

GOOOH Redistricting “Algorithm”

The steps below explain the “algorithm” I used to draw district lines in Texas – in a non-partisan manner.

- 1) I listed all 254 counties in order of population and worked from largest to smallest.
- 2) For counties larger than 1½ district [705,000 + 352,500], I divided the total by 705,000 and rounded up to determine how many district that county should cover.
 - a. Harris County has 4.1 million inhabitants so it gets 6 districts. (1-6).
 - i. The first 5 districts should be drawn entirely within Harris County.
 - ii. The sixth district, referred to as the Harris Overflow district, will be filled out by joining surrounding counties.
 - iii. Montgomery, Fort Bend, Brazoria and Galveston are not considered because they would put the Harris Overflow District over the limit.
 - iv. Liberty, Chambers, and Waller are considered because they are the only adjoining districts that are less than 705,000 and do not put the Harris Overflow District over the limit.
 - v. Liberty and Waller are added to the Harris Overflow District because they are the largest adjoining county that put it within +/- 2% of the 700,000 number
 - b. Dallas County has 2.5 million inhabitants so it gets 4 districts (7-10).
 - i. The fourth district will be called the Dallas Overflow District. It will be filled with surrounding districts that do not put it over the size limit (242,000 needed)
 - ii. Tarrant, Collin and Denton are not considered because all are above the 705,000 limit and will have their own district(s).
 - iii. The Tarrant overflow is not added because it would put the fourth Dallas district over the limit
 - iv. The Collin Overflow is added first because it is an adjoining county with more than 700,000, but less than 1,050,000
 - v. The Denton Overflow is next added because it is an adjoining county with more than 700,000, but less than 1,050,000
 - vi. There are three remaining surrounding counties to consider (217,000 members needed): Ellis, Kaufman and Rockwall.
 - vii. Ellis and Rockwall combine to make the total closest to 705,000 (+/-2%) thus they are added
 - c. Tarrant County has 1.9 so it will get 3 districts (11-13).
 - i. The third district will be called the Tarrant County Overflow District.
 - ii. It is to be filled without breaking up surrounding counties larger than 705,000. The adjoining counties of Wise, Parker, and Johnson are considered (275,000 needed)
 - iii. Johnson and Parker are added because they bring the total closest to 705,000
 - d. Bexar County has 1.7m inhabitants, so it gets 3 districts (14-16)
 - i. The third district will be called the Bexar County Overflow District. The adjoining counties of Guadalupe, Comal, Kendall, Bandera, Medina, Atascosa and Wilson are all considered (477,000 are needed)
 - ii. Guadalupe County is added because it is the largest adjoining district that does not put the Bexar Overflow over the limit (348,000 now needed)
 - iii. The adjoining counties of Gonzales, Caldwell, Hays, Guadalupe, Comal, Kendall, Bandera, Medina, Atascosa and Wilson are now considered
 - iv. Hays County is added because it is the largest adjoining district that does not put the Bexar Overflow over the limit (184,000 now needed)

- v. Comal is added because it is geographically between Hays and the Bexar Overflow (63,000 now needed)
 - vi. The adjoining counties of Blanco, the Travis Overflow District, Gonzales, Caldwell, Kendall, Bandera, Medina, Atascosa and Wilson are now considered
 - vii. Wilson is added because it puts the combined district within +/- 2% of the 705,000 target
- 3) Next, I created a district for each county more than 705,000 members but less than 1,052,500. The “surplus” residents in these counties were grouped together and treated like a new county to be placed in another district. I refer to these excess members as called the “County_Name” Overflow and combined them with adjoining counties in another district. This led to:
- a. Travis getting 1 district (17)
 - b. Collin getting 1 district (18)
 - c. Hidalgo getting 1 district (19)
 - d. El Paso getting 1 district (20)
 - e. Denton getting 1 district (21)
 - f. The remaining members of each district will be joined with other surrounding counties on the same size basis. The overflow districts are
 - i. The Travis Overflow will be joined with another district based on the overflow size (288,000)
 - ii. The Collin Overflow is joined with Dallas County (1-6)
 - iii. The Hidalgo Overflow will be joined with another district based on the overflow size (88,000)
 - iv. The El Paso Overflow will be joined with another district based on the overflow size (68,000)
 - v. The Denton Overflow will be joined with Dallas County (1-6)
- 4) Next, to ensure districts are geographically sensible, I considered each “corner” of the state. West and South Texas were already represented, with El Paso and Harlingen, but there was no district yet in the panhandle (Amarillo), the northeastern tip (Texarkana), or the southeastern tip, Beaumont. Since districts are intended to be grouped geographically, I started a district in those “corners” and add the immediately surrounding counties:
- a. Potter (Amarillo) (22) – the surrounding counties added to this anchor county were
 - i. Everything in the panhandle including Parmer, Castro, Swisher, Brisco, Hall, Childress and all counties north..
 - b. Bowie (Texarkana) (23) – the surrounding counties added to this anchor county were
 - i. Red River
 - ii. Titus
 - iii. Cass
 - iv. Morris
 - v. Franklin
 - vi. Lamar
 - vii. Delta
 - viii. Hopkins
 - ix. Wood
 - x. Camp
 - xi. Upshur
 - xii. Marion
 - c. Jefferson (Beaumont) (24) – the surrounding counties added to this anchor county were
 - i. Orange
 - ii. Newton

- iii. Jasper
- iv. Tyler
- v. Hardin
- vi. Liberty
- vii. Chambers

5) For counties with less than 700,000 members, starting with the most populated county, I made each an anchor county until I had placed the 36 districts. The only exceptions I made were 1) if a county could be joined with an existing county without exceeding the district limit, and 2) all counties between the two could be included without exceeding the limit. This identified the following anchor counties:

- a. Fort Bend (25) – The following counties added to this anchor county were
 - i. Washington
 - ii. Fayette
 - iii. Austin
 - iv. Colorado
 - v. Lavaca
- b. Montgomery (26) – The following counties added to this anchor county were
 - i. Walker
 - ii. Polk
 - iii. San Jacinto
 - iv. Grimes
 - v. Houston
 - vi. Trinity
 - vii. Madison
- c. Williamson (27) – The following counties added to this anchor county were
 - i. Bell (partial)
- d. Cameron (28) – The following counties added to this anchor county were
 - i. Hidalgo Overflow
 - ii. Wilson
 - iii. Jim Wells
 - iv. Bee
 - v. Kleberg
 - vi. Willacy
 - vii. Karnes
 - viii. Live Oak
 - ix. Kenedy
- e. Nueces (29) – The following counties added to this anchor county were
 - i. Victoria
 - ii. Bastrop
 - iii. San Patricio
 - iv. Caldwell
 - v. Aransas
 - vi. Calhoun
 - vii. De Witt
 - viii. Gonzales
 - ix. Goliad
 - x. Refugio
- f. Brazoria (32) – The following counties added to this anchor county were
 - i. Galveston
 - ii. Wharton

- iii. Matagorda
- iv. Jackson
- g. Travis Overflow (31) – western Travis County - The following counties added to this anchor county were
 - i. Coryell
 - ii. Hood
 - iii. Burnet
 - iv. Brown
 - v. Erath
 - vi. Lampasas
 - vii. Bell (partial)
 - viii. Llano
 - ix. Eastland
 - x. Bosque
 - xi. Callahan
 - xii. Comanche
 - xiii. Hamilton
 - xiv. Coleman
 - xv. Somervell
 - xvi. San Saba
 - xvii. Mills
- h. Lubbock (32) – The following counties added to this anchor county were
 - i. Taylor
 - ii. Wise
 - iii. Hale
 - iv. Palo Pinto
 - v. Hockley
 - vi. Jones
 - vii. Young
 - viii. Scurry
 - ix. Lamb
 - x. Nolan
 - xi. Terry
 - xii. Stephens
 - xiii. Jack
 - xiv. Yoakum
 - xv. Bailey
 - xvi. Lynn
 - xvii. Garza
 - xviii. Fisher
 - xix. Cochran
 - xx. Shackelford
 - xxi. Kent
- i. Webb (33) - The following counties added to this anchor county were
 - i. Starr
 - ii. Maverick
 - iii. Val Verde
 - iv. Kerr
 - v. Medina
 - vi. Kendall
 - vii. Uvalde

- viii. Bandera
- ix. Frio
- x. Zapata
- xi. Zavala
- xii. Duval
- xiii. Dimmit
- xiv. Brooks
- xv. La Salle
- xvi. Jim Hogg
- xvii. Kinney
- xviii. Real
- xix. Edwards
- xx. McMullen

j. Ector (34) - The following counties added to this anchor county were

- i. Midland
- ii. Tom Green
- iii. El Paso Overflow
- iv. Gillespie
- v. Gaines
- vi. Dawson
- vii. Pecos
- viii. Mitchell
- ix. Kimble
- x. Hudspeth
- xi. Culberson
- xii. Howard
- xiii. Andrews
- xiv. Reeves
- xv. Ward
- xvi. Presidio
- xvii. Brewster
- xviii. Runnels
- xix. Sutton
- xx. Crockett
- xxi. Coke
- xxii. Winkler
- xxiii. Martin
- xxiv. Mcculloch
- xxv. Concho
- xxvi. Mason
- xxvii. Schleicher
- xxviii. Menard
- xxix. Irion
- xxx. Crane
- xxxi. Upton
- xxxii. Reagan
- xxxiii. Jeff Davis
- xxxiv. Sterling
- xxxv. Glasscock
- xxxvi. Terrell
- xxxvii. Borden

- xxxviii. Loving
- k. McLennan (35) – The following counties added to this anchor county were
 - i. Brazos
 - ii. Anderson
 - iii. Navarro
 - iv. Hill
 - v. Milam
 - vi. Limestone
 - vii. Freestone
 - viii. Falls
 - ix. Burleson
 - x. Lee
 - xi. Leon
 - xii. Robertson
- l. Smith (36) – The following counties added to this anchor county were
 - i. Kaufman
 - ii. Hunt
 - iii. Henderson
 - iv. Van Zandt
 - v. Rusk
 - vi. Cherokee
 - vii. Wood
 - viii. Rains

The key was to use common sense, not a political agenda. I identified 36 anchor districts using non-partisan guidelines, and then allocated the rest of the districts using straightforward GEOGRAPHICAL guidelines. Once the 36 anchor districts were defined, I traversed the list of counties, from largest to smallest, placing each county with the nearest adjoining anchor district that was not full. If it made sense to move a larger county to a different adjoining district for GEOGRAPHICAL reasons, I did it.