UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS

DALLAS DIVISION

MANUEL A. BENAVIDES,	)	
Plaintiffs,	)	
v.	)	Civil Action No. 3:07 CV 1850-P
THE CITY OF IRVING, TEXAS, et. al.	)	
Defendants.	)	

REPORT OF RICHARD L. ENGSTROM, Ph.D.

I declare the following:

1. My name is Richard L. Engstrom and I am a resident of Durham, North Carolina. I am currently a Visiting Research Professor of Political Science and Visiting Research Fellow at the Center for the Study of Race, Ethnicity, and Gender in the Social Sciences at Duke University. From August of 2006 through December 2007 I was employed as a consultant at the Center for Civil Rights at the School of Law, University of North Carolina, Chapel Hill. I am a former Research Professor of Political Science and Endowed Professor of Africana Studies at the University of New Orleans, where I was employed from August 1971 to May 2006. I have served two terms as the Chairperson of the Representation and Electoral Systems Section of the American

Political Science Association (1993-1995, 1995-1997) and served as a member of the Executive Council for that section from 1993 to 2007. A copy of my curriculum vitae is attached as Appendix B to this report.

2. I have done extensive research into the relationship between election systems and the ability of minority voters to participate fully in the political process and to elect representatives of their choice. The results of my research on this topic have been published in the *American Political Science Review*, *Journal of Politics*, *Western Political Quarterly*, *Legislative Studies Quarterly*, *Social Science Quarterly*, *Journal of Law and Politics*, *Electoral Studies*, *Representation*, and other journals and books. Three articles authored or co-authored by me were cited with approval in Thornburg v. Gingles, 478 U.S. 30, at 46 n.11, 49 n.15, 53 n.20, 55, and 71 (1986), the Supreme Court decision interpreting amended section 2 of the Voting Rights Act. I am the co-author, with Mark A. Rush, of *Fair and Effective Representation? Debating Electoral Reform and Minority Rights* (Lanham, MD: Rowman and Littlefield Publishers, Inc. 2001).

3. I have also testified as an expert witness in numerous cases in federal and state courts across the United States. Since 2002 I have testified at trial and/or been deposed in the following cases: Jepsen v. Vigil-Giron (1st Judicial District Court, County of Santa Fe, NM 2001, 2002), Arizona Minority Coalition for Fair Redistricting v. Arizona Independent Redistricting Commission (Superior Court, County of Maricopa, AZ, 2002), Curry v. Glendening, Court of Appeals of Maryland (2002), Levy v. Miami-Dade Co (S.D. Flda. 2002), Dillard v. Baldwin Co. (M.D. Ala. 2002), Prejean v. Foster (M.D. La. 2002), Georgia v. Ashcroft (D.C. DC, 2002), Louisiana House of Representatives v. Ashcroft (D.C. DC 2002), United States v. Alamosa County (D. Co. 2003), Black

Political Task Force v. Galvin and Camacho v. Galvin (D.C. Mass. 2003), G.I. Forum v. Perry (E.D. Tx. 2003), Stewart v. Blackwell (N.D. Oh. 2004), Cottier v. City of Martin, S.D., (D.C. SD 2004), Pender County v. Bartlett (General Court of Justice, Superior Court Division, County of Wake, NC 2005), and Arise for Social Justice v. City of Springfield and Springfield Election Commission (D.C. Mass. 2006, 2007).

4. The attorney for the plaintiffs in this case has asked me to analyze the extent to which the candidate preferences of Latino and other voters in Irving, Texas have differed in the most recent Irving City Council elections in which the voters have been presented with a choice between or among Latino and non-Latino candidates. These elections were held in 2008 and 2005 and include the last three attempts by Latino candidates to obtain positions on that council. The 2008 election involved the unsuccessful effort of Rigo Reza to win the office of mayor, a position that entails serving on the council, and the likewise unsuccessful effort of Nancy Rivera to win the Place 3 seat on the council. The 2005 election involved the unsuccessful effort of Roland Medina to win the Place 5 seat.

5. I am being compensated at a rate of $250 an hour for my work in this case.

DATA AND METHODS

6. The data used in the analyses of the candidate preferences of Latino and non-Latino voters are the number of votes cast for each of the candidates in each of the precincts in these elections, and the total number of people, and the total number with Spanish surnames, that are listed as receiving ballots in the respective elections in each of the precincts. The data identifying the votes for the candidates are taken from the Dallas

County website. The data identifying, by name, those that received ballots for these elections have been provided by the Dallas County Department of Elections.

7. The identification of people, among those receiving ballots, with Spanish surnames was provided by David Ely. Mr. Ely will explain how the matching was performed in the report he will provide in this case. In the analyses below those with Spanish surnames are considered Latino voters, and those without Spanish surnames are considered non-Latino voters. This method of identifying the relative presence of Latinos among those voting in each of the precincts in the elections, expressed as a percentage of those receiving ballots, is much preferred over relying on Spanish surnames among registered voters, or relying on the census counts of Latino self-identifiers among the voting age population, or the citizen voting age population, within the precincts.

8. The estimates of the extent to which the candidate preferences of the Latino voters differed from those of the non-Latino voters in the elections analyzed have been derived through three different methodologies. Two of these methodologies were approved for this purpose by the United States Supreme Court in Thornburg v. Gingles [478 U.S. 30, at 52-53 (1986)].[1] These are ecological regression analysis (ER) and homogeneous precinct analysis (HP), the latter also known as extreme case analysis.

9. Homogeneous precinct analyses simply report the percentage of the votes

[1] Correlation coefficients reflecting how consistently the vote for a candidate varies with the relative presence of Latinos in the precincts are reported along with the results of the regression analyses. The correlation coefficient can achieve values ranging from 1.0 to –1.0. A value of 1.0 indicates a perfectly consistent increase in the percentage of the vote a candidate receives in the precincts as the percentage of Latinos among the voters in the precincts increases, while a value of –1.0 indicates a perfectly consistent decrease. When the statistical probability of a coefficient is less than .05, that coefficient is identified as statistically significant. In addition, scatterplots showing the percentage of votes received by the Latino candidate in each precinct, and the percentage of the voters that was Latino in each precinct, are provided in Appendix A to this report.

received by a candidate or set of candidates within the precincts in which a particular group constitutes over 90 percent of the people receiving ballots. There are no homogeneous Latino precincts in any of these elections in Irving so this methodology cannot be applied to derive estimates of Latino voter's candidate preferences. There are, however, numerous precincts in each election in which more than 90 percent of those receiving ballots did not have a Spanish surname, so this methodology can be employed to derive estimates of non-Latino voters' candidate preferences.

10. Ecological regression analyses are based on all of the precincts in which votes were cast in an election. The third methodology I employ is called Ecological Inference (or EI). This is another estimation procedure that also takes into account all of the precincts in which votes are cast. This method was developed by Gary King subsequent to the Thornburg v. Gingles decision.[2]

11. The largest percentage of Latinos among those voting in any precinct in these elections is 33.3 percent for the 2008 elections and 25.0 percent for the 2005 election. It would be preferable, for analytic purposes, to have precincts with higher Latino percentages when performing the EI and ER analyses, but they did not exist in Irving. This no doubt contributes to the differences in the specific estimates of the Latino support for candidates produced by these two procedures, but these methodologies both identify the same candidates to be the choices of Latino voters in these elections.

RESULTS

12. The candidate preferences of the Latino and non-Latino voters was divided

[2] This procedure is the subject of Gary King, A Solution to the Ecological Inference Problem: Reconstructing Individual Behavior from Aggregate Data (Princeton University Press, 1997).

in all three of these elections. The estimates consistently show that the Latino voters preferred the Latino candidate and the non-Latino voters preferred a non-Latino candidate. Under the at-large election system used to conduct these elections, the lack of non-Latino support for the Latino candidates functioned, in every case, as a veto over the Latino candidates. The results of the analyses of these elections are reported in Table 1, which contains the estimated support levels for the Latino candidates among Latino voters and among non-Latino voters in each election, based on EI, ER, and HP analyses. In addition, the values of the correlation coefficient for the relationships between the Latino percentage of voters and the percentage of votes received by the Latino candidate across the precincts are reported. All of these correlation coefficients are statistically significant.[3]

Mayoral Election, May 19, 2008

13. The Mayor of Irving is elected at-large and is a voting member of the city council. Three candidates competed for this office: Herbert A. Gears, Roland Jeter, and Rigo Reza. Mr. Reza was the only Latino.

[3] In order to match the data for the Latino percentage of voters with the percentage of the votes for the Latino candidate, precincts 4642, 4643, 4644, and 4651 had to be merged into a single data point for the analysis of the 2008 election. Likewise, precincts 4642, 4643, and 4644 had to be merged for the analysis of the 2005 election. These consolidations were performed by David Ely and will be addressed in his report for this case. When the numbers of precincts in these elections are reported in the text below, the numbers incorporate these consolidations and treat them as single precincts. If I am provided with a match for these precincts separately, I will supplement this report with an analysis not dependent on the precinct combinations. In addition, if the precinct configuration in place at the time of the 2002 election, in which two Latinos were unsuccessful candidates for the at-large seat for Place 5 on the council, can be matched to the turnout data for that election, this election will also be included in the analysis and the results provided in a supplemental report.

The candidate support estimates for the EI analyses for the Place 3 and Place 5 elections are for the percentage of Latino and non-Latino voters receiving ballots that voted for the Latino candidates. The EI estimate for the mayoral election, and the ER estimates, are for the percentage of votes cast by the respective groups that were cast in support of the Latinos candidates.

14. The correlation for the relationship between the Latino percentage of the precinct and the percentage of the votes received by Mr. Reza, depicted in the scatterplot in Appendix A, is a statistically significant .902. He received an estimated 63.3 percent of the votes cast by Latinos based on EI, and 87.6 percent based on ER. His vote among non-Latinos is estimated to be 2.0 percent by EI and -0.6 percent by ER. He received 4.7 percent of the votes cast in the homogeneously non-Latino precincts. (There were 23 such precincts in this election, 51.1 percent of the total, in which 48.8 percent of the all the votes for mayor were cast.) The percentage of Latinos among all the voters was 9.7 percent, and Mr. Reza finished last in the election with 7.9 percent of the votes. The election was won by Mr. Gears.

Place 3 Election, May 19, 2008

15. Candidates for the Place 3 seat on the Irving City Council must reside in a particular geographic area of the city. All of the voters across the city vote to decide who among these candidates wins the seat, however. Two candidates competed for this position in 2008, Allan E. Meagher and Nancy Rivera. Ms. Rivera was the only Latino.

16. The correlation for the relationship between the Latino percentage of the precinct and the percentage of the votes received by Ms. Rivera, depicted in the scatterplot in Appendix A, is a statistically significant .421. She received an estimated 99.5 percent of the votes cast by Latinos based on EI and 70.6 percent based on ER. Her support among the non-Latino voters was estimated to be 14.6 percent by EI and 19.7 percent based on ER. She received 30.3 percent of the votes cast in the homogeneously non-Latino precincts. There were 23 such precincts in this election (51.1 percent of the total), in which 48.7 percent of the all the votes for place 3 were cast. The percentage of

Latinos among the all the voters was 9.7 percent. Ms. Rivera received 25.0 percent of the total votes and was therefore defeated.

Place 5 Election, May 7, 2005

17. Candidates for the Place 5 seat on the council also must reside in a particular geographic area of the city, but again all of the voters across the city vote to decide who among these candidates wins the seat. Three candidates competed for this position in 2005; Lowell Cannaday, Roland Medina, and David Cole. Mr. Medina was the only Latino.

18. The correlation for the relationship between the Latino percentage of the precinct and the percentage of the votes received by Mr. Medina, depicted in the scatterplot in Appendix A, is a statistically significant .372. He received an estimated 99.4 percent of the votes cast by Latinos based on EI and virtually all of them, 130.2 percent, based on ER. His support among the non-Latino voters was estimated to be 9.9 percent by EI and 10.3 percent based on ER. He received 14.6 percent of the votes cast in the homogeneously non-Latino precincts. There were 38 such precincts in this election (90.5 percent of the total), in which 90.5 percent of the all the votes for place 5 were cast. The percentage of Latinos among the all the voters was 5.5 percent. . Mr. Medina received 14.8 percent of the total votes, placing him last among the three. This election was followed by a runoff election between Mr. Cannaday and Mr. Cole in June.

CONCLUSION

19. The results of the analyses of these elections indicate that voting in city council elections in Irvine has been polarized between Latinos and non-Latinos. The Latino voters in all of these elections preferred to be represented by a Latino candidate.

This preference was not shared by the non-Latino voters in any of the elections, who in effect vetoed the Latino voters' choices.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct to the best of my knowledge and that this Affidavit was executed on July 5, 2008 in Durham, NC.

Richard L. Engstrom

TABLE 1
Estimated Divisions in Vote for Latino Candidates

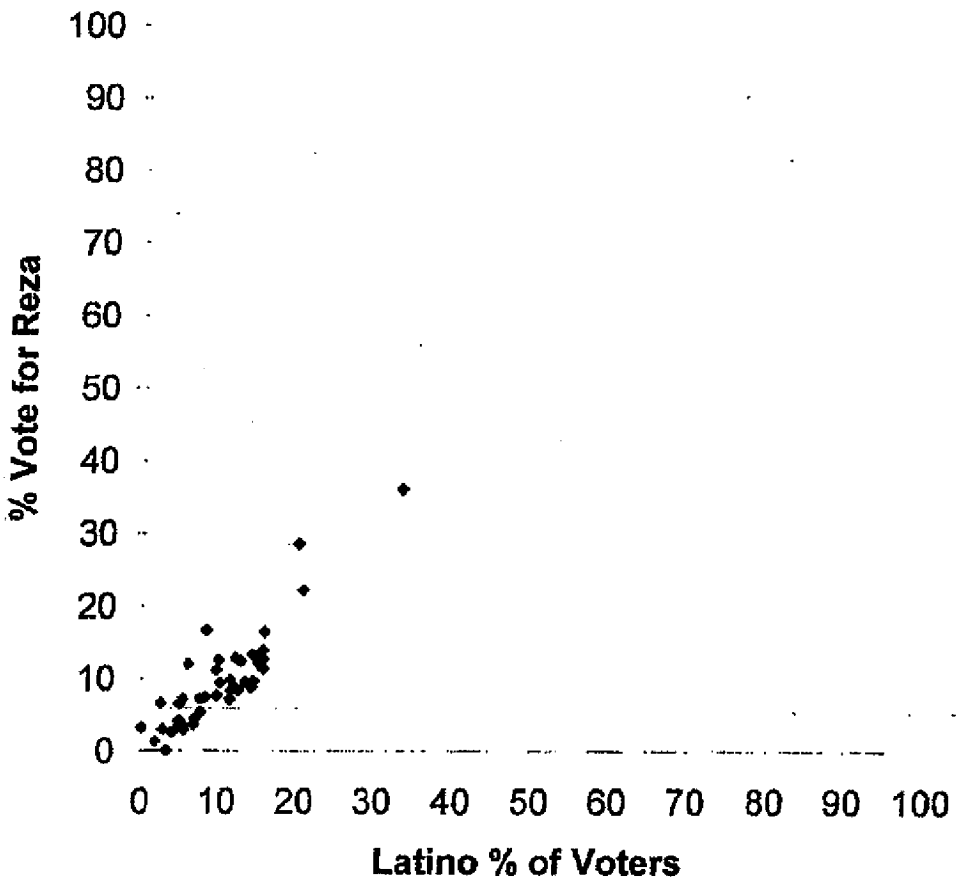
In the following order:
Ecological Inference (EI)
Regression Analysis (ER)
Homogeneous Precinct Analysis (HP)

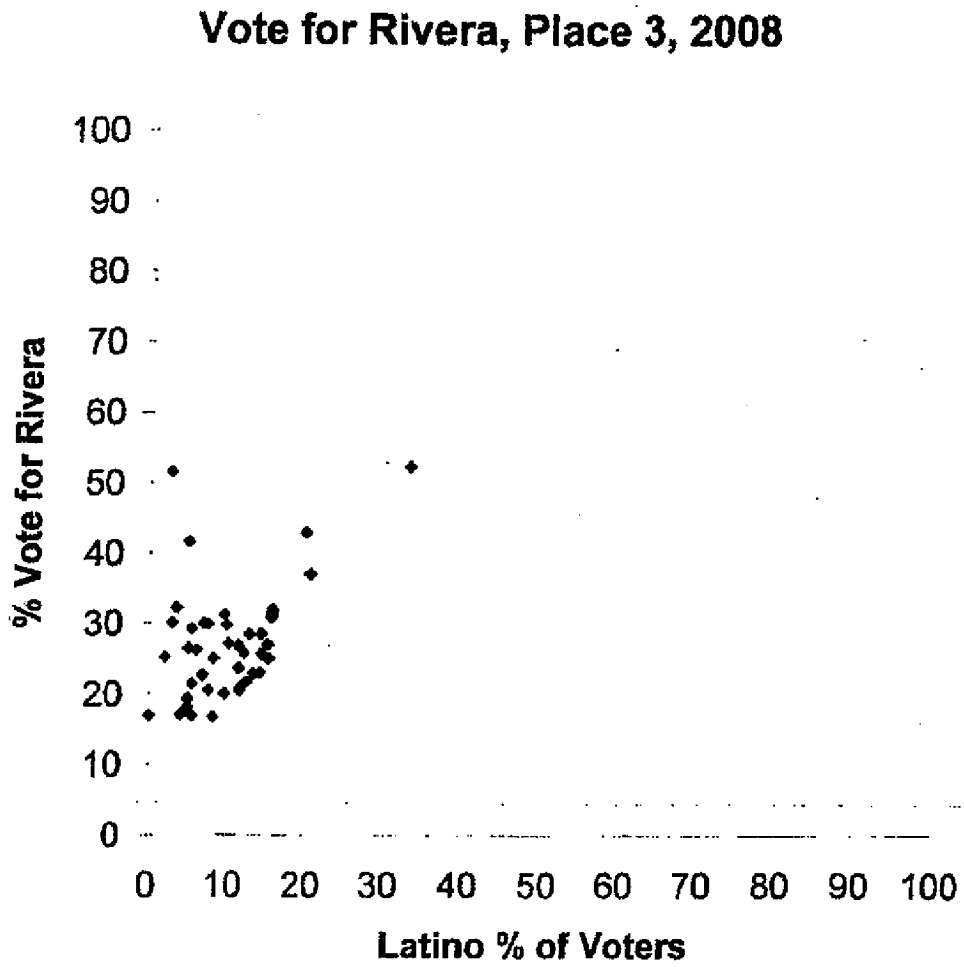
Election	Percent of Latino Voters	Percent of Non-Latino Voters	Correlation Coefficient
Mayor, 2008			
Reza	63.6	2.0	
	87.6	-0.6	.902*
	NA	4.7	
Place 3, 2008			
Rivera	99.5	14.6	
	70.6	19.7	.421*
	NA	30.3	
Place 5, 2005			
Medina	99.4	9.9	
	130.2	10.3	.372*
	NA	14.6	

APPENDIX A

SCATTERPLOTS

Vote for Reza, Mayor 2008




Vote for Rivera, Place 3, 2008
% Vote for Rivera
100
90
80
70
60
50
40
30
20
10
0
0 10 20 30 40 50 60 70 80 90 100
Latino % of Voters

Vote for Medina, Place 5 2005