DATE FILED: October 15, 2021 4:08 PM

SUPREME COURT OF COLORADO 2 East 14th Avenue, Denver, Colorado, 80203	
Original Proceeding Pursuant to Art. V, § 48.3 of the Constitution of the State of Colorado	
In re Colorado Independent Legislative Redistricting Commission	**▲ COURT USE ONLY ▲**
Attorneys for the Colorado Independent Legislative Redistricting Commission: Richard C. Kaufman, #8343 Law Office of Richard C. Kaufman PC, Inc. 6464 S. Newport Court Centennial, CO 80111 303.564.6633 rkaufmanco@gmail.com Timothy R. Odil, #35771 Peters Schulte Odil & Wallshein LLC 6125 Sky Pond Drive, Suite 250 Loveland, CO 80538 970.672.1876 todil@noco.law Jeremiah B. Barry, #10400 H. Pierce Lively, #50018 Jacob J. Baus, #46329 Colorado Independent Redistricting Commissions Staff 1580 Logan Street, Suite 430 303.866.4341 jerry.barry@state.co.us pierce.lively@state.co.us jacob.baus@state.co.us	Case No.: **2021 SA ____**

FINAL LEGISLATIVE REDISTRICTING PLANS

TABLE OF CONTENTS

TABLE OF EXHIBITS

The Colorado Independent Legislative Redistricting Commission (the "Commission") was created by the electorate in the 2018 general election with the passage of Amendment Z. Pursuant to that amendment found at article V, section 46-48.4, the Commission is charged with developing and submitting a redistricting plan for each house of the Colorado General Assembly. With this submission, the Commission submits its Final Plans (the "Plans") for the Colorado Senate and the Colorado House of Representatives. Attached to this submission as **Exhibit 1** are statewide maps for both houses of the General Assembly, together with regional maps to better show each house and senate district. Interactive maps[1] are available at:

House: https://bit.ly/3BOCjSc

Sentate: https://bit.ly/3DCZQWv

I. THE COMMISSION

Twelve individuals served on the Commission. Each commissioner was selected pursuant to the selection process and criteria found in article V, section 47 of

[1] The shortened links redirect to the following: https://coleg.maps.arcgis.com/apps/View/index.html?appid=41b742a9931a4c87a6e43b01c734c0c9 and https://coleg.maps.arcgis.com/apps/View/index.html?appid=2652c370e3c6487d9fc55f5f10a8afd4

the Colorado Constitution. Pursuant to that section, four Republicans, four Democrats, and four unaffiliated individuals served as commissioners. Biographical details about each commissioner may be found in **Exhibit 2**.

Pursuant to article V, section 48(1)(a), Governor Jared Polis convened the Commission on March 30, 2021. The Commission elected commissioner Carlos Perez chair and commissioner Kevin Fletcher vice chair. The Commission also formed four subcommittees to assist it in its work, including a Public Comment and Outreach subcommittee, a Rules and Procedures subcommittee, an Outside Legal Counsel and Legislative Affairs subcommittee, and a Mapping and Quantitative Methods subcommittee.

A. The Commission's Meetings

Since March 30, 2021, the Commission has held 45 meetings. Audio archives and materials for each meeting may be found at https://tinyurl.com/2hjxtmw6[2] and https://tinyurl.com/7jpbz6wh.[3] The subcommittees met regularly to assist the Commission with gathering and analyzing relevant information and preparing the

[2] The shortened link redirects to the following: https://redistricting.colorado.gov/content/meeting-summaries

[3] The shortened link redirects to the following: https://sg001-harmony.sliq.net/00327/Harmony/en/View/EventListView/20210401/155

Commission during its deliberations. Information regarding each subcommittee meeting is available at the same locations cited above.

B. The Commission's Public Hearings

In addition, and pursuant to article V, section 48(3)(b), the Commission held 35 public hearings across the state of Colorado, including at least three in each of the existing seven congressional districts, at least one hearing west of the Continental Divide, and at least one hearing east of the Divide in a designated area of the eastern Plains. During those public hearings, the Commission heard in-person and virtual testimony from individuals regarding the redistricting criteria found in article V, section 48.1.

Further, the Commission received thousands of comments via its website, including redistricting maps drafted by individual citizens. Those comments may be found at https://tinyurl.com/nwu73v7h.[4]

A list of the dates and times of the Commission's meetings, and the dates, times, and locations of the Commission's public hearings, is attached as **Exhibit 3**.

[4] The shortened link redirects to the following: https://redistricting.colorado.gov/public_comments/

II. REDISTRICTING PLANS PREPARED BY NON-PARTISAN STAFF

Pursuant to article V, section 48.2(1), on June 29, 2021, the Non-Partisan Staff released a "preliminary senate plan" and a "preliminary house plan" for the Commission's consideration. Due to the COVID-19 pandemic, the census data that normally is released on or about April 1 of the year following the decennial census, was delayed until August 12, 2021, and was not formatted for redistricting until late August of this year. Under those circumstances, the preliminary senate and house plans utilized preliminary data as authorized by Commission Policy No. 1, Use of Alternative Data Sources for Preliminary Plan, available at https://tinyurl.com/unndvw6c.[5]

Once the final census data was available, the Non-Partisan Staff released the First Staff Plan on September 13, 2021. The Second Staff Plan was released on September 23, 2021. The Third Staff Plan was released on October 5, 2021. The three staff plans and supporting material may be found at https://tinyurl.com/477kwuwe.[6]

[5] The shortened link redirects to the following: https://redistricting.colorado.gov/content/policies-and-guidelines

[6] The shortened link redirects to the following: https://redistricting.colorado.gov/content/2021-redistricting-maps

In support of the Commission, and at its direction, the Non-Partisan Staff created additional plans requested by commissioners, as well as amendments to plans requested by commissioners, for the Commission's consideration. All such plans and amendments may be viewed at the location cited above.

III. THE FINAL REDISTRICTING PLANS

A. The Final Colorado House of Representatives Plan.

On Monday, October 11, 2021, by a vote of 11 to 1, the Commission adopted a final redistricting plan for the Colorado House of Representatives. Pursuant to article V, section 48(2), eight or more commissioners, including at least two unaffiliated commissioners, voted in the affirmative. The final plan adopted on October 11, 2021 is submitted to the Supreme Court for review pursuant to article V, section 48.3. *See* Exhibit 1.

The final plan for the House of Representatives contains sixty-five districts. Descriptions and information for each House district is attached as **Exhibit 4**.

B. The Final Colorado Senate Plan.

On Tuesday, October 12, 2021, by a unanimous vote, 12 to 0, the Commission adopted a final redistricting plan for the Colorado Senate. Pursuant to article V, section 48(2), eight or more commissioners, including at least two unaffiliated commissioners, voted in the affirmative. The final plan adopted on October 12, 2021

is submitted to the Supreme Court for review pursuant to article V, section 48.3. *See* Exhibit 1.

The final Plan for the Senate contains thirty-five districts. Descriptions and information for each Senate district is attached as **Exhibit 5**.

Non-Partisan Staff has prepared a designation of sequencing of senate district elections identifying the districts from which state senators will be elected in 2022 and 2024 under the final Senate Plan pursuant to C.R.S. § 2-2-503 and Commission Policy No. 3, New Senate Districts with Multiple Incumbents or Holdover Senators, available at https://tinyurl.com/unndvw6c.[7] The sequencing designation is attached as **Exhibit 6**.

C. The Plans Satisfy All Constitutional Criteria.

The Commission drew each House and Senate district in compliance with all criteria found in the Colorado Constitution, article V, section 48.1.

1. The Plans Satisfy Population Equality Between Districts and Contiguity Requirements.

Each House and Senate district is within the five percent population deviation required by article V, section 48.1(1)(a). The most populous House district has a population of 90,864, and the least populous a population of 86,485. The most

[7] The shortened link redirects to the following: https://redistricting.colorado.gov/content/policies-and-guidelines

populous senate district contains a population of 169,103, and the least a population of 160,874. Census blocks were adjusted to reallocate state prisoners to their pre-incarceration residence as directed by Commission Policy No. 2, Direction to Staff on Incarcerated Persons Residence, available at https://tinyurl.com/unndvw6c.[8] Reports showing that each district is within the constitutionally allowed deviation are attached as **Exhibit 7**. The reports include demographic information about the ethnic and racial background of the individuals residing in each district.

Each House and Senate district is composed of contiguous geographic areas in compliance with article V, section 48.1(1)(a). *See also* Commission Policy No. 4, Policy on Contiguity, available at https://tinyurl.com/unndvw6c.[9]

2. The Plans Comply with the Federal Voting Rights Act.

The House and Senate plans comply with the Voting Rights Act, 52 U.S.C. § 10301 (the "VRA") as required by article V, section 48.1(b), of the Colorado Constitution. The Commission adopted Policy No. 9, Voting Rights Act Compliance, to guide its VRA deliberations. Policy No. 9 is attached as **Exhibit 8** and is also

[8] The shortened link redirects to the following: https://redistricting.colorado.gov/content/policies-and-guidelines

[9] The shortened link redirects to the following: https://redistricting.colorado.gov/content/policies-and-guidelines

available at https://tinyurl.com/unndvw6c.[10] The Commission was assisted in its VRA deliberations by Dr. Lisa Handley, a Voting Rights Act expert analyst. Her report is attached as **Exhibit 9**. In addition, the Non-Partisan Staff conducted additional VRA analysis for the Commission. Attached as **Exhibit 10** is the VRA analysis for the House and Senate districts produced by the Non-Partisan Staff.

3. The Plans Preserve Communities of Interest and Political Subdivisions, and Comply With the Constitutional Justifications for Splits.

The Commission gathered information about communities of interest throughout the state through the public hearing and comment process. The Commission sought to keep communities of interest, as defined in Amendment Z, as intact as reasonably possible. Colo. Const. art. V., § 48.1(2)(a). The Commissioners gathered information about communities of interest at its 45 meetings and 35 public hearings, together with the thousands of written public comments submitted. *See* Section I, above. The public input informed the Commission's decisions and played a central role in the creation and approval of all proposed plans and the final Plans submitted here.

The Commission and Non-Partisan Staff preserved whole political subdivisions as much as reasonably possible. Colo. Const. art. V., § 48.1(2)(a). When it was

[10] The shortened link redirects to the following: https://redistricting.colorado.gov/content/policies-and-guidelines

necessary to divide a whole political subdivision to maintain equal population between districts, the Commission kept key communities of interest together in the same district as much as reasonably possible. A report describing the political subdivision splits required is attached as **Exhibit 11**.

4. The Plans Satisfy the Constitution's Compactness Requirement.

The Commission and Non-Partisan Staff kept the districts as compact as reasonably possible while also accounting for the other constitutional factors. Colo. Const. art. V., § 48.1(2)(b). To guide the Commission and Non-Partisan Staff, the Commission adopted Policy No. 7, Compactness of House and Senate Districts, available at https://tinyurl.com/unndvw6c.[11] A report on the compactness of the districts is attached as **Exhibit 12**.

5. The Plans Maximize the Number of Politically Competitive Districts.

After considering other mandatory constitutional factors, the Commission maximized the number of politically competitive districts to the extent possible pursuant to Commission Policy No. 6, Direction to Staff on Maximizing

[11] The shortened link redirects to the following: https://redistricting.colorado.gov/content/policies-and-guidelines

Competitiveness, https://tinyurl.com/unndvw6c.[12] Colo. Const. art. V, § 48.1(3)(a). As required by article V, section 48.1(3)(a)-(c), Non-Partisan Staff has prepared an analysis of the political competitiveness of the districts in the Final Plan. The report is attached as **Exhibit 13**. The analysis includes tables addressing the partisan composition of districts and past election results of each district.

In addition, the Commission received and considered an ensemble analysis prepared by Dr. Jeanne Clelland of the University of Colorado at Boulder, Drs. Beth Malmskog and Flavia Sancier-Barbosa of Colorado College, and Dr. Daryl DeFord of Washington State University. In summary, the ensemble analysis generated and considered more than 2,000,000 possible redistricting plans, and prepared a statistical analysis of the competitiveness of those plans. By comparing the competitiveness results of the actual plans considered by the Commission to the ensemble of more than 2,000,000 possible plans, the Commission further confirmed that its proposed plans maximized competitiveness. The ensemble analysis is attached as **Exhibit 14**.

6. The Plans Were Not Drawn to Protect Incumbents, Candidates, or Political Parties.

The Commission and the Non-Partisan Staff affirm that the Plans were not drawn for the purpose of protecting any incumbent members of the Colorado Senate

[12] The shortened link redirects to the following: https://redistricting.colorado.gov/content/policies-and-guidelines

or House of Representatives, any declared candidates, or any political party. Colo. Const. art. V., § 48.1(4)(a).

7. The Plans Do Not Deny or Abridge the Right to Vote on Account of Race or Membership in a Language Minority Group.

The Plans were not drawn for the purpose of, and do not result in, the denial or abridgement of the right of any citizen to vote on account of that person's race or membership in a language minority group, including diluting the impact of that racial or language minority group's electoral influence. Colo. Const. art. V., § 48.1(4)(b).

IV. SUPREME COURT REVIEW

On July 26, 2021, this Court entered an Order providing that simultaneous briefs from all interested parties shall be due seven days after the Commission submits the Plans and accompanying material to this Court, but in no event later than noon on October 22, 2021. *See* July 26, 2021 Order, *In re Colo. Indep. Congressional Redistricting Comm'n*, Case No. 2021 SA 208. The Court scheduled oral argument for 1:00 p.m. on October 25, 2021.

The Commission will file a brief in support of the Plans by noon on October 22, 2021, and it will participate in oral argument on October 25, 2021.

V. REQUEST FOR RELIEF

The Commission respectfully requests that the Court consider this filing, the material referenced herein, and the briefs that will be submitted in support of the

Plans, conclude that the Commission complied with constitutional and statutory law in preparing the Plans and did not abuse its discretion in applying the criteria listed in article V, section 48.1 of the Colorado Constitution, approve the Plans, and order the Plans to be filed with the Secretary of State.

Respectfully submitted this 15th day of October, 2021.

s/ Richard C. Kaufman

Richard C. Kaufman, #8343
Law Office of Richard C. Kaufman P.C., Inc.

Timothy R. Odil, #35771
Peters Schulte Odil & Wallshein LLC

Jeremiah B. Barry, #10400
H. Pierce Lively, #50018
Jacob J. Baus, #46329
Colorado Independent Redistricting Commissions Staff

Counsel for the Colorado Independent Legislative Redistricting Commission

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on the 15th day of October, 2021, a true and correct copy of the foregoing **FINAL LEGISLATIVE REDISTRICTING PLANS** was served via the Court Electronic Filing System, upon the following:

Leeann Morrill
Grant T. Sullivan
Peter G. Baumann
Ralph L. Carr Colorado Judicial Center
Office of the Colorado Attorney General
1300 Broadway, 6th Floor
Denver, CO 80203
leeann.morrill@coag.gov
grant.sullivan@coag.gov
peter.baumann@coag.gov

Attorneys for the Colorado Secretary of State

s/ Richard C. Kaufman

DATE FILED: October 15, 2021 4:08 PM

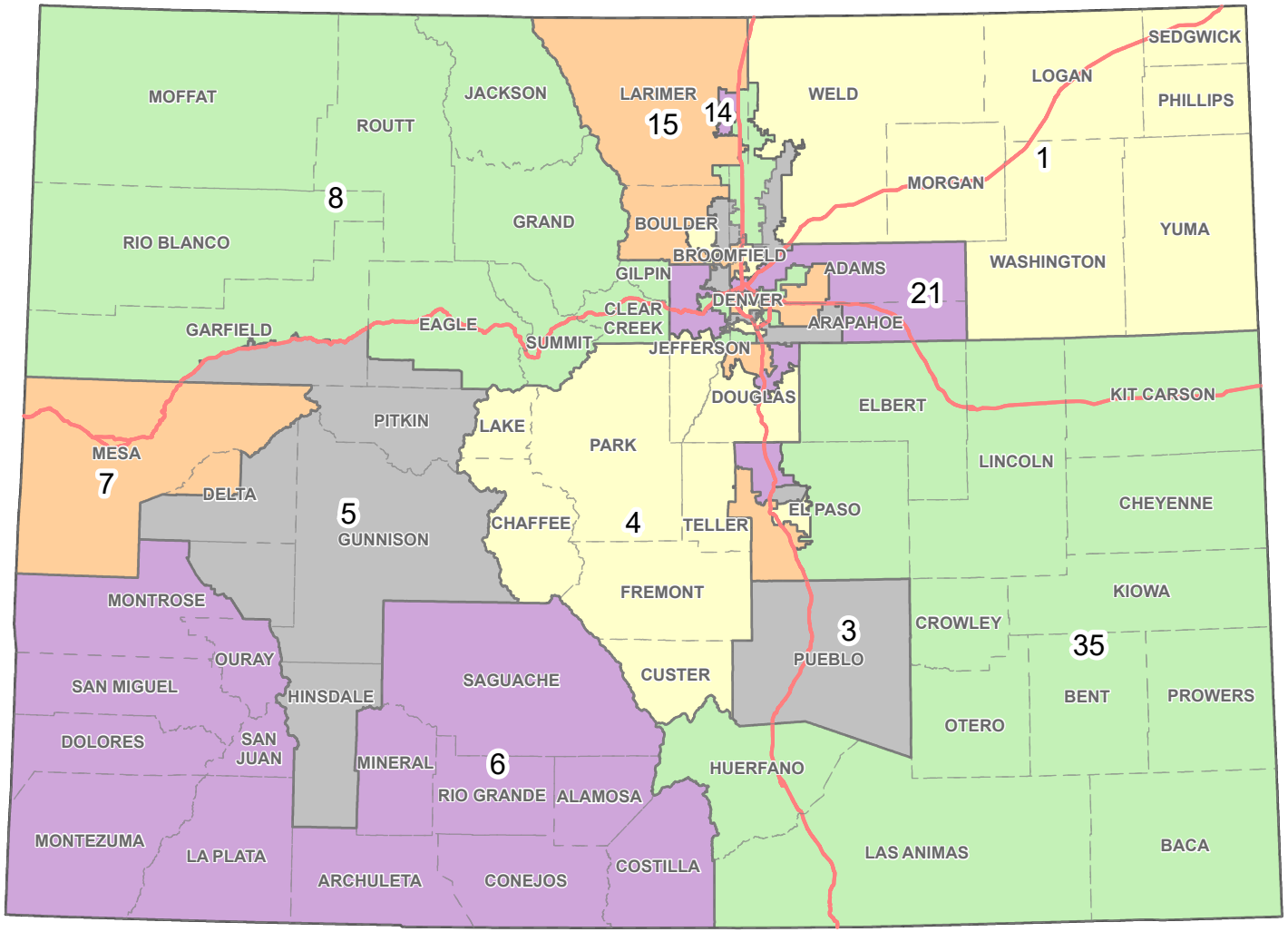
In re Colorado Independent Legislative Redistricting Commission

Exhibit 1

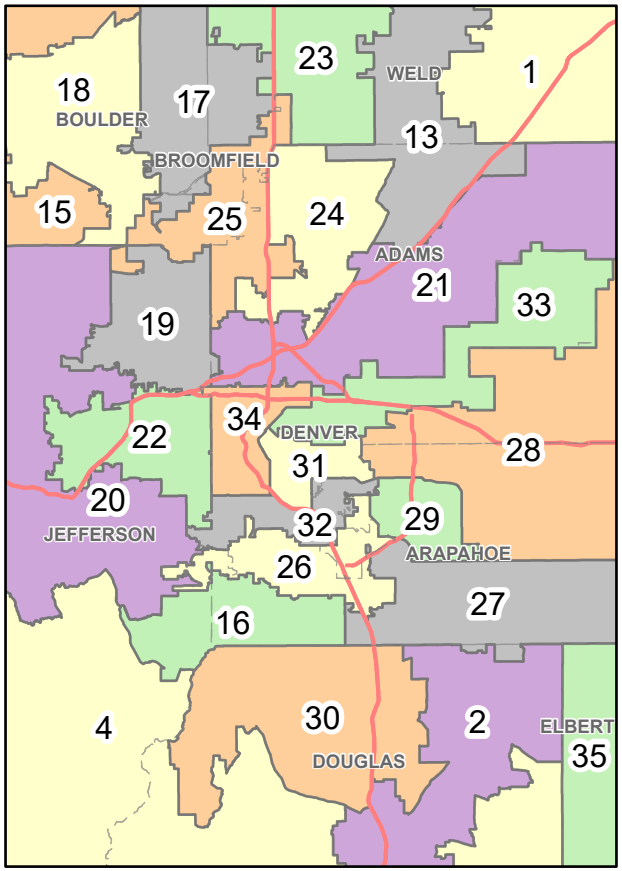
Final Statewide District Maps and Regional District Maps

Colorado Independent Redistricting Commissions

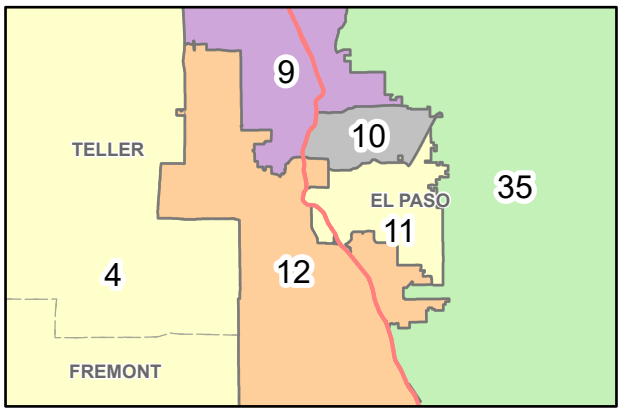
Colorado Senate Districts Statewide - Final Approved Plan



Denver Metro Area



Colorado Springs Metro Area



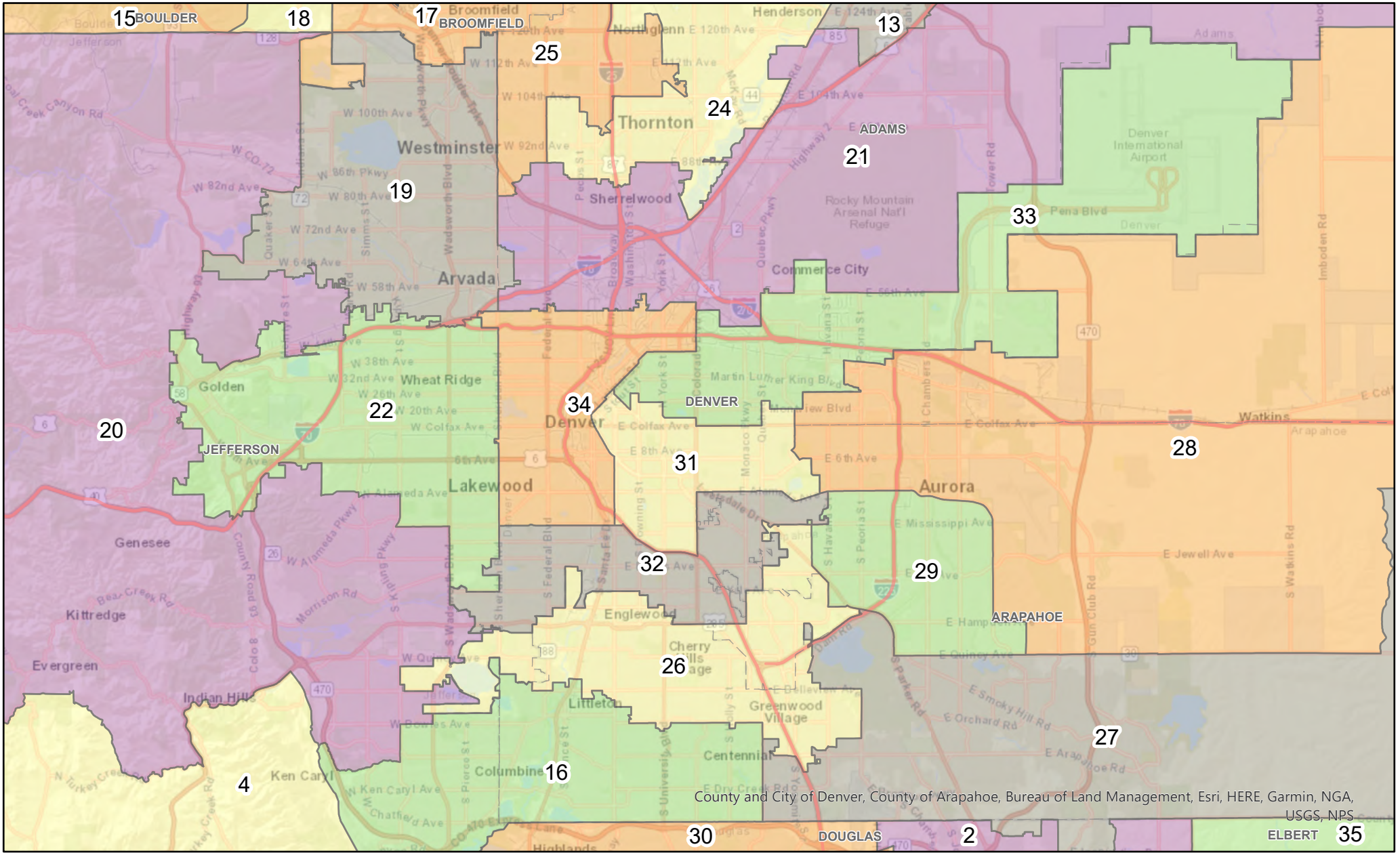
N

0 25 50 100 Miles

Map prepared by Colorado Independent Redistricting Commissions Staff. Approved October 12, 2021.

Colorado Independent Redistricting Commissions

Colorado Senate Districts Denver Metro Area - Final Approved Plan



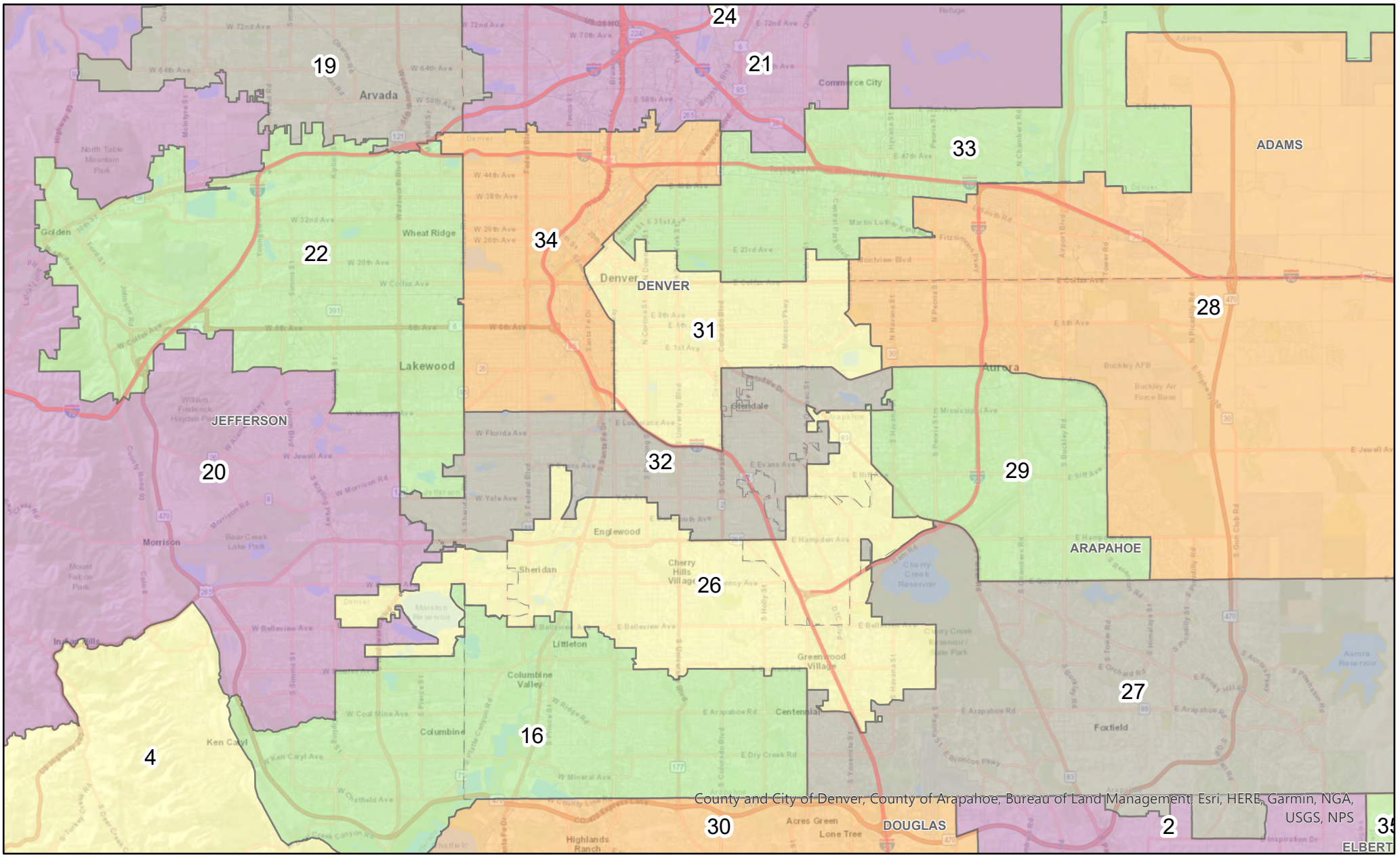
N

0 2.5 5 10 Miles

Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 12, 2021. Map prepared October 13, 2021.

Colorado Independent Redistricting Commissions

Colorado Senate Districts South Denver Metro Area - Final Approved Plan



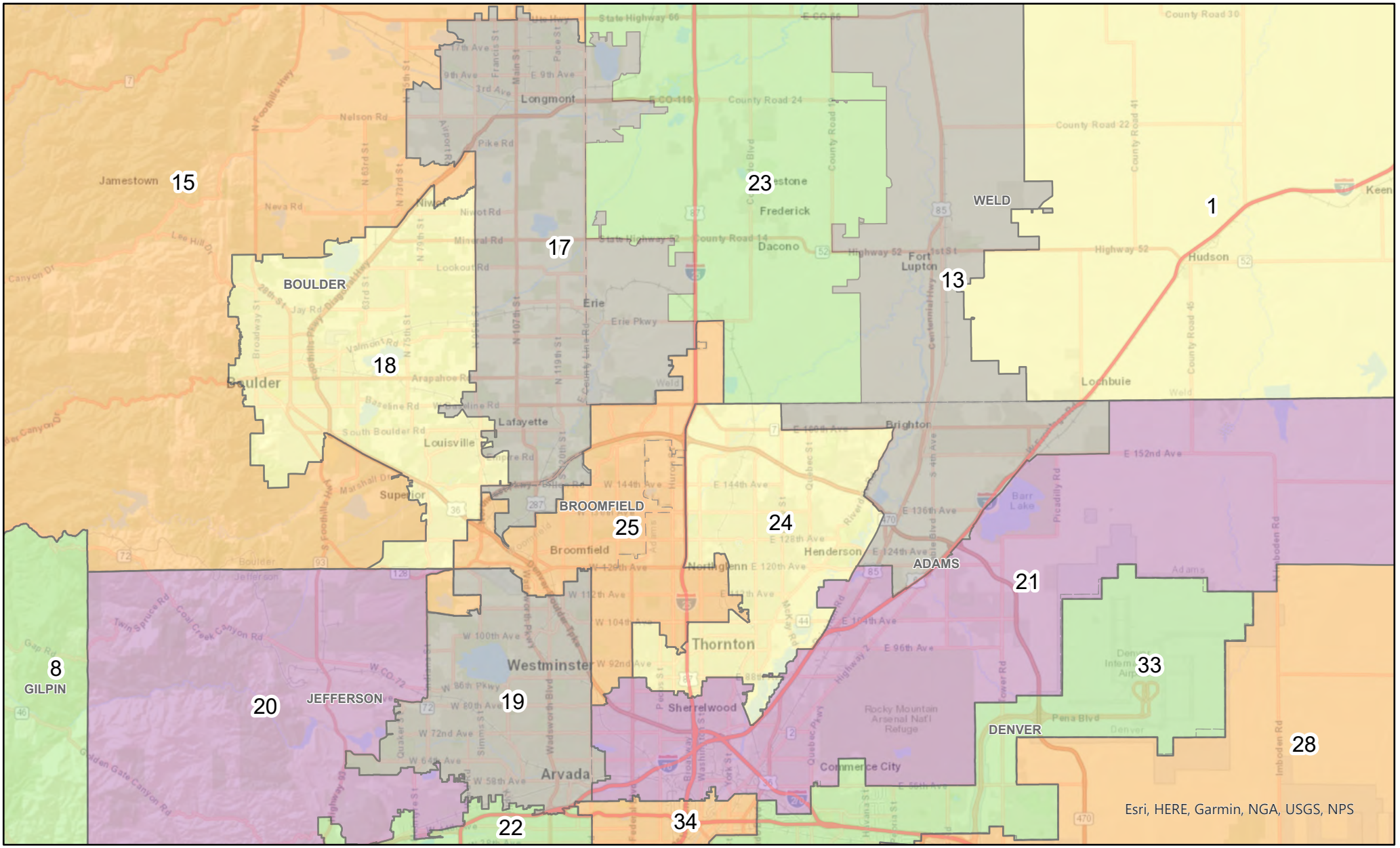
N

0 1.25 2.5 5 Miles

Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 12, 2021. Map prepared October 13, 2021.

Colorado Independent Redistricting Commissions

Colorado Senate Districts North Denver Metro Area - Final Approved Plan

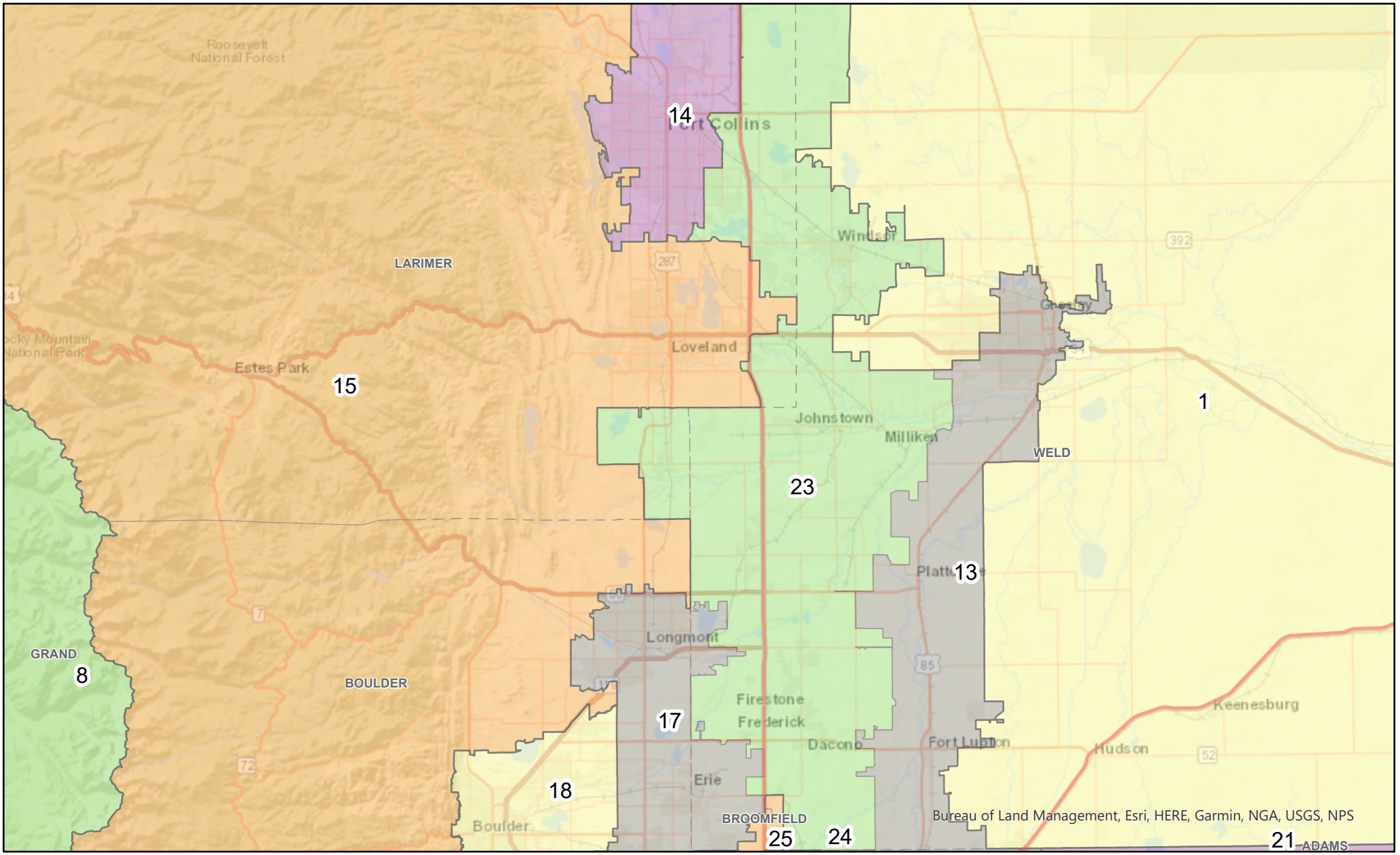


N

0 2.5 5 10 Miles

Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 12, 2021. Map prepared October 13, 2021.

Colorado Senate Districts North I-25 Area - Final Approved Plan

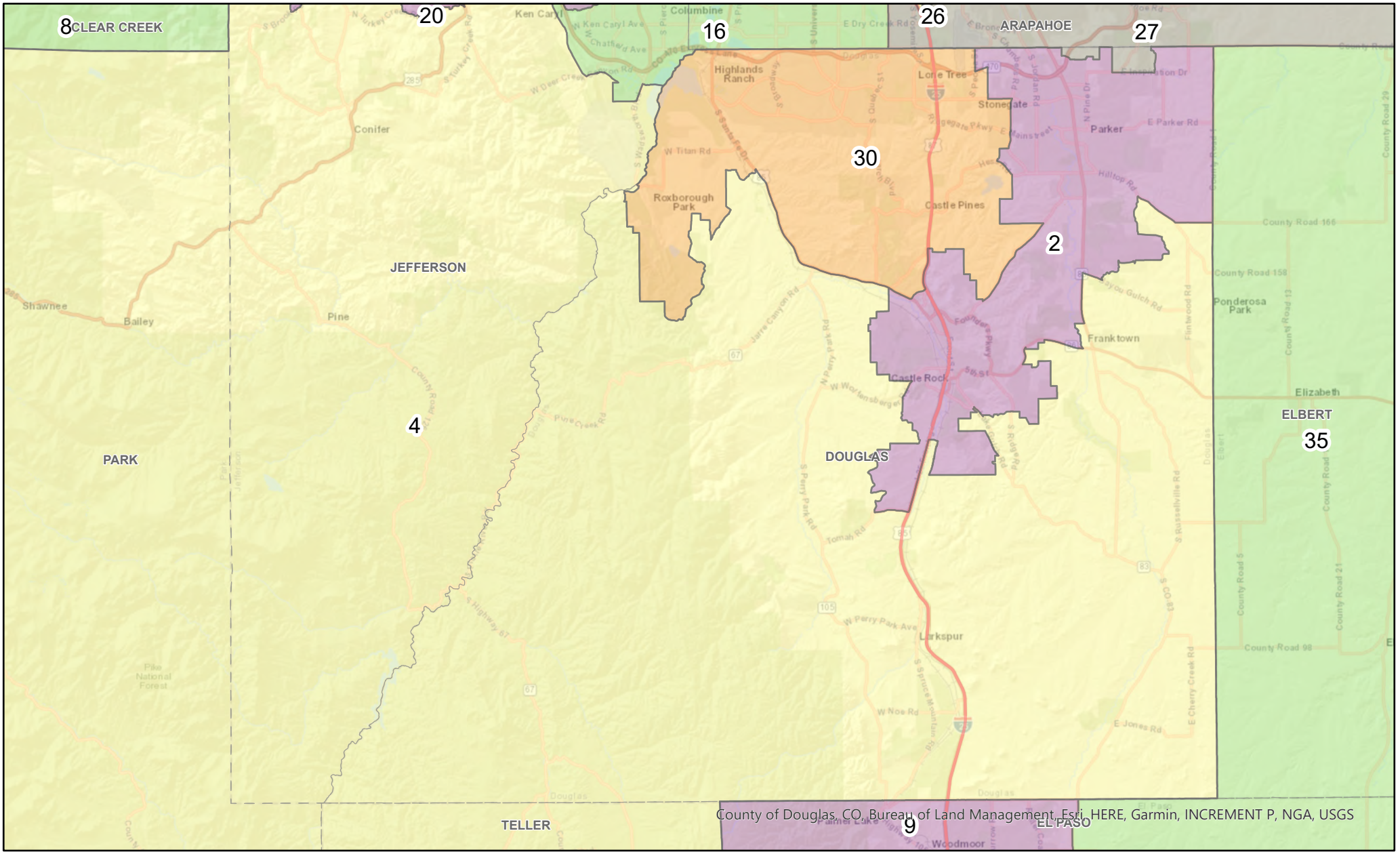


N

0 3.75 7.5 15 Miles

Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 12, 2021. Map prepared October 13, 2021.

Colorado Senate Districts Douglas County - Final Approved Plan



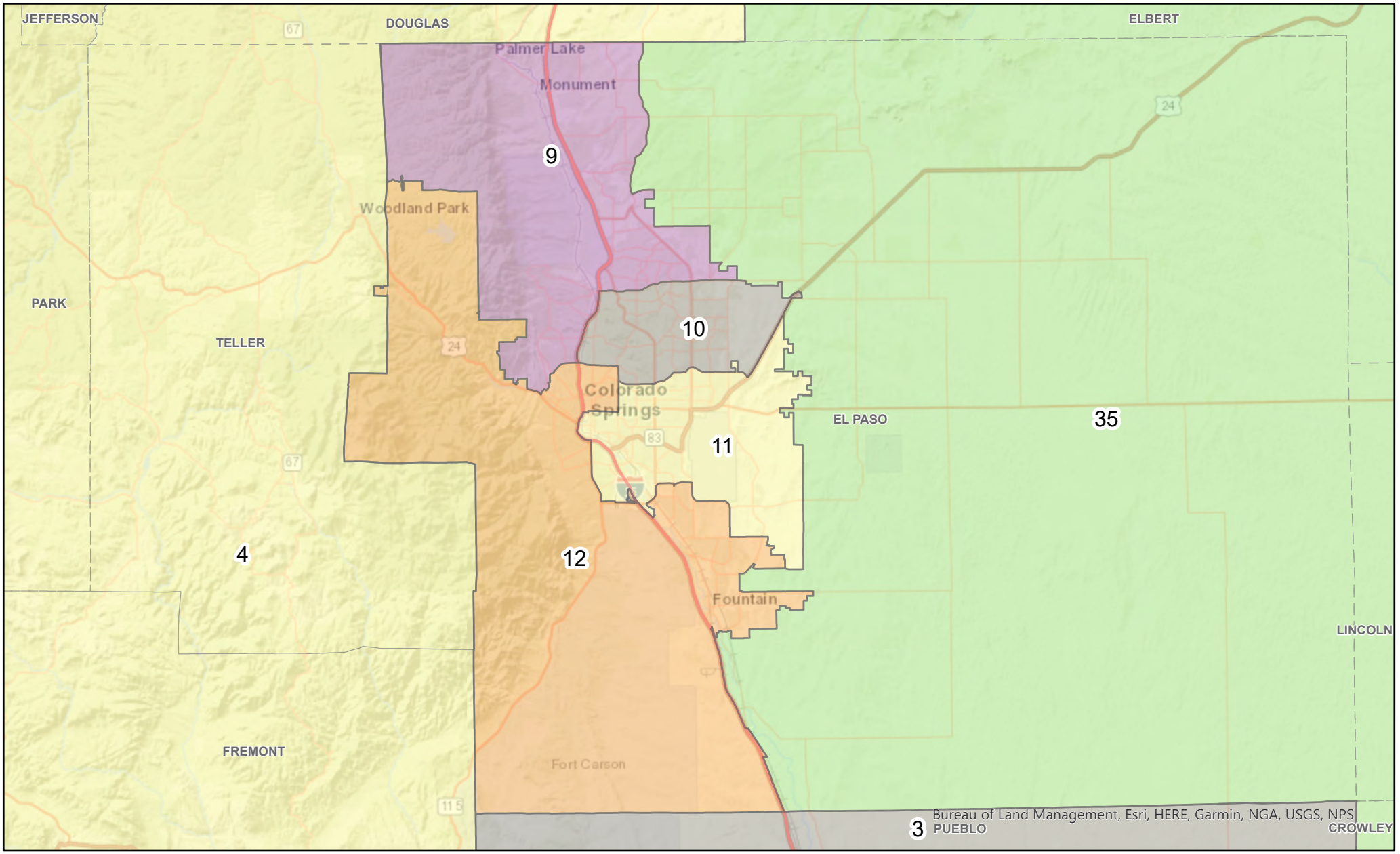
N

0 2.5 5 10 Miles

Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 12, 2021. Map prepared October 13, 2021.

Colorado Independent Redistricting Commissions

Colorado Senate Districts El Paso County - Final Approved Plan



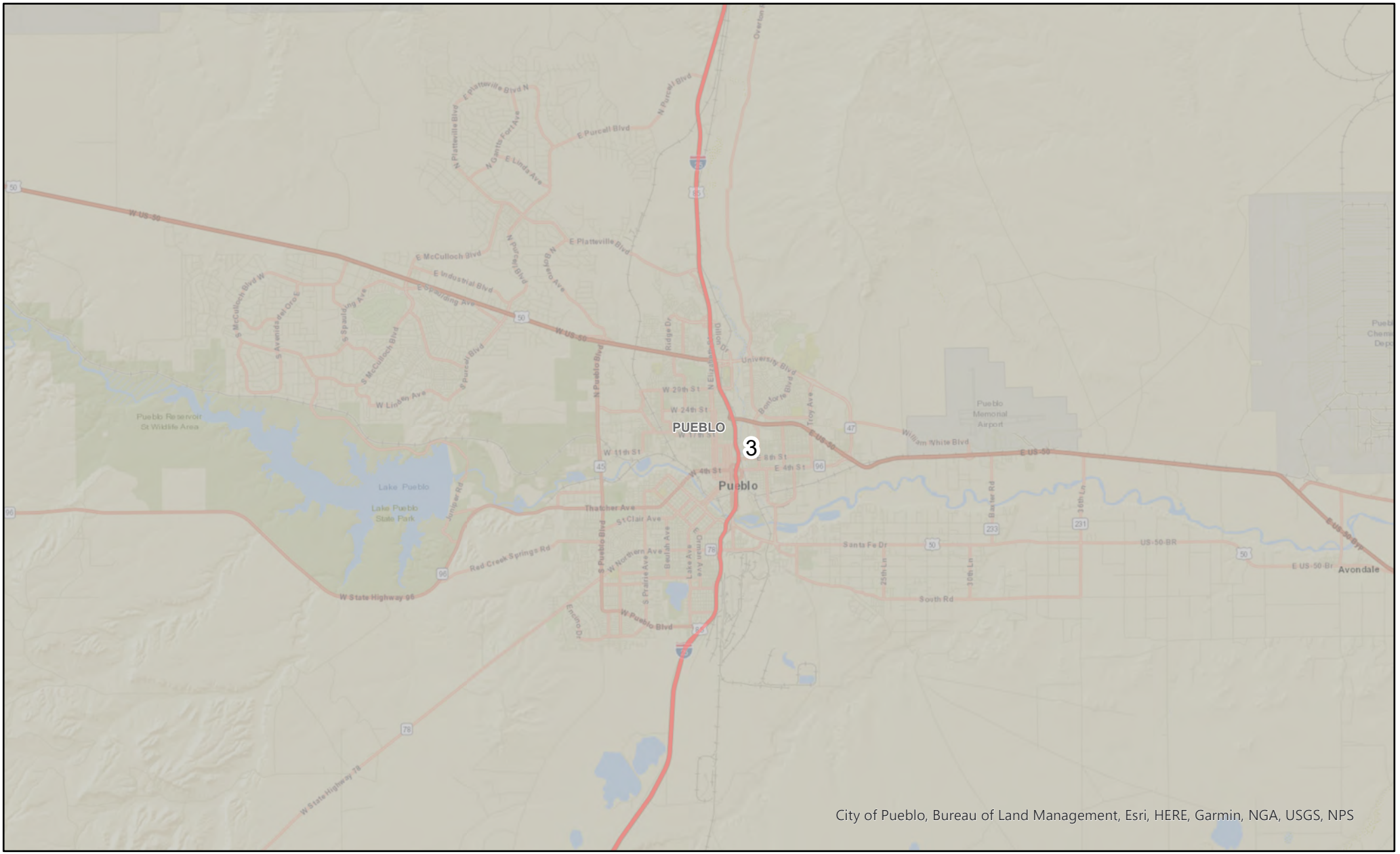
N

0 3.75 7.5 15 Miles

Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 12, 2021. Map prepared October 13, 2021.

Colorado Independent Redistricting Commissions

Colorado Senate Districts Pueblo Area - Final Approved Plan



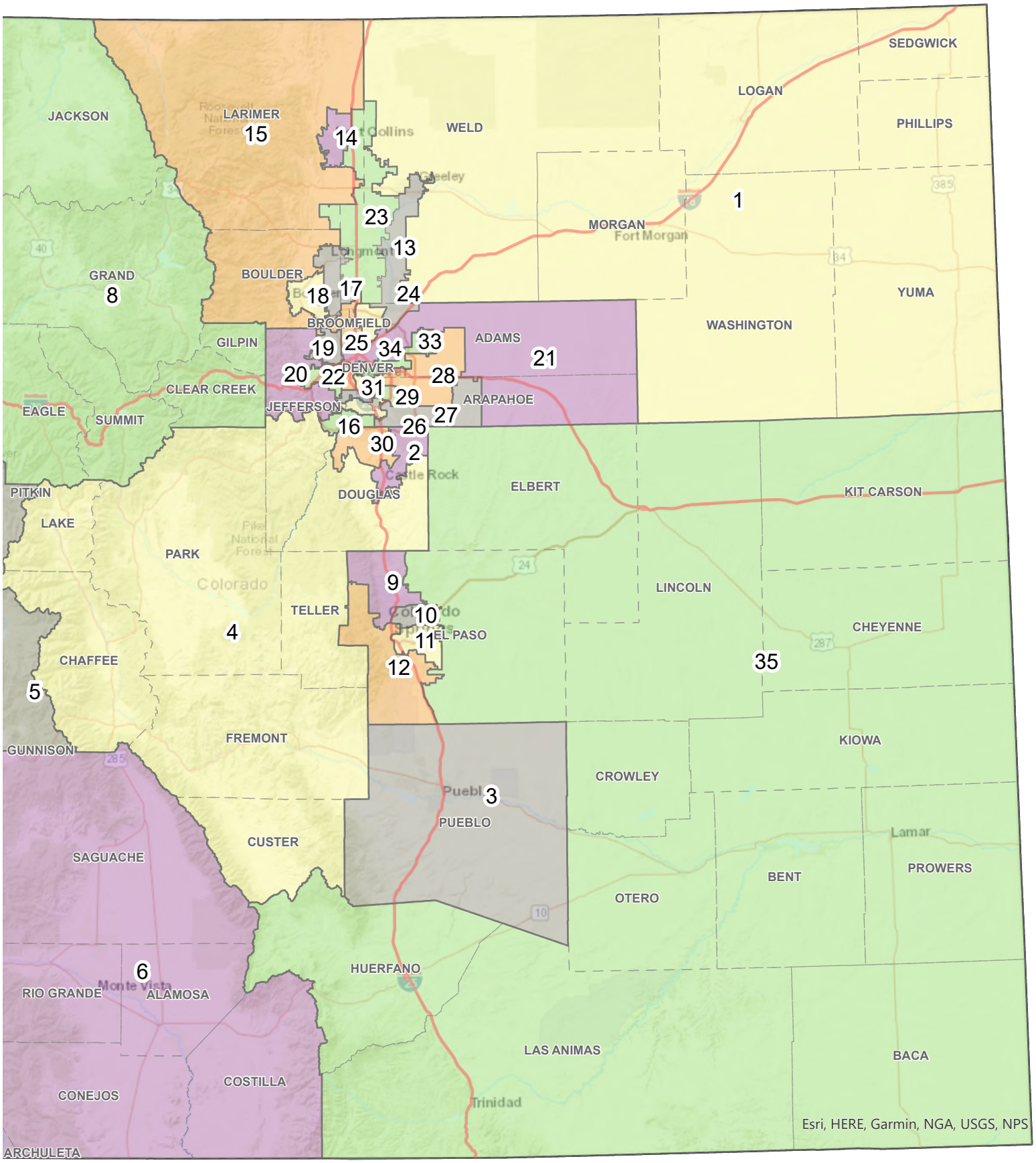
N

0 1.25 2.5 5 Miles

Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 12, 2021. Map prepared October 13, 2021.

Colorado Independent Redistricting Commissions

Colorado Senate Districts - East
Final Approved Plan

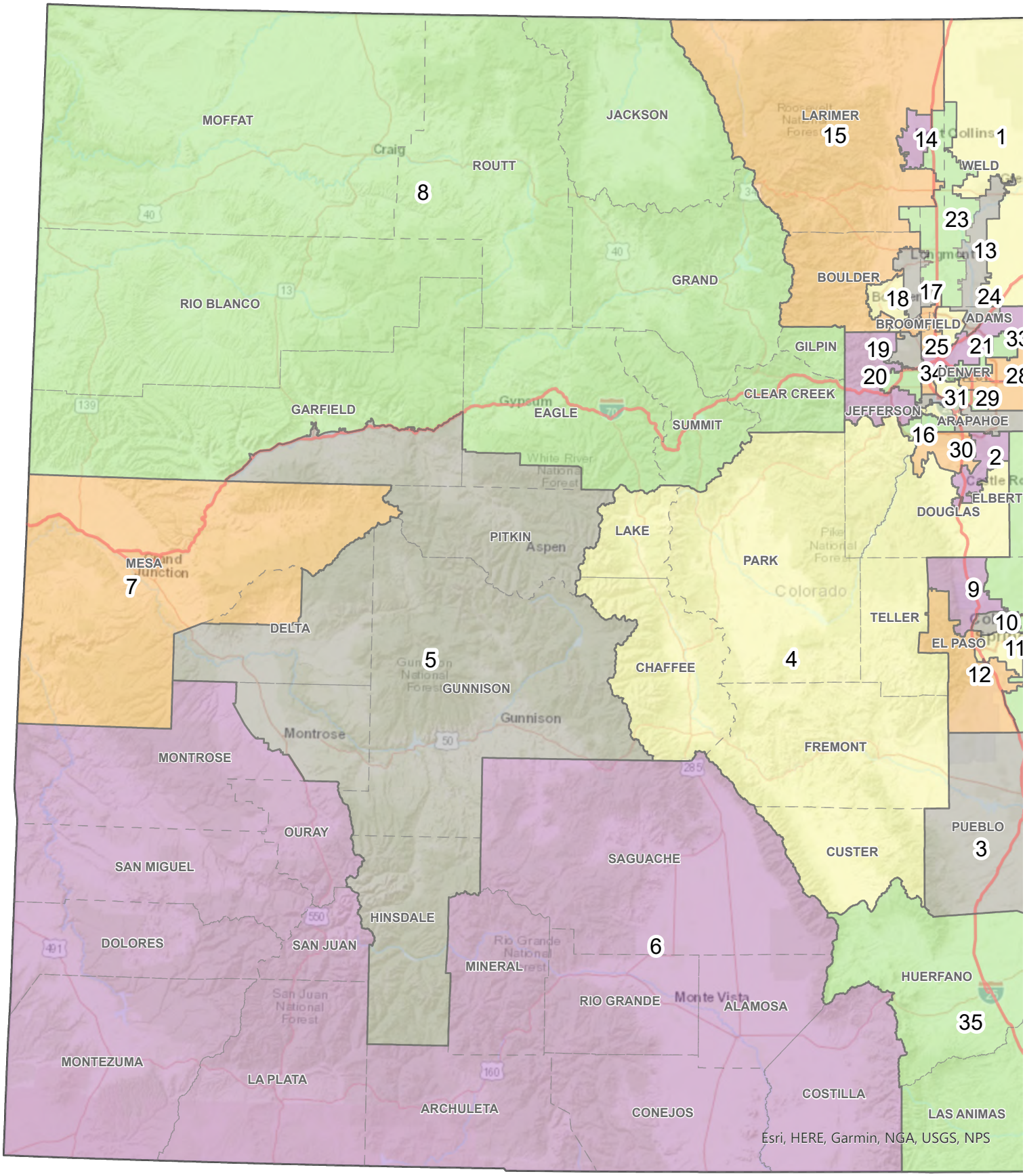


N

Map prepared by Colorado Independent Redistricting Commissions Staff. Approved October 12, 2021. Prepared October 13, 2021.

Colorado Independent Redistricting Commissions

Colorado Senate Districts - West
Final Approved Plan

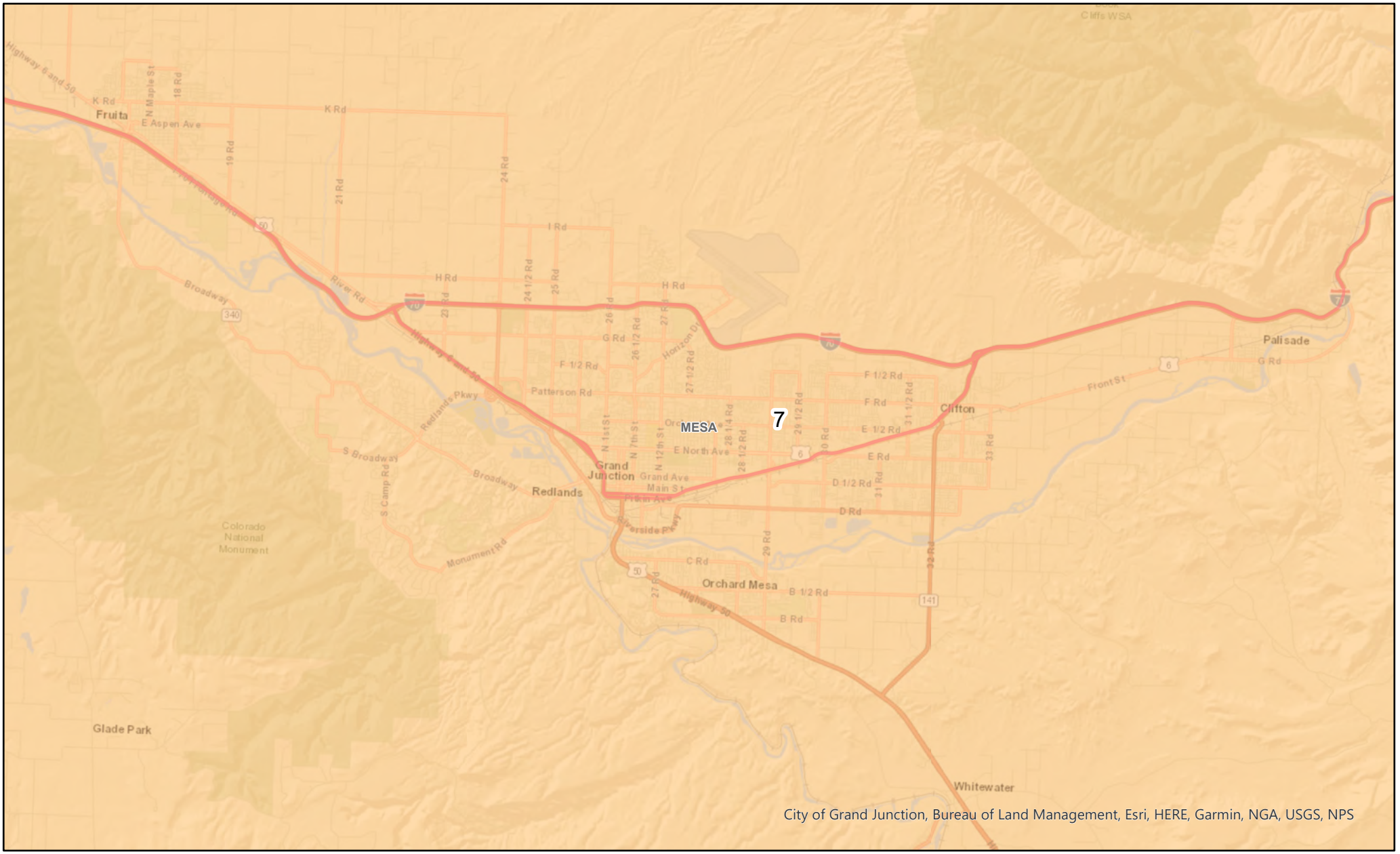


N

0 12.5 25 50 Miles

Map prepared by Colorado Independent Redistricting Commissions Staff. Approved October 12, 2021. Prepared October 13, 2021.

Colorado Senate Districts Grand Junction Area - Final Approved Plan



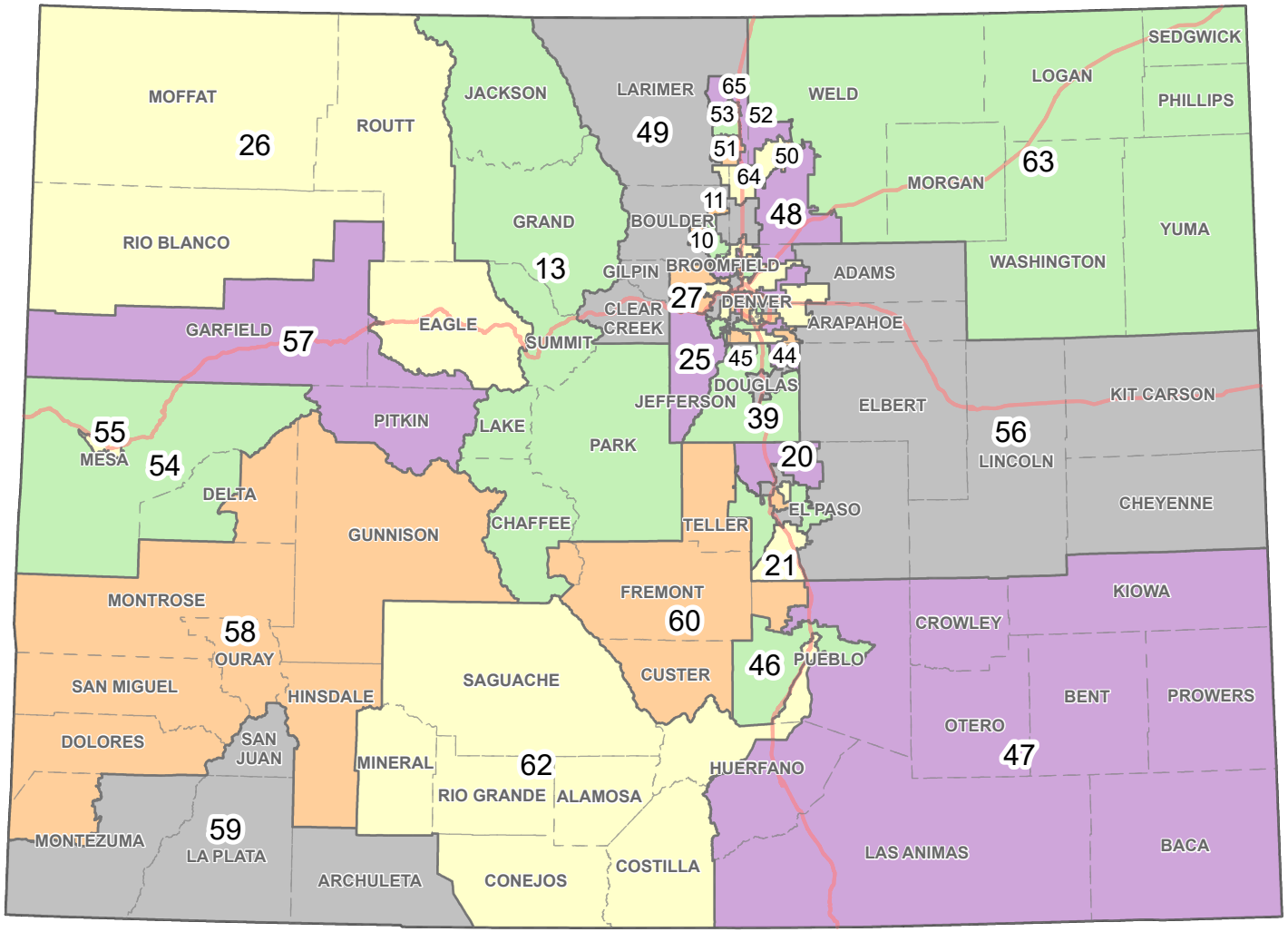
N

0 1.25 2.5 5 Miles

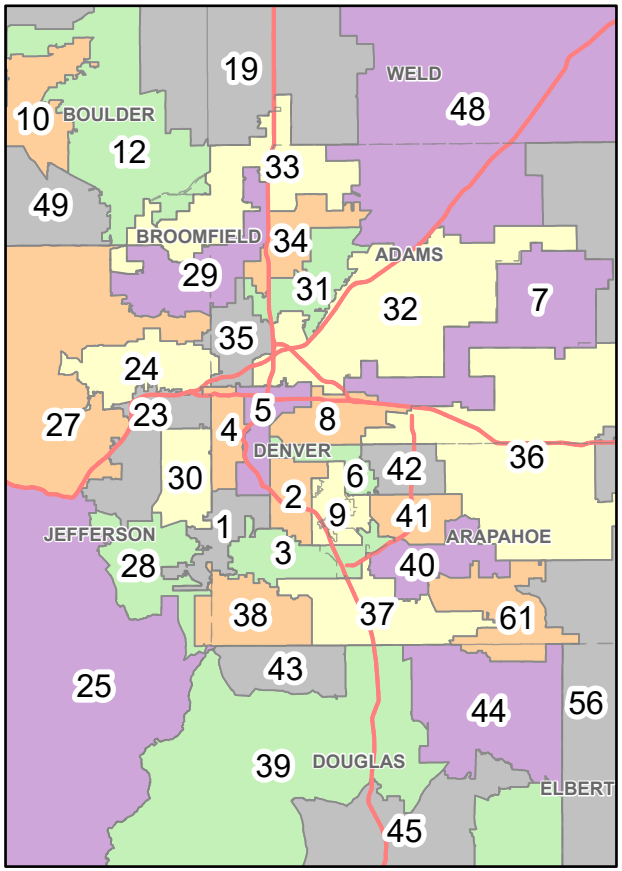
Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 12, 2021. Map prepared October 13, 2021.

Colorado Independent Redistricting Commissions

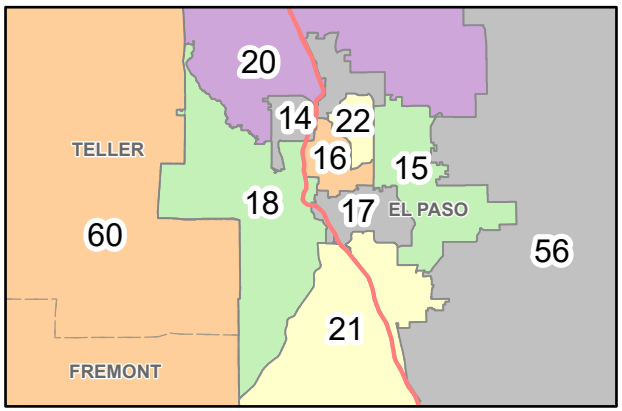
Colorado House Districts Statewide - Final Approved Plan



Denver Metro Area



Colorado Springs Metro Area



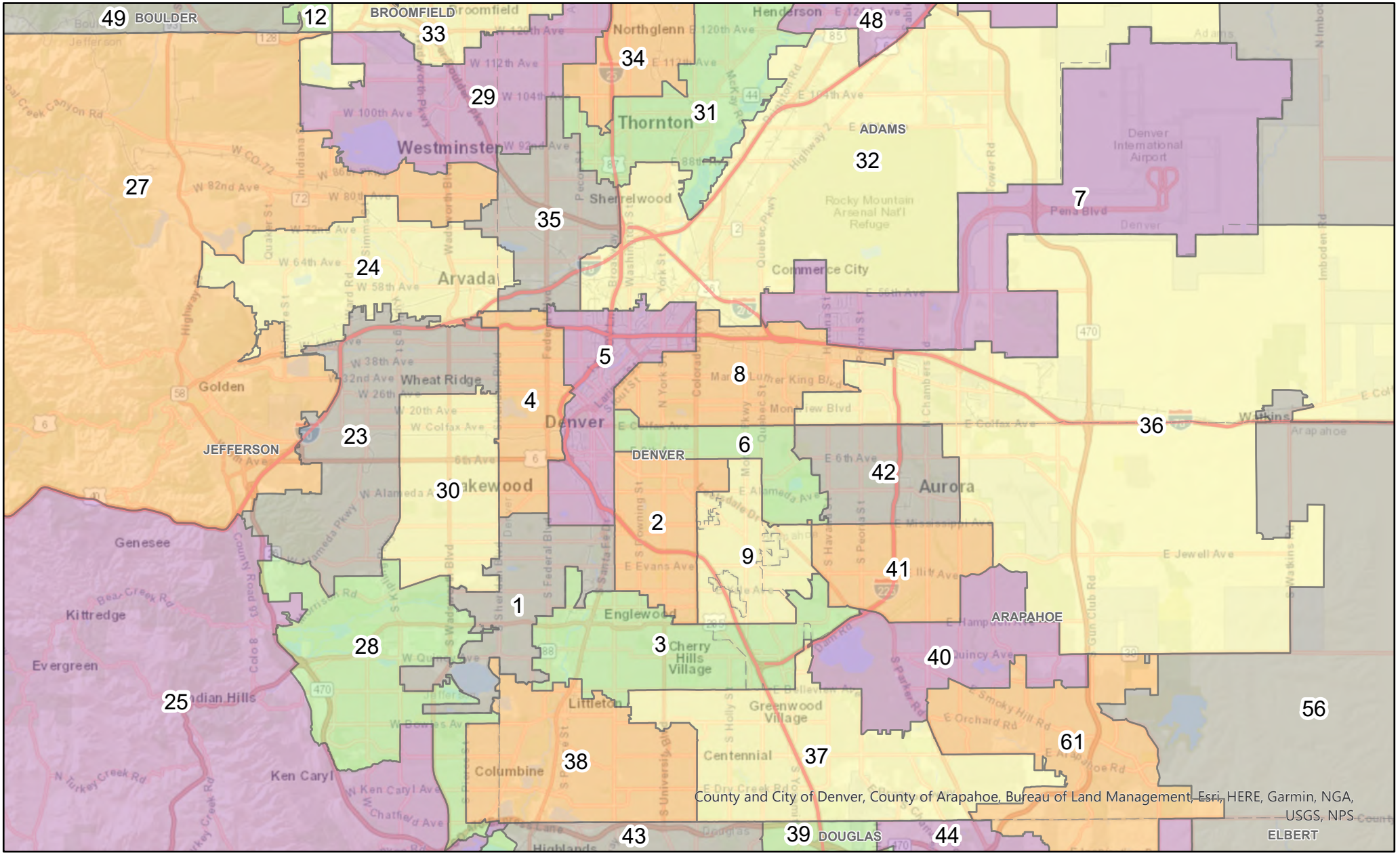
N

0 25 50 100 Miles

Map prepared by Colorado Independent Redistricting Commissions Staff. Approved October 11, 2021.

Colorado Independent Redistricting Commissions

Colorado House Districts Denver Metro Area - Final Approved Plan



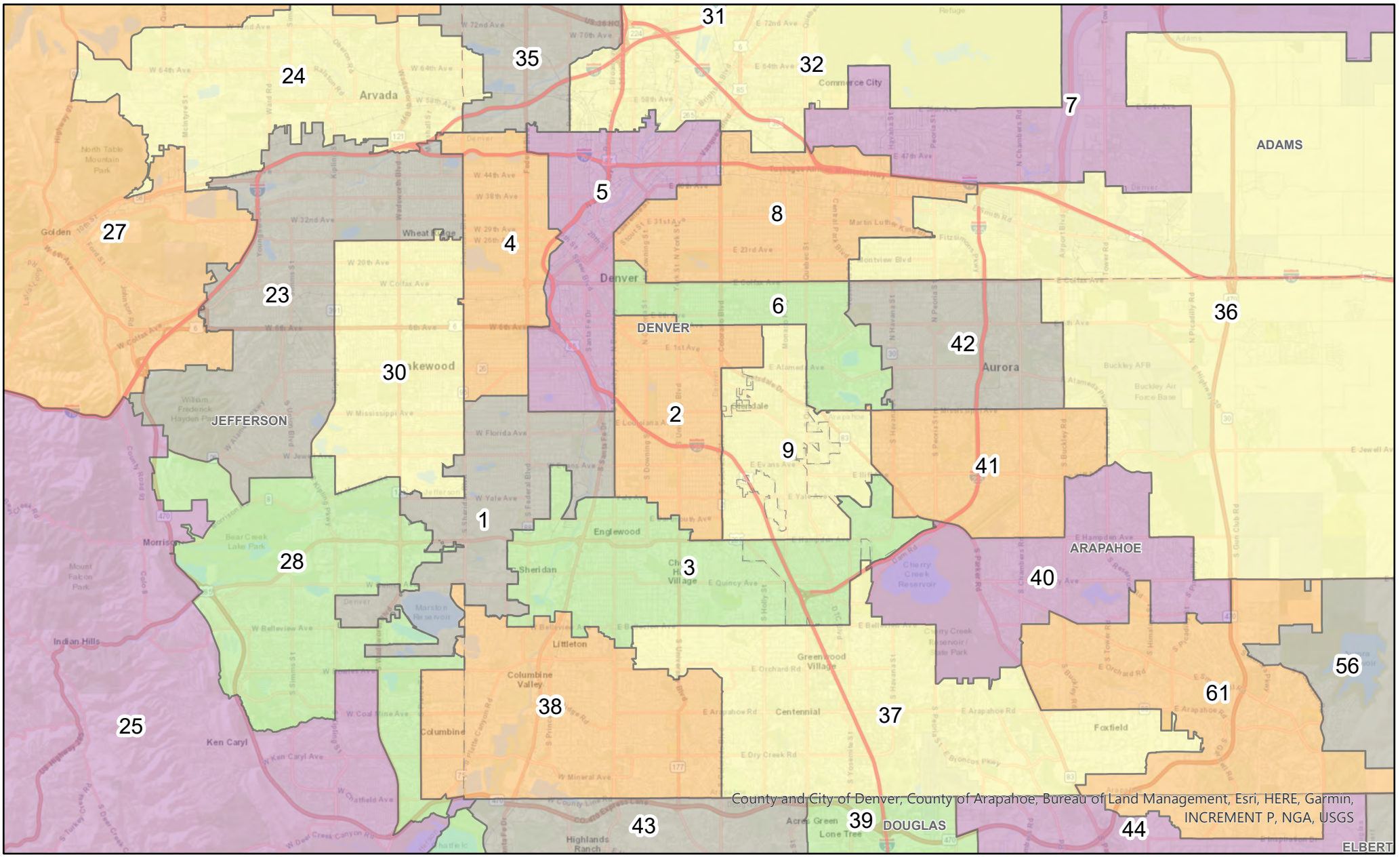
N

0 2.5 5 10 Miles

Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 11, 2021. Map prepared October 13, 2021.

Colorado Independent Redistricting Commissions

Colorado House Districts South Denver Metro Area - Final Approved Plan



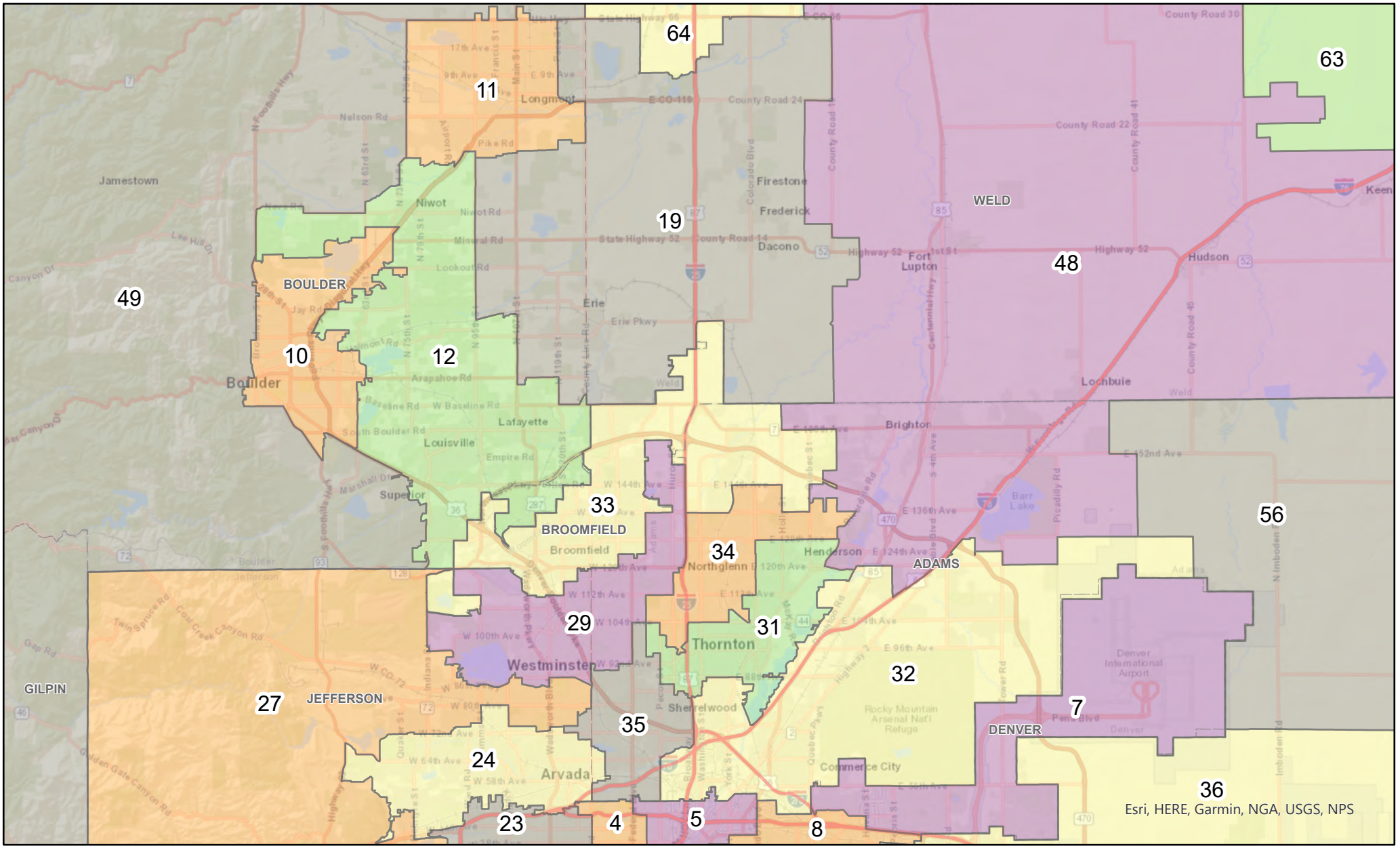
N

0 1.25 2.5 5 Miles

Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 11, 2021. Map prepared October 13, 2021.

Colorado Independent Redistricting Commissions

Colorado House Districts North Denver Metro Area - Final Approved Plan

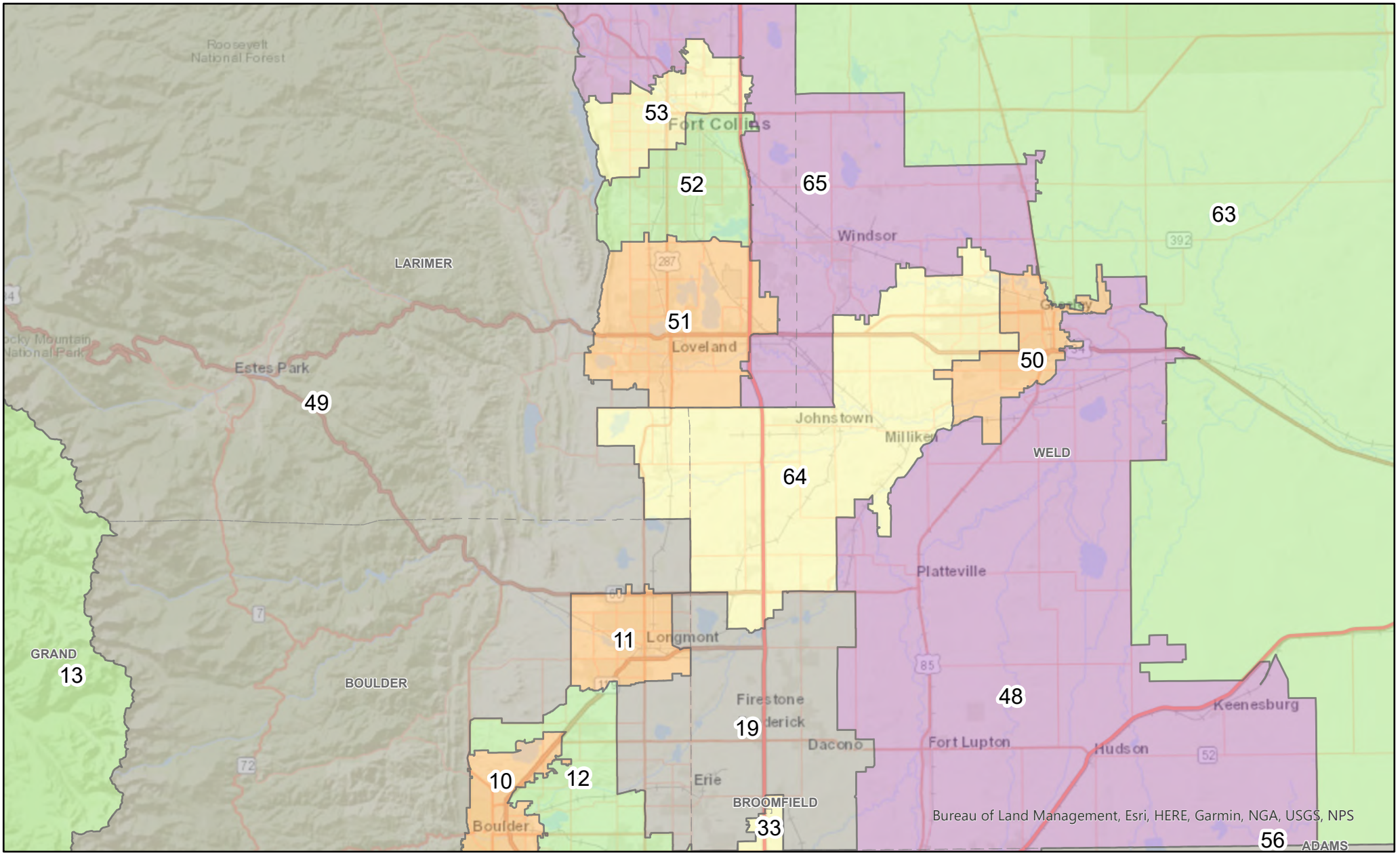


N

0 2.5 5 10 Miles

Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 11, 2021. Map prepared October 13, 2021.

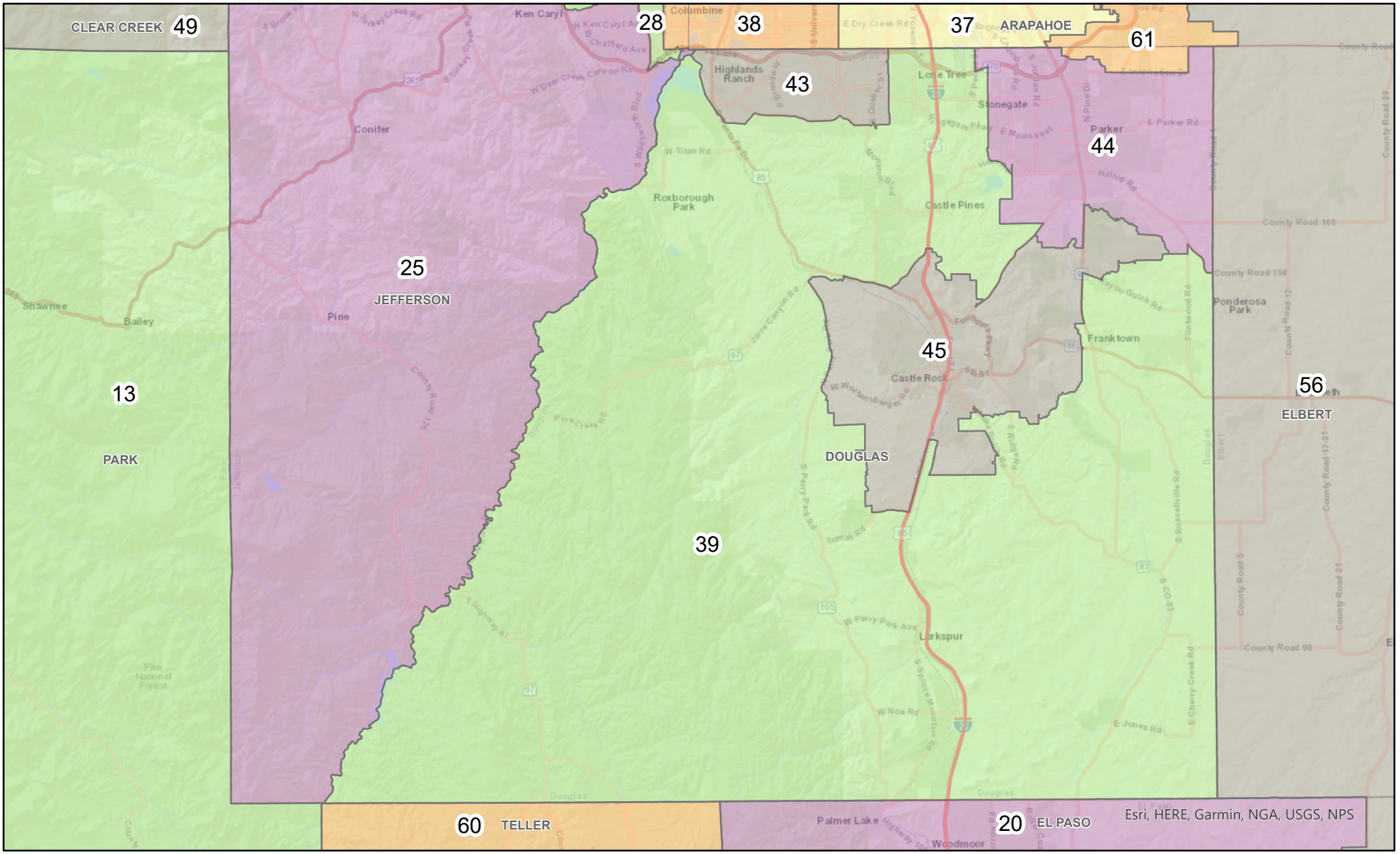
Colorado House Districts North I-25 Area - Final Approved Plan



Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 11, 2021. Map prepared October 13, 2021.

Colorado Independent Redistricting Commissions

Colorado House Districts Douglas County - Final Approved Plan



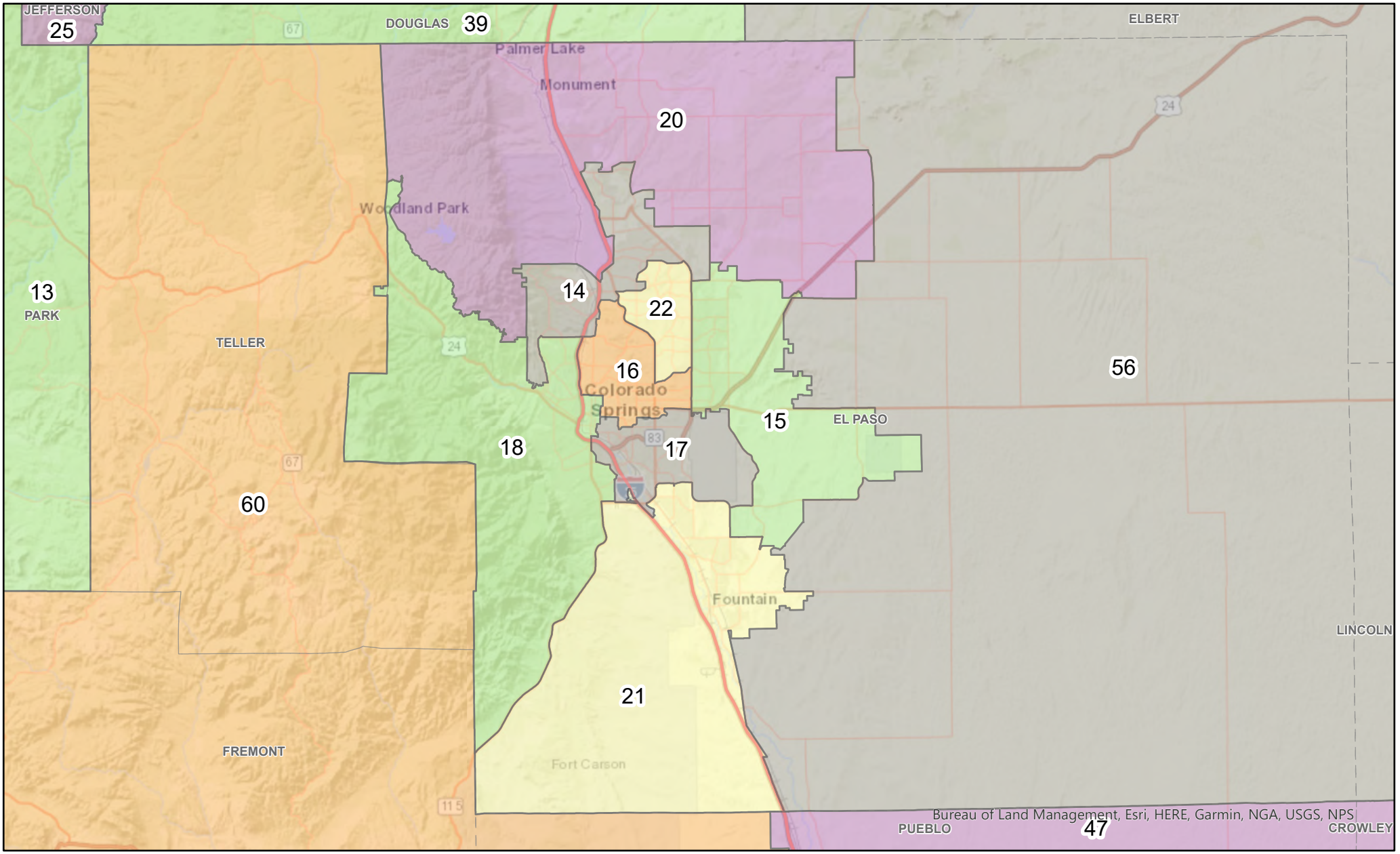
N

0 2.5 5 10 Miles

Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 11, 2021. Map prepared October 13, 2021.

Colorado Independent Redistricting Commissions

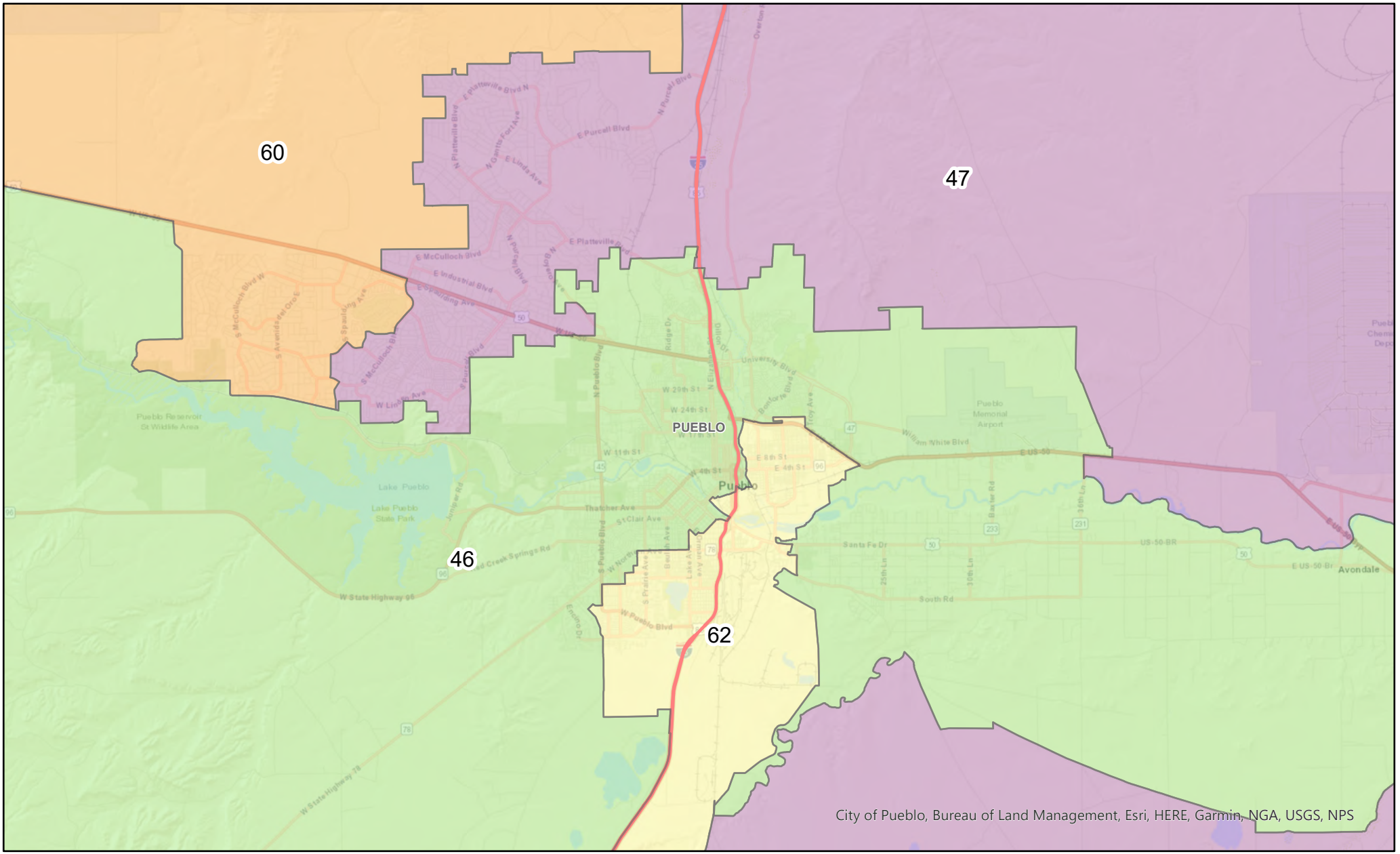
Colorado House Districts El Paso County - Final Approved Plan



Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 11, 2021. Map prepared October 13, 2021.

Colorado Independent Redistricting Commissions

Colorado House Districts Pueblo Area - Final Approved Plan



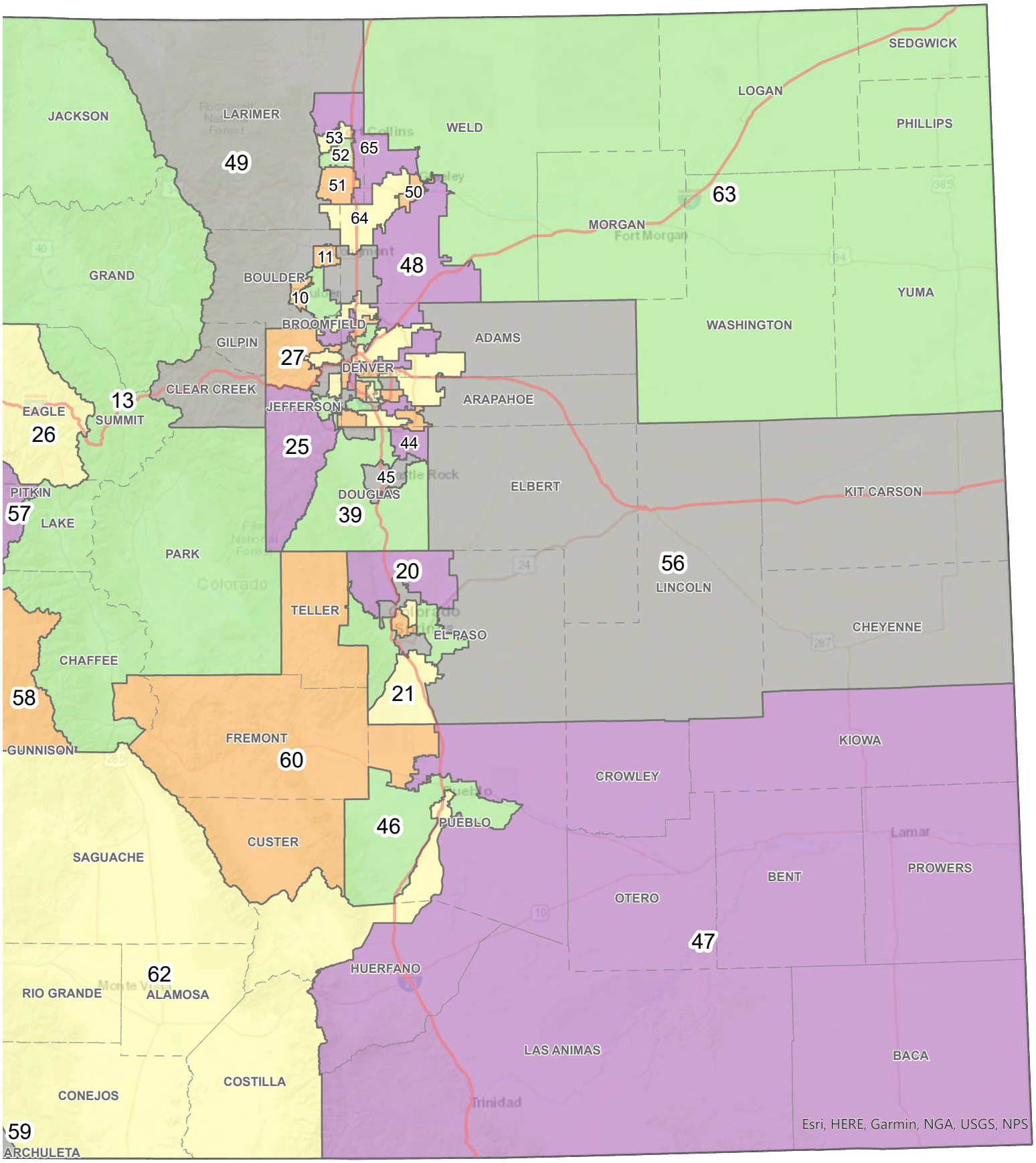
N

0 1.25 2.5 5 Miles

Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 11, 2021. Map prepared October 13, 2021.

Colorado Independent Redistricting Commissions

Colorado House Districts - East
Final Approved Plan



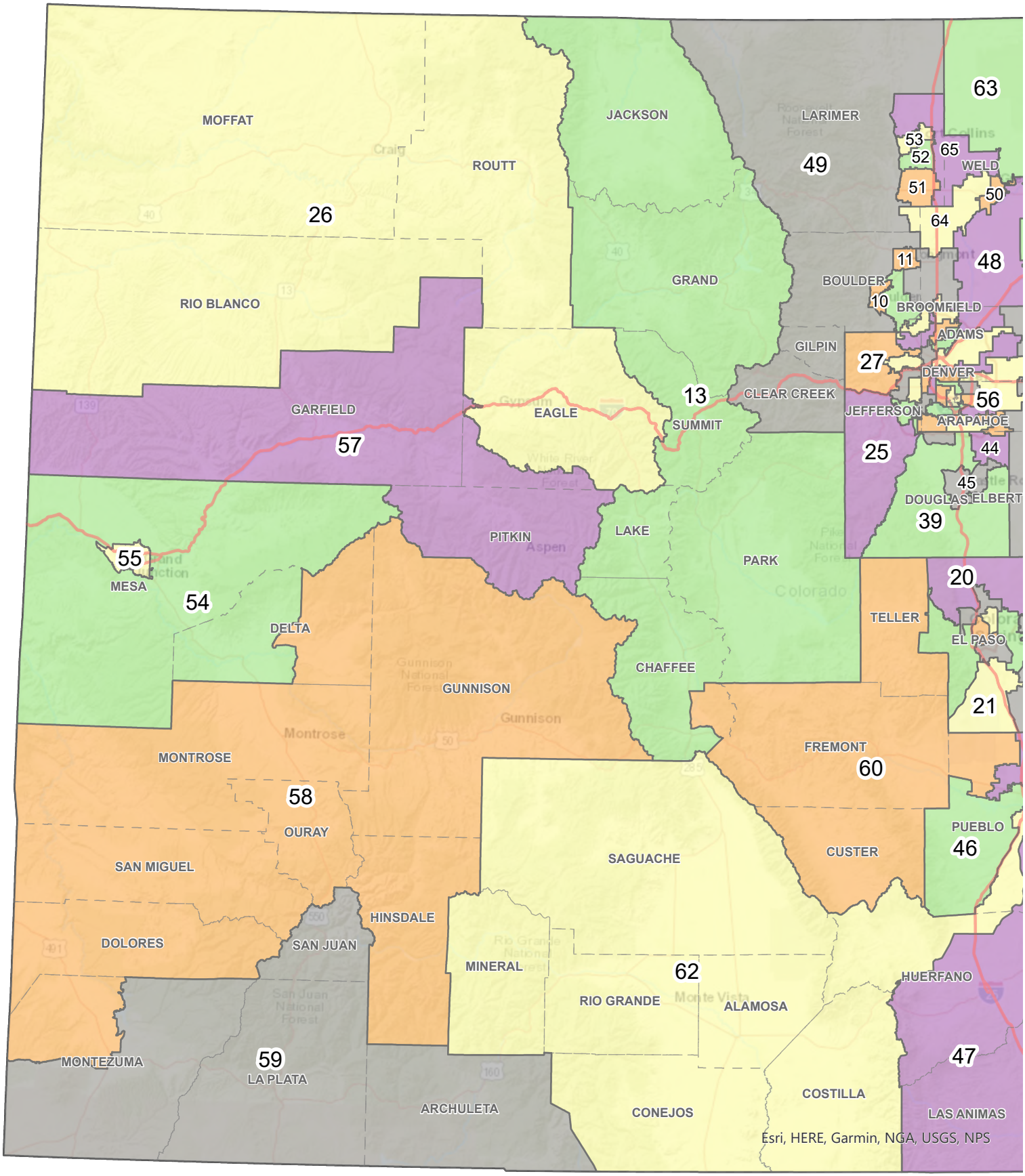
N

Most Denver Metro and Colorado Springs Metro districts not labeled.

Map prepared by Colorado Independent Redistricting Commissions Staff. Approved October 11, 2021. Prepared October 13, 2021.

Colorado Independent Redistricting Commissions

Colorado House Districts - West
Final Approved Plan



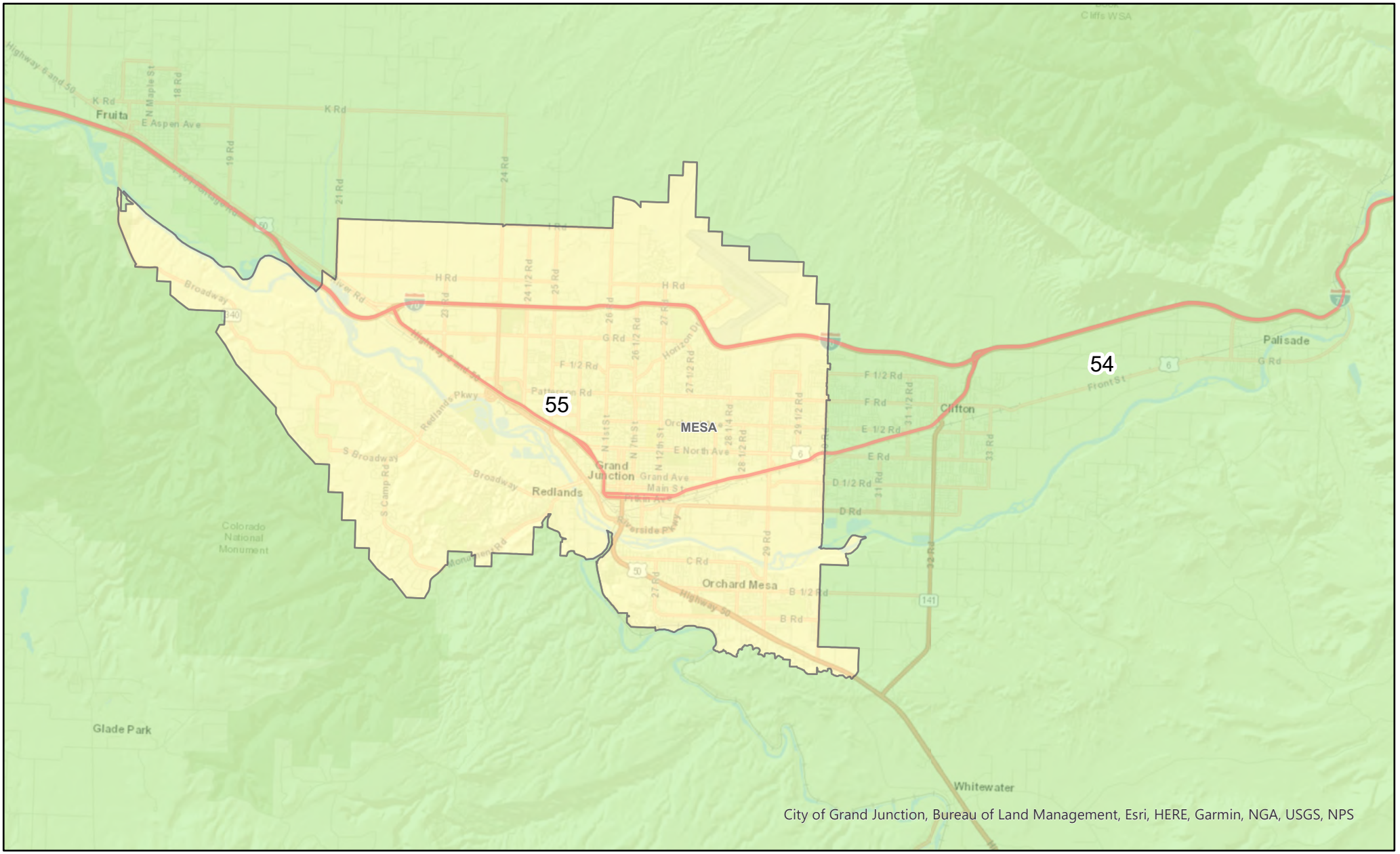
0 12.5 25 50 Miles

N

Most Denver Metro and Colorado Springs Metro districts not labeled.

Map prepared by Colorado Independent Redistricting Commissions Staff. Approved October 11, 2021. Prepared October 13, 2021.

Colorado House Districts Grand Junction Area - Final Approved Plan



N

0 1.25 2.5 5 Miles

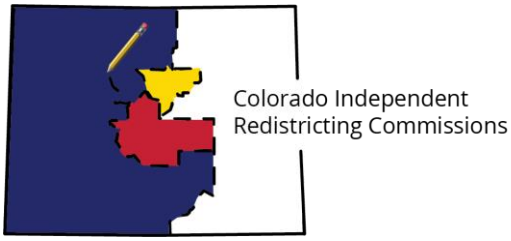
Map prepared by Colorado Independent Redistricting Commissions Staff. Map approved October 11, 2021. Map prepared October 13, 2021.

DATE FILED: October 15, 2021 4:08 PM

In re Colorado Independent Legislative Redistricting Commission

Exhibit 2

Commissioner Biographical Details



Colorado Independent Redistricting Commissions Staff

1580 Logan Street, Suite 430
Denver, CO 80203
303-866-2652

colorado.redistricting2020@state.co.us

Members of the Colorado Independent Legislative Redistricting Commission

The Colorado Independent Legislative Redistricting Commission consists of 12 members: 4 from the state's largest political party, which is currently the Democratic Party; 4 from the state's second largest political party, which is currently the Republican Party; and 4 who are not affiliated with any political party. Each commission must include at least one member residing in each current congressional district and at least one member from the Western Slope. Each commission must, to the extent possible, reflect Colorado's racial, ethnic, gender, and geographic diversity. The members of the commissions are appointed from a pool of applicants as described below. The law also addresses how to remove a commissioner and fill a vacancy.

Phase One. Individuals apply using online application process.

Phase Two. Nonpartisan staff review of applications for the initial applicant pool. Applicants are reviewed for minimum qualifications specified in the constitution regarding affiliation and voting.

Phase Three. The judicial panel randomly selects 300 Democrats, 300 Republicans, and 450 unaffiliated voters to establish a selection pool of 1,050 people.

Phase Four. The judicial panel reviews applications and narrows the pool down to 50 Democrats, 50 Republicans, and 50 unaffiliated voters to establish a pool of 150 people.

Phase Five. The judicial panel randomly selects 6 commissioners (2 Democrats, 2 Republicans, and 2 unaffiliated voters) from the 150-person pool.

Phase Six. 4 legislative leaders select 10 applicants each from the initial applicant pool and submit them to the judicial panel.

Phase Seven. The judicial panel selects 4 commissioners, 1 from each of the legislative leaders' pools.

Phase Eight. The judicial panel selects 2 commissioners from the original pool of 450 randomly selected unaffiliated voters.

Table 1 lists the 12 commissioners and how they were selected.

Table 1
Members of the Independent Legislative Redistricting Commission

Name	Party Affiliation	Residence	Congressional District	Appointment Type
Hunter Barnett	R	Englewood	6	Lot Process
Heather Barry	D	Westminster	7	Legislative Leadership
John Buckley III	R	Colorado Springs	5	Lot Process
Kevin Fletcher	U	Golden	7	Lot Process
Samuel Greenidge	U	Longmont	4	Lot Process
Constance Hass	R	Trinidad	4	Legislative Leadership
Gary Horvath	D	Broomfield	2	Lot Process
Aislinn Kottwitz	R	Windsor	2	Legislative Leadership
Amber McReynolds	U	Denver	1	Judicial Panel
Carlos Perez	U	Colorado Springs	5	Judicial Panel
Robin Schepper	D	Steamboat Springs	3	Lot Process
Blanca Uzeta O'Leary	D	Aspen	3	Legislative Leadership

Below is a biography of each commissioner, provided by the commissioners themselves and posted on the commission's website.

Hunter Barnett. Hunter Barnett is a resident of Englewood in unincorporated Arapahoe County, representing Congressional District 6.

A native of Memphis, Hunter made his way to Colorado to attend the University of Colorado Boulder. Like many out-of-state students, he graduated and never wanted to leave.

For the past 8 years, Hunter has worked for DaVita, a Denver-based Fortune-500 health care provider, specializing in kidney dialysis and related services. He currently is a senior manager of revenue operations and has previously held various other roles at DaVita, including finance & accounting, corporate strategy & business development, and marketing & communications. Hunter began his career as a consultant for Concentrix in Broomfield, specializing in customer service experience and journey improvement.

Outside of work, Hunter enjoys everything our great state has to offer outdoors and passionately roots for the Buffs, Rockies, Broncos, and Boulder-based EF Education–Nippo Pro Cycling Team. Hunter is married to Natalie, a Colorado native and accountant, who is currently working as OptumCare's regional controller for the Pacific Northwest. In January 2020, Hunter and Natalie welcomed their first son, James, who is protected by and chases after their three-year-old shih tzu, Rudy. The Barnetts are parishioners at Holy Ghost Catholic Church in Denver.

Hunter holds a Bachelor of Science in Business Administration with an emphasis in finance from the University of Colorado Boulder and an MBA with an emphasis in strategy from Northwestern University's Kellogg School of Management.

Inspired by Alexander Hamilton's words, "I have thought it my duty to exhibit things as they are, not as they ought to be", Hunter looks forward to working for all Coloradans, regardless of political affiliation and geographic location, to promote and ensure a fair process and equitable outcome for legislative redistricting.

Heather Barry. Heather Barry is a problem solver and bridge builder serving as Vice President of Strategic Partnerships for SSP America—a publically traded company and global leader in the business of restaurants in airports, rail stations and motorways, serving more than one million passengers daily in more than 30 countries.

Barry is a member of SSP America's Leadership Team working as a member of the Business Development team and is responsible local and federal regulatory engagement, partner relationship management, stakeholder relationships and advises the company to ensure strategic alignment for SSP's North American operations. Barry works to create and execute operational performance initiatives that enhance and advance the company's efforts in North America.

Prior to joining SSP America, Barry served as a Mayoral appointee at Denver International Airport (DEN) the nation's sixth-busiest airport. While at DEN Barry was a member of the airport leadership team where she served as Director of Government Affairs and Director of Business Affairs respectively. As Director of Business Affairs, Barry was responsible for creating the DEN Commerce Hub—a first of its kind office in the aviation industry. The office served as a central point for businesses, large and small alike, to tap into resources and become a part of business opportunities at DEN. During her tenure, Barry made it her mission to grow business inclusion efforts, resulting in the Federal Aviation Administration awarding Barry with the Disadvantaged Business Enterprise Advocate and Partner Award for her work with the Denver business community.

Barry has served as an appointee to Denver Mayors Michael B. Hancock, Guillermo "Bill" Vidal and John Hickenlooper where she held the positions of Director of Government Affairs, Director of Legislative Services, Director of Neighborhood Relations and City Council Liaison, respectively.

A graduate of the University of Washington, Barry holds a bachelor's degree in communications and a master's degree in public administration from The Evergreen State College and a professional certificate from Harvard University's Kennedy School of Government. Her board involvement includes ten years as a State of Colorado Transportation Commissioner, a gubernatorial appointment. Barry currently serves as Chair of the Airport Minority Advisory Council Foundation and Vice Chair of the Colorado Black Chamber of Commerce. Barry resides with her husband Damon and their daughters London and Alexis in Westminster, Colorado.

John Buckley III. John Buckley is a United States Air Force Academy graduate who flew fighters and taught political science at the Academy. After ten years of active duty, he graduated from Harvard Law School with concentrations in corporate litigation and international law. He served on the Board of Directors of the National Lawyer's Association, as well as a member of

the Financial Planning Association. He is a founding member of WealthCounsel LLC, comprised of many of the top estate and business planning attorneys in America. He has been an international business consultant with 16 years' experience in Middle Eastern culture and business practices, as well as experience in Russia.

Mr. Buckley is an active Rotarian, and was President of the Rotary Club of Colorado Springs in 2013-14. He also served for several years on the Board of Directors of the Champions Foundation for local high school scholar athletes. He serves on two nonprofit boards presently, including the Colorado Parkinson Foundation and the Peak Executive Forum. He served for several years on the advisory board of the 4th Judicial District Veterans Trauma Court, as well as the board of the Senior Resource Council. He is a retired lieutenant colonel in the USAF Reserves, having served as a fighter pilot, intelligence officer, and culminating in service as a space test and aggressor squadron commander prior to retiring after 24+ years of commissioned service. John Buckley and his wife Melinda (a high school classmate) have six children and eleven grandchildren between them.

Kevin Fletcher. Kevin Fletcher is a retired CPA. He has a BS degree in accounting from Northern Illinois University and a MS degree in accounting from the University of Illinois. Kevin moved to Colorado from Illinois in 1982 with Kristine, his wife of now 37 years. His professional career includes Big 4 public accounting experience and a variety of senior level corporate roles. He has served/is serving on several city of Golden and Jefferson County boards and task forces, including Chair of the Jefferson County Audit Committee. Kevin and Kristine have two grown children, both of whom reside in Colorado.

Samuel Greenidge. Samuel Greenidge has been a resident of Colorado for the past 22 years, which represents an appreciable fraction of his life. Raised in Weld County and educated in Boulder County, he has been exposed to both sides of the political spectrum and somehow turned out as an unaffiliated moderate. As part of his studies at CU-Boulder he has made an extensive examination of how to measure fairness and detect gerrymandering in political maps using modern mathematical tools, benefiting from the research and mentorship of Professor Jeanne Clelland. He currently works as a lead instructor for the Mathnasium of Longmont tutoring center, and expects to graduate with his bachelors in pure mathematics this spring. After that he expects to be looking for a middle or high school level teaching job, so if you know of any openings feel free to let him know.

His primary concern is to protect the voting rights of every Coloradan by ensuring that the final legislative maps pass all objective measures of fairness and have neutral to no political lean.

Constance Hass. Constance (Connie) Hass was born and raised in Pueblo, Colorado. She has resided in Las Animas County with her husband Tony for 36 years and they have 2 grown children. She and her husband own a cow-calf operation near Trinidad. She is a retired Math educator of 34 years. Connie sits on the Colorado Farm Bureau Federation Board of Directors and the Southern Farm Bureau Casualty Company Board of Directors. She is currently a member of the Leadership Program of the Rockies Class of 2021 and is a proud advocate for agriculture having participated in the American Farm Bureau Women's Leadership Bootcamp. She is a math mentor for new or young math teachers in the southern part of Colorado. Connie has a Bachelor's degree in Mathematics and a Master's degree in teaching.

Gary Horvath. For nearly three decades, Gary Horvath has conducted high-profile business, economic, and market research for Colorado business and government leaders, policymakers, and economic developers.

Gary managed projects that touched most industries. Much of his research included annual employment forecasts of the state economy, economic indices, and monthly updates. Also, he directed three statewide studies that evaluated workforce development and the competencies of all 64 county economies.

Most notably, he was the principal investigator for a federally funded roadmap for the Colorado nanotechnology cluster. He also helped establish the Colorado Photonics Industry Association and has been a board member since its inception.

Currently, Gary is the committee lead for the electronics/photonics cluster of OEDIT's Advanced Industry early-stage and proof of concept grant program. He is also on the board for Adams County Regional Economic Partnership (formerly ACED). Previously he was a board member for the Economic Development Council of Colorado, Northwest Denver Business Partnership, and Broomfield Economic Development Corporation.

Finally, Gary helped found the Business of Sports program at the University of Colorado and has served in leadership positions in the tennis and platform tennis industries.

Gary has close ties to the state. His grandparents homesteaded in the southwest corner of Colorado in 1913. He has lived in Durango and Broomfield and attended college in Colorado and Oregon. He and his wife have lived in Broomfield for over twenty years and are proud of their daughters who attend Colorado State University.

Aislinn Kottwitz. Aislinn Kottwitz, RN CCRN, has significant experience in healthcare and serving her community.

Aislinn has been a nurse for almost 20 years serving patients in Northern Colorado as an intensive care nurse and now serves in an administrative role for a rehabilitation hospital. Aside from her medical career and raising two daughters, she simultaneously found herself immersed in public policy and serving her community. She has volunteered and managed campaigns from local city council races to congressional campaigns and state-wide ballot initiatives. She was elected in to the Fort Collins City Council in 2009. This opportunity afforded her the pleasure of working seamlessly with opposing viewpoints to accomplish the goal of serving the citizens. She not only balanced an over $300 million dollar budget, but was amongst the first to create unprecedented policy surrounding the legalization of marijuana. The breadth of issues and collaboration on the local level continued to drive her involvement.

Aislinn's community experience includes being Vice Chairman of Poudre Fire Authority and member of the Ethics Review Board for the City of Fort Collins. She has served on the Board of Directors for Liberty Common School for 7 years. Her leadership on natural resources, energy, and agriculture on the federal level allowed for influence over policy on issues near to her heart having grown up in a farming and ranching family in Southeastern Colorado.

Amber McReynolds. Commissioner Amber McReynolds is one of the country's leading experts on election administration and policy. Commissioner McReynolds was recently confirmed by the United States Senate to serve as a governor for the United States Postal Service, is the co-author of the book "When Women Vote", is the founding CEO for the National Vote At Home Institute and Coalition, and is the former Director of Elections for Denver, Colorado. Amber is an experienced election professional and is nationally recognized as an innovator. After transforming the Denver Elections Division into an award winning election office, she was also

instrumental in helping to design Colorado's pro-voter voting process which has become a national model for accessibility, security, transparency, and engagement. Amber has proven that designing pro-voter policies, voter-centric processes, and implementing technical innovations will improve the voting process for all voters.

Commissioner McReynolds serves on the National Task Force on Election Crises, the National Council on Election Integrity, Massachusetts Institute of Technology Election Data and Science Lab, Secure the Vote Advisory Board, City Year Denver Board of Directors, and Represent Women Board of Directors. Amber is excited for the opportunity to serve Colorado and ensure fair representation for all. Commissioner McReynolds is a proud unaffiliated voter who lives in Congressional District 1 with her awesome children.

Carlos Perez. Mr. Carlos Perez of Colorado Springs (unaffiliated, CD 5) is a software engineer and has been a practitioner in the field for over 35 years. Mr. Perez started his career with IBM and worked on the team that built the onboard avionics software for the NASA Space Shuttle and Space Station manned spaceflight programs. Mr. Perez' broad industry experience includes developing software for the civil, military, financial, medical, insurance, non-profit, intellectual property, and commercial sectors.

In 2016, he served as an expert witness on a federal patent infringement case involving database encryption technology and has previously consulted with companies concerning intellectual property matters. He has worked with several Colorado-based technology startups including one based in Boulder that is currently developing a prototype of a non-partisan voter engagement app that spun-off from the Colorado Secretary of State's Go Code Business Data Challenge. Today Mr. Perez is creating innovative applications that span embedded systems based on open source technology to cloud-based "full-stack" web applications.

Mr. Perez brings his perspective in the STEM-related fields to serve his local community. He is a member of the Pikes Peak Rural Transportation Authority (PPRTA) Citizens Advisory Committee which advises elected officials on multimodal transportation policy and provides fiscal oversight of the designated 1% sales and use tax. He is also a member of a citizen-led neighborhood group working with the City Council to explore how to address the inequities in the property tax structure of the Briargate Special Improvement Maintenance District that maintains the neighbor trails and common areas.

As a council-appointed member of the Colorado Springs Districting Process Advisory Committee in 2020, he represented the fastest growing City Council district of over 81,000 people-- a population slightly larger than Loveland. His role included soliciting input on the proposed City Council boundaries, conducting the public outreach meeting, and synthesizing the comments for the committee report that was submitted to the City Clerk of Colorado Springs. He also worked with his fellow committee members and studied maps of demographic information to ensure that neighborhoods with a higher number of ethnic minorities were fairly represented in the recommendations for redistricting.

In his personal life, Mr. Perez is an Assistant Scoutmaster with his Boy Scout troop to continue the traditions he learned as an Eagle Scout. He is a recreational runner and in 2017 completed the Colfax Marathon to support the Blue Knights Drum and Bugle Corp based in Denver. He also rides with the local Young Life bike team to support their youth ministries. He loves all things outdoors and enjoys hiking and exploring parks. As a father of a son with a disability, he is active in Achilles Pikes Peak which is an organization that guides athletes with physical and cognitive disabilities. As an adherent of "8-80 cities" that serve people from ages 8 to 80, he

serves on the executive committee with Bike Colorado Springs (a fiscally-sponsored organization of the Trails and Open Space Coalition) to make urban bicycling in the Pikes Peak region better for all ages and abilities.

Mr. Perez has a B.A. degree in Computer Science from the University of Texas at Austin and a M.S. degree in Studies of the Future from the University of Houston at Clear Lake.

Robin Schepper. Robin Schepper uses her background in public policy, communications, events and campaigns to develop comprehensive strategies for her clients. She is an experienced and dedicated manager who develops communications and public affairs strategies; facilitates meetings and retreats; trains and coaches executives; provides organizational and communications counsel and writes numerous types of documents for her clients.

Over the past 25 years, Robin has worked in many arenas. She worked on three Democratic presidential campaigns and in the Clinton Administration, organizing trips and events like the 1997 G-8 Summit and the 50th Anniversary of NATO. She was a small business owner, co-founding Pyramid Communications, a Seattle-based public affairs company that specializes in environmental, health and Native American issues. She served as staff director for the Senate Democratic Technology and Communications Committee under Senator Daschle working with the Democratic Caucus on their TV, Radio and Internet strategies. Robin spent four years working as a consultant to the Athens 2004 Olympic Games providing communications expertise; building their press office; and serving as a spokesperson and advisor to the President of the Athens Olympic Organizing Committee. Robin also was the first Executive Director of First Lady Michelle Obama's children's anti-obesity initiative, *Let's Move!*

Robin's past and present clients at her firm Wayfinder Strategies include the Bipartisan Policy Center, the Office of Military Community and Family Policy at the Department of Defense, the Aspen Institute, the Walton Foundation, the National Wildlife Federation, Historic Routt County, the Yampa Valley Community Foundation and Routt County. Robin is a public speaker and was instrumental in the writing of the report, *Lots to Lose: How America's Health and Obesity Crisis Threatens America's Future* *and* *The Healthy Base Initiative*. She lives in Colorado with her husband and two sons.

Blanca Uzeta O'Leary. Blanca Uzeta O'Leary is a solo-practitioner attorney. She earned a political science degree and a Juris Doctorate from the University of Texas. Blanca is an active community volunteer who has served on numerous non-profit boards and organizations located in the Roaring Fork Valley of the Western Slope and elsewhere, including Alpine Legal Services (former board chair), the Aspen Youth Center, the Aspen Valley Medical Foundation, the Aspen Words Board, PEN International, San Miguel de Allende Center, and Voces Unidas de las Montañas (currently board chair). Blanca also served on several Advisory Committees at the Aspen School District and proudly chaired the successful bond election for the construction of the new Aspen Middle School.

Blanca was appointed to former Governor John Hickenlooper's judicial performance commission and currently sits on Governor Jared Polis' judicial nominations commission. Additionally, she has extensive experience in Democratic organizing and grassroots campaigning including decades of work with the Pitkin County Democratic Party (former Chair), as an at-Large DNC member appointed by President Obama, as Co-Chair of Governor Polis' Inaugural Committee and as chair of Boldly Forward.

Blanca believes Colorado continually strives to organize its institutions to be fair, just, and diverse. She is pleased to bring with her to the committee the experiences of her life stemming from her ethnic and cultural background, as well as her geographical diversity. Blanca lives in Aspen with her husband Cavanaugh and her son, also named Cavanaugh.

DATE FILED: October 15, 2021 4:08 PM

In re Colorado Independent Legislative Redistricting Commission

Exhibit 3

Commission Meetings and Public Hearings

Meetings and Public Hearings of the
Colorado Independent Legislative Redistricting Commission

The Colorado Independent Legislative Redistricting Commission first convened March 30, 2021. Since then the full commission has met 45 times and held 35 public hearings. The list and table below detail these meetings.

Staff summaries of meetings, meeting audio, and meeting materials are available on the commission's website: https://redistricting.colorado.gov/content/meeting-summaries

Meeting Dates and Times:

- March 30, 2021, 8:00 AM
- April 9, 2021, 2:00 PM
- April 16, 2021, 1:00 PM
- April 23, 2021,1:00 PM
- April 30, 2021,1:00 PM
- May 7, 2021,1:00 PM
- May 14, 2021,1:00 PM
- May 21, 2021,1:00 PM
- May 28, 2021,1:00 PM
- June 4, 2021, 1:00 PM
- June 11, 2021, 1:00 PM
- June 18, 2021,1:00 PM
- June 25, 2021,1:00 PM
- June 29, 2021, 8:00 AM
- July 2, 2021, 1:00 PM
- July 16, 2021, 1:00 PM
- July 13, 2021, 1:00 PM
- August 13, 2021,1:00 PM
- August 27, 2021,1:00 PM
- September 3, 2021,1:00 PM
- September 7, 2021, 4:00 PM
- September 10, 2021, 1:00 PM
- September 14, 2021,12:00 PM
- September 16, 2021, 6:00 PM
- September 17, 2021, 1:00 PM
- September 17, 2021, 6:00 PM
- September 18, 2021, 10:00 AM
- September 18, 2021, 6:00 PM
- September 19, 2021, 12:00 PM
- September 21, 2021, 6:00 PM
- September 24, 2021, 1:00 PM
- September 24, 2021, 6:00 PM

- September 26, 2021, 1:00 PM
- September 27, 2021, 6:00 PM
- September 29, 2021, 6:00 PM
- October 1, 2021, 1:00 PM
- October 5, 2021, 6:00 PM
- October 6, 2021, 5:00 PM
- October 6, 2021, 6:00 PM
- October 7, 2021, 6:00 PM
- October 8, 2021, 1:00 PM
- October 9, 2021, 9:00 AM
- October 10, 2021, 1:00 PM
- October 11, 2021, 6:00 PM
- October 12, 2021, 6:00 PM

Joint Public Hearings with Congressional Commission:

Date	Time	Location
July 9, 2021	7:00 PM	Lamar
July 10, 2021	11:00 AM	Burlington
July 10, 2021	7:00 PM	Sterling
July 13, 2021	7:00 PM	Arvada
July 14, 2021	7:00 PM	Denver
July 17, 2021	12:00 PM	Fort Collins
July 20, 2021	7:00 PM	Lakewood
July 21, 2021	7:00 PM	Englewood
July 23, 2021	7:00 PM	Steamboat Springs
July 24, 2021	11:00 AM	Craig
July 27, 2021	7:00 PM	Denver
July 28, 2021	7:00 PM	Aurora
July 30, 2021	11:00 AM	Montrose
July 30, 2021	7:00 PM	Grand Junction
July 31, 2021	11:00 AM	Carbondale
July 31, 2021	7:00 PM	Frisco
August 3, 2021	7:00 PM	Centennial
August 4, 2021	7:00 PM	Golden
August 6, 2021	11:00 AM	Trinidad
August 6, 2021	7:00 PM	Alamosa
August 7, 2021	1:00 PM	Durango
August 10, 2021	7:00 PM	Longmont
August 11, 2021	7:00 PM	Boulder
August 14, 2021	12:00 PM	Greeley
August 18, 2021	7:00 PM	Highlands Ranch
August 20, 2021	11:00 AM	Woodland Park
August 20, 2021	7:00 PM	Pueblo
August 21, 2021	11:00 AM	Canon City
August 21, 2021	7:00 PM	Buena Vista
August 24, 2021	7:00 PM	Commerce City
August 25, 2021	7:00 PM	Brighton

August 28, 2021	7:00 PM	Colorado Springs

Virtual Public Hearings on the First Staff Plans:

- September 17, 2021, 6:00 PM
- September 18, 2021, 10:00 AM
- September 18, 2021, 6:00 PM

DATE FILED: October 15, 2021 4:08 PM

In re Colorado Independent Legislative Redistricting Commission

Exhibit 4

House District Descriptions and Information

District 1

District 1 is within the City and County of Denver, and includes the whole Bear Valley, College View – South Platte, Fort Logan, Harvey Park, Harvey Park South, Mar Lee, Marston, Ruby Hill, and Overland Denver neighborhoods, and a portion of the Westwood Denver neighborhood.

District 2

District 2 is within the City and County of Denver, and includes the whole Belcaro, Cherry Creek, Country Club, Cory – Merrill, Platt Park, Rosedale, Speer, University, University Park, Washington Park, West Washington Park, and Wellshire Denver neighborhoods, and a portion of the Hilltop Denver neighborhood.

District 3

District 3 includes whole Cherry Hills Village, Englewood, and Sheridan in Arapahoe County; a portion of Aurora in Arapahoe County; and a portion of the City and County of Denver. The portion of Denver includes the whole Hampden South, Kennedy, and Southmoor Park Denver neighborhoods, and a portion of the Hampden Denver neighborhood.

District 4

District 4 is within the City and County of Denver, and includes the whole Barnum, Barnum West, Berkeley, Jefferson Park, Regis, Sloan Lake, Sun Valley, Villa Park, West Colfax, and West Highland Denver neighborhoods, and portions of the Highland, Sunnyside, and Westwood Denver neighborhoods.

Denver 5

District 5 is within the City and County of Denver, and includes the whole Athmar Park, Auraria, Baker, Central Business District, Chaffee Park, Civic Center, Elyria Swansea, Globeville, Lincoln Park, Union Station, and Valverde Denver neighborhoods, and portions of the Cole, Five Points, Highland, and Sunnyside Denver neighborhoods.

District 6

District 6 is within the City and County of Denver, and includes the whole Cheesman Park, Congress Park, Hale, Montclair, North Capitol Hill, and Windsor Denver neighborhoods, and portions of the Capitol Hill, East Colfax, and Lowry Field Denver neighborhoods.

District 7

District 7 is within the City and County of Denver, and includes the whole Denver International Airport, Gateway – Green Valley Ranch, and Montbello Denver neighborhoods, and a portion of the Central Park Denver neighborhood.

District 8

District 8 is within the City and County of Denver, and includes the whole City Park, City Park West, Clayton, North Park Hill, Northeast Park Hill, South Park Hill, and Whittier Denver neighborhoods, and portions of the Central Park, Cole, East Colfax, and Five Points Denver neighborhoods.

District 9

District 9 includes whole Glendale in Arapahoe County and a portion of the City and County of Denver. The portion of Denver includes the whole Goldsmith, Indian Creek, University Hills, Virginia Village, and Washington Virginia Vale Denver neighborhoods, and portions of the Hampden, Hilltop, and Lowry Field Denver neighborhoods.

District 10

District 10 is in Boulder County, and includes the eastern portion of the City of Boulder.

District 11

District 11 is in Boulder County, and includes the western portion of Longmont.

District 12

District 12 is in Boulder County, and includes whole Lafayette, Louisville, and Niwot, and the whole population of Superior.

District 13

District 13 includes whole Grand County, Jackson County, Lake County, Park County, and Summit County; and whole Buena Vista, Poncha Springs, and Salida in Chaffee County.

District 14

District 14 is in El Paso County and includes a portion of Colorado Springs. It includes whole Briargate West, Cordera, Flying Horse Ranch, Gatehouse, Interquest, Kettle Creek, Mountain Shadows, Peregrine, Pine Creek, Pinecliff, Northgate, Rockrimmon, Summerfield, The Farm, and Wolf Ranch Colorado Springs neighborhoods, and portions of Falcon Estates, Garden of the Gods/Pleasant Valley, Old Colorado City, Pulpit Rock, and Woodmen Heights/Dublin North Colorado Springs neighborhoods.

District 15

District 15 is in El Paso County and includes a portion of Colorado Springs. The portion of Colorado Springs includes the whole BLR Villages, Ridgeview, Springs Ranch, and Stetson Hills Colorado Springs neighborhoods, and portions of the Banning Lewis Ranch, Cottonwood Creek, and Woodmen Heights/Dublin North Colorado Springs neighborhoods.

District 16

District 16 is in El Paso County and includes a portion of Colorado Springs. It includes whole Austin Estates, Cragmoor, Divine Redeemer, Garden Ranch, Kitty Hawk/Bonnyville, Knob Hill, North Nevada/The Studio, Old North End, Palmer Heights, Palmer Park, Patty Jewett, Rosswell, Rustic Hills, and Wasson Colorado Springs neighborhoods, and portions of the East Lake, Eastborough, Middle Shooks Run, Park Hill, and Pulpit Rock Colorado Springs neighborhoods.

District 17

District 17 is in El Paso County and includes a portion of Colorado Springs. The portion of Colorado Springs includes the whole Airport, Deerfield Hills, Gateway Park, Pikes Peak Park North, Pikes Peak Park South, Soaring Eagles, Southborough, and Valley Hi Colorado Springs neighborhoods, and portions of the Downtown, East Lake, Eastborough, Hillside, Park Hill, Quail Lake, and Stratton Meadows Colorado Springs neighborhoods.

District 18

District 18 includes whole Green Mountain Falls in El Paso County and Teller County, and Manitou Springs and a portion of Colorado Springs in El Paso County. The portion of Colorado Springs includes the whole Broadmoor Bluffs, Broadmoor Hills, Broadmoor Oaks, Cedar Heights, Gold Hill Mesa, Holland Park, Ivywild, Kissing Camels, Lower Skyway, Mesa, Mesa Springs, Midland, Old Broadmoor, Upper Skyway, and Westside Colorado Springs neighborhoods, and portions of the Downtown, Garden of the Gods/Pleasant Valley, Old Colorado City, Middle Shooks Run, Quail Lake, and Stratton Meadows Colorado Springs neighborhoods.

District 19

District 19 is in Boulder County and Weld County, and includes whole Dacono, Firestone, and Frederick; the whole population of Erie; and portions of Longmont and Northglenn.

District 20

District 20 is in El Paso County, and includes whole Monument and Palmer Lake.

District 21

District 21 is in El Paso County, and includes whole Fort Carson and Fountain.

District 22

District 22 is in El Paso County and includes a portion of Colorado Springs. It includes the whole Briargate, Fairfax, Old Farm, Sunset Mesa, Village Seven, Vista Grande, and Villa Loma Colorado Springs neighborhoods, and portions of the Cottonwood Creek and Falcon Estates Colorado Springs neighborhoods.

District 23

District 23 is in Jefferson County, and includes whole Lakeside, Mountain View, and Wheat Ridge, and a portion of Lakewood.

District 24

District 24 is in Adams County and Jefferson County, and includes a portion of Arvada.

District 25

District 25 is in Jefferson County, and includes whole Morrison and a portion of Littleton.

District 26

District 26 includes whole Moffat County, Rio Blanco County, and Routt County; and whole Avon, Eagle, Gypsum, Minturn, Red Cliff, and Vail in Eagle County.

District 27

District 27 is in Jefferson County, and includes whole Golden and a portion of Arvada.

District 28

District 28 is in Jefferson County, and includes a portion of Lakewood.

District 29

District 29 is in Adams County and Jefferson County, and includes a portion of Westminster.

District 30

District 30 is in Jefferson County, and includes whole Edgewater and a portion of Lakewood.

District 31

District 31 is in Adams County, and includes a portion of Thornton.

District 32

District 32 is in Adams County, and includes whole Commerce City.

District 33

District 33 is in Adams County and Broomfield County, and includes the whole population of the City and County of Broomfield and a portion of Thornton.

District 34

District 34 is in Adams County, and includes portions of Northglenn and Thornton.

District 35

District 35 is in Adams County and Jefferson County, and includes whole Federal Heights and portions of Thornton and Westminster.

District 36

District 36 is in Adams County and Arapahoe County, and includes a portion of Aurora.

District 37

District 37 is in Arapahoe County, and includes whole Foxfield and Greenwood Village, and portions of Aurora and Centennial.

District 38

District 38 is in Arapahoe County and Jefferson County, and includes whole Bow Mar and Columbine Valley, and portions of Centennial and Littleton.

District 39

District 39 is in Douglas County, and includes whole Castle Pines, Larkspur, and Lone Tree, and a portion of Highlands Ranch.

District 40

District 40 is in Arapahoe County, and includes a portion of Aurora.

District 41

District 41 is in Arapahoe County, and includes a portion of Aurora.

District 42

District 42 is in Arapahoe County, and includes a portion of Aurora.

District 43

District 43 is in Douglas County, and includes portions of Highlands Ranch and Littleton.

District 44

District 44 is in Douglas County, and includes whole Parker.

District 45

District 45 is in Douglas County, and includes whole Castle Rock.

District 46

District 46 is in Pueblo County, and includes whole Rye and a portion of Pueblo.

District 47

District 47 includes whole Baca County, Bent County, Crowley County, Kiowa County, Las Animas County, Otero County, and Prowers County; whole La Veta and Walsenburg in Huerfano County; and whole Boone and a portion of Pueblo West in Pueblo County.

District 48

District 48 is in Adams County and Weld County, and includes whole Brighton, Fort Lupton, Gilcrest, Hudson, Keenesburg, Kersey, La Salle, Lochbuie, and Platteville.

District 49

District 49 includes whole Clear Creek County and Gilpin County; and whole Jamestown, Lyons, Nederland, and Ward, and the western portion of the City of Boulder in Boulder County.

District 50

District 50 is in Weld County, and includes whole Garden City, the whole population of Evans, and a portion of Greeley.

District 51

District 51 is in Larimer County, and includes whole Loveland.

District 52

District 52 is in Larimer County, and includes a portion of Fort Collins.

District 53

District 53 is in Larimer County, and includes a portion of Fort Collins.

District 54

District 54 is in Delta County and Mesa County, and includes whole Cedaredge, Collbran, De Beque, Delta, Fruita, Orchard City, and Palisade, and a portion of Grand Junction.

District 55

District 55 is in Mesa County, and includes a portion of Grand Junction.

District 56

District 56 includes whole Cheyenne County, Elbert County, Kit Carson County, and Lincoln County; whole Bennett in Adams County; whole Bennett and Deer Trail in Arapahoe County, a portion of Aurora in Arapahoe County; and whole Calhan and Ramah in El Paso County.

District 57

District 57 includes whole Garfield County and Pitkin County, and whole Basalt in Eagle County.

District 58

District 58 includes and whole Dolores County, Gunnison County, Hinsdale County, Montrose County, Ouray County, and San Miguel County; the northwestern portion of Montezuma County; and whole Crawford, Hotchkiss, and Paonia in Delta County.

District 59

District 59 includes whole Archuleta County, La Plata County, and San Juan County; and whole Cortez, Dolores, and Mancos in Montezuma County.

District 60

District 60 includes whole Custer County and Fremont County; the southeastern portion of Chaffee County; a portion of Pueblo West in Pueblo County; and whole Cripple Creek, Victor, and Woodland Park in Teller County.

District 61

District 61 is in Arapahoe County and Douglas County, and includes portions of Aurora and Centennial.

District 62

District 62 includes whole Alamosa County, Conejos County, Costilla County, Mineral County, Rio Grande County, and Saguache County; the southeastern portion of Huerfano County; and a portion of Pueblo in Pueblo County.

District 63

District 63 includes whole Logan County, Morgan County, Phillips County, Sedgwick County, Washington County, and Yuma County; and whole Ault, Grover, Nunn, Pierce, Raymer (New Raymer) in Weld County.

District 64

District 64 is in Larimer County and Weld County, and includes whole Berthoud, Mead, and Milliken, and portions of Greeley and Johnstown.

District 65

District 65 is in Larimer County and Weld County, and includes whole Timnath, Wellington, Windsor, Eaton, and Severance, and a portion of Johnstown.

DATE FILED: October 15, 2021 4:08 PM

In re Colorado Independent Legislative Redistricting Commission

Exhibit 5

Senate District Descriptions and Information

M E M O R A N D U M

October 14, 2021

District Descriptions of the Final Approved State Senate Plan

Senate District 1 consists of the following whole counties in northeastern Colorado: Logan, Morgan, Phillips, Sedgwick, Washington, and Yuma. Much of Weld County is also in this district, including western Greeley.

Senate District 2 is wholly contained in Douglas County and includes the cities of Castle Rock and Parker.

Senate District 3 is all of Pueblo County and no additional areas.

Senate District 4 consists of the following whole counties in Colorado's central mountains: Chaffee, Custer, Fremont, Lake, and Park. It also contains most of Teller County except the town of Green Mountain Falls, a portion of Douglas County, mostly unincorporated but including the town of Larkspur, and a portion of unincorporated Jefferson County.

Senate District 5 consists of the whole counties of Gunnison, Hinsdale, and Pitkin. It also includes portions of Delta, Eagle, Garfield, and Montrose Counties. This district keeps the following Roaring Fork Valley communities together as a commission priority: Aspen, Basalt, Carbondale, El Jebel, Glenwood Springs, New Castle, Parachute, Rifle, and Silt. The split of Garfield County mostly follows I-70, pulling in all of the listed towns. In Montrose County, the whole municipalities of Montrose and Olathe are in SD5. Only the southwest corner of Eagle County in the Roaring Fork School District is in SD5, and most of Delta County is in the district, except the town of Cedaredge.

Senate District 6 consists of the following whole counties: Alamosa, Archuleta, Conejos, Costilla, Dolores, La Plata, Mineral, Montezuma, Ouray, Rio Grande, Saguache, San Juan, and San Miguel. It also contains the western portion of Montrose County, including the towns of Naturita and Nucla. This district keeps the six counties of the San Luis Valley together pursuant to commission priority.

Senate District 7 is primarily made up of Mesa County, but includes the town of Cedaredge in Delta County.

Senate District 8 consists of the following whole counties in northwestern Colorado: Clear Creek, Gilpin, Grand, Jackson, Moffat, Rio Blanco, Routt, and Summit. It also contains most of Eagle County, including Avon, Eagle, Edwards Gypsum, Minturn, Red Cliff, and Vail, and the unincorporated northern portion of Garfield County. It includes ski tourism areas in Eagle, Grand, Routt, and Summit Counties, which the commission identified as a community of interest.

Senate District 9 is one of four districts wholly contained in El Paso County. It covers the northwest corner of the county, including the towns of Monument and Palmer Lake and a portion of Colorado Springs.

Senate District 10 is in the east central area of Colorado Springs and includes some unincorporated enclaves of El Paso County. Seventeen defined Colorado Springs neighborhoods are included in this district, and it is bordered largely by Woodmen Road to the north, Constitution Avenue to the south, I-25 to the west, and Highway 24 to the east.

Senate District 11 is the southeastern part of Colorado Springs, including eighteen defined whole neighborhoods and the Colorado Springs airport. The Harrison School District is included in this district.

Senate District 12 includes some of downtown and western Colorado Springs, as well as Green Mountain Falls, Manitou Springs, Security-Widefield, Fountain, and Fort Carson.

Senate District 13 extends from Brighton in Adams County to eastern Greeley in Weld County and includes the Weld County municipalities of Evans, Fort Lupton, Garden City, Gilcrest, La Salle, and Platteville. It also includes a small portion of unincorporated Adams County near Brighton.

Senate District 14 includes most of the city of Fort Collins and some of unincorporated Larimer County to the north.

Senate District 15 includes parts of western Boulder and Larimer Counties. In Larimer County the municipalities of Estes Park, Loveland, Red Feather Lakes, and Wellington are in the district. In Boulder County, the municipalities of Jamestown, Lyons, Nederland, and Ward are included.

Senate District 16 is based in south suburban Denver in both Arapahoe and Jefferson Counties. It includes part of the city of Centennial west of South Quebec Street, the town of Bow Mar in Arapahoe and Jefferson Counties, most of the city of Littleton in Arapahoe and Jefferson Counties, and the Columbine and Ken Caryl areas of Jefferson County.

Senate District 17 is primarily based in eastern Boulder County but includes parts of Weld County to keep the cities of Erie and Longmont intact. It also contains the city of Lafayette in Boulder County. This district includes zero-population blocks of the City and County of Broomfield necessary to keep Boulder County blocks within the district.

Senate District 18 is wholly contained in Boulder County and includes the municipalities of Boulder, Louisville, and Superior.

Senate District 19 is based in Arvada, including parts in both Jefferson and Adams Counties, and it also includes all the portions of Westminster in Jefferson County.

Senate District 20 is wholly contained in Jefferson County and includes far western Arvada, southwestern Lakewood, Morrison, and several unincorporated communities in both the foothills and the Denver metro area.

Senate District 21 is primarily in Adams County but also includes eastern Arapahoe County, including Bennett and Strasburg in Adams and Arapahoe Counties and Deer Trail in Arapahoe

County. In western Adams County, the district contains, all of Commerce City, southern Westminster, and areas of unincorporated Adams County north of the Denver border.

Senate District 22 is wholly contained in Jefferson County and includes western and northern Lakewood and all of Edgewater, Golden, and Wheat Ridge.

Senate District 23 extends along the border between Weld and Larimer Counties. It includes the whole municipalities of Berthoud, Dacono, Firestone, Frederick, Johnstown, Mead, Milliken, Timnath, and Windsor, several of which have portions in both Larimer and Weld Counties. It also includes some of Fort Collins to the east of Timberline Road, Ziegler Road, and I-25.

Senate District 24 is wholly contained in Adams County and includes the whole cities of Federal Heights and Thornton.

Senate District 25 is made up of the City and County and Broomfield, and Adams County portions of Westminster and Northglenn.

Senate District 26 includes most of five Denver neighborhoods in the far southwest and southeast areas of the city, as well as the Arapahoe County cities of Cherry Hills Village, Englewood, Greenwood Village, and Sheridan, and some unincorporated areas along the eastern border with Denver.

Senate District 27 is primarily an Arapahoe County district containing Centennial east of South Quebec Street and southern Aurora. It also includes sections of Aurora that are in Douglas County.

Senate District 28 is mostly the city of Aurora and surrounding areas in both Adams and Arapahoe Counties. It extends east past the Colorado Air and Space Port to reach Aurora's eastern borders and south to East Quincy Avenue.

Senate District 29 is wholly within Aurora and Arapahoe County. Its boundaries are mostly along East Alameda Avenue to the north, East Quincy Avenue to the south, South Tower Road to the east, and the Aurora border to the west.

Senate District 30 is wholly contained in Douglas County and includes the cities of Castle Pines and Lone Tree, as well as Highlands Ranch and Roxborough Park.

Senate District 31 is one of three districts that are entirely within the City and County of Denver. The district includes nineteen whole neighborhoods in central and east Denver.

Senate District 32 is a primarily Denver district that includes nineteen whole Denver neighborhoods and several enclaves of Arapahoe County, including Glendale and Holly Hills, that are entirely surrounded by Denver.

Senate District 33 is a northeast Denver district covering 11 whole neighborhoods that extends from Denver International Airport and the city's furthest east neighborhoods into near northeast Denver.

Senate District 34 is a Denver district covering 22 whole neighborhoods on Denver's west and north sides.

Senate District 35 includes eastern El Paso County and the following whole counties in southeastern Colorado: Baca, Bent, Cheyenne, Crowley, Elbert, Huerfano, Kiowa, Kit Carson, Las Animas, Lincoln, Otero, and Prowers. The district keeps Huerfano and Las Animas Counties together pursuant to commission priorities.

Attachment A
Sequencing of Senate District Elections

Pursuant to Section 2-2-503, C.R.S., staff provides the following designation of senatorial districts from which state senators will be elected in 2022 and 2024 under the Third Staff Plan.

Holdover senators are entitled by law to serve the remainder of their terms. The 18 senators elected in 2020, therefore, retain their seats, and the districts in which they reside must be designated for elections in 2024. This applies to the following districts in the Third Staff Plan:

- 2;
- 5;
- 6;
- 10;
- 12;
- 13;
- 14;
- 16;
- 17;
- 18;
- 19;
- 21;
- 23;
- 26;
- 28;
- 29;
- 31; and
- 33.

The remaining 17 districts are therefore designated for elections in 2022. This applies to the following districts in the Third Staff Plan:

- 1;
- 3;
- 4;
- 7;
- 8;
- 9;
- 11;
- 15;
- 20;
- 22;
- 24;
- 25;
- 27;
- 30;
- 32;
- 34; and
- 35.

DATE FILED: October 15, 2021 4:08 PM

In re Colorado Independent Legislative Redistricting Commission

Exhibit 6

Sequencing of Senate District Elections

Sequencing of Senate District Elections

Pursuant to Section 2-2-503, C.R.S., staff provides the following designation of senatorial districts from which state senators will be elected in 2022 and 2024 under the Final Approved Senate Plan.

Holdover senators are entitled by law to serve the remainder of their terms. The 18 senators elected in 2020, therefore, retain their seats, and the districts in which they reside must be designated for elections in 2024. This applies to the following districts in the Third Staff Plan:

- 2;
- 5;
- 6;
- 10;
- 12;
- 13;
- 14;
- 16;
- 17;
- 18;
- 19;
- 21;
- 23;
- 26;
- 28;
- 29;
- 31; and
- 33.

The remaining 17 districts are therefore designated for elections in 2022. This applies to the following districts in the Third Staff Plan:

- 1;
- 3;
- 4;
- 7;
- 8;
- 9;
- 11;
- 15;
- 20;
- 22;
- 24;
- 25;
- 27;
- 30;
- 32;
- 34; and
- 35.

DATE FILED: October 15, 2021 4:08 PM

In re Colorado Independent Legislative Redistricting Commission

Exhibit 7

Population Charts for House and Senate

Population Summary Report

Plan: 2021 Final Approved Senate Plan

District	Population	Target Deviation	Target Deviation (%)	Hispanic	Non-Hispanic	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic American Indian/ Alaskan	Non-Hispanic Asian	Non-Hispanic Hawaiian or Other Pacific	Non-Hispanic some other race	Non-Hispanic two or more minority race
1	161,220	-3,743	-2.27	39,655	121,565	111,849	1,983	622	1,321	124	539	5,127
				24.6%	75.4%	69.4%	1.2%	0.4%	0.8%	0.1%	0.3%	3.2%
2	167,200	2,237	1.36	17,859	149,341	130,711	2,479	459	6,171	175	734	8,612
				10.7%	89.3%	78.2%	1.5%	0.3%	3.7%	0.1%	0.4%	5.2%
3	168,122	3159	1.91	70,143	97,979	85,326	2,921	1,265	1556	138	944	5,829
				41.7%	58.3%	50.8%	1.7%	0.8%	0.9%	0.1%	0.6%	3.5%
4	167,757	2,794	1.69	14,723	153,034	140,111	1,711	1,110	1,372	97	929	7,704
				8.8%	91.2%	83.5%	1.0%	0.7%	0.8%	0.1%	0.6%	4.6%
5	163,126	-1837	-1.11	36,432	126,694	117,063	659	746	1,416	89	853	5,868
				22.3%	77.7%	71.8%	0.4%	0.5%	0.9%	0.1%	0.5%	3.6%
6	161,485	-3,478	-2.11	34,631	126,854	110,802	700	6,819	1,038	96	885	6,514
				21.4%	78.6%	68.6%	0.4%	4.2%	0.6%	0.1%	0.5%	4.0%
7	161,633	-3330	-2.02	23,755	137,878	125,873	1049	977	1,632	191	917	7,239
				14.7%	85.3%	77.9%	0.6%	0.6%	1.0%	0.1%	0.6%	4.5%
8	161,606	-3,357	-2.04	29,153	132,453	123,456	928	555	1,523	108	662	5,221
				18.0%	82.0%	76.4%	0.6%	0.3%	0.9%	0.1%	0.4%	3.2%
9	164,770	-193	-0.12	16,966	147,804	125,107	4487	587	6,843	247	1056	9,477
				10.3%	89.7%	75.9%	2.7%	0.4%	4.2%	0.1%	0.6%	5.8%
10	168,724	3,761	2.28	27,680	141,044	114,298	8,172	856	5,280	438	978	11,022
				16.4%	83.6%	67.7%	4.8%	0.5%	3.1%	0.3%	0.6%	6.5%
11	167,144	2181	1.32	49,218	117,926	82,468	16810	1232	4,553	938	1064	10,861
				29.4%	70.6%	49.3%	10.1%	0.7%	2.7%	0.6%	0.6%	6.5%
12	169,103	4,140	2.51	29,077	140,026	111,535	10,406	905	4,055	1023	1,064	11,038
				17.2%	82.8%	66.0%	6.2%	0.5%	2.4%	0.6%	0.6%	6.5%
13	162,191	-2772	-1.68	74,658	87,533	74,322	3438	825	2,912	209	695	5,132
				46.0%	54.0%	45.8%	2.1%	0.5%	1.8%	0.1%	0.4%	3.2%
14	160,983	-3,980	-2.41	20,786	140,197	123,932	2,141	709	4,842	145	804	7,624
				12.9%	87.1%	77.0%	1.3%	0.4%	3.0%	0.1%	0.5%	4.7%
15	160,877	-4086	-2.48	17,959	142,918	131,525	964	655	1,699	105	863	7,107
				11.2%	88.8%	81.8%	0.6%	0.4%	1.1%	0.1%	0.5%	4.4%
16	166,292	1,329	0.81	18,063	148,229	132,924	1,697	521	4,634	108	770	7,575
				10.9%	89.1%	79.9%	1.0%	0.3%	2.8%	0.1%	0.5%	4.6%
17	164,918	-45	-0.03	33,702	131,216	114,447	1497	604	6,500	111	854	7,203
				20.4%	79.6%	69.4%	0.9%	0.4%	3.9%	0.1%	0.5%	4.4%
18	164,297	-666	-0.4	15,908	148,389	127,138	1,749	507	10,365	154	920	7,556
				9.7%	90.3%	77.4%	1.1%	0.3%	6.3%	0.1%	0.6%	4.6%
19	164,524	-439	-0.27	26,020	138,504	122,874	1761	740	4,919	93	680	7,437
				15.8%	84.2%	74.7%	1.1%	0.4%	3.0%	0.1%	0.4%	4.5%
20	168,082	3,119	1.89	20,364	147,718	131,485	1,460	714	5,952	100	781	7,226
				12.1%	87.9%	78.2%	0.9%	0.4%	3.5%	0.1%	0.5%	4.3%
21	169,032	4,069	2.47	83,172	85,860	69,649	3974	1033	4,783	206	727	5,488
				49.2%	50.8%	41.2%	2.4%	0.6%	2.8%	0.1%	0.4%	3.2%
22	162,619	-2,344	-1.42	38,011	124,608	107,516	2,943	1,234	5,015	220	904	6,776
				23.4%	76.6%	66.1%	1.8%	0.8%	3.1%	0.1%	0.6%	4.2%
23	160,874	-4089	-2.48	25,537	135,337	122,451	989	543	3,890	79	689	6,696
				15.9%	84.1%	76.1%	0.6%	0.3%	2.4%	0.0%	0.4%	4.2%
24	167,762	2,799	1.7	64,109	103,653	83,173	2,961	909	9,196	144	762	6,508
				38.2%	61.8%	49.6%	1.8%	0.5%	5.5%	0.1%	0.5%	3.9%

District	Population	Target Deviation	Target Deviation (%)	Hispanic	Non-Hispanic	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic American Indian/ Alaskan	Non-Hispanic Asian	Non-Hispanic Hawaiian or Other Pacific	Non-Hispanic some other race	Non-Hispanic two or more minority race
25	168,652	3689	2.24	36,971	131,681	109,893	2,610	752	9,811	179	741	7,695
				21.9%	78.1%	65.2%	1.5%	0.4%	5.8%	0.1%	0.4%	4.6%
26	164,117	-846	-0.51	28,666	135,451	103,922	12,666	818	9,248	218	912	7,667
				17.5%	82.5%	63.3%	7.7%	0.5%	5.6%	0.1%	0.6%	4.7%
27	165,568	605	0.37	21,841	143,727	103,728	12,112	500	16,751	214	846	9,576
				13.2%	86.8%	62.6%	7.3%	0.3%	10.1%	0.1%	0.5%	5.8%
28	163,988	-975	-0.59	67,187	96,801	50,858	26,417	789	10,052	861	964	6,860
				41.0%	59.0%	31.0%	16.1%	0.5%	6.1%	0.5%	0.6%	4.2%
29	162,492	-2,471	-1.5	42,725	119,767	71,182	28585	718	9,004	617	964	8,697
				26.3%	73.7%	43.8%	17.6%	0.4%	5.5%	0.4%	0.6%	5.4%
30	168,526	3,563	2.16	14,848	153,678	128,853	2,165	448	13,238	107	692	8,175
				8.8%	91.2%	76.5%	1.3%	0.3%	7.9%	0.1%	0.4%	4.9%
31	164,485	-478	-0.29	18,964	145,521	121,427	9443	700	5,307	113	887	7,644
				11.5%	88.5%	73.8%	5.7%	0.4%	3.2%	0.1%	0.5%	4.6%
32	161,740	-3,223	-1.95	48,591	113,149	87,792	9,755	894	7,133	112	886	6,577
				30.0%	70.0%	54.3%	6.0%	0.6%	4.4%	0.1%	0.5%	4.1%
33	163,990	-973	-0.59	56,162	107,828	59,299	31,304	674	7,395	920	791	7,445
				34.2%	65.8%	36.2%	19.1%	0.4%	4.5%	0.6%	0.5%	4.5%
34	167,908	2,945	1.79	65,324	102,584	84,145	6,100	1,252	4,299	125	847	5,816
				38.9%	61.1%	50.1%	3.6%	0.7%	2.6%	0.1%	0.5%	3.5%
35	167,907	2944	1.78	34,530	133,377	119,529	2274	1096	1,515	201	956	7,806
				20.6%	79.4%	71.2%	1.4%	0.7%	0.9%	0.1%	0.6%	4.6%

Total Population	5,773,714
Mean Deviation:	2,476
Largest Positive Deviation:	4,140
Largest Negative Deviation:	-4,089
Overall Range in Deviation Percentage:	4.99

Source: Colorado Independent Redistricting Commissions Staff.
October 14, 2021

Population Summary Report

Plan: 2021 Final Approved House Plan

District	Population	Target Deviation	Target Deviation (%)	Hispanic	Non-Hispanic	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic American Indian/ Alaskan	Non-Hispanic Asian	Non-Hispanic Hawaiian or Other Pacific	Non-Hispanic some other race	Non-Hispanic two or more minority race
1	87,969	-857	-0.96	42,515	45,454	34,863	2325	652	4,526	76	413	2,599
				48.3%	51.7%	39.6%	2.6%	0.7%	5.1%	0.1%	0.5%	3.0%
2	88,172	-654	-0.74	6,901	81,271	72,427	1,349	200	2,885	46	422	3,942
				7.8%	92.2%	82.1%	1.5%	0.2%	3.3%	0.1%	0.5%	4.5%
3	87,498	-1328	-1.5	16,731	70,767	55,554	6009	504	3,844	136	497	4,223
				19.1%	80.9%	63.5%	6.9%	0.6%	4.4%	0.2%	0.6%	4.8%
4	87,718	-1,108	-1.25	34,936	52,782	44,350	2,444	661	1,861	65	396	3,005
				39.8%	60.2%	50.6%	2.8%	0.8%	2.1%	0.1%	0.5%	3.4%
5	86,960	-1866	-2.1	28,831	58,129	46,798	4282	655	2,610	73	504	3,207
				33.2%	66.8%	53.8%	4.9%	0.8%	3.0%	0.1%	0.6%	3.7%
6	87,264	-1,562	-1.76	11,990	75,274	58,664	8,224	412	3,279	58	436	4,201
				13.7%	86.3%	67.2%	9.4%	0.5%	3.8%	0.1%	0.5%	4.8%
7	90,537	1711	1.93	42,698	47,839	17,787	19456	322	5,473	873	395	3,533
				47.2%	52.8%	19.6%	21.5%	0.4%	6.0%	1.0%	0.4%	3.9%
8	90,282	1,456	1.64	16,248	74,034	52,079	13,871	473	2,317	59	500	4,735
				18.0%	82.0%	57.7%	15.4%	0.5%	2.6%	0.1%	0.6%	5.2%
9	90,478	1652	1.86	15,054	75,424	54,961	10951	398	3,865	85	590	4,574
				16.6%	83.4%	60.7%	12.1%	0.4%	4.3%	0.1%	0.7%	5.1%
10	90,284	1,458	1.64	10,511	79,773	67,617	1,197	377	6,089	120	511	3,862
				11.6%	88.4%	74.9%	1.3%	0.4%	6.7%	0.1%	0.6%	4.3%
11	88,336	-490	-0.55	22,746	65,590	57,165	812	414	3,003	59	477	3,660
				25.7%	74.3%	64.7%	0.9%	0.5%	3.4%	0.1%	0.5%	4.1%
12	86,485	-2,341	-2.64	10,037	76,448	66,145	756	203	4,687	42	489	4,126
				11.6%	88.4%	76.5%	0.9%	0.2%	5.4%	0.0%	0.6%	4.8%
13	90,259	1433	1.61	12,324	77,935	72,296	524	382	779	67	457	3,430
				13.7%	86.3%	80.1%	0.6%	0.4%	0.9%	0.1%	0.5%	3.8%
14	90,615	1,789	2.01	9,497	81,118	67,674	2,546	293	4,611	130	582	5,282
				10.5%	89.5%	74.7%	2.8%	0.3%	5.1%	0.1%	0.6%	5.8%
15	90,074	1248	1.4	17,225	72,849	55,065	5995	471	3,648	444	646	6,580
				19.1%	80.9%	61.1%	6.7%	0.5%	4.1%	0.5%	0.7%	7.3%
16	88,844	18	0.02	17,300	71,544	59,135	4,402	598	1,506	166	532	5,205
				19.5%	80.5%	66.6%	5.0%	0.7%	1.7%	0.2%	0.6%	5.9%
17	88,286	-540	-0.61	30,540	57,746	37,376	10570	660	2,496	531	533	5,580
				34.6%	65.4%	42.3%	12.0%	0.7%	2.8%	0.6%	0.6%	6.3%
18	87,518	-1,308	-1.47	11,319	76,199	64,956	2,991	445	2,362	188	456	4,801
				12.9%	87.1%	74.2%	3.4%	0.5%	2.7%	0.2%	0.5%	5.5%
19	89,254	428	0.48	15,095	74,159	65,495	644	243	3,371	71	385	3,950
				16.9%	83.1%	73.4%	0.7%	0.3%	3.8%	0.1%	0.4%	4.4%
20	88,807	-19	-0.02	8,863	79,944	69,399	2,239	334	2,100	138	635	5,099
				10.0%	90.0%	78.1%	2.5%	0.4%	2.4%	0.2%	0.7%	5.7%
21	88,817	-9	-0.01	19,624	69,193	49,550	8516	534	2,326	921	635	6,711
				22.1%	77.9%	55.8%	9.6%	0.6%	2.6%	1.0%	0.7%	7.6%
22	89,747	921	1.04	13,590	76,157	62,897	3,853	426	2,468	215	459	5,839
				15.1%	84.9%	70.1%	4.3%	0.5%	2.7%	0.2%	0.5%	6.5%
23	87,524	-1302	-1.47	15,272	72,252	63,694	1200	528	2,263	104	463	4,000
				17.4%	82.6%	72.8%	1.4%	0.6%	2.6%	0.1%	0.5%	4.6%
24	90,850	2,024	2.28	14,243	76,607	68,807	860	445	2,081	55	385	3,974
				15.7%	84.3%	75.7%	0.9%	0.5%	2.3%	0.1%	0.4%	4.4%

District	Population	Target Deviation	Target Deviation (%)	Hispanic	Non-Hispanic	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic American Indian/ Alaskan	Non-Hispanic Asian	Non-Hispanic Hawaiian or Other Pacific	Non-Hispanic some other race	Non-Hispanic two or more minority race
25	88,920	94	0.11	6,587	82,333	75,581	410	272	1,550	46	424	4,050
				7.4%	92.6%	85.0%	0.5%	0.3%	1.7%	0.1%	0.5%	4.6%
26	90,725	1,899	2.14	18,250	72,475	67,616	532	312	845	55	330	2,785
				20.1%	79.9%	74.5%	0.6%	0.3%	0.9%	0.1%	0.4%	3.1%
27	87,902	-924	-1.04	9,916	77,986	70,137	783	294	2,591	33	349	3,799
				11.3%	88.7%	79.8%	0.9%	0.3%	2.9%	0.0%	0.4%	4.3%
28	86,975	-1,851	-2.08	12,244	74,731	65,368	1,001	439	3,651	59	435	3,778
				14.1%	85.9%	75.2%	1.2%	0.5%	4.2%	0.1%	0.5%	4.3%
29	88,580	-246	-0.28	15,111	73,469	62,318	1254	394	4,862	61	381	4,199
				17.1%	82.9%	70.4%	1.4%	0.4%	5.5%	0.1%	0.4%	4.7%
30	86,793	-2,033	-2.29	26,242	60,551	50,884	1,790	756	3,170	141	491	3,319
				30.2%	69.8%	58.6%	2.1%	0.9%	3.7%	0.2%	0.6%	3.8%
31	87,096	-1730	-1.95	41,088	46,008	36,064	1786	536	4,190	77	400	2,955
				47.2%	52.8%	41.4%	2.1%	0.6%	4.8%	0.1%	0.5%	3.4%
32	88,894	68	0.08	46,943	41,951	32,999	2,860	491	2,234	99	389	2,879
				52.8%	47.2%	37.1%	3.2%	0.6%	2.5%	0.1%	0.4%	3.2%
33	87,638	-1188	-1.34	12,276	75,362	63,192	1123	238	6,113	83	431	4,182
				14.0%	86.0%	72.1%	1.3%	0.3%	7.0%	0.1%	0.5%	4.8%
34	87,400	-1,426	-1.61	25,103	62,297	50,877	1,542	500	4,813	107	377	4,081
				28.7%	71.3%	58.2%	1.8%	0.6%	5.5%	0.1%	0.4%	4.7%
35	89,889	1063	1.2	46,742	43,147	34,299	1360	606	3,647	96	396	2,743
				52.0%	48.0%	38.2%	1.5%	0.7%	4.1%	0.1%	0.4%	3.1%
36	87,839	-987	-1.11	36,076	51,763	28,179	13,084	457	5,490	388	455	3,710
				41.1%	58.9%	32.1%	14.9%	0.5%	6.3%	0.4%	0.5%	4.2%
37	87,811	-1015	-1.14	7,889	79,922	64,119	2708	205	8,233	68	458	4,131
				9.0%	91.0%	73.0%	3.1%	0.2%	9.4%	0.1%	0.5%	4.7%
38	88,827	1	0	10,152	78,675	70,843	1,029	325	2,067	61	409	3,941
				11.4%	88.6%	79.8%	1.2%	0.4%	2.3%	0.1%	0.5%	4.4%
39	87,168	-1658	-1.87	7,149	80,019	68,427	1106	265	5,710	58	352	4,101
				8.2%	91.8%	78.5%	1.3%	0.3%	6.6%	0.1%	0.4%	4.7%
40	90,235	1,409	1.59	17,724	72,511	48,060	10,864	355	6,850	179	634	5,569
				19.6%	80.4%	53.3%	12.0%	0.4%	7.6%	0.2%	0.7%	6.2%
41	89,053	227	0.26	21,852	67,201	40,403	15925	358	5,205	281	490	4,539
				24.5%	75.5%	45.4%	17.9%	0.4%	5.8%	0.3%	0.6%	5.1%
42	90,864	2,038	2.29	39,721	51,143	23,063	18,399	448	4,397	691	546	3,599
				43.7%	56.3%	25.4%	20.2%	0.5%	4.8%	0.8%	0.6%	4.0%
43	88,172	-654	-0.74	7,994	80,178	68,578	972	216	5,669	54	401	4,288
				9.1%	90.9%	77.8%	1.1%	0.2%	6.4%	0.1%	0.5%	4.9%
44	90,502	1,676	1.89	9,071	81,431	68,210	1,531	229	6,414	87	369	4,591
				10.0%	90.0%	75.4%	1.7%	0.3%	7.1%	0.1%	0.4%	5.1%
45	89,291	465	0.52	9,687	79,604	71,249	1137	253	1,863	91	421	4,590
				10.8%	89.2%	79.8%	1.3%	0.3%	2.1%	0.1%	0.5%	5.1%
46	90,688	1,862	2.1	36,164	54,524	47,635	1,664	628	952	80	540	3,025
				39.9%	60.1%	52.5%	1.8%	0.7%	1.0%	0.1%	0.6%	3.3%
47	88,092	-734	-0.83	29,232	58,860	52,940	900	759	589	64	477	3,131
				33.2%	66.8%	60.1%	1.0%	0.9%	0.7%	0.1%	0.5%	3.6%
48	88,861	35	0.04	34,906	53,955	47,850	873	427	1,228	97	431	3,049
				39.3%	60.7%	53.8%	1.0%	0.5%	1.4%	0.1%	0.5%	3.4%
49	86,540	-2286	-2.57	5,465	81,075	74,468	395	261	1,638	38	450	3,825
				6.3%	93.7%	86.1%	0.5%	0.3%	1.9%	0.0%	0.5%	4.4%
50	87,914	-912	-1.03	43,383	44,531	36,740	2,557	464	1,827	128	320	2,495
				49.3%	50.7%	41.8%	2.9%	0.5%	2.1%	0.1%	0.4%	2.8%
51	87,862	-964	-1.09	11,366	76,496	70,111	647	414	967	67	459	3,831
				12.9%	87.1%	79.8%	0.7%	0.5%	1.1%	0.1%	0.5%	4.4%
52	90,787	1,961	2.21	10,420	80,367	70,799	1,001	375	3,407	52	435	4,298
				11.5%	88.5%	78.0%	1.1%	0.4%	3.8%	0.1%	0.5%	4.7%

District	Population	Target Deviation	Target Deviation (%)	Hispanic	Non-Hispanic	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic American Indian/ Alaskan	Non-Hispanic Asian	Non-Hispanic Hawaiian or Other Pacific	Non-Hispanic some other race	Non-Hispanic two or more minority race
53	90,449	1623	1.83	13,138	77,311	67,822	1375	423	2,755	91	465	4,380
				14.5%	85.5%	75.0%	1.5%	0.5%	3.0%	0.1%	0.5%	4.8%
54	90,836	2,010	2.26	13,854	76,982	70,900	443	509	642	75	464	3,949
				15.3%	84.7%	78.1%	0.5%	0.6%	0.7%	0.1%	0.5%	4.3%
55	87,599	-1227	-1.38	13,052	74,547	67,558	661	536	1,172	120	545	3,955
				14.9%	85.1%	77.1%	0.8%	0.6%	1.3%	0.1%	0.6%	4.5%
56	88,074	-752	-0.85	11,528	76,546	68,944	1,062	447	1,196	106	411	4,380
				13.1%	86.9%	78.3%	1.2%	0.5%	1.4%	0.1%	0.5%	5.0%
57	88,729	-97	-0.11	25,015	63,714	58,767	375	356	785	52	429	2,950
				28.2%	71.8%	66.2%	0.4%	0.4%	0.9%	0.1%	0.5%	3.3%
58	89,790	964	1.09	13,212	76,578	71,051	327	582	592	43	469	3,514
				14.7%	85.3%	79.1%	0.4%	0.6%	0.7%	0.0%	0.5%	3.9%
59	90,452	1626	1.83	11,911	78,541	66,910	288	6066	593	62	538	4,084
				13.2%	86.8%	74.0%	0.3%	6.7%	0.7%	0.1%	0.6%	4.5%
60	87,230	-1,596	-1.8	9,177	78,053	70,538	1,371	780	677	50	474	4,163
				10.5%	89.5%	80.9%	1.6%	0.9%	0.8%	0.1%	0.5%	4.8%
61	90,265	1439	1.62	11,060	79,205	57,812	6348	253	8,864	107	415	5,406
				12.3%	87.7%	64.0%	7.0%	0.3%	9.8%	0.1%	0.5%	6.0%
62	89,177	351	0.4	45,758	43,419	37,606	1,202	958	497	62	469	2,625
				51.3%	48.7%	42.2%	1.3%	1.1%	0.6%	0.1%	0.5%	2.9%
63	87,186	-1640	-1.85	21,327	65,859	60,925	1376	327	379	53	254	2,545
				24.5%	75.5%	69.9%	1.6%	0.4%	0.4%	0.1%	0.3%	2.9%
64	90,012	1,186	1.34	19,910	70,102	63,984	714	356	1,177	60	401	3,410
				22.1%	77.9%	71.1%	0.8%	0.4%	1.3%	0.1%	0.4%	3.8%
65	90,019	1193	1.34	11,605	78,414	72,083	519	268	1,269	61	378	3,836
				12.9%	87.1%	80.1%	0.6%	0.3%	1.4%	0.1%	0.4%	4.3%

Total Population	5,773,714
Mean Target Population :	88,826
Mean Deviation:	1,148
Largest Positive Deviation:	2,038
Largest Negative Deviation:	-2,341
Overall Range in Deviation Percentage:	4.93

Source: Colorado Independent Redistricting Commissions Staff.
October 14, 2021

DATE FILED: October 15, 2021 4:08 PM

In re Colorado Independent Legislative Redistricting Commission

Exhibit 8

Commission Policy No. 9

Colorado Independent Legislative Redistricting Commission

Policy #9

Voting Rights Act Compliance

Draft date	October 5, 2021
Approval date	October 6, 2021
Revision date(s)	
Constitutional authority for this policy	Section 48.1(1)(b)
Requires section 48.2(3) supermajority approval?	☐ Yes ☑ No

The Colorado Constitution requires the Colorado Independent Legislative Redistricting Commission (commission) to comply with the Voting Rights Act (VRA) in creating legislative redistricting plans.[1] This policy outlines how the commission's nonpartisan redistricting staff (staff) and the commission's outside counsel will review staff plans, amendments, and additional plans for compliance with the VRA.

Compliance with the VRA

Among other things, the VRA prohibits the drawing of districts that dilute the voting power of members of a racial or language minority group. The Supreme Court established the analysis that is applied to determine if such dilution occurs in *Thornburg v. Gingles*, 478 U.S. 30 (1968). As explained by the U.S. Department of Justice:

> *Analysis begins by considering whether three Gingles preconditions exist. First, the minority group must be sufficiently large and geographically compact to constitute a majority of the voting-age population in a single-member district. Second, the minority group must be politically cohesive. And third, the majority must vote sufficiently as a bloc to enable it — in the absence of special circumstances, such as the minority candidate running unopposed — usually to defeat the minority group's preferred candidate.*
>
> *If all three Gingles preconditions are present, consideration proceeds to an analysis of the totality of circumstances in a jurisdiction.* [2]

The commission analyzed the first prong of this test: whether there were minority groups large enough and compact enough to constitute a majority of the voting age population of a district. The commission's outside counsel retained a VRA expert to assist in the determination of whether the second and third prongs of this test could be satisfied. In other words, whether voting was racially polarized, that is whether minority voters vote cohesively for one candidate and the white majority voters vote cohesively for a different candidate, and whether minority voters were unable to elect their preferred candidates.

---

[1] The Colorado Constitution cites to the "'Federal Voting Rights Act of 1965' at 52 U.S.C. sec 50301, as amended." The citation in the Colorado Constitution is incorrect. Section 2 of the Voting Rights Act is now 52 U.S.C. 10301, which can be accessed through the following link: https://bit.ly/3f52VWm.

[2] Guidance under Section 2 of the Voting Rights Act, 52 U.S.C. 10301, for redistricting and methods of electing government bodies, U.S. Department of Justice, September 1, 2021.

VRA Expert Analysis

The VRA expert retained by the commission's outside counsel analyzed past elections to identify minority preferred candidates, determine whether there was racially polarized voting, and provide an estimate of the percentage of the minority voting age population that would be necessary in a district to elect the minority preferred candidate.[3]

The VRA expert was not able to identify a suitable recent statewide race that would allow her to analyze the entire state at once. Therefore, the expert analyzed State House and State Senate races from the 2018 and 2020 election cycles that occurred within areas of the state that were identified as potential areas of concern for VRA compliance by the members of the commission.

After the VRA expert conducted her analysis of past elections, staff presented her analysis in two different formats that would assist in applying the analysis in the drafting of staff plans, amendments, and additional plans.

Geographic Overlap

The first format the staff shall use to apply the VRA expert's analysis is a measure of geographic overlap.

Due to population growth across Colorado, the proposed districts in staff plans, amendments, and additional plans cannot align with the existing State House and State Senate districts. Therefore, it is not immediately clear how the existing districts that held elections analyzed by the VRA expert relate to proposed districts. To assist in determining this relationship, staff shall measure the geographic area of certain existing districts contained in proposed districts. This is a measure of geographic overlap.

Along with the measure of geographic overlap, staff shall compare the percentage of minority voting age population in the proposed districts with the percentage of minority voting age population needed for a minority candidate of choice to be elected.[4]

This analysis allows two primary determinations. First, how relevant those elections analyzed by the VRA expert were to the proposed districts: an election in an existing district that does not share any geographic area with a proposed district has limited relevance for that proposed district. Second, whether a proposed district likely has enough of a minority voting age population to allow the minority preferred candidate to be elected. In a proposed district that has a significant geographic overlap with an existing district, if the minority voting age population in the proposed district either meets or exceeds the minority voting age population the VRA expert determined would be necessary for a minority preferred candidate to be elected in past elections, it would be reasonably likely that the minority preferred candidate could be elected in that proposed district.

If a minority preferred candidate could be elected in a proposed district, it would be difficult to prove under the *Gingles* analysis that the proposed district violates the VRA and dilutes the voting power of members of a racial or language minority group. Such an argument would not be able to demonstrate that the majority voted in a way that usually defeated the minority's preferred candidate.

---

[3] A more comprehensive explanation of the methods used by the VRA expert can be found here: https://www.ncsl.org/documents/legismgt/vote_dilusion.pdf.

[4] The percentage of minority voting age population needed for a minority candidate of choice to be elected was determined by the VRA expert in those races she analyzed that had racially polarized voting and a numerically adequate or significant number of votes cast by minority voters.

Voter Overlap

As noted above, staff shall consider the VRA expert's analysis in two different formats that would assist in the drafting of staff plans, amendments, and additional plans. The second of these formats is a measure of voter overlap.

Although the geographic overlap of existing districts and proposed districts allows an application of the VRA expert's analysis to proposed districts, there are two principle limitations to this approach. First, geographic overlap between districts does not necessarily mean that those districts share a large number of voters. Put differently, existing and proposed districts could share large amounts of sparsely populated land while not having overlapping population centers and thus have significant geographic overlap while not having many overlapping voters. This is a problem because the VRA is concerned with voters and not land. Secondly, some existing districts share significant geographic area with multiple proposed districts. These existing districts therefore have limited geographic overlap with any particular proposed district. The geographic analysis based on these existing districts would be of limited use.

To address these limitations, staff shall also analyze the voter, rather than just geographic, overlap between existing and proposed districts. Staff shall identify the approximate location of the voters who cast votes in elections analyzed by the VRA expert. This allows staff to determine the proposed districts that would contain the voters who cast votes in such elections and how many such voters exist in a proposed district. As an example, if a proposed district covered three existing districts of equal size, and two of the existing districts had held an election with a minority preferred candidate, two thirds of the votes cast in the proposed district would have been cast in an election with a minority preferred candidate. Next, staff shall use the votes cast for minority preferred candidates in areas covered by proposed districts to determine whether a minority preferred candidate would have won an election. In other words, staff shall determine whether the number of votes cast for minority preferred candidates in an area covered by a proposed district exceed the number of votes cast for the alternative candidates.

This voter overlap analysis allows for both a determination of whether a minority preferred candidate would be reasonably likely to be elected in the proposed district and how relevant this prediction was based on how many votes in a proposed district had been cast in an election with a minority preferred candidate. Again, if a minority preferred candidate could be elected in a proposed district, it would be difficult to prove under the *Gingles* analysis that the proposed district violates the VRA and dilutes the voting power of members of a racial or language minority group.

Comparison of Voting Age Populations

Finally, the staff shall compare the voting age populations of the proposed districts to the voting age population in existing districts. This assists in determining whether current minority voter representation was diluted by a proposed district in a staff plan, amendment, or additional plan.

Application

Attached to this memo is the application of these policies to the third House and Senate Staff Plans.

Attachments A, B, C, D, and E: Application of Voting Rights Act Compliance Policy to the Third Staff House Plan

The table in Attachment A shows the application of the "Geographic Overlap" analysis to the third Staff House Plan. This table shows that it is unlikely there is racially polarized voting in proposed House Districts 5, 7, 23, and 32. Also, as can be seen by comparing the "Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD [X]" column to the "Hispanic Voting Age Population Percentage" column, proposed House Districts 17 and 62 exceed the minority voting age population numbers that must be met for the minority candidate of choice to be elected. This is not the case with proposed House Districts 56, 46, and 47. This can be explained for proposed House District 56 because although current House District 30 shares a large amount of geographic area with House District 56, it does not share a large number of voters. Similarly proposed House Districts 46 and 47 cover a large amount of the geographic area of current House Districts 46 and 47, but do not contain a large number of the voters in current House Districts 46 and 47.

The tables in Attachment B and Attachment C show the application of the "Voter Overlap" analysis to the third Staff House Plan based on 2018 and 2020 State House races. Looking at the "Share of Votes Vast in Elections with Minority Preferred Candidates in the Proposed House District" column, only House Districts 5, 7, 17, 28, 32, 40, 42, 47, 61, and 62 had more than fifty percent of their votes cast in elections with minority preferred candidates. Among these House Districts, looking at the "Share of Votes Received by Minority Candidates in Elections in the Proposed House District" column, minority preferred candidates could reasonably be predicted to be elected in House Districts 5, 7, 17, 28, 32, 40, 42, 61, and 62, but not in House District 47. This can be explained by the fact that proposed House District 47 no longer includes parts of Pueblo, instead proposed House Districts 61 and 62 contain a large amount of the Hispanic voting age population (both are either have a majority minority voting age population or are close to it) in the area and both are likely to elect a minority preferred candidate.

Finally, the Voting Age Population tables for the current districts in Attachment D shows that there are currently seven majority minority voting age population House Districts, including one majority Hispanic voting age population district. The Voting Age Population table for the third House Staff Plan in Attachment E shows that there are ten majority minority House Districts in the third Staff House Plan.

Attachments F, G, H, and I: Application of Voting Rights Act Compliance Policy to the Third Staff Senate Plan

The table in Attachment F shows first attached table shows the application of the "Geographic Overlap" analysis to the third Staff Senate Plan. This table shows that it is unlikely there is racially polarized voting in proposed Senate District 3. Also, as can be seen by comparing the "Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in SD [X]" column to the "Hispanic Voting Age Population Percentage" column, proposed Senate District 21 exceeds the minority voting age population numbers that must be met for the minority candidate of choice to be elected. This is not the case with proposed Senate Districts 23, 24, 25, and 35. This can be explained for proposed Senate District 23 because in order to have sufficiently high Hispanic voting age population this proposed district would need to gain approximately thirty-two percent Hispanic voting age population, which suggests that the first *Gingles* factor could not be satisfied in this district. Proposed Senate Districts 24 and 25 each only cover approximately half of the geographic area of current Senate District 24. A large number of the voters in proposed Senate Districts 24 and 25 are majority voters who are likely to vote for the minority candidate of choice. Thus, the minority candidate of choice is reasonably likely to be elected in proposed Senate Districts 24 and 25. Finally, although current Senate District 35 shares a relatively large amount of area with proposed Senate District 35, it does not share a large number of voters.

The table in Attachment G shows the application of the "Voter Overlap" analysis to the third Staff Senate Plan based on 2018 and 2020 House Senate races. Looking at the "Share of Votes Cast in Elections with Minority Preferred Candidates in the Proposed Senate District" column, only Senate Districts 3, 21, 23, 24, and 25 had more than fifty percent of their votes cast in elections with minority preferred candidates. Among these Senate Districts, looking at the "Share of Votes Received by Minority Candidates in Elections in the Proposed Senate District" column, minority preferred candidates could reasonably be predicted to be elected in Senate Districts 3, 21, 24, and 25, but not in the Senate District 23. Senate District 23 was discussed above.

Finally, the Voting Age Population tables for the current districts in Attachment H shows there are currently four majority minority voting age population Senate Districts. The Voting Age Population table for the third Senate Staff Plan in Attachment I shows that there are four majority minority Senate Districts in the third Staff Senate Plan.

Attachment A

Proposed House District #	Hispanic Voting Age Population Percentage	Hispanic Citizen Voting Age Population Percentage	% of Geographic Area of Current HD 5 in Proposed District	Percent Hispanic VAP must exceed for Hispanic preferred candidate to win in HD 5 in 2018	Percent Hispanic VAP must exceed for Hispanic preferred candidate to win in HD 5 in 2020	% of Geographic Area of Current HD 7 in Proposed District	Percent Hispanic VAP must exceed for Hispanic preferred candidate to win in HD 7	% of Geographic Area of Current HD 17 in Proposed District	Percent minority VAP must exceed for Hispanic preferred candidate to win in HD 17 in 2018	Percent minority VAP must exceed for Hispanic preferred candidate to win in HD 17 in 2020	% of Geographic Area of Current HD 28 in Proposed District	Percent Hispanic VAP must exceed for Hispanic preferred candidate to win in HD 28	% of Geographic Area of Current HD 30 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 30	% of Geographic Area of Current HD 32 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 32	% of Geographic Area of Current HD 46 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 46 in 2018	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 46 in 2020	% of Geographic Area of Current HD 47 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 47 in 2018	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 47 in 2020	% of Geographic Area of Current HD 62 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 62 in 2018	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 62 in 2020
5	28.63%	29.32%	84.42%	NOT POLARIZED	NOT POLARIZED		NOT POLARIZED		63.20%	46.00%		NOT POLARIZED		30.70%		NOT POLARIZED			43.80%	51.60%		49.60%	5860.00%		4230.00%	5160.00%
7	44.19%	33.80%		NOT POLARIZED	NOT POLARIZED	88.02%	NOT POLARIZED		63.20%	46.00%		NOT POLARIZED		30.70%		NOT POLARIZED			43.80%	51.60%		49.60%	5860.00%		4230.00%	5160.00%
17	*52.97%	24.22%		NOT POLARIZED	NOT POLARIZED		NOT POLARIZED	89.68%	63.20%	46.00%		NOT POLARIZED		30.70%		NOT POLARIZED			43.80%	51.60%		49.60%	5860.00%		4230.00%	5160.00%
23	13.49%	12.79%		NOT POLARIZED	NOT POLARIZED		NOT POLARIZED		63.20%	46.00%	52.59%	NOT POLARIZED		30.70%		NOT POLARIZED			43.80%	51.60%		49.60%	5860.00%		4230.00%	5160.00%
32	48.90%	41.06%		NOT POLARIZED	NOT POLARIZED		NOT POLARIZED		63.20%	46.00%		NOT POLARIZED		30.70%	89.45%	NOT POLARIZED			43.80%	51.60%		49.60%	58.60%		42.30%	41.90%
46	10.02%	11.57%		NOT POLARIZED	NOT POLARIZED		NOT POLARIZED		63.20%	46.00%		NOT POLARIZED		30.70%		NOT POLARIZED	56.98%		43.80%	51.60%		49.60%	58.60%		42.30%	41.90%
47	29.61%	28.89%		NOT POLARIZED	NOT POLARIZED		NOT POLARIZED		63.20%	46.00%		NOT POLARIZED		30.70%		NOT POLARIZED			43.80%	51.60%	82.81%	49.60%	58.60%		42.30%	41.90%
58	12.66%	8.63%		NOT POLARIZED	NOT POLARIZED		NOT POLARIZED		63.20%	46.00%		NOT POLARIZED	77.63%	30.70%		NOT POLARIZED			43.80%	51.60%		49.60%	58.60%		42.30%	41.90%
62	46.56%	46.27%		NOT POLARIZED	NOT POLARIZED		NOT POLARIZED		63.20%	46.00%		NOT POLARIZED		30.70%		NOT POLARIZED			43.80%	51.60%		49.60%	58.60%	99.84%	42.30%	41.90%

*total VAP excluding Nonhispanic Whites

Attachment B

Proposed House District	Share of Votes Received by Minority Candidates in Elections in the Proposed House District	Share of Votes Cast in Elections with Minority Preferred Candidates in the Proposed House District
1	74.0%	9.8%
3	63.8%	1.4%
4	76.6%	4.3%
5	79.4%	85.9%
6	75.0%	1.5%
7	83.5%	100.0%
8	84.4%	29.8%
17	59.2%	85.4%
18	54.2%	4.2%
22	50.4%	4.0%
23	56.5%	34.2%
28	61.0%	57.2%
30	68.1%	0.0%
37	64.0%	0.7%
40	62.8%	87.8%
41	71.6%	10.6%
42	73.3%	83.6%
46	37.0%	23.7%
47	44.6%	55.5%
61	61.7%	100.0%
62	60.4%	100.0%

Attachment C

Proposed House District	Share of Votes Received by Minority Candidates in Elections in the Proposed House District	Share of Votes Cast in Elections with Minority Preferred Candidates in the Proposed House District
1	72.5%	10.0%
3	61.5%	1.9%
4	78.1%	4.7%
5	79.6%	85.9%
6	76.4%	1.8%
8	82.2%	3.7%
17	57.3%	85.6%
18	50.2%	4.8%
22	51.1%	4.2%
23	56.1%	34.9%
24	63.1%	3.8%
28	59.1%	58.5%
31	54.0%	24.2%
32	56.0%	95.1%
34	48.0%	9.5%
35	67.9%	31.3%
36	72.3%	35.9%
37	61.6%	1.1%
40	58.9%	87.0%
41	62.0%	4.1%
46	41.2%	18.4%
47	71.4%	31.8%
48	32.8%	0.6%
56	42.0%	5.2%
61	71.0%	80.7%
62	60.2%	100.0%

Attachment D

District No.	Hispanic VAP	Non-Hispanic Black VAP	Minority VAP
1	43.51%	1.59%	51.89%
2	9.42%	2.94%	17.39%
3	13.19%	2.01%	21.02%
4	46.43%	1.95%	52.21%
5	44.39%	4.85%	54.56%
6	9.41%	9.88%	25.33%
7	36.43%	28.30%	70.85%
8	15.69%	20.16%	40.28%
9	13.41%	8.92%	29.26%
10	8.26%	1.24%	16.89%
11	15.53%	0.76%	20.57%
12	15.08%	0.88%	20.91%
13	4.37%	0.64%	8.45%
14	8.19%	3.81%	18.98%
15	12.22%	6.79%	26.08%
16	11.72%	4.45%	20.93%
17	28.06%	14.65%	49.66%
18	11.69%	4.26%	20.27%
19	5.77%	1.71%	11.20%
20	8.65%	3.47%	17.90%
21	14.86%	10.21%	31.93%
22	7.98%	0.77%	12.66%
23	15.58%	1.48%	21.34%
24	13.06%	1.06%	18.33%
25	4.50%	0.48%	7.32%
26	19.30%	0.56%	21.79%
27	8.64%	0.71%	12.37%
28	20.54%	1.59%	27.92%
29	13.80%	1.15%	20.50%
30	35.50%	9.26%	50.90%
31	30.01%	1.75%	37.15%
32	50.88%	1.86%	56.77%
33	8.64%	1.01%	18.26%
34	29.00%	1.93%	36.99%
35	25.90%	1.49%	34.25%
36	18.74%	15.90%	43.96%
37	7.45%	5.31%	22.08%
38	5.86%	1.09%	10.16%
39	4.82%	0.73%	9.96%
40	13.30%	11.51%	33.69%
41	16.00%	15.55%	39.32%
42	36.82%	19.80%	63.47%
43	6.49%	1.28%	14.04%
44	7.04%	1.75%	14.79%
45	6.87%	1.18%	11.48%
46	35.78%	1.76%	39.75%
47	30.35%	1.77%	35.01%
48	17.85%	0.50%	20.65%
49	6.63%	0.42%	9.18%
50	38.22%	1.85%	43.10%
51	8.86%	0.51%	11.72%
52	10.59%	0.93%	15.88%
53	8.34%	1.48%	14.71%
54	11.90%	0.64%	14.90%
55	11.26%	0.74%	14.73%
56	19.98%	2.25%	26.77%
57	20.18%	0.53%	22.91%
58	12.37%	0.30%	18.00%
59	10.35%	0.45%	16.24%
60	9.66%	3.26%	15.69%
61	10.78%	0.57%	13.47%
62	46.38%	0.78%	49.72%
63	19.15%	0.69%	23.64%
64	19.87%	2.81%	24.99%
65	19.28%	2.73%	23.67%

Attachment E

District No.	Hispanic VAP	Non-Hispanic Black VAP	Minority VAP
1	43.39%	2.77%	55.19%
2	7.63%	2.08%	17.02%
3	16.66%	7.00%	32.84%
4	35.36%	2.78%	44.45%
5	28.63%	4.85%	41.05%
6	11.26%	6.99%	26.36%
7	44.19%	23.04%	77.92%
8	16.67%	16.29%	40.25%
9	16.08%	14.03%	38.92%
10	9.03%	1.70%	21.87%
11	7.31%	0.99%	16.46%
12	10.96%	1.23%	20.96%
13	22.10%	1.27%	30.36%
14	8.04%	2.90%	20.16%
15	13.48%	6.04%	29.26%
16	16.16%	6.39%	31.34%
17	30.57%	13.13%	52.97%
18	14.75%	5.14%	27.29%
19	11.61%	4.50%	25.36%
20	10.36%	3.96%	22.57%
21	19.72%	11.27%	41.04%
22	10.69%	1.17%	19.42%
23	13.49%	1.91%	23.84%
24	15.10%	1.42%	23.20%
25	5.30%	0.74%	12.26%
26	17.71%	0.77%	22.78%
27	12.36%	1.10%	20.07%
28	26.14%	2.40%	36.75%
29	15.11%	1.86%	26.95%
30	10.88%	8.13%	33.98%
31	42.55%	2.39%	53.71%
32	48.90%	3.57%	58.89%
33	11.07%	1.65%	25.02%
34	25.71%	2.17%	37.94%
35	47.19%	1.86%	57.05%
36	35.16%	14.23%	60.67%
37	8.00%	3.60%	24.38%
38	9.86%	1.55%	17.86%
39	7.21%	1.74%	19.21%
40	17.35%	12.56%	42.69%
41	21.28%	17.63%	49.50%
42	39.39%	21.06%	69.99%
43	8.01%	1.54%	19.96%
44	9.01%	2.31%	22.49%
45	9.22%	1.74%	17.65%
46	10.02%	2.75%	18.83%
47	29.61%	2.13%	36.94%
48	34.98%	1.29%	41.60%
49	8.73%	0.69%	15.01%
50	44.08%	3.16%	52.75%
51	10.69%	1.00%	17.28%
52	9.99%	1.56%	19.64%
53	12.69%	2.07%	22.67%
54	12.78%	0.75%	19.14%
55	12.93%	0.99%	20.32%
56	12.66%	2.65%	21.27%
57	24.05%	0.71%	29.48%
58	12.38%	0.55%	18.13%
59	11.28%	0.52%	22.63%
60	11.80%	1.02%	17.85%
61	38.38%	2.50%	46.13%
62	46.56%	1.55%	52.89%
63	21.41%	2.18%	27.29%
64	17.49%	0.90%	25.07%
65	17.69%	1.08%	23.79%

Attachment F

Proposed Senate District #	Hispanic Voting Age Population Percentage	Hispanic Citizen Voting Age Population Percentage	% of Geographic Area of Current SD 3 in Proposed District	Percent Hispanic VAP must exceed for Hipsanic preferred candidate to win in SD 3	% of Geographic Area of Current SD 21 in Proposed District	Percent Hispanic VAP must exceed for Hispanic preferred candidate to win in SD 21	% of Geographic Area of Current SD 23 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to Win in SD 23	% of Geographic Area of Current SD 24 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to Win in SD 24	% of Geographic Area of Current SD 35 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to Win in SD 35
3	37.98%	38.77%	100.00%	NOT POLARIZED		9.00%		45.20%		37.40%		60.40%
21	45.55%	38.39%		NOT POLARIZED	94.50%	9.00%		45.20%		37.40%		60.40%
23	13.07%	10.91%		NOT POLARIZED		9.00%	70.10%	45.20%		37.40%		60.40%
24	34.40%	26.33%		NOT POLARIZED		9.00%		45.20%	52.50%	37.40%		60.40%
25	18.57%	15.47%		NOT POLARIZED		9.00%		45.20%	47.50%	37.40%		60.40%
35	18.70%	17.99%		NOT POLARIZED		9.00%		45.20%		37.40%	59.40%	60.40%

Attachment G

Proposed Senate District	Share of Votes Received by Minority Candidates in Elections in the Proposed Senate District	Share of Votes Cast in Elections with Minority Preferred Candidates in the Proposed Senate District
3	66.77%	100.00%
19	66.61%	2.00%
21	62.85%	78.48%
25	57.28%	100.00%
24	52.27%	57.09%
14	49.32%	2.80%
6	46.41%	29.87%
17	46.00%	0.78%
23	38.03%	82.16%
35	37.77%	40.52%
13	30.47%	0.09%
4	29.22%	3.52%
1	27.79%	8.65%

Attachment H

District No.	Hispanic VAP	Non-Hispanic Black VAP	Minority VAP
D1	18.71%	1.79%	24.75%
D2	11.27%	4.01%	22.30%
D3	40.20%	2.41%	47.87%
D4	8.61%	1.86%	18.42%
D5	17.03%	0.85%	22.59%
D6	12.55%	0.52%	21.62%
D7	12.77%	0.91%	19.76%
D8	17.12%	0.76%	22.62%
D9	9.01%	3.28%	21.10%
D10	13.90%	5.39%	28.09%
D11	23.65%	9.67%	41.65%
D12	16.15%	7.99%	33.82%
D13	36.36%	2.16%	43.73%
D14	11.22%	1.89%	21.23%
D15	10.14%	0.86%	16.52%
D16	10.14%	1.21%	19.17%
D17	17.32%	1.31%	26.81%
D18	8.17%	1.41%	19.35%
D19	13.99%	1.44%	22.88%
D20	12.38%	1.36%	21.12%
D21	48.41%	2.71%	58.37%
D22	19.82%	2.00%	30.05%
D23	12.77%	1.13%	21.94%
D24	25.17%	2.07%	36.93%
D25	39.10%	5.52%	53.03%
D26	14.23%	7.38%	30.64%
D27	9.12%	4.66%	26.21%
D28	18.63%	13.98%	45.10%
D29	30.05%	16.83%	57.07%
D30	8.02%	1.81%	21.36%
D31	13.13%	9.01%	30.47%
D32	24.63%	2.77%	35.43%
D33	29.19%	19.43%	57.67%
D34	30.84%	4.25%	42.14%
D35	32.34%	1.54%	38.77%

Attachment I

District No.	Hispanic VAP	Non-Hispanic Black VAP	Minority VAP
D1	21.24%	1.64%	27.12%
D2	9.32%	2.04%	19.45%
D3	37.98%	2.20%	45.37%
D4	8.61%	1.91%	16.31%
D5	19.00%	0.64%	24.63%
D6	19.04%	0.65%	28.10%
D7	12.51%	0.88%	19.44%
D8	15.41%	0.78%	20.73%
D9	8.96%	3.33%	21.50%
D10	14.07%	5.73%	28.91%
D11	25.63%	11.20%	46.10%
D12	14.89%	6.96%	30.46%
D13	41.18%	2.41%	49.09%
D14	11.83%	1.85%	21.76%
D15	9.95%	0.98%	16.60%
D16	9.42%	1.41%	17.72%
D17	17.29%	1.29%	26.56%
D18	8.31%	1.41%	20.12%
D19	13.78%	1.38%	22.57%
D20	10.43%	1.18%	19.10%
D21	45.55%	2.57%	54.71%
D22	20.32%	2.15%	30.24%
D23	13.07%	0.83%	20.49%
D24	34.40%	2.30%	45.81%
D25	18.57%	1.88%	31.27%
D26	15.43%	7.63%	33.03%
D27	11.74%	8.08%	34.50%
D28	37.15%	16.66%	64.62%
D29	22.82%	17.72%	51.20%
D30	7.82%	1.77%	21.27%
D31	10.68%	5.84%	24.02%
D32	26.39%	6.36%	41.45%
D33	31.30%	20.40%	60.76%
D34	34.09%	3.54%	44.50%
D35	18.70%	2.19%	26.74%

DATE FILED: October 15, 2021 4:08 PM

In re Colorado Independent Legislative Redistricting Commission

Exhibit 9

Report of Dr. Lisa Handley

Voting Patterns by Race/Ethnicity in Recent State Legislative Elections in Colorado

Dr. Lisa Handley

I. Scope of Project

I was retained by outside legal counsel to the Colorado Independent Legislative Redistricting Commission to carry out a racial bloc voting analysis of recent state legislative elections in select areas of Colorado.[1] I have conducted similar analyses on behalf of the Colorado Reapportionment Commission in 1991, 2001 and 2011.[2] If I concluded voting is racially/ethnically polarized in specific areas of the State, I was to assist in a district-specific, functional analysis to ascertain whether proposed districts would provide minority voters with an opportunity to elect their candidates of choice to legislative office.

II. Professional Experience

I have over thirty-five years of experience as a voting rights and redistricting expert. I have advised scores of jurisdictions and other clients on minority voting rights and redistricting-related issues and have served as an expert in dozens of voting rights cases. My clients have included state and local jurisdictions, independent redistricting commissions, the U.S. Department of Justice, national civil rights organizations, and such international organizations as the United Nations.

I have been actively involved in researching, writing, and teaching on subjects relating to voting rights, including minority representation, electoral system design, and redistricting. I co-authored a book, *Minority Representation and the Quest for Voting Equality* (Cambridge University Press, 1992) and co-edited a volume, *Redistricting in Comparative Perspective*

---

[1] My understanding is that the areas of the State selected for analysis were identified by legal counsel in collaboration with the Commissioners and staff as localities that contained a sufficiently large and geographically concentrated minority population to satisfy the first precondition of *Thornburg v. Gingles*. See footnote 3, below.

[2] My conclusion that voting was racially polarized in 1991 was later confirmed by the Tenth Circuit Court of Appeals in *Sanchez v. State of Colorado (*97 F.3d 1303 (10th Cir. 1996) which, in addition to my analysis, also considered data from subsequent elections. The existence of racially polarized voting, along with other factors, led the *Sanchez* court to conclude that the failure to create a majority minority district in the San Luis Valley constituted a violation of Section 2 of the Voting Rights Act of 1965.

(Oxford University Press, 2008), on these subjects. In addition, my research on these topics has appeared in peer-reviewed journals such as *Journal of Politics*, *Legislative Studies Quarterly*, *American Politics Quarterly*, *Journal of Law and Politics*, and *Law and Policy,* as well as law reviews (e.g., *North Carolina Law Review*) and a number of edited books. I hold a Ph.D. in political science from The George Washington University.

I have been a principal of Frontier International Electoral Consulting since co-founding the company in 1998. Frontier IEC specializes in providing electoral assistance in transitional democracies and post-conflict countries. In addition, I am a Visiting Research Academic at Oxford Brookes University in Oxford, United Kingdom.

III. Analyzing Voting Patterns by Race/Ethnicity

An election is racially polarized if minorities and whites, considered separately, would have elected different candidates – this is referred to as the "separate electorates test" in the seminal Supreme Court decision *Thornburg v. Gingles*, 478 U.S. 30 (1986). An analysis of voting patterns by race serves as the foundation of two of the three elements of the "results test" as outlined in *Gingles*: a racial bloc voting analysis is needed to determine whether the minority group is politically cohesive; and the analysis is required to determine if whites are voting sufficiently as a bloc to usually defeat minority-preferred candidates.[3]

Standard Statistical Techniques The voting patterns of white and minority voters must be estimated using statistical techniques because direct information about how individuals have voted is simply not available. To estimate vote choices by race/ethnicity, I used two standard statistical techniques: ecological regression and ecological inference.[4]

---

[3] The "results test" as interpreted by the Supreme Court in *Thornburg v. Gingles* requires plaintiffs to demonstrate three threshold factors to establish a §2 violation:

- The minority group must be sufficiently large and geographically compact to constitute a majority in a single member district;
- The minority group must be politically cohesive;
- The minority group must be able to demonstrate that the white majority votes sufficiently as a bloc to enable it – in the absence of special circumstances, such as the minority candidate running unopposed – usually to defeat the minority's preferred candidate.

[4] One commonly used check on the estimates derived from ecological regression and ecological inference is to compare these percentages to the actual voting percentages derived from racially/ethnically homogeneous precincts where the race/ethnicity of the voters is known. The general practice is to label a precinct as homogeneous if at least 90 percent of the voting age population or, in the case of Hispanics, 90 percent of the citizen voting age population, is composed of a single race/ethnicity. However, there are

Ecological regression was employed by the plaintiffs' expert in *Thornburg v. Gingles* and has the benefit of the Supreme Court's approval in this as well as many subsequent voting rights cases. The second technique, ecological inference, was developed after the Court decided *Gingles* and was designed, in part, to address the issue of out-of-bounds estimates (estimates that exceed 100 percent or are less than zero percent), which can arise in ecological regression analysis. Ecological inference analysis has been introduced and accepted in numerous district court proceedings.

Ecological regression (ER) is a technique for determining if there is a pattern across election precincts between the percentage minority and the percentage of votes cast for the candidates competing in a given election contest. If there is a strong linear relationship across precincts, this relationship can be used to estimate the percentage of minority and white voters supporting each of the candidates in the election contest being examined.

Ecological inference (EI) was developed by Professor Gary King. Unlike ecological regression, it does not rely on an assumption of linearity. Instead, it incorporates maximum likelihood statistics to produce estimates of voting patterns by race. In addition, it utilizes the method of bounds, which uses more of the information available from the precinct returns than simply their demographic composition and candidate vote percentages.[5] The method of bounds also precludes the estimates from exceeding the possible limits. However, unlike ecological regression, EI does not guarantee that the estimates add to 100 percent of each racial/ethnic group in the elections examined.[6]

---

not a sufficient number of homogeneous Hispanic precincts in Colorado to report homogenous precinct percentages. For further explanation of homogenous precinct analysis and ecological regression see Bernard Grofman, Lisa Handley and Richard Niemi, *Minority Representation and the Quest for Voting Equality* (Cambridge University Press, 1992). See Gary King, *A Solution to the Ecological Inference Problem* (Princeton University Press, 1997) for a more detailed explanation of ecological inference.

[5] The following is an example of how the method of bounds works: if a given precinct has 100 voters, of which 75 are Hispanic and 25 are white, and the Hispanic candidate received 80 votes, then at least 55 of the Hispanic voters voted for the Hispanic candidate and at most all 75 did. (The method of bounds is less useful for calculating estimates for white voters, as anywhere between none of the whites and all of the whites could have voted for the candidate.) These bounds are used when calculating EI estimates but not when using ecological regression.

[6] While EI places a constraint on each choice (e.g., the estimate of the percentage of Hispanic voters that voted for any individual candidate will always fall between zero and 100 percent), it places no such constraint on the sum of all of the choices (e.g., the estimates of the percentage of Hispanic voters for all candidates need not sum to 100 percent).

Estimates derived using both of these methodological approaches, ER and EI, are reported in the summary racial bloc voting tables found at the end of this report. The state legislative contests analyzed are all recent (2018 and 2020) and all included candidates of color. [7]

IV. Results of Racial Bloc Voting Analysis

Western Adams County I analyzed five recent state legislative elections in the western portion of Adams County that included Hispanic candidates. The results of my analysis can be found in the table labeled "Western Adams County" at the end of this report. Four of these contests were clearly polarized, with the majority of Hispanic voters supporting a different candidate than the majority of non-Hispanic white voters.[8] The polarization is less pronounced when all non-Hispanic voters are considered together because this category includes non-Hispanic Black voters who tend to support the same candidates as Hispanic voters. For example, the first contest listed in the Western Adams County table is the 2020 general election in State House District 30. An overwhelming majority of Hispanic voters – 87.2% according to the ER estimate and 90.4% according to the EI estimate – supported Dafna Michaelson Jenet, the Democratic candidate. A majority of non-Hispanic white voters supported Hispanic Republican Kerrie Gutierrez – 90.9% according the ER estimate and 81.4% according to the EI estimate.[9] But when all non-Hispanic voters are considered together, voting is still polarized, although the percentage of voters supporting Gutierrez is lower.

Despite racially/ethnically polarized voting, the Hispanic-preferred candidate won the contest to represent House District 30 seat with 56.9% of the vote. This is because the district has a substantial (albeit not a majority) Hispanic voting age population (VAP). In fact, the Hispanic-preferred candidate won all five of the elections analyzed in western Adams County. The

---

[7] In the context of determining if voting is racially polarized, election contests that include minority candidates are more probative than contests in which all of the candidates are white. This is because it is not sufficient for Hispanic or Black voters, for example, to be able to elect their candidates of choice only if these candidates are white. On the other hand, it is important to recognize that not all Hispanic or Black candidates are the preferred candidates of Hispanic or Black voters.

[8] The fifth election contest, House District 32 in 2020, was polarized according to the ER estimates but not the EI estimates.

[9] In this election contest, the Hispanic candidate was not the candidate of choice of Hispanic voters.

Hispanic VAP is at least 35% in four of the districts examined: House Districts 30, 31 and 32; and Senate District 21.[10] Senate District 24 is approximately 25% Hispanic in voting age population, but Hispanic voters in this district also successfully elected their candidate of choice in a racially/ethnically polarized contest in 2018.

Weld County Three recent state legislative contests were analyzed: Senate District 23 in 2020 and House Districts 48 and 50 in 2018. The results can be found in the table labeled "Weld County" at the end of this report. All three contests were racially/ethnically polarized. The Hispanic-preferred candidate lost two of these contests (House District 48, 21.9% Hispanic VAP; Senate District 23, 12.8% Hispanic VAP), but won in House District 53, which has a Hispanic VAP of approximately 43%.

San Luis Valley and Pueblo County Eight recent state legislative election contests were examined in this area of the State: House Districts 46, 47 and 62 in both 2018 and 2020; Senate District 3 in 2018 and Senate District 35 in 2020.[11] The table labeled "San Luis Valley and Pueblo County" appended at the end of this report lists the results of this analysis. Table 1, below, organizes the outcome by the Hispanic percentage VAP in the district.

Table 1: Summary of Results for San Luis Valley and Pueblo County

State Legislative District	Hispanic VAP	2018	2020
House District 62	43.9%	Polarized; Hispanic-preferred candidate won	Polarized; Hispanic-preferred candidate won
Senate District 3	40.2%	Not polarized	
House District 46	36.8%	Polarized; Hispanic-preferred candidate won	Polarized; Hispanic-preferred candidate won
House District 47	32.3%	Polarized; Hispanic-preferred candidate won	Polarized; Hispanic-preferred candidate lost
Senate District 35	32.3%		Polarized; Hispanic-preferred candidate lost

[10] State House District 32 is the only district I examined that had a majority Hispanic VAP (54.3%). Senate District 21 is not majority Hispanic, but it is majority minority in composition.

[11] There were no contested election for Senate District 3 in 2020 or Senate District 35 in 2018.

Seven of the eight contests were racially/ethnically polarized but the Hispanic-preferred candidate won five of these seven contests – all in districts in which the Hispanic VAP exceeds 36%. On the other hand, the Hispanic-preferred candidate lost polarized elections in House District 47 and Senate District 35, both of which have Hispanic VAPs of approximately 32%.

Southern El Paso County The 2018 and 2020 contests in House District 17 included an African American candidate, Thomas Exum, Sr., who won in 2018 with 58.8% of the vote and in 2020 with 56.5% of the vote. These two contests were racially/ethnically polarized, with a majority of non-Hispanic whites supporting Exum's opponent in both instances. The district is 31.3% Hispanic and 12.6% Black in voting age population and the combined minority support for Exum was high.

Portion of Denver County The winning candidates in House Districts 5 and 7 in 2018 and 2020 were minority candidates: Latino Democrat Alex Valdez in House District 5 in 2018 and 2020, African American Democrat James Coleman in House District 7 in 2018, and African American Democrat Jennifer Bacon who ran unopposed in House District 7 in 2020. None of these elections was racially/ethnically polarized and the Hispanic-preferred candidates all won with at least 79% of the vote.

Lakewood I analyzed House District 28 election contests in 2018 and 2020. Neither of these contests were racially/ethnically polarized. The Hispanic-preferred candidate, Democrat Kerry Tipper, won both with over 57% of the vote.

Aurora Districts 40, 41 and 42, and Senate Districts 28 and 29 are all currently represented by Hispanic-preferred minority state legislators. All were elected in contests that were racially/ethnically polarized, [12] with Hispanic and Black voters supporting the winning Democratic candidates and the majority of non-Hispanic whites supporting their Republican opponents in these contests. In 2018, elections in House Districts 40, 41 and 42 were racially/ethnically polarized but the Hispanic and Black-preferred African American Democrats won all three contests with sizeable majorities.[13] House District 42 and Senate District 29 are majority minority in

[12] African American Democrat Dominique Jackson ran unopposed in House District 42 in 2020 but was elected in 2018 in a racially/ethnically polarized election contest.

[13] There were no elections in Senate Districts 28 and 29 in 2018.

composition;[14] minorities make up over 37% of the voting age population in House Districts 40 and 41 and Senate District 28.

Conclusion Voting in most of the areas of the State I have examined is racially/ethnically polarized. The exceptions to this pattern are the election contests in House Districts 5 and 7 in the Denver area and House District 28 in Lakewood. Even where voting is polarized, however, Hispanic or Hispanic and Black voters combined have been able to elect their candidates of choice if the Hispanic VAP is significant, though not necessarily at least 50%. For example, in western Adams County, Hispanic-preferred candidates were elected in House Districts 30 (39.1 % Hispanic VAP) and 31 (35.3% Hispanic VAP). In the San Luis Valley and Pueblo County area, House Districts 46 and 62 (36.8 and 43.9% Hispanic, respectively), and Senate District 3 (40.2% Hispanic) all elected Hispanic-preferred Hispanic candidates to the state legislature. However, districts with slightly fewer Hispanics of voting age are unsuccessful at consistently electing their preferred candidates.

V. Calculating the Hispanic VAP Needed to Elect Hispanic-Preferred Candidates

As the discussion above illustrates, it is possible for districts with less than a majority Hispanic VAP to elect Hispanic voters' candidates of choice to the Colorado state legislature. But the percentage needed varies – there is no single universal or statewide demographic target that can be applied for Hispanic voters to elect their candidates of choice. A district-specific, functional analysis is required to determine whether a district is likely to provide minority voters with an opportunity to elect their candidates of choice. This analysis will produce different minority population percentages depending upon the location of the district and the participation rates and voting patterns of Hispanic and non-Hispanics in that specific area.

Using the estimates produced from the racial bloc voting analysis, I calculated the Hispanic VAP percentage needed to elect Hispanic-preferred candidates in each of the elections I examined. This calculation takes into account the relative participation rates of Hispanics and non-Hispanics, as well as the level of Hispanic support for the Hispanic-preferred candidates (the "cohesiveness" of Hispanic voters), and the level of non-Hispanics "crossing over" to vote for the Hispanic-preferred candidates.

---

[14] House District 42 is 39.0% Hispanic, 20.4% Black, and 5.2% Asian in VAP. Senate District 29 is 30.0% Hispanic, 16.3% Black, and 5.7% Asian in VAP.

Equalizing minority and white turnout Because Hispanics who are eligible to vote often turn out to vote at lower rates than non-Hispanic voters in Colorado, the Hispanic VAP needed to ensure that Hispanic voters comprise at least half of the voters in an election is often higher than 50%. Once the respective turnout rates of Hispanic and non-Hispanic voters have been estimated using the two statistical techniques described above, the percentage needed to equalize Hispanic and non-Hispanic voters can be calculated mathematically.[15] But equalizing turnout is only the first step in the process – it does not take into account the voting patterns of Hispanic and non-Hispanic voters. If voting is racially polarized but a significant number of non-Hispanic voters typically "crossover" to vote for Hispanic voters' preferred candidate, it may be the case that crossover voting can more than compensate for depressed Hispanic turnout.

Incorporating Minority Cohesion and White Crossover Voting Even if Hispanic voters are turning out at lower rates than non-Hispanics, and voting is racially polarized, if a relatively consistent percentage of non-Hispanic voters support Hispanic-preferred candidates, the candidates preferred by Hispanic voters can be elected even in districts that are less than majority Hispanic. As a consequence, a district-specific, functional analysis should take into account not

---

[15] The equalizing percentage is calculated mathematically by solving the following equation:

Let
M = the proportion of the district's voting age population that is Black
W = 1-M = the proportion of the district's voting age population that is white
A = the proportion of the Black voting age population that turned out to vote
B = the proportion of the white voting age population that turned out to vote

Therefore,
M(A) = the proportion of the population that is Black and turned out to vote (1)
(1-M)B = the proportion of total population that is white and turned out to vote (2)

To find the value of M that is needed for (1) and (2) to be equal, (1) and (2) are set as equal and we solve for M algebraically:

$$M(A) = (1 - M)\,B$$
$$M(A) = B - M(B)$$
$$M(A) + M(B) = B$$
$$M(A + B) = B$$
$$M = B/(A+B)$$

Thus, for example, if 39.3% of the Black population turned out and 48.3% of the white population turned out, B= .483 and A = .393, and M = .483/ (.393+.483) = .483/.876 = .5513, therefore a Black VAP of 55.1% would produce an equal number of Black and white voters. (For a more in-depth discussion of equalizing turnout see Kimball Brace, Bernard Grofman, Lisa Handley and Richard Niemi, "Minority Voting Equality: The 65 Percent Rule in Theory and Practice," *Law and Policy*, 10 (1), January 1988.)

only differences in turnout rates, but also the voting patterns of Hispanic and non-Hispanic voters.[16]

To illustrate this mathematically, consider a district that has 1000 persons of voting age, 50% of who are Hispanic and 50% of who are non-Hispanic. Let us begin by assuming that Hispanic turnout is lower than non-Hispanic turnout in a two-candidate general election. In our hypothetical election example, 50% of the Hispanic VAP turn out to vote and 60% of the non-Hispanic VAP vote. This means that, for our illustrative election, there are 250 Hispanic voters and 300 non-Hispanic voters. Further suppose that 96% of the Hispanic voters supported their candidate of choice and 30% of the non-Hispanic voters cast their votes for this candidate (with the other 70% supporting her opponent in the election contest). Thus, in our example, Hispanic voters cast 240 of their 250 votes for the Hispanic-preferred candidate and their other 10 votes for her opponent; non-Hispanic voters cast 90 of their 300 votes for the Hispanic-preferred candidate and 210 votes for their preferred candidate. The two candidates in our example will receive the following number of votes under these conditions:

	Voters	**Votes for Hispanic Preferred Candidate**	**Votes for non-Hispanic Preferred Candidate**
Hispanic	500 x .50 = 250	250 x .96 = 240	250 x .04 = 10
Non-Hispanic	500 x .60 = 300	300 x .30 = 90	300 x .70 = 210
Votes	550	330	220

The candidate of choice of Hispanic voters received a total of 330 votes (240 from Hispanic voters and 90 from non-Hispanic voters), while the candidate preferred by non-Hispanic voters received only 220 votes (10 from Hispanic voters and 210 from non-Hispanic voters). The Hispanic-preferred candidate won the election with 60% (330/550) of the vote in this hypothetical 50% Hispanic VAP district. And the Hispanic-preferred candidate won the election

---

[16] For an in-depth discussion of this approach to creating effective minority districts, see Bernard Grofman, Lisa Handley and David Lublin, "Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence," *North Carolina Law Review*, volume 79 (5), June 2001.

despite the fact that the election was racially/ethnically polarized and Hispanics turned out to vote at a lower rate than non-Hispanics.[17]

In a district that is 45% Hispanic VAP rather than 50% Hispanic VAP, the Hispanic-preferred candidate still wins with 56.8% (315/555) of the vote, as shown below.

	Voters	**Votes for Hispanic-Preferred Candidate**	**Votes for non-Hispanic Preferred Candidate**
Hispanic	450 x .50 = 225	225 x .96 = 216	225 x .04 = 9
Non-Hispanic	550 x .60 = 330	330 x .30 = 99	303 x .70 = 231
Votes	555	315	240

Table 2, below, incorporates the estimates of turnout and votes by race/ethnicity (based on the EI analysis) listed in the tables at the end of this report and calculates the percentage Hispanic VAP needed for the Hispanic-preferred candidate to win each specific election contest. However, if voting is not polarized, no Hispanic percentage is calculated because the non-Hispanic voters would have elected the Hispanic-preferred candidate regardless of the Hispanic VAP. In addition, there were a number of election contests for which the turnout disparity between Hispanic and non-Hispanic voters was so high that the estimated percentage of Hispanics of voting age turning out to vote was too low and was not used to calculate the percent Hispanic needed to win.

[17] In the illustrative example, VAP and voting patterns are known and the equation solves for percentage of votes received by the Hispanic-preferred candidate. In determining the percentage of Hispanic VAP needed to provide Hispanic voters with an opportunity to elect their candidates of choice, voting patterns and the percentage of votes are known and we are solving for the VAP needed to produce at least 50 percent of the votes for the Hispanic-preferred candidate.

Table 2: Percent Hispanic VAP Needed to Win

Colorado Percent Hispanic VAP needed to win Contests with Hispanic Candidates	race of H-P candidate	turnout rate for office and percent vote for Hispanic-preferred candidates						percent of vote B-P cand would have received if district was 55% Hispanic VAP	percent of vote B-P cand would have received if district was 50% Hispanic VAP	percent of vote B-P cand would have received if district was 45% Hispanic VAP	percent of vote B-P cand would have received if district was 40% Hispanic VAP	percent of vote B-P cand would have received if district was 35% Hispanic VAP	percent Hispanic VAP must exceed for H-P candidate to win	comments
		Hispanic voters			Non-Hispanic voters									
		votes cast for office	H-P	all others	votes cast for office	H-P	all others							
Western Adams County														
2020 House District 30	W	19.2	90.4	9.6	73.2	45.3	54.7	56.2	54.7	53.3	52.0	50.9	30.7	polarized
2020 House District 32	H	14.8	77.1	22.9	81.9	52.1	47.9	56.6	55.9	55.3	54.8	54.3		not polarized
2020 Senate District 21	H	15.0	87.6	12.4	79.4	49.3	50.7	56.5	55.4	54.4	53.6	52.8	9.0	polarized but high crossover
2018 House District 31	H													polarized, Hisp turnout est too low
2018 Senate District 24	W	10.8	72.0	28.0	67.5	47.9	52.1	51.8	51.2	50.7	50.2	49.8	37.4	polarized
Weld County														
2020 Senate District 23	H	32.3	77.0	23.0	85.8	41.6	58.4	52.8	51.3	49.9	48.7	47.6	45.2	polarized
2018 House District 48	B													polarized, Hisp turnout est too low
2018 House District 50	H													polarized, Hisp turnout est too low
San Luis Valley and Pueblo County														
2020 House District 46	H	38.9	89.4	10.6	91.3	32.1	67.9	51.7	49.2	46.9	44.8	42.8	51.6	polarized
2020 House District 47	H	36.6	90.2	9.8	84.5	25.4	74.6	47.8	45.0	42.4	39.9	37.7	58.6	polarized
2020 House District 62	H	44.5	91.8	8.2	83.8	34.0	66.0	56.7	54.0	51.5	49.1	46.9	41.9	polarized
2020 Senate District 35	H	48.1	81.9	18.1	80.4	20.9	79.1	46.7	43.7	40.9	38.3	35.8	60.4	polarized
2018 House District 46	H	27.4	98.6	1.4	73.6	35.9	64.1	55.5	52.9	50.5	48.4	46.4	43.8	polarized
2018 House District 47	H	28.8	90.9	9.1	63.6	31.8	68.2	52.9	50.2	47.8	45.5	43.4	49.6	polarized
2018 House District 62	H	34.8	89.9	10.1	66.0	34.6	65.4	56.3	53.7	51.3	49.0	46.8	42.3	polarized
2018 Senate District 3	H	25.1	99.9	0.1	65.2	56.5	43.5	70.4	68.6	66.9	65.4	64.0		not polarized
Southern El Paso County														
2020 House District 17	B	40.5	80.2	19.8	52.1	30.0	70.0	54.5	52.0	49.5	47.1	44.8	46.0	all minority voters combined
2018 House District 17	B	16.1	82.8	17.2	48.7	31.4	68.6	46.2	44.2	42.3	40.7	39.2	63.2	all minority voters combined

Table 2 (continued)

Colorado Percent Hispanic VAP needed to win Contests with Hispanic Candidates	race of H-P candidate	turnout rate for office and percent vote for Hispanic-preferred candidates						percent of vote B-P cand would have received if district was 55% Hispanic VAP	percent of vote B-P cand would have received if district was 50% Hispanic VAP	percent of vote B-P cand would have received if district was 45% Hispanic VAP	percent of vote B-P cand would have received if district was 40% Hispanic VAP	percent of vote B-P cand would have received if district was 35% Hispanic VAP	percent Hispanic VAP must exceed for H-P candidate to win	comments
		Hispanic voters			Non-Hispanic voters									
		votes cast for office	H-P	all others	votes cast for office	H-P	all others							
Portion of Denver County														
2020 House District 5	H	44.0	87.5	12.5	62.3	75.8	24.2	81.2	80.6	80.1	79.5	79.0		not polarized
2018 House District 5	H	41.4	89.0	11.0	44.1	75.0	25.0	82.5	81.8	81.1	80.4	79.7		not polarized
2018 House District 7	B	1.0	90.8	9.2	74.5	80.8	19.2	81.0	80.9	80.9	80.9	80.9		not polarized
Lakewood														
2020 House District 28		32.6	70.6	29.4	77.7	54.4	45.6	59.9	59.2	58.5	57.9	57.4		not polarized
2018 House District 28		0.5	83.2	16.8	72.4	52.7	47.3	53.0	52.9	52.9	52.8	52.8		not polarized
Aurora: Hispanic - nonHIspanic														
2020 House District 40		36.4	63.2	36.8	61.8	58.2	41.8	60.3	60.1	59.8	59.6	59.4		Hisp & nonHisp not polarized
2020 House District 41		0.7	92.9	7.1	69.5	62.3	37.7	62.7	62.6	62.6	62.5	62.5		Hisp & nonHisp not polarized
2020 Senate District 28		15.2	87.8	12.2	76.2	87.8	12.2	87.8	87.8	87.8	87.8	87.8		Hisp & nonHisp not polarized
2020 Senate District 28		5.8	99.2	0.8	67.8	62.5	37.5	66.0	65.4	64.9	64.5	64.1		Hisp & nonHisp not polarized
2018 House District 40		20.2	77.7	22.3	57.5	60.7	39.3	65.8	65.1	64.5	63.9	63.4		Hisp & nonHisp not polarized
2018 House District 41		1.2	97.3	2.7	54.8	60.3	39.7	61.3	61.1	61.0	60.8	60.7		Hisp & nonHisp not polarized
2018 House District 42		11.2	77.3	22.7	58.2	71.9	28.1	72.9	72.8	72.6	72.5	72.4		Hisp & nonHisp not polarized
Aurora: Hispanic - NHWhite														
2020 House District 40		36.4	63.2	36.8	92.5	43.0	57.0	49.6	48.7	47.9	47.2	46.5	57.4	Hisp & NHWhite polarized
2020 House District 41		0.7	92.9	7.1	91.3	46.1	53.9	46.5	46.5	46.4	46.3	46.3		Hisp & NHW polarized, low H turnc
2020 Senate District 28		15.2	87.8	12.2	94.6	42.5	57.5	49.9	48.8	47.8	46.9	46.1	55.3	Hisp & NHWhite polarized
2020 Senate District 28		5.8	99.2	0.8	90.7	38.1	61.9	42.5	41.8	41.1	40.6	40.1		Hisp & NHW polarized, low H turnc
2018 House District 40		20.2	77.7	22.3	84.3	45.6	54.4	52.9	51.8	50.9	50.0	49.3	39.9	Hisp & NHWhite polarized
2018 House District 41		1.2	97.3	2.7	84.1	42.2	57.8	43.1	43.0	42.8	42.7	42.6		Hisp & NHW polarized, low H turnc
2018 House District 42		11.2	77.3	22.7	89.3	42.7	57.3	47.3	46.6	45.9	45.4	44.9	68.1	Hisp & NHWhite polarized

I analyzed five recent state legislative elections in ***western Adams County***. One of the contests was not polarized based on the EI estimates (2020 House District 32). In another contest, the estimates Hispanic turnout percentage was unrealistically low (.7% in the 2018 contest in House District 31). The Hispanic VAP needed for the Hispanic-preferred candidate to win election with at least 50% of the vote had to exceed 30.7% in the 2020 House District 30 contest and 37.4% in the 2018 Senate District 24 contest. The very high percentage of non-Hispanic vote for the Hispanic candidate of choice in the 2020 state senate election in District 21 meant that very few Hispanics were needed for this candidate to win that election.

Two of the contests in ***Weld County*** yielded Hispanic turnout estimates that were unrealistically low, hence the Hispanic percent needed to win could be calculated for only one contest: the 2020 election in Senate District 23. This contest produced a percentage needed to win of 45.2% Hispanic VAP. However, the Hispanic-preferred candidate won House District 50, which is 43.3% Hispanic VAP, in 2018.

Only one election contest in the ***San Luis Valley and Pueblo County*** area was not racially/ethnically polarized. The other seven contests produced a wide range of Hispanic VAP percentages needed to win, from 41.9% (2020 House District 62) to 60.4% (2020 Senate District 35). The Hispanic-preferred candidate easily won House District 62 (43.9% Hispanic VAP) in both 2018 and 2020. But Hispanic-preferred candidates also won House District 46, which has only a 36.8% Hispanic VAP. For this reason, it is important to consider both the estimated percentages and the actual Hispanic VAP percentages of districts in which Hispanic-preferred candidates are successful.

Because the estimates of Hispanic turnout for the two elections in House District 17, in ***southern El Paso County***, are unrealistically low, and the Black percentage of the district is not insubstantial (and Hispanic and Black voters supported the same candidate in both elections), I combined all minority voters together and calculated the percentage minority VAP needed to win based on comparing the voting patterns of non-Hispanic whites and all minorities combined. But this produced percentage estimates that were higher than the combined minority percentage of District 17 (43.9% Hispanic and Black together), and the minority-preferred candidate actually won the district in both 2018 and 2020.

Because the state legislative elections in the ***Denver*** area and ***Lakewood*** (House Districts 5 and 7; House District 28) were not polarized, no Hispanic VAP needed to win was calculated – non-Hispanics voting alone would have elected the Hispanic-preferred candidates without any support needed from Hispanic voters.

The seven contests analyzed in ***Aurora*** are complicated by the relatively high number of Black voters that are combined with non-Hispanic white voters when Hispanic voters are compared to non-Hispanic voters. Because Black voters support the same candidates as Hispanic voters in these elections, the contests appear to not be polarized when all non-Hispanics are considered together. However, when Hispanic voters and non-Hispanic white voters are compared, all of the contests are polarized and the Hispanic percentage needed to win can be calculated. The calculated percentage therefore reflects the percent Hispanic VAP compared to non-Hispanic white VAP and not all non-Hispanic VAP that might be combined to make a district. In other words, while the first set of calculations – comparing Hispanics and non-Hispanics – suggests no Hispanics are needed because voting is not polarized, the second set of calculations – Hispanic and non-Hispanic whites – is only useful if the only groups to be included in the proposed districts are Hispanics and non-Hispanic whites. The second set of estimates are overestimates if Black voters are also included in the proposed districts. As noted above House District 42 is 39% Hispanic VAP and Senate District 29 is 30% Hispanic VAP and both elect Hispanic-preferred candidates, but both are actually majority minority districts when all minority groups are considered. While Hispanics make up less than 20% of the VAP in House Districts 40 and 41 and Senate District 28, all minorities combined comprise over 37% of the voting age population in each instance and the Hispanic-preferred candidate wins the elections analyzed.

VI. Conclusion

Voting in recent state legislative elections in several areas of the State of Colorado that I examined is racially/ethnically polarized. The exceptions to this are recent legislative elections in House Districts 5 and 7 in the Denver area and House District 28 in Lakewood. Despite this pattern of polarized voting in several areas of Colorado, Hispanic voters or, in Aurora, Hispanic and Black voters combined, have been able to elect their candidates of choice in many of these districts. This is because a sufficient number of eligible Hispanics of voting age have been combined with

enough crossover non-Hispanic voters to provide Hispanic voters with an opportunity to elect their preferred candidates to the state legislature in these districts, even though most of these districts are not majority Hispanic in voting age population.[18] As noted above, in western Adams County, Hispanic-preferred candidates are elected in House Districts 30 (39.1 % Hispanic VAP) and 31 (35.3% Hispanic VAP). In the San Luis Valley and Pueblo County area, House Districts 46 and 62 (36.8 and 43.9% Hispanic, respectively), and Senate District 3 (40.2% Hispanic) all elect Hispanic-preferred Hispanic candidates to the state legislature.

[18] There are no majority Hispanic VAP senate districts in the State – the highest concentration of Hispanics can be found in Senate District 21, which has a 48.4% Hispanic VAP. There in only one majority Hispanic VAP state house district, District 32. This district easily elected Hispanic-preferred Hispanic candidate, Adrienne Benavidez, with 63.7% of the vote in a three-candidate race in 2020.

Western Adams County					Estimates for NonHispanic Voters		Estimates for Hispanic Voters		Estimates for NonHispanic White Voters	
	Percent Hispanic VAP	Party	Race/ Ethnicity	Percent of Vote	ER	EI	ER	EI	ER	EI
2020 General Election										
House District 30	39.1									
Michealson Jenet		D		56.9	22.3	45.3	87.2	90.4	9.1	18.6
Gutierrez		R	H	43.2	77.7	54.5	12.8	10.4	90.9	81.4
Turnout of VAP					*87.9*	*73.2*	*16.3*	*19.2*	*100.0*	*97.7*
House District 32	54.3									
Benavidez		D	H	63.7	44.0	52.1	71.9	77.1	41.2	51.4
Caputo		R		30.4	49.8	39.8	23.8	18.7	52.7	39.6
Chapman		L		5.9	6.2	6.3	4.3	5.4	6.0	5.6
Turnout of VAP					*84.9*	*81.9*	*3.7*	*14.8*	*100.0*	*95.3*
Senate District 21	48.4									
Moreno		D	H	63.6	39.8	49.3	77.0	87.6	31.1	40.4
Mendez		R	H	36.5	60.2	50.6	23.0	14.0	68.9	59.7
Turnout of VAP					*86.6*	*79.4*	*17.1*	*15.0*	*100.0*	*94.9*
2018 General Election										
House District 31	35.3									
Caraveo		D	H	55.0	39.5	43.9	88.5	88.2	34.1	35.9
Figueroa		R	H	38.6	53.8	50.2	4.3	4.0	58.0	58.1
Owens		L		6.4	6.7	6.1	7.2	7.2	7.9	6.6
Turnout of VAP					*62.7*	*65.7*	*0.0*	*0.7*	*83.4*	*85.1*
Senate District 24	25.2									
Winter		D		52.3	43.4	47.9	69.1	72.0	38.6	42.4
Martinez Humenik		R	H	39.8	49.4	45.6	17.1	14.4	56.6	52.5
Others				7.9	7.2	6.9	13.7	12.5	4.8	4.6
Turnout of VAP					*58.4*	*67.5*	*0.0*	*10.8*	*86.7*	*82.9*

Weld County					Estimates for NonHispanic Voters		Estimates for Hispanic Voters		Estimates for NonHispanic White Voters	
	Percent Hispanic VAP	Party	Race/ Ethnicity	Percent of Vote	ER	EI	ER	EI	ER	EI
2020 General Election										
Senate District 23	*12.8*									
Boccella		D	H	44.9	35.9	41.6	75.2	77.0	26.9	34.0
Kirkmeyer		R		55.1	64.1	58.3	24.8	23.3	73.1	65.8
Turnout of VAP					*88.2*	*85.8*	*3.6*	*32.3*	*100.0*	*89.3*
2018 General Election										
House District 48	21.9									
Ajiboye		D		32.2	29.4	27.4	63.0	56.2	25.0	20.8
Humphrey		R		67.8	70.6	72.6	37.0	43.8	75.0	79.2
Turnout of VAP					*74.2*	*70.4*	*2.9*	*0.1*	*82.4*	*77.9*
House District 50	43.3									
Galindo		D	H	53.4	na	40.5	79.2	79.7	na	35.5
Thuener		R		46.6	na	59.4	20.8	20.0	na	64.5
Turnout of VAP					*51.9*	*55.6*	*0.0*	*0.8*	*62.9*	*66.7*

San Luis Valley and Pueblo County					Estimates for NonHispanic Voters		Estimates for Hispanic Voters		Estimates for NonHispanic White Voters	
	Percent Hispanic VAP	Party	Race/ Ethnicity	Percent of Vote	ER	EI	ER	EI	ER	EI
2020 General Election										
House District 46	36.8									
Esgar		D	H	53.2	37.2	32.1	100.0	89.4	32.5	26.4
Ambler		R		43.1	58.3	67.3	0.0	5.4	63.5	71.1
Pickerill		L		3.7	4.5	3.9	3.7	3.5	4.0	3.1
turnout of VAP					*73.1*	*91.3*	*32.8*	*38.9*	*80.8*	*94.4*
House District 47	32.3									
Buentello		D	H	45.9	23.1	25.4	100.0	90.2	6.2	15.9
Luck		R		54.1	76.9	74.6	0.0	10.1	93.8	84.2
turnout of VAP					*69.0*	*84.5*	*21.1*	*36.6*	*83.0*	*90.5*
House District 62	43.9									
Valdez		D	H	57.8	35.1	34.0	87.4	91.8	32.1	30.1
Taggart		R		42.2	64.9	65.6	12.6	8.0	67.9	69.9
turnout of VAP					*80.6*	*83.8*	*55.6*	*44.5*	*84.7*	*87.9*
Senate District 35	32.3									
Lopez		D	H	39.9	15.1	20.9	80.2	81.9	9.6	17.8
Simpson		R		60.1	84.9	78.8	19.8	18.0	90.4	82.3
turnout of VAP					*71.3*	*80.4*	*52.3*	*48.1*	*77.8*	*85.9*
2018 General Election										
House District 46	36.8									
Esgar		D	H	58.7	38.9	35.9	100.0	98.6	32.3	32.5
Ambler		R		41.3	61.1	64.0	0.0	0.9	67.7	67.6
turnout of VAP					*53.0*	*73.6*	*20.4*	*27.4*	*61.5*	*80.1*
House District 47	32.3									
Buentello		D	H	50.5	31.4	31.8	100.0	90.9	13.3	24.1
Bendell		R		49.5	68.6	68.2	0.0	9.2	86.7	75.9
turnout of VAP					*52.1*	*63.6*	*10.7*	*28.8*	*63.9*	*76.6*
House District 62	43.9									
Valdez		D	H	56.8	33.2	34.6	92.7	89.9	29.7	27.3
Honeycutt		R		43.2	66.8	65.5	7.3	10.2	70.3	72.7
turnout of VAP					*65.1*	*66.0*	*40.2*	*34.8*	*69.5*	*75.1*
Senate District 3	40.2									
Garcia		D	H	73.6	60.6	56.5	100.0	99.9	51.0	52.1
Pickerill		L		26.4	39.4	43.5	0.0	0.1	49.0	47.9
turnout of VAP					*42.2*	*65.2*	*22.6*	*25.1*	*55.5*	*73.0*

Southern El Paso County					Estimates for NonHispanic Voters		Estimates for Hispanic Voters		Estimates for NonHispanic White Voters		Estimates for All Minority Voters Combined	
	Percent Hispanic VAP	Party	Race/ Ethnicity	Percent of Vote	ER	EI	ER	EI	ER	EI	ER	EI
2020 General Election												
House District 17	*31.3% HVAP; 12.6% BVAP*											
Exum, Sr.		D	B	56.8	46.2	54.8	56.9	64.6	27.0	30.0	74.4	80.2
Blancken		R		37.4	49.5	40.1	28.8	29.3	66.5	64.6	18.9	13.7
Quilleash		L		5.8	4.3	3.8	14.3	12.1	6.5	5.9	6.7	5.8
Turnout of VAP					*54.8*	*58.4*	*0.0*	*1.1*	*54.3*	*52.1*	*15.0*	*40.5*
2018 General Election												
House District 17	*31.3% HVAP; 12.6% BVAP*											
Exum		D	B	58.8	46.2	56.3	72.7	66.4	29.0	31.4	79.2	82.8
Roupe		R		41.2	53.8	43.8	27.3	33.4	71.0	68.5	20.8	16.5
Turnout of VAP					*37.7*	*41.7*	*0.0*	*0.1*	*38.9*	*48.7*	*3.9*	*16.1*

Portion of Denver County					Estimates for nonHispanic Voters		Estimates for Hispanic Voters		Estimates for NonHispanic White Voters	
	Percent Hispanic VAP	Party	Race/ Ethnicity	Percent of Vote	ER	EI	ER	EI	ER	EI
2020 General Election										
House District 5										
Valdez	30.5	D	H	79.1	78.0	75.8	88.0	87.5	79.6	75.1
Woodley		R		19.5	19.5	22.9	9.4	11.5	18.4	23.8
Richardson		U		1.4	2.5	1.1	2.6	2.0	2.0	0.8
Turnout of VAP					*61.3*	*62.3*	*43.2*	*44.0*	*71.1*	*69.4*
2018 General Election										
House District 5	30.5									
Valdez		D	H	79.0	79.7	75.0	92.9	89.0	80.7	74.2
Whitney		R		17.9	*17.4*	*21.6*	*4.8*	*8.9*	*16.4*	*21.8*
Lamberton		L		3.1	2.9	3.4	2.3	5.1	2.9	3.4
Turnout of VAP					*43.7*	*44.1*	*35.6*	*41.4*	*53.9*	*51.2*
					Estimates for Hispanic Voters		**Estimates for Black Voters**		**Estimates for NonHispanic White Voters**	
	Percent Hispanic VAP	**Party**	**Race/ Ethnicity**	**Percent of Vote**	**ER**	**EI**	**ER**	**EI**	**ER**	**EI**
2018 General Election										
House District 7	37.4 H/ 20.6 B									
Coleman		D	B	83.6	91.9	90.8	95.2	92.9	88.6	80.8
Kucera		R		16.4	8.1	8.9	4.8	9.8	11.4	19.3
Turnout of VAP					*0.0*	*1.0*	*0.0*	*41.9*	*92.4*	*74.5*

Lakewood				Estimates for NonHispanic Voters		Estimates for Hispanic Voters		Estimates for NonHispanic White Voters	
	Party	Race/ Ethnicity	Percent of Vote	ER	EI	ER	EI	ER	EI
2020 House District 28									
Hildebrand	L		5.5	5.2	5.1	7.1	7.1	5.3	5.1
Tipper	D		57.6	59.4	54.4	71.7	70.6	56.0	51.6
Roybal	R		36.9	35.4	39.7	21.3	24.0	38.7	41.9
turnout of VAP				*50.6*	*77.7*	*18.7*	*32.6*	*63.0*	*84.5*
2018 House District 28									
Tipper	D		58.7	53.9	52.7	83.6	83.2	50.3	51.2
Joy Alley	R		38.0	43.8	45.1	8.1	8.5	47.9	46.2
Kloof	L		3.3	*2.4*	*0.7*	*8.4*	*9.1*	*1.8*	*2.2*
turnout of VAP				*49.4*	*72.4*	*0.0*	*0.5*	*64.2*	*77.2*

Aurora				Estimates for nonHispanic White Voters		Estimates for nonHispanic Voters		Estimates for Hispanic Voters		Estimates for Black Voters	
	Party	Race/ Ethnicity	Percent of Vote	ER	EI	ER	EI	ER	EI	ER	EI
2020 General Election											
2020 House District 40											
Ricks	D	B	59.2	37.8	43.0	49.3	58.2	60.8	63.2	100.0	99.4
Bassett	R		36.7	60.6	51.5	48.2	38.2	31.8	28.1	0.0	0.2
Harrison	L		4.2	1.6	1.0	2.5	3.7	7.5	6.7	0.0	8.5
turnout of VAP				*90.8*	*92.5*	*72.2*	*61.8*	*39.3*	*36.4*	*0.0*	*1.0*
2020 House Distrtict 41											
Jodeh	D	M.E.	66.0	40.7	46.1	47.2	62.3	92.4	92.9	100.0	99.6
Andrews	R		34.0	*59.3*	*53.5*	*52.8*	*37.6*	*7.6*	*4.0*	*0.0*	*0.4*
turnout of VAP				*95.1*	*91.3*	*86.9*	*69.5*	*0.0*	*0.7*	*0.0*	*0.3*
2020 Senate District 28											
Buckner	D	B	61.9	46.3	42.5	59.4	87.8	88.0	87.8	100.0	99.6
Stecher	R		38.1	*53.7*	*57.7*	*40.6*	*11.5*	*12.0*	*11.5*	*0.0*	*0.2*
turnout of VAP				*92.3*	*94.6*	*73.1*	*76.2*	*9.0*	*15.2*	*0.0*	*0.3*
2020 Senate District 29											
Poague	R		31.3	65.4	62.0	32.7	37.6	0.0	0.6	0.0	0.9
Fields	D	B	68.7	34.6	38.1	67.3	62.5	100.0	99.2	100.0	98.8
turnout of VAP				*85.7*	*90.7*	*53.8*	*67.8*	*0.0*	*5.8*	*0.0*	*0.3*
2018 General Election											
2018 House District 40											
Buckner	D	B	63.1	45.4	45.6	56.9	60.7	74.0	77.7	100.0	98.6
Bassett	R		36.9	54.6	54.5	43.1	39.3	26.0	22.9	0.0	0.1
turnout of VAP				*72.1*	*84.3*	*52.0*	*57.5*	*7.1*	*20.2*	*0.0*	*4.2*
2018 House District 41											
Melton	D	B	64.4	39.6	42.2	49.3	60.3	100.0	97.3	100.0	98.1
Myers	R		35.6	60.4	57.9	50.7	39.7	0.0	2.6	0.0	0.2
turnout of VAP				*82.7*	*84.1*	*69.5*	*54.8*	*0.0*	*1.2*	*0.0*	*0.8*
2018 House District 42											
Jackson	D	B	73.3	44.1	42.7	73.0	71.9	80.8	77.3	100.0	100.0
Donald	R		26.7	55.9	57.7	27.0	27.9	19.2	21.7	0.0	0.4
turnout of VAP				*98.9*	*89.3*	*31.7*	*58.2*	*0.0*	*11.2*	*2.2*	*15.6*

DATE FILED: October 15, 2021 4:08 PM

In re Colorado Independent Legislative Redistricting Commission

Exhibit 10

Staff Analysis Regarding Voting Rights Act

Attachments A, B, C, and D: Application of Voting Rights Act Compliance Policy to Final Senate Plan

The table in Attachment A shows the application of the "Geographic Overlap" analysis to the final Senate plan adopted by the commission. This table shows that it is unlikely there is racially polarized voting in proposed Senate District 3. Also, as can be seen by comparing the "Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in SD [X]" column to the "Hispanic Voting Age Population Percentage" column, proposed Senate District 21 exceeds the minority voting age population numbers that must be met for the minority candidate of choice to be elected. This is not the case with proposed Senate Districts 23, 24, 25, and 35. This can be explained for proposed Senate District 23 because in order to have sufficiently high Hispanic voting age population this proposed district would need to gain approximately thirty-two percent Hispanic voting age population, which suggests that the first *Gingles v. Thornburg*, 478 U.S. 30 (1986), factor could not be satisfied in this district. If the boundaries of the surrounding proposed districts were able to be redrawn to place a sufficient amount of Hispanic voting age population in proposed Senate District 23 to allow the Hispanic voters to elect their candidate of choice, the additional Hispanic voting age population would most likely need to be drawn from proposed Senate District 13. This would likely result in the Hispanic voting age population in proposed Senate District 13 no longer residing in a competitive district where there was a reasonable chance that their preferred candidate would be elected. Proposed Senate Districts 24 and 25 only cover approximately sixty percent of the geographic area of current Senate District 24. A large number of the voters in proposed Senates District 24 and 25 are majority voters who are likely to vote for the minority candidate of choice. Thus, as described below, the minority candidate of choice is reasonably likely to be elected in proposed Senate Districts 24 and 25. Finally, although current Senate District 35 shares a relatively large amount of area with proposed Senate District 35, it does not share a large number of voters. More specifically, proposed current Senate District 35 does not cover the San Luis Valley, but instead covers a large portion of the Eastern Plains.

The table in Attachment B shows the application of the "Voter Overlap" analysis to the Final Senate Plan based on 2018 and 2020 State Senate races. Looking at the "Share of Votes Cast in Election with Minority Preferred Candidates in the Proposed Senate District" column, only Senate Districts 3, 21, 23, 24, 25, and 29 had more than fifty percent of their votes cast in elections with minority preferred candidates. Among these Senate Districts, looking at the "Share of Votes Received by Minority Preferred Candidates in the Proposed Senate District" column, minority preferred candidates could reasonably be predicted to be elected in Senate Districts 3, 21, 24, 25 and 29, but not in the Senate District 23. Senate District 23 was discussed above.

Finally, the Voting Age Population tables for the current districts in Attachment C shows there are currently four majority minority voting age population Senate Districts. The Voting Age Population table for the Final Senate Plan in Attachment D shows that there are four proposed majority minority Senate Districts in the Final Senate Plan.

Accordingly, staff believes that the Final Senate Plan complies with the federal Voting Rights Act because there are no districts that meet all of the three preconditions described in *Gingles*.

Attachment A

Proposed Senate District #	Hispanic Voting Age Population Percentage	Hispanic Citizen Voting Age Population Percentage	% of Geographic Area of Current SD 3 in Proposed District	Percent Hispanic VAP must exceed for Hispanic preferred candidate to win in SD 3	% of Geographic Area of Current SD 21 in Proposed District	Percent Hispanic VAP must exceed for Hispanic preferred candidate to win in SD 21	% of Geographic Area of Current SD 23 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to Win in SD 23	% of Geographic Area of Current SD 24 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to Win in SD 24	% of Geographic Area of Current SD 35 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to Win in SD 35
3	37.98%	38.77%	99.99%	NOT POLARIZED		9.00%		45.20%		37.40%		60.40%
21	44.94%	37.99%		NOT POLARIZED	95.08%	9.00%		45.20%		37.40%		60.40%
23	13.77%	11.14%		NOT POLARIZED		9.00%	72.04%	45.20%		37.40%		60.40%
24	34.29%	26.10%		NOT POLARIZED		9.00%		45.20%	54.63%	37.40%		60.40%
25	19.22%	15.91%		NOT POLARIZED		9.00%		45.20%	45.37%	37.40%		60.40%
35	18.70%	17.97%		NOT POLARIZED		9.00%		45.20%		37.40%	59.38%	60.40%

Proposed Senate District	Share of Votes Received by Minority Preferred Candidates in Elections in the Proposed Senate District	Share of Votes Cast in Elections with Minority Preferred Candidates in the Proposed Senate District
1	27.7%	7.6%
3	66.8%	100.0%
4	29.2%	3.4%
6	46.4%	29.9%
15	27.3%	0.1%
17	50.9%	13.1%
19	66.6%	2.0%
21	63.3%	83.9%
23	36.1%	76.5%
24	51.6%	53.5%
25	56.9%	100.0%
27	58.0%	24.9%
28	60.7%	26.3%
29	64.3%	60.5%
35	37.8%	40.5%

Attachment C

District No.	Hispanic VAP	Non-Hispanic Black VAP	Minority VAP
D1	18.71%	1.79%	24.75%
D2	11.27%	4.01%	22.30%
D3	40.20%	2.41%	47.87%
D4	8.61%	1.86%	18.42%
D5	17.03%	0.85%	22.59%
D6	12.55%	0.52%	21.62%
D7	12.77%	0.91%	19.76%
D8	17.12%	0.76%	22.62%
D9	9.01%	3.28%	21.10%
D10	13.90%	5.39%	28.09%
D11	23.65%	9.67%	41.65%
D12	16.15%	7.99%	33.82%
D13	36.36%	2.16%	43.73%
D14	11.22%	1.89%	21.23%
D15	10.14%	0.86%	16.52%
D16	10.14%	1.21%	19.17%
D17	17.32%	1.31%	26.81%
D18	8.17%	1.41%	19.35%
D19	13.99%	1.44%	22.88%
D20	12.38%	1.36%	21.12%
D21	48.41%	2.71%	58.37%
D22	19.82%	2.00%	30.05%
D23	12.77%	1.13%	21.94%
D24	25.17%	2.07%	36.93%
D25	39.10%	5.52%	53.03%
D26	14.23%	7.38%	30.64%
D27	9.12%	4.66%	26.21%
D28	18.63%	13.98%	45.10%
D29	30.05%	16.83%	57.07%
D30	8.02%	1.81%	21.36%
D31	13.13%	9.01%	30.47%
D32	24.63%	2.77%	35.43%
D33	29.19%	19.43%	57.67%
D34	30.84%	4.25%	42.14%
D35	32.34%	1.54%	38.77%

Attachment D

District No.	Hispanic VAP	Non-Hispanic Black VAP	Minority VAP
D1	21.39%	1.66%	27.30%
D2	9.32%	2.04%	19.45%
D3	37.98%	2.20%	45.37%
D4	8.45%	1.86%	16.07%
D5	19.00%	0.64%	24.63%
D6	19.04%	0.65%	28.10%
D7	12.51%	0.88%	19.44%
D8	15.41%	0.78%	20.73%
D9	8.96%	3.33%	21.50%
D10	14.07%	5.73%	28.91%
D11	25.63%	11.20%	46.10%
D12	14.89%	6.96%	30.45%
D13	41.24%	2.41%	49.16%
D14	11.40%	1.86%	20.91%
D15	9.12%	0.85%	15.51%
D16	9.42%	1.41%	17.72%
D17	17.79%	1.30%	27.25%
D18	8.52%	1.50%	20.82%
D19	13.78%	1.38%	22.57%
D20	10.59%	1.19%	19.43%
D21	44.94%	2.67%	54.48%
D22	20.32%	2.15%	30.24%
D23	13.77%	0.85%	21.11%
D24	34.29%	2.11%	45.91%
D25	19.22%	1.97%	31.41%
D26	15.43%	7.63%	33.03%
D27	11.74%	8.08%	34.50%
D28	37.15%	16.66%	64.62%
D29	22.82%	17.72%	51.20%
D30	7.82%	1.77%	21.27%
D31	10.69%	5.86%	24.06%
D32	26.39%	6.36%	41.45%
D33	31.31%	20.40%	60.76%
D34	34.09%	3.54%	44.50%
D35	18.70%	2.19%	26.74%

Attachments A, B, C, D, and E: Application of Voting Rights Act Compliance Policy to the Final House Plan

The table in Attachment A shows the application of the "Geographic Overlap" analysis to the Final House Plan. This table shows that it is unlikely there is racially polarized voting in proposed House Districts 5, 7, 28, and 32. Also, as can be seen by comparing the "Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD [X]" column to the "Hispanic Voting Age Population Percentage" column, proposed House Districts 17 and 62 exceed the minority voting age population numbers that must be met for the minority candidate of choice to be elected. This is not the case with proposed House Districts 46, 47, and 56. This can be explained for proposed House District 56 because only approximately half of the geographic area of current House District 30 is contained within proposed House District 56 and current House District 30 does not share a large number of voters with proposed House District 56. Similarly, although proposed House District 47 covers a large amount of the geographic area of current House District 47, it does not contain a large number of the voters in current House Districts 47. Most notably, the population center of Pueblo is in current House District 47, but not proposed House District 47. Proposed House District 46, although not a majority minority district, is relatively close to being one and, according to the analysis described below, is reasonably likely to elect a minority preferred candidate.

The tables in Attachment B and Attachment C show the application of the "Voter Overlap" analysis to the Final House Plan based on 2018 and 2020 State House races. Looking at the "Share of Votes Cast in Election with Minority Preferred Candidates in the Proposed House District" column, only House Districts 5, 7, 17, 30, 32, 40, 42, 46, 47, and 62 had more than fifty percent of their votes cast in elections with minority preferred candidates. Among these House Districts, looking at the "Share of Votes Received by Minority Preferred Candidates in Elections in the Proposed House District" column, minority preferred candidates could reasonably be predicted to be elected in the following House Districts 5, 7, 17, 30, 32, 40, 42, 46, and 62, but not in House District 47. As discussed above, this can be explained by the fact that proposed House District 47 no longer includes parts of Pueblo, instead proposed House Districts 46 and 62 contain a large amount of the Hispanic voting age population in the Pueblo area and, as shown in Attachments B and C, are both likely to elect a minority preferred candidate.

The Voting Age Population tables for the current districts in Attachment D shows that there are currently seven majority minority voting age population House Districts, including one majority Hispanic voting age population district. The Voting Age Population table for the Final House Plan in Attachment E shows that there are ten majority minority proposed House Districts in the Final House Plan.

Accordingly, staff believes that the Final House Plan complies with the federal Voting Rights Act because there are no districts that meet all of the three preconditions described in *Gingles v. Thornburg*, 478 U.S. 30 (1986), except House District 62 that has been drawn to create a district in which the Hispanic preferred candidate has a reasonable chance of being elected.

Attachment A

Proposed House District #	Hispanic Voting Age Population Percentage	Hispanic Citizen Voting Age Population Percentage	% of Geographic Area of Current HD 5 in Proposed District	Percent Hispanic VAP must exceed for Hispanic preferred candidate to win in HD 5 in 2018	Percent Hispanic VAP must exceed for Hispanic preferred candidate to win in HD 5 in 2020	% of Geographic Area of Current HD 7 in Proposed District	Percent Hispanic VAP must exceed for Hispanic preferred candidate to win in HD 7	% of Geographic Area of Current HD 17 in Proposed District	Percent minority VAP must exceed for Hispanic preferred candidate to win in HD 17 in 2018	Percent minority VAP must exceed for Hispanic preferred candidate to win in HD 17 in 2020	% of Geographic Area of Current HD 28 in Proposed District	Percent Hispanic VAP must exceed for Hispanic preferred candidate to win in HD 28	% of Geographic Area of Current HD 30 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 30	% of Geographic Area of Current HD 32 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 32	% of Geographic Area of Current HD 46 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 46 in 2018	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 46 in 2020	% of Geographic Area of Current HD 47 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 47 in 2018	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 47 in 2020	% of Geographic Area of Current HD 62 in Proposed District	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 62 in 2018	Percent Hispanic VAP must exceed for Hispanic Preferred Candidate to win in HD 62 in 2020
5	28.63%	29.34%	84.46%	NOT POLARIZED	NOT POLARIZED		NOT POLARIZED		63.20%	46.00%		NOT POLARIZED		30.70%		NOT POLARIZED		43.80%	51.60%		49.60%	58.60%		42.30%	41.90%
7	44.19%	33.77%		NOT POLARIZED	NOT POLARIZED	88.06%	NOT POLARIZED		63.20%	46.00%		NOT POLARIZED		30.70%		NOT POLARIZED		43.80%	51.60%		49.60%	58.60%		42.30%	41.90%
17	*53.02%	24.23%		NOT POLARIZED	NOT POLARIZED		NOT POLARIZED	87.80%	63.20%	46.00%		NOT POLARIZED		30.70%		NOT POLARIZED		43.80%	51.60%		49.60%	58.60%		42.30%	41.90%
28	12.34%	12.05%		NOT POLARIZED	NOT POLARIZED		NOT POLARIZED		63.20%	46.00%	58.17%	NOT POLARIZED		30.70%		NOT POLARIZED		43.80%	51.60%		49.60%	58.60%		42.30%	41.90%
32	48.90%	41.12%		NOT POLARIZED	NOT POLARIZED		NOT POLARIZED		63.20%	46.00%		NOT POLARIZED		30.70%	89.45%	NOT POLARIZED		43.80%	51.60%		49.60%	58.60%		42.30%	41.90%
46	36.10%	37.21%		NOT POLARIZED	NOT POLARIZED		NOT POLARIZED		63.20%	46.00%		NOT POLARIZED		30.70%		NOT POLARIZED	94.66%	43.80%	51.60%		49.60%	58.60%		42.30%	41.90%
47	29.82%	29.65%		NOT POLARIZED	NOT POLARIZED		NOT POLARIZED		63.20%	46.00%		NOT POLARIZED		30.70%		NOT POLARIZED		43.80%	51.60%	81.34%	49.60%	58.60%		42.30%	41.90%
56	11.12%	8.15%		NOT POLARIZED	NOT POLARIZED		NOT POLARIZED		63.20%	46.00%		NOT POLARIZED	47.06%	30.70%		NOT POLARIZED		43.80%	51.60%		49.60%	58.60%		42.30%	41.90%
62	48.00%	47.99%		NOT POLARIZED	NOT POLARIZED		NOT POLARIZED		63.20%	46.00%		NOT POLARIZED		30.70%		NOT POLARIZED		43.80%	51.60%		49.60%	58.60%	89.79%	42.30%	41.90%

*total VAP excluding Nonhispanic Whites

Attachment B

Proposed House District	Share of Votes Received by Minority Preferred Candidates in Elections in the Proposed House District	Share of Votes Cast in Elections with Minority Preferred Candidates in the Proposed House District
1	74.00%	9.77%
3	63.84%	1.43%
4	76.55%	4.29%
5	79.44%	85.89%
6	74.95%	1.52%
7	83.47%	100.00%
8	84.43%	29.83%
16	54.53%	5.56%
17	59.25%	85.17%
23	53.29%	3.52%
28	56.07%	34.12%
30	60.99%	57.18%
36	66.32%	5.41%
37	64.00%	0.69%
40	62.70%	84.04%
41	71.64%	10.59%
42	73.31%	83.64%
46	59.21%	100.00%
47	46.21%	56.02%
60	36.53%	21.26%
61	68.07%	0.02%
62	61.75%	100.00%

Proposed House District	Share of Votes Received by Minority Preferred Candidates in Elections in the Proposed House District	Share of Votes Cast in Elections with Minority Preferred Candidates in the Proposed House District
1	72.52%	10.04%
3	63.59%	1.81%
4	78.06%	4.72%
5	79.65%	85.86%
6	76.44%	1.89%
8	82.22%	3.67%
16	50.94%	6.37%
17	57.41%	85.38%
23	52.86%	3.93%
24	63.11%	3.85%
28	55.76%	33.12%
30	59.11%	58.49%
31	53.97%	24.22%
32	56.00%	95.13%
34	47.95%	9.77%
35	67.93%	31.44%
36	70.92%	47.08%
37	63.44%	1.04%
40	61.39%	78.81%
41	65.22%	3.89%
46	54.87%	100.00%
47	41.64%	57.48%
48	31.70%	0.88%
56	25.69%	2.74%
60	31.23%	21.64%
61	67.02%	0.03%
62	61.33%	100.00%

Attachment D

District No.	Hispanic VAP	Non-Hispanic Black VAP	Minority VAP
1	43.51%	1.59%	51.89%
2	9.42%	2.94%	17.39%
3	13.19%	2.01%	21.02%
4	46.43%	1.95%	52.21%
5	44.39%	4.85%	54.56%
6	9.41%	9.88%	25.33%
7	36.43%	28.30%	70.85%
8	15.69%	20.16%	40.28%
9	13.41%	8.92%	29.26%
10	8.26%	1.24%	16.89%
11	15.53%	0.76%	20.57%
12	15.08%	0.88%	20.91%
13	4.37%	0.64%	8.45%
14	8.19%	3.81%	18.98%
15	12.22%	6.79%	26.08%
16	11.72%	4.45%	20.93%
17	28.06%	14.65%	49.66%
18	11.69%	4.26%	20.27%
19	5.77%	1.71%	11.20%
20	8.65%	3.47%	17.90%
21	14.86%	10.21%	31.93%
22	7.98%	0.77%	12.66%
23	15.58%	1.48%	21.34%
24	13.06%	1.06%	18.33%
25	4.50%	0.48%	7.32%
26	19.30%	0.56%	21.79%
27	8.64%	0.71%	12.37%
28	20.54%	1.59%	27.92%
29	13.80%	1.15%	20.50%
30	35.50%	9.26%	50.90%
31	30.01%	1.75%	37.15%
32	50.88%	1.86%	56.77%
33	8.64%	1.01%	18.26%
34	29.00%	1.93%	36.99%
35	25.90%	1.49%	34.25%
36	18.74%	15.90%	43.96%
37	7.45%	5.31%	22.08%
38	5.86%	1.09%	10.16%
39	4.82%	0.73%	9.96%
40	13.30%	11.51%	33.69%
41	16.00%	15.55%	39.32%
42	36.82%	19.80%	63.47%
43	6.49%	1.28%	14.04%
44	7.04%	1.75%	14.79%
45	6.87%	1.18%	11.48%
46	35.78%	1.76%	39.75%
47	30.35%	1.77%	35.01%
48	17.85%	0.50%	20.65%
49	6.63%	0.42%	9.18%
50	38.22%	1.85%	43.10%
51	8.86%	0.51%	11.72%
52	10.59%	0.93%	15.88%
53	8.34%	1.48%	14.71%
54	11.90%	0.64%	14.90%
55	11.26%	0.74%	14.73%
56	19.98%	2.25%	26.77%
57	20.18%	0.53%	22.91%
58	12.37%	0.30%	18.00%
59	10.35%	0.45%	16.24%
60	9.66%	3.26%	15.69%
61	10.78%	0.57%	13.47%
62	46.38%	0.78%	49.72%
63	19.15%	0.69%	23.64%
64	19.87%	2.81%	24.99%
65	19.28%	2.73%	23.67%

Attachment E

District No.	Hispanic VAP	Non-Hispanic Black VAP	Minority VAP
1	43.39%	2.77%	55.19%
2	7.37%	2.03%	16.71%
3	16.66%	7.00%	32.84%
4	35.36%	2.78%	44.45%
5	28.63%	4.85%	41.05%
6	12.52%	9.14%	29.62%
7	44.19%	23.04%	77.92%
8	16.67%	16.29%	40.25%
9	14.94%	11.72%	35.60%
10	10.17%	1.77%	23.30%
11	22.10%	1.31%	31.11%
12	10.03%	1.29%	21.05%
13	11.82%	1.02%	17.90%
14	9.11%	3.50%	22.67%
15	16.75%	7.96%	35.59%
16	16.48%	5.60%	29.50%
17	30.46%	13.20%	53.02%
18	11.29%	3.97%	23.18%
19	14.91%	1.01%	23.92%
20	8.49%	3.00%	19.14%
21	19.70%	11.24%	40.98%
22	12.99%	5.16%	26.80%
23	15.38%	1.77%	24.47%
24	13.51%	1.22%	21.36%
25	6.37%	0.72%	13.14%
26	17.49%	0.78%	22.57%
27	9.88%	1.15%	18.14%
28	12.34%	1.48%	22.19%
29	15.12%	1.86%	26.97%
30	26.14%	2.40%	36.75%
31	42.55%	2.39%	53.72%
32	48.90%	3.57%	58.89%
33	12.25%	1.65%	25.11%
34	25.76%	2.19%	37.94%
35	46.86%	1.87%	56.80%
36	37.21%	15.42%	63.54%
37	8.00%	3.60%	24.36%
38	9.87%	1.55%	17.86%
39	7.20%	1.74%	19.32%
40	17.18%	12.41%	42.63%
41	21.28%	17.63%	49.50%
42	39.39%	21.06%	69.99%
43	8.01%	1.54%	19.96%
44	8.87%	2.30%	22.13%
45	9.36%	1.74%	17.79%
46	36.10%	2.35%	43.66%
47	29.82%	2.11%	37.15%
48	35.18%	1.30%	41.81%
49	5.37%	0.66%	12.16%
50	44.10%	3.16%	52.75%
51	10.66%	1.00%	17.23%
52	9.97%	1.56%	19.65%
53	12.78%	2.09%	22.76%
54	12.90%	0.76%	19.25%
55	12.93%	0.99%	20.32%
56	11.12%	1.76%	19.21%
57	24.26%	0.71%	29.68%
58	12.18%	0.53%	17.93%
59	11.34%	0.53%	22.74%
60	10.30%	2.76%	19.20%
61	10.84%	7.97%	33.44%
62	48.00%	1.68%	54.39%
63	21.42%	2.17%	27.30%
64	19.13%	0.97%	25.33%
65	10.88%	0.85%	17.21%

DATE FILED: October 15, 2021 4:08 PM

In re Colorado Independent Legislative Redistricting Commission

Exhibit 11

Reports Regarding Splits Analysis

Assigned District Splits City
Plan: 2021 Final Approved Senate Plan
*** indicates split**

	FIPS	Total Population	Hispanic	Non-Hispanic
District 1				
	Logan County			
	*Unincorporated	6,291	510	5,781
	Atwood	138	10	128
	Crook	133	14	119
	Fleming	429	29	400
	Iliff	246	34	212
	Merino	282	21	261
	Padroni	75	13	62
	Peetz	213	15	198
	Sterling	11,860	2,262	9,598
	Logan County	19,667	2,908	16,759
	Morgan County			
	*Unincorporated	8,516	1,809	6,707
	Blue Sky	65	18	47
	Brush	5,361	2,109	3,252
	Fort Morgan	11,636	5,609	6,027
	Hillrose	313	54	259
	Jackson Lake	131	6	125
	Log Lane Village	921	530	391
	Morgan Heights	299	43	256
	Orchard	76	13	63
	Saddle Ridge	66	3	63
	Snyder	136	33	103
	Trail Side	157	44	113
	Weldona	113	16	97
	Wiggins	1,403	323	1,080
	Morgan County	29,193	10,610	18,583
	Phillips County			
	*Unincorporated	1,106	110	996
	Amherst	47	8	39
	Haxtun	982	68	914
	Holyoke	2,352	967	1,385
	Paoli	51	6	45
	Phillips County	4,538	1,159	3,379
	Sedgwick County			
	*Unincorporated	654	56	598
	Julesburg	1,311	215	1,096
	Ovid	271	59	212
	Sedgwick	172	33	139
	Sedgwick County	2,408	363	2,045

Washington County			
*Unincorporated	2,497	195	2,302
Akron	1,762	270	1,492
Cope	53	7	46
Otis	512	46	466
Washington County	4,824	518	4,306
* Weld County			
*Unincorporated	22,885	4,225	18,660
Ault	1,893	510	1,383
Briggsdale	134	1	133
Eaton	5,809	967	4,842
* Greeley	37,801	9,299	28,502
Grover	157	19	138
Hudson	1,655	551	1,104
Keenesburg	1,253	165	1,088
Kersey	1,496	458	1,038
* Lochbuie	8,102	3,686	4,416
Nunn	506	67	439
Pierce	1,100	281	819
Raymer (New Raymer)	110	4	106
Severance	7,684	1,085	6,599
* Weld County	90,585	21,318	69,267
Yuma County			
*Unincorporated	3,622	461	3,161
Eckley	234	80	154
Idalia	97	26	71
Joes	82	11	71
Kirk	61	6	55
Laird	46	3	43
Vernon	38	4	34
Wray	2,363	652	1,711
Yuma	3,462	1,536	1,926
Yuma County	10,005	2,779	7,226
District 1 Total	161,220	39,655	121,565
		24.60%	75.40%
District 2			
* Douglas County			
*Unincorporated	14,382	1,276	13,106
Castle Rock	73,198	8,543	64,655
Grand View Estates	691	64	627
Parker	58,542	6,346	52,196
Stonegate	9,072	805	8,267
The Pinery	11,315	825	10,490
* Douglas County	167,200	17,859	149,341
District 2 Total	167,200	17,859	149,341
		10.68%	89.32%
District 3			

Pueblo County			
*Unincorporated	17,812	4,650	13,162
Avondale	597	379	218
Beulah Valley	521	46	475
Blende	792	383	409
Boone	307	123	184
Colorado City	2,240	299	1,941
Pueblo	111,727	55,301	56,426
Pueblo West	33,134	8,436	24,698
Rye	207	33	174
Salt Creek	515	417	98
Vineland	270	76	194
Pueblo County	168,122	70,143	97,979
District 3 Total	168,122	70,143	97,979
		41.72%	58.28%

District 4

Chaffee County			
*Unincorporated	8,164	549	7,615
Buena Vista	2,855	206	2,649
Garfield	27	1	26
Johnson Village	299	23	276
Maysville	173	7	166
Nathrop	288	18	270
Poncha Springs	926	95	831
Salida	5,685	584	5,101
Smeltertown	89	14	75
Chaffee County	18,506	1,497	17,009
Custer County			
*Unincorporated	3,661	124	3,537
Silver Cliff	609	24	585
Westcliffe	435	30	405
Custer County	4,705	178	4,527
* Douglas County			
*Unincorporated	16,748	1,010	15,738
Franktown	409	27	382
Larkspur	207	25	182
Louviers	295	26	269
Perry Park	1,933	106	1,827
Sedalia	177	21	156
Westcreek	120	8	112
* Douglas County	19,889	1,223	18,666
Fremont County			
*Unincorporated	11,127	1,331	9,796
Brookside	236	18	218
Cañon City	16,449	1,714	14,735
Coal Creek	364	20	344
Coaldale	343	19	324
Cotopaxi	44	1	43
Florence	3,833	531	3,302
Howard	852	57	795

Lincoln Park	3,946	311	3,635
Park Center	2,960	325	2,635
Penrose	3,693	350	3,343
Rockvale	512	55	457
Williamsburg	737	72	665
Fremont County	45,096	4,804	40,292
* Jefferson County			
*Unincorporated	28,827	1,332	27,495
Aspen Park	811	63	748
* Brook Forest	334	5	329
* Jefferson County	29,972	1,400	28,572
Lake County			
*Unincorporated	2,714	1,404	1,310
Leadville	2,644	658	1,986
Leadville North	1,896	590	1,306
Twin Lakes	204	17	187
Lake County	7,458	2,669	4,789
Park County			
*Unincorporated	16,230	1,147	15,083
Alma	297	27	270
Fairplay	726	55	671
Guffey	111	5	106
Hartsel	38	3	35
Park County	17,402	1,237	16,165
* Teller County			
*Unincorporated	14,739	955	13,784
Cripple Creek	1,166	87	1,079
Divide	143	6	137
Florissant	128	8	120
Goldfield	63	7	56
Midland	182	16	166
Victor	381	9	372
Woodland Park	7,927	627	7,300
* Teller County	24,729	1,715	23,014
District 4 Total	167,757	14,723	153,034
		8.78%	91.22%

District 5

* Delta County			
*Unincorporated	10,468	1,066	9,402
Crawford	403	28	375
Delta	9,062	2,188	6,874
Hotchkiss	876	111	765
Lazear	168	28	140
Orchard City	3,143	310	2,833
Paonia	1,448	102	1,346
* Delta County	25,568	3,833	21,735

* Eagle County			
*Unincorporated	1,502	529	973
Basalt	2,918	486	2,432
El Jebel	4,133	1,736	2,397
* Eagle County	8,553	2,751	5,802
* Garfield County			
*Unincorporated	11,904	2,722	9,182
Battlement Mesa	5,445	1,405	4,040
Carbondale	6,438	1,968	4,470
Catherine	235	20	215
Cattle Creek	662	401	261
Glenwood Springs	9,974	3,539	6,435
Mulford	259	24	235
New Castle	4,931	1,459	3,472
No Name	118	18	100
Parachute	1,397	330	1,067
Rifle	10,452	4,251	6,201
Silt	3,538	1,375	2,163
* Garfield County	55,353	17,512	37,841
Gunnison County			
*Unincorporated	7,524	475	7,049
Crested Butte	1,639	79	1,560
Gunnison	6,565	988	5,577
Marble	133	15	118
Mount Crested Butte	941	49	892
Pitkin	72	0	72
Somerset	55	1	54
Gunnison County	16,929	1,607	15,322
Hinsdale County			
*Unincorporated	310	10	300
Cathedral	15	0	15
Lake City	433	17	416
Piedra	31	3	28
Hinsdale County	789	30	759
* Montrose County			
*Unincorporated	16,212	3,155	13,057
Montrose	20,334	4,506	15,828
Olathe	2,023	1,145	878
* Montrose County	38,569	8,806	29,763
Pitkin County			
*Unincorporated	5,769	651	5,118
Aspen	7,007	767	6,240
Basalt	1,067	177	890
Norrie	7	0	7
Redstone	127	9	118
Snowmass Village	3,096	261	2,835
Woody Creek	292	28	264
Pitkin County	17,365	1,893	15,472

District 5 Total	163,126	36,432	126,694
		22.33%	77.67%
District 6			
Alamosa County			
*Unincorporated	5,050	1,706	3,344
Alamosa	9,877	5,260	4,617
Alamosa East	1,463	769	694
Hooper	81	22	59
Alamosa County	16,471	7,757	8,714
Archuleta County			
*Unincorporated	11,492	1,560	9,932
Arboles	311	77	234
Pagosa Springs	1,577	526	1,051
Archuleta County	13,380	2,163	11,217
Conejos County			
*Unincorporated	3,786	1,654	2,132
Antonito	649	564	85
Capulin	136	116	20
Conejos	46	32	14
La Jara	737	457	280
Manassa	951	459	492
Romeo	305	220	85
Sanford	880	297	583
Conejos County	7,490	3,799	3,691
Costilla County			
*Unincorporated	2,066	902	1,164
Blanca	323	228	95
Fort Garland	465	331	134
San Acacio	56	36	20
San Luis	598	495	103
Costilla County	3,508	1,992	1,516
Dolores County			
*Unincorporated	1,404	94	1,310
Dove Creek	637	50	587
Rico	288	33	255
Dolores County	2,329	177	2,152
La Plata County			
*Unincorporated	32,694	3,818	28,876
Bayfield	2,841	464	2,377
Durango	19,112	2,316	16,796
Ignacio	856	378	478
Marvel	68	23	45
Southern Ute	158	27	131
La Plata County	55,729	7,026	48,703
Mineral County			
*Unincorporated	608	28	580
City of Creede	257	19	238

Mineral County	865	47	818
Montezuma County			
*Unincorporated	13,644	1,305	12,339
Cortez	8,797	1,489	7,308
Dolores	888	91	797
Lewis	257	22	235
Mancos	1,199	182	1,017
Towaoc	1,126	31	1,095
Montezuma County	25,911	3,120	22,791
* Montrose County			
*Unincorporated	2,936	174	2,762
Naturita	487	29	458
Nucla	585	40	545
Redvale	173	4	169
* Montrose County	4,181	247	3,934
Ouray County			
*Unincorporated	2,004	107	1,897
Colona	36	4	32
Loghill Village	617	22	595
Ouray	899	75	824
Portland	136	6	130
Ridgway	1,185	78	1,107
Ouray County	4,877	292	4,585
Rio Grande County			
*Unincorporated	4,857	1,169	3,688
Alpine	169	20	149
Center	44	40	4
Del Norte	1,465	711	754
Gerrard	264	22	242
Monte Vista	4,273	2,585	1,688
South Fork	511	90	421
Rio Grande County	11,583	4,637	6,946
Saguache County			
*Unincorporated	3,681	504	3,177
Bonanza	17	5	12
Center	1,891	1,699	192
Crestone	141	11	130
Moffat	109	5	104
Saguache	540	177	363
Saguache County	6,379	2,401	3,978
San Juan County			
*Unincorporated	83	9	74
Silverton	622	81	541
San Juan County	705	90	615
San Miguel County			
*Unincorporated	3,070	181	2,889
Mountain Village	1,264	223	1,041
Norwood	538	108	430

Ophir	197	13	184
Placerville	362	17	345
Sawpit	38	0	38
Telluride	2,608	341	2,267
San Miguel County	8,077	883	7,194
District 6 Total	161,485	34,631	126,854
		21.45%	78.55%
District 7			
* Delta County			
*Unincorporated	2,993	170	2,823
Cedaredge	2,282	181	2,101
* Delta County	5,275	351	4,924
Mesa County			
*Unincorporated	27,680	3,288	24,392
Clifton	20,533	4,958	15,575
Collbran	369	27	342
De Beque	494	47	447
Fruita	13,427	1,590	11,837
Fruitvale	8,291	1,187	7,104
Grand Junction	65,882	10,383	55,499
Loma	1,315	66	1,249
Orchard Mesa	6,717	911	5,806
Palisade	2,570	304	2,266
Redlands	9,080	643	8,437
Mesa County	156,358	23,404	132,954
District 7 Total	161,633	23,755	137,878
		14.70%	85.30%
District 8			
Clear Creek County			
*Unincorporated	1,537	89	1,448
Blue Valley	175	6	169
* Brook Forest	288	12	276
Central City	0	0	0
Downieville-Lawson-Dumont	529	61	468
Echo Hills	313	13	300
Empire	347	34	313
Floyd Hill	1,048	65	983
Georgetown	1,123	121	1,002
Idaho Springs	1,788	125	1,663
Pine Valley	364	8	356
Silver Plume	207	15	192
St. Mary's	333	23	310
Upper Bear Creek	985	50	935
Upper Witter Gulch	381	26	355
Clear Creek County	9,418	648	8,770
* Eagle County			
*Unincorporated	6,972	966	6,006

Avon	6,073	2,366	3,707
Dotsero	1,177	835	342
Eagle	7,518	1,441	6,077
Edwards	11,252	3,775	7,477
Fulford	0	0	0
Gypsum	8,043	3,951	4,092
McCoy	30	4	26
Minturn	1,034	224	810
Red Cliff	258	66	192
Vail	4,838	501	4,337
Wolcott	20	2	18
* Eagle County	47,215	14,131	33,084
* Garfield County			
*Unincorporated	5,909	1,968	3,941
Carbonate	0	0	0
Chacra	332	56	276
* Garfield County	6,241	2,024	4,217
Gilpin County			
*Unincorporated	4,418	257	4,161
Black Hawk	128	21	107
Central City	779	74	705
* Coal Creek	292	14	278
Rollinsville	194	15	179
Gilpin County	5,811	381	5,430
Grand County			
*Unincorporated	8,158	588	7,570
Fraser	1,400	135	1,265
Granby	2,079	374	1,705
Grand Lake	410	33	377
Hot Sulphur Springs	688	54	634
Kremmling	1,514	281	1,233
Parshall	42	8	34
Tabernash	401	15	386
Winter Park	1,034	47	987
Grand County	15,726	1,535	14,191
Jackson County			
*Unincorporated	773	33	740
Walden	608	105	503
Jackson County	1,381	138	1,243
Moffat County			
*Unincorporated	3,922	370	3,552
Craig	9,107	1,730	7,377
Dinosaur	243	27	216
Maybell	76	2	74
Moffat County	13,348	2,129	11,219
Rio Blanco County			
*Unincorporated	1,857	100	1,757
Meeker	2,375	259	2,116
Rangely	2,304	264	2,040

	Rio Blanco County	6,536	623	5,913
	Routt County			
	*Unincorporated	8,146	411	7,735
	Hayden	1,942	211	1,731
	Oak Creek	891	79	812
	Phippsburg	234	18	216
	Steamboat Springs	13,231	1,466	11,765
	Yampa	399	17	382
	Routt County	24,843	2,202	22,641
	Summit County			
	*Unincorporated	14,567	2,849	11,718
	Blue River	878	36	842
	Breckenridge	5,080	556	4,524
	Copper Mountain	651	72	579
	Dillon	1,067	184	883
	Frisco	2,915	190	2,725
	Heeney	74	5	69
	Keystone	1,369	179	1,190
	Montezuma	74	4	70
	Silverthorne	4,412	1,267	3,145
	Summit County	31,087	5,342	25,745
	District 8 Total	161,606	29,153	132,453
			18.04%	81.96%
District 9				
	* El Paso County			
	*Unincorporated	12,248	911	11,337
	Air Force Academy	6,608	935	5,673
	* Colorado Springs	116,674	12,795	103,879
	Gleneagle	6,653	539	6,114
	Monument	10,407	941	9,466
	Palmer Lake	2,639	241	2,398
	Woodmoor	9,541	604	8,937
	* El Paso County	164,770	16,966	147,804
	District 9 Total	164,770	16,966	147,804
			10.30%	89.70%
District 10				
	* El Paso County			
	*Unincorporated	1,511	203	1,308
	* Cimarron Hills	5,771	1,077	4,694
	* Colorado Springs	161,442	26,400	135,042
	* El Paso County	168,724	27,680	141,044
	District 10 Total	168,724	27,680	141,044
			16.41%	83.59%

District 11			
* El Paso County			
*Unincorporated	14,457	3,110	11,347
* Cimarron Hills	13,619	3,455	10,164
* Colorado Springs	132,480	40,548	91,932
Stratmoor	6,588	2,105	4,483
* El Paso County	167,144	49,218	117,926
District 11 Total	167,144	49,218	117,926
		29.45%	70.55%
District 12			
* El Paso County			
*Unincorporated	5,330	951	4,379
Cascade-Chipita Park	1,630	94	1,536
* Colorado Springs	70,194	8,567	61,627
Fort Carson	17,701	3,844	13,857
Fountain	29,880	7,076	22,804
Green Mountain Falls	622	31	591
Manitou Springs	4,876	339	4,537
Rock Creek Park	68	6	62
Security-Widefield	38,778	8,168	30,610
* El Paso County	169,079	29,076	140,003
* Teller County			
Green Mountain Falls	24	1	23
* Teller County	24	1	23
District 12 Total	169,103	29,077	140,026
		17.19%	82.81%
District 13			
* Adams County			
*Unincorporated	2,113	590	1,523
Brighton	39,844	17,018	22,826
* Lochbuie	1	1	0
* Todd Creek	2,225	301	1,924
* Adams County	44,183	17,910	26,273
* Weld County			
*Unincorporated	7,634	3,262	4,372
Aristocrat Ranchettes	1,718	1,014	704
Brighton	365	96	269
Evans	22,237	10,349	11,888
Fort Lupton	7,991	4,417	3,574
Garden City	260	184	76
Gilcrest	1,034	542	492
* Greeley	71,439	34,733	36,706
La Salle	2,368	868	1,500
Platteville	2,962	1,283	1,679
* Weld County	118,008	56,748	61,260

District 13 Total	162,191	74,658	87,533
		46.03%	53.97%
District 14			
* Larimer County			
*Unincorporated	11,573	2,475	9,098
* Fort Collins	149,410	18,311	131,099
* Larimer County	160,983	20,786	140,197
District 14 Total	160,983	20,786	140,197
		12.91%	87.09%
District 15			
* Boulder County			
*Unincorporated	11,470	595	10,875
Allenspark	569	18	551
Altona	513	19	494
Bark Ranch	202	5	197
Bonanza Mountain Estates	127	8	119
* Coal Creek	667	40	627
Crisman	179	9	170
Eldora	140	6	134
Eldorado Springs	559	47	512
Glendale	64	3	61
Gold Hill	220	7	213
Hidden Lake	24	2	22
Jamestown	256	5	251
Lazy Acres	958	32	926
Lyons	2,211	117	2,094
Mountain Meadows	238	13	225
Nederland	1,475	59	1,416
Pine Brook Hill	975	44	931
Seven Hills	129	2	127
St. Ann Highlands	325	10	315
Sugarloaf	274	9	265
Sunshine	198	2	196
Tall Timber	185	6	179
Ward	128	0	128
* Boulder County	22,086	1,058	21,028
* Larimer County			
*Unincorporated	42,462	4,112	38,350
Estes Park	5,909	906	5,003
Laporte	2,416	246	2,170
Loveland	76,526	9,949	66,577
Red Feather Lakes	427	17	410
Wellington	11,051	1,671	9,380
* Larimer County	138,791	16,901	121,890
District 15 Total	160,877	17,959	142,918
		11.16%	88.84%

District 16			
* Arapahoe County			
*Unincorporated	43	8	35
Bow Mar	587	24	563
* Centennial	57,709	4,855	52,854
Columbine	1,983	174	1,809
Columbine Valley	1,503	63	1,440
* Littleton	42,792	5,960	36,832
* Arapahoe County	104,617	11,084	93,533
* Jefferson County			
*Unincorporated	1,988	198	1,790
Bow Mar	267	25	242
Columbine	23,268	2,584	20,684
Ken Caryl	33,842	4,012	29,830
* Littleton	2,310	160	2,150
* Jefferson County	61,675	6,979	54,696
District 16 Total	166,292	18,063	148,229
		10.86%	89.14%
District 17			
* Boulder County			
*Unincorporated	3,802	284	3,518
* Erie	12,656	1,174	11,482
Lafayette	30,452	5,630	24,822
Leyner	40	4	36
Longmont	97,787	24,226	73,561
* Boulder County	144,737	31,318	113,419
* Broomfield County			
* Broomfield	0	0	0
* Broomfield County	0	0	0
* Weld County			
*Unincorporated	1,487	174	1,313
Erie	17,396	1,896	15,500
Longmont	1,298	314	984
* Weld County	20,181	2,384	17,797
District 17 Total	164,918	33,702	131,216
		20.44%	79.56%
District 18			
* Boulder County			
*Unincorporated	6,741	784	5,957
Boulder	108,317	11,452	96,865
Gunbarrel	9,561	584	8,977
Louisville	21,234	1,740	19,494
Niwot	4,306	219	4,087
Paragon Estates	975	60	915

* Superior	13,099	1,066	12,033
Valmont	64	3	61
* Boulder County	164,297	15,908	148,389
District 18 Total	164,297	15,908	148,389
		9.68%	90.32%
District 19			
* Adams County			
* Arvada	2,896	908	1,988
* Adams County	2,896	908	1,988
* Jefferson County			
*Unincorporated	5,143	1,416	3,727
Arvada	111,345	16,682	94,663
* Westminster	45,140	7,014	38,126
* Jefferson County	161,628	25,112	136,516
District 19 Total	164,524	26,020	138,504
		15.82%	84.18%
District 20			
* Jefferson County			
*Unincorporated	29,693	2,837	26,856
* Arvada	10,369	1,112	9,257
* Coal Creek	1,538	77	1,461
Dakota Ridge	33,930	4,450	29,480
Evergreen	9,313	430	8,883
* Fairmount	9,328	636	8,692
Genesee	3,612	157	3,455
Idledale	244	11	233
Indian Hills	1,474	73	1,401
Kittredge	1,309	63	1,246
* Lakewood	66,876	10,492	56,384
Morrison	396	26	370
* Superior	0	0	0
* West Pleasant View	0	0	0
* Jefferson County	168,082	20,364	147,718
District 20 Total	168,082	20,364	147,718
		12.12%	87.88%
District 21			
* Adams County			
*Unincorporated	10,038	2,324	7,714
Bennett	2,447	499	1,948
Berkley	12,603	7,330	5,273
Commerce City	62,600	30,605	31,995
Derby	8,451	6,074	2,377
North Washington	746	410	336
Sherrelwood	19,314	11,923	7,391

Strasburg	2,040	341	1,699
Twin Lakes	8,258	4,028	4,230
* Welby	15,594	9,259	6,335
* Westminster	20,863	9,406	11,457
* Adams County	162,954	82,199	80,755
* Arapahoe County			
*Unincorporated	1,397	201	1,196
Bennett	419	56	363
Byers	1,326	123	1,203
Comanche Creek	442	65	377
Deer Trail	1,069	271	798
Peoria	153	37	116
Strasburg	1,272	220	1,052
* Arapahoe County	6,078	973	5,105
District 21 Total	169,032	83,172	85,860
		49.20%	50.80%
District 22			
* Jefferson County			
*Unincorporated	2,013	417	1,596
Applewood	7,847	648	7,199
East Pleasant View	333	26	307
Edgewater	5,035	1,779	3,256
* Fairmount	0	0	0
Golden	20,435	1,979	18,456
Lakeside	16	3	13
* Lakewood	89,657	25,139	64,518
Mountain View	545	137	408
* West Pleasant View	4,230	612	3,618
Wheat Ridge	32,508	7,271	25,237
* Jefferson County	162,619	38,011	124,608
District 22 Total	162,619	38,011	124,608
		23.37%	76.63%
District 23			
* Larimer County			
*Unincorporated	10,123	1,524	8,599
Berthoud	10,082	1,085	8,997
* Fort Collins	20,701	2,762	17,939
Johnstown	4,756	741	4,015
Timnath	6,484	538	5,946
Windsor	7,721	453	7,268
* Larimer County	59,867	7,103	52,764
* Weld County			
*Unincorporated	12,745	2,408	10,337
Berthoud	261	38	223
Dacono	6,313	2,191	4,122
* Erie	0	0	0
Firestone	16,392	3,490	12,902

	Frederick	14,521	2,381	12,140
	Johnstown	12,556	2,157	10,399
	Mead	4,783	626	4,157
	Milliken	8,392	2,311	6,081
	* Northglenn	25	8	17
	* Thornton	0	0	0
	Timnath	5	2	3
	Windsor	25,014	2,822	22,192
	* Weld County	101,007	18,434	82,573
	District 23 Total	160,874	25,537	135,337
			15.87%	84.13%
District 24				
	* Adams County			
	*Unincorporated	7,941	3,081	4,860
	Federal Heights	14,438	8,901	5,537
	* Northglenn	417	123	294
	* Thornton	142,160	51,528	90,632
	* Todd Creek	2,806	476	2,330
	* Welby	0	0	0
	* Adams County	167,762	64,109	103,653
	* Broomfield County			
	* Broomfield	0	0	0
	* Broomfield County	0	0	0
	District 24 Total	167,762	64,109	103,653
			38.21%	61.79%
District 25				
	* Adams County			
	*Unincorporated	921	148	773
	* Northglenn	37,805	13,933	23,872
	Shaw Heights	5,206	2,057	3,149
	* Westminster	50,547	10,898	39,649
	* Adams County	94,479	27,036	67,443
	* Broomfield County			
	* Broomfield	74,173	9,935	64,238
	* Broomfield County	74,173	9,935	64,238
	* Weld County	0	0	0
	District 25 Total	168,652	36,971	131,681
			21.92%	78.08%
District 26				
	* Arapahoe County			
	*Unincorporated	1,389	391	998
	Cherry Creek	11,495	1,065	10,430

	Cherry Hills Village	6,445	267	6,178
	Englewood	33,761	6,445	27,316
	* Four Square Mile	22,765	4,449	18,316
	Greenwood Village	15,702	1,000	14,702
	Sheridan	6,122	2,603	3,519
	* Arapahoe County	97,679	16,220	81,459
	* Denver County			
	* Denver	66,438	12,446	53,992
	* Denver County	66,438	12,446	53,992
	* Jefferson County	0	0	0
	District 26 Total	164,117	28,666	135,451
			17.47%	82.53%
District 27				
	* Arapahoe County			
	*Unincorporated	34,464	4,789	29,675
	* Aurora	69,015	9,906	59,109
	Brick Center	105	19	86
	* Centennial	50,798	5,578	45,220
	Dove Valley	5,644	1,031	4,613
	Foxfield	754	54	700
	Inverness	2,234	260	1,974
	* Arapahoe County	163,014	21,637	141,377
	* Douglas County			
	*Unincorporated	47	0	47
	* Aurora	2,507	204	2,303
	* Douglas County	2,554	204	2,350
	District 27 Total	165,568	21,841	143,727
			13.19%	86.81%
District 28				
	* Adams County			
	*Unincorporated	808	220	588
	* Aurora	48,001	24,916	23,085
	Watkins	88	29	59
	* Adams County	48,897	25,165	23,732
	* Arapahoe County			
	*Unincorporated	7,551	1,349	6,202
	Aetna Estates	1,502	1,150	352
	* Aurora	105,444	39,437	66,007
	Watkins	594	86	508
	* Arapahoe County	115,091	42,022	73,069
	District 28 Total	163,988	67,187	96,801

			40.97%	59.03%
District 29				
	* Arapahoe County			
	* Aurora	162,492	42,725	119,767
	* Arapahoe County	162,492	42,725	119,767
	District 29 Total	162,492	42,725	119,767
			26.29%	73.71%
District 30				
	* Douglas County			
	*Unincorporated	6,362	747	5,615
	Acres Green	2,925	414	2,511
	Castle Pines	11,039	754	10,285
	Castle Pines Village	4,328	194	4,134
	Highlands Ranch	103,498	9,052	94,446
	* Littleton	640	103	537
	Lone Tree	14,261	1,204	13,057
	Meridian	4,792	535	4,257
	Meridian Village	3,202	227	2,975
	Roxborough Park	9,420	915	8,505
	Sierra Ridge	3,490	342	3,148
	Stepping Stone	2,780	176	2,604
	Sterling Ranch	1,789	185	1,604
	* Douglas County	168,526	14,848	153,678
	District 30 Total	168,526	14,848	153,678
			8.81%	91.19%
District 31				
	* Denver County			
	* Denver	164,485	18,964	145,521
	* Denver County	164,485	18,964	145,521
	District 31 Total	164,485	18,964	145,521
			11.53%	88.47%
District 32				
	* Arapahoe County			
	* Four Square Mile	158	21	137
	Glendale	4,627	1,128	3,499
	Holly Hills	2,686	221	2,465
	* Arapahoe County	7,471	1,370	6,101
	* Denver County			
	* Denver	154,269	47,221	107,048
	* Denver County	154,269	47,221	107,048
	* Jefferson County	0	0	0

	District 32 Total	161,740	48,591	113,149
			30.04%	69.96%
District 33				
	* Denver County			
	* Denver	163,990	56,162	107,828
	* Denver County	163,990	56,162	107,828
	District 33 Total	163,990	56,162	107,828
			34.25%	65.75%
District 34				
	* Denver County			
	* Denver	167,908	65,324	102,584
	* Denver County	167,908	65,324	102,584
	District 34 Total	167,908	65,324	102,584
			38.90%	61.10%
District 35				
	Baca County			
	*Unincorporated	1,293	61	1,232
	Campo	103	8	95
	Pritchett	112	10	102
	Springfield	1,330	158	1,172
	Two Buttes	34	2	32
	Vilas	98	19	79
	Walsh	543	88	455
	Baca County	3,513	346	3,167
	Bent County			
	*Unincorporated	1,891	336	1,555
	Hasty	182	45	137
	Las Animas	2,317	934	1,383
	McClave	130	38	92
	Bent County	4,520	1,353	3,167
	Cheyenne County			
	*Unincorporated	634	50	584
	Arapahoe	102	9	93
	Cheyenne Wells	763	97	666
	Kit Carson	255	50	205
	Cheyenne County	1,754	206	1,548
	Crowley County			
	*Unincorporated	1,794	367	1,427
	Crowley	166	57	109
	Olney Springs	315	70	245
	Ordway	1,067	327	740
	Sugar City	261	51	210

Crowley County	3,603	872	2,731
Elbert County			
*Unincorporated	19,477	1,511	17,966
Elbert	188	19	169
Elizabeth	1,677	184	1,493
Kiowa	727	54	673
Matheson	79	3	76
Ponderosa Park	3,336	247	3,089
Simla	603	49	554
Elbert County	26,087	2,067	24,020
* El Paso County			
*Unincorporated	45,608	5,902	39,706
Black Forest	15,107	1,094	14,013
Calhan	763	46	717
Ellicott	1,253	486	767
Peyton	214	21	193
Ramah	111	4	107
* El Paso County	63,056	7,553	55,503
Huerfano County			
*Unincorporated	2,807	479	2,328
Gardner	106	44	62
La Veta	862	86	776
Walsenburg	3,065	1,529	1,536
Huerfano County	6,840	2,138	4,702
Kiowa County			
*Unincorporated	610	42	568
Brandon	21	1	20
Eads	673	55	618
Haswell	71	3	68
Sheridan Lake	55	3	52
Towner	18	0	18
Kiowa County	1,448	104	1,344
Kit Carson County			
*Unincorporated	2,243	252	1,991
Bethune	183	56	127
Burlington	3,180	954	2,226
Flagler	568	30	538
Seibert	172	16	156
Stratton	658	100	558
Vona	95	7	88
Kit Carson County	7,099	1,415	5,684
Las Animas County			
*Unincorporated	4,394	1,073	3,321
Aguilar	457	215	242
Branson	57	8	49
Cokedale	127	25	102
El Moro	216	57	159
Hoehne	80	36	44
Jansen	101	46	55

Kim	63	18	45
Lynn	11	6	5
Segundo	100	32	68
Starkville	62	28	34
Stonewall Gap	66	4	62
Trinidad	8,368	3,892	4,476
Valdez	46	34	12
Weston	53	33	20
Las Animas County	14,201	5,507	8,694
Lincoln County			
*Unincorporated	1,773	158	1,615
Arriba	202	2	200
Genoa	153	6	147
Hugo	791	34	757
Limon	2,054	325	1,729
Lincoln County	4,973	525	4,448
Otero County			
*Unincorporated	4,461	1,097	3,364
Cheraw	238	60	178
Fowler	1,257	234	1,023
La Junta	7,357	3,632	3,725
La Junta Gardens	124	42	82
Manzanola	343	150	193
North La Junta	484	156	328
Rocky Ford	3,893	2,217	1,676
Swink	609	153	456
Otero County	18,766	7,741	11,025
Prowers County			
*Unincorporated	2,540	545	1,995
Granada	446	315	131
Hartman	57	21	36
Holly	837	422	415
Lamar	7,729	3,287	4,442
Wiley	438	113	325
Prowers County	12,047	4,703	7,344
District 35 Total	167,907	34,530	133,377
		20.56%	79.44%

Source: Colorado Independent Redistricting Commissions Staff.
October 14, 2021

Assigned District Splits County

Plan: 2021 Final Approved Senate Plan

*** indicates split**

County	Total Population	Hispanic	Non-Hispanic	Non-Hispanic white	Non-Hispanic black	Non-Hispanic American Indian/ Alaskan Native	Non-Hispanic Asian	Non-Hispanic Hawaiian or Other Pacific Islander	Non-Hispanic some other race	Non-Hispanic two or more minority race
District 1										
Logan County	19,667	2,908	16,759	15,560	356	97	99	17	52	578
Morgan County	29,193	10,610	18,583	16,579	937	113	153	11	77	713
Phillips County	4,538	1,159	3,379	3,250	10	12	22	1	5	79
Sedgwick County	2,408	363	2,045	1,936	4	11	12	0	8	74
Washington County	4,824	518	4,306	4,062	24	8	15	10	20	167
* Weld County	90,585	21,318	69,267	63,505	631	365	994	83	350	3,339
Yuma County	10,005	2,779	7,226	6,957	21	16	26	2	27	177
District 1 Total	161,220	39,655	121,565	111,849	1,983	622	1,321	124	539	5,127
		24.60%	75.40%	69.38%	1.23%	0.39%	0.82%	0.08%	0.33%	3.18%
District 2										
* Douglas County	167,200	17,859	149,341	130,711	2,479	459	6,171	175	734	8,612
District 2 Total	167,200	17,859	149,341	130,711	2,479	459	6,171	175	734	8,612
		10.68%	89.32%	78.18%	1.48%	0.27%	3.69%	0.10%	0.44%	5.15%
District 3										
Pueblo County	168,122	70,143	97,979	85,326	2,921	1,265	1,556	138	944	5,829
District 3 Total	168,122	70,143	97,979	85,326	2,921	1,265	1,556	138	944	5,829
		41.72%	58.28%	50.75%	1.74%	0.75%	0.93%	0.08%	0.56%	3.47%
District 4										
Chaffee County	18,506	1,497	17,009	15,805	111	87	126	11	100	769
Custer County	4,705	178	4,527	4,213	10	42	22	0	45	195
* Douglas County	19,889	1,223	18,666	17,317	104	57	256	8	119	805
Fremont County	45,096	4,804	40,292	35,958	1,143	559	287	30	234	2,081
* Jefferson County	29,972	1,400	28,572	26,561	90	77	318	19	144	1,363
Lake County	7,458	2,669	4,789	4,308	31	46	63	8	45	288
Park County	17,402	1,237	16,165	14,912	89	118	99	9	94	844
* Teller County	24,729	1,715	23,014	21,037	133	124	201	12	148	1,359
District 4 Total	167,757	14,723	153,034	140,111	1,711	1,110	1,372	97	929	7,704
		8.78%	91.22%	83.52%	1.02%	0.66%	0.82%	0.06%	0.55%	4.59%
District 5										
* Delta County	25,568	3,833	21,735	20,119	70	92	209	6	164	1,075
* Eagle County	8,553	2,751	5,802	5,384	24	21	104	11	36	222
* Garfield County	55,353	17,512	37,841	34,634	237	270	382	31	282	2,005
Gunnison County	16,929	1,607	15,322	14,261	78	70	121	7	111	674
Hinsdale County	789	30	759	694	8	6	2	1	6	42
* Montrose County	38,569	8,806	29,763	27,532	148	251	318	26	172	1,316
Pitkin County	17,365	1,893	15,472	14,439	94	36	280	7	82	534
District 5 Total	163,126	36,432	126,694	117,063	659	746	1,416	89	853	5,868
		22.33%	77.67%	71.76%	0.40%	0.46%	0.87%	0.05%	0.52%	3.60%
District 6										
Alamosa County	16,471	7,757	8,714	7,518	216	220	143	19	104	494
Archuleta County	13,380	2,163	11,217	10,189	42	172	101	6	77	630
Conejos County	7,490	3,799	3,691	3,474	14	44	21	2	24	112
Costilla County	3,508	1,992	1,516	1,238	34	34	55	0	13	142
Dolores County	2,329	177	2,152	1,952	18	36	6	4	5	131
La Plata County	55,729	7,026	48,703	42,452	185	2,819	381	33	377	2,456

Mineral County	865	47	818	775	0	4	3	0	0	36
Montezuma County	25,911	3,120	22,791	18,064	73	3,187	128	24	107	1,208
* Montrose County	4,181	247	3,934	3,636	11	14	16	0	11	246
Ouray County	4,877	292	4,585	4,311	16	16	28	2	24	188
Rio Grande County	11,583	4,637	6,946	6,275	51	139	36	4	56	385
Saguache County	6,379	2,401	3,978	3,582	19	81	63	2	42	189
San Juan County	705	90	615	575	1	6	2	0	1	30
San Miguel County	8,077	883	7,194	6,761	20	47	55	0	44	267
District 6 Total	161,485	34,631	126,854	110,802	700	6,819	1,038	96	885	6,514
	100.23%	21.50%	78.74%	68.77%	0.43%	4.23%	0.64%	0.06%	0.55%	4.04%
District 7										
* Delta County	5,275	351	4,924	4,639	10	21	17	3	28	206
Mesa County	156,358	23,404	132,954	121,234	1,039	956	1,615	188	889	7,033
District 7 Total	161,633	23,755	137,878	125,873	1,049	977	1,632	191	917	7,239
		14.70%	85.30%	77.88%	0.65%	0.60%	1.01%	0.12%	0.57%	4.48%
District 8										
Clear Creek County	9,418	648	8,770	8,169	49	42	82	7	38	383
* Eagle County	47,215	14,131	33,084	30,830	273	97	608	16	151	1,109
* Garfield County	6,241	2,024	4,217	3,966	17	28	13	3	27	163
Gilpin County	5,811	381	5,430	4,954	32	36	85	4	37	282
Grand County	15,726	1,535	14,191	13,442	59	56	83	17	73	461
Jackson County	1,381	138	1,243	1,163	0	12	2	2	5	59
Moffat County	13,348	2,129	11,219	10,362	79	98	52	2	60	566
Rio Blanco County	6,536	623	5,913	5,515	29	51	22	2	29	265
Routt County	24,843	2,202	22,641	21,253	154	67	169	35	92	871
Summit County	31,087	5,342	25,745	23,802	236	68	407	20	150	1,062
District 8 Total	161,606	29,153	132,453	123,456	928	555	1,523	108	662	5,221
	100.01%	18.04%	81.97%	76.40%	0.57%	0.34%	0.94%	0.07%	0.41%	3.23%
District 9										
* El Paso County	164,770	16,966	147,804	125,107	4,487	587	6,843	247	1,056	9,477
District 9 Total	164,770	16,966	147,804	125,107	4,487	587	6,843	247	1,056	9,477
		10.30%	89.70%	75.93%	2.72%	0.36%	4.15%	0.15%	0.64%	5.75%
District 10										
* El Paso County	168,724	27,680	141,044	114,298	8,172	856	5,280	438	978	11,022
District 10 Total	168,724	27,680	141,044	114,298	8,172	856	5,280	438	978	11,022
		16.41%	83.59%	67.74%	4.84%	0.51%	3.13%	0.26%	0.58%	6.53%
District 11										
* El Paso County	167,144	49,218	117,926	82,468	16,810	1,232	4,553	938	1,064	10,861
District 11 Total	167,144	49,218	117,926	82,468	16,810	1,232	4,553	938	1,064	10,861
		29.45%	70.55%	49.34%	10.06%	0.74%	2.72%	0.56%	0.64%	6.50%
District 12										
* El Paso County	169,079	29,076	140,003	111,515	10,406	905	4,055	1,023	1,064	11,035
* Teller County	24	1	23	20	0	0	0	0	0	3
District 12 Total	169,103	29,077	140,026	111,535	10,406	905	4,055	1,023	1,064	11,038
		17.19%	82.81%	65.96%	6.15%	0.54%	2.40%	0.60%	0.63%	6.53%
District 13										
* Adams County	44,183	17,910	26,273	22,747	573	220	840	77	231	1,585
* Weld County	118,008	56,748	61,260	51,575	2,865	605	2,072	132	464	3,547
District 13 Total	162,191	74,658	87,533	74,322	3,438	825	2,912	209	695	5,132
		46.03%	53.97%	45.82%	2.12%	0.51%	1.80%	0.13%	0.43%	3.16%
District 14										
* Larimer County	160,983	20,786	140,197	123,932	2,141	709	4,842	145	804	7,624

District 14 Total	160,983	20,786 12.91%	140,197 87.09%	123,932 76.98%	2,141 1.33%	709 0.44%	4,842 3.01%	145 0.09%	804 0.50%	7,624 4.74%
District 15										
* Boulder County	22,086	1,058	21,028	19,478	64	58	286	5	152	985
* Larimer County	138,791	16,901	121,890	112,047	900	597	1,413	100	711	6,122
District 15 Total	160,877	17,959 11.16%	142,918 88.84%	131,525 81.76%	964 0.60%	655 0.41%	1,699 1.06%	105 0.07%	863 0.54%	7,107 4.42%
District 16										
* Arapahoe County	104,617	11,084	93,533	83,910	1,213	324	2,910	76	454	4,646
* Jefferson County	61,675	6,979	54,696	49,014	484	197	1,724	32	316	2,929
District 16 Total	166,292	18,063 10.86%	148,229 89.14%	132,924 79.93%	1,697 1.02%	521 0.31%	4,634 2.79%	108 0.06%	770 0.46%	7,575 4.56%
District 17										
* Boulder County	144,737	31,318	113,419	98,796	1,358	553	5,649	82	748	6,233
* Broomfield County	0	0	0	0	0	0	0	0	0	0
* Weld County	20,181	2,384	17,797	15,651	139	51	851	29	106	970
District 17 Total	164,918	33,702 20.44%	131,216 79.56%	114,447 69.40%	1,497 0.91%	604 0.37%	6,500 3.94%	111 0.07%	854 0.52%	7,203 4.37%
District 18										
* Boulder County	164,297	15,908	148,389	127,138	1,749	507	10,365	154	920	7,556
District 18 Total	164,297	15,908 9.68%	148,389 90.32%	127,138 77.38%	1,749 1.06%	507 0.31%	10,365 6.31%	154 0.09%	920 0.56%	7,556 4.60%
District 19										
* Adams County	2,896	908	1,988	1,602	31	22	219	0	9	105
* Jefferson County	161,628	25,112	136,516	121,272	1,730	718	4,700	93	671	7,332
District 19 Total	164,524	26,020 15.82%	138,504 84.18%	122,874 74.68%	1,761 1.07%	740 0.45%	4,919 2.99%	93 0.06%	680 0.41%	7,437 4.52%
District 20										
* Jefferson County	168,082	20,364	147,718	131,485	1,460	714	5,952	100	781	7,226
District 20 Total	168,082	20,364 12.12%	147,718 87.88%	131,485 78.23%	1,460 0.87%	714 0.42%	5,952 3.54%	100 0.06%	781 0.46%	7,226 4.30%
District 21										
* Adams County	162,954	82,199	80,755	64,968	3,912	999	4,743	205	707	5,221
* Arapahoe County	6,078	973	5,105	4,681	62	34	40	1	20	267
District 21 Total	169,032	83,172 49.20%	85,860 50.80%	69,649 41.20%	3,974 2.35%	1,033 0.61%	4,783 2.83%	206 0.12%	727 0.43%	5,488 3.25%
District 22										
* Jefferson County	162,619	38,011	124,608	107,516	2,943	1,234	5,015	220	904	6,776
District 22 Total	162,619	38,011 23.37%	124,608 76.63%	107,516 66.12%	2,943 1.81%	1,234 0.76%	5,015 3.08%	220 0.14%	904 0.56%	6,776 4.17%
District 23										
* Larimer County	59,867	7,103	52,764	46,989	444	206	2,116	20	304	2,685
* Weld County	101,007	18,434	82,573	75,462	545	337	1,774	59	385	4,011
District 23 Total	160,874	25,537 15.87%	135,337 84.13%	122,451 76.12%	989 0.61%	543 0.34%	3,890 2.42%	79 0.05%	689 0.43%	6,696 4.16%
District 24										

* Adams County	167,762	64,109	103,653	83,173	2,961	909	9,196	144	762	6,508
* Broomfield County	0	0	0	0	0	0	0	0	0	0
District 24 Total	167,762	64,109	103,653	83,173	2,961	909	9,196	144	762	6,508
		38.21%	61.79%	49.58%	1.77%	0.54%	5.48%	0.09%	0.45%	3.88%
District 25										
* Adams County	94,479	27,036	67,443	55,950	1,682	551	4,714	99	390	4,057
* Broomfield County	74,173	9,935	64,238	53,943	928	201	5,097	80	351	3,638
* Weld County	0	0	0	0	0	0	0	0	0	0
District 25 Total	168,652	36,971	131,681	109,893	2,610	752	9,811	179	741	7,695
		21.92%	78.08%	65.16%	1.55%	0.45%	5.82%	0.11%	0.44%	4.56%
District 26										
* Arapahoe County	97,679	16,220	81,459	62,686	7,091	529	5,869	89	538	4,657
* Denver County	66,438	12,446	53,992	41,236	5,575	289	3,379	129	374	3,010
* Jefferson County	0	0	0	0	0	0	0	0	0	0
District 26 Total	164,117	28,666	135,451	103,922	12,666	818	9,248	218	912	7,667
		17.47%	82.53%	63.32%	7.72%	0.50%	5.64%	0.13%	0.56%	4.67%
District 27										
* Arapahoe County	163,014	21,637	141,377	101,698	12,056	491	16,602	214	840	9,476
* Douglas County	2,554	204	2,350	2,030	56	9	149	0	6	100
District 27 Total	165,568	21,841	143,727	103,728	12,112	500	16,751	214	846	9,576
		13.19%	86.81%	62.65%	7.32%	0.30%	10.12%	0.13%	0.51%	5.78%
District 28										
* Adams County	48,897	25,165	23,732	11,500	7,096	220	2,894	228	270	1,524
* Arapahoe County	115,091	42,022	73,069	39,358	19,321	569	7,158	633	694	5,336
District 28 Total	163,988	67,187	96,801	50,858	26,417	789	10,052	861	964	6,860
		40.97%	59.03%	31.01%	16.11%	0.48%	6.13%	0.53%	0.59%	4.18%
District 29										
* Arapahoe County	162,492	42,725	119,767	71,182	28,585	718	9,004	617	964	8,697
District 29 Total	162,492	42,725	119,767	71,182	28,585	718	9,004	617	964	8,697
		26.29%	73.71%	43.81%	17.59%	0.44%	5.54%	0.38%	0.59%	5.35%
District 30										
* Douglas County	168,526	14,848	153,678	128,853	2,165	448	13,238	107	692	8,175
District 30 Total	168,526	14,848	153,678	128,853	2,165	448	13,238	107	692	8,175
		8.81%	91.19%	76.46%	1.28%	0.27%	7.86%	0.06%	0.41%	4.85%
District 31										
* Denver County	164,485	18,964	145,521	121,427	9,443	700	5,307	113	887	7,644
District 31 Total	164,485	18,964	145,521	121,427	9,443	700	5,307	113	887	7,644
		11.53%	88.47%	73.82%	5.74%	0.43%	3.23%	0.07%	0.54%	4.65%
District 32										
* Arapahoe County	7,471	1,370	6,101	5,029	333	26	299	4	39	371
* Denver County	154,269	47,221	107,048	82,763	9,422	868	6,834	108	847	6,206
* Jefferson County	0	0	0	0	0	0	0	0	0	0
District 32 Total	161,740	48,591	113,149	87,792	9,755	894	7,133	112	886	6,577
		30.04%	69.96%	54.28%	6.03%	0.55%	4.41%	0.07%	0.55%	4.07%
District 33										
* Denver County	163,990	56,162	107,828	59,299	31,304	674	7,395	920	791	7,445
District 33 Total	163,990	56,162	107,828	59,299	31,304	674	7,395	920	791	7,445

		34.25%	65.75%	36.16%	19.09%	0.41%	4.51%	0.56%	0.48%	4.54%
District 34										
* Denver County	167,908	65,324	102,584	84,145	6,100	1,252	4,299	125	847	5,816
District 34 Total	167,908	65,324	102,584	84,145	6,100	1,252	4,299	125	847	5,816
		38.90%	61.10%	50.11%	3.63%	0.75%	2.56%	0.07%	0.50%	3.46%
District 35										
Baca County	3,513	346	3,167	2,923	19	38	8	0	37	142
Bent County	4,520	1,353	3,167	2,825	78	47	26	0	8	183
Cheyenne County	1,754	206	1,548	1,475	2	5	3	0	3	60
Crowley County	3,603	872	2,731	2,385	101	69	30	2	5	139
Elbert County	26,087	2,067	24,020	22,207	123	119	184	21	123	1,243
* El Paso County	63,056	7,553	55,503	48,293	1,444	308	938	104	437	3,979
Huerfano County	6,840	2,138	4,702	4,240	54	79	24	0	49	256
Kiowa County	1,448	104	1,344	1,249	3	0	9	1	1	81
Kit Carson County	7,099	1,415	5,684	5,311	22	24	30	5	32	260
Las Animas County	14,201	5,507	8,694	7,816	120	135	101	12	87	423
Lincoln County	4,973	525	4,448	4,056	89	32	33	22	21	195
Otero County	18,766	7,741	11,025	10,042	135	119	98	28	103	500
Prowers County	12,047	4,703	7,344	6,707	84	121	31	6	50	345
District 35 Total	167,907	34,530	133,377	119,529	2,274	1,096	1,515	201	956	7,806
		20.56%	79.44%	71.19%	1.35%	0.65%	0.90%	0.12%	0.57%	4.65%

Source: Colorado Independent Redistricting Commissions Staff.
October 14, 2021

Assigned District Splits

Plan: 2021 Final Approved House Plan

*** indicates split**

	FIPS	Total Population	Hispanic	Non-Hispanic
District 1				
	* Denver County			
	* Denver	87,969	42,515	45,454
	* Denver County	87,969	42,515	45,454
	* Jefferson County	0	0	0
	District 1 Total	87,969	42,515	45,454
			48.33%	51.67%
District 2				
	* Denver County			
	* Denver	88,172	6,901	81,271
	* Denver County	88,172	6,901	81,271
	District 2 Total	88,172	6,901	81,271
			7.83%	92.17%
District 3				
	* Arapahoe County			
	Unincorporated	1,284	374	910
	* Aurora	1,940	279	1,661
	Cherry Hills Village	6,445	267	6,178
	Englewood	33,761	6,445	27,316
	Sheridan	6,122	2,603	3,519
	* Arapahoe County	49,552	9,968	39,584
	* Denver County			
	* Denver	37,946	6,763	31,183
	* Denver County	37,946	6,763	31,183
	District 3 Total	87,498	16,731	70,767
			19.12%	80.88%
District 4				
	* Denver County			
	* Denver	87,718	34,936	52,782
	* Denver County	87,718	34,936	52,782
	District 4 Total	87,718	34,936	52,782
			39.83%	60.17%

District 5				
	* Denver County			
	* Denver	86,960	28,831	58,129
	* Denver County	86,960	28,831	58,129
	District 5 Total	86,960	28,831	58,129
			33.15%	66.85%
District 6				
	* Denver County			
	* Denver	87,264	11,990	75,274
	* Denver County	87,264	11,990	75,274
	District 6 Total	87,264	11,990	75,274
			13.74%	86.26%
District 7				
	* Denver County			
	* Denver	90,537	42,698	47,839
	* Denver County	90,537	42,698	47,839
	District 7 Total	90,537	42,698	47,839
			47.16%	52.84%
District 8				
	* Denver County			
	* Denver	90,282	16,248	74,034
	* Denver County	90,282	16,248	74,034
	District 8 Total	90,282	16,248	74,034
			18.00%	82.00%
District 9				
	* Arapahoe County			
	Four Square Mile	22,923	4,470	18,453
	Glendale	4,627	1,128	3,499
	Holly Hills	2,686	221	2,465
	* Arapahoe County	30,236	5,819	24,417
	* Denver County			
	* Denver	60,242	9,235	51,007
	* Denver County	60,242	9,235	51,007
	District 9 Total	90,478	15,054	75,424
			16.64%	83.36%
District 10				
	* Boulder County			
	Unincorporated	2,350	168	2,182
	* Boulder	87,934	10,343	77,591
	* Gunbarrel	0	0	0

	* Boulder County	90,284	10,511	79,773
	District 10 Total	90,284	10,511	79,773
			11.64%	88.36%
District 11				
	* Boulder County			
	Unincorporated	1,000	79	921
	* Longmont	87,336	22,667	64,669
	* Boulder County	88,336	22,746	65,590
	District 11 Total	88,336	22,746	65,590
			25.75%	74.25%
District 12				
	* Boulder County			
	Unincorporated	6,794	735	6,059
	* Erie	0	0	0
	* Gunbarrel	9,561	584	8,977
	Lafayette	30,452	5,630	24,822
	Louisville	21,234	1,740	19,494
	Niwot	4,306	219	4,087
	Paragon Estates	975	60	915
	* Superior	13,099	1,066	12,033
	Valmont	64	3	61
	* Boulder County	86,485	10,037	76,448
	* Broomfield County			
	* Broomfield	0	0	0
	* Broomfield County	0	0	0
	District 12 Total	86,485	10,037	76,448
			11.61%	88.39%
District 13				
	* Chaffee County			
	Unincorporated	6,952	469	6,483
	Buena Vista	2,855	206	2,649
	Garfield	27	1	26
	Johnson Village	299	23	276
	Maysville	173	7	166
	Nathrop	288	18	270
	Poncha Springs	926	95	831
	Salida	5,685	584	5,101
	* Chaffee County	17,205	1,403	15,802
	Grand County			
	Unincorporated	8,158	588	7,570
	Fraser	1,400	135	1,265
	Granby	2,079	374	1,705
	Grand Lake	410	33	377
	Hot Sulphur Springs	688	54	634
	Kremmling	1,514	281	1,233
	Parshall	42	8	34
	Tabernash	401	15	386
	Winter Park	1,034	47	987

	Grand County	15,726	1,535	14,191
	Jackson County			
	Unincorporated	773	33	740
	Walden	608	105	503
	Jackson County	1,381	138	1,243
	Lake County			
	Unincorporated	2,714	1,404	1,310
	Leadville	2,644	658	1,986
	Leadville North	1,896	590	1,306
	Twin Lakes	204	17	187
	Lake County	7,458	2,669	4,789
	Park County			
	Unincorporated	16,230	1,147	15,083
	Alma	297	27	270
	Fairplay	726	55	671
	Guffey	111	5	106
	Hartsel	38	3	35
	Park County	17,402	1,237	16,165
	Summit County			
	Unincorporated	14,567	2,849	11,718
	Blue River	878	36	842
	Breckenridge	5,080	556	4,524
	Copper Mountain	651	72	579
	Dillon	1,067	184	883
	Frisco	2,915	190	2,725
	Heeney	74	5	69
	Keystone	1,369	179	1,190
	Montezuma	74	4	70
	Silverthorne	4,412	1,267	3,145
	Summit County	31,087	5,342	25,745
	District 13 Total	90,259	12,324	77,935
			13.65%	86.35%
District 14				
	* El Paso County			
	Unincorporated	1,032	105	927
	* Colorado Springs	89,583	9,392	80,191
	* El Paso County	90,615	9,497	81,118
	District 14 Total	90,615	9,497	81,118
			10.48%	89.52%
District 15				
	* El Paso County			
	Unincorporated	16,107	3,461	12,646
	Cimarron Hills	19,390	4,532	14,858
	* Colorado Springs	54,577	9,232	45,345
	* El Paso County	90,074	17,225	72,849
	District 15 Total	90,074	17,225	72,849
			19.12%	80.88%

District 16				
	* El Paso County			
	* Colorado Springs	88,844	17,300	71,544
	* El Paso County	88,844	17,300	71,544
	District 16 Total	88,844	17,300	71,544
			19.47%	80.53%
District 17				
	* El Paso County			
	Unincorporated	327	58	269
	* Colorado Springs	81,371	28,377	52,994
	Stratmoor	6,588	2,105	4,483
	* El Paso County	88,286	30,540	57,746
	District 17 Total	88,286	30,540	57,746
			34.59%	65.41%
District 18				
	* El Paso County			
	Unincorporated	2,494	310	2,184
	Cascade-Chipita Park	1,630	94	1,536
	* Colorado Springs	77,804	10,538	67,266
	Green Mountain Falls	622	31	591
	Manitou Springs	4,876	339	4,537
	Rock Creek Park	68	6	62
	* El Paso County	87,494	11,318	76,176
	* Teller County			
	Green Mountain Falls	24	1	23
	* Teller County	24	1	23
	District 18 Total	87,518	11,319	76,199
			12.93%	87.07%
District 19				
	* Boulder County			
	Unincorporated	2,163	152	2,011
	* Erie	12,656	1,174	11,482
	Leyner	40	4	36
	* Longmont	10,451	1,559	8,892
	* Boulder County	25,310	2,889	22,421
	* Weld County			
	Unincorporated	7,999	1,926	6,073
	Dacono	6,313	2,191	4,122
	Erie	17,396	1,896	15,500
	Firestone	16,392	3,490	12,902
	Frederick	14,521	2,381	12,140
	Longmont	1,298	314	984
	* Northglenn	25	8	17
	* Weld County	63,944	12,206	51,738

	District 19 Total	89,254	15,095	74,159
			16.91%	83.09%
District 20				
	* El Paso County			
	Unincorporated	37,852	4,509	33,343
	Air Force Academy	6,608	935	5,673
	Black Forest	15,107	1,094	14,013
	* Colorado Springs	0	0	0
	Gleneagle	6,653	539	6,114
	Monument	10,407	941	9,466
	Palmer Lake	2,639	241	2,398
	Woodmoor	9,541	604	8,937
	* El Paso County	88,807	8,863	79,944
	District 20 Total	88,807	8,863	79,944
			9.98%	90.02%
District 21				
	* El Paso County			
	Unincorporated	2,458	536	1,922
	Fort Carson	17,701	3,844	13,857
	Fountain	29,880	7,076	22,804
	Security-Widefield	38,778	8,168	30,610
	* El Paso County	88,817	19,624	69,193
	District 21 Total	88,817	19,624	69,193
			22.09%	77.91%
District 22				
	* El Paso County			
	Unincorporated	1,136	119	1,017
	* Colorado Springs	88,611	13,471	75,140
	* El Paso County	89,747	13,590	76,157
	District 22 Total	89,747	13,590	76,157
			15.14%	84.86%
District 23				
	* Jefferson County			
	Unincorporated	3,075	552	2,523
	* Applewood	3,522	384	3,138
	East Pleasant View	333	26	307
	* Fairmount	0	0	0
	Lakeside	16	3	13
	* Lakewood	47,525	6,899	40,626
	Mountain View	545	137	408
	* West Pleasant View	0	0	0
	Wheat Ridge	32,508	7,271	25,237
	* Jefferson County	87,524	15,272	72,252
	District 23 Total	87,524	15,272	72,252
			17.45%	82.55%
District 24				
	* Adams County			

	* Arvada	2,896	908	1,988
	* Adams County	2,896	908	1,988
	* Jefferson County			
	Unincorporated	1,452	1,066	386
	Arvada	77,174	11,633	65,541
	* Fairmount	9,328	636	8,692
	* Jefferson County	87,954	13,335	74,619
	District 24 Total	90,850	14,243	76,607
			15.68%	84.32%
District 25				
	* Jefferson County			
	Unincorporated	35,275	1,587	33,688
	Aspen Park	811	63	748
	* Brook Forest	334	5	329
	Evergreen	9,313	430	8,883
	Genesee	3,612	157	3,455
	Idledale	244	11	233
	Indian Hills	1,474	73	1,401
	Ken Caryl	33,842	4,012	29,830
	Kittredge	1,309	63	1,246
	* Littleton	2,310	160	2,150
	Morrison	396	26	370
	* Jefferson County	88,920	6,587	82,333
	District 25 Total	88,920	6,587	82,333
			7.41%	92.59%
District 26				
	* Eagle County			
	Unincorporated	6,932	966	5,966
	Avon	6,073	2,366	3,707
	* Dotsero	0	0	0
	Eagle	7,518	1,441	6,077
	Edwards	11,252	3,775	7,477
	Fulford	0	0	0
	Gypsum	8,043	3,951	4,092
	McCoy	30	4	26
	Minturn	1,034	224	810
	Red Cliff	258	66	192
	Vail	4,838	501	4,337
	Wolcott	20	2	18
	* Eagle County	45,998	13,296	32,702
	Moffat County			
	Unincorporated	3,922	370	3,552
	Craig	9,107	1,730	7,377
	Dinosaur	243	27	216
	Maybell	76	2	74
	Moffat County	13,348	2,129	11,219
	Rio Blanco County			
	Unincorporated	1,857	100	1,757
	Meeker	2,375	259	2,116
	Rangely	2,304	264	2,040
	Rio Blanco County	6,536	623	5,913

	Routt County			
	Unincorporated	8,146	411	7,735
	Hayden	1,942	211	1,731
	Oak Creek	891	79	812
	Phippsburg	234	18	216
	Steamboat Springs	13,231	1,466	11,765
	Yampa	399	17	382
	Routt County	24,843	2,202	22,641
	District 26 Total	90,725	18,250	72,475
			20.12%	79.88%
District 27				
	* Jefferson County			
	Unincorporated	12,834	823	12,011
	* Applewood	4,325	264	4,061
	* Arvada	44,540	6,161	38,379
	* Coal Creek	1,538	77	1,461
	Golden	20,435	1,979	18,456
	* Superior	0	0	0
	* West Pleasant View	4,230	612	3,618
	* Jefferson County	87,902	9,916	77,986
	District 27 Total	87,902	9,916	77,986
			11.28%	88.72%
District 28				
	* Jefferson County			
	Unincorporated	12,653	1,739	10,914
	* Columbine	11,924	1,479	10,445
	Dakota Ridge	33,930	4,450	29,480
	* Lakewood	28,468	4,576	23,892
	* Jefferson County	86,975	12,244	74,731
	District 28 Total	86,975	12,244	74,731
			14.08%	85.92%
District 29				
	* Adams County			
	Unincorporated	880	148	732
	* Westminster	45,446	8,774	36,672
	* Adams County	46,326	8,922	37,404
	* Jefferson County			
	Unincorporated	1,157	126	1,031
	* Westminster	41,097	6,063	35,034
	* Jefferson County	42,254	6,189	36,065
	District 29 Total	88,580	15,111	73,469
			17.06%	82.94%
District 30				
	* Jefferson County			

	Unincorporated	1,218	307	911
	Edgewater	5,035	1,779	3,256
	* Lakewood	80,540	24,156	56,384
	* Jefferson County	86,793	26,242	60,551
	District 30 Total	86,793	26,242	60,551
			30.24%	69.76%
District 31				
	* Adams County			
	Unincorporated	6,327	2,744	3,583
	* Thornton	80,769	38,344	42,425
	* Adams County	87,096	41,088	46,008
	District 31 Total	87,096	41,088	46,008
			47.18%	52.82%
District 32				
	* Adams County			
	Unincorporated	1,503	595	908
	Commerce City	62,600	30,605	31,995
	Derby	8,451	6,074	2,377
	North Washington	746	410	336
	Welby	15,594	9,259	6,335
	* Adams County	88,894	46,943	41,951
	District 32 Total	88,894	46,943	41,951
			52.81%	47.19%
District 33				
	* Adams County			
	Unincorporated	1,255	213	1,042
	* Thornton	12,210	2,128	10,082
	* Adams County	13,465	2,341	11,124
	* Broomfield County			
	* Broomfield	74,173	9,935	64,238
	* Broomfield County	74,173	9,935	64,238
	* Weld County			
	* Thornton	0	0	0
	* Weld County	0	0	0
	District 33 Total	87,638	12,276	75,362
			14.01%	85.99%
District 34				
	* Adams County			
	Unincorporated	25	8	17
	* Northglenn	38,222	14,056	24,166
	* Thornton	49,153	11,039	38,114
	* Adams County	87,400	25,103	62,297

	District 34 Total	87,400	25,103	62,297
			28.72%	71.28%
District 35				
	* Adams County			
	Unincorporated	35	5	30
	Berkley	12,603	7,330	5,273
	Federal Heights	14,438	8,901	5,537
	Shaw Heights	5,206	2,057	3,149
	Sherrelwood	19,314	11,923	7,391
	* Thornton	28	17	11
	Twin Lakes	8,258	4,028	4,230
	* Westminster	25,964	11,530	14,434
	* Adams County	85,846	45,791	40,055
	* Jefferson County			
	* Westminster	4,043	951	3,092
	* Jefferson County	4,043	951	3,092
	District 35 Total	89,889	46,742	43,147
			52.00%	48.00%
District 36				
	* Adams County			
	Unincorporated	402	100	302
	* Aurora	48,001	24,916	23,085
	* Adams County	48,403	25,016	23,387
	* Arapahoe County			
	Unincorporated	961	314	647
	Aetna Estates	1,502	1,150	352
	* Aurora	36,973	9,596	27,377
	* Arapahoe County	39,436	11,060	28,376
	District 36 Total	87,839	36,076	51,763
			41.07%	58.93%
District 37				
	* Arapahoe County			
	Unincorporated	2,766	414	2,352
	* Aurora	1,224	208	1,016
	* Centennial	47,992	3,857	44,135
	Cherry Creek	11,495	1,065	10,430
	Dove Valley	5,644	1,031	4,613
	Foxfield	754	54	700
	Greenwood Village	15,702	1,000	14,702
	Inverness	2,234	260	1,974
	* Arapahoe County	87,811	7,889	79,922
	District 37 Total	87,811	7,889	79,922
			8.98%	91.02%
District 38				
	* Arapahoe County			
	Unincorporated	43	8	35

	Bow Mar	587	24	563
	* Centennial	30,308	2,793	27,515
	* Columbine	1,983	174	1,809
	Columbine Valley	1,503	63	1,440
	* Littleton	42,792	5,960	36,832
	* Arapahoe County	77,216	9,022	68,194
	* Jefferson County			
	Bow Mar	267	25	242
	* Columbine	11,344	1,105	10,239
	* Littleton	0	0	0
	* Jefferson County	11,611	1,130	10,481
	District 38 Total	88,827	10,152	78,675
			11.43%	88.57%
District 39				
	* Douglas County			
	Unincorporated	21,250	1,652	19,598
	Acres Green	2,925	414	2,511
	Castle Pines	11,039	754	10,285
	* Castle Pines Village	2,585	116	2,469
	Franktown	409	27	382
	* Highlands Ranch	15,966	1,161	14,805
	Larkspur	207	25	182
	Lone Tree	14,261	1,204	13,057
	Louviers	295	26	269
	Meridian	4,792	535	4,257
	Perry Park	1,933	106	1,827
	Roxborough Park	9,420	915	8,505
	Sedalia	177	21	156
	Sterling Ranch	1,789	185	1,604
	Westcreek	120	8	112
	* Douglas County	87,168	7,149	80,019
	District 39 Total	87,168	7,149	80,019
			8.20%	91.80%
District 40				
	* Arapahoe County			
	Unincorporated	16,291	2,574	13,717
	* Aurora	73,944	15,150	58,794
	* Arapahoe County	90,235	17,724	72,511
	District 40 Total	90,235	17,724	72,511
			19.64%	80.36%
District 41				
	* Arapahoe County			
	* Aurora	89,053	21,852	67,201
	* Arapahoe County	89,053	21,852	67,201
	District 41 Total	89,053	21,852	67,201
			24.54%	75.46%

District 42				
	* Arapahoe County			
	* Aurora	90,864	39,721	51,143
	* Arapahoe County	90,864	39,721	51,143
	District 42 Total	90,864	39,721	51,143
			43.71%	56.29%
District 43				
	* Douglas County			
	* Highlands Ranch	87,532	7,891	79,641
	* Littleton	640	103	537
	* Douglas County	88,172	7,994	80,178
	District 43 Total	88,172	7,994	80,178
			9.07%	90.93%
District 44				
	* Douglas County			
	Unincorporated	12,725	1,111	11,614
	Grand View Estates	691	64	627
	Meridian Village	3,202	227	2,975
	Parker	58,542	6,346	52,196
	Sierra Ridge	3,490	342	3,148
	Stepping Stone	2,780	176	2,604
	Stonegate	9,072	805	8,267
	* Douglas County	90,502	9,071	81,431
	District 44 Total	90,502	9,071	81,431
			10.02%	89.98%
District 45				
	* Douglas County			
	Unincorporated	3,035	241	2,794
	* Castle Pines Village	1,743	78	1,665
	Castle Rock	73,198	8,543	64,655
	The Pinery	11,315	825	10,490
	* Douglas County	89,291	9,687	79,604
	District 45 Total	89,291	9,687	79,604
			10.85%	89.15%
District 46				
	* Pueblo County			
	Unincorporated	15,296	4,043	11,253
	Avondale	597	379	218
	Beulah Valley	521	46	475
	Blende	792	383	409
	Colorado City	2,240	299	1,941
	* Pueblo	70,765	30,905	39,860
	Rye	207	33	174
	Vineland	270	76	194
	* Pueblo County	90,688	36,164	54,524

District 46 Total	90,688	36,164	54,524
		39.88%	60.12%

District 47

Baca County			
Unincorporated	1,293	61	1,232
Campo	103	8	95
Pritchett	112	10	102
Springfield	1,330	158	1,172
Two Buttes	34	2	32
Vilas	98	19	79
Walsh	543	88	455
Baca County	3,513	346	3,167
Bent County			
Unincorporated	1,891	336	1,555
Hasty	182	45	137
Las Animas	2,317	934	1,383
McClave	130	38	92
Bent County	4,520	1,353	3,167
Crowley County			
Unincorporated	1,794	367	1,427
Crowley	166	57	109
Olney Springs	315	70	245
Ordway	1,067	327	740
Sugar City	261	51	210
Crowley County	3,603	872	2,731
* Huerfano County			
Unincorporated	2,246	360	1,886
La Veta	862	86	776
Walsenburg	3,065	1,529	1,536
* Huerfano County	6,173	1,975	4,198
Kiowa County			
Unincorporated	610	42	568
Brandon	21	1	20
Eads	673	55	618
Haswell	71	3	68
Sheridan Lake	55	3	52
Towner	18	0	18
Kiowa County	1,448	104	1,344
Las Animas County			
Unincorporated	4,394	1,073	3,321
Aguilar	457	215	242
Branson	57	8	49
Cokedale	127	25	102
El Moro	216	57	159
Hoehne	80	36	44
Jansen	101	46	55
Kim	63	18	45
Lynn	11	6	5
Segundo	100	32	68
Starkville	62	28	34
Stonewall Gap	66	4	62
Trinidad	8,368	3,892	4,476
Valdez	46	34	12
Weston	53	33	20
Las Animas County	14,201	5,507	8,694

	Otero County			
	Unincorporated	4,461	1,097	3,364
	Cheraw	238	60	178
	Fowler	1,257	234	1,023
	La Junta	7,357	3,632	3,725
	La Junta Gardens	124	42	82
	Manzanola	343	150	193
	North La Junta	484	156	328
	Rocky Ford	3,893	2,217	1,676
	Swink	609	153	456
	Otero County	18,766	7,741	11,025
	Prowers County			
	Unincorporated	2,540	545	1,995
	Granada	446	315	131
	Hartman	57	21	36
	Holly	837	422	415
	Lamar	7,729	3,287	4,442
	Wiley	438	113	325
	Prowers County	12,047	4,703	7,344
	* Pueblo County			
	Unincorporated	1,622	416	1,206
	Boone	307	123	184
	* Pueblo West	21,892	6,092	15,800
	* Pueblo County	23,821	6,631	17,190
	District 47 Total	88,092	29,232	58,860
			33.18%	66.82%
District 48				
	* Adams County			
	Unincorporated	2,707	789	1,918
	Brighton	39,844	17,018	22,826
	Lochbuie	1	1	0
	Todd Creek	5,031	777	4,254
	* Adams County	47,583	18,585	28,998
	* Weld County			
	Unincorporated	12,334	3,241	9,093
	Aristocrat Ranchettes	1,718	1,014	704
	Brighton	365	96	269
	Fort Lupton	7,991	4,417	3,574
	Gilcrest	1,034	542	492
	Hudson	1,655	551	1,104
	Keenesburg	1,253	165	1,088
	Kersey	1,496	458	1,038
	La Salle	2,368	868	1,500
	Lochbuie	8,102	3,686	4,416
	Platteville	2,962	1,283	1,679
	* Weld County	41,278	16,321	24,957
	District 48 Total	88,861	34,906	53,955
			39.28%	60.72%
District 49				
	* Boulder County			
	Unincorporated	9,706	529	9,177

Allenspark	569	18	551
Altona	513	19	494
Bark Ranch	202	5	197
Bonanza Mountain Estates	127	8	119
* Boulder	20,383	1,109	19,274
* Coal Creek	667	40	627
Crisman	179	9	170
Eldora	140	6	134
Eldorado Springs	559	47	512
Glendale	64	3	61
Gold Hill	220	7	213
Hidden Lake	24	2	22
Jamestown	256	5	251
Lazy Acres	958	32	926
Lyons	2,211	117	2,094
Mountain Meadows	238	13	225
Nederland	1,475	59	1,416
Pine Brook Hill	975	44	931
Seven Hills	129	2	127
St. Ann Highlands	325	10	315
Sugarloaf	274	9	265
Sunshine	198	2	196
* Superior	0	0	0
Tall Timber	185	6	179
Ward	128	0	128
* Boulder County	40,705	2,101	38,604
Clear Creek County			
Unincorporated	1,537	89	1,448
Blue Valley	175	6	169
* Brook Forest	288	12	276
Central City	0	0	0
Downieville-Lawson-Dumont	529	61	468
Echo Hills	313	13	300
Empire	347	34	313
Floyd Hill	1,048	65	983
Georgetown	1,123	121	1,002
Idaho Springs	1,788	125	1,663
Pine Valley	364	8	356
Silver Plume	207	15	192
St. Mary's	333	23	310
Upper Bear Creek	985	50	935
Upper Witter Gulch	381	26	355
Clear Creek County	9,418	648	8,770
Gilpin County			
Unincorporated	4,418	257	4,161
Black Hawk	128	21	107
Central City	779	74	705
Coal Creek	292	14	278
Rollinsville	194	15	179
Gilpin County	5,811	381	5,430
* Larimer County			
Unincorporated	24,270	1,412	22,858
Estes Park	5,909	906	5,003
Red Feather Lakes	427	17	410
* Larimer County	30,606	2,335	28,271
District 49 Total	86,540	5,465	81,075
		6.31%	93.69%

District 50				
	* Weld County			
	Unincorporated	4,299	1,996	2,303
	* Evans	22,237	10,349	11,888
	Garden City	260	184	76
	* Greeley	61,118	30,854	30,264
	* Weld County	87,914	43,383	44,531
	District 50 Total	87,914	43,383	44,531
			49.35%	50.65%
District 51				
	* Larimer County			
	Unincorporated	11,336	1,417	9,919
	Loveland	76,526	9,949	66,577
	* Larimer County	87,862	11,366	76,496
	District 51 Total	87,862	11,366	76,496
			12.94%	87.06%
District 52				
	* Larimer County			
	Unincorporated	3,193	456	2,737
	* Fort Collins	87,594	9,964	77,630
	* Larimer County	90,787	10,420	80,367
	District 52 Total	90,787	10,420	80,367
			11.48%	88.52%
District 53				
	* Larimer County			
	Unincorporated	7,932	2,029	5,903
	* Fort Collins	82,517	11,109	71,408
	* Larimer County	90,449	13,138	77,311
	District 53 Total	90,449	13,138	77,311
			14.53%	85.47%
District 54				
	* Delta County			
	Unincorporated	7,590	823	6,767
	Cedaredge	2,282	181	2,101
	Delta	9,062	2,188	6,874
	Orchard City	3,143	310	2,833
	* Delta County	22,077	3,502	18,575
	* Mesa County			
	Unincorporated	18,504	1,440	17,064
	Clifton	20,533	4,958	15,575
	Collbran	369	27	342
	De Beque	494	47	447
	Fruita	13,427	1,590	11,837
	Fruitvale	8,291	1,187	7,104
	* Grand Junction	3,256	733	2,523
	Loma	1,315	66	1,249

	Palisade	2,570	304	2,266
	* Mesa County	68,759	10,352	58,407
	District 54 Total	90,836	13,854	76,982
			15.25%	84.75%
District 55				
	* Mesa County			
	Unincorporated	9,176	1,848	7,328
	* Grand Junction	62,626	9,650	52,976
	Orchard Mesa	6,717	911	5,806
	Redlands	9,080	643	8,437
	* Mesa County	87,599	13,052	74,547
	District 55 Total	87,599	13,052	74,547
			14.90%	85.10%
District 56				
	* Adams County			
	Unincorporated	8,687	1,761	6,926
	Bennett	2,447	499	1,948
	Strasburg	2,040	341	1,699
	Watkins	88	29	59
	* Adams County	13,262	2,630	10,632
	* Arapahoe County			
	Unincorporated	2,836	486	2,350
	* Aurora	6,594	786	5,808
	Bennett	419	56	363
	Brick Center	105	19	86
	Byers	1,326	123	1,203
	Comanche Creek	442	65	377
	Deer Trail	1,069	271	798
	Peoria	153	37	116
	Strasburg	1,272	220	1,052
	Watkins	594	86	508
	* Arapahoe County	14,810	2,149	12,661
	Cheyenne County			
	Unincorporated	634	50	584
	Arapahoe	102	9	93
	Cheyenne Wells	763	97	666
	Kit Carson	255	50	205
	Cheyenne County	1,754	206	1,548
	Elbert County			
	Unincorporated	19,477	1,511	17,966
	Elbert	188	19	169
	Elizabeth	1,677	184	1,493
	Kiowa	727	54	673
	Matheson	79	3	76
	Ponderosa Park	3,336	247	3,089
	Simla	603	49	554
	Elbert County	26,087	2,067	24,020
	* El Paso County			
	Unincorporated	17,748	1,979	15,769
	Calhan	763	46	717

Ellicott	1,253	486	767
Peyton	214	21	193
Ramah	111	4	107
* El Paso County	20,089	2,536	17,553
Kit Carson County			
Unincorporated	2,243	252	1,991
Bethune	183	56	127
Burlington	3,180	954	2,226
Flagler	568	30	538
Seibert	172	16	156
Stratton	658	100	558
Vona	95	7	88
Kit Carson County	7,099	1,415	5,684
Lincoln County			
Unincorporated	1,773	158	1,615
Arriba	202	2	200
Genoa	153	6	147
Hugo	791	34	757
Limon	2,054	325	1,729
Lincoln County	4,973	525	4,448
District 56 Total	88,074	11,528	76,546
		13.09%	86.91%
District 57			
* Eagle County			
Unincorporated	1,542	529	1,013
Basalt	2,918	486	2,432
* Dotsero	1,177	835	342
El Jebel	4,133	1,736	2,397
* Eagle County	9,770	3,586	6,184
Garfield County			
Unincorporated	17,813	4,690	13,123
Battlement Mesa	5,445	1,405	4,040
Carbonate	0	0	0
Carbondale	6,438	1,968	4,470
Catherine	235	20	215
Cattle Creek	662	401	261
Chacra	332	56	276
Glenwood Springs	9,974	3,539	6,435
Mulford	259	24	235
New Castle	4,931	1,459	3,472
No Name	118	18	100
Parachute	1,397	330	1,067
Rifle	10,452	4,251	6,201
Silt	3,538	1,375	2,163
Garfield County	61,594	19,536	42,058
Pitkin County			
Unincorporated	5,769	651	5,118
Aspen	7,007	767	6,240
Basalt	1,067	177	890
Norrie	7	0	7
Redstone	127	9	118
Snowmass Village	3,096	261	2,835
Woody Creek	292	28	264
Pitkin County	17,365	1,893	15,472

District 57 Total	88,729	25,015	63,714
		28.19%	71.81%
District 58			
* Delta County			
Unincorporated	5,871	413	5,458
Crawford	403	28	375
Hotchkiss	876	111	765
Lazear	168	28	140
Paonia	1,448	102	1,346
* Delta County	8,766	682	8,084
Dolores County			
Unincorporated	1,404	94	1,310
Dove Creek	637	50	587
Rico	288	33	255
Dolores County	2,329	177	2,152
Gunnison County			
Unincorporated	7,524	475	7,049
Crested Butte	1,639	79	1,560
Gunnison	6,565	988	5,577
Marble	133	15	118
Mount Crested Butte	941	49	892
Pitkin	72	0	72
Somerset	55	1	54
Gunnison County	16,929	1,607	15,322
Hinsdale County			
Unincorporated	310	10	300
Cathedral	15	0	15
Lake City	433	17	416
Piedra	31	3	28
Hinsdale County	789	30	759
* Montezuma County			
Unincorporated	5,016	466	4,550
Lewis	257	22	235
* Montezuma County	5,273	488	4,785
Montrose County			
Unincorporated	19,148	3,329	15,819
Montrose	20,334	4,506	15,828
Naturita	487	29	458
Nucla	585	40	545
Olathe	2,023	1,145	878
Redvale	173	4	169
Montrose County	42,750	9,053	33,697
Ouray County			
Unincorporated	2,004	107	1,897
Colona	36	4	32
Loghill Village	617	22	595
Ouray	899	75	824
Portland	136	6	130
Ridgway	1,185	78	1,107
Ouray County	4,877	292	4,585

	San Miguel County			
	Unincorporated	3,070	181	2,889
	Mountain Village	1,264	223	1,041
	Norwood	538	108	430
	Ophir	197	13	184
	Placerville	362	17	345
	Sawpit	38	0	38
	Telluride	2,608	341	2,267
	San Miguel County	8,077	883	7,194
	District 58 Total	89,790	13,212	76,578
			14.71%	85.29%
District 59				
	Archuleta County			
	Unincorporated	11,492	1,560	9,932
	Arboles	311	77	234
	Pagosa Springs	1,577	526	1,051
	Archuleta County	13,380	2,163	11,217
	La Plata County			
	Unincorporated	32,694	3,818	28,876
	Bayfield	2,841	464	2,377
	Durango	19,112	2,316	16,796
	Ignacio	856	378	478
	Marvel	68	23	45
	Southern Ute	158	27	131
	La Plata County	55,729	7,026	48,703
	* Montezuma County			
	Unincorporated	8,628	839	7,789
	Cortez	8,797	1,489	7,308
	Dolores	888	91	797
	Mancos	1,199	182	1,017
	Towaoc	1,126	31	1,095
	* Montezuma County	20,638	2,632	18,006
	San Juan County			
	Unincorporated	83	9	74
	Silverton	622	81	541
	San Juan County	705	90	615
	District 59 Total	90,452	11,911	78,541
			13.17%	86.83%
District 60				
	* Chaffee County			
	Unincorporated	1,212	80	1,132
	Smeltertown	89	14	75
	* Chaffee County	1,301	94	1,207
	Custer County			
	Unincorporated	3,661	124	3,537
	Silver Cliff	609	24	585
	Westcliffe	435	30	405
	Custer County	4,705	178	4,527

	Fremont County			
	Unincorporated	11,127	1,331	9,796
	Brookside	236	18	218
	Cañon City	16,449	1,714	14,735
	Coal Creek	364	20	344
	Coaldale	343	19	324
	Cotopaxi	44	1	43
	Florence	3,833	531	3,302
	Howard	852	57	795
	Lincoln Park	3,946	311	3,635
	Park Center	2,960	325	2,635
	Penrose	3,693	350	3,343
	Rockvale	512	55	457
	Williamsburg	737	72	665
	Fremont County	45,096	4,804	40,292
	* Pueblo County			
	Unincorporated	157	42	115
	* Pueblo West	11,242	2,344	8,898
	* Pueblo County	11,399	2,386	9,013
	* Teller County			
	Unincorporated	14,739	955	13,784
	Cripple Creek	1,166	87	1,079
	Divide	143	6	137
	Florissant	128	8	120
	Goldfield	63	7	56
	Midland	182	16	166
	Victor	381	9	372
	Woodland Park	7,927	627	7,300
	* Teller County	24,729	1,715	23,014
	District 60 Total	87,230	9,177	78,053
		95.84%	10.08%	85.76%
District 61				
	* Arapahoe County			
	Unincorporated	20,663	2,568	18,095
	* Aurora	36,359	4,476	31,883
	* Centennial	30,207	3,783	26,424
	* Arapahoe County	87,229	10,827	76,402
	* Douglas County			
	Unincorporated	529	29	500
	Aurora	2,507	204	2,303
	* Douglas County	3,036	233	2,803
	District 61 Total	90,265	11,060	79,205
			12.25%	87.75%
District 62				
	Alamosa County			
	Unincorporated	5,050	1,706	3,344
	Alamosa	9,877	5,260	4,617
	Alamosa East	1,463	769	694
	Hooper	81	22	59
	Alamosa County	16,471	7,757	8,714

Conejos County			
Unincorporated	3,786	1,654	2,132
Antonito	649	564	85
Capulin	136	116	20
Conejos	46	32	14
La Jara	737	457	280
Manassa	951	459	492
Romeo	305	220	85
Sanford	880	297	583
Conejos County	7,490	3,799	3,691
Costilla County			
Unincorporated	2,066	902	1,164
Blanca	323	228	95
Fort Garland	465	331	134
San Acacio	56	36	20
San Luis	598	495	103
Costilla County	3,508	1,992	1,516
* Huerfano County			
Unincorporated	561	119	442
Gardner	106	44	62
* Huerfano County	667	163	504
Mineral County			
Unincorporated	608	28	580
City of Creede	257	19	238
Mineral County	865	47	818
* Pueblo County			
Unincorporated	737	149	588
* Pueblo	40,962	24,396	16,566
Salt Creek	515	417	98
* Pueblo County	42,214	24,962	17,252
Rio Grande County			
Unincorporated	4,857	1,169	3,688
Alpine	169	20	149
Center	44	40	4
Del Norte	1,465	711	754
Gerrard	264	22	242
Monte Vista	4,273	2,585	1,688
South Fork	511	90	421
Rio Grande County	11,583	4,637	6,946
Saguache County			
Unincorporated	3,681	504	3,177
Bonanza	17	5	12
Center	1,891	1,699	192
Crestone	141	11	130
Moffat	109	5	104
Saguache	540	177	363
Saguache County	6,379	2,401	3,978
District 62 Total	89,177	45,758	43,419
		51.31%	48.69%

District 63

Logan County

Unincorporated	6,291	510	5,781
Atwood	138	10	128
Crook	133	14	119
Fleming	429	29	400
Iliff	246	34	212
Merino	282	21	261
Padroni	75	13	62
Peetz	213	15	198
Sterling	11,860	2,262	9,598
Logan County	19,667	2,908	16,759
Morgan County			
Unincorporated	8,516	1,809	6,707
Blue Sky	65	18	47
Brush	5,361	2,109	3,252
Fort Morgan	11,636	5,609	6,027
Hillrose	313	54	259
Jackson Lake	131	6	125
Log Lane Village	921	530	391
Morgan Heights	299	43	256
Orchard	76	13	63
Saddle Ridge	66	3	63
Snyder	136	33	103
Trail Side	157	44	113
Weldona	113	16	97
Wiggins	1,403	323	1,080
Morgan County	29,193	10,610	18,583
Phillips County			
Unincorporated	1,106	110	996
Amherst	47	8	39
Haxtun	982	68	914
Holyoke	2,352	967	1,385
Paoli	51	6	45
Phillips County	4,538	1,159	3,379
Sedgwick County			
Unincorporated	654	56	598
Julesburg	1,311	215	1,096
Ovid	271	59	212
Sedgwick	172	33	139
Sedgwick County	2,408	363	2,045
Washington County			
Unincorporated	2,497	195	2,302
Akron	1,762	270	1,492
Cope	53	7	46
Otis	512	46	466
Washington County	4,824	518	4,306
* Weld County			
Unincorporated	12,651	2,108	10,543
Ault	1,893	510	1,383
Briggsdale	134	1	133
Grover	157	19	138
Nunn	506	67	439
Pierce	1,100	281	819
Raymer (New Raymer)	110	4	106
* Weld County	16,551	2,990	13,561
Yuma County			
Unincorporated	3,622	461	3,161

	Eckley	234	80	154
	Idalia	97	26	71
	Joes	82	11	71
	Kirk	61	6	55
	Laird	46	3	43
	Vernon	38	4	34
	Wray	2,363	652	1,711
	Yuma	3,462	1,536	1,926
	Yuma County	10,005	2,779	7,226
	District 63 Total	87,186	21,327	65,859
			24.46%	75.54%
District 64				
	* Larimer County			
	Unincorporated	2,481	177	2,304
	Berthoud	10,082	1,085	8,997
	* Larimer County	12,563	1,262	11,301
	* Weld County			
	Unincorporated	3,335	338	2,997
	Berthoud	261	38	223
	* Evans	0	0	0
	* Greeley	48,122	13,178	34,944
	* Johnstown	12,556	2,157	10,399
	Mead	4,783	626	4,157
	Milliken	8,392	2,311	6,081
	* Weld County	77,449	18,648	58,801
	District 64 Total	90,012	19,910	70,102
			22.12%	77.88%
District 65				
	* Larimer County			
	Unincorporated	14,946	2,620	12,326
	* Johnstown	4,756	741	4,015
	Laporte	2,416	246	2,170
	Timnath	6,484	538	5,946
	Wellington	11,051	1,671	9,380
	Windsor	7,721	453	7,268
	* Larimer County	47,374	6,269	41,105
	* Weld County			
	Unincorporated	4,133	460	3,673
	Eaton	5,809	967	4,842
	* Greeley	0	0	0
	Severance	7,684	1,085	6,599
	Timnath	5	2	3
	Windsor	25,014	2,822	22,192
	* Weld County	42,645	5,336	37,309
	District 65 Total	90,019	11,605	78,414
			12.89%	87.11%

Source: Colorado Independent Redistricting Commissions Staff.
October 14, 2021

Assigned District Splits

Plan: 2021 Final Approved House Plan

*** indicates split**

FIPS	Total Population	Hispanic	Non-Hispanic	Non-Hispanic white	Non-Hispanic black	Non-Hispanic American Indian/ Alaskan Native	Non-Hispanic Asian	Non-Hispanic Hawaiian or Other Pacific Islander	Non-Hispanic some other race	Non-Hispanic two or more minority race
District 1										
* Denver County	87,969	42,515	45,454	34,863	2,325	652	4,526	76	413	2,599
* Jefferson County	0	0	0	0	0	0	0	0	0	0
District 1 Total	87,969	42,515	45,454	34,863	2,325	652	4,526	76	413	2,599
		48.3%	51.7%	39.6%	2.6%	0.7%	5.1%	0.1%	0.5%	3.0%
District 2										
* Denver County	88,172	6,901	81,271	72,427	1,349	200	2,885	46	422	3,942
District 2 Total	88,172	6,901	81,271	72,427	1,349	200	2,885	46	422	3,942
		7.8%	92.2%	82.1%	1.5%	0.2%	3.3%	0.1%	0.5%	4.5%
District 3										
* Arapahoe County	49,552	9,968	39,584	33,367	1,468	335	1,784	45	243	2,342
* Denver County	37,946	6,763	31,183	22,187	4,541	169	2,060	91	254	1,881
District 3 Total	87,498	16,731	70,767	55,554	6,009	504	3,844	136	497	4,223
		19.1%	80.9%	63.5%	6.9%	0.6%	4.4%	0.2%	0.6%	4.8%
District 4										
* Denver County	87,718	34,936	52,782	44,350	2,444	661	1,861	65	396	3,005
District 4 Total	87,718	34,936	52,782	44,350	2,444	661	1,861	65	396	3,005
		39.8%	60.2%	50.6%	2.8%	0.8%	2.1%	0.1%	0.5%	3.4%
District 5										
* Denver County	86,960	28,831	58,129	46,798	4,282	655	2,610	73	504	3,207
District 5 Total	86,960	28,831	58,129	46,798	4,282	655	2,610	73	504	3,207
		33.2%	66.8%	53.8%	4.9%	0.8%	3.0%	0.1%	0.6%	3.7%
District 6										
* Denver County	87,264	11,990	75,274	58,664	8,224	412	3,279	58	436	4,201
District 6 Total	87,264	11,990	75,274	58,664	8,224	412	3,279	58	436	4,201
		13.7%	86.3%	67.2%	9.4%	0.5%	3.8%	0.1%	0.5%	4.8%
District 7										
* Denver County	90,537	42,698	47,839	17,787	19,456	322	5,473	873	395	3,533
District 7 Total	90,537	42,698	47,839	17,787	19,456	322	5,473	873	395	3,533
		47.2%	52.8%	19.6%	21.5%	0.4%	6.0%	1.0%	0.4%	3.9%
District 8										

* Denver County	90,282	16,248	74,034	52,079	13,871	473	2,317	59	500	4,735
District 8 Total	90,282	16,248	74,034	52,079	13,871	473	2,317	59	500	4,735
		18.0%	82.0%	57.7%	15.4%	0.5%	2.6%	0.1%	0.6%	5.2%
District 9										
* Arapahoe County	30,236	5,819	24,417	15,246	5,599	159	1,662	31	164	1,556
* Denver County	60,242	9,235	51,007	39,715	5,352	239	2,203	54	426	3,018
District 9 Total	90,478	15,054	75,424	54,961	10,951	398	3,865	85	590	4,574
		16.6%	83.4%	60.7%	12.1%	0.4%	4.3%	0.1%	0.7%	5.1%
District 10										
* Boulder County	90,284	10,511	79,773	67,617	1,197	377	6,089	120	511	3,862
District 10 Total	90,284	10,511	79,773	67,617	1,197	377	6,089	120	511	3,862
		11.6%	88.4%	74.9%	1.3%	0.4%	6.7%	0.1%	0.6%	4.3%
District 11										
* Boulder County	88,336	22,746	65,590	57,165	812	414	3,003	59	477	3,660
District 11 Total	88,336	22,746	65,590	57,165	812	414	3,003	59	477	3,660
		25.7%	74.3%	64.7%	0.9%	0.5%	3.4%	0.1%	0.5%	4.1%
District 12										
* Boulder County	86,485	10,037	76,448	66,145	756	203	4,687	42	489	4,126
* Broomfield County	0	0	0	0	0	0	0	0	0	0
District 12 Total	86,485	10,037	76,448	66,145	756	203	4,687	42	489	4,126
		11.6%	88.4%	76.5%	0.9%	0.2%	5.4%	0.0%	0.6%	4.8%
District 13										
* Chaffee County	17,205	1,403	15,802	14,669	109	82	125	11	90	716
Grand County	15,726	1,535	14,191	13,442	59	56	83	17	73	461
Jackson County	1,381	138	1,243	1,163	0	12	2	2	5	59
Lake County	7,458	2,669	4,789	4,308	31	46	63	8	45	288
Park County	17,402	1,237	16,165	14,912	89	118	99	9	94	844
Summit County	31,087	5,342	25,745	23,802	236	68	407	20	150	1,062
District 13 Total	90,259	12,324	77,935	72,296	524	382	779	67	457	3,430
		13.7%	86.3%	80.1%	0.6%	0.4%	0.9%	0.1%	0.5%	3.8%
District 14										
* El Paso County	90,615	9,497	81,118	67,674	2,546	293	4,611	130	582	5,282
District 14 Total	90,615	9,497	81,118	67,674	2,546	293	4,611	130	582	5,282
		10.5%	89.5%	74.7%	2.8%	0.3%	5.1%	0.1%	0.6%	5.8%
District 15										
* El Paso County	90,074	17,225	72,849	55,065	5,995	471	3,648	444	646	6,580
District 15 Total	90,074	17,225	72,849	55,065	5,995	471	3,648	444	646	6,580
		19.1%	80.9%	61.1%	6.7%	0.5%	4.1%	0.5%	0.7%	7.3%
District 16										
* El Paso County	88,844	17,300	71,544	59,135	4,402	598	1,506	166	532	5,205
District 16 Total	88,844	17,300	71,544	59,135	4,402	598	1,506	166	532	5,205
		19.5%	80.5%	66.6%	5.0%	0.7%	1.7%	0.2%	0.6%	5.9%

District 17										
* El Paso County	88,286	30,540	57,746	37,376	10,570	660	2,496	531	533	5,580
District 17 Total	88,286	30,540	57,746	37,376	10,570	660	2,496	531	533	5,580
		34.6%	65.4%	42.3%	12.0%	0.7%	2.8%	0.6%	0.6%	6.3%
District 18										
* El Paso County	87,494	11,318	76,176	64,936	2,991	445	2,362	188	456	4,798
* Teller County	24	1	23	20	0	0	0	0	0	3
District 18 Total	87,518	11,319	76,199	64,956	2,991	445	2,362	188	456	4,801
		12.9%	87.1%	74.2%	3.4%	0.5%	2.7%	0.2%	0.5%	5.5%
District 19										
* Boulder County	25,310	2,889	22,421	19,518	215	46	1,357	8	108	1,169
* Weld County	63,944	12,206	51,738	45,977	429	197	2,014	63	277	2,781
District 19 Total	89,254	15,095	74,159	65,495	644	243	3,371	71	385	3,950
		16.9%	83.1%	73.4%	0.7%	0.3%	3.8%	0.1%	0.4%	4.4%
District 20										
* El Paso County	88,807	8,863	79,944	69,399	2,239	334	2,100	138	635	5,099
District 20 Total	88,807	8,863	79,944	69,399	2,239	334	2,100	138	635	5,099
		10.0%	90.0%	78.1%	2.5%	0.4%	2.4%	0.2%	0.7%	5.7%
District 21										
* El Paso County	88,817	19,624	69,193	49,550	8,516	534	2,326	921	635	6,711
District 21 Total	88,817	19,624	69,193	49,550	8,516	534	2,326	921	635	6,711
		22.1%	77.9%	55.8%	9.6%	0.6%	2.6%	1.0%	0.7%	7.6%
District 22										
* El Paso County	89,747	13,590	76,157	62,897	3,853	426	2,468	215	459	5,839
District 22 Total	89,747	13,590	76,157	62,897	3,853	426	2,468	215	459	5,839
		15.1%	84.9%	70.1%	4.3%	0.5%	2.7%	0.2%	0.5%	6.5%
District 23										
* Jefferson County	87,524	15,272	72,252	63,694	1,200	528	2,263	104	463	4,000
District 23 Total	87,524	15,272	72,252	63,694	1,200	528	2,263	104	463	4,000
		17.4%	82.6%	72.8%	1.4%	0.6%	2.6%	0.1%	0.5%	4.6%
District 24										
* Adams County	2,896	908	1,988	1,602	31	22	219	0	9	105
* Jefferson County	87,954	13,335	74,619	67,205	829	423	1,862	55	376	3,869
District 24 Total	90,850	14,243	76,607	68,807	860	445	2,081	55	385	3,974
		15.7%	84.3%	75.7%	0.9%	0.5%	2.3%	0.1%	0.4%	4.4%
District 25										
* Jefferson County	88,920	6,587	82,333	75,581	410	272	1,550	46	424	4,050
District 25 Total	88,920	6,587	82,333	75,581	410	272	1,550	46	424	4,050
		7.4%	92.6%	85.0%	0.5%	0.3%	1.7%	0.1%	0.5%	4.6%
District 26										
* Eagle County	45,998	13,296	32,702	30,486	270	96	602	16	149	1,083
Moffat County	13,348	2,129	11,219	10,362	79	98	52	2	60	566

Rio Blanco County	6,536	623	5,913	5,515	29	51	22	2	29	265
Routt County	24,843	2,202	22,641	21,253	154	67	169	35	92	871
District 26 Total	90,725	18,250	72,475	67,616	532	312	845	55	330	2,785
		20.1%	79.9%	74.5%	0.6%	0.3%	0.9%	0.1%	0.4%	3.1%
District 27										
* Jefferson County	87,902	9,916	77,986	70,137	783	294	2,591	33	349	3,799
District 27 Total	87,902	9,916	77,986	70,137	783	294	2,591	33	349	3,799
		11.3%	88.7%	79.8%	0.9%	0.3%	2.9%	0.0%	0.4%	4.3%
District 28										
* Jefferson County	86,975	12,244	74,731	65,368	1,001	439	3,651	59	435	3,778
District 28 Total	86,975	12,244	74,731	65,368	1,001	439	3,651	59	435	3,778
		14.1%	85.9%	75.2%	1.2%	0.5%	4.2%	0.1%	0.5%	4.3%
District 29										
* Adams County	46,326	8,922	37,404	31,399	732	220	2,749	39	189	2,076
* Jefferson County	42,254	6,189	36,065	30,919	522	174	2,113	22	192	2,123
District 29 Total	88,580	15,111	73,469	62,318	1,254	394	4,862	61	381	4,199
		17.1%	82.9%	70.4%	1.4%	0.4%	5.5%	0.1%	0.4%	4.7%
District 30										
* Jefferson County	86,793	26,242	60,551	50,884	1,790	756	3,170	141	491	3,319
District 30 Total	86,793	26,242	60,551	50,884	1,790	756	3,170	141	491	3,319
		30.2%	69.8%	58.6%	2.1%	0.9%	3.7%	0.2%	0.6%	3.8%
District 31										
* Adams County	87,096	41,088	46,008	36,064	1,786	536	4,190	77	400	2,955
District 31 Total	87,096	41,088	46,008	36,064	1,786	536	4,190	77	400	2,955
		47.2%	52.8%	41.4%	2.1%	0.6%	4.8%	0.1%	0.5%	3.4%
District 32										
* Adams County	88,894	46,943	41,951	32,999	2,860	491	2,234	99	389	2,879
District 32 Total	88,894	46,943	41,951	32,999	2,860	491	2,234	99	389	2,879
		52.8%	47.2%	37.1%	3.2%	0.6%	2.5%	0.1%	0.4%	3.2%
District 33										
* Adams County	13,465	2,341	11,124	9,249	195	37	1,016	3	80	544
* Broomfield County	74,173	9,935	64,238	53,943	928	201	5,097	80	351	3,638
* Weld County	0	0	0	0	0	0	0	0	0	0
District 33 Total	87,638	12,276	75,362	63,192	1,123	238	6,113	83	431	4,182
		14.0%	86.0%	72.1%	1.3%	0.3%	7.0%	0.1%	0.5%	4.8%
District 34										
* Adams County	87,400	25,103	62,297	50,877	1,542	500	4,813	107	377	4,081
District 34 Total	87,400	25,103	62,297	50,877	1,542	500	4,813	107	377	4,081
		28.7%	71.3%	58.2%	1.8%	0.6%	5.5%	0.1%	0.4%	4.7%
District 35										
* Adams County	85,846	45,791	40,055	31,724	1,282	584	3,467	96	374	2,528
* Jefferson County	4,043	951	3,092	2,575	78	22	180	0	22	215

District 35 Total	89,889	46,742 52.0%	43,147 48.0%	34,299 38.2%	1,360 1.5%	606 0.7%	3,647 4.1%	96 0.1%	396 0.4%	2,743 3.1%
District 36										
* Adams County	48,403	25,016	23,387	11,181	7,096	219	2,894	228	265	1,504
* Arapahoe County	39,436	11,060	28,376	16,998	5,988	238	2,596	160	190	2,206
District 36 Total	87,839	36,076 41.1%	51,763 58.9%	28,179 32.1%	13,084 14.9%	457 0.5%	5,490 6.3%	388 0.4%	455 0.5%	3,710 4.2%
District 37										
* Arapahoe County	87,811	7,889	79,922	64,119	2,708	205	8,233	68	458	4,131
District 37 Total	87,811	7,889 9.0%	79,922 91.0%	64,119 73.0%	2,708 3.1%	205 0.2%	8,233 9.4%	68 0.1%	458 0.5%	4,131 4.7%
District 38										
* Arapahoe County	77,216	9,022	68,194	61,358	935	293	1,738	57	345	3,468
* Jefferson County	11,611	1,130	10,481	9,485	94	32	329	4	64	473
District 38 Total	88,827	10,152 11.4%	78,675 88.6%	70,843 79.8%	1,029 1.2%	325 0.4%	2,067 2.3%	61 0.1%	409 0.5%	3,941 4.4%
District 39										
* Douglas County	87,168	7,149	80,019	68,427	1,106	265	5,710	58	352	4,101
District 39 Total	87,168	7,149 8.2%	80,019 91.8%	68,427 78.5%	1,106 1.3%	265 0.3%	5,710 6.6%	58 0.1%	352 0.4%	4,101 4.7%
District 40										
* Arapahoe County	90,235	17,724	72,511	48,060	10,864	355	6,850	179	634	5,569
District 40 Total	90,235	17,724 19.6%	72,511 80.4%	48,060 53.3%	10,864 12.0%	355 0.4%	6,850 7.6%	179 0.2%	634 0.7%	5,569 6.2%
District 41										
* Arapahoe County	89,053	21,852	67,201	40,403	15,925	358	5,205	281	490	4,539
District 41 Total	89,053	21,852 24.5%	67,201 75.5%	40,403 45.4%	15,925 17.9%	358 0.4%	5,205 5.8%	281 0.3%	490 0.6%	4,539 5.1%
District 42										
* Arapahoe County	90,864	39,721	51,143	23,063	18,399	448	4,397	691	546	3,599
District 42 Total	90,864	39,721 43.7%	51,143 56.3%	23,063 25.4%	18,399 20.2%	448 0.5%	4,397 4.8%	691 0.8%	546 0.6%	3,599 4.0%
District 43										
* Douglas County	88,172	7,994	80,178	68,578	972	216	5,669	54	401	4,288
District 43 Total	88,172	7,994 9.1%	80,178 90.9%	68,578 77.8%	972 1.1%	216 0.2%	5,669 6.4%	54 0.1%	401 0.5%	4,288 4.9%
District 44										

* Douglas County	90,502	9,071	81,431	68,210	1,531	229	6,414	87	369	4,591
District 44 Total	90,502	9,071	81,431	68,210	1,531	229	6,414	87	369	4,591
		10.0%	90.0%	75.4%	1.7%	0.3%	7.1%	0.1%	0.4%	5.1%
District 45										
* Douglas County	89,291	9,687	79,604	71,249	1,137	253	1,863	91	421	4,590
District 45 Total	89,291	9,687	79,604	71,249	1,137	253	1,863	91	421	4,590
		10.8%	89.2%	79.8%	1.3%	0.3%	2.1%	0.1%	0.5%	5.1%
District 46										
* Pueblo County	90,688	36,164	54,524	47,635	1,664	628	952	80	540	3,025
District 46 Total	90,688	36,164	54,524	47,635	1,664	628	952	80	540	3,025
		39.9%	60.1%	52.5%	1.8%	0.7%	1.0%	0.1%	0.6%	3.3%
District 47										
Baca County	3,513	346	3,167	2,923	19	38	8	0	37	142
Bent County	4,520	1,353	3,167	2,825	78	47	26	0	8	183
Crowley County	3,603	872	2,731	2,385	101	69	30	2	5	139
* Huerfano County	6,173	1,975	4,198	3,782	54	72	23	0	45	222
Kiowa County	1,448	104	1,344	1,249	3	0	9	1	1	81
Las Animas County	14,201	5,507	8,694	7,816	120	135	101	12	87	423
Otero County	18,766	7,741	11,025	10,042	135	119	98	28	103	500
Prowers County	12,047	4,703	7,344	6,707	84	121	31	6	50	345
* Pueblo County	23,821	6,631	17,190	15,211	306	158	263	15	141	1,096
District 47 Total	88,092	29,232	58,860	52,940	900	759	589	64	477	3,131
		33.2%	66.8%	60.1%	1.0%	0.9%	0.7%	0.1%	0.5%	3.6%
District 48										
* Adams County	47,583	18,585	28,998	25,164	597	229	941	78	247	1,742
* Weld County	41,278	16,321	24,957	22,686	276	198	287	19	184	1,307
District 48 Total	88,861	34,906	53,955	47,850	873	427	1,228	97	431	3,049
		39.3%	60.7%	53.8%	1.0%	0.5%	1.4%	0.1%	0.5%	3.4%
District 49										
* Boulder County	40,705	2,101	38,604	34,967	191	78	1,164	12	235	1,957
Clear Creek County	9,418	648	8,770	8,169	49	42	82	7	38	383
Gilpin County	5,811	381	5,430	4,954	32	36	85	4	37	282
* Larimer County	30,606	2,335	28,271	26,378	123	105	307	15	140	1,203
District 49 Total	86,540	5,465	81,075	74,468	395	261	1,638	38	450	3,825
		6.3%	93.7%	86.1%	0.5%	0.3%	1.9%	0.0%	0.5%	4.4%
District 50										
* Weld County	87,914	43,383	44,531	36,740	2,557	464	1,827	128	320	2,495
District 50 Total	87,914	43,383	44,531	36,740	2,557	464	1,827	128	320	2,495
		49.3%	50.7%	41.8%	2.9%	0.5%	2.1%	0.1%	0.4%	2.8%
District 51										
* Larimer County	87,862	11,366	76,496	70,111	647	414	967	67	459	3,831
District 51 Total	87,862	11,366	76,496	70,111	647	414	967	67	459	3,831
		12.9%	87.1%	79.8%	0.7%	0.5%	1.1%	0.1%	0.5%	4.4%
District 52										

* Larimer County	90,787	10,420	80,367	70,799	1,001	375	3,407	52	435	4,298
District 52 Total	90,787	10,420	80,367	70,799	1,001	375	3,407	52	435	4,298
		11.5%	88.5%	78.0%	1.1%	0.4%	3.8%	0.1%	0.5%	4.7%
District 53										
* Larimer County	90,449	13,138	77,311	67,822	1,375	423	2,755	91	465	4,380
District 53 Total	90,449	13,138	77,311	67,822	1,375	423	2,755	91	465	4,380
		14.5%	85.5%	75.0%	1.5%	0.5%	3.0%	0.1%	0.5%	4.8%
District 54										
* Delta County	22,077	3,502	18,575	17,224	65	89	199	7	120	871
* Mesa County	68,759	10,352	58,407	53,676	378	420	443	68	344	3,078
District 54 Total	90,836	13,854	76,982	70,900	443	509	642	75	464	3,949
		15.3%	84.7%	78.1%	0.5%	0.6%	0.7%	0.1%	0.5%	4.3%
District 55										
* Mesa County	87,599	13,052	74,547	67,558	661	536	1,172	120	545	3,955
District 55 Total	87,599	13,052	74,547	67,558	661	536	1,172	120	545	3,955
		14.9%	85.1%	77.1%	0.8%	0.6%	1.3%	0.1%	0.6%	4.5%
District 56										
* Adams County	13,262	2,630	10,632	9,681	134	83	83	26	39	586
* Arapahoe County	14,810	2,149	12,661	10,565	485	57	711	15	72	756
Cheyenne County	1,754	206	1,548	1,475	2	5	3	0	3	60
Elbert County	26,087	2,067	24,020	22,207	123	119	184	21	123	1,243
* El Paso County	20,089	2,536	17,553	15,649	207	127	152	17	121	1,280
Kit Carson County	7,099	1,415	5,684	5,311	22	24	30	5	32	260
Lincoln County	4,973	525	4,448	4,056	89	32	33	22	21	195
District 56 Total	88,074	11,528	76,546	68,944	1,062	447	1,196	106	411	4,380
		13.1%	86.9%	78.3%	1.2%	0.5%	1.4%	0.1%	0.5%	5.0%
District 57										
* Eagle County	9,770	3,586	6,184	5,728	27	22	110	11	38	248
Garfield County	61,594	19,536	42,058	38,600	254	298	395	34	309	2,168
Pitkin County	17,365	1,893	15,472	14,439	94	36	280	7	82	534
District 57 Total	88,729	25,015	63,714	58,767	375	356	785	52	429	2,950
		28.2%	71.8%	66.2%	0.4%	0.4%	0.9%	0.1%	0.5%	3.3%
District 58										
* Delta County	8,766	682	8,084	7,534	15	24	27	2	72	410
Dolores County	2,329	177	2,152	1,952	18	36	6	4	5	131
Gunnison County	16,929	1,607	15,322	14,261	78	70	121	7	111	674
Hinsdale County	789	30	759	694	8	6	2	1	6	42
* Montezuma County	5,273	488	4,785	4,370	13	118	19	1	24	240
Montrose County	42,750	9,053	33,697	31,168	159	265	334	26	183	1,562
Ouray County	4,877	292	4,585	4,311	16	16	28	2	24	188
San Miguel County	8,077	883	7,194	6,761	20	47	55	0	44	267
District 58 Total	89,790	13,212	76,578	71,051	327	582	592	43	469	3,514
		14.7%	85.3%	79.1%	0.4%	0.6%	0.7%	0.0%	0.5%	3.9%
District 59										
Archuleta County	13,380	2,163	11,217	10,189	42	172	101	6	77	630
La Plata County	55,729	7,026	48,703	42,452	185	2,819	381	33	377	2,456

* Montezuma County	20,638	2,632	18,006	13,694	60	3,069	109	23	83	968
San Juan County	705	90	615	575	1	6	2	0	1	30
District 59 Total	90,452	11,911	78,541	66,910	288	6,066	593	62	538	4,084
		13.2%	86.8%	74.0%	0.3%	6.7%	0.7%	0.1%	0.6%	4.5%
District 60										
* Chaffee County	1,301	94	1,207	1,136	2	5	1	0	10	53
Custer County	4,705	178	4,527	4,213	10	42	22	0	45	195
Fremont County	45,096	4,804	40,292	35,958	1,143	559	287	30	234	2,081
* Pueblo County	11,399	2,386	9,013	8,194	83	50	166	8	37	475
* Teller County	24,729	1,715	23,014	21,037	133	124	201	12	148	1,359
District 60 Total	87,230	9,177	78,053	70,538	1,371	780	677	50	474	4,163
		10.5%	89.5%	80.9%	1.6%	0.9%	0.8%	0.1%	0.5%	4.8%
District 61										
* Arapahoe County	87,229	10,827	76,402	55,365	6,290	243	8,706	107	407	5,284
* Douglas County	3,036	233	2,803	2,447	58	10	158	0	8	122
District 61 Total	90,265	11,060	79,205	57,812	6,348	253	8,864	107	415	5,406
		12.3%	87.7%	64.0%	7.0%	0.3%	9.8%	0.1%	0.5%	6.0%
District 62										
Alamosa County	16,471	7,757	8,714	7,518	216	220	143	19	104	494
Conejos County	7,490	3,799	3,691	3,474	14	44	21	2	24	112
Costilla County	3,508	1,992	1,516	1,238	34	34	55	0	13	142
* Huerfano County	667	163	504	458	0	7	1	0	4	34
Mineral County	865	47	818	775	0	4	3	0	0	36
* Pueblo County	42,214	24,962	17,252	14,286	868	429	175	35	226	1,233
Rio Grande County	11,583	4,637	6,946	6,275	51	139	36	4	56	385
Saguache County	6,379	2,401	3,978	3,582	19	81	63	2	42	189
District 62 Total	89,177	45,758	43,419	37,606	1,202	958	497	62	469	2,625
		51.3%	48.7%	42.2%	1.3%	1.1%	0.6%	0.1%	0.5%	2.9%
District 63										
Logan County	19,667	2,908	16,759	15,560	356	97	99	17	52	578
Morgan County	29,193	10,610	18,583	16,579	937	113	153	11	77	713
Phillips County	4,538	1,159	3,379	3,250	10	12	22	1	5	79
Sedgwick County	2,408	363	2,045	1,936	4	11	12	0	8	74
Washington County	4,824	518	4,306	4,062	24	8	15	10	20	167
* Weld County	16,551	2,990	13,561	12,581	24	70	52	12	65	757
Yuma County	10,005	2,779	7,226	6,957	21	16	26	2	27	177
District 63 Total	87,186	21,327	65,859	60,925	1,376	327	379	53	254	2,545
		24.5%	75.5%	69.9%	1.6%	0.4%	0.4%	0.1%	0.3%	2.9%
District 64										
* Larimer County	12,563	1,262	11,301	10,465	35	52	136	11	78	524
* Weld County	77,449	18,648	58,801	53,519	679	304	1,041	49	323	2,886
District 64 Total	90,012	19,910	70,102	63,984	714	356	1,177	60	401	3,410
		22.1%	77.9%	71.1%	0.8%	0.4%	1.3%	0.1%	0.4%	3.8%
District 65										
* Larimer County	47,374	6,269	41,105	37,393	304	143	799	29	242	2,195
* Weld County	42,645	5,336	37,309	34,690	215	125	470	32	136	1,641

District 65 Total	90,019	11,605 12.9%	78,414 87.1%	72,083 80.1%	519 0.6%	268 0.3%	1,269 1.4%	61 0.1%	378 0.4%	3,836 4.3%

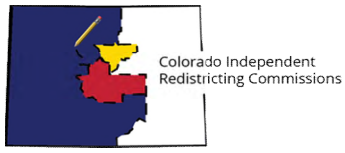
Source: Colorado Independent Redistricting Commissions Staff.
October 14, 2021

DATE FILED: October 15, 2021 4:08 PM

In re Colorado Independent Legislative Redistricting Commission

Exhibit 12

Reports Regarding Compactness Analysis



District Compactness

Plan: 2021 Final Approved House Plan

District	Polygon Area (sq. mi)	Perimeter (mi)	Reock	Polsby Popper	Outliers - District Information	Drive Time
1	16.31	42.02	0.31	0.12	District 1 includes a portion of the City and County of Denver. It includes the whole Bear Valley, College View – South Platte, Fort Logan, Harvey Park, Harvey Park South, Mar Lee, Marston, Ruby Hill, and Overland Denver neighborhoods, and a portion of the Westwood Denver neighborhood.	
2	12.53	17.74	0.46	0.50		
3	21.53	36.34	0.26	0.20	District 3 includes whole Cherry Hills Village, Englewood, and Sheridan; a portion of Aurora; and a portion of the City and County of Denver. The portion of Denver includes the whole Hampden South, Kennedy, and Southmoor Park Denver neighborhoods, and a portion of the Hampden Denver neighborhood.	
4	11.61	19.20	0.33	0.40		
5	15.35	25.73	0.30	0.29		
6	9.03	20.99	0.21	0.26	District 6 includes a portion of the City and County of Denver. It includes the whole Cheesman Park, Congress Park, Hale, Montclair, North Capitol Hill, and Windsor Denver neighborhoods, and portions of the Capitol Hill, East Colfax, and Lowry Field Denver neighborhoods.	
7	57.78	59.30	0.23	0.21	District 7 includes a portion of the City and County of Denver. It includes the whole Denver International Airport, Gateway – Green Valley Ranch, and Montbello Denver neighborhoods, and a portion of the Central Park Denver neighborhood.	
8	17.45	24.76	0.30	0.36		
9	12.97	18.51	0.54	0.48		
10	25.49	41.57	0.40	0.19		
11	29.21	26.90	0.59	0.51		
12	79.15	83.34	0.40	0.14	District 12 includes whole Lafayette, Louisville, and Niwot, and the whole population of Superior.	
13	7620.20	659.15	0.29	0.22	District 13 includes whole Grand County, Jackson County, Lake County, Park County, and Summit County; and whole Buena Vista, Poncha Springs, and Salida in Chaffee County.	The drive time from Salida to Silverthorne to Walden is approximately 3 hours and 31 minutes. Salida is the largest population in the district.

14	42.75	56.56	0.29	0.17	District 14 includes a portion of Colorado Springs. It includes whole Briargate West, Cordera, Flying Horse Ranch, Gatehouse, Interquest, Kettle Creek, Mountain Shadows, Peregrine, Pine Creek, Pinecliff, Northgate, Rockrimmon, Summerfield, The Farm, and Wolf Ranch Colorado Springs neighborhoods, and portions of Falcon Estates, Garden of the Gods/Pleasant Valley, Old Colorado City, Pulpit Rock, and Woodmen Heights/Dublin North Colorado Springs neighborhoods.
15	87.98	68.53	0.39	0.24	
16	24.64	26.59	0.51	0.44	
17	34.92	36.82	0.48	0.32	
18	182.68	101.15	0.23	0.22	District 18 includes whole Green Mountain Falls and Manitou Springs, and a portion of Colorado Springs. The portion of Colorado Springs includes the whole Broadmoor Bluffs, Broadmoor Hills, Broadmoor Oaks, Cedar Heights, Gold Hill Mesa, Holland Park, Ivywild, Kissing Camels, Lower Skyway, Mesa, Mesa Springs, Midland, Old Broadmoor, Upper Skyway, and Westside Colorado Springs neighborhoods, and portions of the Downtown, Garden of the Gods/Pleasant Valley, Old Colorado City, Middle Shooks Run, Quail Lake, and Stratton Meadows Colorado Springs neighborhoods.
19	147.01	73.78	0.60	0.34	
20	312.69	115.74	0.46	0.29	
21	204.48	79.18	0.52	0.41	
22	17.13	20.45	0.46	0.51	
23	29.04	43.55	0.38	0.19	
24	25.96	40.99	0.35	0.19	
25	469.18	127.90	0.35	0.36	
26	11866.19	641.37	0.43	0.36	The drive time from Dinosaur to Steamboat Springs to Vail is approximately 4 hours and 2 minutes. Steamboat Springs is the largest population in the district.
27	181.88	89.56	0.52	0.28	
28	28.93	54.01	0.31	0.12	District 28 includes a portion of Lakewood.
29	33.37	47.94	0.31	0.18	
30	17.75	21.80	0.50	0.47	
31	20.66	39.26	0.38	0.17	
32	90.43	75.50	0.25	0.20	District 32 includes whole Commerce City.
33	50.25	73.86	0.24	0.12	District 33 includes the whole population of Broomfield, and a portion of Thornton.
34	17.78	30.82	0.30	0.24	
35	15.84	25.36	0.43	0.31	
36	153.59	85.28	0.41	0.27	

37	34.53	41.42	0.24	0.25	District 37 includes whole Foxfield and Greenwood Village, and portions of Aurora and Centennial.	
38	25.38	27.50	0.49	0.42		
39	676.15	193.36	0.49	0.23		
40	20.80	31.21	0.36	0.27		
41	13.58	16.71	0.51	0.61		
42	12.97	16.72	0.49	0.58		
43	21.01	21.99	0.37	0.55		
44	62.09	45.89	0.46	0.37		
45	79.51	68.36	0.39	0.21		
46	676.68	207.75	0.36	0.20		
47	16772.46	663.62	0.52	0.48		The drive time from Pueblo West to Lamar to Campo is approximately 3 hours and 33 minutes. Pueblo West is the largest population in the district.
48	542.89	176.40	0.42	0.22		
49	3449.33	411.04	0.35	0.26		
50	32.01	54.76	0.28	0.13	District 50 includes whole Garden City; the whole population of Evans; and a portion of Greeley.	
51	74.48	44.13	0.71	0.48		
52	44.20	37.11	0.47	0.40		
53	32.90	41.33	0.41	0.24		
54	3861.59	371.04	0.44	0.35		
55	67.56	56.37	0.33	0.27		
56	11037.92	571.63	0.48	0.42		The drive time from Aurora to Limon to Cheyenne Wells is approximately 2 hours and 42 minutes. Aurora is the largest population in the district.
57	4153.17	473.27	0.26	0.23	District 57 includes whole Garfield County and Pitkin County, and whole Basalt in Eagle County.	
58	10625.70	713.35	0.40	0.26		The drive time from Gunnison to Montrose to Lewis is approximately 4 hours. Montrose is the largest population in the district.
59	4953.73	441.43	0.31	0.32		
60	3126.49	364.58	0.51	0.30		
61	29.00	44.01	0.38	0.19		
62	8941.55	556.23	0.48	0.36		The drive time from Pueblo to Alamosa to Saguache is approximately 2 hours and 53 minutes. Pueblo is the largest population in the district.
63	12419.39	533.94	0.48	0.55		The drive time from Ault to Sterling to Wray is approximately 2 hours and 50 minutes. Sterling is the largest population in the district.
64	187.40	98.97	0.37	0.24		
65	270.01	142.72	0.33	0.17		

Source: Colorado Independent Redistricting Commissions Staff.
October 14 2021

District Compactness

Plan: Final Senate Plan

District	Polygon Area (sq. mi)	Perimeter (mi)	Reock	Polsby Popper	Outliers - District Information	Drive Time
1	12,822.08	585.50	0.49	0.47		The drive time from Idalia to Julesburg to Greeley is approximately 4 hours and 4 minutes. Greeley is the largest population in this district.
2	117.01	100.56	0.28	0.15	This Douglas County district extends north-south to capture the full cities of Parker and Castle Rock.	
3	2,404.52	208.43	0.58	0.70		
4	7,451.21	569.55	0.56	0.29		The drive time from Canon City to Leadville to Conifer is approximately 4 hours and 5 minutes. Canon City is the largest population in this district.
5	7,826.44	687.45	0.42	0.21		The drive time from Lake City to Montrose to Glenwood Springs is approximately 4 hours and 10 minutes. Montrose is the largest population in this district.
6	18,160.98	822.14	0.41	0.34		The drive time from Dove Creek to Durango to Crestone is approximately 4 hours and 48 minutes. Durango is the largest population in this district.
7	3,552.27	301.84	0.40	0.49		
8	18,829.42	679.64	0.51	0.51		The drive time from Dinosaur to Steamboat Springs to Idaho Springs is approximately 4 hours and 32 minutes. Steamboat Springs is the largest population in this district.
9	197.24	84.07	0.46	0.35		
10	49.61	35.19	0.39	0.50		
11	87.68	66.34	0.44	0.25		
12	396.79	153.35	0.31	0.21		
13	192.98	163.02	0.15	0.09	This predominantly Weld County district extends north-south along Highway 85 to connect Greeley to Brighton in Adams County.	
14	78.77	64.99	0.42	0.23		
15	3,052.84	383.86	0.45	0.26		
16	47.63	44.50	0.32	0.30		
17	107.49	96.77	0.35	0.14	This predominantly Boulder County district extends north-south frrom Lafayette to Longmont and includes the Weld County portions of Erie and Longmont.	
18	82.41	70.87	0.48	0.21		
19	51.24	53.31	0.48	0.23		
20	275.06	140.29	0.48	0.18		
21	1,392.75	242.52	0.32	0.30		
22	52.10	58.43	0.41	0.19		

23	417.39	226.49	0.22	0.10	This district extends north from Erie through the Carbon Valley cities of Dacono, Firestone, and Frederick, and up north of Timnath and Windsor in Larimer County.	
24	58.98	56.50	0.43	0.23		
25	55.12	73.99	0.30	0.13	This district includes all of Broomfield, Northglenn, and some of Adams County Westminster.	
26	41.28	68.23	0.26	0.11	This district extends east-west to include far southwest Denver and the Arapahoe County cities of Sheridan, Englewood, and Greenwood Village.	
27	174.72	92.46	0.27	0.26	This district extends east-west along the southern border of Arapahoe County, including some of Centennial and Aurora along with some of eastern Arapahoe County.	
28	227.58	86.84	0.46	0.38		
29	23.44	22.85	0.49	0.56		
30	120.93	69.80	0.53	0.31		
31	18.56	25.05	0.44	0.37		
32	24.66	43.93	0.22	0.16	This district extends along most of the southern neighborhoods of Denver and includes Arapahoe County enclaves of Glendale and Holly Hills.	
33	73.80	75.45	0.18	0.16	This district extends east-west along the northern part of the City and County of Denver, including east to Denver International Airport and west to Five Points.	
34	26.45	29.37	0.41	0.39		
35	25,747.46	893.51	0.54	0.41		The drive time from Ponderosa Park to Trinidad to Holly is approximately 5 hours and 32 minutes. Trinidad is the largest population in this district.

Source: Colorado Independent Redistricting Commissions Staff.
October 13, 2021

DATE FILED: October 15, 2021 4:08 PM

In re Colorado Independent Legislative Redistricting Commission

Exhibit 13

Reports Regarding Competitiveness Analysis

Colorado Independent Redistricting Commissions Staff

1580 Logan Street, Suite 430
Denver, CO 80203
303-866-2652

colorado.redistricting2020@state.co.us

MEMORANDUM

October 14, 2021

TO: Independent Legislative Redistricting Commission

FROM: Colorado Independent Redistricting Commissions Staff

SUBJECT: Report pursuant to Article V, Section 48.1 (3)(c)

Article V, Section 48.1 (3)(c) of the Colorado Constitution provides:

Section 48.1. Criteria for determinations of congressional districts - definition. (3)(c) When the commission approves a plan, or when nonpartisan staff submits a plan in the absence of the commission's approval of a plan as provided in section 48.2 of this article V, the nonpartisan staff shall, within seventy-two hours of such action, make publicly available, and include in the commission's record, a report to demonstrate how the plan reflects the evidence presented to, and the findings concerning, the extent to which competitiveness in district elections is fostered consistent with the other criteria set forth in this section.

The Colorado Independent Redistricting Commissions Staff submits the following report pursuant to that provision.

Evidence of Competitiveness

Pursuant to Article V, Section 48.1 (3)(b) of the Colorado Constitution, at its public hearings throughout the state, the Colorado Independent Legislative Commission (the "Commission") solicited evidence relevant to the competitiveness of elections in Colorado. Many persons testifying at these hearings only encouraged the Commission to create competitive districts. Many indicated that the Commission should use multiple races over multiple elections. Others testified as to alternative methods of measuring competitiveness or suggested modifications to the Commission's chosen approach. Many of the people who made these suggestions appeared to be favoring one party or another.

The Commission requested that Dr. Bob Loevy, Professor Emeritus of Political Science at Colorado College and a member of the Colorado Reapportionment Commission in 2011, speak to the Commission on measuring competitiveness. Dr. Loevy testified that for the 2011 Colorado Reapportionment Commission, if the difference between the percentage of votes cast for the Democratic and Republican candidates in that race was less than 10% in a district, the district

was considered competitive. Dr. Loevy also testified that, even though Colorado has a large number of voters who are not registered with any political party, the difference between the number of persons registered with the Democratic or Republican Party is a good source of information on the competitiveness of a district.

The Mapping and Quantitative Subcommittee of the Commission ("Mapping Subcommittee") spent considerable time during thirteen of its meetings discussing competitiveness. It heard from Ben Schler, from Reasonable Districts Colorado, and Bradley Wascher, a data vendor at Inside Elections. Mr. Wascher said that it is more valuable to measure a district's partisan performance through the use of election results rather than voter registration. He recommended using a number of elections to measure partisan performance. Members of the Mapping Subcommittee were worried about adjusting and weighing election results, noting that this might enable the analysis to be manipulated.

The Mapping Subcommittee also received a presentation from Dwayne Liller. Mr. Liller provided an analysis of various statewide elections in which the majority of the voters in a precinct switched between voting for a Democratic or Republican candidate, believing that those precincts could be used to create a competitive district. Mr. Liller's analysis is available on the Commission's website and through the following link: https://coleg.app.box.com/s/qjrs5olyxgtskvhudnzr0ak4d3q0y32i/file/845364225276

Finally, the Mapping Subcommittee heard from Dr. Jeanne Clelland from the University of Colorado Boulder and Dr. Beth Malmskog from Colorado College on an ensemble analysis, whereby a computer creates thousands of plans in order to identify whether a plan falls within an expected range or whether the plan is outside of that expected range.[1] The ensemble reports on the final plans being considered by the Commission are available through the following link: https://coleg.app.box.com/s/qjrs5olyxgtskvhudnzr0ak4d3q0y32i/file/870792602643

Ultimately, the Mapping Subcommittee recommended Policy #6: Direction to Staff on Maximizing Competitiveness, attached as Appendix A to this report. Under that policy, nonpartisan staff was directed to use eight statewide races from the 2018 and 2020 General Elections to measure the competitiveness of proposed legislative districts and to average the difference between the percentage of votes cast for the Republican candidate and the Democratic candidate for those races. The Mapping Subcommittee recommended that the Commission use election results rather than party registration for analyzing competitiveness, arguing that such results more accurately reflect how voters actually perform. The Mapping Subcommittee recommended that nonpartisan staff be directed to maximize the number of districts that have a maximum differential of 8.5% between the Democratic and Republican candidates and to maximize the number of districts that have the lowest differential.

The Commission ultimately approved the Mapping Subcommittee's recommendation at its meeting on August 27, 2021, and directed nonpartisan staff to use the average of the eight identified races when creating legislative plans.

All of the plans for legislative redistricting presented to the Commission for its consideration included two reports relating to competitiveness: one showing the election results in each district for the eight elections and an average over all eight; and one showing the number and

[1] The Commission considered the ensemble analysis not only when looking at competitiveness, but also racial and language minority representation.

percentage of persons registered with the Democratic or Republican Party for each proposed congressional district.

Competitiveness of Approved Legislative Redistricting Plans

The Commission considered the competitiveness of each plan that was submitted. However, under the priority of criteria established in Article V, Section 48.1, competitiveness is the last item the Commission is to consider. While the Commission considered other plans that may have had more districts with lower differentials between the Democratic and Republican candidates, the Commission believed that the Final Approved House Redistricting Plan and the Final Approved Senate Redistricting Plan did a better job of preserving whole communities of interest and political subdivisions, which have higher priority than competitiveness.

The Statewide Election Result by District Report for the Final Approved House Redistricting Plan is attached to this report as Appendix B and shows that there are 16 districts that have a differential of 8.5% or less. Also, the Active Registered Voters Report for the Final Approved House Redistricting Plan is provided as Appendix C.

Similarly, the Statewide Election Result by District Report for the Final Approved Senate Redistricting Plan is attached to this report as Appendix D and shows that there are 11 districts that have a differential of 8.5% or less. Also, the Active Registered Voters Report for the Final Approved Senate Redistricting Plan is provided as Appendix E.

APPENDIX B
Statewide Election Results by District
Plan: 2021 Final Approved House Plan

District	8 Elections Differential	2016 Senate Differential	2016 President Differential	2018 Attorney General Differential	2018 Governor Differential	2018 Treasurer Differential	2018 Secretary of State Differential	2018 CU Regent at Large Differential	2020 Senate Differential
1	-34.6%	-32.4%	-32.2%	-32.7%	-35.8%	-35.3%	-35.2%	-36.8%	-36.2%
2	-48.5%	-46.1%	-53.5%	-48.2%	-51.1%	-44.3%	-43.8%	-49.4%	-51.7%
3	-28.7%	-25.6%	-27.4%	-26.7%	-31.3%	-27.4%	-28.2%	-30.2%	-32.7%
4	-63.3%	-60.4%	-65.8%	-63.3%	-66.0%	-60.9%	-61.6%	-65.7%	-62.8%
5	-63.7%	-59.6%	-65.4%	-64.9%	-66.9%	-60.8%	-62.0%	-66.6%	-63.5%
6	-66.9%	-64.0%	-68.6%	-66.5%	-69.9%	-64.4%	-64.2%	-69.0%	-68.5%
7	-64.5%	-61.4%	-66.7%	-63.3%	-65.8%	-64.3%	-65.2%	-67.1%	-62.4%
8	-74.4%	-71.4%	-78.6%	-73.9%	-76.7%	-72.0%	-71.3%	-76.5%	-75.1%
9	-47.3%	-44.2%	-47.8%	-45.8%	-50.1%	-46.0%	-46.1%	-48.9%	-49.6%
10	-74.2%	-71.6%	-76.4%	-76.7%	-78.7%	-65.9%	-73.1%	-76.3%	-74.6%
11	-29.9%	-24.3%	-26.9%	-29.9%	-33.7%	-26.8%	-31.1%	-31.4%	-35.3%
12	-49.2%	-44.6%	-51.6%	-49.8%	-53.8%	-43.1%	-47.1%	-50.6%	-53.4%
13	-5.4%	-3.8%	-0.6%	-4.9%	-9.1%	-4.6%	-6.5%	-6.0%	-7.7%
14	30.6%	33.5%	31.1%	31.6%	27.4%	31.4%	34.8%	30.7%	24.4%
15	25.5%	31.4%	32.5%	26.0%	21.8%	24.5%	24.1%	23.0%	20.6%
16	3.1%	6.2%	8.4%	2.5%	-1.2%	2.1%	7.6%	1.3%	-1.7%
17	-12.8%	-7.6%	-4.2%	-13.7%	-16.7%	-14.7%	-13.9%	-16.3%	-15.3%
18	-0.3%	1.2%	2.1%	-0.7%	-4.7%	-0.9%	5.6%	-1.3%	-3.9%
19	1.5%	4.9%	3.8%	2.3%	-1.9%	2.4%	0.9%	0.7%	-1.0%
20	47.5%	49.6%	50.3%	48.8%	45.0%	47.5%	48.0%	47.7%	43.1%
21	16.7%	20.2%	25.5%	17.2%	12.7%	14.9%	13.9%	13.5%	15.5%
22	27.0%	30.8%	32.1%	28.3%	23.4%	26.6%	28.4%	26.3%	20.3%
23	-21.7%	-18.7%	-17.6%	-19.2%	-24.8%	-21.8%	-22.1%	-24.0%	-25.3%
24	-7.4%	-4.5%	-2.5%	-4.5%	-10.6%	-7.5%	-8.2%	-9.0%	-12.5%
25	1.8%	3.5%	2.7%	4.4%	-1.4%	3.0%	2.4%	1.6%	-2.0%
26	-2.7%	-1.0%	2.0%	-3.9%	-6.4%	-0.6%	-2.7%	-3.6%	-5.3%
27	-12.0%	-9.6%	-10.3%	-9.8%	-15.2%	-11.2%	-11.0%	-13.4%	-15.8%
28	-2.3%	-0.1%	-0.4%	1.0%	-5.5%	-2.0%	-2.5%	-3.7%	-5.4%
29	-13.1%	-10.9%	-10.0%	-10.7%	-16.7%	-12.8%	-13.4%	-14.1%	-16.3%
30	-27.6%	-25.2%	-24.3%	-25.0%	-30.2%	-27.7%	-27.6%	-29.8%	-30.6%
31	-19.6%	-17.8%	-14.4%	-17.2%	-21.5%	-21.8%	-22.4%	-21.9%	-19.5%
32	-18.5%	-17.6%	-14.6%	-15.8%	-18.6%	-20.0%	-21.2%	-21.5%	-18.4%
33	-13.6%	-9.0%	-11.5%	-12.0%	-17.8%	-12.9%	-14.0%	-15.0%	-16.4%
34	-8.2%	-6.0%	-3.2%	-5.8%	-10.5%	-10.0%	-10.7%	-10.6%	-8.6%
35	-34.3%	-31.9%	-28.9%	-32.7%	-35.9%	-36.3%	-36.6%	-37.1%	-34.9%
36	-29.6%	-25.4%	-26.3%	-27.1%	-31.4%	-30.7%	-31.2%	-32.9%	-31.5%
37	-7.0%	-4.5%	-9.0%	-4.0%	-9.7%	-4.3%	-4.5%	-7.1%	-13.2%
38	-2.9%	-1.4%	-2.3%	0.9%	-5.7%	-1.7%	-1.9%	-3.4%	-8.0%
39	23.1%	24.7%	22.8%	26.8%	21.1%	25.2%	23.5%	23.3%	17.5%
40	-18.5%	-14.6%	-14.9%	-15.6%	-20.9%	-19.1%	-19.9%	-21.8%	-20.9%
41	-30.6%	-28.7%	-28.4%	-27.2%	-32.3%	-31.2%	-30.8%	-33.0%	-33.4%
42	-45.8%	-42.9%	-44.8%	-43.3%	-47.3%	-46.2%	-46.1%	-48.4%	-47.7%
43	7.4%	10.4%	7.0%	12.3%	4.3%	9.0%	7.6%	7.2%	1.3%
44	19.3%	22.3%	21.7%	22.9%	16.4%	19.7%	18.1%	18.2%	14.9%
45	27.0%	29.4%	29.5%	30.0%	24.3%	27.3%	25.1%	26.4%	23.9%
46	-7.1%	-12.6%	-1.4%	-5.0%	-8.5%	-6.9%	-11.4%	-7.1%	-3.8%
47	24.6%	16.3%	33.4%	26.5%	23.1%	23.8%	19.9%	24.1%	29.3%
48	20.1%	15.2%	23.5%	23.5%	21.2%	17.8%	17.7%	20.2%	21.9%
49	-28.9%	-25.4%	-27.3%	-29.8%	-32.8%	-25.1%	-30.0%	-30.8%	-30.2%

District	8 Elections Differential	2016 Senate Differential	2016 President Differential	2018 Attorney General Differential	2018 Governor Differential	2018 Treasurer Differential	2018 Secretary of State Differential	2018 CU Regent at Large Differential	2020 Senate Differential
50	-6.2%	-10.8%	-3.5%	-2.7%	-4.4%	-13.6%	-6.8%	-4.1%	-3.7%
51	11.4%	13.2%	18.4%	13.0%	7.7%	10.7%	8.8%	10.3%	8.8%
52	-19.1%	-14.0%	-17.2%	-17.1%	-24.1%	-18.3%	-18.6%	-20.2%	-23.2%
53	-44.0%	-36.7%	-40.3%	-45.2%	-49.9%	-43.6%	-44.2%	-47.2%	-45.2%
54	45.0%	45.1%	52.6%	45.6%	40.1%	44.3%	43.9%	42.8%	45.6%
55	23.9%	25.0%	29.5%	25.0%	17.9%	24.8%	24.6%	21.6%	22.7%
56	53.7%	49.4%	58.6%	55.9%	52.6%	53.6%	51.8%	53.7%	53.6%
57	-15.7%	-13.6%	-11.6%	-17.0%	-18.7%	-14.2%	-16.3%	-17.3%	-16.7%
58	12.8%	14.1%	19.7%	12.3%	8.7%	12.7%	11.1%	10.8%	12.8%
59	-2.2%	-0.4%	2.4%	-3.2%	-4.7%	-3.1%	-1.5%	-4.4%	-2.9%
60	37.2%	35.9%	45.5%	37.8%	33.6%	36.7%	33.3%	36.2%	38.4%
61	-0.5%	2.6%	0.3%	2.7%	-3.4%	0.0%	-1.0%	-2.2%	-3.1%
62	-17.0%	-21.5%	-13.4%	-15.9%	-17.2%	-18.0%	-19.9%	-18.8%	-11.7%
63	53.8%	41.4%	58.1%	56.1%	55.4%	54.1%	52.4%	55.7%	57.6%
64	25.5%	22.4%	28.9%	29.4%	25.0%	21.3%	24.4%	27.9%	24.9%
65	25.0%	24.4%	27.5%	26.5%	22.1%	24.8%	24.1%	26.2%	24.8%

Results are reported as the difference between the percent of votes cast for the Republican candidate and the percent of votes cast for the Democratic candidate. A positive differential means the Republican won, and a negative differential means the Democrat won.

Source: Data provided by the Colorado Secretary of State's Office. Calculations prepared by Colorado Independent Redistricting Commissions Staff.
October 14, 2021

Appendix C
Active Registered Voters*
Plan: 2021 Final Approved House Plan

District	Republican	Democrat	Minor Party**	Unaffiliated	Total
1	8,303	20,409	1,042	21,990	51,744
	16.0%	39.4%	2.0%	42.5%	
2	9,332	28,164	861	28,066	66,423
	14.0%	42.4%	1.3%	42.3%	
3	10,531	19,399	1,136	24,268	55,334
	19.0%	35.1%	2.1%	43.9%	
4	5,087	27,095	1,054	24,440	57,676
	8.8%	47.0%	1.8%	42.4%	
5	4,782	25,016	1,074	24,310	55,182
	8.7%	45.3%	1.9%	44.1%	
6	4,966	30,412	1,162	24,600	61,140
	8.1%	49.7%	1.9%	40.2%	
7	3,855	22,189	773	18,511	45,328
	8.5%	49.0%	1.7%	40.8%	
8	3,978	34,603	1,011	25,016	64,608
	6.2%	53.6%	1.6%	38.7%	
9	7,815	24,794	1,167	24,297	58,072
	13.5%	42.7%	2.0%	41.8%	
10	3,552	29,085	852	23,096	56,586
	6.3%	51.4%	1.5%	40.8%	
11	10,102	20,724	1,021	26,683	58,529
	17.3%	35.4%	1.7%	45.6%	
12	8,159	27,352	779	27,796	64,086
	12.7%	42.7%	1.2%	43.4%	
13	18,657	17,303	1,345	31,545	68,850
	27.1%	25.1%	2.0%	45.8%	
14	26,071	10,950	1,160	28,739	66,920
	39.0%	16.4%	1.7%	42.9%	
15	18,727	10,137	1,313	24,590	54,766
	34.2%	18.5%	2.4%	44.9%	
16	16,170	14,387	1,446	25,770	57,773
	28.0%	24.9%	2.5%	44.6%	
17	9,269	12,872	1,303	21,267	44,710
	20.7%	28.8%	2.9%	47.6%	
18	17,619	15,430	1,410	27,297	61,756
	28.5%	25.0%	2.3%	44.2%	
19	17,199	15,810	1,103	28,851	62,963
	27.3%	25.1%	1.8%	45.8%	
20	30,312	8,085	1,123	26,644	66,163
	45.8%	12.2%	1.7%	40.3%	
21	13,189	9,193	1,191	21,228	44,800
	29.4%	20.5%	2.7%	47.4%	
22	21,895	11,024	1,304	26,281	60,504
	36.2%	18.2%	2.2%	43.4%	
23	13,249	21,509	1,235	29,164	65,157
	20.3%	33.0%	1.9%	44.8%	
24	16,565	19,605	1,122	29,615	66,907
	24.8%	29.3%	1.7%	44.3%	
25	21,210	17,543	1,115	32,237	72,105
	29.4%	24.3%	1.5%	44.7%	
26	17,709	14,569	1,049	28,318	61,646
	28.7%	23.6%	1.7%	45.9%	
27	16,016	19,004	1,094	29,648	65,761
	24.4%	28.9%	1.7%	45.1%	
28	17,121	16,593	1,023	27,902	62,638
	27.3%	26.5%	1.6%	44.5%	
29	14,198	18,846	1,087	28,384	62,515
	22.7%	30.1%	1.7%	45.4%	
30	10,307	20,581	1,225	25,080	57,193
	18.0%	36.0%	2.1%	43.9%	
31	8,697	15,552	1,000	21,191	46,440
	18.7%	33.5%	2.2%	45.6%	
32	8,881	16,245	932	20,792	46,849
	19.0%	34.7%	2.0%	44.4%	
33	14,730	18,077	995	28,560	62,361
	23.6%	29.0%	1.6%	45.8%	
34	12,964	16,817	1,115	25,161	56,056
	23.1%	30.0%	2.0%	44.9%	
35	7,016	17,744	1,047	20,861	46,667
	15.0%	38.0%	2.2%	44.7%	
36	7,206	16,444	941	19,092	43,683
	16.5%	37.6%	2.2%	43.7%	
37	17,161	17,452	847	26,981	62,441
	27.5%	27.9%	1.4%	43.2%	
38	19,703	18,358	1,124	29,211	68,397

District	Republican	Democrat	Minor Party**	Unaffiliated	Total
	28.8%	26.8%	1.6%	42.7%	
39	26,121	12,728	922	28,575	68,346
	38.2%	18.6%	1.3%	41.8%	
40	12,424	19,772	1,129	26,724	60,049
	20.7%	32.9%	1.9%	44.5%	
41	9,591	21,346	1,086	22,735	54,759
	17.5%	39.0%	2.0%	41.5%	
42	5,109	17,518	956	16,895	40,478
	12.6%	43.3%	2.4%	41.7%	
43	21,855	15,080	868	28,736	66,538
	32.8%	22.7%	1.3%	43.2%	
44	22,467	12,494	1,053	28,776	64,790
	34.7%	19.3%	1.6%	44.4%	
45	25,016	11,228	1,146	27,648	65,038
	38.5%	17.3%	1.8%	42.5%	
46	14,552	23,318	1,059	22,767	61,695
	23.6%	37.8%	1.7%	36.9%	
47	20,787	14,985	1,017	21,981	58,770
	35.4%	25.5%	1.7%	37.4%	
48	17,615	12,989	1,046	24,457	56,108
	31.4%	23.2%	1.9%	43.6%	
49	14,482	26,280	1,193	30,198	72,153
	20.1%	36.4%	1.7%	41.9%	
50	9,590	11,254	1,019	18,899	40,762
	23.5%	27.6%	2.5%	46.4%	
51	20,946	14,495	1,208	29,006	65,656
	31.9%	22.1%	1.8%	44.2%	
52	15,115	19,781	1,115	30,058	66,069
	22.9%	29.9%	1.7%	45.5%	
53	8,747	20,800	1,324	26,503	57,374
	15.2%	36.3%	2.3%	46.2%	
54	27,205	8,671	1,176	25,697	62,749
	43.4%	13.8%	1.9%	41.0%	
55	22,358	11,227	1,190	25,411	60,185
	37.1%	18.7%	2.0%	42.2%	
56	31,000	8,068	1,113	25,426	65,607
	47.3%	12.3%	1.7%	38.8%	
57	13,285	16,356	1,090	26,968	57,698
	23.0%	28.3%	1.9%	46.7%	
58	23,331	14,950	1,154	26,832	66,268
	35.2%	22.6%	1.7%	40.5%	
59	20,853	17,782	1,303	28,519	68,458
	30.5%	26.0%	1.9%	41.7%	
60	27,671	10,424	1,230	25,565	64,890
	42.6%	16.1%	1.9%	39.4%	
61	18,164	17,027	883	28,811	64,884
	28.0%	26.2%	1.4%	44.4%	
62	12,769	22,763	1,045	20,443	57,020
	22.4%	39.9%	1.8%	35.9%	
63	27,275	7,443	857	20,582	56,157
	48.6%	13.3%	1.5%	36.7%	
64	23,325	12,222	1,122	26,898	63,567
	36.7%	19.2%	1.8%	42.3%	
65	24,954	11,353	1,039	27,308	64,654
	38.6%	17.6%	1.6%	42.2%	

**As of June 15, 2021.*

***Minor Party registrations include: American Constitution, Approval Voting, Green, Libertarian, and Unity.*

Source: Colorado Secretary of State.

October 14, 2021

APPENDIX D
Statewide Election Results by District
Plan: Final Senate Plan

District	8 Elections Differential	2016 Senate Differential	2016 President Differential	2018 Attorney General Differential	2018 Governor Differential	2018 Treasurer Differential	2018 Secretary of State Differential	2018 CU Regent at Large Differential	2020 Senate Differential
1	43.8%	34.6%	47.6%	47.2%	45.0%	41.4%	42.7%	46.3%	45.5%
2	23.3%	26.0%	25.9%	26.7%	20.5%	23.7%	21.7%	22.6%	19.6%
3	-5.1%	-10.1%	0.5%	-3.4%	-6.5%	-5.3%	-9.6%	-5.7%	-0.8%
4	23.5%	24.7%	29.8%	24.3%	20.2%	23.3%	21.1%	22.8%	22.0%
5	3.0%	4.5%	8.8%	2.1%	-0.9%	3.6%	1.5%	1.3%	3.1%
6	-0.9%	-0.9%	3.9%	-1.3%	-2.7%	-1.7%	-1.1%	-3.0%	-0.2%
7	33.0%	34.1%	39.7%	33.8%	27.1%	33.1%	32.9%	30.6%	32.4%
8	-6.6%	-4.7%	-1.8%	-7.2%	-10.6%	-5.0%	-6.8%	-7.6%	-8.9%
9	33.4%	36.3%	34.7%	34.7%	30.2%	33.8%	36.4%	33.4%	27.4%
10	23.8%	27.8%	29.1%	24.6%	20.1%	23.3%	25.0%	22.6%	17.7%
11	-2.4%	1.7%	5.4%	-2.9%	-6.2%	-4.0%	-2.8%	-5.3%	-5.3%
12	2.4%	5.2%	7.4%	1.7%	-2.5%	1.0%	6.0%	0.2%	0.5%
13	3.7%	-0.7%	6.8%	7.3%	5.1%	-1.5%	2.1%	4.7%	5.8%
14	-33.3%	-27.3%	-30.6%	-33.1%	-38.7%	-32.7%	-33.1%	-35.5%	-35.7%
15	0.0%	3.0%	5.1%	0.6%	-3.9%	0.8%	-2.4%	-1.3%	-1.7%
16	-0.1%	1.3%	0.6%	3.8%	-3.1%	1.0%	0.8%	-0.5%	-5.0%
17	-29.6%	-24.0%	-28.2%	-29.8%	-33.9%	-26.5%	-29.5%	-31.3%	-33.6%
18	-65.0%	-62.2%	-68.2%	-66.6%	-69.3%	-57.0%	-63.1%	-66.6%	-66.8%
19	-9.2%	-6.1%	-4.7%	-6.4%	-12.5%	-9.4%	-9.9%	-11.0%	-13.4%
20	-7.1%	-5.2%	-5.9%	-4.1%	-10.2%	-6.2%	-6.6%	-8.3%	-10.7%
21	-13.8%	-13.3%	-9.3%	-11.5%	-14.4%	-15.3%	-16.2%	-16.1%	-14.0%
22	-28.4%	-25.3%	-24.3%	-26.8%	-31.4%	-28.3%	-28.5%	-30.7%	-31.7%
23	21.5%	21.7%	24.3%	23.4%	19.0%	21.6%	20.1%	22.1%	20.1%
24	-9.1%	-7.6%	-5.2%	-6.3%	-10.9%	-10.6%	-11.3%	-11.1%	-9.6%
25	-16.0%	-12.9%	-13.0%	-14.1%	-19.6%	-16.0%	-16.5%	-17.3%	-18.8%
26	-25.1%	-22.8%	-25.2%	-22.9%	-27.3%	-23.5%	-23.9%	-26.2%	-29.2%
27	-4.7%	-0.9%	-3.4%	-1.9%	-7.7%	-4.2%	-4.9%	-6.6%	-7.9%
28	-32.4%	-29.1%	-30.3%	-29.8%	-33.8%	-33.0%	-33.3%	-35.4%	-34.5%
29	-29.4%	-26.9%	-26.9%	-26.2%	-31.4%	-30.0%	-30.1%	-32.1%	-31.9%
30	11.7%	14.2%	11.1%	16.1%	9.0%	13.5%	12.1%	11.6%	6.2%
31	-60.4%	-57.8%	-64.1%	-60.3%	-63.2%	-57.0%	-56.6%	-61.9%	-62.5%
32	-46.8%	-43.7%	-46.9%	-45.5%	-49.4%	-45.8%	-45.8%	-48.9%	-48.7%
33	-70.8%	-67.8%	-74.3%	-70.0%	-72.7%	-69.3%	-69.1%	-73.2%	-69.9%
34	-63.9%	-60.7%	-66.1%	-64.4%	-66.7%	-61.3%	-62.3%	-66.5%	-63.3%
35	44.8%	39.8%	50.5%	46.6%	43.5%	44.5%	42.4%	44.8%	46.1%

Results are reported as the difference between the percent of votes cast for the Republican candidate and the percent of votes cast for the Democratic candidate. A positive differential means the Republican won, and a negative differential means the Democrat won.

Source: Data provided by the Colorado Secretary of State's Office. Calculations prepared by Colorado Independent Redistricting Commissions Staff.
October 14, 2021

APPENDIX E

Active Registered Voters*

Plan: 2021 Final Approved Senate Plan

District	Republican	Democrat	Minor Party**	Unaffiliated	Total
1	47,340	16,731	1,731	41,728	107,530
	44.0%	15.6%	1.6%	38.8%	
2	44,358	22,167	2,090	52,857	121,471
	36.5%	18.2%	1.7%	43.5%	
3	27,491	40,571	2,037	42,315	112,414
	24.5%	36.1%	1.8%	37.6%	
4	50,112	25,258	2,461	55,192	133,023
	37.7%	19.0%	1.8%	41.5%	
5	33,004	26,353	2,012	47,718	109,087
	30.3%	24.2%	1.8%	43.7%	
6	36,702	33,845	2,124	46,883	119,553
	30.7%	28.3%	1.8%	39.2%	
7	44,293	18,487	2,156	46,608	111,544
	39.7%	16.6%	1.9%	41.8%	
8	31,237	28,424	2,133	53,486	115,280
	27.1%	24.7%	1.8%	46.4%	
9	47,907	18,738	2,036	50,729	119,409
	40.1%	15.7%	1.7%	42.5%	
10	39,419	21,712	2,562	49,315	113,009
	34.9%	19.2%	2.3%	43.6%	
11	21,388	23,137	2,551	42,028	89,104
	24.0%	26.0%	2.9%	47.2%	
12	29,381	24,812	2,483	46,896	103,573
	28.4%	24.0%	2.4%	45.3%	
13	22,602	22,544	1,865	38,462	85,473
	26.4%	26.4%	2.2%	45.0%	
14	20,056	36,627	2,195	49,248	108,126
	18.5%	33.9%	2.0%	45.5%	
15	35,937	32,095	2,211	54,413	124,656
	28.8%	25.7%	1.8%	43.7%	
16	37,600	32,719	1,939	54,827	127,084
	29.6%	25.7%	1.5%	43.1%	
17	20,692	40,237	1,836	52,419	115,184
	18.0%	34.9%	1.6%	45.5%	
18	9,666	55,043	1,474	46,480	112,664
	8.6%	48.9%	1.3%	41.3%	
19	29,307	35,605	2,036	54,168	121,115
	24.2%	29.4%	1.7%	44.7%	
20	32,916	35,666	2,045	57,170	127,796
	25.8%	27.9%	1.6%	44.7%	
21	19,280	31,062	1,892	41,138	93,373
	20.6%	33.3%	2.0%	44.1%	
22	20,105	38,876	2,320	49,461	110,763
	18.2%	35.1%	2.1%	44.7%	
23	40,823	22,369	2,043	50,746	115,982
	35.2%	19.3%	1.8%	43.8%	
24	22,358	30,204	1,906	44,646	99,114
	22.6%	30.5%	1.9%	45.0%	
25	24,290	34,488	2,057	50,627	111,463
	21.8%	30.9%	1.8%	45.4%	
26	21,917	37,120	2,012	46,311	107,360
	20.4%	34.6%	1.9%	43.1%	
27	29,900	31,528	1,757	50,865	114,050
	26.2%	27.6%	1.5%	44.6%	
28	12,681	30,884	1,720	34,429	79,714
	15.9%	38.7%	2.2%	43.2%	
29	17,040	37,038	1,967	41,157	97,202
	17.5%	38.1%	2.0%	42.3%	
30	42,881	26,744	1,620	54,102	125,348
	34.2%	21.3%	1.3%	43.2%	
31	12,371	56,595	2,021	50,431	121,418
	10.2%	46.6%	1.7%	41.5%	
32	13,571	43,462	1,932	42,762	101,727
	13.3%	42.7%	1.9%	42.0%	
33	7,025	50,649	1,536	38,433	97,644
	7.2%	51.9%	1.6%	39.4%	
34	9,335	49,913	2,026	46,177	107,451
	8.7%	46.5%	1.9%	43.0%	
35	53,923	20,022	2,140	45,667	121,752
	44.3%	16.4%	1.8%	37.5%	

**As of June 15, 2021.*

***Minor Party registrations include: American Constitution, Approval Voting, Green, Libertarian, and Unity.*

Source: Colorado Secretary of State.

October 14, 2021

Active Registered Voters*

Plan: 2021 Final Approved House Plan

District	Republican	Democrat	Minor Party**	Unaffiliated	Total
1	8,303	20,409	1,042	21,990	51,744
	16.0%	39.4%	2.0%	42.5%	
2	9,332	28,164	861	28,066	66,423
	14.0%	42.4%	1.3%	42.3%	
3	10,531	19,399	1,136	24,268	55,334
	19.0%	35.1%	2.1%	43.9%	
4	5,087	27,095	1,054	24,440	57,676
	8.8%	47.0%	1.8%	42.4%	
5	4,782	25,016	1,074	24,310	55,182
	8.7%	45.3%	1.9%	44.1%	
6	4,966	30,412	1,162	24,600	61,140
	8.1%	49.7%	1.9%	40.2%	
7	3,855	22,189	773	18,511	45,328
	8.5%	49.0%	1.7%	40.8%	
8	3,978	34,603	1,011	25,016	64,608
	6.2%	53.6%	1.6%	38.7%	
9	7,815	24,794	1,167	24,297	58,072
	13.5%	42.7%	2.0%	41.8%	
10	3,552	29,085	852	23,096	56,586
	6.3%	51.4%	1.5%	40.8%	
11	10,102	20,724	1,021	26,683	58,529
	17.3%	35.4%	1.7%	45.6%	
12	8,159	27,352	779	27,796	64,086
	12.7%	42.7%	1.2%	43.4%	
13	18,657	17,303	1,345	31,545	68,850
	27.1%	25.1%	2.0%	45.8%	
14	26,071	10,950	1,160	28,739	66,920
	39.0%	16.4%	1.7%	42.9%	
15	18,727	10,137	1,313	24,590	54,766
	34.2%	18.5%	2.4%	44.9%	
16	16,170	14,387	1,446	25,770	57,773
	28.0%	24.9%	2.5%	44.6%	
17	9,269	12,872	1,303	21,267	44,710
	20.7%	28.8%	2.9%	47.6%	
18	17,619	15,430	1,410	27,297	61,756
	28.5%	25.0%	2.3%	44.2%	
19	17,199	15,810	1,103	28,851	62,963
	27.3%	25.1%	1.8%	45.8%	
20	30,312	8,085	1,123	26,644	66,163
	45.8%	12.2%	1.7%	40.3%	
21	13,189	9,193	1,191	21,228	44,800
	29.4%	20.5%	2.7%	47.4%	
22	21,895	11,024	1,304	26,281	60,504
	36.2%	18.2%	2.2%	43.4%	
23	13,249	21,509	1,235	29,164	65,157
	20.3%	33.0%	1.9%	44.8%	
24	16,565	19,605	1,122	29,615	66,907
	24.8%	29.3%	1.7%	44.3%	
25	21,210	17,543	1,115	32,237	72,105
	29.4%	24.3%	1.5%	44.7%	
26	17,709	14,569	1,049	28,318	61,646
	28.7%	23.6%	1.7%	45.9%	
27	16,016	19,004	1,094	29,648	65,761
	24.4%	28.9%	1.7%	45.1%	
28	17,121	16,593	1,023	27,902	62,638
	27.3%	26.5%	1.6%	44.5%	
29	14,198	18,846	1,087	28,384	62,515
	22.7%	30.1%	1.7%	45.4%	
30	10,307	20,581	1,225	25,080	57,193
	18.0%	36.0%	2.1%	43.9%	
31	8,697	15,552	1,000	21,191	46,440
	18.7%	33.5%	2.2%	45.6%	
32	8,881	16,245	932	20,792	46,849
	19.0%	34.7%	2.0%	44.4%	
33	14,730	18,077	995	28,560	62,361
	23.6%	29.0%	1.6%	45.8%	
34	12,964	16,817	1,115	25,161	56,056
	23.1%	30.0%	2.0%	44.9%	
35	7,016	17,744	1,047	20,861	46,667
	15.0%	38.0%	2.2%	44.7%	
36	7,206	16,444	941	19,092	43,683
	16.5%	37.6%	2.2%	43.7%	
37	17,161	17,452	847	26,981	62,441
	27.5%	27.9%	1.4%	43.2%	
38	19,703	18,358	1,124	29,211	68,397

District	Republican	Democrat	Minor Party**	Unaffiliated	Total
	28.8%	26.8%	1.6%	42.7%	
39	26,121	12,728	922	28,575	68,346
	38.2%	18.6%	1.3%	41.8%	
40	12,424	19,772	1,129	26,724	60,049
	20.7%	32.9%	1.9%	44.5%	
41	9,591	21,346	1,086	22,735	54,759
	17.5%	39.0%	2.0%	41.5%	
42	5,109	17,518	956	16,895	40,478
	12.6%	43.3%	2.4%	41.7%	
43	21,855	15,080	868	28,736	66,538
	32.8%	22.7%	1.3%	43.2%	
44	22,467	12,494	1,053	28,776	64,790
	34.7%	19.3%	1.6%	44.4%	
45	25,016	11,228	1,146	27,648	65,038
	38.5%	17.3%	1.8%	42.5%	
46	14,552	23,318	1,059	22,767	61,695
	23.6%	37.8%	1.7%	36.9%	
47	20,787	14,985	1,017	21,981	58,770
	35.4%	25.5%	1.7%	37.4%	
48	17,615	12,989	1,046	24,457	56,108
	31.4%	23.2%	1.9%	43.6%	
49	14,482	26,280	1,193	30,198	72,153
	20.1%	36.4%	1.7%	41.9%	
50	9,590	11,254	1,019	18,899	40,762
	23.5%	27.6%	2.5%	46.4%	
51	20,946	14,495	1,208	29,006	65,656
	31.9%	22.1%	1.8%	44.2%	
52	15,115	19,781	1,115	30,058	66,069
	22.9%	29.9%	1.7%	45.5%	
53	8,747	20,800	1,324	26,503	57,374
	15.2%	36.3%	2.3%	46.2%	
54	27,205	8,671	1,176	25,697	62,749
	43.4%	13.8%	1.9%	41.0%	
55	22,358	11,227	1,190	25,411	60,185
	37.1%	18.7%	2.0%	42.2%	
56	31,000	8,068	1,113	25,426	65,607
	47.3%	12.3%	1.7%	38.8%	
57	13,285	16,356	1,090	26,968	57,698
	23.0%	28.3%	1.9%	46.7%	
58	23,331	14,950	1,154	26,832	66,268
	35.2%	22.6%	1.7%	40.5%	
59	20,853	17,782	1,303	28,519	68,458
	30.5%	26.0%	1.9%	41.7%	
60	27,671	10,424	1,230	25,565	64,890
	42.6%	16.1%	1.9%	39.4%	
61	18,164	17,027	883	28,811	64,884
	28.0%	26.2%	1.4%	44.4%	
62	12,769	22,763	1,045	20,443	57,020
	22.4%	39.9%	1.8%	35.9%	
63	27,275	7,443	857	20,582	56,157
	48.6%	13.3%	1.5%	36.7%	
64	23,325	12,222	1,122	26,898	63,567
	36.7%	19.2%	1.8%	42.3%	
65	24,954	11,353	1,039	27,308	64,654
	38.6%	17.6%	1.6%	42.2%	

**As of June 15, 2021.*

***Minor Party registrations include: American Constitution, Approval Voting, Green, Libertarian, and Unity.*

Source: Colorado Secretary of State.

October 14, 2021

Statewide Election Results by District

Plan: 2021 Final Approved House Plan

District	8 Elections Differential	2016 Senate Differential	2016 President Differential	2018 Attorney General Differential	2018 Governor Differential	2018 Treasurer Differential	2018 Secretary of State Differential	2018 CU Regent at Large Differential	2020 Senate Differential
1	-34.6%	-32.4%	-32.2%	-32.7%	-35.8%	-35.3%	-35.2%	-36.8%	-36.2%
2	-48.5%	-46.1%	-53.5%	-48.2%	-51.1%	-44.3%	-43.8%	-49.4%	-51.7%
3	-28.7%	-25.6%	-27.4%	-26.7%	-31.3%	-27.4%	-28.2%	-30.2%	-32.7%
4	-63.3%	-60.4%	-65.8%	-63.3%	-66.0%	-60.9%	-61.6%	-65.7%	-62.8%
5	-63.7%	-59.6%	-65.4%	-64.9%	-66.9%	-60.8%	-62.0%	-66.6%	-63.5%
6	-66.9%	-64.0%	-68.6%	-66.5%	-69.9%	-64.4%	-64.2%	-69.0%	-68.5%
7	-64.5%	-61.4%	-66.7%	-63.3%	-65.8%	-64.3%	-65.2%	-67.1%	-62.4%
8	-74.4%	-71.4%	-78.6%	-73.9%	-76.7%	-72.0%	-71.3%	-76.5%	-75.1%
9	-47.3%	-44.2%	-47.8%	-45.8%	-50.1%	-46.0%	-46.1%	-48.9%	-49.6%
10	-74.2%	-71.6%	-76.4%	-76.7%	-78.7%	-65.9%	-73.1%	-76.3%	-74.6%
11	-29.9%	-24.3%	-26.9%	-29.9%	-33.7%	-26.8%	-31.1%	-31.4%	-35.3%
12	-49.2%	-44.6%	-51.6%	-49.8%	-53.8%	-43.1%	-47.1%	-50.6%	-53.4%
13	-5.4%	-3.8%	-0.6%	-4.9%	-9.1%	-4.6%	-6.5%	-6.0%	-7.7%
14	30.6%	33.5%	31.1%	31.6%	27.4%	31.4%	34.8%	30.7%	24.4%
15	25.5%	31.4%	32.5%	26.0%	21.8%	24.5%	24.1%	23.0%	20.6%
16	3.1%	6.2%	8.4%	2.5%	-1.2%	2.1%	7.6%	1.3%	-1.7%
17	-12.8%	-7.6%	-4.2%	-13.7%	-16.7%	-14.7%	-13.9%	-16.3%	-15.3%
18	-0.3%	1.2%	2.1%	-0.7%	-4.7%	-0.9%	5.6%	-1.3%	-3.9%
19	1.5%	4.9%	3.8%	2.3%	-1.9%	2.4%	0.9%	0.7%	-1.0%
20	47.5%	49.6%	50.3%	48.8%	45.0%	47.5%	48.0%	47.7%	43.1%
21	16.7%	20.2%	25.5%	17.2%	12.7%	14.9%	13.9%	13.5%	15.5%
22	27.0%	30.8%	32.1%	28.3%	23.4%	26.6%	28.4%	26.3%	20.3%
23	-21.7%	-18.7%	-17.6%	-19.2%	-24.8%	-21.8%	-22.1%	-24.0%	-25.3%
24	-7.4%	-4.5%	-2.5%	-4.5%	-10.6%	-7.5%	-8.2%	-9.0%	-12.5%
25	1.8%	3.5%	2.7%	4.4%	-1.4%	3.0%	2.4%	1.6%	-2.0%
26	-2.7%	-1.0%	2.0%	-3.9%	-6.4%	-0.6%	-2.7%	-3.6%	-5.3%
27	-12.0%	-9.6%	-10.3%	-9.8%	-15.2%	-11.2%	-11.0%	-13.4%	-15.8%
28	-2.3%	-0.1%	-0.4%	1.0%	-5.5%	-2.0%	-2.5%	-3.7%	-5.4%
29	-13.1%	-10.9%	-10.0%	-10.7%	-16.7%	-12.8%	-13.4%	-14.1%	-16.3%
30	-27.6%	-25.2%	-24.3%	-25.0%	-30.2%	-27.7%	-27.6%	-29.8%	-30.6%
31	-19.6%	-17.8%	-14.4%	-17.2%	-21.5%	-21.8%	-22.4%	-21.9%	-19.5%
32	-18.5%	-17.6%	-14.6%	-15.8%	-18.6%	-20.0%	-21.2%	-21.5%	-18.4%
33	-13.6%	-9.0%	-11.5%	-12.0%	-17.8%	-12.9%	-14.0%	-15.0%	-16.4%
34	-8.2%	-6.0%	-3.2%	-5.8%	-10.5%	-10.0%	-10.7%	-10.6%	-8.6%
35	-34.3%	-31.9%	-28.9%	-32.7%	-35.9%	-36.3%	-36.6%	-37.1%	-34.9%
36	-29.6%	-25.4%	-26.3%	-27.1%	-31.4%	-30.7%	-31.2%	-32.9%	-31.5%
37	-7.0%	-4.5%	-9.0%	-4.0%	-9.7%	-4.3%	-4.5%	-7.1%	-13.2%
38	-2.9%	-1.4%	-2.3%	0.9%	-5.7%	-1.7%	-1.9%	-3.4%	-8.0%
39	23.1%	24.7%	22.8%	26.8%	21.1%	25.2%	23.5%	23.3%	17.5%
40	-18.5%	-14.6%	-14.9%	-15.6%	-20.9%	-19.1%	-19.9%	-21.8%	-20.9%
41	-30.6%	-28.7%	-28.4%	-27.2%	-32.3%	-31.2%	-30.8%	-33.0%	-33.4%
42	-45.8%	-42.9%	-44.8%	-43.3%	-47.3%	-46.2%	-46.1%	-48.4%	-47.7%
43	7.4%	10.4%	7.0%	12.3%	4.3%	9.0%	7.6%	7.2%	1.3%
44	19.3%	22.3%	21.7%	22.9%	16.4%	19.7%	18.1%	18.2%	14.9%
45	27.0%	29.4%	29.5%	30.0%	24.3%	27.3%	25.1%	26.4%	23.9%
46	-7.1%	-12.6%	-1.4%	-5.0%	-8.5%	-6.9%	-11.4%	-7.1%	-3.8%
47	24.6%	16.3%	33.4%	26.5%	23.1%	23.8%	19.9%	24.1%	29.3%
48	20.1%	15.2%	23.5%	23.5%	21.2%	17.8%	17.7%	20.2%	21.9%
49	-28.9%	-25.4%	-27.3%	-29.8%	-32.8%	-25.1%	-30.0%	-30.8%	-30.2%

District	8 Elections Differential	2016 Senate Differential	2016 President Differential	2018 Attorney General Differential	2018 Governor Differential	2018 Treasurer Differential	2018 Secretary of State Differential	2018 CU Regent at Large Differential	2020 Senate Differential
50	-6.2%	-10.8%	-3.5%	-2.7%	-4.4%	-13.6%	-6.8%	-4.1%	-3.7%
51	11.4%	13.2%	18.4%	13.0%	7.7%	10.7%	8.8%	10.3%	8.8%
52	-19.1%	-14.0%	-17.2%	-17.1%	-24.1%	-18.3%	-18.6%	-20.2%	-23.2%
53	-44.0%	-36.7%	-40.3%	-45.2%	-49.9%	-43.6%	-44.2%	-47.2%	-45.2%
54	45.0%	45.1%	52.6%	45.6%	40.1%	44.3%	43.9%	42.8%	45.6%
55	23.9%	25.0%	29.5%	25.0%	17.9%	24.8%	24.6%	21.6%	22.7%
56	53.7%	49.4%	58.6%	55.9%	52.6%	53.6%	51.8%	53.7%	53.6%
57	-15.7%	-13.6%	-11.6%	-17.0%	-18.7%	-14.2%	-16.3%	-17.3%	-16.7%
58	12.8%	14.1%	19.7%	12.3%	8.7%	12.7%	11.1%	10.8%	12.8%
59	-2.2%	-0.4%	2.4%	-3.2%	-4.7%	-3.1%	-1.5%	-4.4%	-2.9%
60	37.2%	35.9%	45.5%	37.8%	33.6%	36.7%	33.3%	36.2%	38.4%
61	-0.5%	2.6%	0.3%	2.7%	-3.4%	0.0%	-1.0%	-2.2%	-3.1%
62	-17.0%	-21.5%	-13.4%	-15.9%	-17.2%	-18.0%	-19.9%	-18.8%	-11.7%
63	53.8%	41.4%	58.1%	56.1%	55.4%	54.1%	52.4%	55.7%	57.6%
64	25.5%	22.4%	28.9%	29.4%	25.0%	21.3%	24.4%	27.9%	24.9%
65	25.0%	24.4%	27.5%	26.5%	22.1%	24.8%	24.1%	26.2%	24.8%

Results are reported as the difference between the percent of votes cast for the Republican candidate and the percent of votes cast for the Democratic candidate. A positive differential means the Republican won, and a negative differential means the Democrat won.

Source: Data provided by the Colorado Secretary of State's Office. Calculations prepared by Colorado Independent Redistricting Commissions Staff.
October 14, 2021

Active Registered Voters*

Plan: 2021 Final Approved Senate Plan

District	Republican	Democrat	Minor Party**	Unaffiliated	Total
1	47,340	16,731	1,731	41,728	107,530
	44.0%	15.6%	1.6%	38.8%	
2	44,358	22,167	2,090	52,857	121,471
	36.5%	18.2%	1.7%	43.5%	
3	27,491	40,571	2,037	42,315	112,414
	24.5%	36.1%	1.8%	37.6%	
4	50,112	25,258	2,461	55,192	133,023
	37.7%	19.0%	1.8%	41.5%	
5	33,004	26,353	2,012	47,718	109,087
	30.3%	24.2%	1.8%	43.7%	
6	36,702	33,845	2,124	46,883	119,553
	30.7%	28.3%	1.8%	39.2%	
7	44,293	18,487	2,156	46,608	111,544
	39.7%	16.6%	1.9%	41.8%	
8	31,237	28,424	2,133	53,486	115,280
	27.1%	24.7%	1.8%	46.4%	
9	47,907	18,738	2,036	50,729	119,409
	40.1%	15.7%	1.7%	42.5%	
10	39,419	21,712	2,562	49,315	113,009
	34.9%	19.2%	2.3%	43.6%	
11	21,388	23,137	2,551	42,028	89,104
	24.0%	26.0%	2.9%	47.2%	
12	29,381	24,812	2,483	46,896	103,573
	28.4%	24.0%	2.4%	45.3%	
13	22,602	22,544	1,865	38,462	85,473
	26.4%	26.4%	2.2%	45.0%	
14	20,056	36,627	2,195	49,248	108,126
	18.5%	33.9%	2.0%	45.5%	
15	35,937	32,095	2,211	54,413	124,656
	28.8%	25.7%	1.8%	43.7%	
16	37,600	32,719	1,939	54,827	127,084
	29.6%	25.7%	1.5%	43.1%	
17	20,692	40,237	1,836	52,419	115,184
	18.0%	34.9%	1.6%	45.5%	
18	9,666	55,043	1,474	46,480	112,664
	8.6%	48.9%	1.3%	41.3%	
19	29,307	35,605	2,036	54,168	121,115
	24.2%	29.4%	1.7%	44.7%	
20	32,916	35,666	2,045	57,170	127,796
	25.8%	27.9%	1.6%	44.7%	
21	19,280	31,062	1,892	41,138	93,373
	20.6%	33.3%	2.0%	44.1%	
22	20,105	38,876	2,320	49,461	110,763
	18.2%	35.1%	2.1%	44.7%	
23	40,823	22,369	2,043	50,746	115,982
	35.2%	19.3%	1.8%	43.8%	
24	22,358	30,204	1,906	44,646	99,114
	22.6%	30.5%	1.9%	45.0%	
25	24,290	34,488	2,057	50,627	111,463
	21.8%	30.9%	1.8%	45.4%	
26	21,917	37,120	2,012	46,311	107,360
	20.4%	34.6%	1.9%	43.1%	
27	29,900	31,528	1,757	50,865	114,050
	26.2%	27.6%	1.5%	44.6%	
28	12,681	30,884	1,720	34,429	79,714
	15.9%	38.7%	2.2%	43.2%	
29	17,040	37,038	1,967	41,157	97,202
	17.5%	38.1%	2.0%	42.3%	
30	42,881	26,744	1,620	54,102	125,348
	34.2%	21.3%	1.3%	43.2%	
31	12,371	56,595	2,021	50,431	121,418
	10.2%	46.6%	1.7%	41.5%	
32	13,571	43,462	1,932	42,762	101,727
	13.3%	42.7%	1.9%	42.0%	
33	7,025	50,649	1,536	38,433	97,644
	7.2%	51.9%	1.6%	39.4%	
34	9,335	49,913	2,026	46,177	107,451
	8.7%	46.5%	1.9%	43.0%	
35	53,923	20,022	2,140	45,667	121,752
	44.3%	16.4%	1.8%	37.5%	

**As of June 15, 2021.*

***Minor Party registrations include: American Constitution, Approval Voting, Green, Libertarian, and Unity.*

Source: Colorado Secretary of State.

October 14, 2021

Statewide Election Results by District

Plan: Final Senate Plan

District	8 Elections Differential	2016 Senate Differential	2016 President Differential	2018 Attorney General Differential	2018 Governor Differential	2018 Treasurer Differential	2018 Secretary of State Differential	2018 CU Regent at Large Differential	2020 Senate Differential
1	43.8%	34.6%	47.6%	47.2%	45.0%	41.4%	42.7%	46.3%	45.5%
2	23.3%	26.0%	25.9%	26.7%	20.5%	23.7%	21.7%	22.6%	19.6%
3	-5.1%	-10.1%	0.5%	-3.4%	-6.5%	-5.3%	-9.6%	-5.7%	-0.8%
4	23.5%	24.7%	29.8%	24.3%	20.2%	23.3%	21.1%	22.8%	22.0%
5	3.0%	4.5%	8.8%	2.1%	-0.9%	3.6%	1.5%	1.3%	3.1%
6	-0.9%	-0.9%	3.9%	-1.3%	-2.7%	-1.7%	-1.1%	-3.0%	-0.2%
7	33.0%	34.1%	39.7%	33.8%	27.1%	33.1%	32.9%	30.6%	32.4%
8	-6.6%	-4.7%	-1.8%	-7.2%	-10.6%	-5.0%	-6.8%	-7.6%	-8.9%
9	33.4%	36.3%	34.7%	34.7%	30.2%	33.8%	36.4%	33.4%	27.4%
10	23.8%	27.8%	29.1%	24.6%	20.1%	23.3%	25.0%	22.6%	17.7%
11	-2.4%	1.7%	5.4%	-2.9%	-6.2%	-4.0%	-2.8%	-5.3%	-5.3%
12	2.4%	5.2%	7.4%	1.7%	-2.5%	1.0%	6.0%	0.2%	0.5%
13	3.7%	-0.7%	6.8%	7.3%	5.1%	-1.5%	2.1%	4.7%	5.8%
14	-33.3%	-27.3%	-30.6%	-33.1%	-38.7%	-32.7%	-33.1%	-35.5%	-35.7%
15	0.0%	3.0%	5.1%	0.6%	-3.9%	0.8%	-2.4%	-1.3%	-1.7%
16	-0.1%	1.3%	0.6%	3.8%	-3.1%	1.0%	0.8%	-0.5%	-5.0%
17	-29.6%	-24.0%	-28.2%	-29.8%	-33.9%	-26.5%	-29.5%	-31.3%	-33.6%
18	-65.0%	-62.2%	-68.2%	-66.6%	-69.3%	-57.0%	-63.1%	-66.6%	-66.8%
19	-9.2%	-6.1%	-4.7%	-6.4%	-12.5%	-9.4%	-9.9%	-11.0%	-13.4%
20	-7.1%	-5.2%	-5.9%	-4.1%	-10.2%	-6.2%	-6.6%	-8.3%	-10.7%
21	-13.8%	-13.3%	-9.3%	-11.5%	-14.4%	-15.3%	-16.2%	-16.1%	-14.0%
22	-28.4%	-25.3%	-24.3%	-26.8%	-31.4%	-28.3%	-28.5%	-30.7%	-31.7%
23	21.5%	21.7%	24.3%	23.4%	19.0%	21.6%	20.1%	22.1%	20.1%
24	-9.1%	-7.6%	-5.2%	-6.3%	-10.9%	-10.6%	-11.3%	-11.1%	-9.6%
25	-16.0%	-12.9%	-13.0%	-14.1%	-19.6%	-16.0%	-16.5%	-17.3%	-18.8%
26	-25.1%	-22.8%	-25.2%	-22.9%	-27.3%	-23.5%	-23.9%	-26.2%	-29.2%
27	-4.7%	-0.9%	-3.4%	-1.9%	-7.7%	-4.2%	-4.9%	-6.6%	-7.9%
28	-32.4%	-29.1%	-30.3%	-29.8%	-33.8%	-33.0%	-33.3%	-35.4%	-34.5%
29	-29.4%	-26.9%	-26.9%	-26.2%	-31.4%	-30.0%	-30.1%	-32.1%	-31.9%
30	11.7%	14.2%	11.1%	16.1%	9.0%	13.5%	12.1%	11.6%	6.2%
31	-60.4%	-57.8%	-64.1%	-60.3%	-63.2%	-57.0%	-56.6%	-61.9%	-62.5%
32	-46.8%	-43.7%	-46.9%	-45.5%	-49.4%	-45.8%	-45.8%	-48.9%	-48.7%
33	-70.8%	-67.8%	-74.3%	-70.0%	-72.7%	-69.3%	-69.1%	-73.2%	-69.9%
34	-63.9%	-60.7%	-66.1%	-64.4%	-66.7%	-61.3%	-62.3%	-66.5%	-63.3%
35	44.8%	39.8%	50.5%	46.6%	43.5%	44.5%	42.4%	44.8%	46.1%

Results are reported as the difference between the percent of votes cast for the Republican candidate and the percent of votes cast for the Democratic candidate. A positive differential means the Republican won, and a negative differential means the Democrat won.

Source: Data provided by the Colorado Secretary of State's Office. Calculations prepared by Colorado Independent Redistricting Commissions Staff.
October 14, 2021

DATE FILED: October 15, 2021 4:08 PM

In re Colorado Independent Legislative Redistricting Commission

Exhibit 14

Report of Dr. Jeanne Clelland, *et al.*

Ensemble Analysis for 2021 State Legislative Redistricting in Colorado

Jeanne Clelland*, Daryl DeFord, Beth Malmskog, and Flavia Sancier-Barbosa

September 26, 2021

Abstract

In this report, we apply techniques of ensemble analysis to establish a baseline context for State Legislative redistricting in Colorado following the 2020 Census. We generate large random samples of redistricting plans for the State Senate and State House that meet the basic legal requirements established by Amendment Z. Using these samples, we establish "reasonable" ranges for what might be expected for minority population, competitive districts, and partisan seat share for plans generated without explicit consideration of these issues. We also explore how these various priorities interact; in particular, we explore how the constitutional imperative to keep counties whole as much as possible affects both the ability to maximize the number of competitive districts and the expected range for partisan seat share. Finally, we compare the First and Second Staff Plans for the State Senate and State House proposed by the Colorado Independent Legislative Redistricting Commission's nonpartisan staff to our ensembles and comment on their performance relative to the ensembles.

1 Introduction

In the years since the last decennial redistricting cycle, there has been much interest in—and litigation around—quantifying and identifying partisan bias in district plans. Unlike racial gerrymandering, which has historically been limited by the Voting Rights Act of 1965, partisan gerrymandering has largely been unchecked by the courts until fairly recently, primarily due to the difficulty of identifying a quantifiable standard for measuring it.

One recently developed strategy for quantifying partisan bias is the idea of "ensemble analysis," in which a particular district plan is compared to a large collection of randomly generated, legally valid plans, referred to as an "ensemble" of plans. This idea has been gaining traction in redistricting litigation in the last few years. For instance, Jonathan Mattingly, et. al. performed detailed

*The first author was partially supported by a Collaboration Grant for Mathematicians from the Simons Foundation.

ensemble analyses of North Carolina's Congressional [9] and state [10] legislative district plans that played key roles in the court cases [3] and [2], and Moon Duchin's ensemble analysis [8] of Pennsylvania's Congressional Districts played a similar role in [1]. Similar work can be found in Wesley Pegden's expert reports for Pennsylvania [11] and North Carolina [12].

The primary aim of our work is to use ensemble analysis to establish a baseline context for State Legislative redistricting in Colorado in 2021, in order to understand what might reasonably be expected for measures such as minority population, competitive districts, and partisan seat share, based on the state's unique political geography. This baseline may then be applied to evaluate proposed district plans under consideration by the Colorado Independent Congressional Legislative Commission to ensure that they satisfy the requirements specified by Amendment Z to the Colorado Constitution.

Here and throughout this report, we wish to emphasize that **none of the plans in our ensembles are intended for adoption.** Redistricting is fundamentally a human endeavor, and there are many important considerations that are difficult or impossible to fully incorporate into a computer-generated ensemble. The ensembles that we will discuss here are intended **only** to provide context to which proposed plans may be compared with regard to specific quantitative measures.

Additionally, we want to make the following points clear at the outset:

- The goal of ensemble analysis is **not** to identify a single "best" value for any measure (e.g., number of competitive districts, or numbers of seats won by each party), but rather to identify a **range** of values that would be reasonably likely for plans drawn without taking any partisan data into account. This analysis only raises concerns when a proposed plan is an **extreme outlier** relative to the range of values seen in an ensemble.

- Despite the ubiquity of descriptions such as, "this plan has X Democratic districts and Y Republican districts," this analysis does **not** predict future election outcomes or flag particular election outcomes as extreme. The election data used to evaluate plans for competitive districts and partisan seat share is based on past, **statewide** elections, whereas outcomes for future local, district-based elections may vary widely from those for statewide elections, depending on a variety of factors such as incumbent effects, candidate availability, and issues of particular local concern. Rather, the goal of this analysis is to identify **district plans** that may produce atypical outcomes across a variety of elections of different types.

- Because we cannot model all considerations that the Commission may take into account when drawing maps, plans that appear to be extreme outliers compared to an ensemble may in fact have perfectly reasonable explanations for their deviation from the ensemble. For example, drawing districts informed by the goals of satisfying the requirements of the Voting Rights Act, preserving communities of interest, and maximizing the number of competitive districts

may affect plans in ways that are not well represented by our ensembles. In such cases, more information about the design criteria may be required in order to evaluate a plan on its merits.

2 Introduction to ensemble analysis

In this section we give a brief description of the main ideas and aims of ensemble analysis. For a more detailed treatment of our approach and methodology, please see our paper [5] and Appendix A.

The fundamental goal of ensemble analysis is to model the political geography of a region (in this case, the state of Colorado) in order to better understand what might be expected for a "typical" district plan for the state. Plans may be evaluated with regard to a variety of measures: partisan balance of election results, geographic compactness of districts, competitiveness of district elections, preservation of communities of interest, racial/ethnic population within districts, etc. The main idea is to create a large number of randomly generated, valid plans that satisfy all relevant legal constraints—an "ensemble" of plans. Measures of interest are then computed for each plan in the ensemble using real population and voting data. The result is a statistical range of possible outcomes for each measure, to which any proposed plan may be compared. If a proposed plan appears to be an extreme outlier compared to the ensemble, this may suggest that factors not included in the ensemble design may have played an important role in the plan's construction. Such factors may be desirable (e.g., preservation of communities of interest) or not (e.g., partisan gerrymandering).

For this type of analysis, it is natural to build districts from voting precincts, as these are the smallest geographic units for which voting data is readily available. This is just one of many reasons why the plans in our ensemble are generally unsuitable for adoption; the final plans will almost certainly divide many precincts in order to achieve their aims.

Our construction of ensembles begins with a data-rich map of Colorado's voting precincts as of 2020. Details of our processes for data collection and construction of this map are described in Appendix A.1, and details of the algorithms used to build our ensembles are described in Appendix A.2. For this initial analysis, for each chamber (Senate and House) we constructed three ensembles of 2,000,000 random maps each, incorporating some of the most fundamental constitutional requirements:

- **Contiguity:** The algorithm used to generate district plans automatically guarantees district contiguity; see Appendix A.2 for more details.
- **Population equality:** We have required that all plans in our ensembles have a population deviation of 5% or less between the least- and most-populous districts, as required by Amendment Z.

- **Compactness:** The algorithm used to generate district plans is designed to preferentially sample from more compact plans, and a large body of experimental evidence indicates that it is generally very effective in this endeavor. (See, e.g., [6].) No specific metric for measuring compactness is prescribed by Amendment Z, and we did not explicitly track any quantitative measure of district compactness. However, we have included a few of our randomly generated maps in Appendix A.2 to illustrate that their districts are generally reasonably compact.
- **Preservation of political subdivisions and communities of interest:** Our first ensemble, which we shall refer to as "county-neutral," did not incorporate any information regarding political subdivisions such as cities or counties or other communities of interest. Our second ensemble, which we shall refer to as "county-aware," added an algorithm described in Appendix A.2 to minimize the number of county splits. Our third ensemble, which we shall refer to as "tailored county-aware," used the county-aware algorithm and incorporated two additional constraints, based on input from the Commission:

  1. Plans in this ensemble never split any of the 27 counties with a 2020 Census population of 10,000 or less.
  2. Plans in this ensemble never split four communities of interest identified by the Commission:
     - the counties of Sedgwick, Phillips, Logan, Morgan, Washington, and Yuma in Northeast Colorado;
     - the counties of Saguache, Alamosa, Rio Grande, Conejos, Costilla, and Mineral in the San Luis Valley;
     - the counties of Archuleta, LaPlata, San Juan, and as much of Montezuma as possible, keeping the individual tribes whole;
     - the Roaring Fork Valley, including the communities of Aspen, Basalt, El Jebel, Carbondale, Glenwood Springs, Rifle, Silt, and Parachute.

  Comparing statistics across these three ensembles will help to quantify how prioritizing the preservation of these subdivisions and communities of interest affects other priorities, such as the ability to draw competitive districts.

In Sections 3 and 5, we will explore how our county-neutral, county-aware, and tailored county-aware ensembles of plans for the State Senate and State House, respectively, typically perform on the measures of county splits, minority representation, competitive districts, and partisan seat share. For the latter two metrics, we will focus on the composite "election" obtained by averaging partisan outcomes for the 8 statewide elections between 2016 and 2020 that have been identified by the Commission, specifically:

- the elections for President and U.S. Senator in 2016;
- the elections for Attorney General, Governor, Regent At Large, Secretary of State, and Treasurer in 2018;
- the election for U.S. Senator in 2020.

Then in Sections 4 and 6, we will provide detailed comparisons of the First and Second Staff Plans for each chamber to these ensembles.

Before embarking on separate analyses for each chamber, we will conclude this section with some general discussion about each of these metrics.

2.1 County splits

For each ensemble, we counted the numbers of county splits in each plan in two ways:

1. numbers of "counties split," which count the numbers of counties divided between more than one district;
2. numbers of "total county splits," which count the numbers of times counties are split.

So, e.g., if a county is divided between three districts, this counts as one split towards the "counties split" measure and two splits for the "total county splits" measure.

This measure will be primarily used to understand how plans in the county-neutral, county-aware, and tailored county-aware ensembles typically compare to human-drawn plans (as exemplified by the Staff Plans) regarding county splits. By computing other statistics of interest for all three ensembles, we hope to better understand how the choice to preserve counties and certain communities of interest affects other redistricting priorities.

2.2 Minority representation

After contiguity, population equality, and the Voting Rights Act, the next highest priority specified by Amendment Z (co-equal with district compactness and preservation of political subdivisions) is the preservation of communities of interest. This is perhaps the most difficult criterion to model algorithmically, as communities of interest vary widely in nature and in geographic extent, and many different types of communities of interest overlap in complicated ways. Even in our tailored county-aware ensemble, we were only able to take into account a few communities of interest with clearly defined geographic boundaries that the Commission identified as high-priority.

One very significant community of interest that does not have such clearly defined geographic boundaries is the minority population of the state. We will examine the proportions of (1) Hispanic voting age population, and (2) Non-White voting age population within each district

in our ensembles. For context, we note that for the state as a whole, the Hispanic voting age population is approximately 19.2% of the total voting age population, and the Non-White voting age population is approximately 26.6% of the total voting age population. We have not received specific direction from the Commission regarding the creation of majority-minority districts, and so we have not attempted to incorporate any such criteria into our ensembles; however, there is still general agreement that districts should be drawn so as to give these communities adequate representation.

2.3 Competitive districts

Competitive districts are defined in Amendment Z as "having a reasonable potential for the party affiliation of the district's representative to change at least once between federal decennial censuses." The lack of a quantitative standard in this definition has led to much discussion regarding the adoption of a standard for determining which districts will be considered competitive, and the Commission has decided to base its measure of competitiveness on an average of partisan outcomes (based only on votes for Democratic and Republican candidates) from 8 statewide elections from 2016 through 2020:

- the elections for President and U.S. Senator in 2016;
- the elections for Attorney General, Governor, Regent At Large, Secretary of State, and Treasurer in 2018;
- the election for U.S. Senator in 2020.

Each of these elections is given equal weight, creating a "composite election" whose Democratic and Republican vote percentages in each district are equal to the averages of the Democratic and Republican vote percentages, respectively, for these 8 elections in that district.

A typical measure of competitiveness involves prescribing a "vote band" about the 50% mark, and any election whose Democratic and Republican vote shares fall within that band is considered competitive. The Commission has adopted an 8.5% vote band, so that any election for which the Democratic and Republican vote shares fall between 45.75% and 54.25% is considered competitive.

2.4 Partisan seat share

Partisan seat share—i.e., the number of seats won by each political party in a particular election—is not one of the considerations prescribed by Amendment Z for district plans, but it is perhaps the outcome that is of the greatest interest to the most people. We will conclude our discussion for each chamber with a description of ensemble statistics for this measure.

3 Ensemble statistics for the State Senate

The goal of this section is to describe the main statistical properties of our county-neutral, county-aware, and tailored county-aware ensembles in order to establish context for what might reasonably be expected for State Senate district plans in Colorado. In Section 4, we will provide a detailed comparison of the First and Second Staff Plans to these ensembles.

3.1 County splits

The histograms in Figure 1 describe what percentage of plans in each ensemble exhibited each value for the number of counties split and the number of total county splits over the observed ranges.

- For the county-neutral ensemble, the mean number of counties split was 31.3 and the mean number of total splits was 94.3.
- For the county-aware ensemble, the mean number of counties split was 18.7 and the mean number of total splits was 55.7.
- For the tailored county-aware ensemble, the mean number of counties split was 17.7 and the mean number of total splits was 40.8.

We note that even for the tailored county-aware ensemble, our algorithm does not minimize the number of counties split quite as well as the First and Second Staff Plans, which split 11 and 13 counties, respectively. It more closely approximates the number of total county splits in the Staff Plans, with 37 and 43 total county splits, respectively.[1]

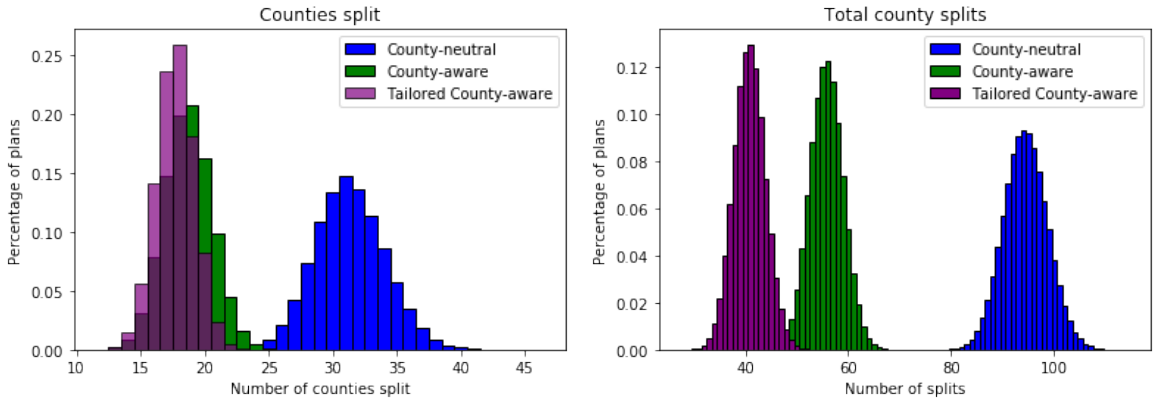


Figure 1: Counties split and total county splits for ensembles for State Senate

[1]These numbers were computed from approximations of the Staff Plans by districts made from whole precincts, and they may be slightly off from the true numbers.

3.2 Minority representation

For each plan in our ensembles, we computed the percentages of the Hispanic and Non-White voting age populations as a fraction of the total voting age population in each district and recorded the results. This data is displayed in Figures 2 and 3, organized as follows: For each plan, districts are sorted by Hispanic (resp., Non-White) voting age population percentage, from lowest to highest. The box plots show the ranges of these percentages for the sorted districts (in blue for the county-neutral ensemble, green for the county-aware ensemble, and purple for the tailored county-aware ensemble)—so, e.g., the second pair of boxes from the left shows the range of Hispanic (resp., Non-White) voting age population percentage in the second-lowest district in each plan. The boxes show the middle 50% of the range, and the whiskers extend from the 1st percentile through the 99th.

Additionally, because displaying all 35 districts in a single plot is somewhat unwieldy, we have also broken out the top 15 districts (highlighted with a green box in the full plot) into a separate plot below, with districts numbered from lowest to highest Hispanic (resp., Non-White) voting age population, using the numbers from the full sorted list of districts.

From these plots, we see that the preservation of counties and communities of interest has a very limited impact on the observed ranges for the minority populations of various districts. Furthermore, the observed ranges for districts with higher minority populations are fairly large, indicating that a wide range of values may occur in plans drawn without taking minority population into account.

3.3 Competitive districts

The histograms in Figure 4 describe what percentage of plans in each ensemble have each possible number of competitive districts according to the Commission's definition.

The mean numbers of competitive districts are 8.30, 8.13, and 8.98 for the county-neutral, county-aware, and tailored county-aware ensembles, respectively. Constraining county splits, at least within the ranges achieved by our ensembles, appears to have limited impact on the observed numbers of competitive districts, suggesting that it may not substantially affect the ability to draw competitive districts. However, since our ensembles did not achieve county split levels as low as the Staff Plans, we cannot say for certain whether this remains true for plans with fewer county splits than those in our ensembles.

For a more nuanced view on competitiveness, it is instructive to examine partisan outcomes by district. The box plots in Figure 5 are constructed similarly to those in Figures 2 and 3, except that now the boxes measure the observed ranges of Democratic vote share for each plan in the ensembles, ordered from most Republican to most Democratic. Also included in this plot are

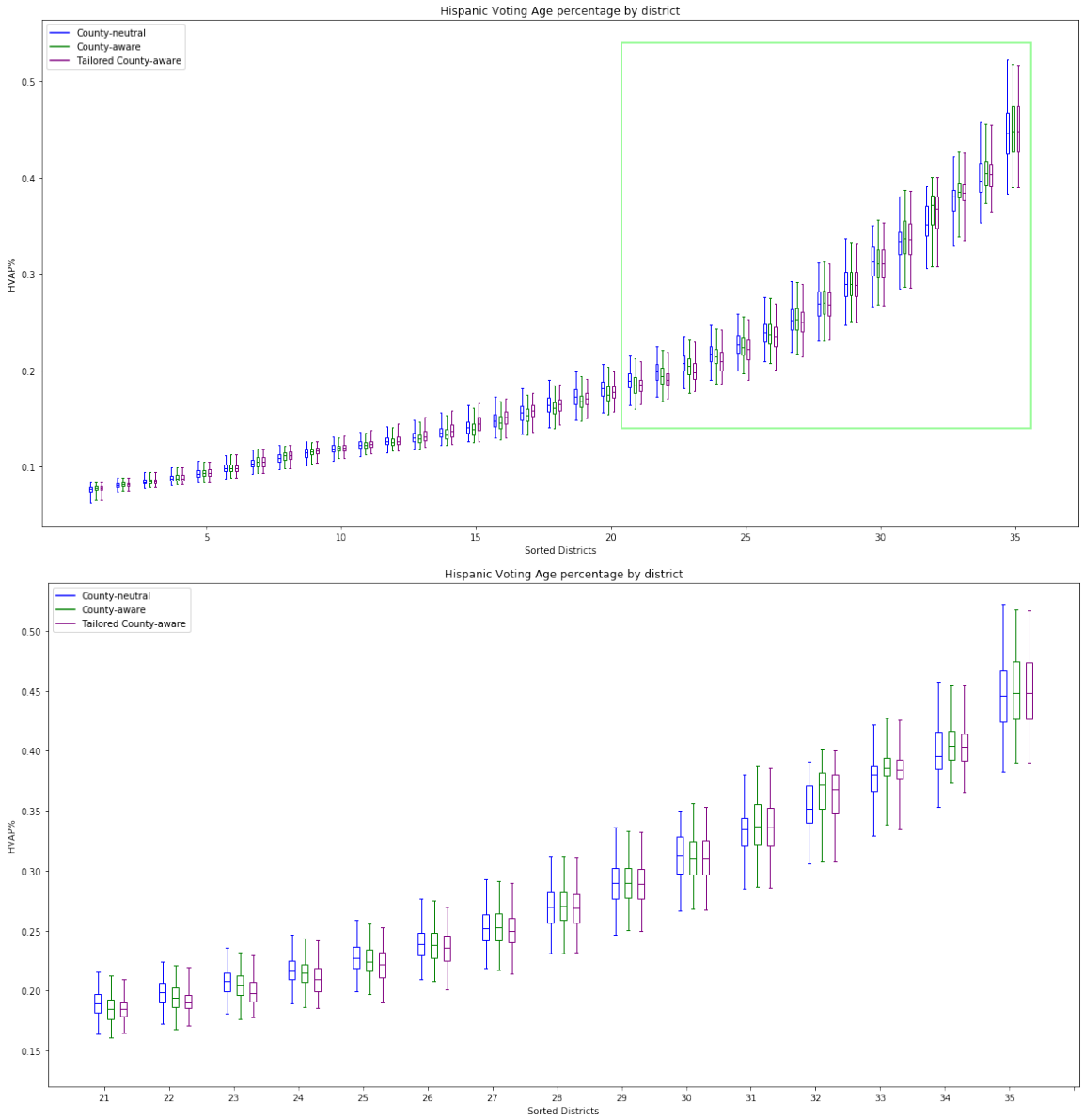


Figure 2: Hispanic voting age percentage by district for ensembles for State Senate

horizontal lines at the 50% mark and at the boundaries of the 8.5% vote band for reference.

From this figure we can make the following observations:

- The 8 most Republican and 13 most Democratic districts are essentially never competitive.
- The 9th most Republican district is competitive at the upper extreme of the county-neutral ensemble but very rarely in the county-aware and tailored county-aware ensembles, while the 14th most Democratic district is competitive at the lower extreme of the county-aware and

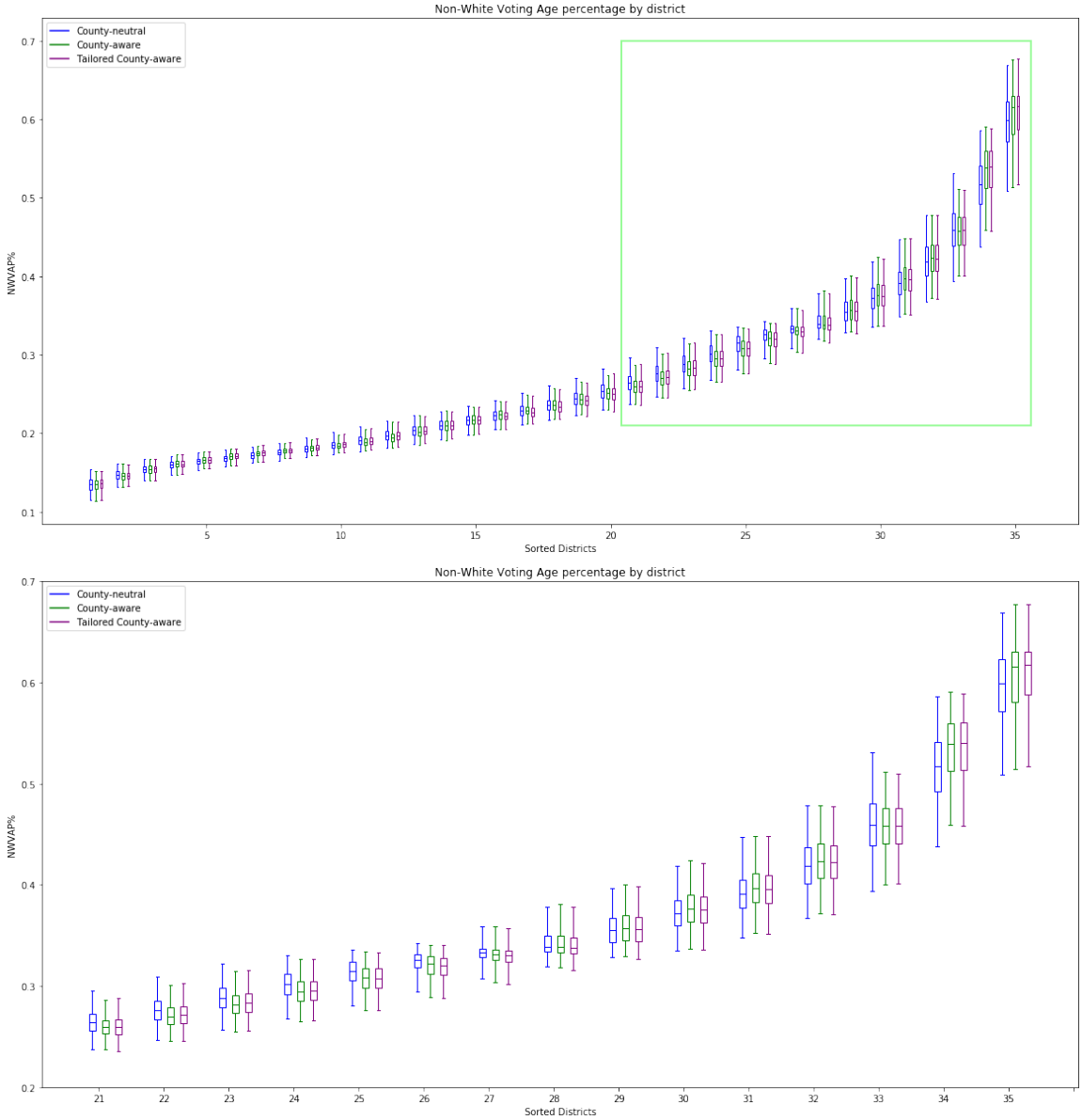


Figure 3: Non-White voting age percentage by district for ensembles for State Senate

tailored county-aware ensembles, but very rarely in the county-neutral ensemble.

- The 10th most Republican district and the 15th most Democratic district are occasionally competitive in all three ensembles.
- The 11th most Republican district is competitive about half the time in the county-neutral and tailored county-aware ensembles, and somewhat less often in the county-aware ensemble, while the 16th most Democratic district is competitive about half the time in the county-aware and tailored county-aware ensembles, and somewhat less often in the county-neutral

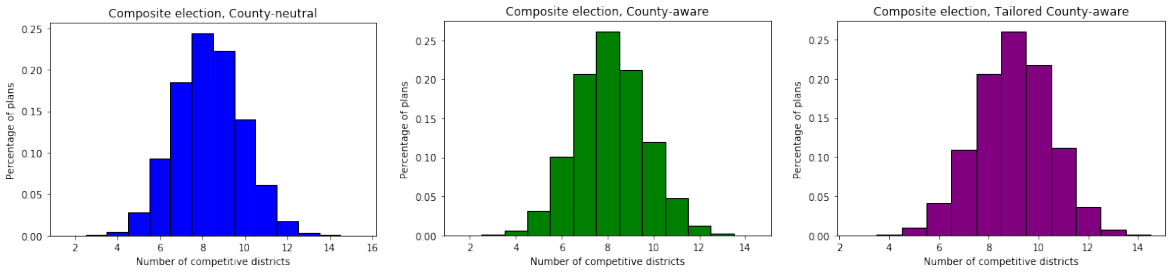


Figure 4: Numbers of competitive districts for ensembles for State Senate

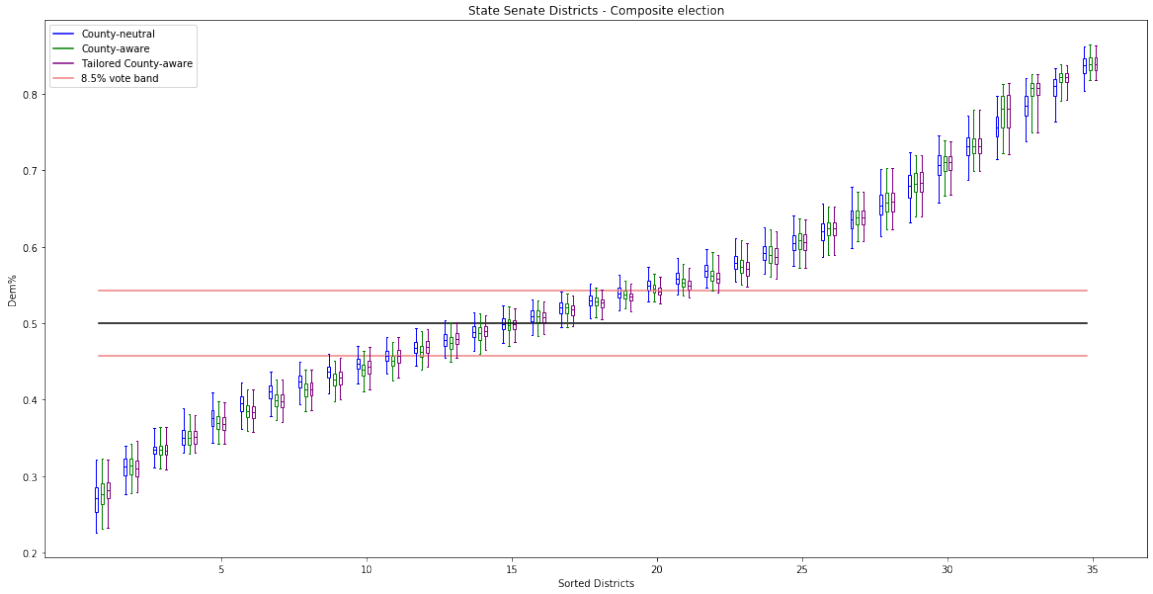


Figure 5: Democratic vote shares by district for ensembles for State Senate, with competitiveness vote band

ensemble.

- The 12th most Republican through 17th most Democratic districts (numbers 12 through 19 in the sorted list) are usually competitive in all three ensembles.

3.4 Partisan seat share

The histograms in Figure 6 describe what percentage of plans in each ensemble result in each possible number of Democratic seats won in the composite election. (The corresponding histograms for the numbers of Republican seats won would be the mirror images of the ones shown here.)

The most common outcomes in all three ensembles are 20 and 21 Democratic seats, with the latter outcome being slightly more common in the county-neutral ensemble than in the other

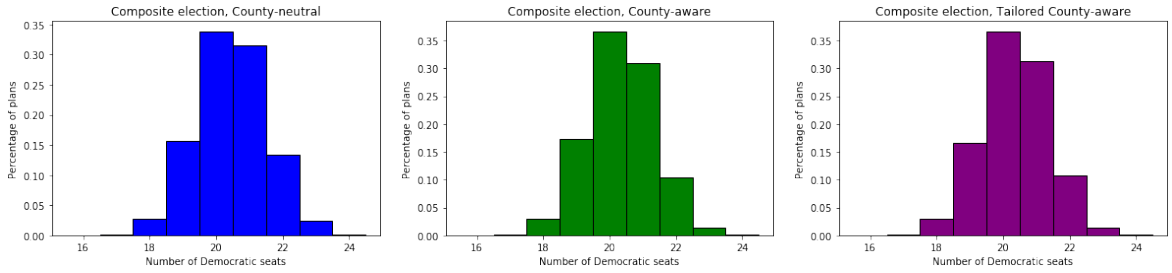


Figure 6: Numbers of Democratic seats won in composite election for ensembles for State Senate

two ensembles. The mean numbers of Democratic seats in the county-neutral, county-aware, and tailored county-aware ensembles are 20.45, 20.33, and 20.35, respectively.

As for competitive districts, we can see a more nuanced picture in the box plots of Figure 5. The districts numbered 13 through 17 in the sorted list might be considered "toss-up" districts, as their vote shares are, to varying degrees, reasonably likely to lie on either side of the 50% line. The variability of outcomes in these districts is responsible for the range of outcomes seen in the histograms in Figure 5.

4 Comparison of First and Second Staff Plans for State Senate to ensembles

On September 13, 2021, the Commission's nonpartisan staff released the First Staff Plan for State Senate districts, and on September 23, 2021, the Second Staff Plan was released. In this section we compare these plans to our ensembles for the measures described in the Section 3.

We wish to emphasize yet again that the Staff Plans are **absolutely not expected to be at or near the mean values** for either ensemble with respect to all the measures that we have computed. Even if the plans were drawn entirely randomly, about half of their computed values would be expected to lie outside the middle 50% range for the ensemble. Furthermore, the Commission and nonpartisan staff are not attempting to draw completely average plans, but rather to fulfill the Constitutional requirements that dictate that they attempt to preserve communities of interest and maximize the number of competitive districts. The comparison given here between the Staff Plans and our ensembles is intended **only** to provide context which may be used by the Commission as just one of many measures to evaluate the Staff Plans.

4.1 Minority representation

In Figures 7 and 8, we add the values for the Senate districts in the First and Second Staff Plans for the Hispanic voting age population and Non-White voting age population, respectively, to the

box plots from Figures 2 and 3, showing only the top 20 districts in each case.

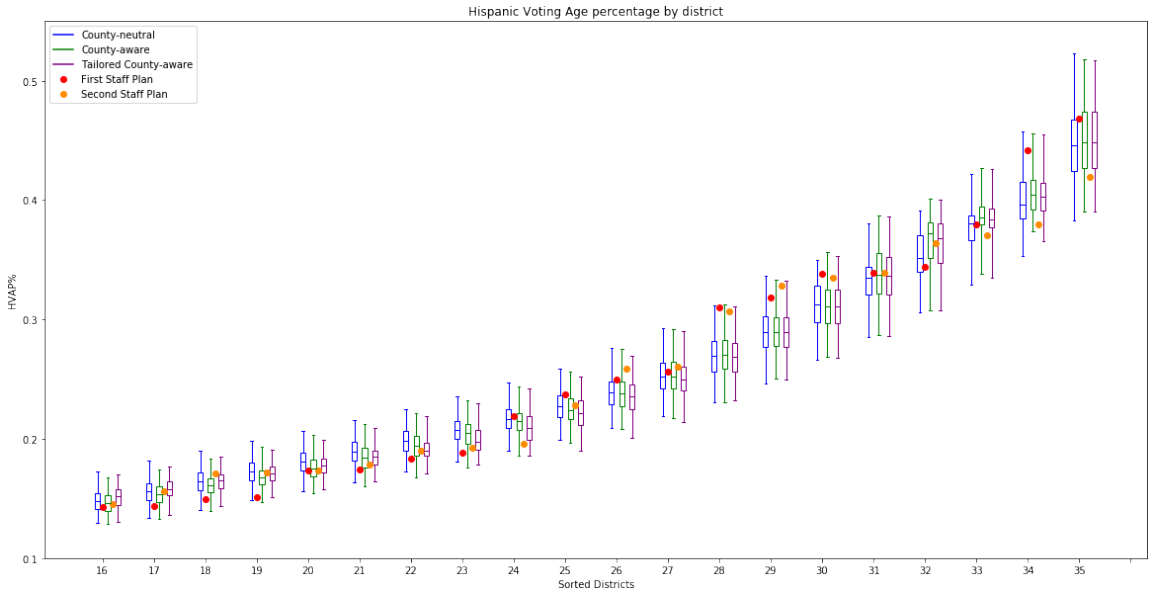


Figure 7: Hispanic voting age percentage by district for ensembles and Staff Plans for State Senate

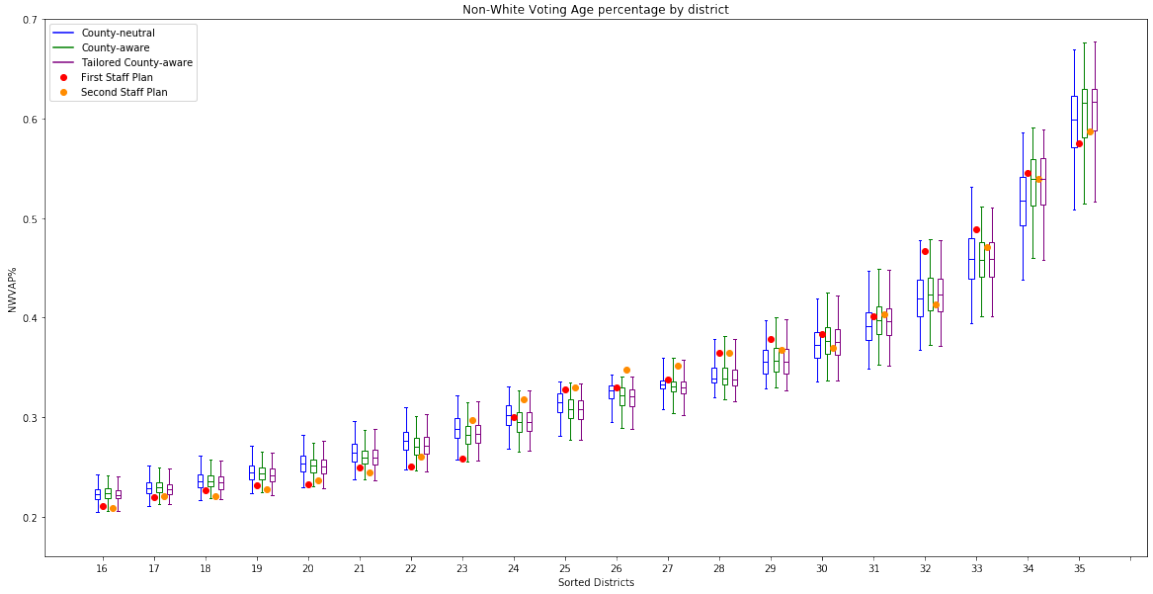


Figure 8: Non-White voting age percentage by district for ensembles and Staff Plans for State Senate

We do not see any extreme outliers with respect to either Hispanic or Non-White voting age populations. Both Staff Plans have 8 Senate districts with Hispanic voting age population above 30%, and the populations in the 7th and 8th highest districts are substantially above the means

for all three ensembles, particularly in the Second Staff Plan. There is a substantial drop between the 8th and 9th highest districts, which suggests that the Staff Plans may have been deliberately designed to achieve 8 districts above this threshold. We also note that the two districts with the highest Hispanic voting age population have substantially higher percentages (46.8% and 44.2%) in the First Staff Plan than in the Second Staff Plan (41.9% and 38.0%).

Staff Plan 1 has 12 districts with Non-White voting age population above 29% and total Non-White population above 30%, and Staff Plan 2 has 13 such districts. The Non-White voting age population in the 13th highest district in the Second Staff Plan is slightly above the middle 50% for all three ensembles, but it is not an outlier. There is a substantial drop between the 13th and 14th highest districts in the Second Staff Plan (and between the 12th and 13th highest districts in the First Staff plan), which suggests that the Staff Plans may have been deliberately designed to achieve 12 and 13 districts, respectively, above this threshold.

4.2 Competitive districts

In Figure 9, we have added the values for the districts in the First and Second Staff Plans for the number of competitive districts to the histograms from Figure 4.

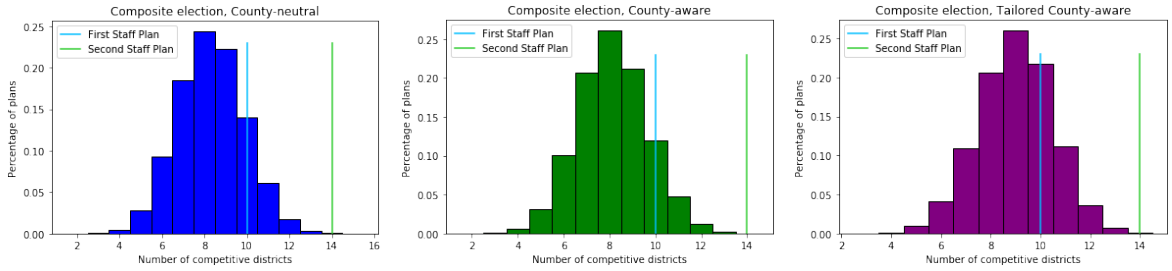


Figure 9: Numbers of competitive seats for ensembles and Staff Plans for State Senate

The First Staff Plan contains 10 competitive districts, which is slightly above the mean for all three ensembles. The Second Staff Plan contains 14 competitive districts, which is an extreme outlier for all three ensembles. However, since Amendment Z directs the Commission to maximize the number of competitive districts, this does not raise any concerns; rather, it indicates that this plan does an exceptional job of satisfying this constitutional priority.

In Figure 10, we have added the values for the districts in the First and Second Staff Plans to the box plots for the Democratic vote share for the composite election from Figure 5. We have also broken out the districts in the range from the 9th most Republican to the 14th most Democratic districts into a separate plot, as these are the districts with the potential to be competitive.

Here we can see clearly how the Second Staff Plan has improved upon the First Staff Plan by increasing the Democratic percentages in the most Republican districts in this range and increasing

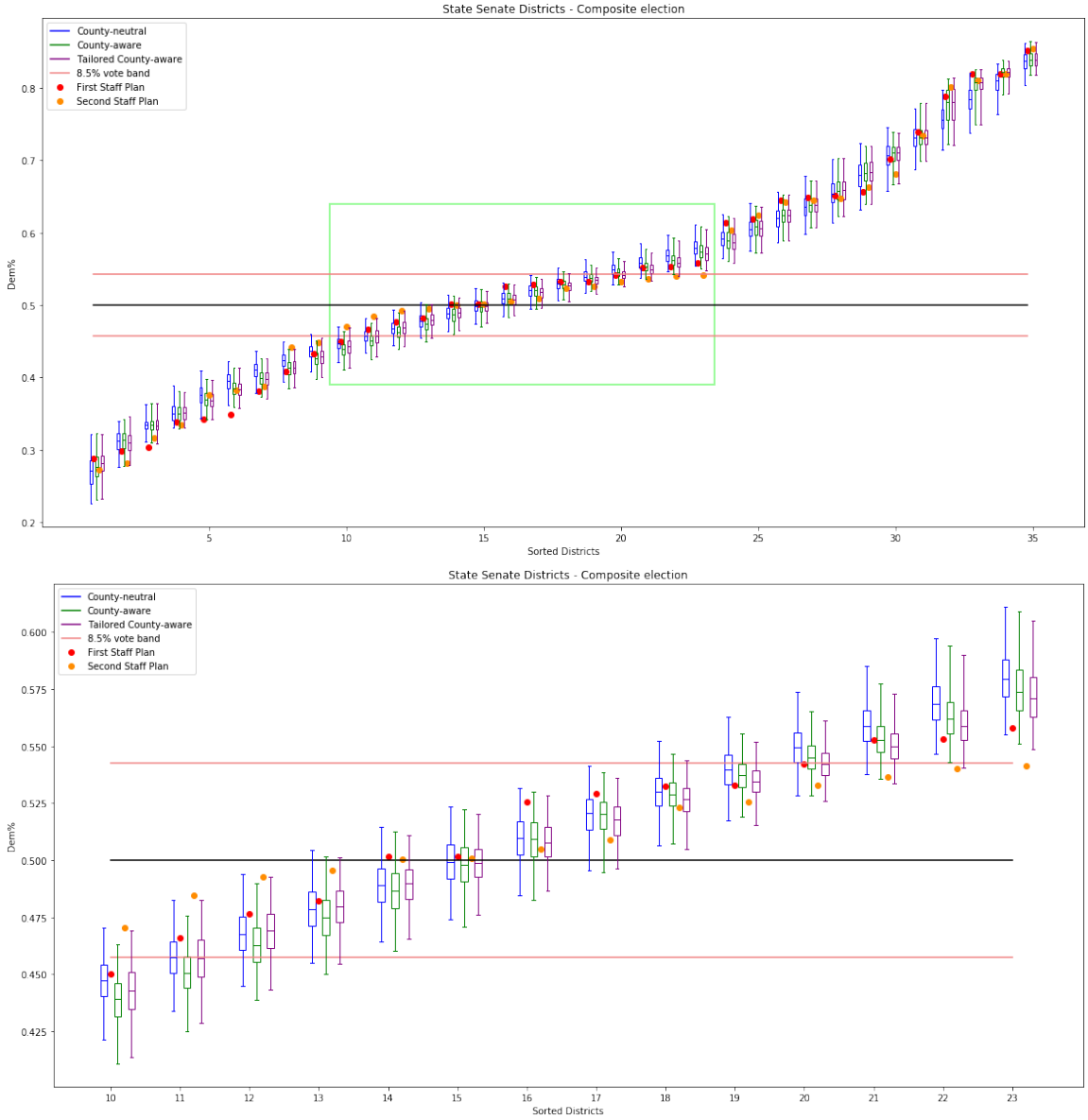


Figure 10: Democratic vote shares by district for ensembles and Staff Plans for State Senate, with competitiveness vote band

the Republican percentages in the most Democratic districts in this range, thereby creating some districts that are fairly extreme outliers relative to all three ensembles.

4.3 Partisan seat share

Finally, we compare the First and Second Staff Plans to our ensembles regarding partisan seat share. In Figure 11, we have added the values for the districts in both Staff Plans for the number

of Democratic seats in the composite election to the histograms from Figure 6.

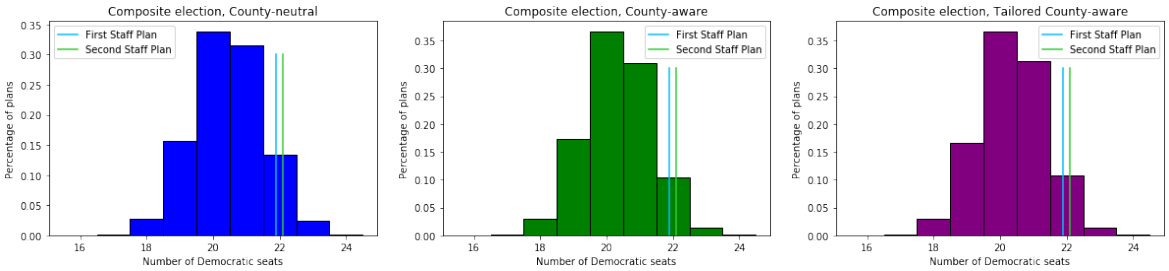


Figure 11: Numbers of Democratic seats won in ensembles and Staff Plans for State Senate

Both Staff Plans produce 22 Democratic seats, which is slightly above the mean for all ensembles, but still well within the range of reasonable outcomes. Moreover, as we can see from Figure 10, the bottom 2 Democratic seats are extremely competitive, with Democratic vote shares of 50.15% each in the First Staff Plan and Democratic vote shares of 50.05% and 50.10% in the Second Staff Plan. So these seats might reasonably be viewed as "toss-up" seats rather than either Democratic or Republican.

In order to explore this idea of "toss-up seats" further, we considered the range of partisan outcomes for the 8 statewide elections included in the composite election. Statewide Democratic vote shares for these elections ranged from 52.7% (President 2016) to 55.2% (Governor 2018), with an average for the composite election of 54.0%. This means that across these 8 elections, Democratic vote shares for the average district ranged from 1.3% below to 1.2% above the figure reported for the composite election. In particular, a typical district with reported Democratic vote share between 48.7% and 51.2% probably experienced majority votes for both parties at some point during these 8 elections.

With this in mind, we decided to explore an alternative classification of district-based partisan outcomes into three categories based on a 3% vote band about 50%:

1. Democratic: Democratic vote share of 51.5% or more;
2. Republican: Democratic vote share of 48.5% or less;
3. Toss-up: Democratic vote share between 48.5% and 51.5%.

The histograms in Figure 12 describe what percentage of plans in each ensemble fall into each of these three categories, with the values for the First and Second Staff Plans included for comparison.

These pictures tell an interesting story; the First Staff Plan is at or within one seat of the most common outcomes for all ensembles with respect to the numbers Democratic, Republican, and toss-up seats. The Second Staff Plan, on the other hand, has an extremely high number of toss-up seats, and consequently falls one or two seats below the ensemble means for both Democratic and

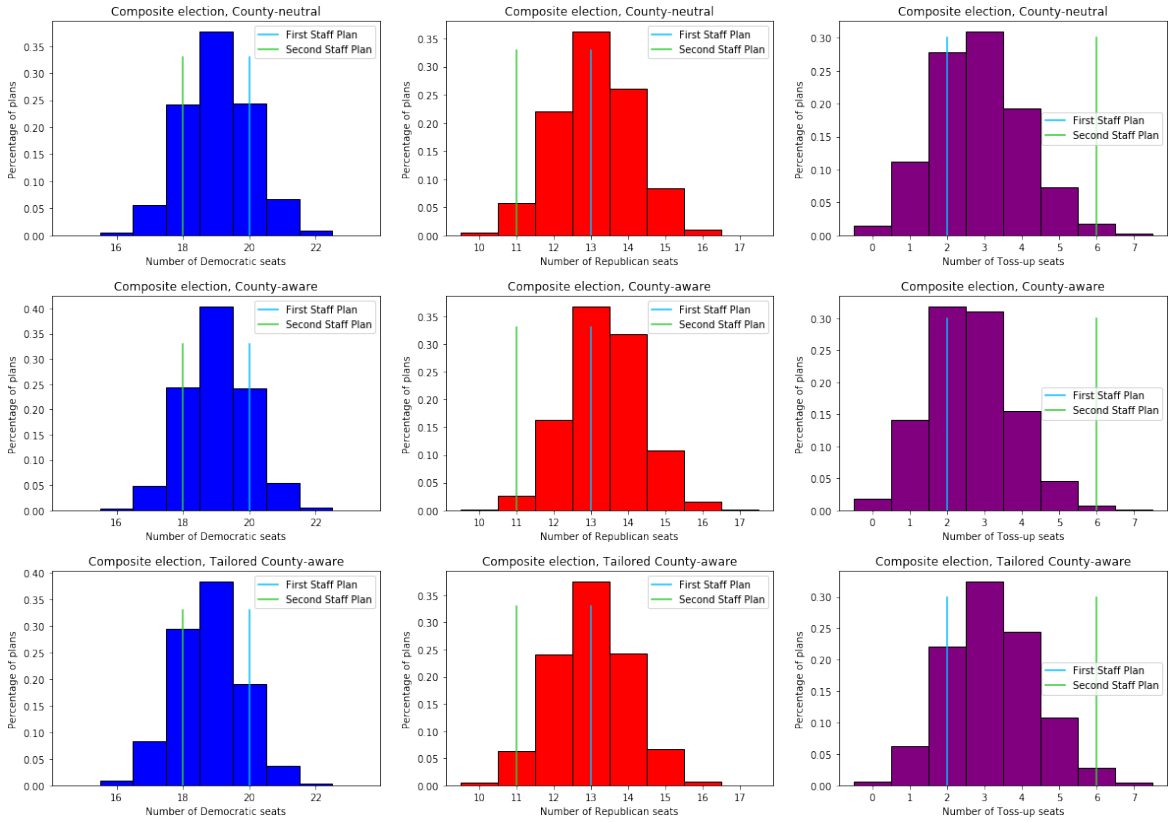


Figure 12: Numbers of Democratic, Republican, and Toss-up seats in ensembles and Staff Plans for State Senate

Republican seats. This indicates that the Second Staff Plan not only produces an unusual number of competitive seats within the 8.5% vote band chosen by the Commission, but it also produces an unusual number of **highly** competitive seats, as measured by the stricter 3% vote band that we have used to categorize toss-up seats.

5 Ensemble statistics for the State House

The goal of this section is to describe the main statistical properties of our county-neutral, county-aware, and tailored county-aware ensembles in order to establish context for what might reasonably be expected for State House district plans in Colorado. In Section 6, we will provide a detailed comparison of the First and Second Staff Plans to these ensembles.

5.1 County splits

The histograms in Figure 13 describe what percentage of plans in each ensemble exhibited each value for the number of counties split and the number of total county splits over the observed

ranges. For the county-neutral ensemble, the mean number of counties split was 36.9 and the mean number of total splits was 140.3. For the county-aware ensemble, the mean number of counties split was 23.4 and the mean number of total splits was 91.1. For the tailored county-aware ensemble, the mean number of counties split was 20.0 and the mean number of total splits was 74.7.

By comparison, the First and Second Staff Plans, split 18 and 14 counties respectively, and they have 77 and 74 total county splits respectively.[2] This suggests that the tailored couunty-aware ensemble does a fairly reasonable job of sampling from plans that prioritize keeping counties whole to a similar degree as typical human-drawn plans.

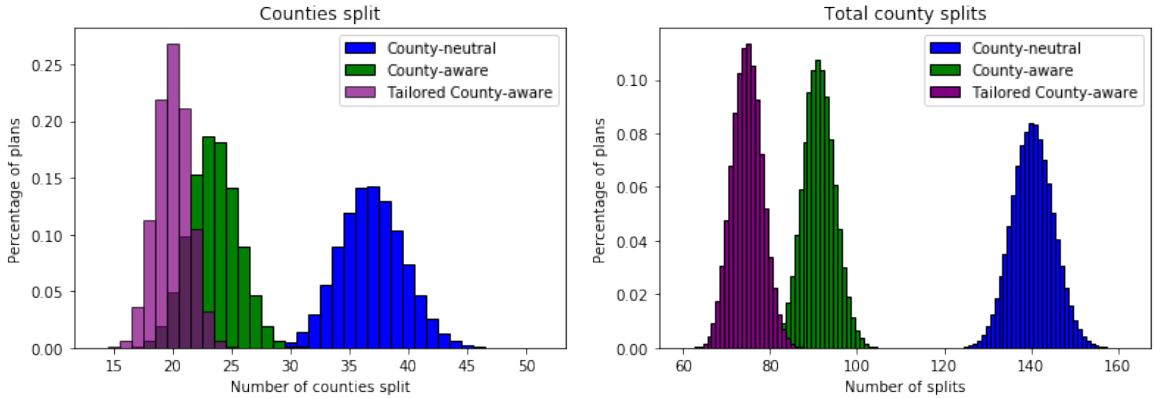


Figure 13: Counties split and total county splits for ensembles for State House

5.2 Minority representation

For each plan in our ensembles, we computed the percentages of the Hispanic and Non-White voting age populations as a fraction of the total voting age population in each district and recorded the results. This data is displayed in Figures 14 and 15, organized as follows: For each plan, districts are sorted by Hispanic (resp., Non-White) voting age population percentage, from lowest to highest. The box plots show the ranges of these percentages for the sorted districts (in blue for the county-neutral ensemble, green for the county-aware ensemble, and purple for the tailored county-aware ensemble)—so, e.g., the second pair of boxes from the left shows the range of Hispanic (resp., Non-White) voting age population percentage in the second-lowest district in each plan. The boxes show the middle 50% of the range, and the whiskers extend from the 1st percentile through the 99th.

Additionally, because displaying all 65 districts in a single plot is somewhat unwieldy, we have also broken out the top 20 districts (highlighted with a green box in the full plot) into a separate

[2]These numbers were computed from approximations of the Staff Plans by districts made from whole precincts, and they may be slightly off from the true numbers.

plot below, with districts numbered from lowest to highest Hispanic (resp., Non-White) voting age population, using the numbers from the full sorted list of districts.

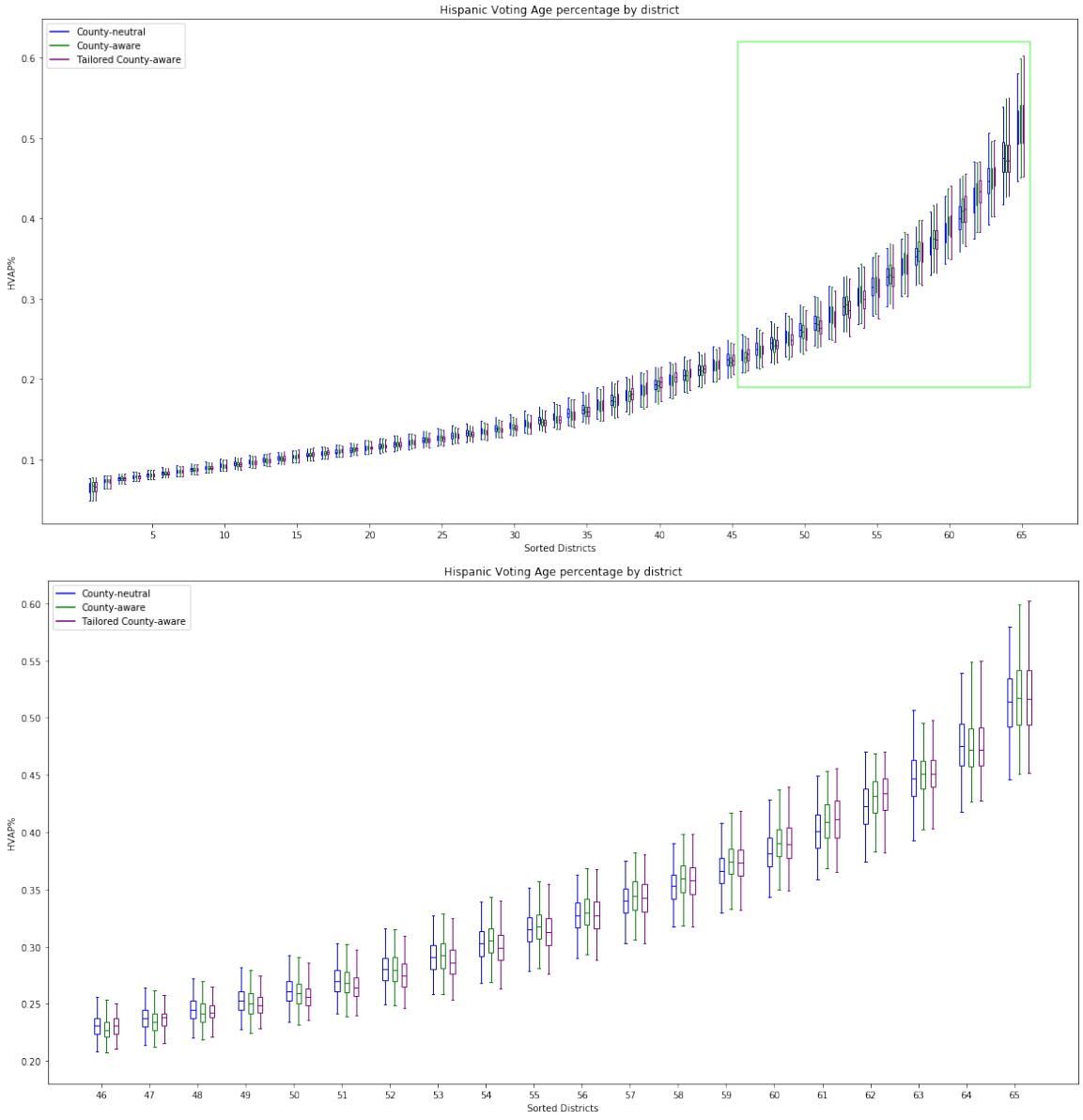


Figure 14: Hispanic voting age percentage by district for ensembles for State House

The only significant difference between the ensembles occurs for the district with the highest Non-White voting age population (and, to a lesser extent, for the second-highest district), where the county-aware and tailored county-aware ensembles tend to have higher percentages than the county-neutral ensemble. For both Hispanic and Non-White voting age populations, the observed ranges for districts with higher minority populations are fairly large, indicating that a wide range of values may occur in plans drawn without taking minority population into account.

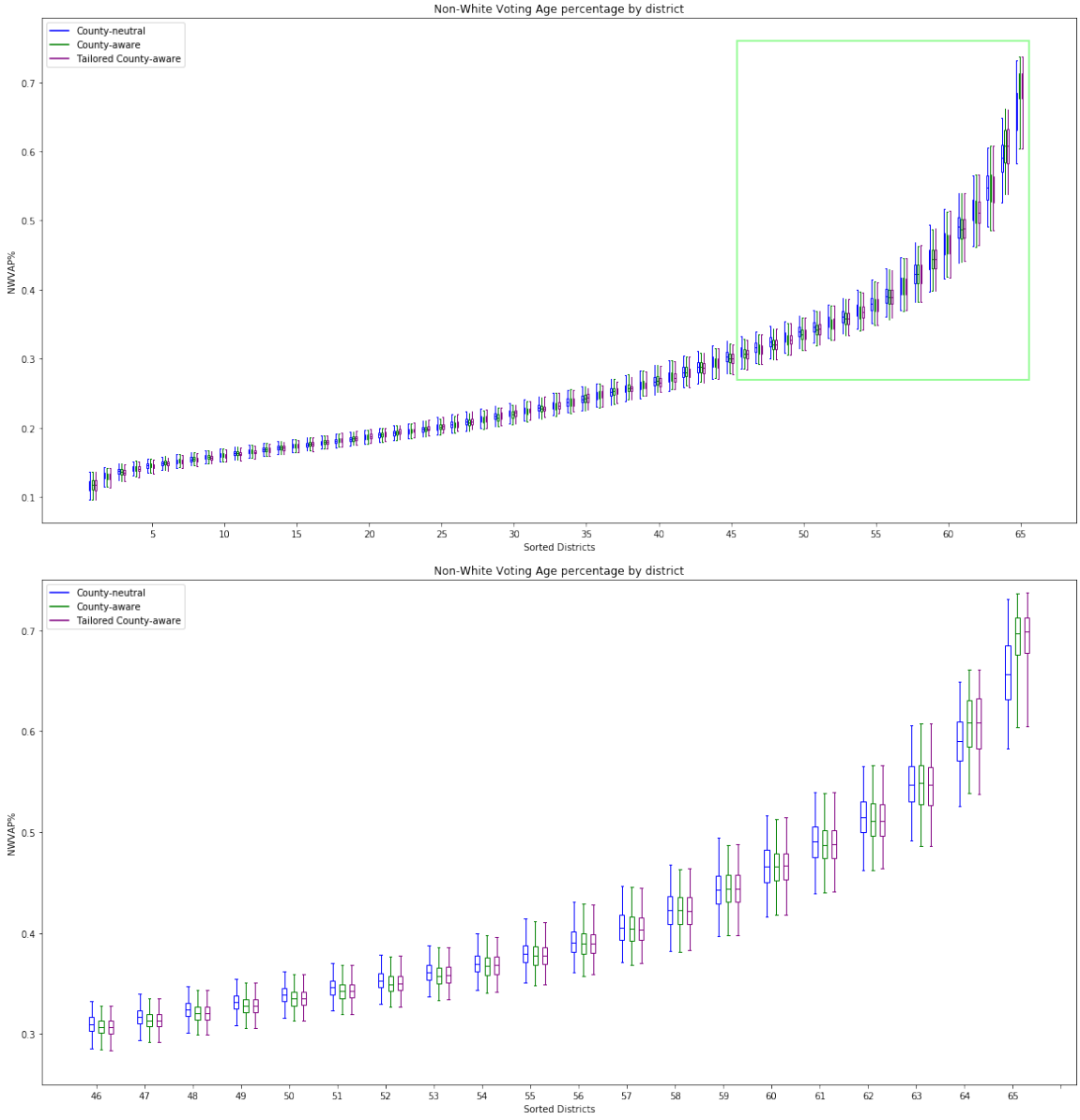


Figure 15: Non-White voting age percentage by district for ensembles for State House

5.3 Competitive districts

The histograms in Figure 16 describe what percentage of plans in each ensemble have each possible number of competitive districts according to the Commission's definition.

The mean numbers of competitive districts are 14.40, 13.93, and 13.63 for the county-neutral, county-aware, and tailored county-aware ensembles, respectively. Constraining county splits, at least within the ranges achieved by our ensembles, appears to have only a modest impact on the observed numbers of competitive districts, with plans with fewer county splits having slightly fewer

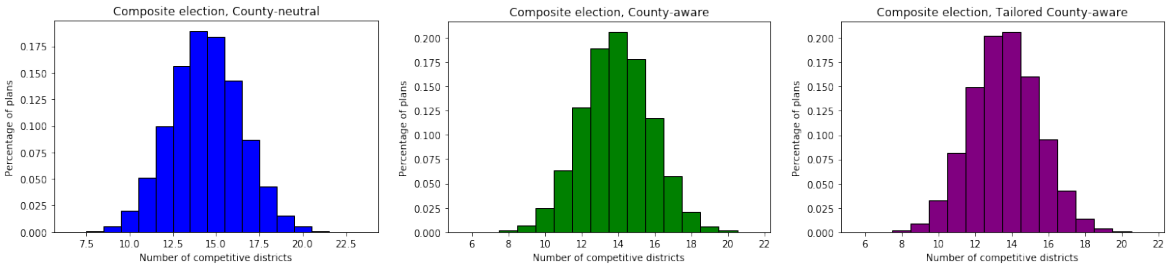


Figure 16: Numbers of competitive districts for ensembles for State House

competitive districts on average. Additionally, the range of reasonable values within each ensemble is much larger than this small difference between the ensemble means, so in practice this suggests that constraining county splits may not substantially affect the ability to draw competitive districts.

For a more nuanced view on competitiveness, it is instructive to examine partisan outcomes by district. The box plots in Figure 17 are constructed similarly to those in Figures 14 and 15, except that now the boxes measure the observed ranges of Democratic vote share for each plan in the ensembles, ordered from most Republican to most Democratic. Also included in this plot are horizontal lines at the 50% mark and at the boundaries of the 8.5% vote band for reference.

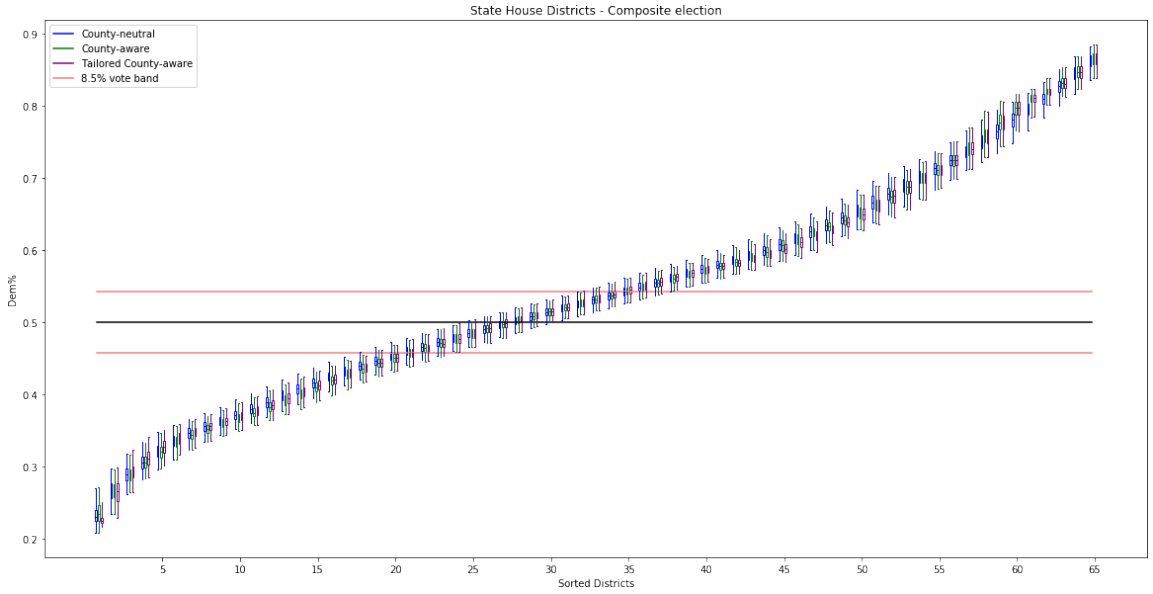


Figure 17: Democratic vote shares by district for ensembles for State House, with competitiveness vote band

From this figure we can make the following observations:

- The 17 most Republican and 27 most Democratic districts are essentially never competitive.

- The 18th most Republican district is competitive at the upper extreme of the county-neutral ensemble but very rarely in the county-aware and tailored county-aware ensembles, while the 28th most Democratic district is competitive at the lower extreme of the county-neutral and county-aware ensembles, but very rarely in the tailored county-aware ensemble.
- The 19th and 20th most Republican districts and the 29th and 30th most Democratic district are occasionally competitive in all three ensembles.
- The 21st most Republican district and the 31st most Democratic district are competitive about half the time in all three ensembles.
- The 22nd most Republican through 32nd most Democratic districts (numbers 22 through 34 in the sorted list) are usually competitive in all three ensembles.

5.4 Partisan seat share

The histograms in Figure 18 describe what percentage of plans in each ensemble result in each possible number of Democratic seats won in the composite election. (The corresponding histograms for the numbers of Republican seats won would be the mirror images of the ones shown here.)

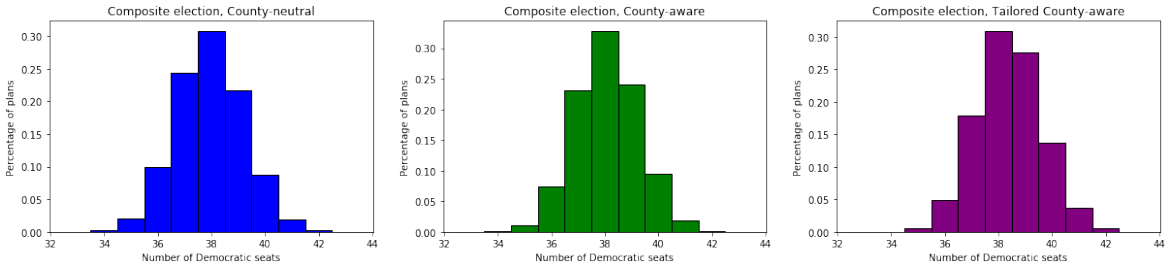


Figure 18: Numbers of Democratic seats won in composite election for ensembles for State House

The most common outcome in all three ensembles is 38 Democratic seats, with 37 and 39 seats also being relatively common. The mean numbers of Democratic seats in the county-neutral, county-aware, and tailored county-aware ensembles are 37.94, 38.08, and 38.39, respectively.

As for competitive districts, we can see a more nuanced picture in the box plots of Figure 17. The districts numbered 25 through 30 in the sorted list might be considered "toss-up" districts, as their vote shares are, to varying degrees, reasonably likely to lie on either side of the 50% line. The variability of outcomes in these districts is responsible for the range of outcomes seen in the histograms in Figure 17.

6 Comparison of First and Second Staff Plans for State House to ensembles

On September 13, 2021, the Commission's nonpartisan staff released the First Staff Plan for State House districts, and on September 23, 2021, the Second Staff Plan was released. In this section we compare these plans to our ensembles for the measures described in the Section 5.

We wish to emphasize yet again that the Staff Plans are **absolutely not expected to be at or near the mean values** for either ensemble with respect to all the measures that we have computed. Even if the plans were drawn entirely randomly, about half of their computed values would be expected to lie outside the middle 50% range for the ensemble. Furthermore, the Commission and nonpartisan staff are not attempting to draw completely average plans, but rather to fulfill the Constitutional requirements that dictate that they attempt to preserve communities of interest and maximize the number of competitive districts. The comparison given here between the Staff Plans and our ensembles is intended **only** to provide context which may be used by the Commission as just one of many measures to evaluate the Staff Plans.

6.1 Minority representation

In Figures 19 and 20, we add the values for the House districts in the First and Second Staff Plans for the Hispanic voting age population and Non-White voting age population, respectively, to the box plots from Figures 14 and 15, showing only the top 25 districts in each case.

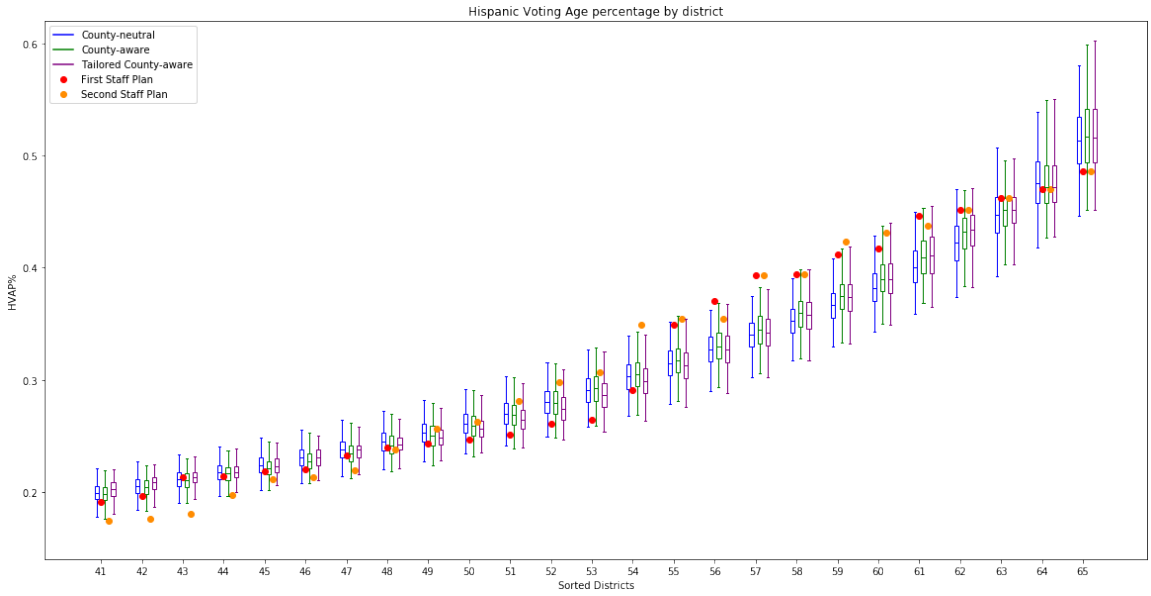


Figure 19: Hispanic voting age percentage by district for ensembles and Staff Plans for State House

The First Staff Plan has 11 districts with Hispanic voting age population above 30%, with the

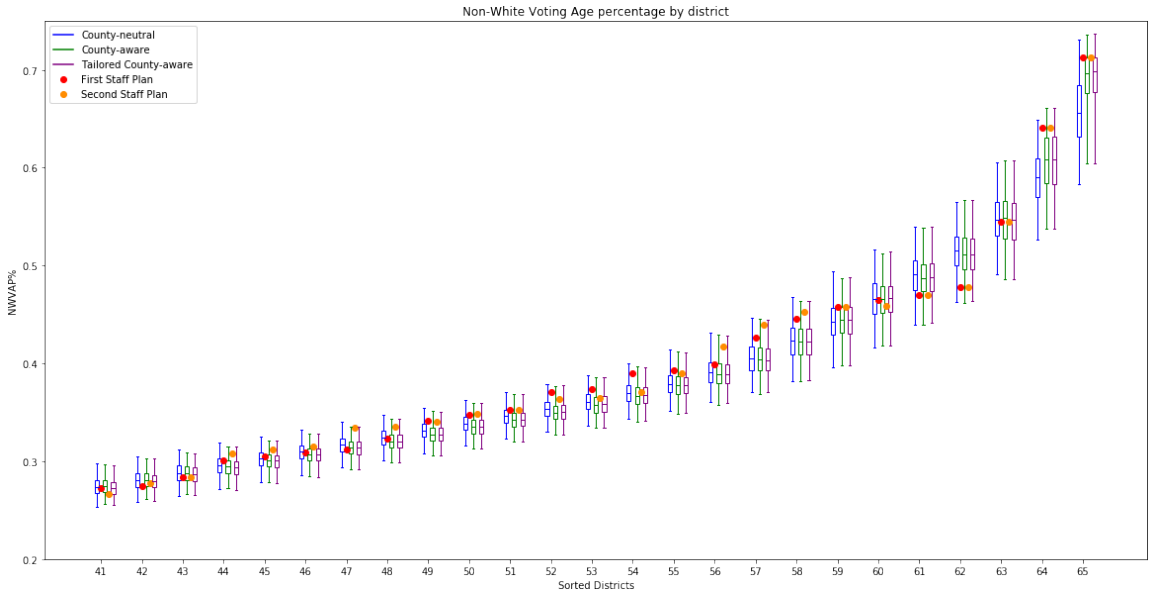


Figure 20: Non-White voting age percentage by district for ensembles and Staff Plans for State House

population of the 9th highest district particularly high relative to all three ensembles. The Second Staff Plan has 14 districts with Hispanic voting age population above 30%, with the populations of the 9th and 12th highest districts particularly high relative to all three ensembles. There is a substantial drop between the 11th and 12th highest districts in the First Staff Plan, and between the 12th and 13th highest districts in the Second Staff Plan, which suggests that the Staff Plans may have been deliberately designed to achieve 11 and 12 districts, respectively, above this threshold. (Although, as noted above, the Second Staff Plan actually contains two additional districts above the 30% threshold.)

Both Staff Plans have 22 districts with Non-White voting age population above 30%. The 22nd highest district has a slightly higher Non-White voting age percentage in the Second Staff Plan (30.8%) than in the First Staff Plan (30.1%), with the next-highest district in both plans having a Non-White voting age percentage of 28.4%.

6.2 Competitive districts

In Figure 21, we have added the values for the districts in the First and Second Staff Plans for the number of competitive districts to the histograms from Figure 16.

The First Staff Plan contains 11 competitive districts, including one that is exactly at the 8.5% competitiveness threshold. The Second Staff Plan contains 10 competitive districts, plus two additional districts within a 10% vote band about the 50% mark. These numbers are somewhat

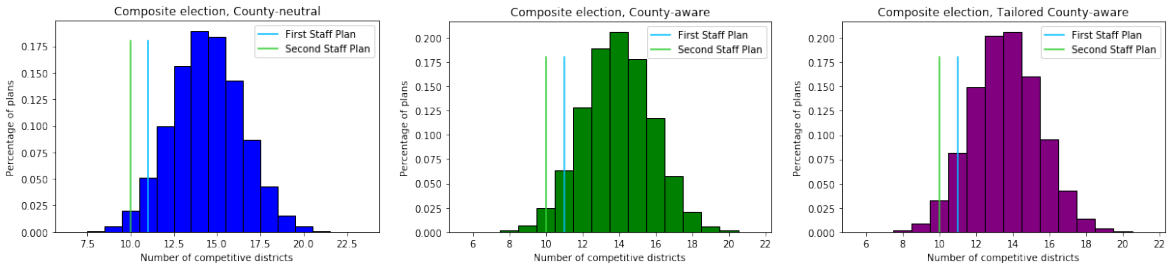


Figure 21: Numbers of competitive seats for ensembles and Staff Plans for State House

below the means for all three ensembles; they are not extreme outliers, but they do not provide evidence that the Staff Plans maximize the numbers of competitive districts. However, as we have repeatedly cautioned, they also do not necessarily indicate that the Staff Plans fail to satisfy this priority, as the discrepancy could easily result from prioritizing communities of interest or specific county or municipal boundaries that were not included in the design of our ensembles. For instance, the deliberate creation of more districts with Hispanic voting age percentage above 30% than expected, as seen in the Second Staff Plan, could potentially have an impact on the expected number of competitive districts.

With additional information from the Commission regarding what regions should be kept together in accordance with the Voting Rights Act, what county and/or municipal boundaries were intentionally prioritized, and what other communities of interest were preserved, we might be able to create ensembles that reflect the full range of constitutional criteria. This additional information is especially likely to influence the range of partisan outcomes and numbers of competitive districts seen in ensembles for State House plans, since State House districts consist of few enough people that keeping together relatively small geographic areas as communities of interest can greatly constrain House district boundaries within the region.

In Figure 22, we have added the values for the districts in the First and Second Staff Plans to the box plots for the Democratic vote share for the composite election from Figure 17. We have also broken out the districts in the range from the 18th most Republican to the 26th most Democratic districts into a separate plot, as these are the districts with the potential to be competitive.

This figure is somewhat striking; for the districts in the outer regions of the potentially competitive range, neither of the first two Staff Plans comes close to achieving competitiveness for these districts, despite significant portions of all three ensembles containing competitive districts in these positions. This data lends additional credence to our supposition that these Staff Plans may have incorporated priorities not included in our ensemble models, especially in light of the extremely competitive Second Staff Plan for the State Senate. We would welcome additional information from the Commission that would help us to better understand their priorities and to build more accurate ensembles for State House plans.

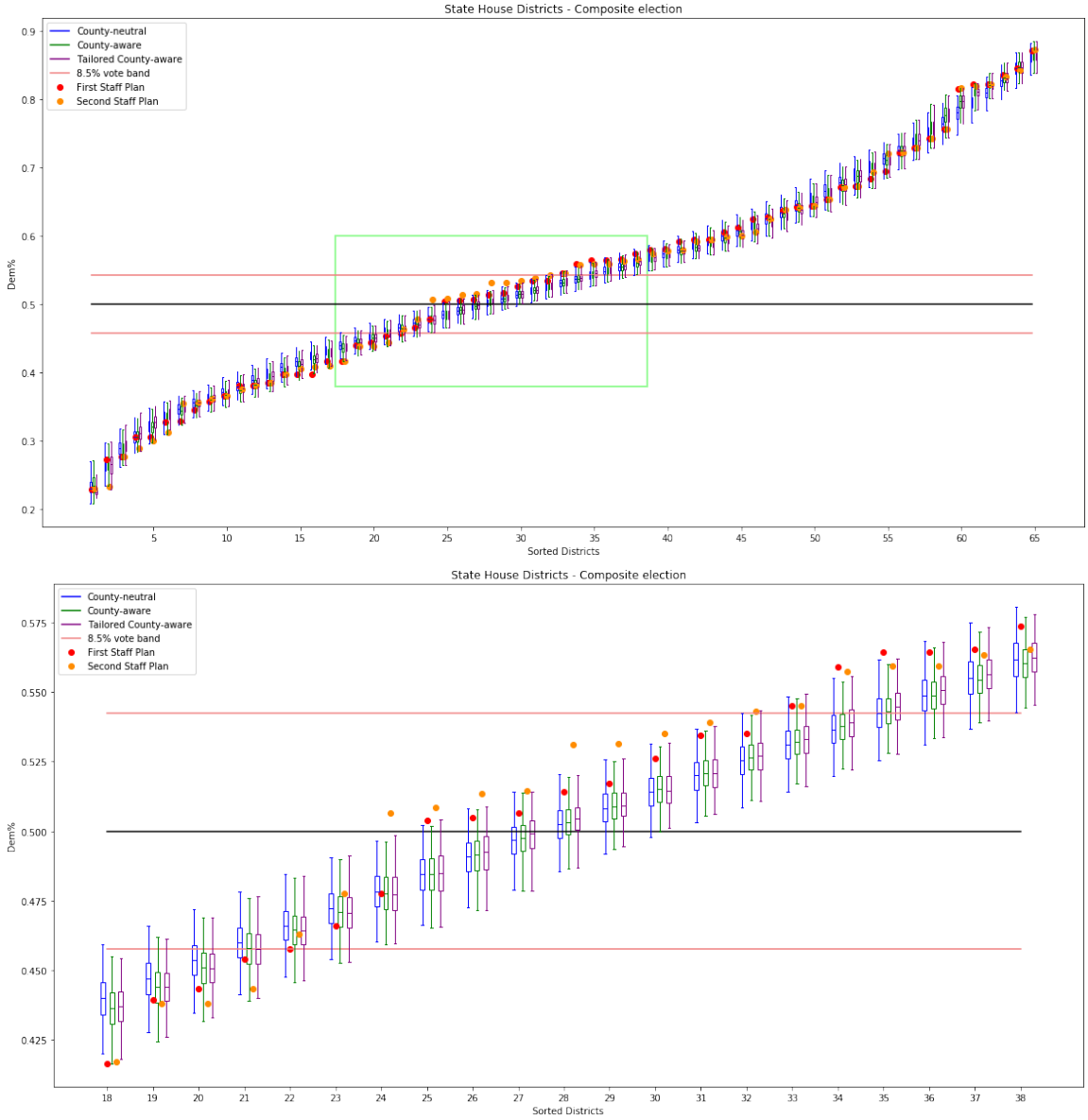


Figure 22: Democratic vote shares by district for ensembles and Staff Plans for State House, with competitiveness vote band

6.3 Partisan seat share

Finally, we compare the First and Second Staff Plans to our ensembles regarding partisan seat share. In Figure 23, we have added the values for the districts in both Staff Plans for the number of Democratic seats in the composite election to the histograms from Figure 18.

The First Staff Plan produces 41 Democratic seats, which is about 3 seats above the means of all three ensembles. This plan might reasonably be considered an outlier, although not an extreme

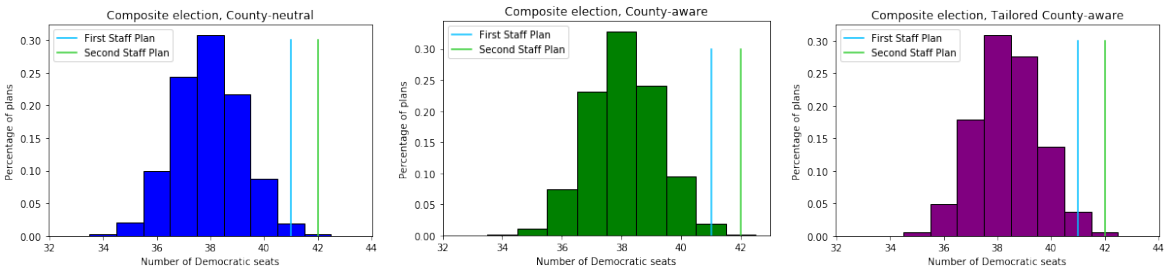


Figure 23: Numbers of Democratic seats won in ensembles and Staff Plans for State House

one. The Second Staff Plan produces 42 Democratic seats, which is about 4 seats above the means of all three ensembles and is definitely an extreme outlier; only 0.24% of plans in the county-neutral ensemble, 0.20% of plans in the county-aware ensemble, and 0.59% of plans in the tailored county-aware ensemble produce 42 or more Democratic seats.

The extremity of this plan is somewhat mitigated by the additional context contained in Figure 22; the bottom 4 Democratic seats in the Second Staff Plan are very competitive, with Democratic vote shares of 50.65%, 50.85%, 51.35%, and 51.45%. So these seats might reasonably be viewed as "toss-up" seats rather than either Democratic or Republican.

In order to explore this idea of "toss-up seats" further, we considered the range of partisan outcomes for the 8 statewide elections included in the composite election. Statewide Democratic vote shares for these elections ranged from 52.7% (President 2016) to 55.2% (Governor 2018), with an average for the composite election of 54.0%. This means that across these 8 elections, Democratic vote shares for the average district ranged from 1.3% below to 1.2% above the figure reported for the composite election. In particular, a typical district with reported Democratic vote share between 48.7% and 51.2% probably experienced majority votes for both parties at some point during these 8 elections.

With this in mind, we decided to explore an alternative classification of district-based partisan outcomes into three categories based on a 3% vote band about 50%:

1. Democratic: Democratic vote share of 51.5% or more;
2. Republican: Democratic vote share of 48.5% or less;
3. Toss-up: Democratic vote share between 48.5% and 51.5%.

The histograms in Figure 24 describe what percentage of plans in each ensemble fall into each of these three categories, with the values for the First and Second Staff Plans included for comparison.

With the addition of the toss-up category, the Staff Plans look somewhat less extreme relative to the ensembles. The First Staff Plan is within one or two seats of the most common outcomes for

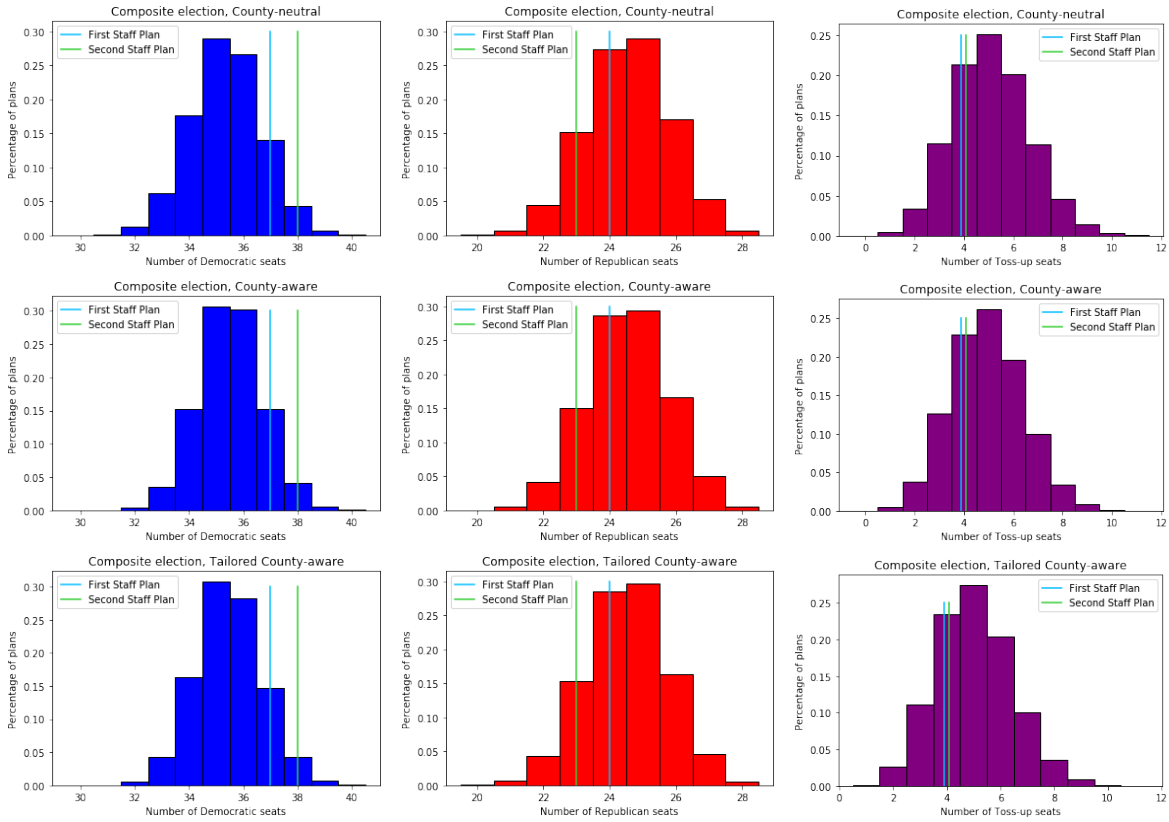


Figure 24: Numbers of Democratic, Republican, and Toss-up seats in ensembles and Staff Plans for State House

all ensembles with respect to the numbers Democratic, Republican, and toss-up seats. The Second Staff Plan is still something of an outlier with respect to the number of Democratic seats, but not the extreme outlier that it appears to be in Figure 23. The number of toss-up seats is one seat below the mean of all ensembles in both Staff Plans, which is consistent with the pattern for competitive seats within the 8.5% threshold for these plans.

6.4 Conclusions

The Commission and the nonpartisan staff have clearly put much thought and effort into the design of the First and Second Staff Plans for both the Senate and the House. Our computer-generated ensembles of plans cannot take into account the myriad of considerations that went into their design, or those that the Commission will prioritize for additional plans.

For the Senate, we do do not detect any evidence of problematic features in either Staff Plan. Both plans perform particularly well with respect to the numbers of districts with Hispanic voting age population above 30%, and the Second Staff Plan does an extremely good job of maximizing the

number of competitive districts. Both plans are also within the ranges of reasonable outcomes for Democratic and Republican seat shares with respect to all three ensembles.

For the House, both Staff Plans perform well with respect to the numbers of districts with Hispanic voting age population above 30%, with the Second Staff Plan performing extremely well with 14 such districts, compared to 11 in the First Staff Plan. We have concerns about the numbers of competitive districts produced by both Staff Plans, which are within the range of reasonable outcomes but do not show evidence that the number of competitive districts has been maximized. We also have concerns that the number of Democratic seats produced by the Second Staff Plan is abnormally high, although this concern is somewhat tempered by the further exploration of which seats might reasonably be considered toss-ups. These effects may well be related to the relatively large number of districts with a high Hispanic voting age population, to the Commission's efforts to preserve other communities of interest, or to other priorities not included in our ensemble models, but we do not currently have enough information about such priorities to assess their effects.

7 Acknowledgments

We are very grateful to Moon Duchin and the MGGG Redistricting Lab for their pioneering work in ensemble analysis, for their open source python package GerryChain (available at https://github.com/mggg/GerryChain) which we have used for our computations, and for their ongoing support for our work.

References

[1] *League of Women Voters of Pennsylvania et al. v. Commonwealth of Pennsylvania et al.*, Supreme Court of Pennsylvania, 2018.

[2] *Common Cause v. Lewis*, Wake County, NC Superior Court, 2019.

[3] *Rucho v. Common Cause*, 588 U.S., 2019.

[4] Jeanne Clelland, Nicholas Bossenbroek, Thomas Heckmaster, Adam Nelson, Peter Rock, and Jade VanAusdall, *Compactness statistics for spanning tree recombination*, arXiv e-prints (2021), arXiv:2103.02699.

[5] Jeanne Clelland, Haley Colgate, Daryl DeFord, Beth Malmskog, and Flavia Sancier-Barbosa, *Colorado in Context: Congressional Redistricting and Competing Fairness Criteria in Colorado*, J Comput Soc Sc (2021), `https://doi.org/10.1007/s42001-021-00119-7`.

[6] Daryl DeFord, Moon Duchin, and Justin Solomon, *Recombination: A family of Markov chains for redistricting*, arXiv e-prints (2019), arXiv:1911.05725.

[7] Persi Diaconis, *The Markov chain Monte Carlo revolution*, Bull. Amer. Math. Soc. (N.S.) **46** (2009), no. 2, 179–205.

[8] Moon Duchin, *Outlier analysis for Pennsylvania congressional redistricting*, Expert report to Pennsylvania Governor Tom Wolf for League of Women Voters v. Commonwealth of Pennsylvania, 2018, accessed May 2020 at https://www.governor.pa.gov/wp-content/uploads/2018/02/md-report.pdf.

[9] Jonathan Mattingly, *Report on Redistricting: Drawing the Line*, Expert report to U.S. District Court for the Middle District of North Carolina for Common Cause v. Rucho, 2017, available at https://s10294.pcdn.co/wp-content/uploads/2016/05/Expert-Report-of-Jonathan-Mattingly.pdf.

[10] ———, *Expert Report on the North Carolina State Legislature*, Tech. report, 2019, available at https:// sites.duke.edu/quantifyinggerrymandering/files/2019/09/Report.pdf.

[11] Wesley Pegden, *Pennsylvania's Congressional districting is an outlier: Expert Report*, Expert report of Wesley Pegden in League of Women Voters of Pennsylvania v. Commonwealth of Pennsylvania, 2017, available at https://www.pubintlaw.org/wp-content/uploads/2017/06/Expert-Report-Wesley-Pegden.pdf.

[12] ———, Expert report of Wesley Pegden in Common Cause v. Lewis, 2019, available at https://www.commoncause.org/north-carolina/wp-content/uploads/sites/22/2019/09/Common-Cause-v.-Lewis-trial-court-decision-9.3.19.pdf, pp. 94-105.

A Technical details

A.1 Data collection

In order to build the precinct map used to generate ensembles, we obtained data from the following sources:

- A shapefile with the geographic boundaries of all 2020 voting precincts in Colorado, including precinct-level election results for all statewide elections in 2020, was given to us by Louis Pino from the Commission's nonpartisan staff.
- In the summer of 2019, the third author's student Haley Colgate compiled a shapefile with the geographic boundaries of all 2018 voting precincts in Colorado, including precinct-level election results for all statewide elections in 2018, with the assistance of Todd Bleess of the Colorado State Demography Office.
- A shapefile with the geographic boundaries of all 2016 voting precincts in Colorado, including

precinct-level election results for all statewide elections in 2016, was obtained from the Voting and Election Science Team's repository on the Harvard Dataverse at https://dataverse.harvard.edu/dataverse/electionscience.

- Population data from the 2020 Census was taken from the 2020 PL 94-171 Data Summary File for Colorado based on the Decennial Census at the Census Block Level, obtained from the Redistricting Data Hub at https://redistrictingdatahub.org.

The open source python package Maup, developed by the MGGG Redistricting Lab and available at https://github.com/mggg/maup, was used to aggregate/disaggregate all population and election data from their original geographies onto the precinct geographies in the 2020 precinct shapefile. The resulting shapefile contains all the data required to compute population and election results for any district composed of 2020 precincts.

For our tailored county-aware ensemble, we modified this shapefile as follows: For each of the 27 counties with 2020 Census population less than 10,000 and each of the 4 communities of interest identified by the Commission, we merged all precincts for that county or community of interest to create a single unit in the shapefile. Since districts in our ensemble plans are built from units in the shapefile, this guarantees that all plans in the tailored county-aware ensemble keep each of these counties and communities of interest whole within districts.

A.2 Ensemble generation

In order to generate our ensembles, we used the Recombination ("ReCom") method developed by the MGGG Redistricting Lab in 2018. (See [6] for a thorough treatment of this method.) For this method, the precinct map is modeled by a mathematical object called a **dual graph**, where each precinct is represented by a point called a **vertex**, and two vertices are connected by an **edge** if the precincts that they represent share a geographic boundary of positive length. A map of Colorado's 2020 voting precincts and its dual graph are shown in Figure 25.

A district plan is then represented by a partition of the dual graph into connected subgraphs, one for each district. (As an illustration, Figure 26 shows the graph partition corresponding to the First Staff Plan for Congressional districts.) A partition is **valid** if it represents a legally valid district plan; at a minimum, the districts in the plan should be contiguous and have (approximately) equal population.

An ensemble starts with one randomly constructed valid plan, called the "seed plan." The ensemble is then constructed by a mathematical process called a **Markov chain,** in which each new plan is created by applying a random process to modify the previous plan in some way. For the ReCom method used to build our ensembles, this random process works as follows: At each step, the algorithm randomly selects a pair of adjacent districts and merges the two subgraphs corresponding

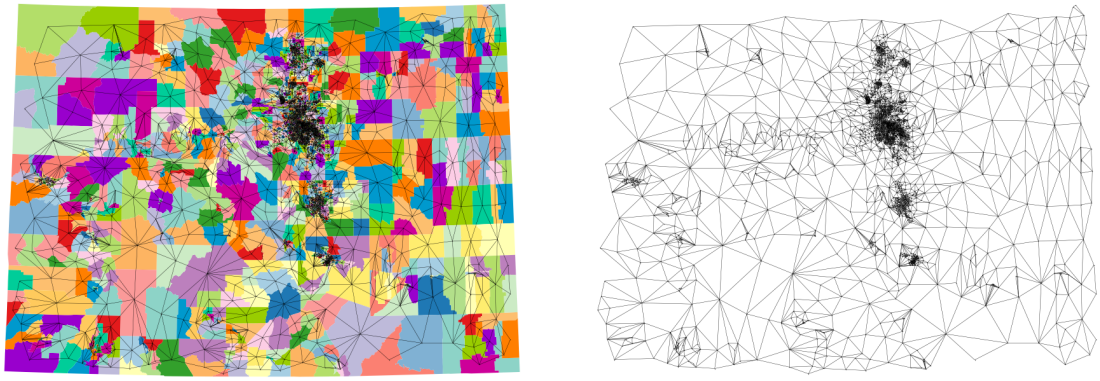


Figure 25: Colorado 2020 precinct map and dual graph

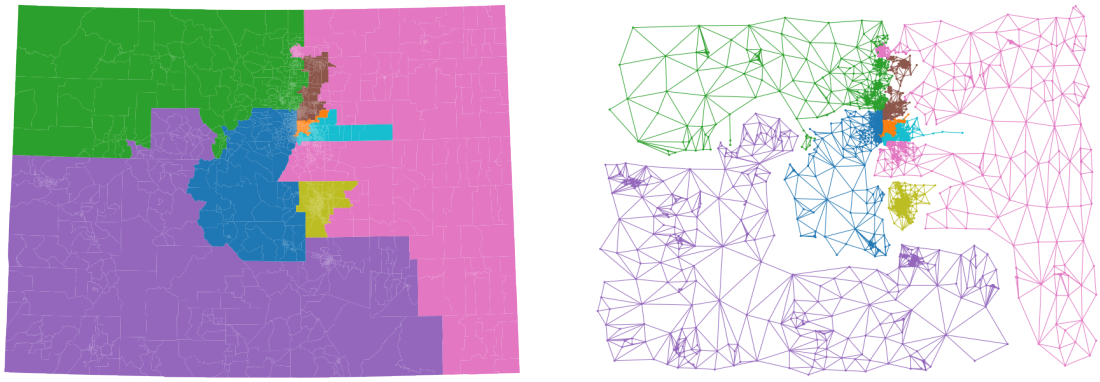


Figure 26: First Staff Plan for Congressional districts and corresponding dual subgraphs

to these districts into a single graph. Next, it generates a **spanning tree** for the merged graph—i.e., a subgraph consisting of all the graph's vertices and a subset of its edges, with the property that this subgraph is contiguous and has no closed loops—chosen randomly and uniformly from the set of all spanning trees of the merged graph. Finally, it looks for an edge to cut in order to create two new districts that each satisfy the population constraint. (District contiguity is automatic with this method.) This process is illustrated in Figure 27.

Part of the appeal of the Markov chain approach is a well-developed theory and a long history of applications of Markov chain sampling methods (see, e.g., [7]). In particular, a sufficiently long Markov chain is theoretically guaranteed to produce an ensemble that accurately represents a specific probability distribution on the entire space of valid district plans. In general, this probability distribution is difficult to determine explicitly, but for the ReCom method there is good heuristic and experimental evidence indicating that the probability of any particular plan appearing in the ensemble is closely related to a natural discrete measure for district compactness. In practice, this

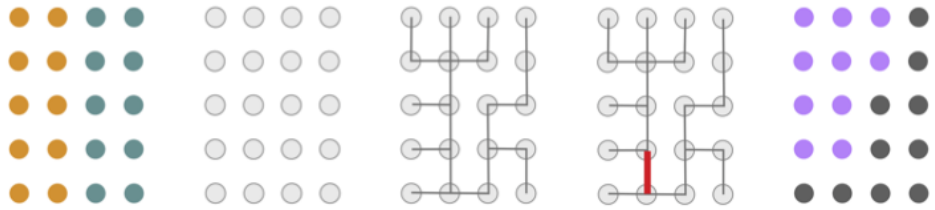


Figure 27: A ReCom step (Figure 4 in [6]; used with permission.)

means that this method is strongly biased towards plans with relatively compact districts and has no other detectable bias towards any particular type of plan (see, e.g., [4] and [6]). Our county-neutral ensemble was generated with this method; some examples of plans from this ensemble are shown in Figure 28.

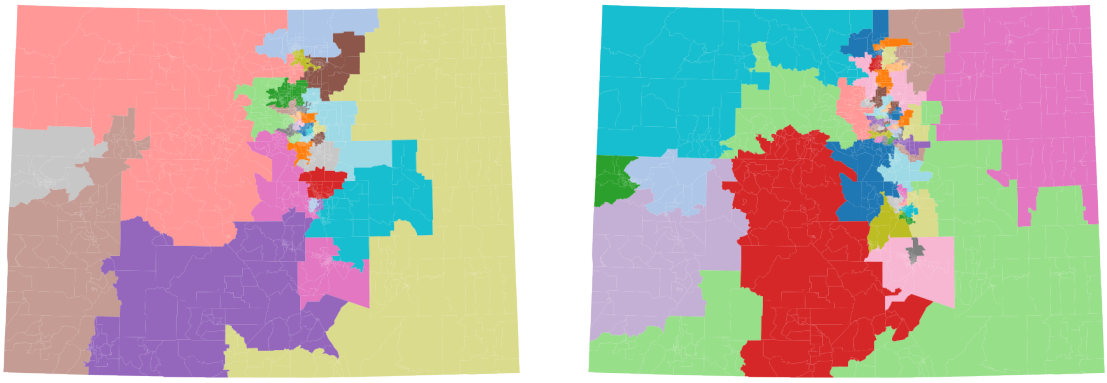


Figure 28: Examples of plans created by the ReCom method for county-neutral ensembles for Senate (left) and House (right)

For our county-aware ensemble, a variation was used in the construction of the spanning tree for the merged graph, in which the random choice of edges to form the spanning tree is more heavily weighted towards intra-county edges, so that the resulting spanning tree contains relatively few edges connecting precincts in different counties. When the tree is cut, it is less likely to produce districts that split counties. Some examples of plans from this ensemble are shown in Figure 29.

For our tailored county-aware ensemble, we applied the county-aware variation of ReCom to the shapefile obtained by merging precincts as described in Section A.1. Some examples of plans from this ensemble are shown in Figure 30.

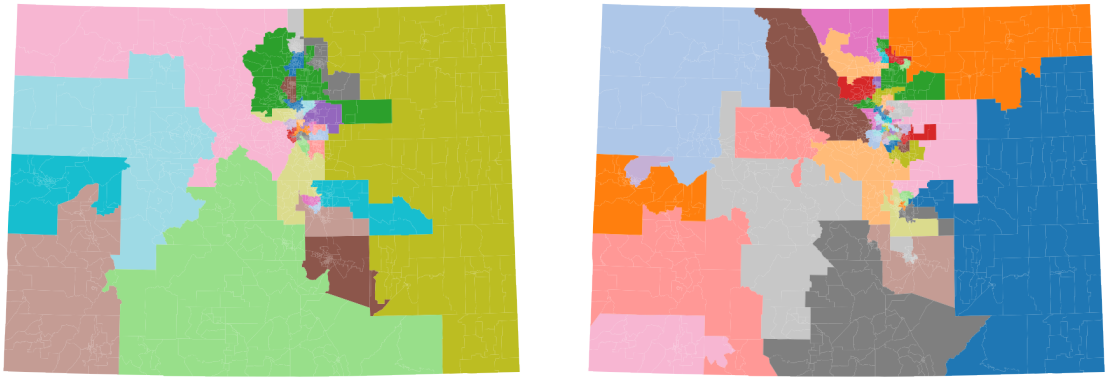


Figure 29: Examples of plans created by the ReCom method for county-aware ensembles for Senate (left) and House (right)

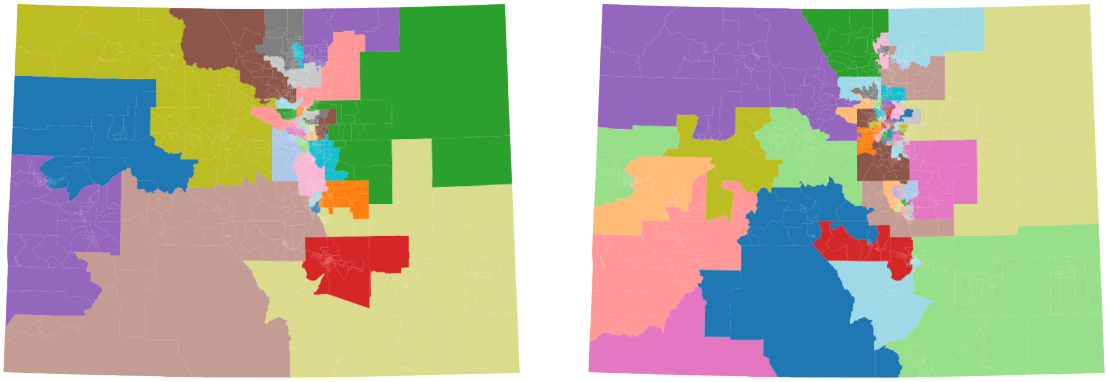


Figure 30: Examples of plans created by the ReCom method for tailored county-aware ensembles for Senate (left) and House (right)

A.3 Ensemble size

Regarding the question of how long is "sufficiently long" for a Markov chain to produce a representative sample of plans, there is unfortunately no good theoretical answer. This question is usually answered heuristically, by running chains until statistics of interest appear to stabilize in a way that is not dependent upon the choice of seed plan. This stabilization is referred to as "mixing" or "convergence" of the statistics being measured.

When two or more independently generated chains are available, convergence of relevant measures can be checked by comparing the distributions of the measures from the available chains. If the distributions are "close enough," we consider the chains to be sufficiently long for analyses. To check how close two empirical distributions are from one another, we used the two-sample Kolmogorov-Smirnov (KS) statistic, which is the maximum vertical distance between two empirical cumulative

distribution functions (ECDFs) derived from two independent samples. KS values of 0.01 or lower are indicative of nearly indistinguishable chains from different seeds; however, this is a very high bar to meet and may require generating ensembles of several million steps.

When only one independently generated chain is available, it is still possible to check how fast the chain is mixing by looking at the chain's autocorrelations, which measure how dependent a chain is on its previous steps. Autocorrelations take values between -1 and 1, with a value of 0 indicating non-dependence, and values close to 1 or -1 indicating high dependence. For example, a lag 10 autocorrelation of 0.8 would indicate that any step of the chain is highly dependent on its 10 previous steps. For fast-converging chains, autocorrelations quickly decay to 0 as the lags increase. Inspecting which lags give autocorrelations close to 0 is a way of checking how quickly a chain is converging and it also allows one to make rough estimates on how long the chain should be for appropriate analyses. For instance, if the lag 1000 of a chain is close to 0, then we can consider each step of the chain to be fairly uncorrelated with 1000 steps prior. Therefore, if we were to collect every 1000th step of the chain, we would obtain a fairly uncorrelated sample, which would be close enough to an independent sample. This means that for a chain of size 2 million with a lag 1000 autocorrelation close to 0, we can expect the chain to be at least as good as an independent sample of size 2000, which would be long enough for reliable analyses and outlier detection.

Among the three types of chains used in this report (county-neutral, county-aware, and tailored county-aware), we explored convergence in more detail for county-aware chains for the State House, since State Senate chains are expected to have much faster convergence than House chains because an increased number of districts significantly slows down the rate of convergence. We also focused our convergence analyses on two types of measures: vote shares and seat shares. In our experience, other types of measures (for example, number of competitive districts, number of counties split, etc.) have convergence speeds similar to or better than vote shares and seat shares.

County-aware chains:

For the convergence analysis of county-aware chains for the State House, we used three races to represent the proportion of Democratic votes at the precinct level: 2018 Attorney General (AG18), 2020 President (PRES20), and 2018 Secretary of State (SOS18). For each of these three races, 7 chains of size 2 million were generated using 7 independent seeds (starting plans) and we calculated the two-sample KS statistic for each pair of seeds (21 pairs).

The three largest two-sample KS statistics were 0.2318, 0.2275, and 0.2273 for the vote shares of the least Democratic district for the SOS18, PRES20, and AG18 races respectively. Approximately 11% of the KS values for vote shares were below 0.01 and 11% were greater than 0.05. These values are indicative of slow convergence for most of the vote shares.

Autocorrelations also indicated slow-mixing chains. The minimum lag such that autocorrelations

were less than 0.01 varied widely. For example, for the AG18 race data, the smallest such lag was 2056 and there were 6 lags above 200,000. If we were to require a sample at least as large as 500 times the largest of the minimum lags, we would need sample sizes greater than 100 million.

Even though our analysis indicates that chains of size 2 million for the State House do not have ideal convergence diagnostics, in order to detect outliers we only need to be able to trust the estimates for low and high quantiles for measures of interest generated by our chains. That is, we would like the lower and higher sample quantiles of measures generated by different seeds to be "close enough" so that we can trust the detection of unusual observations even when chains are not very well mixed.

To explore how long our chains should be for outlier detection, we looked at the differences between the tails of the ECDFs of samples generated by different seeds. We considered the tail of a distribution to be the top and bottom 2.5% of the distribution, that is, all observations beyond the middle 95% of the distribution. For chains of size 2 million, the largest two-sample tail distance was 0.044 for the second least democratic district. Approximately 87% of the tail distance values for vote shares were below 0.01. This number was 73% for seat shares. The largest difference between the tail quantiles was 0.018 for the 56th least democratic district. Approximately 95% of the differences between the tail quantiles were below 0.01.

These summaries indicate that a sample of size 2 million is able to effectively identify unusual observations.

County-neutral chains:

County-neutral chains usually have faster convergence than county-aware chains; here we confirmed this by looking at their autocorrelations. Therefore, we are fairly confident that county-neutral chains are at least as appropriate as county-aware chains for analyses and detection of unusual observations.

Tailored county-aware chains:

Tailored county-aware chains showed slower convergence than non-tailored county-aware chains, and there were more districts with a KS statistic above 0.2 than there were in non-tailored chains. To mitigate this and improve the accuracy of estimates produced by tailored samples, we constructed a chain of size 2 million by combining every other step of two independently generated chains of size 2 million. The expectation is that two independently generated chains will together cover a larger portion of the sample space of plans than one chain alone. Therefore, this combination is expected to give a better representative sample, closer in accuracy to the non-tailored county-aware chains. We also note that all statistics produced by the tailored chains (except for counties split and total county splits, as expected) were very similar to those produced by the untailored chains, so no concerns were raised that might be attributable to inadequate sample size.