

IN THE SUPREME COURT
OF THE STATE OF CALIFORNIA

GOVERNOR GRAY DAVIS,)
CONGRESSMAN XAVIER BECERRA,)
CONGRESSMAN TOM LANTOS,)
COUNCILMAN BEN WONG,)
DANNY J. BAKEWELL, SR., and)
JORGE CORRALEJO,)

Petitioners,)

vs.)

KEVIN SHELLEY, in his official capacity)
as Secretary of State of the State of)
California and CONNY McCORMACK, in)
her official capacity as Registrar-Recorder-)
County Clerk of the County of Los Angeles,)

Respondents.)

REPLY IN SUPPORT OF PETITION FOR WRIT OF MANDATE
AND/OR PROHIBITION

EMERGENCY STAY REQUESTED
CRITICAL DATE: AUGUST 31, 2003

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SUPPLEMENTAL DECLARATION OF HENRY E. BRADY

I, HENRY E. BRADY, hereby declare as follows:

1. I submit this declaration in support of the verified petition for writ of mandate filed by Gray Davis, et al., and to respond to points raised in the oppositions filed by the Secretary of State, the Los Angeles County Registrar of Voters, and Ted Costa.

I. SUMMARY OF OPINIONS

A. Punchcards

2. The data indicating that the rate of residual votes (*i.e.*, invalid ballots) in Fresno County was higher when the county employed a punchcard voting system is statistically significant. The probability of these results occurring by chance is one in 100,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000.

3. The data indicating that the rate of residual votes for minority voters in Fresno County was higher when the county employed a punchcard voting system is statistically significant. The probability of these results occurring by chance is less than one in a trillion.

4. Data from Marin and San Francisco Counties, both of which moved from punchcard systems to precinct optical scan systems, demonstrate similar results. Both counties experienced an overall reduction in residual votes and an especially substantial reduction in residual votes for minorities. The probability of these results occurring by chance is less than one in a billion.

5. Data from other studies support these conclusions, including a study by Professors Tomz and Van Houweling, that concludes that there are racial disparities in residual votes and that better voting technologies can reduce the disparity.

6. Data from Sacramento County demonstrate that there is a substantial relationship between residual votes and percent minority when punchcards are used. (Figure 3.) The percent residual vote in Sacramento County is lower than in Fresno County in 1996 (when Fresno still used punchcards) partly because Fresno has a larger minority population.

7. Data from Los Angeles County show a high residual vote and a very strong relationship between percent residual vote and percent minority in Census tracts. (Figure 4.) Data from other punchcard counties produce similar results. (Figure 5).

8. Comparing punchcard counties versus non-punchcard counties in California demonstrates that there is a greater residual vote rate for punchcard counties and that there is a significantly higher residual rate for minorities in punchcard counties. (Figures 1 and 6.) Moving away from punchcards will reduce overall residual voting by one to several percentage points, and it will reduce the especially high residual vote rates among minorities by one to several percentage points. Based upon the extraordinarily strong statistical evidence (and comparable evidence from other states), there is every reason to believe that the replacement of punchcards with other voting systems will significantly reduce residual vote rates, especially among minorities.

B. Consolidation of Precincts

9. My estimate that between 50 and 75 percent of voters in Los Angeles County will have to travel more than one-half mile to vote and that, for a significant fraction of these precincts, the travel distance will be greater than one mile, is based on sound statistical and operations research principles.

10. My conclusion that voting turnout will be reduced as a result of consolidation and that the elderly and the poor will suffer the greatest impact is based on an academic study that found significant impacts arising from increases in the size of precincts and well-known principles from transportation planning.

II. PUNCHCARDS

11. Respondent Shelley claims “. . . there is no proof of the statistical significance of Petitioners’ data, no explanation as to why the results ostensibly observed would apply to other punchcard counties in California, no explanation as to why the results would apply to future elections, and no reasons offered that the apparently successful four-year transition in Fresno County would necessarily be duplicated in the counties required to transition away from punch-cards in the shorter time frame, by March 2004.” (Shelley Opp. at 10, fn. 3.) I reply to these points here.

12. As before, by punchcard systems I mean Votomatic or Pollstar systems in which the names of candidates do not appear on the punchcards. The Datavote system also uses punchcards but the names of candidates appear on the punchcards, thus making it much easier for voters to “check-their-work.” When I refer to punchcards I am only referring to Votomatic or Pollstart systems and not to the Datavote system. The data used in the following analysis have been put together by me from various publicly available sources.

13. The major exhibit in my original declaration was Figure 1 in which percent residual vote (or invalid votes) was plotted versus percent minority in Census tracts in Fresno for 1996 when a punchcard system was used and for 2000 when an optical scan with in-precinct tabulation was used. The figure showed that the replacement of punchcards

with the optical scan system led to the dramatic reduction in overall residual vote rate (by about 2.65 percent) and a reduction in residual vote rates in predominantly minority Census tracts. A glance at Figure 1 in the original brief (reproduced as Figure 1 here as well) suggests why statistical tests are merely formalities for these data. For each one of the 128 tracts in Figure 1 except one, the residual votes (or invalid votes) for 1996 in that tract are substantially above those for 2000. (The only exception is a very small tract with fewer than ten votes and with zero invalid votes in both years.) The data, in this case, simply speak for themselves. Clearly, residual votes were higher in Fresno when a punchcard system was used, and clearly residual votes increased at a much higher rate with percent minority when punchcards were used.

14. A standard statistical test of the difference in the performance between the two systems can be based upon the assumption that if there were no difference, then residual votes for one tract in 1996 might sometimes be above those for 2000, but residual votes would just as likely be below those for 2000. That is, there would be no consistent evidence that punchcards performed worse than the replacement system. If there were no difference, the chance that the residual votes would be higher in 2000 would be one-half. Instead, with the one exception described above, for every Census tract the residual vote rate for 1996 when a punchcard system was used is above the residual vote rate for the same tract in 2000. If each Census tract is thought of as an independent test of the impact of the new system, then the probability of this happening if there is no significant impact of the system is $1/2$ to the 127th power or approximately one chance in 10^{38} or one chance in 100,000,000,000,000,000,000,000,000,000,000,000,000,000,000.

15. In addition, we can test whether the precinct optical scan system reduces the number of residual votes for minority voters by using regression analysis which is a standard statistical method for analyzing data like those in Figure 1. There are two ways to do this. One way is to consider the slopes of each line in Figure 1. The slope of the line for 1996 is .0413, meaning that for each 10 percent increase in minority population in a tract, the residual vote rate increases by .413 percent. For a change from 0 percent minority to 100 percent minority the residual vote rate increases by 4.13 percent. The slope of the second line for 2000 is .0086 (with a standard error of .0012) meaning that for each 10 percent increase in minority population in a tract, the residual vote rate increases by only .086 percent. Thus the change to precinct optical scan significantly reduces the relationship between percent minority and residual votes because the slope goes from .0413 to .0086 for a reduction of .0327. Another more direct test (which also allows for a test of statistical significance) is to take the difference between the residual vote in 2000 and 1996 for each tract and to regress it on minority percentage. If the change in systems reduced the racial disparity, then the coefficient should be significantly negative because the relationship between the residual vote rate and minority percentage should decline. The coefficient is -.0327 percent which indicates that for each 10 percent increase in minority population in a tract, the residual vote percentage went down by .327 percent with the change from punchcards to precinct optical scan. And the difference between tracts with 0 percent minority and those with 100 percent minority is -3.27 percent. The standard error is .0027 which indicates that the reduction is very highly statistically significant with a t-

statistic of 12.1.¹ In short, the likelihood that this reduction occurred by chance is less than one in a trillion.

16. Two other punchcard counties changed to new systems in 2000. Marin and San Francisco changed to precinct optical scan systems. Similar results are obtained for these two counties. The overall reduction in residual vote rate is 1.19 percent and the reduction in the slope on percent minority is -.0114 with a standard error of .002 (and a t-statistic of 5.8 indicating that the chance that this reduction occurred by chance is less than one in a billion.) Thus, the change away from punchcards in these counties reduced the difference in residual vote rate between tracts with zero percent minority and 100 percent minority percent minority by 1.14 percent.

17. In short, the change away from punchcards between 1996 and 2000 in three California counties – Fresno, Marin, and San Francisco – reduced the overall residual vote rate in these counties by one percent to 2-1/2 percent and it reduced the difference in residual vote rates between 100 percent minority and 0 percent minority Census tracts by one to 4 percent.

18. Data from other studies support these conclusions as noted in my original declaration, and the data presented below provide

¹ This t-statistic indicates that the reduction is statistically significant far, far beyond the standard .05 level of significance. Indeed, all of the t-statistics that I report in this declaration are beyond the value of 3.37 required for a .001 level of significance. A .001 level of significance means, roughly speaking, that if there is, in fact, no relationship, then the observed data will occur less than once in a thousand times. That is, if something is significant at the .001 level then we would observe what we do by chance (when there is no relationship) only about one in a thousand times.

additional corroboration for California. Before providing this evidence, it is worth taking up a claim in Mr. Costa's brief. He claims that "One of the scholarly articles he [Brady] cites in support of his views actually undercuts them: In the January 2003 *American Journal of Political Science*, Vol. 47, No. 1, at p. 58, Professors Michael Tomz of Stanford University and Robert P. Van Houweling of the University of Michigan conclude on the basis of South Carolina and Louisiana's 2000 presidential voting that precincts that used punchcards had a lower rate of under-voting than those that used optically scanned ballots, and that the differences between voters of different races were lower with punchcards." (Costa Opp. at 18-19.) In the interest of being precise, let me quote their entire abstract:

19. "An accumulating body of research suggests that African Americans cast invalid ballots at higher rates than whites. Our analysis of a unique precinct level dataset from South Carolina and Louisiana shows that the black-white gap in voided ballots depends crucially on the voting equipment people use. In areas with punchcards or optically scanned ballots, the black-white gap ranged from four to six percentage points. Lever and electronic machines, which prohibit overvoting and make undervoting more transparent and correctible, cut the discrepancy by a factor of ten. Judging from exit polls and opinion surveys, much of the remaining difference could be due to intentional undervoting, which African Americans profess to practice at a slightly higher rate than whites. In any case, the use of appropriate voting technologies can virtually eliminate the black-white disparity in invalid ballots." (Page 46.)

20. Thus, Tomz and Van Houweling are in absolute agreement on the main points that (a) there are racial disparities in residual votes and (b) better voting technologies can solve the problem.

21. The major apparent point of disagreement is in the performance of optical scan systems. The body of the Tomz and Van Houweling paper notes that “We find that, unlike centrally counted optical ballots and punch cards, DRE and lever machines nearly eliminate the racial gap in voided ballots (page 46).” The key phrase in this quotation is “centrally counted optical ballots.” Almost all (10 of the 13) optical scan systems in the Tomz and Van Houweling study employed central counting where the ballots are sent to a central location for counting. Precinct-count optical scan systems, on the other hand, count ballots within the precinct, and they can be used to inform voters about overvotes and/or undervotes. There is evidence that precinct-count optical scan systems do better than central-count optical scan systems (see below), and nationwide, precinct-count optical scan systems are replacing central count optical scan systems. In the Tomz and Houweling study, the optical scan systems (of which 10 of 13 were central count systems) averaged 5.6 percent invalid votes and punch cards averaged 5.3 percent invalid votes – essentially equal values given the small number of counties studied.

22. Furthermore, in at least some jurisdictions, such as California, it appears that even central-count systems do relatively well. Figure 2 shows the average residual vote rate in the 2000 Presidential election in California by five types of systems: punchcards (Votomatic and Pollstar used in 9 counties), central count optical scan (used in 11 counties), Datavote style systems (used in 21 counties), precinct count optical scan systems (used in 16 counties) and direct record electronic (DRE) systems

(used in one county). Clearly, Votomatic and Pollstar punchcards do the worst. Central count optical scan do somewhat worse than precinct count optical scan, but not by a great deal, and they are clearly much better than punchcards. In national studies (e.g., the Cal-Tech/MIT Voting Project. 2001. *Voting: What Is, What Could Be*, Pasadena and Cambridge and Henry E. Brady, Justin Buchler, Matt Jarvis, and John McNulty, *Counting All the Votes: The Performance of Voting Technology in the United States*, September 2001) in which both kinds of optical scan systems have been lumped together, optical scan does much better than punchcards. In summary, the poor performance of optical scan systems in the Tomz and Houweling study appears to be the result of the predominance of central count optical scan systems and the result of especially bad performance by those systems in the one state where they were used, South Carolina. Furthermore, there is no comparable evidence for difficulties with central count optical scan in California.

23. The Costa brief also relies upon a declaration by Jill LaVine who is the Registrar of Sacramento County. LaVine says that in the 2000 election in Sacramento County “The countywide average [of residual votes] was 1.687 percent of all ballots cast. This percentage has remained constant since 1980.” (LaVine Decl., ¶ 8.) The declaration goes on to say that “I have reviewed Mr. Brady’s declaration and do not find any support for the claim that errors in punchcard voting are more predominant among ethnic minorities. I am aware of no evidence that punchcard voting systems discriminate against minorities.” (*Id.*, ¶ 10.) Figure 3 presents a figure for Sacramento County comparable to Figure 1 for Fresno County. Using my dataset I get almost exactly the same figure of residual vote for Sacramento County in the 2000 presidential election (1.67 percent;

compare 1.687 percent at LaVine P7), and I get an average of 2.07 percent for 1996. These residual vote rates in Sacramento County are relatively low compared to those in some other counties. One explanation for this is that the percent minority is 28 percent in Sacramento compared to Fresno County (44 percent) and Los Angeles County (analyzed below) at 51 percent.

24. Figure 3 presents evidence for the possibility of a racial bias in the use of punchcards in Sacramento. As with Fresno County, the percent residual vote is plotted versus the percent minority. We see that in both 1996 and 2000 there is a significant slope in these lines. The slope for 1996 is .0287 with a very highly significant t-statistic of 12.1. The slope for 2000 is .0132 with a very highly significant t-statistic of 6.6. These data appear to show that punchcards significantly increase residual votes by minority voters. For 1996, going from zero to 100 percent minority Census tracts increases the residual vote rate by 2.87 percent in Sacramento County; for 2000, the same change increases the residual vote rate by 1.32 percent. These results do not prove that punchcards lead to racial bias, but they show that there is a substantial relationship between residual votes and percent minority when punchcards are used, just as we found in those counties described above before they changed away from punchcards.

25. Data from Los Angeles County present even greater indications of racial bias. Figure 4 presents data for 1996 and 2000. The average residual vote for these years is 3.79 and 2.70 respectively. The slopes are .0374 (t-statistic of 22.8) for 1996 and .0273 (t-statistic of 37.9) for 2000. These data show that punchcards appear to significantly increase residual votes by minority voters. For 1996, going from zero to

100 percent minority Census tracts increases the residual vote rate by 3.74 percent; for 2000, the same change increases the residual vote rate by 2.73 percent.

26. Figure 5 presents data for all counties that used punchcards in 2000 except Los Angeles and Sacramento (because data for them is in Figures 3 and 4). These seven counties were Alameda, Mendocino, San Bernardino, San Diego, Santa Clara, Shasta, and Solano. Their performance for 1996 (when they also used punchcards) is also displayed. Once again, there is a strong indication that there is a significantly higher residual vote rate for minorities. The slope is .0280 for 1996 (with a t-statistic of 21.6) and .0146 for 2000 (with a t-statistic of 13.1). These data show that punchcards appear to significantly increase residual votes by minority voters. For 1996, going from zero to 100 percent minority Census tracts increases the residual vote rate by 2.80 percent in these seven counties; for 2000, the same change increases the residual vote rate by 1.46 percent.

27. Figures 3-5 show that for the nine counties that used punchcards in 2000 (six of which intend to use punchcards in October 7, 2003), the residual vote rate increased significantly from Census tracts with no minorities to those composed entirely of minorities. The increase in residual vote rates is highest in Los Angeles (several percentage points) and lowest in Sacramento County (one to two percentage points). Figure 1 and the discussion in paragraphs 12-15 (summarized in paragraph 16) demonstrate that for three other counties (Fresno, Marin, and San Francisco) with similar relationships between residual votes and minorities in Census tracts in 1996, the replacement of punchcards with

other systems substantially reduced this relationship and lowered the overall level of residual votes as well.

28. Not only does a change from punchcards to another system reduce residual votes within a county, it is also true, as shown in Figure 6, that punchcard counties do worse than those using other systems in California. Figure 6 plots the presidential residual vote for 2000 versus percent minority for counties using punchcards and counties using all other systems. The fit lines tell the story – there is a greater residual vote rate for punchcard counties and the slope of the line is significantly greater for punchcard counties. Figure 6 shows that punchcard counties in 2000 had a residual vote rate about one percentage point higher in Census tracts with no minorities and about two percentage points higher in Census tracts with 100 percent minorities.

29. Thus the significant relationship between residual votes and percent minority in Census tracts found for punchcard counties in California is significantly reduced in non-punchcard counties (Figure 6), and it is reduced when punchcards in a county are replaced by another system (Figure 1).

30. These data indicate that the substantial reduction in overall residual voting (one to several percentage points) and in residual voting among minorities (one to several percentage points) described in my initial declaration is true across California counties and that it is highly statistically significant. The result is true when punchcard and non-punchcard counties are compared for the same election and when they are compared from one election to another. Based upon the extraordinarily strong statistical evidence (and comparable evidence from other states), there is every reason to believe that the replacement of punchcards with

other voting systems will significantly reduce residual vote rates, especially among minorities.

III. CONSOLIDATION OF PRECINCTS

31. None of the responses to our petition provide data to contradict my assertions about the negative impacts of precinct consolidation. We are told that “Petitioners offer only the naked supposition of their ‘experts’ to demonstrate that precinct consolidation will unfairly or unreasonably burden the right to vote.” (Costa Opp. at 23.) In fact, my declaration regarding the impacts of precinct consolidation was based upon a careful use of mathematical models and available data to estimate the increase in travel time and the citation of an article which clearly shows that increased travel time reduces turnout.

32. The impact on travel time was calculated using Census data on the density of population and simple geometrical arguments to determine the impact of precinct consolidation. My method consisted of using the obvious fact that precincts must cover the territory of Los Angeles County and the fact that there are obvious geometric rules that must be used to consolidate contiguous precincts. I used data on the population density of cities, the number of precincts, variation in the size of Census tracts in Los Angeles (as a proxy for variation in the size of precincts). My estimates are based upon sound statistical and operations research principles.

33. My claim that voting turnout would be reduced was based upon an article that found significant impacts of increases in the size of precincts. My claim that the elderly and the poor would be most greatly affected is based upon well-known principles from transportation planning which show that increased travel distances have the greatest impact on

those who must rely upon public transportation and those who are reluctant to go into new neighborhoods.

I declare under penalty of perjury that the foregoing is true and correct, and if called upon to do so, I could and would so testify.

Executed this 7th day of August 2003, at Berkeley
California.

Henry E. Brady
Henry E. Brady

Figure 1

Presidential Residual Vote in 1996 and 2000 by
Percent Minorities in Census Tract in Fresno

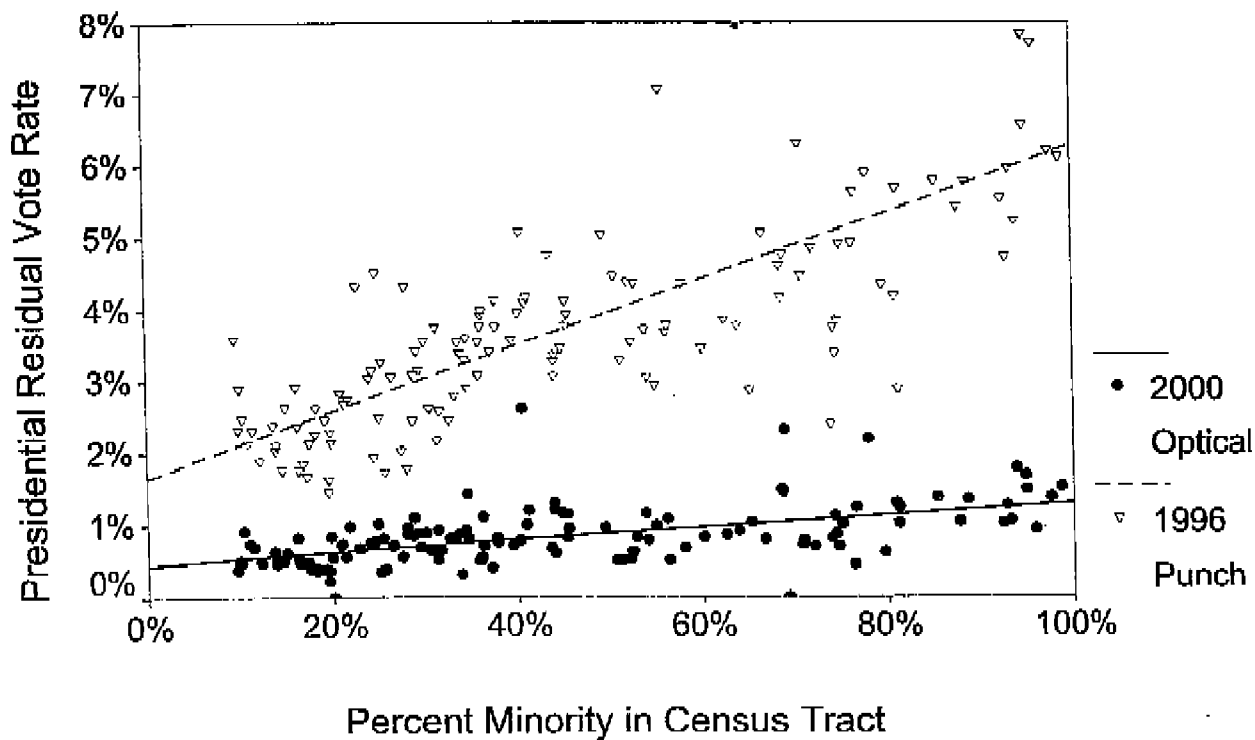


Figure 2
Residual Vote Rate in 2000 in California
by Type of Voting System

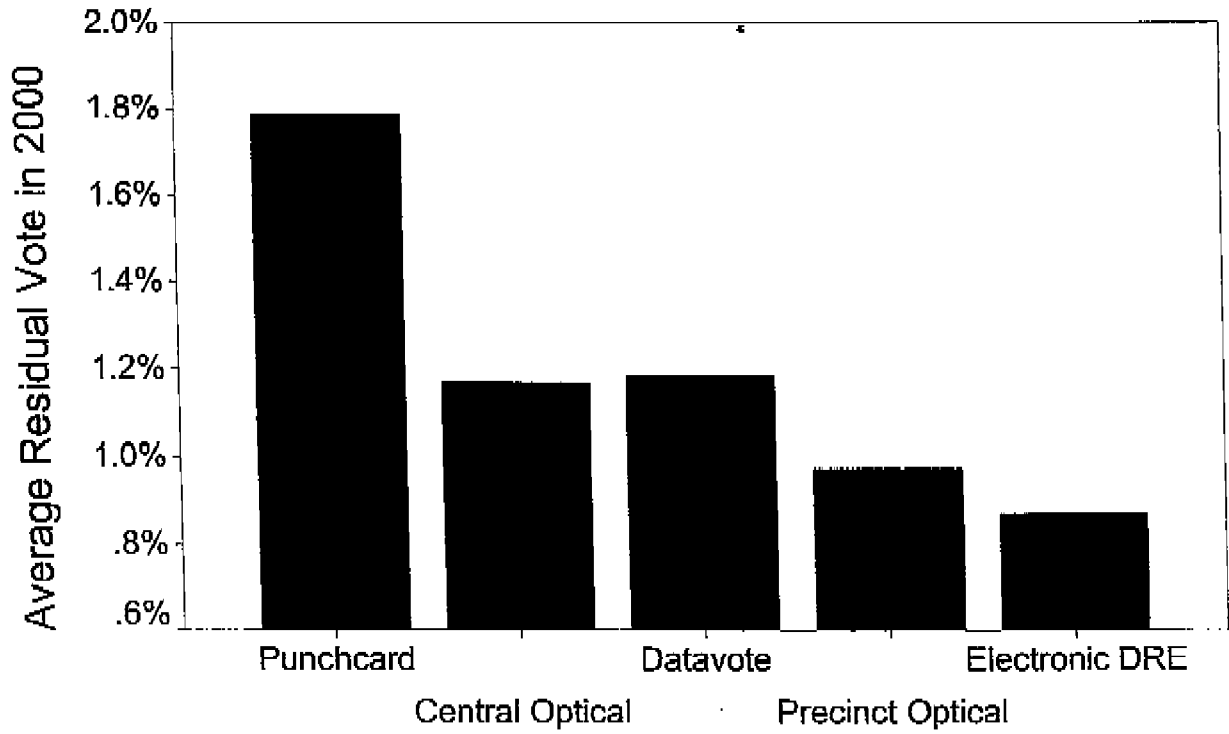


Figure 3

Residual Vote Rate in Sacramento County
by Percent Minority in Census Tract

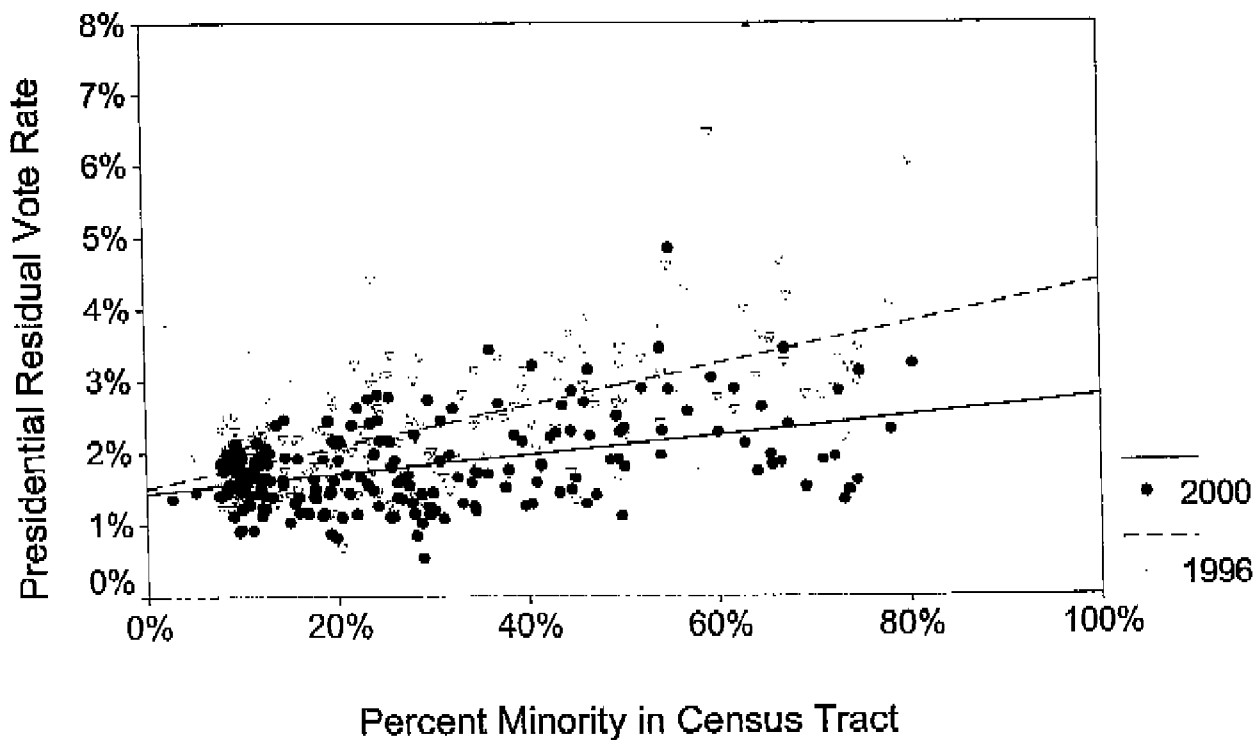


Figure 4

Residual Vote Rate in Los Angeles
by Percent Minority in Census Tract

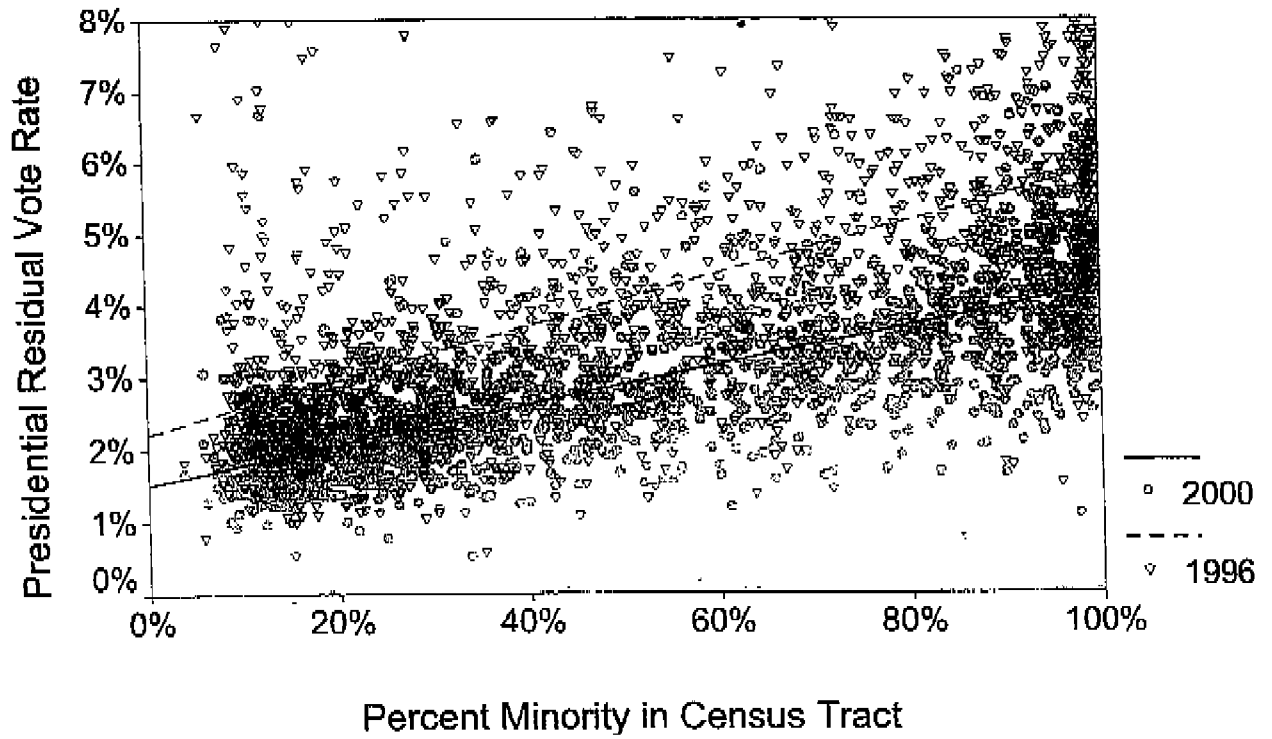


Figure 5

All 2000 Punchcard Counties Except

Los Angeles and Sacramento

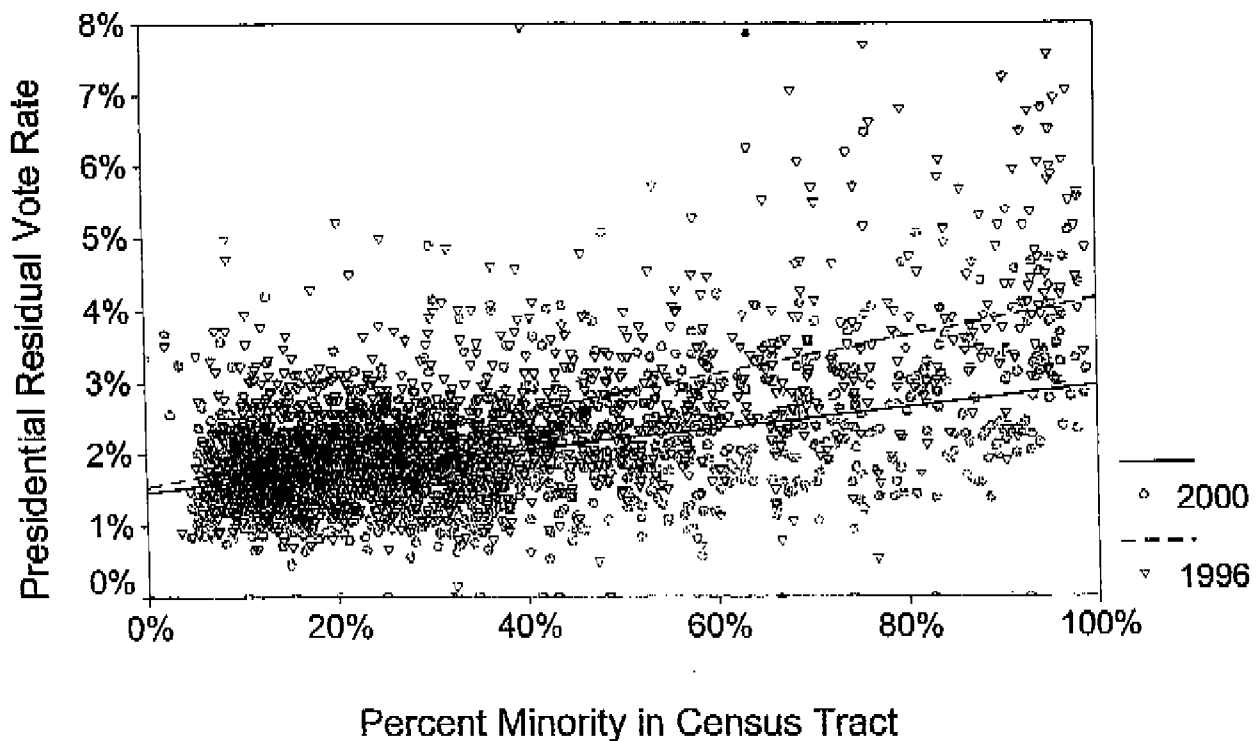
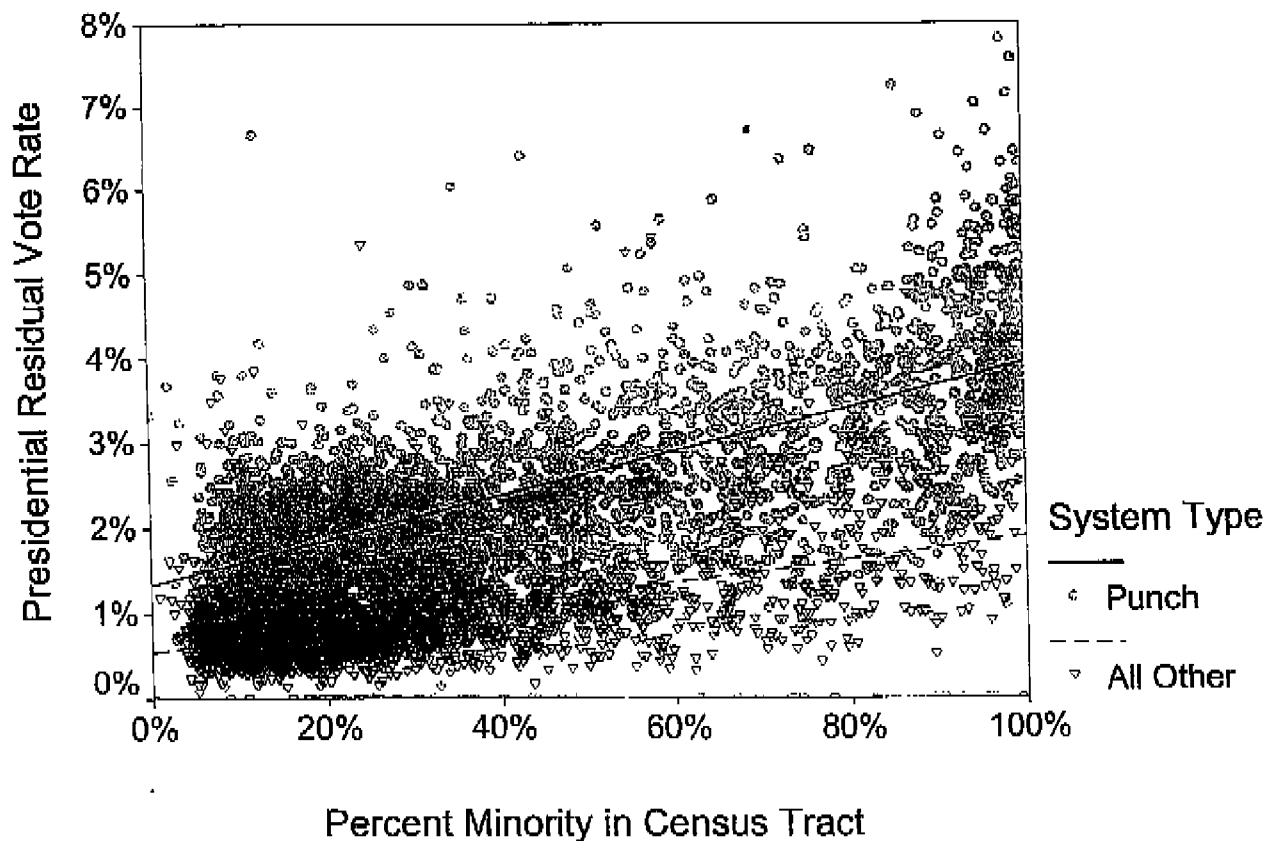


Figure 6

Punchcard Counties versus All Other in 2000



DECLARATION OF DAVID ELY

I, DAVID ELY hereby declare as follows:

1. I submit this declaration in support of the Petition for Writ of Mandate and/or Prohibition filed in this matter.
2. I am the Vice President and Director of Research for Pactech Data & Research, Inc., a consulting and database management firm specializing in projects involving large databases combined with statistical analysis. I received my Bachelor of Science in Mechanical Engineering and Social Sciences from the California Institute of Technology in 1987.
3. I have served as an expert witness in litigation regarding voting rights and redistricting in a number of cases. In *Garza v. County of Los Angeles*, United States District Court, I constructed databases and designed redistricting plans. In *United States v. City of Lawrence, Massachusetts* and *United States v. City of Passaic, New Jersey*, *United States v. Upper San Gabriel Valley Municipal Water District*, *United States v. City of Santa Paula, California*, and *United States v. County of Alamosa, Colorado*. I performed surname matching and geo-coding of voter lists, as well as constructed illustrative districting plans. I have also served as a consultant and expert for the Mexican American Legal Defense and Education Fund in voting rights litigation.
4. I have served as a consultant for the purpose of drawing redistricting plans, maps and/or constructing databases in several redistricting efforts, including: City of Boston, 1987; California Congressional and State Assembly Districts, 1991; Los Angeles County Board of Supervisors, 1991; Los Angeles City Council, 1992; Los Angeles Unified School District, 1992; Pasadena City Council, 1992; Oakland City Council, 1993; Rancho Mirage City Council, 1993; California Legislative

Districts, 2001; Los Angeles County Board of Supervisors, 2001; the Bay Area Rapid Transit Board Member Districts, 2001; Los Angeles City Council, 2002; Los Angeles Unified School District, 2002; Pasadena City Council, 2002; City of Oakland, 2003.

5. I have expertise in voting rights, census data, the California Statewide Database, statistical analysis and the construction of databases. The California Statewide Database contains voter registration and election data for California elections over a number of years, merged with census data from the 2000 and 1990 census. It is housed at the Institute for Governmental Studies, University of California, Berkeley. I have worked extensively with the 2000 census data, electoral data, precinct data and the California Statewide Database. I am personally familiar with the County of Los Angeles, its cities, geography, demographics, transportation, election precincts, registered voter data and other data from my extensive work with redistricting, census data and the California Statewide Database, and from being a long-time resident of the area.

6. I have undertaken to quantify, specifically within Los Angeles County, the impact on voter turnout correlated with distance from the voter's residence to their polling place. Due to the short time available, I focused on a sample group of contiguous precincts in South Los Angeles within the city of Los Angeles (hereafter referred to as "South Los Angeles") and the city of La Canada as representative samples to evaluate the impact of increased distances to polling places as a result of precinct consolidation.

7. I first examined sample precincts in South Los Angeles and data from the November 2002 General Election to determine whether distance from polling place had any significant impact

on whether registered voters actually voted. Starting at .05 mile and working my way up at .10 increments (.15, .25, .35 etc.) I chose a distance of .25 miles as a breakpoint, because this is where I found a noticeable impact on voter turnout. This division also provided workable samples on each side of the breakpoint to conduct a meaningful analysis. I then ran the same analysis for La Canada to see whether the same phenomenon occurred in different communities. Table 1 below shows the data for La Canada. Table 2 shows the data for South Los Angeles.

Table 1 November 2002 General Election La Canada				
Distance from Polls	Absentee Vote	Did Not Vote	Voted at Poll	Row Total [% of Registered Voters]
< .25 mi	411 16.4%	926 36.9%	1,171 46.7%	2,508 19.4%
≥ .25 mi	1,710 16.4%	4,192 40.2%	4,525 43.4%	10,427 80.6%
Column Total [% of Registered Voters]	2,121 16.4%	5,118 39.6%	5,696 44.0%	12,935 100%

Table 2 November 5, 2002 General Election South Los Angeles				
Distance from Polls	Absentee Vote	Did Not Vote	Voted at Poll	Row Total [% of Registered Voters]
< .25 mi	337 4.6%	4,415 60.7%	2,521 34.7%	7,273 63.7%
≥ .25 mi	225 5.4%	2,788 67.4%	1,123 27.2%	4,136 36.3%
Column Total [% of Registered Voters]	562 4.9%	7,203 63.1%	3,644 31.9%	11,409 100.0%

8. Table 1 demonstrates that in La Canada, there is a 3.3 percentage point drop in the polling place vote for voters living .25 or more miles from their polling place compared to voters living less than .25 miles away; i.e., the difference between 46.7 percent and 43.4 percent. This means an approximately 7 percent lower turnout among voters outside .25 mile (3.3 percent divided by 46.7 percent.) Table 2 demonstrates a much more substantive 7.5 percentage point drop in South Los Angeles precincts; i.e., the difference between 34.7 percent and 27.2 percent. This means that in South Los Angeles approximately 22 percent fewer voters went to the polls when they had to travel a quarter mile or more (7.5 percent divided by 34.7 percent). The drop in South Los Angeles is thus more than three times as great as in La Canada.

9. The population in South Los Angeles is almost entirely minority population, consisting primarily of Latinos and African

Americans. La Canada has very few Latinos or African Americans. The population statistics are as follows:

<u>Population</u>	<u>South LA Total 35781</u>	<u>La Canada Total 20318</u>
White	256	14443
White %	0.72%	71.08%
Asian	99	4456
Asian %	0.28%	21.93%
Black	15441	81
Black %	43.15%	0.40%
Latino	19600	976
Latino %	54.78%	4.80%

10. The population of South Los Angeles also tends to be much lower income and less educated than the population in La Canada. Thus, the average household income in South Los Angeles is \$31,041, compared to \$156,012 in La Canada. Additionally, South Los Angeles has a higher crime rate and gang activity.

11. For the November 2002 election, I knew the actual address of each polling place used in my analysis. I was not able to obtain that information for the 2003 election. The Registrar's office has, however, prepared a list of precinct consolidations that I have reviewed and that identifies by number a list of specific voting precincts into which what are known as "established precincts" (generally much smaller units) have been consolidated. In the November 2002 election there were approximately 5,000 voting precincts. For the October 2003 election, approximately 1,800 are planned.

12. Attached hereto as Exhibit A is a map that I prepared using data from the Registrar's office regarding the November 2002 General Election precincts and the proposed consolidated precincts for the

October 7, 2003 election. This map shows the cluster of precincts in South Los Angeles that I analyzed and provides a sense of the geographic relationship between the November 2002 precincts and the October 2003 precincts. The thick gray lines show the boundaries of the planned precincts for the October 7, 2003 election and each precinct's designated number is in the same gray color and thickness. The thin black lines show the boundaries of the precincts from the November 2002 election and each of those precinct's designated number is in the same black color. Some of the precincts planned for 2003 divide precincts that were used in November 2002, reflecting the fact that in each instance the voting precincts are actually composed of smaller "established precincts."

13. In order to estimate the impact that this consolidation into fewer voting precincts will have on distance from voters' residence to their polling place, I assumed for purposes of analysis that the actual polling place for each of these specifically numbered voting precincts in 2003 will be the same location as the polling place for the voting precinct with the same number in November 2002. I then analyzed the resulting number of registered voters who will have to travel .25 miles or more to their polling place on October 7, 2003, compared to the November 2002 election. Table 3 presents the data for La Canada. Table 4 presents the data for South Los Angeles.

Table 3 Distance from Polling Place November 5, 2002 compared with October 7, 2003 La Canada			
	< .25 October 2003	≥ .25 October 2003	Row Total [% of Registered Voters]
< .25 mi November 2002	1,254	1,254	2,508 19.4%
≥ .25 mi November 2002	215	10,212	10,427 80.6%
Column Total [% of Registered Voters]	1,469 11.4%	11,466 88.6%	12,935 100.0%

Table 4 Distance from Polling Place November 5, 2002 compared with October 7, 2003 South Los Angeles			
	< .25 October 2003	≥ .25 October 2003	Row Total [% of Registered Voters]
< .25 mi November 2002	2,657	4,616	7,273 63.7%
≥ .25 mi November 2002	283	3,853	4,136 36.3%
Column Total [% of Registered Voters]	2,940 25.8%	8,469 74.2%	11,409 100.0%

14. Table 3 demonstrates that while in the November 2002 election 19.4 percent of the registered voters in La Canada were less than .25 miles from their polling place, the estimate for the October 7, 2003

election is 11.4 percent. Conversely, while in the November 2002 election 80.6 percent were .25 miles or more from their polling place, the estimate for the October 7, 2003 election is 88.6 percent. In sum, only 8 percent of the registered voters in La Canada are moved from inside the .25 mile mark to a greater distance.

15. Table 4 demonstrates a much more dramatic change in South Los Angeles. In the November 2002 election 63.7 percent of the voters in South Los Angeles were less than .25 miles from their polling place, the estimate for the October 7, 2003 election is 25.8 percent. Conversely while in the November 2002 election only 36.3 percent were farther away, the estimate for the October 7, 2003 election is that 74.2 percent of the registered voters will be .25 miles or farther from their polling place. In sum, 37.9 percent of the registered voters in South Los Angeles are moved outside the .25 mile mark, almost five times as many as in La Canada.

16. Based upon the impact on voter turnout among voters more than .25 miles from their polling place shown in Table 2, I can conservatively estimate a minimum 7.5 percentage point – or 22 percent – reduction in the turnout among those registered voters in South Los Angeles who, as a result of the precinct consolidation, will now be .25 miles or farther from their polling place. I consider this to be a very conservative estimate, because it does not take account of additional inhibiting factors such as voters' unfamiliarity with the new poll location, expectations of longer waits and the like. The impact in La Canada would be much smaller, on the order of one-third, or even less than that in South Los Angeles. This impact will also fall on many fewer voters in La Canada because only 8 percent of voters in La Canada – as compared to 38 percent

in South Los Angeles – cross the .25 mile marker. Thus La Canada voters experience only one-third of the impact applied to one-fifth the number of voters as compared to South Los Angeles.

17. Using the same assumption regarding polling place locations described in paragraph 13 above I can also estimate the number of registered voters whose polling place will be in a different location in October, 2003, compared to November 2002. Table 5 shows these figures for La Canada and Table 6 shows them for South Los Angeles:

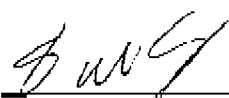
Table 5			
Voters with Different Polling Place (Oct. 2003)			
La Canada			
	Same Polling Place	Different Polling Place	Row Total [% of Registered Voters]
Absentee Vote	1,003 47.3%	1,118 52.7%	2,121 16.4%
Did Not Vote	2,477 48.4%	2,641 51.6%	5,118 39.6%
Voted at Poll	2,907 51.0%	2,789 49.0%	5,696 44.0%
Column Total [% of Registered Voters]	6,387 49.4%	6,548 50.6%	12,935 100.0%

Table 6 Voters with Different Polling Place (Oct. 2003) South Los Angeles			
	Same Polling Place	Different Polling Place	Row Total [% of Registered Voters]
Absentee Vote	151 26.9%	411 73.1%	562 4.9%
Did Not Vote	1,919 26.6%	5,284 73.4%	7,203 62.5%
Voted at Poll	1,041 28.6%	2,603 71.4%	3,644 31.6%
Column Total [% of Registered Voters]	3,111 27.3%	8,298 72.7%	11,409 100.0%

18. Table 5 shows that in La Canada, an estimated 50.6 percent of registered voters will have a new polling place. In South Los Angeles, however, a much higher figure – 72.7 percent of voters – are estimated to have a new polling place. (Table 6.)

19. In my opinion, based on this analysis, the effect of the consolidated voting precincts for the October 7, 2003 election will have a dramatic negative impact on voter turnout, that falls disproportionately on low income minority communities.

I declare under penalty of perjury that the foregoing is true and correct and if called upon to do so, I could and would so testify.
 Executed this 6th day of August, ^{2003,} at Los Angeles, California.

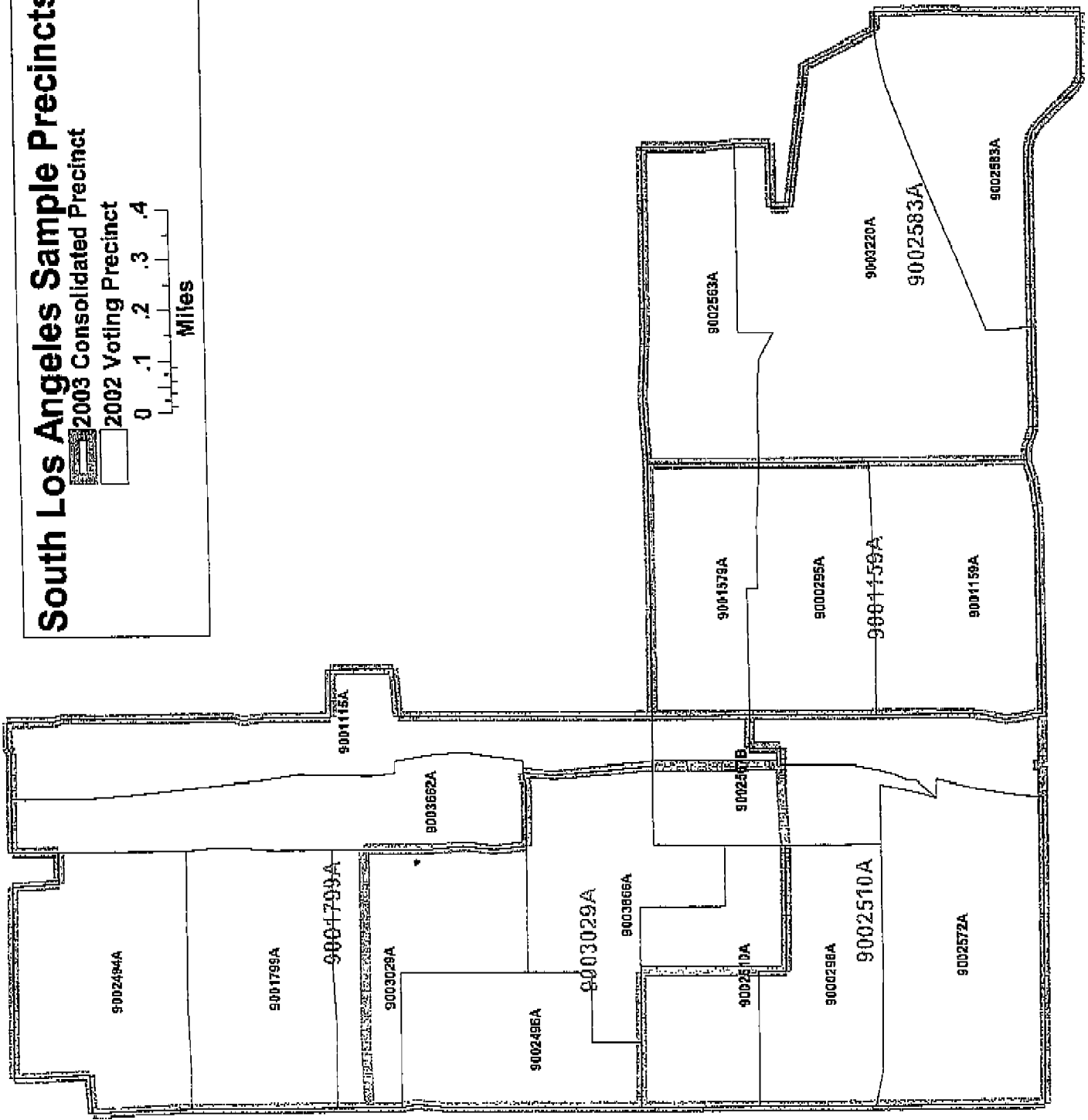


 David Ely

South Los Angeles Sample Precincts

2003 Consolidated Precinct

2002 Voting Precinct



SUPPLEMENTAL DECLARATION OF ANDREW JON WESTALL

I, ANDREW JON WESTALL hereby declare as follows:

1. This declaration is based upon my personal knowledge and expertise as set forth in my declaration signed August 2, 2003 and submitted in this matter.

2. I have reviewed the Declaration of Conny B. McCormack and Exhibit B thereto. The information set forth in the exhibit to my August 2, 2003 declaration examines precincts scheduled for the October 7, 2003 election, with the communities named on the registrar's list for the consolidated precincts sorted according to incorporated cities in Los Angeles County. I then calculated the average number of registered voters per consolidated precinct attributed to each city.

3. Elections Code section 12222(a) states, "No precinct shall be established so that its boundary crosses the boundary of any . . . incorporated city . . ." Elections Code section 12241 permits consolidation of precincts "subject to Section 12222." This is why I took the approach that I did, based upon incorporated cities, in the exhibit to my August 2, 2003 declaration.

4. It appears from Ms. McCormack's declaration and Exhibit B thereto that the registrar's office has defined numerous consolidated precinct boundaries that cross city boundaries. If I understand her correctly, this means that many voters will not have their polling places in their own city, notwithstanding the provisions of section 12222.

5. Based upon my knowledge of transportation systems in these areas, it is my opinion that having polling places outside the voter's

city of residence will make it even more difficult for voters to reach their polling places in order to exercise their right to vote on October 7.

I declare under penalty of perjury that the foregoing is true and correct and if called upon to do so, I could and would so testify.

Executed this 6th day of August, 2003, at Los Angeles, California.



Andrew Jon Westall