UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS

DALLAS DIVISION

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MANUEL A. BENAVIDEZ,	)	
Plaintiff,	))	
v.	))	Civil Action No. 3:08-CV-00924-D
IRVING INDEPENDENT SCHOOL DISTRICT (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 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
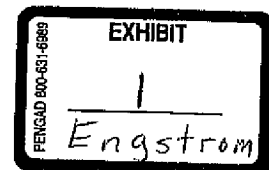
for that section from 1993 to 2007. A copy of my curriculum vitae is attached as Appendix C to this report.

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 Ct. - Santa Fe County, NM 2001, 2002), Arizona Minority Coalition for Fair Redistricting v. Arizona Independent Redistricting Commission (Sup. Ct. – Maricopa County, Ariz. 2002), Curry v. Glendening (Ct. Apps. Md. 2002), Levy v. Miami-Dade Co (S.D. Fla. 2002), Dillard v. Baldwin Co. (M.D. Ala. 2002), Prejean v. Foster (M.D. La. 2002), Georgia v. Ashcroft (D.D.C. 2002), Louisiana House of Representatives v. Ashcroft (D.D.C. 2002), United States v. Alamosa County (D. Colo. 2003), Black Political Task Force v. Galvin and Camacho v. Galvin (D.C. Mass. 2003), G.I. Forum v. Perry (E.D. Tex. 2003), Stewart v.

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Blackwell (N.D. Ohio 2004), Cottier v. City of Martin, South Dakota (D.S.D. 2004),

Pender County v. Bartlett (Gen. Ct. of Just., Sup. Ct. Div., Wake County, NC 2005),

Arise for Social Justice v. City of Springfield and Springfield Election Commission (D.

Mass. 2006, 2007), Gonzalez v. State of Arizona (D. Ariz. 2008), United States of

America v. Village of Port Chester (S.D.N.Y. 2008), and Manuel A. Benavidez v. City of

Irving, Texas (N.D. Tex. 2008).

    4. Attorneys for plaintiff in this case have asked me to analyze the extent to

which the candidate preferences of Latino and other voters in the Irving Independent

School District in Texas (the "Irving ISD") have differed in the most recent elections for

members of the Board of Trustees of the Irving ISD (the "Board") 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 2006 and include the last three attempts by Latino

candidates to obtain positions on that Board. The 2008 election involved the

unsuccessful effort of Jorge Alfonso Chac, II, to win the seat for Place 2 on that Board,

and the 2006 election involved the likewise unsuccessful efforts of Manuel Aguilar

Benavidez and Ruben M. Carranza to win the seats for Place 3 and 4, respectively, on

that Board.[1]

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

<div align="center">DATA AND METHODS</div>

    6. The data used in the analyses of the candidate preferences of Latino and

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[1] Given the rapid growth in the Latino population in the Irving ISD, the most recent elections are clearly the most probative elections for assessing racially polarized voting and resulting vote dilution. The Supreme Court in Thornburg v. Gingles relied on a data base that examined the last three elections involving a choice between or among African American and non-African American candidates in the multi-member districts at issue. See 478 U.S. 30, 80 (1986) (Appendix A to opinion of Brennan, J.).

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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, which identify by name those that received ballots for these elections, have been provided by the Dallas County Department of Elections.

7. David Ely identified, by precinct, the number of persons receiving ballots and the number of such people with Spanish surnames, and provided that information to me. 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, on the census counts of Latino self-identifiers among the voting age population, or on the citizen voting age population.

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)].[2] These are ecological regression ("ER") and homogeneous precinct analysis ("HP"), the latter also known as extreme case analysis.

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[2] 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

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9. Homogeneous precinct analyses simply report the percentage of the votes 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 was one homogeneous Latino precinct in the 2008 election. This was precinct 4438 in which only five people are recorded as receiving ballots, all of whom had Spanish surnames. Only four votes are recorded as having been cast in the Place 2 contest for the Board in this precinct, each of which was cast for the Latino candidate, Mr. Chac. The reported results for Latinos in the homogeneous analysis for this election, therefore, pertain to only four voters. There was no homogeneous Latino precinct in the 2006 election. 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 the HP methodology can be employed to derive estimates of non-Latino voters' candidate preferences in all of these elections.

10. ER applications, the other methodology approved in <u>Thornburg v. Gingles</u>, are based on all of the precincts in which votes were cast in an election. The third methodology I employ is called Ecological Inference ("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 <u>Thornburg v. Gingles</u> decision.[3]

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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.

[3] EI is the subject of Gary King book, <u>A Solution to the Ecological Inference Problem: Reconstructing Individual Behavior from Aggregate Data</u> (Princeton University Press, 1997). The

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11. As noted above, there was one homogeneous Latino precinct in the 2008 election in which four votes were cast. This precinct is included in the EI and ER analyses, in which the contribution of each precinct to the estimated candidate preferences of Latino and non-Latino voters is weighted by the relative number of votes cast within them. Small precincts, like 4438, therefore have less impact on the estimates than do the larger precincts. The largest percentage of Latinos among those voting in any precinct in the 2006 election was 22.2 percent. 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 the 2006 Irving ISD election.

RESULTS

12. The candidate preferences of the Latino and non-Latino voters were divided in all three of these elections. The estimates show that the Latino voters preferred the Latino candidate and the non-Latino voters preferred the non-Latino candidate in each instance. This difference in candidate preferences between the groups is, in each instance, very large.[4] The at-large election system used to conduct these elections is not a pure at-large system, in which all seats are contested in one election in which all candidates compete, with each voter allowed to cast as many votes as there are seats at issue, but rather is a place system in which separate elections are held for each

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results of the EI analyses appearing in this Report provide estimates of the percentages of Latinos and non-Latinos receiving ballots for each election that voted for the Latino candidate.

[4] The same pattern of Latino and non-Latino candidate preferences was also found by the author in the last three elections to the Irving City Council in which voters have been presented with a choice of Latino and non-Latino candidates (see Report of Richard L. Engstrom, Ph.D., Benavidez v. City of Irving (Civil Action No. 3:07 CV 1850-P), dated July 5, 2008 (attached as Appendix B to this Report). These elections were held in 2008 and 2005. The City of Irving and the ISD are almost coterminous jurisdictions. Specifically, a small portion of the City of Grand Prairie is within the Irving ISD, while the Valley Ranch area and a small part of Las Colinas are within the City of Irving but not included in the Irving ISD.

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place and each voter has one vote in each election. The lack of non-Latino support for

the Latino candidates functioned, in every instance, as a veto over the Latino candidates.

13. 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.

Place 2 Election, May 10, 2008

14. Two candidates competed for the Place 2 position on the Board in the May

2008 election. These were Jorge Alfonso Chac, a Latino candidate, and A.D. Jenkins, a

non-Latino. Mr. Jenkins won this seat, receiving 81.7 percent of the overall vote.

15. The correlation for the relationship between the Latino percentage of the

voters within the precincts and the percentage of the votes received by Mr. Chac,

depicted in the scatterplot in Appendix A, is a statistically significant .826. He received

an estimated 99.0 percent of the votes cast by Latinos based on EI, and 83.6 percent

based on ER. He received all four of the votes cast in the only homogeneous Latino

precinct in that election. The vote for Mr. Chac among non-Latinos is estimated to be 8.9

percent by EI and 9.5 percent by ER. He received 15.2 percent of the votes cast in the

homogeneously non-Latino precincts. (There were 17 such precincts in this election,

41.5 percent of the total number of precincts in which votes were cast. The percentage of

the total number of votes cast for Place 2 in these precincts was 41.5 percent.) The

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percentage of Latinos among all the voters was 10.4 percent, and Mr. Chac received 18.3 percent of the votes.

Place 3 Election, May 13, 2006

16.   Two candidates competed for the Place 3 seat in the 2006 election, Manuel Aguilar Benavides, a Latino, and Randy Stipes, a non-Latino. The correlation for the relationship between the Latino percentage of the voters in each precinct and the percentage of the votes received by Mr. Benavidez, depicted in the scatterplot in Appendix A, is a statistically significant .554. He received an estimated 99.4 percent of the votes cast by Latinos based on EI and 98.6 percent based on ER. His support among the non-Latino voters was estimated to be 10.8 percent by EI and 11.9 percent based on ER. He received 15.9 percent of the votes cast in the homogeneously non-Latino precincts. There were 28 such precincts in this election (70.0 percent of the total number of precincts in which votes were cast), in which 74.8 percent of the all the votes for Place 3 were cast. The percentage of Latinos among the all the voters was 6.7 percent. Mr. Benavidez received 16.7 percent of the total votes.

Place 4 Election, May 13, 2006

17.   Candidates for the Place 4 seat on the Board in 2006 were Ruben M. Carranza, a Latino, Valerie Jones, a non-Latino. The correlation for the relationship between the Latino percentage of the voters in each precinct and the percentage of the votes received by Mr. Carranza, depicted in the scatterplot in Appendix A, is a statistically significant .429. He received an estimated 80.0 percent of the votes cast by Latinos based on EI and 83.7 based on ER. His support among the non-Latino voters was estimated to be 11.1 percent by EI and 11.8 percent based on ER. He received 14.6

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percent of the votes cast in the homogeneously non-Latino precincts. The 28 such

precincts in this election (again, 70.0 percent of the total in which votes were cast)

contributed 74.5 percent of the all the votes for Place 5. The percentage of Latinos

among the all the voters was, as noted above, 6.7 percent. Mr. Carranza received 15.8

percent of the total votes.

<div align="center">CONCLUSION</div>

18. The results of the analyses of these elections indicate that voting in Board of

Trustee elections for the Irving ISD 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 thereby vetoed the electoral choices of Latino voters.

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

December 10, 2008 in Durham, NC.

Richard L. Engstrom

TABLE 1
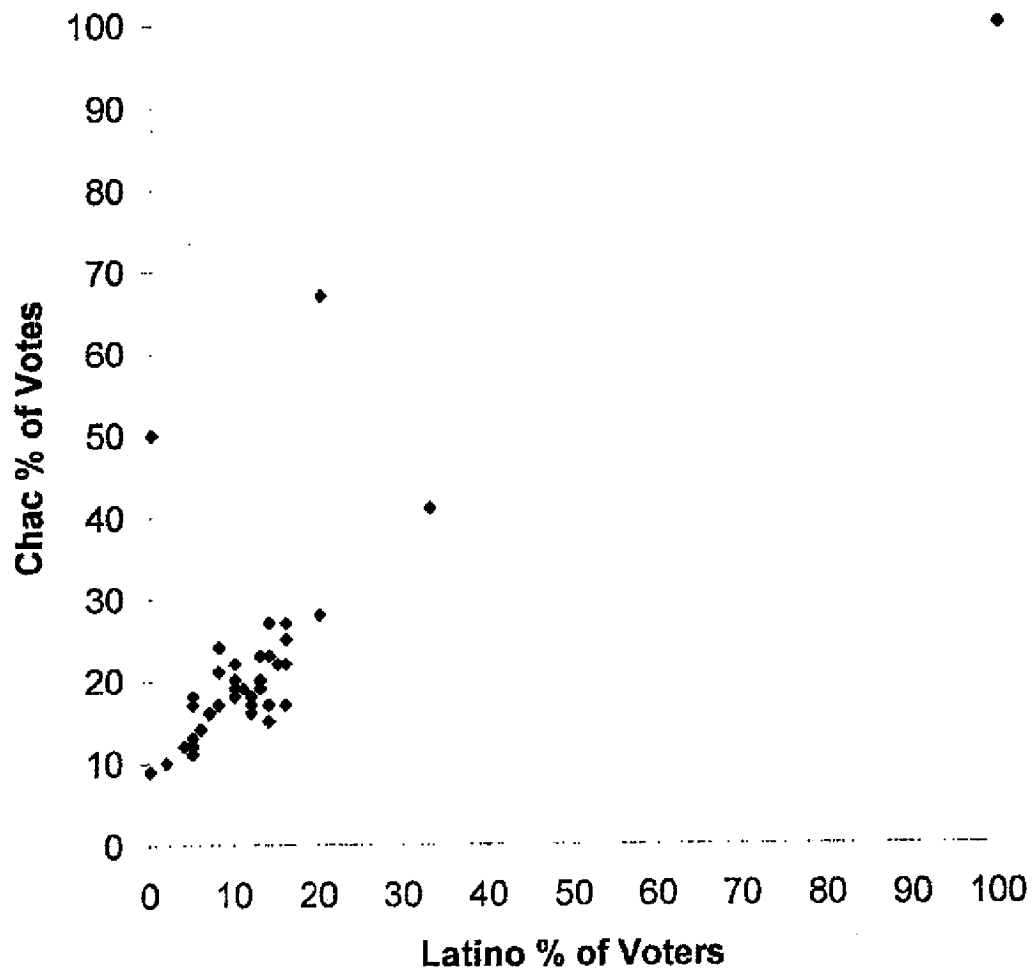### Estimated Divisions in Vote for Latino Candidates

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

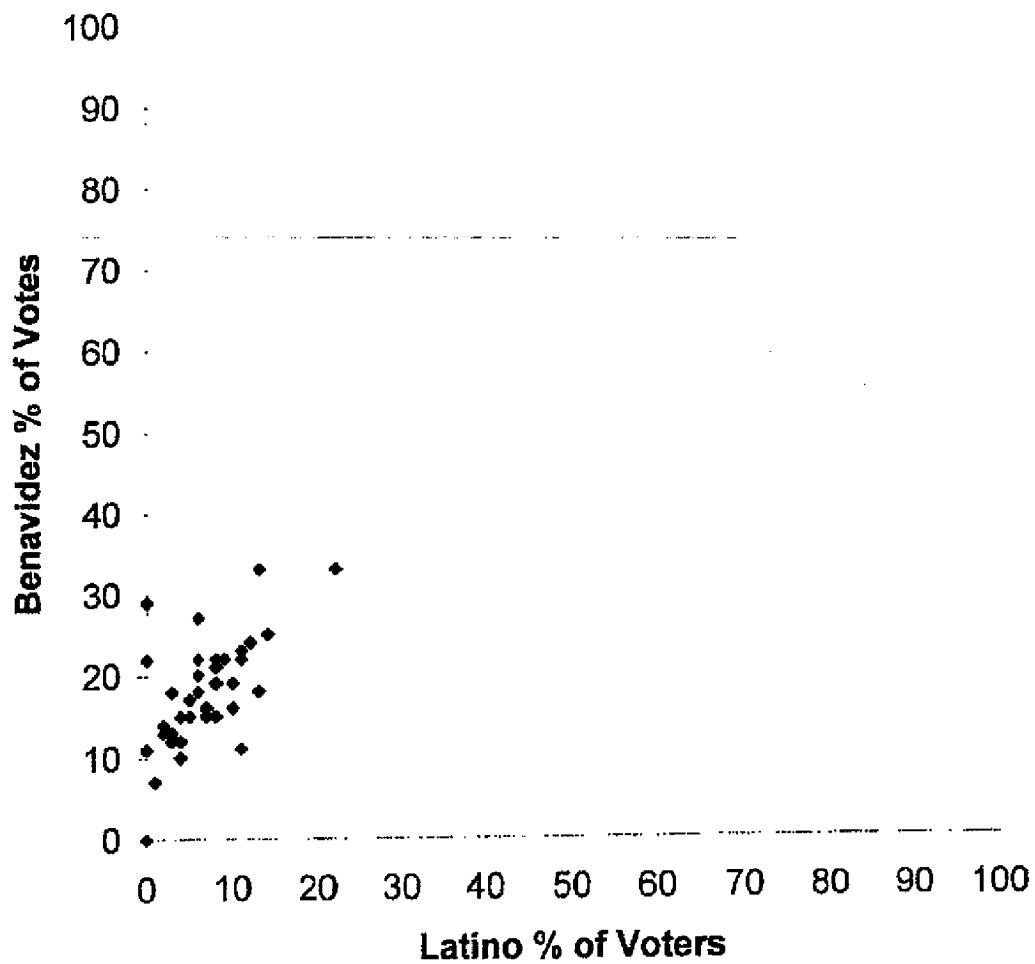| Election	Percent of Latino Voters	Percent of Non-Latino Voters	Correlation Coefficient
Place 2, 2008			
Chap	99.0	8.9	
	83.6	9.5	.826*
	100.0	15.2	
Place 3, 2008			
Benavidez	99.4	10.8	
	98.6	11.9	.554*
	NA	15.9	
Place 5, 2005			
Medina	80.0	11.1	
	83.7	11.8	.429*
	NA	14.6	

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App. A

Vote for Chac, Place 2, 2008

Vote for Benavidez, Place 3, 2006

Vote for Carranza, Place 4, 2006