total population of northern states grew to 366 million compared to 223.3 million in southern states with 35.5 percent and 21.7 percent respectively of the India's population in 2001. If bifurcated states (Chhattisgarh, Jharkhand and Uttarakhand) were included into their respective parent states, the total population of the northern states becomes 422.3 million (41 percentage). Thus, the proportion of population in northern states recorded a significant increase while southern states recorded a substantial decline.

Similarly, an examination of demographic structure of the 21 states exceeding six million population, based on final population totals of 2001 Census shows that, the absolute size of the population varies significantly across the states. Uttar Pradesh with 166.2 million people, has nearly 28 times the population in Himachal Pradesh (6.1 million). The demographic diversities among the states in India is largely on account of the existing differentials in fertility and mortality since the formation of states. The demographic structure of the states have widened over a period of time, and is expected to widen

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[1] Basically northern states include Uttar Pradesh, Bihar, Madhya Pradesh and Rajasthan and southern states include Kerala, Karnataka, Tamil Nadu and Andhra Pradesh.

further particularly between northern and southern states, since they are at different spectrum of demographic transition. Bose (1996) terms this phenomenon as 'north-south demographic divide' further highlighting that, like economic disparity, the growing demographic disparity is going to cause serious concerns for politicians, planners and policy makers in the coming years. The demographic disparity leading to demographic imbalance may cause considerable social turbulence and may even pose a threat to political stability of the country (Bose 1996: 89). One of such demographic implications is the changing size and structure of the population among the regions. Compared to northern states, southern states as a whole are experiencing a decline in child population and an increase in elderly population.

Given this background, the aim of this paper is to assess one such implication of demographic divide on major states in terms of their re-alignment of political representation. The term representation means the arrangement by which some persons stand or act for others. *In this paper, the term political representation stands for "number of candidates elected by the people from different states to represent them in Lok Sabha".*

1.2 Review of literature

Several organizations and individual demographers have projected the population of India for the year starting with 2016 to 2300 (Registrar General 1996; 2006, US Bureau of Census 1999, Dyson and Hanchate 2000, Natarajan and Jayachandran 2001, Srinivasan and Shastri 2001, Visaria and Visaria 2003, Dyson 2004, Bhat 2004, World Bank 2004, United Nations 2004; 2005).

Even in the ancient philosophical writings of Plato, Aristotle, Kautilya, Khaldun, Rousseau and Machiavelli, there are specifications on number of people and their impact on various dimensions of politics. In India, very few studies have attempted to understand the linkage between population size and its implications on political institutions (Sivaramakrishnan 1997; 2000, McMillan 2000; 2001; 2001a; 2001b, Srinivasan 2001, Venkatesan 2001). Studies have argued that the disproportionate population growth of urban areas compared to rural areas has resulted in the under

representation of the former constituencies (both parliament and state assemblies), even in the nearby constituencies within the states (Sivaramakrishnan 1997, McMillan 2000, Venkatesan 2001). Sivaramakrishnanan (2000) and Srinivasan (2001) have analyzed the position of individual states in Lok Sabha till 2016, whereas McMillan (2000) and Venkatesan (2001) have analysed it till 2001. Besides this, linking population and politics, Krishnan developed a framework for understanding the political demography of India (Krishnan 2005: Pp.119-147).

1.3 Need for the study

The demographic studies in India are largely focused on fertility, family planning, mortality, migration, urbanization, reproductive health, gender, population and development and more recently the impact of HIV/AIDS on different segments of the population. There was hardly any attempt to understand the dynamics of demographic transition and the issues associated with politics or political institutions in the Indian context. It is true with most of the demographers and political scientists as well. Thus, the term political demography was almost unknown area of research and remained an enigma to Indian social scientists. Given this background, the present paper assesses the impact of population change on account of demographic transition and its consequences on the size and distribution of Lok Sabha seats among the Indian states.

a) Need for a fresh population projections

Majority of the existing population projections in India are based on 1991 Census base year population. Of the existing projections, only three have been attempted with 2001 Census population. Srinivasan and Shastri (2001) and Dyson (2004) have used provisional population totals whereas Registrar General (2006) has used a smooth age-sex distribution based on 2001 Census. At present no population projections are available for India and states based on 2001 Census age-sex distributions for the period up to 2051.

b) Implications on political representation

The differential growth of population among the states in the country has important political implications in addition to economic, health, and social implications in the coming years. The political representation of the states is to be determined based on the population size of the states. Article 81 (2) says that there should be inter-state and intra-state parities in population-seat ratio in representation. Similarly, Article (82) of the Constitution, requires that upon the completion of each Census, the representation of states in Lok Sabha and the state Legislative Assemblies shall be re-adjusted by such an authority, popularly known as Delimitation Commission. Hence, the number of seats assigned to individual states in Lok Sabha and the state Legislative Assemblies were proportionately allocated on the basis of their population size till 1971.

The subject of political representation of the states came to limelight with the introduction of 42nd Constitutional Amendment Act, which was passed on 18th December 1976. This amendment deferred further re-drawing as well as re-allocation of Lok Sabha and Legislative Assembly seats among the states and the Union Territories based on the population size of the states (constitutional freeze) till the publication of the results of 2001 Census. Later on in 2003, two constitutional amendments were made 1) 84th Amendment Act for extending the freeze from 2001 to 2026 and 2) 87th Amendment Act for changing the base year of delimitation from 1991 to 2001. In brief, the freeze imposed on the expansion of Lok Saba seats and seats of legislatures will continue, whereas there will be a delimitation exercise which aims at attaining inter-state parity in terms of population seat ratio based on 2001 Census population.

If the seats were to be re-allocated based on the principle of population size and the principle of population proportionality, those states which successfully controlled the population growth will lose some of their existing seats and those states experiences higher population growth and size will gain additional seats in Lok Sabha (McMillan 2001, Srinivasan 2001). The freeze imposed on the expansion of political representation was extended till 2026 was a motivational measure for enabling the state governments to pursue the agenda of population stabilization (Government of India 2000: 11). Thus, it

was a necessary political expediency not only to encourage accelerated demographic transition in the large Hindi speaking states, but also to preserve national integrity.

Once the growth differences narrow down, whereby replacement levels of fertility are reached by larger states, it would be helpful in ensuring accelerated demographic transition in those states. Otherwise, the states that have successfully implemented the national family planning programme and achieved lower population growth rates as stipulated in the various developmental plans, will be unfairly penalised (Srinivasan 2001: 29). It is possible that when the population of a region grows faster than the rest of the regions, political power is likely to skewed towards the former regions. It is important because the population size will be a crucial element in deciding the role of political power. The differential population growth and the distribution of political power is likely to be an area of conflict between the states in the years to come.

1.4 Issues for future concern and the context of the study

The freezing of political representation is an extremely controversial issue. Those favoring the freeze on political institutions argue that, those states which have done well in controlling population growth rates should not be penalized by the reduction in the representation[2], also it will force the accelerated demographic transition in large states and maintain political integrity (Srinivasan 2001, Kulkarni 2001). Because, states with higher growth rates tend to have an increasing representation in the parliament and better political leverage compared to the states, which have a slower rate of growth of population (Srinivasan 2001:27). The representation in parliament has many direct and indirect implications in terms of allocation of funds and the formation of pressure groups. The general apprehension is that the political bargaining power of the southern state would come down once the freeze is lifted and the seats are allocated proportionally based on the population size.

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[2] See Section 15 of 42nd Amendment of the Constitution.

On the other hand, those who are against the freeze argued that since India follows single member constituency, each constituency should have roughly the same size of the electorate, so people voting from one place should not have a greater influence over the people voting from rest of the palaces. However, the idea of *one-person, one vote and one value*, which is treated as the fundamental principle of democracy and if regarded as '*sacrosanct*' is violated in the political representation of urban and rural areas within the state and between the states with the introduction of freeze. The freeze has made our representatives an over representing or over loaded representatives. This has made difficulties for the MP's to represent huge population and in certain constituencies it became unmanageable electorates in size. It was also argued that parliamentary representation is not the sole yardstick of political and economic power (Kulkarni 2001:70).

Considering the complexity and the disagreement on the issue of freeze, two different possibilities may occur: 1) the freeze may be extended indefinitely and 2) The freeze may be lifted by the year 2026. It is argued that the issue of political representation to the parliament is going to be a major issue since the freeze cannot continue indefinitely, and this will lead to political tensions, conflicts in the centre-state relations (McMillan 2000, Srinivasan 2001, Kulkarni 2001, Visaria and Visaria 2003, Dyson 2004). In scenario one, the extension may be continued indefinitely, provided there is a strong opposition from majority of the states against lifting the freeze. It will depend on the policy of the then government and how much pressure certain states can bring in to extend the freeze further. It is also possible that there will be a reverse pressure from rest of the states to lift the freeze with immediate effect. If the freeze is lifted, as stated earlier, it may upset the political balance of the country and pose problems for smaller states and those states who were successful in controlling the population.

In the second scenario, the possibility of extending the freeze indefinitely is a big question mark. However, the 91st Constitution Amendment Bill approved by the parliament specified that the freeze will be lifted only in 2026. In a scenario of non-proportional allocation of seats and the parity in population-seats ratio is not maintained,

the value of one vote from a less populated region would carry more weight compared to the regions with high population growth. This contradicts the principle of one-man, one-value and one-vote in a democratic set-up. Thus, the problem is double edged; the states with low population growth will lose the representation if the freeze is lifted, if not, the principle of one-man, one-value and one-vote will be violated. Given this milieu, the paper would like to address two questions: 1) what would be the likely pattern of representation of individual states in Lok Sabha in the coming years? 2) How the value of votes has been changing among the states in the context of widening demographic inequalities?

1.5 Sources of data

The paper uses multiple secondary data sources such as Census, Sample Registration System (SRS) and Election Commission (EC). These data at different points of time have been used depending on the context.

1.6 Methods

a) Population projection and allocation of political representation

The smoothed age sex distribution of 2001 Census provided by Registrar General of India (2006) has been used as the base year population for population projection. Cohort Component Method was used for population projection of 21 states with more than 10 million population (by using SPECTRUM software). Eight smaller states and six union territories have been excluded from the analysis considering their lower share in India's total population. The trends in future fertility are being assessed using the Gompertz model (based on SRS data) for all the major states and India.

The Gompertz curve is computed by $Ln\ (-Ln\ (TFR-L)/(U-L))) = Ln\ (-Ln.a) + t.Ln.b$, Where; U= Upper Limit, L = Lower Limit and a and b are constants. For projecting the expected levels of life expectancy, working models developed by United Nations have

been used. It is assumed that in the coming years the improvements in life expectancy will be at a slower pace and it will slowly converge to the west model life table pattern. The inter-state net out migration rates was calculated from Census 2001 migration data.

b) Future allocation of representation

Studies have argued that Webster's method is the most ideal method of apportionment for people representation in most of the democratic countries and it satisfies the principle of one-man, one-value and one-vote (Balinski and Young 2001:75). Webster's method is computed by choosing the size of the house to be apportioned and find a divisor x so that the whole numbers nearest to the quotients of the states sum to the required total. Provide each state its whole number. In this case, the fractions were rounded up if it is more than one half, rounded down if it is less than one half.

c) Estimation of value of votes

For computation of value of votes, the national level representation of population per MP (NR_{pp}) in Lok Sabha is computed by $NR_{pp} = \dfrac{T_p}{N_s}$ where T_p represents total population of the major states and N_s represents the total number of Lok Sabha seats of the major states. Secondly, SR_{pp} (state level representation of population per MP in Lok Sabha) is computed by $SR_{pp} = \dfrac{S_p}{S_s}$. Where, S_p is the state level population and S_s is the seats of the states in Lok Sabha. Taking India as a standard, and treating the value of one vote is equivalent to one at the national level, state level value of votes (SV_{vote}) have been computed using the formula $SV_{vote} = \dfrac{NR_{pp}}{SR_{pp}}$.

1.7 Major findings

a) Assumptions of population projections

The paper attempts two sets of projection i.e., high variant and medium variant. There are two sets of fertility variants (high and medium) and one set of life expectancy and migration assumptions are used in the projections.

Due to the diverse pattern of fertility decline among the states and the availability of state wise annual TFR's since 1971, Gompertz Curve is used as the best method for predicting the future trends in fertility. It was argued that only very recently human population have experienced a level of fertility as low as 1.6, let alone sustained for any length of time (Dyson and Hanchate 2000, Dyson 2004). The recent projections by United Nations assumes that the more developed regions are anticipated to undergo fertility increase, especially in Europe, where fertility is assumed to reach 1.83 children as per medium variant projections for 2045-2050 (United Nations 2006: 4). Therefore, the present paper assumed under high variant assumption that the TFR at the national and state level would not fall below 1.8 by 2051.

Though, SRS provides the TFR estimates for most of the states in the country, time series data are not available for the newly created states which makes the assessment of future trends in TFR difficult. The SRS provides the fertility estimates for three newly created states (Uttarakhand, Jharkhand and Chhattisgarh) since 1999. The available TFR estimates for Uttarakhand shows no clear pattern in fertility[3]. In the absence of alternative methods, TFR estimates provided by Bhat (2004a) for Uttarakhand seems to be the reliable level of fertility in the state for the year 2001. The projection by Registrar General of India (2006) assumed a TFR of 2.8 by 2006-2010. The TFR estimate during 2001-2010 were linearly interpolated and fitted in the Gompertz Curve to obtain future levels of TFR for Uttarakhand. For the rest of the states such as Jharkhand, Chhattisgarh,

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[3] SRS gives the average children per women at 2.4 whereas the last two rounds of NFHS (NFHS-II and NFHS-III) shows 2.6, indicating no change in the levels of TFR during the past six years for Uttarakhand (Government of India 2006).

the TFR's during 1999-2002 (where the trend is consistent) have been linearly extrapolated till 2006 and then fitting the Gompertz Curve to obtain the future levels of TFR. The weighted estimates of TFR (weights are the percentage share of country's females in the ages 15-49) during 2001-2051 is used for projecting the future trends in fertility at the national level.

Fertility rates in southern states and some of the smaller northern states with low levels of fertility can go down below 1.8 as experienced by some of the European countries in recent years. Many studies have taken a realistic assumption that the TFR levels in India and at the state level would not decline below 1.6 children per women, as experienced by many developing countries (Registrar General 1996, United Nations 2001, Srinivasan and Shastri 2001, Natarajan and Jayachandran 2001). It was noted that the pace of fertility decline is not uniform between northern and southern states and there are evidences of greater son preference in northern states (Willamson 1976, Dyson and Moore 1983, Basu 1992, Mutharayappa *et al*. 1997, Arnold *et al*. 1998, Bhat and Zavier 2001, Dyson 2004). Therefore, the medium variant assumption put a lower level of TFR of 1.6 for all southern states along with states of Himachal Pradesh, Delhi, Maharashtra, Punjab and West Bengal since they are close to below replacement level fertility or approaching the below replacement level in the near future.

United Nations has developed three sets of life expectancy models such as 'fast pace', 'medium pace' and 'slow pace' in five year intervals based on initial level of mortality pattern (United Nations 2000:185). For India and states, life expectancies during 1989-93 and 1998-02 were obtained from SRS life tables and classified under the United Nations models of life expectancy improvement. Patterns indicated in SRS life tables were assumed to be continue in the future. The newly created states are expected to follow the mortality pattern of their parent states. Finally, though researchers are aware of HIV and its likely impact on future life expectancy, most population projections for India did not consider this issue (Registrar General 1996; 2006, Natrajan and Jayachandran 2001, Visaria and Visaria 2003, Bhat 2004). Taking into account these aspects, the current projection does not incorporate the impact of HIV/AIDS on life expectancy.

After estimating demographic trends (TFR, life expectancy and net out-migration rates) under two variants, the population for India and the states have been projected using SECTRUM software. The projected results suggest that, under high variant assumption, the population of the country is expected to grow from 1028 million in 2001 to 1404 million in 2026 and to 1581 million by 2051 (Table1.1)

Table 1.1: Projected population for states and India under high variant (in million), 2006-2051

States	2006	2011	2016	2021	2026	2031	2036	2041	2046	2051
Andhra Pradesh	80.63	84.69	88.47	91.63	94.07	96.01	97.5	98.42	98.66	98.32
Assam	28.67	30.69	32.72	34.64	36.25	37.57	38.7	39.64	40.34	40.77
Bihar	91.87	101.09	111.16	121.46	130.6	138.25	145.09	151.47	157.05	161.32
Chhattisgrah	22.61	24.39	26.16	27.8	29.2	30.39	31.45	32.37	33.1	33.6
Delhi	14.68	15.46	16.23	16.95	17.52	17.89	18.11	18.2	18.19	18.02
Gujarat	54.53	58.14	61.48	64.38	66.8	68.8	70.37	71.48	72.11	72.28
Haryana	22.89	24.55	26.06	27.33	28.35	29.17	29.82	30.22	30.35	30.21
Himachal Pradesh	6.41	6.73	7.02	7.27	7.46	7.62	7.74	7.81	7.82	7.78
Jammu and Kashmir	10.79	11.49	12.23	12.91	13.46	13.87	14.2	14.49	14.71	14.83
Jharkhand	29.37	31.86	34.42	36.84	38.84	40.47	41.92	43.24	44.33	45.08
Karnataka	56.15	59.27	62.12	64.54	66.48	68.06	69.27	70.06	70.37	70.25
Kerala	33.41	34.87	36.15	37.23	38.1	38.77	39.22	39.42	39.35	39.04
Madhya Pradesh	66	71.82	77.84	83.6	88.63	92.99	96.9	100.31	103	104.94
Maharashtra	102.57	107.95	112.95	117.35	120.86	123.54	125.57	126.82	127.12	126.48
Orissa	38.78	40.71	42.54	44.19	45.52	46.56	47.37	47.94	48.21	48.16
Punjab	25.78	27.13	28.35	29.36	30.11	30.68	31.07	31.24	31.16	30.82
Rajasthan	62.32	68.29	74.42	80.18	85.06	89.18	92.9	96.18	98.74	100.47
Tamil Nadu	65.16	67.5	69.46	70.95	72.02	72.73	73.04	72.94	72.41	71.49
Uttar Pradesh	184.05	203.35	224.36	245.45	264.28	280.75	295.89	309.85	321.94	331.57
Uttarakhand	9.22	9.98	10.74	11.45	12.05	12.57	13.02	13.43	13.76	14
West Bengal	84.88	89.12	93.22	97.01	100	102.15	103.69	104.73	105.14	104.84
India (Un weighted)	1106.99	1183.65	1257.69	1324.81	1380.38	1426.16	1464.20	1494.15	1514.69	1524.85
India (Weighted)	**1107.70**	**1187.38**	**1266.87**	**1340.86**	**1403.74**	**1456.54**	**1501.38**	**1538.02**	**1564.88**	**1580.94**

Under medium variant assumption, the projected population of India will be about 1393 million in 2026 and 1549 million in 2051 (Table 1.2).

Table 1.2 Projected population for states and India under medium variant assumptions (in million), 2006-2051

	2006	2011	2016	2021	2026	2031	2036	2041	2046	2051
Andhra Pradesh	80.53	84.31	87.54	89.98	91.66	92.75	93.24	93.02	92.07	90.51
Assam	28.67	30.69	32.72	34.64	36.25	37.57	38.7	39.64	40.34	40.77
Bihar	91.87	101.09	111.16	121.46	130.60	138.25	145.09	151.47	157.05	161.32
Chhattisgarh	22.61	24.39	26.16	27.80	29.20	30.39	31.45	32.37	33.10	33.6
Delhi	14.69	15.50	16.21	16.82	17.26	17.52	17.62	17.57	17.38	17.02
Gujarat	54.53	58.14	61.48	64.38	66.80	68.80	70.37	71.48	72.11	72.28
Haryana	22.89	24.55	26.06	27.33	28.35	29.17	29.82	30.22	30.35	30.21
Himachal Pradesh	6.41	6.72	6.99	7.19	7.33	7.44	7.49	7.49	7.43	7.30
Jammu and Kashmir	10.79	11.49	12.23	12.91	13.46	13.87	14.2	14.49	14.71	14.83
Jharkhand	29.37	31.86	34.42	36.84	38.84	40.47	41.92	43.24	44.33	45.08
Karnataka	56.10	59.11	61.72	63.73	65.20	66.23	66.83	66.92	66.46	65.52
Kerala	33.28	34.50	35.50	36.30	36.88	37.20	37.24	37.00	36.47	35.70
Madhya Pradesh	66.00	71.82	77.84	83.60	88.63	92.99	96.90	100.31	103.00	104.94
Maharashtra	102.50	107.96	112.38	116.15	118.86	120.63	121.64	121.70	120.70	118.67
Orissa	38.78	40.71	42.54	44.19	45.52	46.56	47.37	47.94	48.21	48.16
Punjab	25.76	27.06	28.16	28.99	29.54	29.89	30.04	29.94	29.55	28.91
Rajasthan	62.32	68.29	74.42	80.18	85.06	89.18	92.9	96.18	98.74	100.47
Tamil Nadu	65.00	67.00	68.49	69.45	69.97	70.04	69.63	68.72	67.36	65.58
Uttar Pradesh	184.05	203.35	224.36	245.45	264.28	280.75	295.89	309.85	321.94	331.57
Uttarakhand	9.22	9.98	10.74	11.45	12.05	12.57	13.02	13.43	13.76	14.00
West Bengal	84.78	88.96	92.77	95.90	98.09	99.42	100.11	100.13	99.36	97.82
India (Un weighted)	1106.99	1183.65	1257.69	1324.81	1380.38	1426.16	1464.20	1494.15	1514.69	1524.85
India (Weighted)	**1107.28**	**1185.93**	**1263.04**	**1333.60**	**1392.67**	**1441.17**	**1481.06**	**1513.15**	**1536.33**	**1549.00**

b) Population growth and its implications for political representation in India

Assuming the total number of seats remained at 543, the 21 states (population more than six million in 2001) had a share of 524 seats in the present Lok Sabha. As per the Webster's Method, estimated loss of representation in parliamentary seat is seven for Tamil Nadu, three for Kerala, two each for Andhra Pradesh and Orissa and one for Karnataka in 2001. Thus, the total loss of representation in parliamentary seats for the southern states would be about 13 seats, of which Tamil Nadu alone would be losing about 54 percent of the total loss in representation. The other major losers are

Uttarakhand, Himachal Pradesh, and Jammu and Kashmir, by about one seat each. Uttarakhand is likely to lose a seat on account of the higher allocation of seat it had at the time of creation of the state. In contrast, Uttar Pradesh and Rajasthan would be gaining six and four seats respectively. The gain would be by about three seats for Bihar followed by Madhya Pradesh and Maharashtra by two seats each. Therefore, the total gain in parliamentary representation of the northern states would be about 15 seats, with about 40 percent of the total gain going to Uttar Pradesh (Table 1.3).

The position of the states in terms of gain or loss of parliamentary seats is likely to be aggravated with further changes in the future as well. By 2026, the total loss for the southern states would be about 28 parliamentary seats (Tamil Nadu 12, Andhra Pradesh 7, Kerala 6 and Karnataka 3). The other major losers of representation would be West Bengal (5), Orissa (4), Maharashtra (3) and Punjab (2). On the other hand, the total gain for northern states would be about 44 seats (Uttar Pradesh 21, Bihar 10, Rajasthan 7, Madhya Pradesh 5, Jharkhand and Haryana one each), if reapportionment is undertaken on the basis of the proportionate allocation according to population size of the states.

The analysis has clearly revealed that, if seats were allocated on the principle of standard proportionate population per seat, most of the southern states would be heavily losing their existing representation in the Lok Sabha. Conversely, the northern states would be gaining massively in parliamentary representation, as of now and in the coming years as well. Since there is no proportionate reapportionment of seats based on the population size of states in terms of the principle of equal value for one vote, the northern states are

currently under-represented (comparatively larger population per MP) and southern states

are over-represented (comparatively lower population per MP) in the House.

Table 1.3 State-wise gainers and losers of Lok Sabha seats under Webster's method, 2001-2051

Major States	1971	2001	2011	2021	2026	2031	2041	2045	2051
Andhra Pradesh	42	40(-2)	38(-4)	36(-6)	35(-7)	34(-8)	33(-9)	32(-10)	31(-11)
Assam	14	14(0)	14(0)	14(0)	14(0)	14(0)	14(0)	14 (0)	14(0)
Bihar	40	43(+3)	45(+5)	48(+8)	50(+10)	51(+11)	53(+13)	54(+14)	55(+15)
Chhattisgarh	11	11(0)	11(0)	11(0)	11(0)	11(0)	11(0)	11(0)	12(+1)
Delhi	7	7(0)	7(0)	7(0)	7(0)	6(-1)	6(-1)	6(-1)	6(-1)
Gujarat	26	26(0)	26(0)	26(0)	25(-1)	25(-1)	25(-1)	25(-1)	25(-1)
Haryana	10	11(+1)	11(+1)	11(+1)	11(+1)	11(+1)	11(+1)	11(+1)	10(0)
Himachal Pradesh	4	3(-1)	3(-1)	3(-1)	3(-1)	3(-1)	3(-1)	3(-1)	2(-2)
Jammu and Kashmir	6	5(-1)	5(-1)	5(-1)	5(-1)	5(-1)	5(-1)	5(-1)	5(-1)
Jharkhand	14	14(0)	14(0)	15(+1)	15(+1)	15(+1)	15(+1)	15(+1)	15(+1)
Karnataka	28	27(-1)	27(-1)	25(-3)	25(-3)	24(-4)	23(-5)	23(-5)	22(-6)
Kerala	20	17(-3)	16(-4)	14(-6)	14(-6)	14(-6)	13(-7)	13(-7)	12(-8)
Madhya Pradesh	29	31(+2)	32(+3)	33(+4)	34(+5)	34(+5)	35(+6)	36(+7)	36(+7)
Maharashtra	48	50(+2)	48(0)	46 (-2)	45(-3)	44 (-4)	43(-5)	42(-6)	41(-7)
Orissa	21	19(-2)	18(-3)	18(-3)	17(-4)	17(-4)	17(-4)	17(-4)	17(-4)
Punjab	13	13(0)	12(-1)	12(-1)	11(-2)	11(-2)	10(-3)	10(-3)	10(-3)
Rajasthan	25	29(+4)	31(+6)	32(+7)	32(+7)	33(+8)	34(+9)	34(+9)	35(+10)
Tamil Nadu	39	32(-7)	30(-9)	28(-11)	27(-12)	26(-13)	24(-15)	23(-16)	23(-16)
Uttar Pradesh	80	86(+6)	92(+12)	97(+17)	101(+21)	104(+24)	109(+29)	111(+31)	114(+34)
Uttarakhand	5	4(-1)	4(-1)	5(0)	5(0)	5(0)	5(0)	5 (0)	5(0)
West Bengal	42	42(0)	40(-2)	38(-4)	37(-5)	37(-5)	35(-7)	34(-8)	34(-8)
Total	**524**	**524**	**524**	**524**	**524**	**524**	**524**	**524**	**524**

Note: The computations in this exercise were carried out with divisors of 1,922,000 (2001), 2,221,800 (2011), 2,517,800(2021), 2,621,852 (2026), 2,711,000(2031), 2,849,465(2041), 2,886,774 (2045) and 2,910,650 (2051).

A view taken at the issue from this perspective gives us an idea of what is the extent of

under-representation or over-representation of the seats of the states in the Lok Sabha.

Here, the extent of over-representation of those states which successfully controlled

population would be equivalent to the number of seats they would be losing, if the

principle of population proportionality is applied in the allocation of seats. Similarly, the

magnitude of under-representation of the highly populated states would be matching with

the number of seats they would be gaining, if this principle is applied to their cases. For

instance, in such a case, the under-representation of the northern states would be about 15 seats and the over-representation of the southern states would be about 13 seats, based on the 2001 Census population. The most under-represented state in terms of the number of parliamentary seats would be Uttar Pradesh and the most over-represented state would be Tamil Nadu. A similar pattern would be observed for the rest of states in the near future.

Table 1.4 shows the trends in the value of vote of each state during the past three decades and the manner in which it is likely to change in the coming years. It suggests that the value of one vote at the state level was hovering around value one in 1970's but since then it has changed significantly.

Table 1.4: Likely change in the value of votes among the states of India, 1971-2051

States	1971	1981	1991	2001	2011	2021	2026	2031	2041	2045	2051
Andhra Pradesh	1.01	1.01	1.01	1.06	1.11	1.17	1.20	1.23	1.29	1.31	1.35
Assam	1.00	1.00	1.00	1.01	1.02	1.01	1.01	1.01	1.01	1.00	1.00
Bihar	1.00	1.00	1.00	0.93	0.88	0.83	0.80	0.78	0.75	0.74	0.72
Chhattisgarh	-	-	-	1.02	1.00	0.99	0.99	0.98	0.97	0.96	0.95
Delhi		1.45	1.18	0.98	1.01	1.04	1.06	1.08	1.13	1.16	1.20
Gujarat	1.02	0.98	1.00	0.99	1.00	1.01	1.02	1.03	1.04	1.04	1.05
Haryana	1.04	1.00	0.97	0.91	0.91	0.92	0.92	0.93	0.94	0.95	0.96
Himachal Pradesh	-	-	-	1.27	1.33	1.40	1.43	1.46	1.52	1.55	1.59
Jammu & Kashmir	-	-	1.22	1.14	1.16	1.17	1.17	1.17	1.18	1.18	1.18
Jharkhand	-	-	-	1.00	0.98	0.95	0.95	0.94	0.92	0.91	0.90
Karnataka	1.00	0.97	0.99	1.02	1.06	1.10	1.13	1.15	1.19	1.21	1.24
Kerala	0.98	1.01	1.10	1.21	1.29	1.38	1.42	1.46	1.54	1.58	1.63
Madhya Pradesh	1.00	0.99	0.96	0.93	0.90	0.87	0.86	0.85	0.82	0.82	0.80
Maharashtra	0.99	0.99	0.97	0.96	0.99	1.04	1.06	1.08	1.12	1.14	1.18
Orissa	1.00	1.03	1.06	1.10	1.15	1.19	1.21	1.22	1.25	1.26	1.27
Punjab	1.00	1.00	1.02	1.03	1.07	1.13	1.15	1.18	1.24	1.26	1.31
Rajasthan	1.01	0.94	0.91	0.85	0.82	0.78	0.77	0.76	0.74	0.73	0.72
Tamil Nadu	0.99	1.04	1.11	1.21	1.30	1.41	1.46	1.51	1.62	1.66	1.73
Uttar Pradesh	1.00	0.99	0.97	0.93	0.88	0.82	0.79	0.77	0.74	0.72	0.70
Uttarakhand	-	-	-	1.14	1.12	1.10	1.09	1.08	1.06	1.05	1.04
West Bengal	0.99	0.99	0.98	1.01	1.05	1.10	1.12	1.15	1.20	1.22	1.25
India	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**

Source: Computed by the author

The illustration indicates that in 2001, the value of one vote, if at the national level was equivalent to 1.21 in Kerala and 0.93 in Uttar Pradesh. The value becomes 1.46 and 0.79 respectively in 2026 and to 1.66 and 0.72 respectively by 2045. The highest increase in the value would be recorded in Tamil Nadu whereas the lowest value would be recorded in Uttar Pradesh, by 2051. The decline in the value of votes would be seen in those northern states in which the population per representative has gone up and the value has increased in the southern states in which comparatively a lower size of population is represented by each MP.

1.8 DISCUSSION

The present analysis indicates that, if seats were proportionately re-allocated, states which were successful in curbing their population growth will be penalised in terms of a cut in their representation and that such loss would turn out to be the gain of those states who failed to control population. If such a reapportionment is implemented, it would effectively tilt the balance of the political power in favour of the states with larger population. On the contrary, those states which were unsuccessful in controlling the population growth will be under-represented in the House.

As a result of the demographic divide in population size, the value of votes of those states which contained their population growth would be significantly higher than those who failed to do so. Such variations in the value of votes tend, in every sense, to dilute the fundamental principle of one-man, one-vote and one-value enshrined in the Indian Constitution and thereby the democratic norms themselves. The principle of one-person, one-value and one-vote would be maintained only if the seats were proportionately

allocated to population. In the present circumstances, such an implementation is not feasible. The absence of reapportionment of seats according to population size of the states for the past three decades has led to a mismatch in the number of representatives per population among the states. As a result, an MP from any northern state represents a relatively higher population than any MP from the south, thus leading to managerial problems of nursing their constituencies.

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