

## CHAPTER 4

# THE ‘REGISTRATION GAP’

The analysis of the national survey and focus groups has shown that the registration process poses the steepest practical obstacles to voter participation. For electoral authorities seeking to reduce ‘supply-side’ barriers to participation, voter registration procedures should therefore be an important priority. Yet in considering the impact of such procedures, examining how they interact with the diverse social circumstances of South African voters is necessary. It is easy to imagine that identical procedures could have very different effects in, for example, a wealthy suburb compared with a commercial farm—or in a peri-urban squatter camp compared with a rural village in a former homeland. A particular concern is to identify any segments of the electorate in which social disadvantage compounds the adverse effects of practical obstacles on voter participation.

This chapter focuses on the social context of the registration process and its impact on participation. It presents evidence of a ‘registration gap’ among disadvantaged rural residents, who are registered at a substantially lower rate than the rest of the electorate. This finding is based on the analysis of an original data set containing official registration figures and census-based social profiles aggregated to the local (usually ward) level. The analysis uses statistical techniques for ‘ecological inference’ devised to extract information about individual

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characteristics from aggregate data.<sup>1</sup> This approach yields new insights about the social context of voter participation in South Africa, and it allows the calculation of localized estimates with a degree of precision unattainable in conventional national sample surveys.

## **THE ANALYTICAL APPROACH**

Social inequality in South Africa is complex, reflecting the interaction of many factors—such as socioeconomic class, legacies of racial discrimination, gender age, patterns of local political authority, and the uneven geographic distribution of physical and administrative infrastructure. The objective of the analysis of local electoral and social profiles was to identify segments of society in which social disadvantage compounds practical difficulties of voter registration, resulting in unusually low registration rates. To accomplish this, an indicator of (or ‘proxy’ for) social disadvantage was required that can be reliably measured and is sufficiently flexible to capture the many manifestations of social disadvantage in South Africa. Of the available options, low educational attainment (less than grade 9 completed) was chosen. Like any other indicator that might have been selected, one based on formal schooling is an indirect and imperfect measure of disadvantage. Yet it is highly correlated with other manifestations of disadvantage—for example, legacies of racial discrimination, and the prevalence of poverty and female-headed households. Most individuals with less than grade 9 education (a category containing roughly half the voting-age population) can be regarded as disadvantaged. And, despite individual exceptions,

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<sup>1</sup>Gary King, *A Solution to the Ecological Inference Problem: Reconstructing Individual Behavior from Aggregate Data* (Princeton: Princeton University Press, 1997).

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those with more than grade 9 possess at least one significant advantage lacked by the counterparts with less.

The analysis of registration patterns among the disadvantaged is based on a linked set of local registration and census data. The registration data were extracted directly from the gazetted results of the 1999 national election, which was regarded as the most appropriate precedent in preparing for the 2004 national election.<sup>2</sup> Characteristics of the 1999 voting-age population were calculated from the 1996 census, using data for individuals who were fifteen years or older in October 1996. The registration and census data were aggregated to local units generally equivalent to electoral wards (and district management areas), using electronic (GIS) boundary data provided by the IEC.<sup>3</sup> The product was a data set containing electoral and census profiles for 2949 localities covering all of South Africa. Importantly, the data set differs from a national sample survey in that it is comprehensive—rather than containing information about a nationally representative sample of a few thousand individuals, the local profiles contain every registered voter and every member of the voting-age population counted in the 1996 census.

The challenge in using this data set to clarify the social bases of

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<sup>2</sup>The other candidate was the 2000 municipal election, but municipal elections tend to have different participation patterns than national ones. In any case, although participation in 2000 was much lower than in 1999, registration figures were very similar—as most voters in 2000 had registered in anticipation of the 1999 election.

<sup>3</sup>Electoral wards were chosen as the local units to facilitate later comparisons between the 1999 and 2000 elections. Voting districts—the smallest units for which electoral data are available—were generally too small to make acceptable matches with census data. Difficulties were related to limitations of using the 1996 census to estimate 1999 population for specific localities—such as the lack of local mortality and migration data for the period between the census and the election, and measurement error. The statistical techniques used are ‘aggregation-invariant’, meaning that the estimates are not dependent on aggregation to wards as opposed to some other more ‘arbitrary’ aggregation of adjacent voting districts.

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voter registration is that—despite knowing the percentage of the voting-age population registered in every locality, and the percentage with less than grade 9 education—the registration rate of the disadvantaged segment of the population cannot be directly observed. This complication is known among social scientists as the ‘ecological inference problem’. Historically it has been a major obstacle to identifying characteristics of individuals from profiles of social aggregates (here, localities). Fortunately, statistical techniques have recently been developed that allow the estimation of individual characteristics from data sets consisting of many aggregate profiles. These methods have been especially useful in local electoral research, where sample surveys are either too costly or too unreliable. In fact, a main use of ‘ecological inference’ techniques has been in Voting Rights cases in the United States, which require plaintiffs to show that electoral boundaries reduce the representation of specific social groups.<sup>4</sup> Very similar applications the techniques used to estimate registration rates among disadvantaged voters in this study have been accepted in American courts.<sup>5</sup>

## **THE FINDINGS**

The aim of the analysis was to clarify the impact of South Africans’ diverse social circumstances on voter registration patterns—and especially, to identify segments of the population in which social disadvantage compounds the practical difficulties of the registration process. The major finding is that rural residence is the most important

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<sup>4</sup>On the analytical challenges raised, see Daniel L. Rubinfeld, ed., *Statistical and Demographic Issues Underlying Voting Rights Cases*, special issue of *Evaluation Review* 15, no. 6 (December 1991).

<sup>5</sup>Gary King, ‘EI: A Program for Ecological Inference,’ unpublished paper, Harvard University, version 1.61 (December 1998): 46.

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social factor associated with low registration among the disadvantaged. Registration rates among disadvantaged rural dwellers are substantially below those for the rest of the electorate. This finding holds for the disadvantaged rural population irrespective of more specific characteristics of their areas of residence—that is, it holds for disadvantaged people living on commercial farms, in so-called ‘tribal’ areas, and in other types of rural settlements. In contrast, registration rates among the disadvantaged in urban areas—whether in formal townships, informal or squatter settlements, or anywhere else classified as ‘urban’—tend to stand at or above the national average. Although idiosyncratic features of individual wards inevitably produce exceptions to the general pattern, rural residence is the overriding factor associated with low registration among the socially disadvantaged.

The ‘registration gap’ appears largely to be the result of practical difficulties faced by disadvantaged rural communities. Major considerations include sparse settlement patterns (which increase the physical distances that need to be travelled to reach registration facilities) and a host of infrastructural limitations—including transport, communications, and public administration.<sup>6</sup> Several observations highlight the importance of ‘supply-side’ obstacles to registration:

the sharp contrast between low registration rates among disadvantaged rural dwellers and above average rates among their urban counterparts;

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<sup>6</sup>The required use of a bar-coded identity document (ID) is widely viewed as a significant obstacle to voter registration. Yet it is worth noting that the last major study on the topic found that almost identical shares of urban and rural residents possessed bar-coded IDs. While difficulties acquiring documentation are likely to compound practical obstacles to registration by disadvantaged rural dwellers, the ‘registration gap’ cannot be attributed simply to an unusually low prevalence of bar-coded IDs. See Johan Olivier and others, ‘The Extent to which Eligible Voters are in Possession of SA Identity Documents: National Survey Report,’ HSRC report to the IEC (30 July 1998): 14.

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the pervasiveness of low registration among disadvantaged rural residents across different kinds of areas—including commercial farms, ‘tribal’ areas, and other rural settlement types;

a modest tendency for registration rates among disadvantaged rural dwellers to be higher in areas likely to have better infrastructure (as reflected in more favourable local socioeconomic profiles); and

a tendency for registration rates of disadvantaged rural dwellers to fall substantially below those for their more advantaged counterparts in the same localities—a pattern that does not generally hold in urban areas.

In sum, the combination of social disadvantage and rural residence is associated with much lower registration rates than for the rest of the electorate, and compelling evidence suggests that ‘supply-side’ practical difficulties are major causes of low registration.

The analysis allows the quantification of the ‘registration gap’. The ‘gap’ can be defined as the additional number of disadvantaged rural residents who would have to register to match the registration rate for the rest of the voting-age population. Using this definition, the registration gap amounts to 830,000 unregistered potential voters.<sup>7</sup> The gap is illustrated in figure 5. The red bar on the left represents the estimated registration rate for rural residents lacking grade 9 education (the indicator of social disadvantage). The black bar on the right represents the registration rate for the rest of the population. The black bar is noticeably taller than the red one—by a margin of approximately 12 percent. The hatched box above the red bar represents the additional number of disadvantaged rural voters who would have to be registered to

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<sup>7</sup>The statistical ‘error margin’ for the registration gap is plus or minus 100,000. This was calculated for a confidence level of 90 percent. Thus, while 830,000 remains the best estimate of the registration gap, the statistical estimates indicate only a one-in-ten chance that the gap falls outside the range from 730,00 to 930,000.

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make up the difference. This figure is equal to the registration gap of 830,000. For perspective, the 1999 unregistered voting-age population among disadvantaged rural residents is estimated at 2.83 million. Thus, nearly three of every ten disadvantaged rural residents who were unregistered in 1999 would have to register to close the gap completely.

The registration gap was calculated from data for nearly three thousand localities countrywide, and the atlas contains estimates of the gap at that level of local detail. To illustrate the geographic distribution of the gap in broader strokes, the local figures can be aggregated within each of the nine provinces. Such a provincial breakdown is presented in figure 6. It shows that the registration gap is concentrated in four provinces—the Eastern Cape (32 percent), KwaZulu-Natal (26 percent), Limpopo (17 percent), and Northwest (12 percent). This is not unexpected, as these provinces also contain the bulk of South Africa's disadvantaged rural population. In contrast, Gauteng accounts for only 0.3 percent of the registration gap, but this is mainly because it has a very small rural population.

Provincial patterns can be further clarified by comparing registration rates for disadvantaged rural residents in each province with the national benchmark rate. Figure 7 presents these comparisons. Eastern Cape again emerges as the province with the largest shortfall (19 percent below the national benchmark, represented by the red bar). This shows that the Eastern Cape's large share of the national 'registration gap' is not attributable simply to the province's large disadvantaged rural population, but also to a registration rate that falls far below the national benchmark. At the other end of the spectrum, two provinces—Gauteng and Mpumalanga—exceed or approach the national benchmark. Gauteng is exceptional in that it has a very small rural population, near a major metropolitan area.<sup>8</sup> Mpumalanga's record

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<sup>8</sup>That figure 7 shows Gauteng surpassing the benchmark

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shows that a province with more than 600,000 disadvantaged rural residents can achieve a registration rate within this segment very close to the national benchmark. Between the extremes, six of nine provinces—Free State, KwaZulu-Natal, Northwest, Northern Cape, Limpopo, and Western Cape—have estimated registration rates for disadvantaged rural voters falling between 9 and 14 percent below the national benchmark.

The estimates in figure 7 confirm that provinces' shares of the national 'registration gap' reflect not only the sizes of their disadvantaged rural populations, but also differences in registration rates within those populations. But in assessing the scale of registration challenges—whether nationally, provincially, or locally—the 'gap' estimates arguably convey the most information. They directly specify the actual number of potential voters that must register to meet an established benchmark. Using average registration for the voting-age population other than disadvantaged rural residents as the benchmark, the estimates in figure 5 place the national 'gap' at 830,000 unregistered potential voters. And the provincial breakdown in figure 6—calculated from more detailed local estimates—draws attention to areas where the 'gap' is largest.

## **CONCLUSION**

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registration rate may seem inconsistent with the province accounting for 0.3 percent of the national 'registration gap' in figure 5. This apparent inconsistency is explained by the fact that figure 6 uses the sum of local 'gaps' in each province to calculate its share of the national 'gap', while figure 7 presents averages across each province's entire disadvantaged rural population. Gauteng has a share of the national 'gap' because it contains some localities in which disadvantaged rural residents registered below the national benchmark—though on average the province's disadvantaged rural residents registered above the benchmark rate.

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This chapter has presented major findings about the impact of social context on voter registration in South Africa. In particular, the focus has been on identifying a segment of society in which social disadvantage compounds the practical difficulties of the registration process—resulting in unusually low registration rates. The analysis applied techniques for ‘ecological inference’ to an original data set containing electoral and social profiles for every locality in South Africa. The central finding was that, for disadvantaged individuals, rural residence is the overriding factor associated with low registration. Moreover, patterns in the data suggest that practical obstacles rooted in sparse settlement patterns and weak infrastructure in rural areas are important sources of low registration. Quantitatively, the ‘registration gap’ was estimated at 830,000—the ‘gap’ being the additional number of disadvantaged rural residents who would have to register just to match the registration rate for the rest of the electorate. The gap was shown to be concentrated in four provinces that collectively account for a large share of South Africa’s disadvantaged rural population—the Eastern Cape, KwaZulu-Natal, Limpopo, and the Northwest. Chapter 5 builds on these findings by exploring implications for devising a strategy to reduce the registration gap.