

**UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
EL PASO DIVISION**

LULAC, *et al.*,

Plaintiffs,

v.

GREG ABBOTT, in his official capacity as
Governor of Texas, *et al.*,

Defendants.

Case No.: EP-21-CV-00259-DCG-JES-JVB
[Lead Case]

**DECLARATION TO ACCOMPANY
THE EXPERT REPORT OF JERONIMO CORTINA, Ph.D.**

Pursuant to 28 U.S.C. §1746, I, Jeronimo Cortina, declare that:

My name is Jeronimo Cortina. I am an expert witness designated by Brooks Plaintiffs in the above referenced case now pending in the United States District Court for the Western District of Texas.

A true, accurate and correct copy of my curriculum vitae is attached hereto. My report, Exhibit 45, is incorporated herein for all purposes and includes a complete statement of my opinions and conclusions. The facts or data that I relied upon to develop my analysis and opinions are produced herewith for all counsel.

I have not previously testified at trial or deposition. My publications for the last 10 years are described in my attached curriculum vitae.

My reasonable and necessary hourly rate for my time in this case is \$300.

I declare under penalty of perjury that the foregoing is true and correct.



Signed this the 7th day of January, 2022.



Jeronimo Cortina

Jeronimo Cortina

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Education

Ph.D. Political Science, Columbia University, 2007
 Dissertation Title: “Three Papers on Migration, Public Opinion and Methodology” Advisors: Rodolfo de la Garza, Andrew Gelman, Jennifer Hill, Robert Shapiro, Dorian Warren.

M.Phil. in Political Science, Columbia University, 2006

M.A. in Public Administration, Columbia University, 2003 (Specialization: Advanced quantitative analysis techniques).

Bachelor of Arts in Business Administration, Instituto Tecnológico Autónomo de México (ITAM), Mexico City graduated with honors, 1997

Certificate in Government and Public Policy, Universidad Iberoamericana, Mexico City, 1996

Certificate in Religions of the World, ITAM, Mexico City, 1995

Employment & Projects

Department of Political Science	Houston, Tx
University of Houston	
Associate Professor	2015–Present
Center for Mexican American Studies	Houston, Tx
University of Houston	
Associate Director	2018–Present
University of Houston	Houston, Tx
President Faculty Senate	2019–
University of Houston	Houston, Tx
President-Elect Faculty Senate	2018
Houston Public Media	Houston, Tx
Head of Data Research DiverseCity	2016–2018
Department of Political Science	Houston, Tx
University of Houston	
Assistant Professor	2008–2015
United Nations Children’s Fund (UNICEF)	New York, NY
Project on International Migration	2006–2014
Center for Mexican American Studies	Houston, Tx
University of Houston	
Resident Scholar	Fall 2007–2008

Publications

Books

Cortina, Jeronimo, and Enrique Ochoa-Reza, eds. 2013. *New Perspectives on International Migration and Development*. New York: Columbia University Press (346 pages).

- Stiglitz, Joseph E., Jeronimo Cortina, and Enrique Ochoa-Reza. 2013. “Introduction.” In *New Perspectives on International Migration and Development*, eds. Jeronimo Cortina and Enrique Ochoa-Reza. New York: Columbia University Press, XV-XX.
- Cortina, Jeronimo, and Enrique Ochoa-Reza. 2013. “Women, Children and Migration: Developmental Considerations.” In *New Perspectives on International Migration and Development*, eds. Jeronimo Cortina and Enrique Ochoa-Reza. New York: Columbia University Press, 139-63.

Gelman, Andrew, and Jeronimo Cortina, eds. 2009. *A Quantitative Tour of the Social Sciences*. New York: Cambridge University Press (350 pages).

- Cortina, Jeronimo. 2009. “The Potential-Outcomes Model of Causation.” In *A Quantitative Tour of the Social Sciences*, eds. Andrew Gelman and Jeronimo Cortina. New York: Cambridge University Press, 303-25.

Gelman, Andrew, David Park, Boris Shor, and Jeronimo Cortina. 2010. *Red State, Blue State, Rich State, Poor State: Why Americans Vote the Way They Do*. 2nd Expanded ed: Princeton University Press (253 pages).

Peer Reviewed Journal Articles

Cortina, Jeronimo & Brandon Rottinghaus. (Under Review). “The Quiet Revolution: Convenience Voting, Vote Centers, and Turnout in Texas Elections.” *R & R**

Cortina, Jeronimo & Brandon Rottinghaus. 2019. “Vote Centers and Turnout by Election Type in Texas.” *Research & Politics**

Cortina, Jeronimo. 2019. “From a Distance: Geographic Proximity, Partisanship and Public Attitudes toward the U.S.-Mexico Border Wall.” *Political Research Quarterly**

Cortina, Jeronimo & Brandon Rottinghaus. 2017. “Does Partisanship Stop at the Edge of Scandal? Partisan Resiliency and the Survival of Political Scandal.” *American Review of Politics*, 36(1)*

Cortina, Jeronimo and Narayani Lasala-Blanco. 2016. “One Vote or many Mexicos? Income, Heterogeneity, and the 2006-2012 Presidential Elections” *Social Science Quarterly*. 97(2):197-210*

Cortina, Jeronimo. 2014. “Beyond the Money: The Impact of International Migration on Children’s Life Satisfaction: Evidence from Ecuador and Albania” *Migration and Development*: 3(1): 1-19*

Cortina, Jeronimo. 2014. “Subsidizing Migration? Mexican Agricultural Policies and Migration to the United States.” *Policy Studies Journal*: 42(1): 101-121.* **Winner of the Theodore J. Lowi Policy Studies Journal Best Article Award of the APSA Public Policy Section**

de la Garza, Rodolfo O. , and Jeronimo Cortina. 2007. “Are Latino Republicans but Just Don’t Know It? The Latino Vote in the 2000 and 2004 Presidential Elections.” *American Politics Research* 35: 202-23.*

Cortina, Jeronimo. 2007. “La Unitalla No Les Queda a Todos: La Opinión Pública Con Respecto a La Inmigración.” (*One Size Does Not Fit All: Public Opinion Towards Immigration*) *ISTOR VII*: 9-21 (peer-reviewed journal from CIDE Mexico).*

*Peer-reviewed

Cortina, Jeronimo, Rodolfo O. de la Garza, and Enrique Ochoa-Reza. 2005. "Remesas: Límites Al Optimismo." (*The Limits of Optimism: Remittances from the US to Mexico*) *Foreign Affairs en Español* 5: 27-36.*

de la Garza, Rodolfo O. , and Jeronimo Cortina. 2004-2005. "Latinos as Foreign Policy Actors: Myth or Reality?". *Harvard Journal of Hispanic Policy* 17: 29-40.*

Book Chapters

Cortina, Jeronimo. 2018. "Latinos and Foreign Policy" Oxford Bibliographies.*

Cortina, Jeronimo. 2012. "Lessons from the Financial Crisis: Remittances and Social Assistance among Children and Women Left-Behind in Mexico." In *Children in Crisis: Seeking Child-Sensitive Policy Responses*, eds. Nicola Jones, Ronald U. Mendoza, David Stewart and Erika Strand. London: Palgrave. 121-42.*

de la Garza, Rodolfo O. , and Jeronimo Cortina. 2009. "Migración Política: Más Allá De Las Redes Y La Economía." In *Hacia La Gobernabilidad De Las Migraciones Transnacionales*, ed. Richard Salazar. Quito: Corporación Editora Nacional. 49-70.

de la Garza, Rodolfo O. , Marisa Abrajano, and Jeronimo Cortina. 2008. "Get Me to the Polls on Time: Co-Ethnic Mobilization and Latino Turnout." In *Understanding Minority and Immigrant Politics*, eds. Jane Junn and Kerry L. Haynie. New York: Cambridge University Press. 95-113.*

Muzzio, Douglas, and Jeronimo Cortina. 2008. "New York in 2004: Political Blues for Hispanics." In *Beyond the Barrio: Latinos in the 2004 Elections*, eds. Rodolfo de la Garza, Louis DeSipio and David Leal. South Bend: University of Notre Dame Press. 221-49.*

Policy Reports

Cortina, Jeronimo and Patrick Taran. 2015. "Migration and Youth: Challenges and Opportunities" New York: United Nations Global Migration Group (250 pages).

Cortina, Jeronimo, Jerome Eli and Patrick Taran. 2014. "Adolescents, Youth and Migration: Challenges and Opportunities" New York: United Nations Global Migration Group (30 pages).*

Cortina, Jeronimo and Benjamin Schraven. 2014 "Methodological Considerations for Survey Research on Children, Adolescents and Youth in the Context of Environmental Change and Migration" UNICEF and Foresight UK Government Office for Science (42 pages).*

Cortina, Jeronimo. 2013. "Children, Education and Migration: Win-Win Policy Responses for Co-Development." in *Family, Migration and Dignity Special Issue*, Doha, Qatar (11 pages).

Cortina, Jeronimo, and George Hawley. 2011. "The Economic Impact of Immigrant-Related Local Ordinances." New York: Americas Society/Council of the Americas (25 pages).

Cortina, Jeronimo, Rodolfo O. de la Garza, Sandra Bejarano, and Andrew Weiner. 2005. "The Economic Impact of the México-California Relationship." Los Angeles: Tomás Rivera Policy Institute (21 pages).

de la Garza, Rodolfo O. , and Jeronimo Cortina. 2005. "Redefining National Boundaries: Changing Relations between Diasporas and Latin American States." Madrid: Real Instituto El Cano (10 pages).

Cortina, Jeronimo, and Rodolfo O. de la Garza. 2004. "Immigrant Remitting Behavior and Its Developmental Consequences for México and El Salvador." Los Angeles: Tomás Rivera Policy Institute (43 pages).*

*Peer-reviewed

Work in Progress

Cortina, Jeronimo. “Anxious Times: Distance, Behavior, and Public Opinion” (book manuscript)

Casellas, Jason & Jeronimo Cortina “Holding the Fort? The Policy Views of Latino Republicans by Immigrant Generation in the Age of Trump” (book manuscript)

Selected Conferences & Presentations

Jeronimo Cortina & Brandon Rottinghaus “The Quiet Revolution’: Convenience Voting, Vote Centers, and Turnout in Texas Elections” presented at the Election Sciences, Reform, & Administration Conference. Philadelphia, PA July, 2019

Jeronimo Cortina “The Impact of Indirect Remittances on Development” presented at the BTI Annual Meeting. Washington, DC June, 2019

Jason Casellas & Jeronimo Cortina “Holding the Fort? The Policy Views of Latino Republicans by Immigrant Generation in the Age of Trump” presented at the Western Political Science Association. San Diego, CA April, 2019

Jeronimo Cortina & Markie McBrayer “The Perfect Storm? The Impact of Texas Drought in Congressional Elections” presented at the Southern Political Science Association. San Juan, Puerto Rico January 7-9, 2016

Jeronimo Cortina. “Not in my Front Yard: The Impact of Spatial Proximity on Attitudes Toward Building a Fence Along the Texas-Mexico Border” presented at the Southern Political Science Association. New Orleans, LA January 15-17, 2015

Jeronimo Cortina. “Challenges and Opportunities in Texas: Demographics, Income, Health and Education” Key Note presentation at the College of the Mainland Symposium *Controversy in Our Nation: Past, Present, and Future*. Texas City, TX April 4, 2014

Jeronimo Cortina. “Youth and Migration: Towards the post-2015 Development Goals” presented at the Seminar on Migration and Sustainable Development - Youth and Adolescents on the Move. New York, NY December 18, 2012

Jeronimo Cortina. “Migration and Education: An Avenue for Empowerment?” presented at the Seminar on Migration and Sustainable Development - Youth and Adolescents on the Move. New York, NY December 18, 2012

Jeronimo Cortina. “Using Household Surveys to Study the Economic and Social Implications of Migration: The Case of MICS” presented at the Global Experts Meeting of the World Bank’s Knowledge Partnership on Migration and Development. Washington, DC December 10-11, 2012

Jeronimo Cortina. “Children, Education and Migration: Win-Win Policy Responses for co-development” presented at the Symposium on Migration, Family and Dignity. Doha, Qatar, 27-29 March 2012

Jeronimo Cortina. “Migration, Adolescents and Youth: Challenges and Opportunities” presented at the Side Event International migration from a regional and interregional perspective, including adolescents and youth 45th Session of the Commission on Population and Development New York, 23 April 2012

Jeronimo Cortina. “Assessing the Contribution of International Migration to Countries of Origin and Destination” paper presented at the United Nation’s Ninth Coordination Meeting on International Migration, February 17-18, 2011 New York, New York.

Jeronimo Cortina. “The Impact of Migration on Children and Adolescents Left-Behind” paper presented at the United Nations’ Global Migration Group Practitioners Symposium, May 27-28, 2011 New York, New York.

Jeronimo Cortina. “Give Me Your Tired, Your Poor, Your Huddled Masses: Immigration and State Level Policy Responsiveness” paper presented at the Midwest Political Science Association 69th

Annual National Conference, March 31 - April 3, 2011 Chicago, Illinois.

Jeronimo Cortina. "Lessons From the Financial Crisis: Remittances and Social Assistance among Children and Women Left-Behind in Mexico" paper presented at the II Foro Internacional UNICEF-CONEVAL, Mexico City November 18, 2010

Jeronimo Cortina. "Causal Inference of Repeated Observations: A Synthesis of Propensity Score and Multilevel Modeling Methods" paper presented at the Annual

Jeronimo Cortina. "El Impacto de la Migración en el desarrollo de los niños, niñas y adolescentes" paper presented at the Seminario sobre Migraci

Jeronimo Cortina. "Migration and Development: A Multilevel Perspective to Data Collection" paper presented at the Global Migration Group Practitioners Symposium

Jeronimo Cortina. "International Migrant Children and Children Left-Behind" presentation at the OHCHR Consultation on Protecting the Rights of the Child in the

Jeronimo Cortina. "Lessons From the Financial Crisis: Remittances and Social Assistance among Children and Women Left-Behind in Mexico" paper presented at the

Jeronimo Cortina. "Beyond the Money: The Impact of International Migration on Children's Life Satisfaction" presentation at the Migration Data: Collecting Policy

Jeronimo Cortina. "International Migration and Children's Life Satisfaction" presentation at the workshop on Transnational Parenthood and Children Left-Behind.

Jeronimo Cortina. "Globalización, Procesos Migratorios e Impactos Económicos" presentation at the Taller Regional Migración y Niñez en Amé

Jeronimo Cortina. "Pilot Research on the Left-Behind: A Methodological Evaluation." New York, NY: UNICEF, 2008

Jeronimo Cortina. "One Size Does Not Fit All: Race, Ethnicity and Contemporary Public Opinion Towards Immigration" Paper presented at 2008 Annual Meeting of the

Jeronimo Cortina. "The Impact of International Migration on Children-Left Behind" presentation at the Sixth United Nations Coordination Meeting on International

Jeronimo Cortina & Enrique Ochoa-Reza. "More Migration, Less Remittances?" presentation at the Advanced Graduate Workshop on Poverty, Development and Globalization. Initiative for

Jeronimo Cortina, Rodolfo de la Garza & Enrique Ochoa-Reza. "Remittances, Development & Poverty: Lessons from the Mexican Case" presentation at the Hispanic Market Forum 2007. United States-Mexico Chamber of Commerce, New York, NY February 15, 2007

Jeronimo Cortina, Rodolfo de la Garza & Enrique Ochoa-Reza. "Remittances, Development & Poverty: Lessons from the Mexican Case" presentation at the Advanced Graduate Workshop on Poverty, Development and Globalization. Brooks World Poverty Institute, University of Manchester, Manchester August 1, 2006

Jeronimo Cortina. "Bringing the State In: Mexican Migration and Social Assistance Policies" paper presented at the Annual Meeting of the Latin American Studies Association. San Juan, Puerto Rico March 15 - 18, 2006

Jeronimo Cortina. "Migration" conference at the Annual Symposium on Development and Globalization of the Program in International Development and Globalization at Columbia University. New York, NY November 11 - 12, 2005

Jeronimo Cortina. "Governmental Handouts and Migration: The Case of Mexico" paper presented at the Annual Meeting of the American Political Science Association. Washington, DC Sept. 1 - 4, 2005

Rodolfo de la Garza and Jeronimo Cortina. "Dance with the One who Brought you: Latino Partisan Fidelity" paper presented at the Annual Meeting of the American Political Science Association. Washington, DC Sept. 1 - 4, 2005

Jeronimo Cortina, Rodolfo de la Garza and Enrique Ochoa-Reza. "The New National Boundaries: Diasporas, Governments and Remittances" Presentation at the International Forum on Remittances 2005, Inter-American Development Bank and Multilateral Investment Fund, Washington, DC June 30, 2005

Jeronimo Cortina. "Immigrant Remitting Behavior and its Developmental Consequences for Mexico and El Salvador". Presentation at the conference on Research and Practice on Transnationalism and Community Economic Development organized by the Consortium for Economic Development and Education Research. June 9, 2005 New York, NY

Jeronimo Cortina. "Immigrant Remitting Behavior and its Developmental Consequences for Mexico and El Salvador" Presentation at the First Annual Symposium on Development and Globalization - The Program in International Development and Globalization at Columbia University. November 12 -13, 2004 New York, NY

Jeronimo Cortina and Enrique Ochoa-Reza "Remittances with Limits" Paper presented at the Division of Policy and Planning - UNICEF. September 30, New York, NY

Jeronimo Cortina: "Divided we Govern; but we govern differently: Minority Governments and Legislative Professionalization in Mexico's states Assemblies" Paper prepared for the Midwest political Science Association National Conferences, April 15-18, 2004 Chicago, Ill.

Rodolfo de la Garza and Jeronimo Cortina: "Latinos as Foreign Policy Actors: Myth or Reality?" Paper prepared for the 45th Annual International Studies Association Convention, March 17 - 20, 2004 Le Centre Sheraton, Montreal (Quebec), Canada.

Latino Voter Influence: Two research projects examine Latino voters in Harris County, Texas, and the efforts to get the Latino vote out in several states. Linea Abierta: Radio Bilingüe, a non-profit national distributor of Spanish-language programming in public radio.

Rodolfo O. de la Garza and Marissa A. Abrajano with Jeronimo Cortina. "Get Me to the Polls on Time: Latino Mobilization in the 2000 Election." Paper prepared for delivery at the 2002 Annual Meeting of the American Political Science Association, Boston, August 29-September 1, 2002.

Courses Taught

Race, Gender and Ethnic Politics (undergraduate)

Latino Politics (undergraduate)

Introduction to Public Policy (undergraduate)

Polls, Public Opinion and Democracy (undergraduate)

Introduction to Texas Politics (undergraduate)

U.S. Government: Congress, President, and Courts (undergraduate)

Introduction to Research Methods (undergraduate)

Political Psychology (graduate)

Quantitative Methods for Policy Research and Evaluation (graduate)

Causal Inference Methods and Applications (graduate)

Immigration Policy (graduate)

Fellowships and Grants

DOR Matching Grant, Houston, TX (2019 - \$25,000)- Univision matched with \$100k in surveys
CLASS Competitive Research Grant, Houston, TX (2019 - \$15,000)
Division of Research Match Grant, Houston, TX (2019 - \$25,000)
CLASS Competitive Research Grant (Jason Casellas, Pablo Pinto), Houston, TX (2018 - \$12,000)
Center for Mexican American Studies, Houston, TX (2016 - \$8,000)
Hobby Center for Public Policy, Houston, TX (2016 - \$25,000)
Americas Society, New York, NY (2011)
New Faculty Research Grant, University of Houston (2010)
ISERP Graduate Fellow, Columbia University (2006 - 2007)
Schiff Fellow, Columbia University (2005 - 2006)
GIS Fellow, Columbia University (Summer 2005)
Beca Complemento Secretaría de Educación Pública (2005)
Faculty Fellow, Columbia University (2003-2005)

Professional and University Service

University of Houston Faculty Senate - (2015-Present)
Expert Screener for the Dissertation Proposal Development Fellowship (DPDF) Program at the Social Science Research Council (2014).
Reviewer: American Journal of Political Science, American Politics Research, Journal of Politics, Political Research Quarterly, Política y Gobierno (Mexico), Social Science Quarterly, Politics, Groups, and Identities, Asian and Pacific Migration Journal, Journal of Ethnic and Migration Studies.
University/Departmental committee work: ICPSR Official Representative (2009-Present); Undergraduate committee (2007); Technology (2008-2010); MPA (2008); Webmaster (2010-Present); Recruiting committee (2008, 2009, 2011, 2012)
University of Houston rater for the State's Learning Objectives on Personal Responsibility

Media

From 2018 to 2020: 1,344 media appearances (not taking into account Spanish-language media) with an audience reach of 952,515,201
Early Voting StoryMap (<https://arcg.is/0Pb8ea>)
Co-host Party Politics Podcast - Houston Public Media
Contributor to Telemundo, Houston Matters and Host of "En Pocas Palabras" from Houston Public Media in Spanish (2018)
The Economist, CNN in Spanish, Telemundo (New York, Houston), Univision (National), TV Azteca America (New York, Houston), *Oppenheimer Presenta*, Vme TV (The first national Spanish-language network presented by public TV stations), Reforma, El Financiero, Expansion (Mexican newspapers and magazine), Miami Herald, LA Times, La Opinion, Associated Press (AP)

Professional References

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Sociology and CMAS
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Political Science
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Matt Barreto
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Political Science and Chicana/o Studies
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Houston, TX January 07, 2022

DECLARATION OF JERONIMO CORTINA

Pursuant to 28 U.S.C. §1746, I, Jeronimo Cortina, declare that:

My name is Jeronimo Cortina, and I am currently an Associate Professor of Political Science and the Associate Director at the Center for Mexican American Studies at the University of Houston. I was appointed Associate Professor with tenure at UH in 2015. I teach courses related to political behavior, statistical methods and my research revolves around electoral behavior and election outcomes, particularly in the State of Texas. I have published peer-reviewed, social science articles about minority electoral behavior, election turnout, and the impact of election administration changes on turnout. In this matter, I am being paid \$300/hour.

Basis for Opinion

Unless otherwise stated, all opinions herein are based on my experience and training and in accordance with generally accepted theories, principles, and methods of the academic profession and political science. I reserve the right to change, amend and/or modify my opinion should additional documentation become available.

The Facts or Data Considered in Forming an Opinion

In forming my opinions in this matter, I have reviewed the maps and accompanying electoral results data for the 2018 and 2020 elections for statewide races for the 31 senate districts in Plan S2168 and Plaintiffs' Alternative Map 4. I have also reviewed the "Plan Overlap Report" for Plan S2168 versus Plan S2100, Plaintiffs' Alternative Plan 4 v. Plan S2168, and Plaintiffs' Alternative Plan 4 versus Plan S2100. I have also reviewed the 2021 enacted redistricting plans for Congress, the State House of Representatives, and the State Board of Elections. I intend to review additional documents as they become available to me.

Statement of Opinions I will Express and the Basis and Reasons for the Opinions

In this matter, I was asked to compare Republicans' electoral prospects under two maps: Plan S2168 (the recently enacted Texas state senate plan) and Plaintiffs' Alternative Map 4. I was also asked to provide my assessment of Plan S2168's treatment of Fort Worth and Tarrant County compared to that of Congressional Plan C2193, State House Plan H2316, and School Board of Education Plan E2106, and consider the substantive similarities or departures among those plans. I also provide population overlap/core retention figures for Plan S2168, Plan S2100, and Plaintiffs' Alternative Plan 4.

Opinion on Election Analysis under Plan S2168 and Plan POWBS2020

In order to ascertain the impact that Plan S2168 and Plaintiffs' Alternative Plan 4 would have on the electoral futures of the main two political parties in the State of Texas, I analyzed reconstituted election results for all 2018 and 2020 statewide races under both plans.

The below analysis discusses the electoral margin-of-victory (MOV) between the percent of the votes cast for the winning candidate (i.e., Republican candidate) and the second-place candidate (i.e., Democratic candidate) in a particular race of the 2018 and 2020 general elections. For the context of this report, the MOV is used to measure each race's competitiveness and identifies the number of senate districts ("SDs") in which the Republican or Democratic candidates won a particular SD within a particular race with a margin of victory greater than 10% to clearly illustrate each political party's electoral advantage in a SD.

This test provides a high-ceiling of electoral competitiveness in comparison to other analyses focusing on strict vote shares between candidates. Moreover, this analysis provides a unique measurement across races that may be down the ballot and may not have the same level of attention that those races at the top of the ballot (e.g., judicial races vs. presidential race).

I also examine Republicans' total potential seat share under both plans.

Analysis of the 2018 Election Under Plan S2168

In the 2018 U.S. Senate race, Cruz-R had a 2.6% statewide MOV over O'Rourke-D, the closest statewide election in recent history. At the SD-level under Plan S2168, Cruz-R would have won in 19 SDs¹ with a MOV greater than 10%, while O'Rourke-D would have won in 12 SDs with a MOV greater than 10%.

For the Governor's Race, Abbott-R won reelection with a state-wide MOV of 13.3% over Valdez-D. Under Plan S2168, Abbott-R would have won 19 SDs with a MOV greater than 10% over the Valdez-D second place.

Patrick-R won reelection for the Lt. Governor's race with a MOV of 4.8% across the state, and under Plan S2168 would have carried 19 SDs with a MOV greater than 10%.

For the Attorney General's race, Paxton-R won with a state-wide MOV of 3.6%, and would have carried 19 SDs under Plan S2168 with a MOV greater than 10%.

For the Comptroller's, Land, and Agricultural Commissioners' races, the Republican candidates outperformed Democratic candidates by a statewide MOV of 9.8%, 10.5%, and 4.9%, respectively, and would have each carried 19 SDs with a MOV greater than 10% under Plan S2168.

In all Judicial state races, (excluding CCA 8 in which there was no Democratic candidate),² Republican candidates had a MOV of greater than 10% in the 19 SDs they carried.

Under Plan S2168, for seats carried by Republicans, there were no elections under the specified criteria that could have been considered as competitive, that is, with a MOV of less than 5%. By contrast, in specific SDs won by Democrats, Republican candidates would have been competitive, whereas Democrats' MOV was between 5-9.9%: SD 19, SD 20, and SD 27 for the Governor's race; and SD 27 for the Land Commissioner's race.

Democrats' best performance in recent elections was in the 2018 U.S. Senate race. In that race, Cruz's lowest MOV among the 19 SDs he carried came in SD9, where his MOV was 12.0%

¹ SDs 1-5; SDs 7-12; SDs 17-18; SD 22; SD 24-25; SD 28; SDs 30-31.

² In the CCA 8 race, Slaughter-R MOV over Ash-L was 49.4% and having a MOV over 10% in 28 SDs out of 31.

Analysis of the 2020 Election Under Plan S2168

Trump-R won the 2020 presidential race with a MOV of 5.5% and in 19 SDs Trump-R would have won over Biden-D with a MOV greater than 10% under Plan S2168, while Biden-D would have won in 12 SDs with a MOV greater than 10%.

For the Senate race, Cornyn-R won the state with a 9.6% MOV over Hegar-D and, under Plan S2168, carried 19 SDs with a MOV greater than 10%. Wright-R won over Castaneda-D in the Railroad Commissioner's Place 1 race with a 9.6% MOV statewide, and in 19 SDs by a MOV greater than 10%.

In all Judicial races Republican candidates' MOV would have been greater than 10% in 19 SDs.

There were no SDs carried by Republican candidates in 2020 that were competitive. In specific SDs won by Democrats, Republican candidates would have been competitive, whereas Democrats' MOV was between 5-9.9%: SD 27 in most races and SD20 in some, including the presidential race.

Analysis of the 2018 Election under Plaintiffs' Alternative Plan 4

For the Cruz-R-O'Rourke-D race under Plaintiffs' Alternative Plan 4, the Republican candidate would have outperformed the Democratic candidate in 19 SDs by a MOV greater than 10%.

In the Governor's race Abbott-R would have won in 19 SDs with a MOV of more than 10%.

In the Lt. Governor's, Attorney General, Comptroller, Land, Agricultural, and Railroad commissioners' races, Republican candidates during the 2018 election under Plaintiffs' Alternative Plan 4 would have outperformed Democratic candidates in 19 out of the 31 SDs.

In all Judicial races Republican candidates would have won 19 SDs with a MOV greater than 10%, but in the Criminal Court of Place 8 race, Republicans would have won in 28 out 31 SDs with a MOV greater than 10%.

In addition to the 19 safe Republican SDs that were carried by a MOV of 10% or greater, Republicans also won four competitive races in a 20th seat under Plaintiffs' Alternative Plan 4. In SD 10, Abbott-R prevailed by a 4.0% MOV in the Governor's race, Hegar-R prevailed by 0.4% in the Comptroller's race, Bush-R prevailed by 2.4% in the Land Commissioner race, and Craddick-R prevailed by

0.3% in the Railroad Commissioner race. By contrast, Democrats won six competitive races in SD 10 under Plaintiffs' Alternative Plan 4.

In the 2018 U.S. Senate race—the closest election in recent Texas history—Cruz's lowest MOV in a district he carried would have been 12.7% in SD 14 in Plaintiffs' Alternative Plan 4.

Analysis of the 2020 Election under Plaintiffs' Alternative Plan 4

Trump-R won the 2020 presidential race with a MOV of 5.5% and in 19 SDs Trump-R would have won over Biden-D with a MOV greater than 10%, while Biden-D would have won in 12 SDs with a MOV greater than 10%.

Trump-R under Plaintiffs' Alternative Plan 4 would have won in 19 SDs with a MOV greater than 10% over Biden-D.

In the U.S. Senate race as well as in all state-wide races (i.e., Railroad Commissioner, Supreme Court, Court of Criminal Appeals) the Republican candidates would have won at the state-level and in 19 SDs would have won with a MOV greater than 10%.

No Republicans carried SDs in competitive races, while Democrats had competitive victories in SD10, SD20, and SD27 across the 2020 statewide elections.

Comparison of Election Results between S2168 and Plaintiffs' Alternative Plan 4

Under both Plan S2168 and Plaintiffs' Alternative Plan 4, Republicans have 19 safe SDs in which they uniformly win by a MOV of 10% or greater.

Under Plan S2168, Republicans' have a ceiling of 19 districts in which they could win with a MOV greater than 10%, and 0 additional districts in which they prevail by a more competitive margin, as illustrated by most recent 19 statewide elections featuring Republican and Democratic candidates. By contrast, Republicans carried a 20th district—SD10—in four of those 19 races under Plaintiffs' Alternative Plan 4. In addition, in Democrats' high-water mark election—the 2018 U.S. Senate race—Cruz's lowest MOV in a district he won was 12.0% in Plan S2168, while his lowest MOV in a district he carried was greater—12.7%—under Plaintiffs' Alternative Plan 4.

Democrats' MOV across the 12 SDs in which they would have won decreased by 4 percentage points between Plan S2168 and Plaintiffs' Alternative Plan 4 under the 2018 elections and by 1.6 percentage points under the 2020 election analysis.

After analyzing the 2018 and 2020 election results under Plan S2168 and Plaintiffs' Alternative Plan 4, it is my opinion based on the data made available to me and in accordance with generally accepted principles and methods that Plaintiffs' Alternative Plan 4 perform better for the Republican Party than does Plan S2168.

Opinion on the Comparison between Plan S2168, Plan H2316, Plan C2193, Plan E2106 as Related to SD 10 and Tarrant County, TX

I compared the enacted plans by the Legislature as they relate to SD 10 and Tarrant County, in particular Fort Worth. All maps are publicly available at the Texas Legislative Council website.

State Senate Districts - Plan S2168

Figure 1 below shows State Senate Districts as enacted under Plan S2168. The red circle in Figure 1 indicates the area of analysis for this matter. Figure 2 shows a callout of the area of analysis.

Figure 1. State Senate Districts

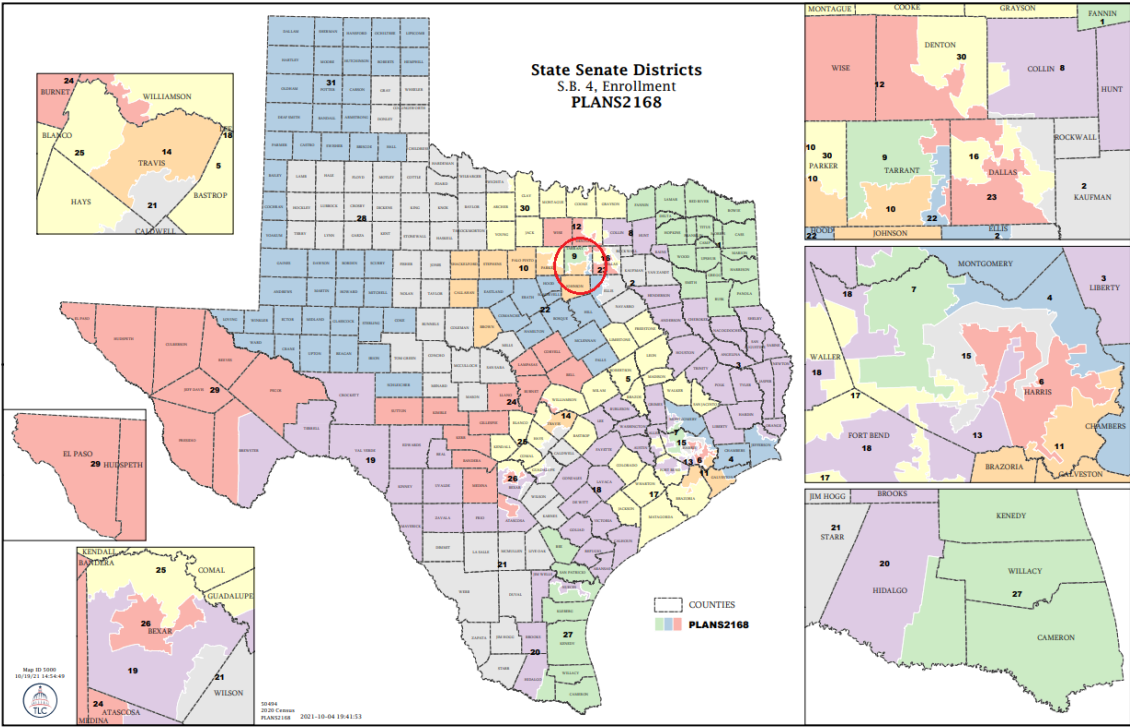


Figure 2. Tarrant County and SD 10 Callout

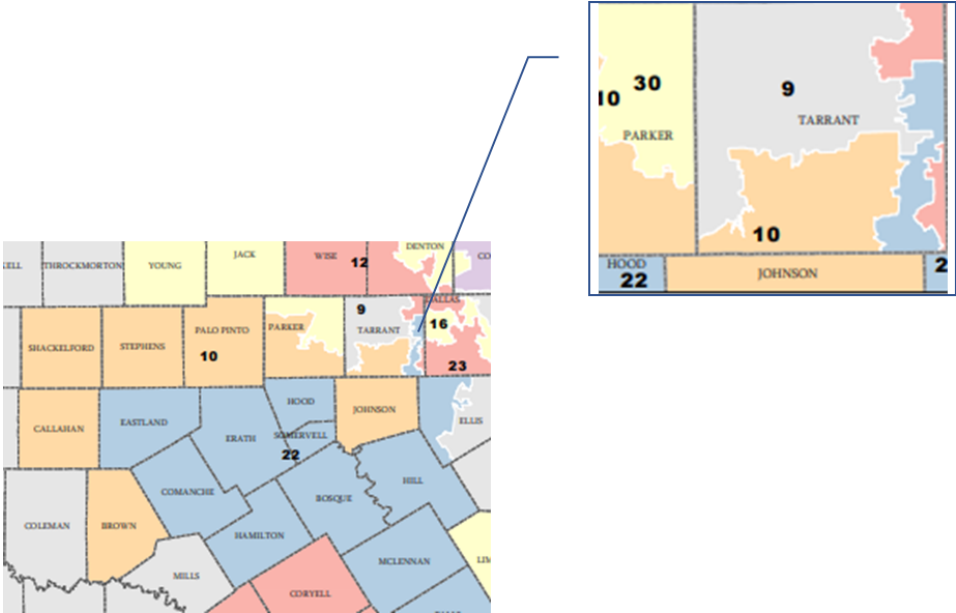


Figure 2 shows SD 10 traversing across 8 different counties and clearly breaking apart Tarrant County, and in particular breaking apart Fort Worth through the center of the city.

State House Districts- Plan H2136

Figure 3. State House Districts

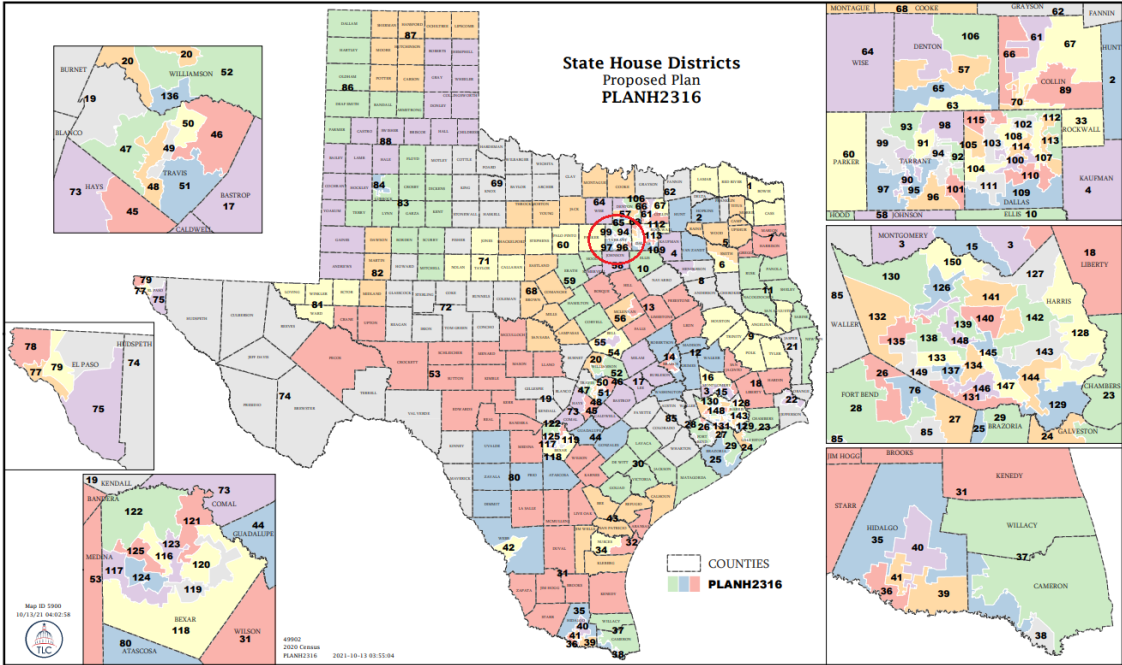


Figure 4. State House Districts in Tarrant County

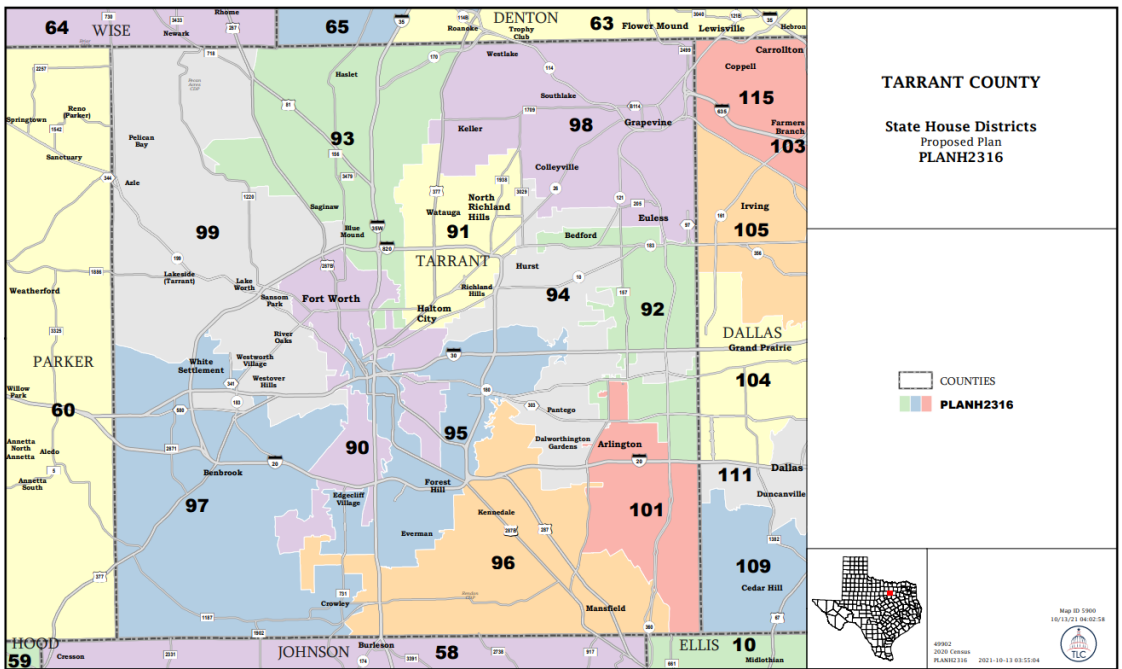


Figure 4 shows how HD 90 and HD 95 cut across Tarrant County sharing some geographic boundaries with SD 10 along particularly around Fort Worth and Forest Hill. One can see the rough outline of SD10 under Plan S2100 along the combined borders of HD 97, 90, 94, 95, and 96.

U.S. Congressional Districts - Plan C2193

Figure 5. U.S. Congressional Districts

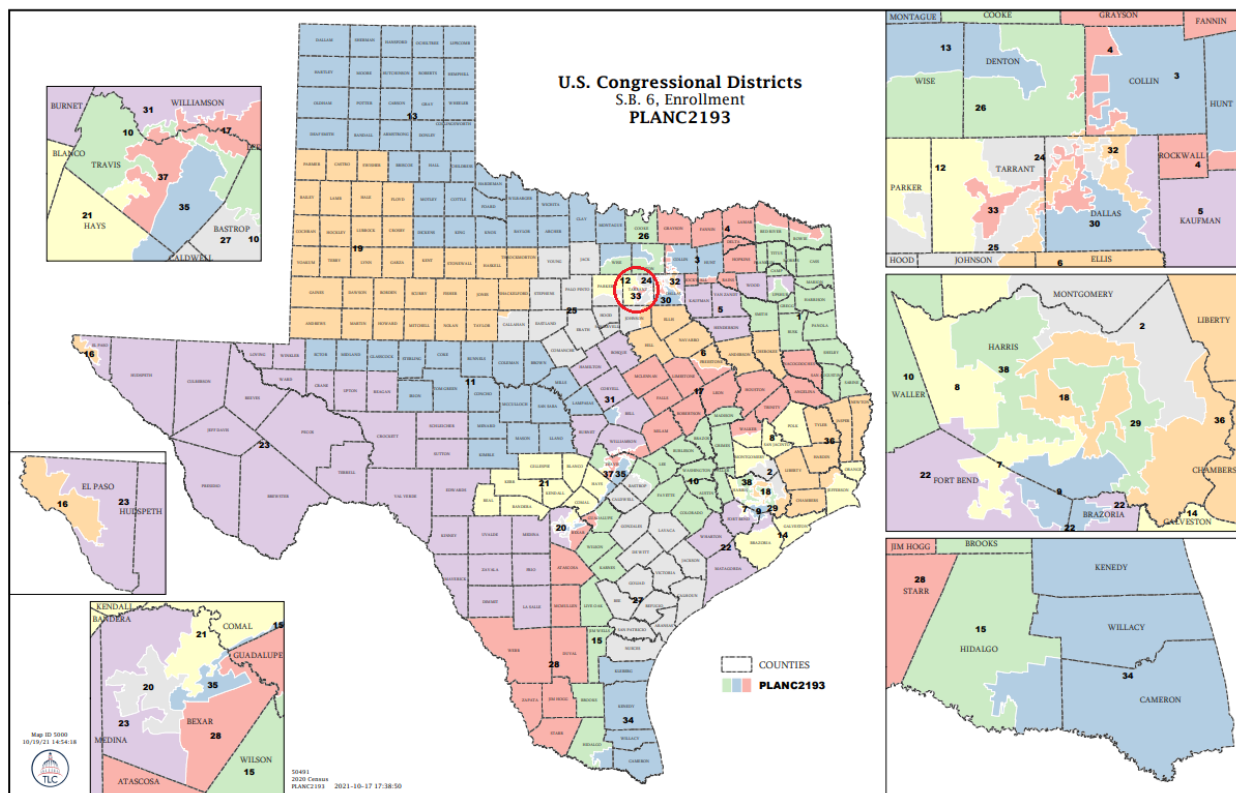


Figure 6. Tarrant County's Congressional Districts

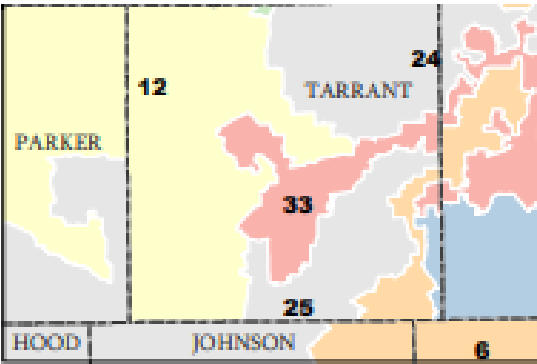


Figure 6 shows that CD 33 maintains a connection of the areas north and south of central Fort Worth.

Figure 7. State Board of Education Districts

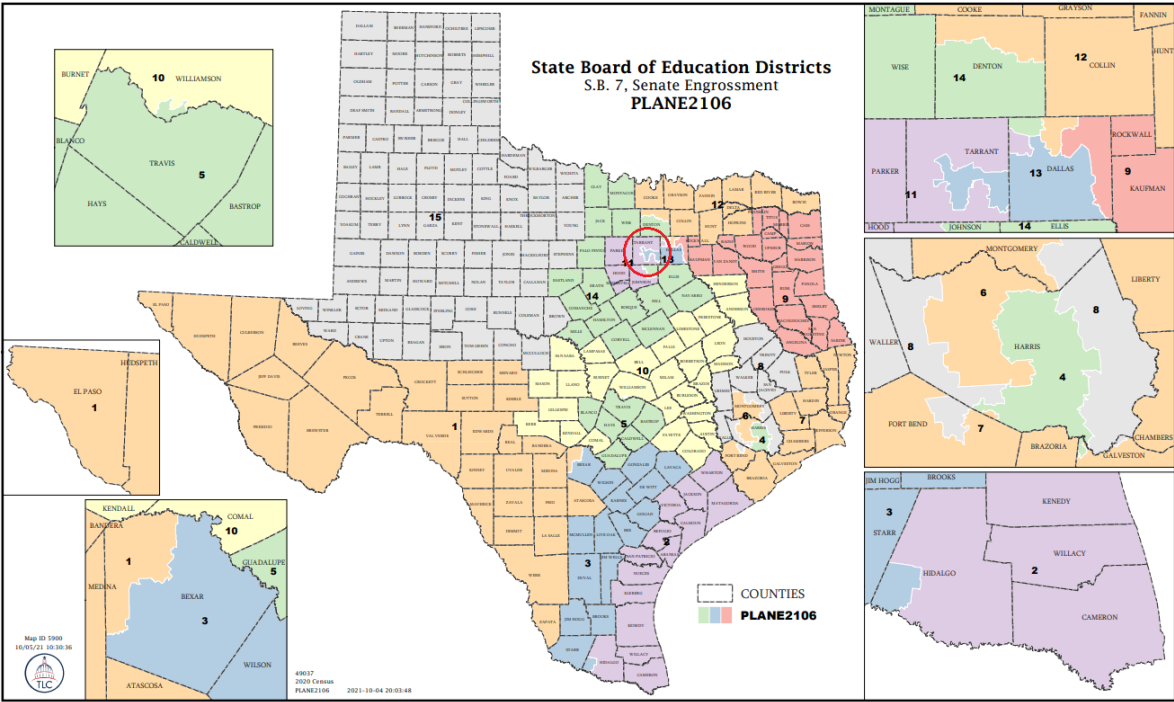


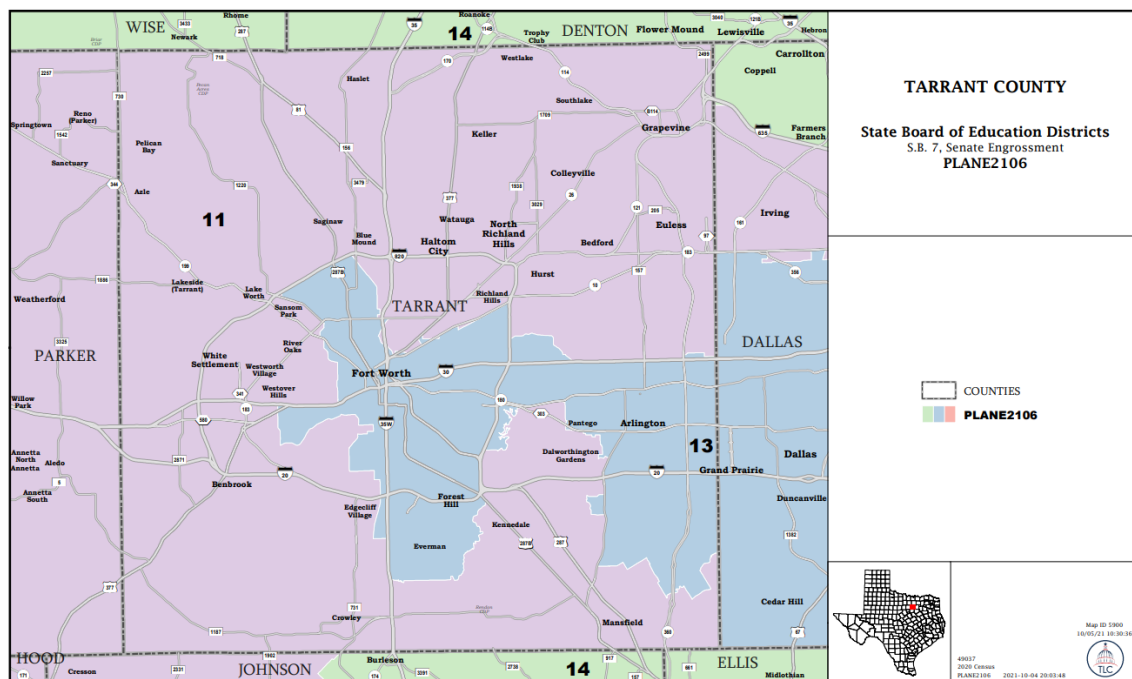
Figure 8. Tarrant County's State Board of Education Districts

Figure 8 shows how the 13 SBOE District keeps areas north and south of central Fort Worth intact.

Comparison of Maps

It is my opinion, based on a comparison among Plan S2168, Plan H2316, Plan C2193, and Plan E2106 as related to Fort Worth and Tarrant County, that SD 10, dismantles those geographically bounded political communities, while districts contained in Plans C2193 and E2106 maintain such political communities united. House districts have smaller population, and so more separation is required, but the Tarrant County House Districts join together to create a grouping that reflects these same communities of interest, and indeed form a rough outline of the benchmark SD10. The treatment of SD10 in the State Senate Plan, Plan S2168, substantively diverges not just from the benchmark plan's policy of keeping the areas north and south of central Fort Worth whole, but also from every other redistricting plan enacted by the State this cycle.

Core Population Retention/Overlap Population between Plan S2168, Plan 2100 (Benchmark) and Plan POWBS2020

Using the TLC Population Overlap Reports, I compared the overlap population between Plan S2168 and Plan S2100 (Benchmark), Plaintiffs' Alternative Plan 4

and Plan S2168, and Plaintiffs' Alternative Plan 4 and Plan S2100 (Benchmark). For the purpose of this matter the overlap population or core population retention measures the percentage of a new district's population that were included in the old district³.

Table 1 illustrates the core population or overlap population between Plan S2168 and benchmark Plan 2100 by SD. The percent core population retained between the benchmark plan and Plan S2168 is indicated in the third column. The mean core population retained or the overlap population between Plan S2168 and benchmark Plan S2100 is 75.3%, while the median is 78.7%

Table 2 illustrates the core population or overlap population between Plaintiffs' Alternative Plan 4 and benchmark Plan S2100 by SD. The percent core population retained between the benchmark plan and Plaintiffs' Alternative Plan 4 is indicated in the third column. The mean core population retained or the overlap population between Plaintiffs' Alternative Plan 4 and benchmark Plan S2100 is 70.4%, while the median is 74.6%

Table 3 illustrates the core population or overlap population between Plaintiffs' Alternative Plan 4 and Plan S2168 by SD. The percent core population retained between the Plaintiffs' Alternative Plan 4 and Plan S2168 is indicated in the third column. The mean core population retained or the overlap population between Plaintiffs' Alternative Plan 4 and Plan S2168 is 81.0%, while the median is 91.9%

Plaintiff's Alternative Plan 4 thus has high population overlap and core retention versus Plan S2168, and comparable population overlap and core retention versus Plan S2100 compared to Plan S2168.

³ In determining the core retention for a district, one examines the old districts that have contributed population to the new district, and identifies the district from which the new district obtained its largest amount of population..

Table 1. Plan S2168 vs. Plan S2100

Plan S2168	Plan S2100	% Core Retention Population
1	1	91.6%
2	2	48.9%
3	3	79.7%
4	4	72.5%
5	5	86.6%
6	6	85.7%
7	7	80.7%
8	8	66.7%
9	9	50.4%
10	10	59.7%
11	11	94.9%
12	12	48.8%
13	13	91.8%
14	14	89.8%
15	15	77.7%
16	16	36.9%
17	17	58.7%
18	18	75.0%
19	19	87.1%
20	20	91.4%
21	21	82.7%
22	22	59.9%
23	23	77.1%
24	24	67.2%
25	25	84.4%
26	26	87.8%
27	27	81.6%
28	28	75.6%
29	29	95.8%
30	30	54.2%
31	31	92.2%

Table 2. Plaintiffs' Alternative Plan 4 vs. Plan S2100

POWBS2020	Plan S2100	% Core Retention Population
1	1	91.6%
2	2	49.6%
3	3	77.3%
4	4	70.7%
5	5	48.1%
6	6	85.6%
7	7	74.6%
8	8	66.1%
9	9	64.2%
10	10	100.0%
11	11	86.5%
12	12	37.8%
13	13	89.7%
14	5	38.5%
15	15	71.6%
16	16	36.9%
17	17	51.3%
18	18	46.4%
19	19	88.6%
20	20	84.9%
21	21	66.5%
22	22	81.4%
23	23	78.0%
24	24	37.8%
25	25	92.2%
26	26	87.0%
27	27	79.8%
28	28	72.8%
29	29	95.8%
30	30	39.8%
31	31	91.3%

Table 3. Plaintiffs' Alternative Plan 4 vs. Plan S2168

POWBS2020	PLAN S2168	% Core Retention Population
1	1	100.0%
2	2	95.9%
3	3	98.6%
4	4	85.4%
5	24	44.8%
6	6	95.8%
7	7	70.2%
8	8	100.0%
9	9	67.3%
10	10	59.1%
11	11	85.0%
12	12	61.7%
13	13	94.9%
14	5	38.3%
15	15	91.9%
16	16	100.0%
17	17	70.1%
18	18	33.6%
19	19	94.7%
20	20	93.2%
21	21	73.9%
22	22	63.0%
23	23	92.7%
24	24	48.8%
25	25	79.3%
26	26	97.1%
27	27	97.9%
28	28	94.3%
29	29	100.0%
30	30	84.8%
31	31	98.7%

Summary of Opinion

Based on the foregoing, it is my expert opinion that first, Plaintiffs' Alternative Plan 4 provides better prospects for Republicans than Plan S2168 by matching the number of safe Republican seats while increasing the number of seats in which Republicans could compete.. Second, the comparison of maps of different districts within Tarrant County, TX, shows that Plan S2168's configuration of SD10, unlike the congressional and SBOE map—and unlike the joined grouping of State House seats—breaks apart Fort Worth through its center, substantively diverging from the policy of the State in the other redistricting plans to keep these areas whole. Third, Plaintiffs' Alternative Plan 4 maintains extremely high percentages of population in the same district as in Plan S2168, reflecting the overall similarity of the plans statewide, and has comparable core retention to the benchmark plan compared to Plan S2168.

I declare under penalty of perjury that the foregoing is true and correct.

This 7th day of January 2022.

A handwritten signature in black ink, appearing to read 'J. Cortina', is written over a horizontal line.

Jeronimo Cortina