# Analysis of the four Commissioner-proposed legislative district maps 

## From September 21st public release

## Statute \& Criteria

RCW 44.05.090

## Redistricting plan.

In the redistricting plan:
(1) Districts shall have a population as nearly equal as is practicable, excluding nonresident military personnel, based on the population reported in the federal decennial census as adjusted by RCW 44.05.140.
(2) To the extent consistent with subsection (1) of this section the commission plan should, insofar as practical, accomplish the following:
(a) District lines should be drawn so as to coincide with the boundaries of local political subdivisions and areas recognized as communities of interest. The number of counties and municipalities divided among more than one district should be as small as possible;
(b) Districts should be composed of convenient, contiguous, and compact territory. Land areas may be deemed contiguous if they share a common land border or are connected by a ferry, highway, bridge, or tunnel. Areas separated by geographical boundaries or artificial barriers that prevent transportation within a district should not be deemed contiguous; and
(c) Whenever practicable, a precinct shall be wholly within a single legislative district.
(3) The commission's plan and any plan adopted by the supreme court under RCW 44.05.100(4) shall provide for forty-nine legislative districts.
(4) The house of representatives shall consist of ninety-eight members, two of whom shall be elected from and run at large within each legislative district. The senate shall consist of forty-nine members, one of whom shall be elected from each legislative district.
(5) The commission shall exercise its powers to provide fair and effective representation and to encourage electoral competition. The commission's plan shall not be drawn purposely to favor or discriminate against any political party or group.

## (1) Districts shall have a population as nearly equal as is practicable

Walkinshaw: 27 person deviation
Sims: 98 person deviation
Fain: 179 person deviation
Graves: 113 person deviation
(Difference between most populous district and least populous district)
(2)(a) District lines should be drawn so as to coincide with the boundaries of local political subdivisions and areas recognized as communities of interest - cont'd

- Both Republican Commissioners split Hispanic/Latino communities in the Yakima Valley. Neither of them drew a majority-Hispanic district in this region; in fact they managed to split up the only majority-Hispanic district in our current map (15th).
- The Chehalis Tribe asked to remain split between the 19th and the 20th during their tribal consultation, neither Republican Commissioner did this.
- Fain split Spokane Valley into 3 LDs, despite multiple commenters (including the local Chamber of Commerce) explicitly requesting to remain in one LD.
- Fain splits the Kent-Meridian School District in SE King among 4 LDs, despite the premise of his rationale that he prioritized school districts in his map.
- This is one of the most diverse districts in the state (20\% Asian-American, 33\% Hispanic, 19\% Black, 17\% White, 4\% PI, 7\% multi-racial).
(2)(a) District lines should be drawn so as to coincide with the boundaries of local political subdivisions and areas recognized as communities of interest - cont'd

Fain's map in particular further divided majority-POC cities:

- Kent $(62 \%$ POC) in 5 LDs
- Renton (60\% POC) in 5 LDs
- Auburn $(51 \%$ POC) in 4 LDs
- Bellevue $(56 \%)$ in 4 LDs
- Burien ( $55 \%$ POC) in 3 LDs
- Pasco (64\% POC, 57\% Hispanic) in 2 LDs
- Tukwila ( $72 \% \mathrm{POC}$ ) in 2 LDs
- Newcastle (51\% POC) 2 LDs
- Lakewood (54\% POC) in 2 LDs
- Grandview (84\% Hispanic) in 2 LDs
- Fife (60\%) in 2 LDs
(2)(a) The number of counties and municipalities divided among more than one district should be as small as possible - cont'd



## Counties \& Municipalities - cont'd

| Walkinshaw | Total Splits | Joe Fain introduced more than 30 additional splits |
| :---: | :---: | :---: |
| 20 Cities Split | 26 |  |
|  |  | of cities in his legislative map. |
| Sims | Total Splits | Paul Graves' map added two new cities that were |
| 32 Cities Split | 42 |  |
|  |  | split at least once. |
| Fain | Total Splits | Both Sims and Walkinshaw's maps significantly |
| 54 Cities Split | 86 | reduce the number of overall splits and the number of |
|  |  | cities split. Walkinshaw's map reduces the overall |
| Graves 41 Cities Split | $\begin{array}{r} \text { Total Splits } \\ 52 \\ \hline \end{array}$ | number of cities split by half compared to the |
|  |  | current map. |
| Current Map | Total Splits |  |
| 39 | 54 |  |

## Counties \& Municipalities - cont'd

| 1 | City ${ }^{\text {- }}$ | Current - 7 | Walkinshaw - | Sims - | Fain ${ }^{1}$ | Graves - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | Seattle | 7 | 5 | 6 | 7 | 7 |
| 3 | Kent | 3 | 3 | 2 | 5 | 3 |
| 4 | Renton | 5 | 2 | 2 | 5 | 2 |
| 5 | Spokane | 2 | 2 | 2 | 4 | 3 |
| 6 | Bellevue | 2 | 3 | 2 | 4 | 3 |
| 7 | Auburn | 3 | 2 | 3 | 4 | 3 |
| 8 | Vancouver | 3 | 2 | 2 | 4 | 3 |
| 9 | Tacoma | 3 | 3 | 3 | 4 | 3 |
| 10 | Lynnwood | 2 | 1 | 2 | 3 | 2 |
| 11 | Milton | 2 | 1 | 1 | 3 | 2 |
| 12 | Mount Vernon | 2 | 1 | 1 | 3 | 2 |
| 13 | Burien | 2 | 2 | 2 | 3 | 2 |
| 14 | Edmonds | 2 | 2 | 1 | 3 | 2 |
| 15 | Redmond | 2 | 2 | 2 | 3 | 2 |
| 16 | Marysville | 3 | 2 | 2 | 3 | 2 |
| 17 | Aberdeen | 2 | 1 | 1 | 2 | 2 |
| 18 | Battle Ground | 2 | 1 | 1 | 2 | 2 |
| 19 | Bothell | 2 | 1 | 1 | 2 | 2 |
| 20 | Des Moines | 2 | 1 | 1 | 2 | 2 |
| 21 | Fife | 2 | 1 | 2 | 2 | 1 |
| 22 | Kennewick | 2 | 1 | 2 | 2 | 2 |
| 23 | Lacey | 2 | 1 | 1 | 2 | 1 |
| 24 | Lakewood | 2 | 1 | 2 | 2 | 2 |
| 25 | Montesano | 2 | 1 | 1 | 2 | 1 |
| 26 | Olympia | 2 | 1 | 2 | 2 | 2 |
| 27 | Richland | 2 | 1 | 1 | 2 | 2 |
| 28 | Sammamish | 2 | 1 | 4 | 2 | 1 |
| 29 | Bellingham | 2 | 2 | 2 | 2 | 2 |
| 30 | Everett | 2 | 2 | 2 | 2 | 1 |
| 31 | Pasco | 2 | 2 | 1 | 2 | 1 |
| 32 | Tumwater | 2 | 2 | 2 | 2 | 2 |
| 33 | Yakima | 2 | 2 | 2 | 2 | 2 |
| 34 | Bremerton | 3 | 1 | 2 | 2 | 2 |
| 35 | Kirkland | 3 | 2 | 3 | 2 | 2 |
| 36 | Ephrata | 2 | 1 | 1 | 1 | 1 |
| 37 | Issaquah | 2 | 1 | 2 | 1 | 1 |
| 38 | Mountlake Terrace | 2 | 1 | 1 | 1 | 2 |
| 39 | Okanogan | 2 | 1 | 1 | 1 | 2 |
| 40 | Port Orchard | 2 | 1 | 1 | 1 | 1 |

Of cities that are split in the current map, Fain went out of his way to introduce new splits.

In fact, he did this in 12 different cities.

Many of these go against what the Commission heard in public comment: Renton, Vancouver, Battle Ground, Lakewood, Mountlake Terrace. And those are just the ones we've heard about so far.

## Counties \& Municipalities - cont'd

| 1 | City | Current -T | Walkinshaw - | Sims * | Fain - 1 | Graves - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | Burlington | 1 | 1 | 1 | 4 | 1 |
| 3 | Spokane Valley | 1 | 1 | 1 | 3 | 1 |
| 4 | University Place | 1 | 1 | 2 | 3 | 2 |
| 5 | Anacortes | 1 | 1 | 1 | 2 | 2 |
| 6 | Arlington | 1 | 1 | 1 | 2 | 2 |
| 7 | Black Diamond | 1 | 1 | 1 | 2 | 1 |
| 8 | Bonney Lake | 1 | 1 | 1 | 2 | 1 |
| 9 | Camas | 1 | 1 | 1 | 2 | 1 |
| 10 | Fircrest | 1 | 1 | 1 | 2 | 2 |
| 11 | Grandview | 1 | 1 | 1 | 2 | 1 |
| 12 | Kenmore | 1 | 1 | 1 | 2 | 1 |
| 13 | Lake Forest Park | 1 | 1 | 1 | 2 | 1 |
| 14 | Mill Creek | 1 | 1 | 1 | 2 | 1 |
| 15 | Newcastle | 1 | 1 | 1 | 2 | 1 |
| 16 | Sedro Wooley | 1 | 1 | 1 | 2 | 1 |
| 17 | Soap Lake | 1 | 1 | 1 | 2 | 1 |
| 18 | Tenino | 1 | 1 | 1 | 2 | 1 |
| 19 | Tukwila | 1 | 1 | 3 | 2 | 2 |
| 20 | West Richland | 1 | 1 | 1 | 2 | 1 |
| 21 | Pacific | 1 | 2 | 2 | 2 | 1 |
| 22 | Monroe | 1 | 2 | 1 | 1 | 1 |
| 62 |  |  |  |  |  |  |
| 63 | Total \# of LDs | 21 |  |  | 45 |  |

Fain's map introduced brand new splits to $\mathbf{2 0}$ different cities that are unified in the current map.

Burlington goes from 1 LD to 4.
Spokane Valley goes from 1 LD to 3, despite the Chamber of Commerce and local leaders explicitly asking during public comment to remain in 1 single LD.

In these cities, he more than doubled the number of total districts representing them.
(2) (b) Districts should be composed of convenient, contiguous, and compact territory... Areas separated by geographical boundaries or artificial barriers that prevent transportation within a district should not be deemed contiguous;

A few examples of areas of concern in the Republican Commissioners' maps:
I. Graves:
A. 19th district along State Route 109 due West of Hoquiam does not have a contiguous transportation connection to Ocean Shores.
B. Similarly, the 38th at the border with the 39th in Marysville does not have a contiguous transportation corridor to the Tulalip reservation and surrounding communities.
C. Graves' 13 th LD stretches more than $\mathbf{2 5 4}$ miles long from east to west, incorporating 4 counties and putting High Point together with Reardan. At one point, this district is just barely 15 miles wide.
II. Fain:
A. Chooses State Route 106 as the dividing line between his 24th and 35th, rather than the far more logical Hood Canal, cutting off around 500 people from their community and neighbors.
B. In his 39th along Hwy 2, from Index west there appears to be no transportation connectivity.

## I (A) Graves' 19th



As stated in the RCW, transportation corridors need to be maintained.

This map severs the contiguous connection along State Route 109 going west to the rest of the proposed 19th, because you have to go through the 24th to get to it.

19th LD border just due West of Hoquiam at the mouth of the Chehalis River does not have a transportation connection to Ocean Shores.


## I (B) Graves 38th

Similarly, Graves' 39th district near Marysville completely severs the l-5 connection from the Everett portion of the 38th to the Tulalip reservation and surrounding communities.

## II(A) Fain's 24th



Fain inexplicably chooses the highway as the dividing line, rather than the impassable waters of Hood Canal as a logical and clearly legal boundary.

There are about 500 people who live on an 18.5 mile stretch of the north/west side of State Route 106, right on the Hood Canal. These people are in Fain's 24th district, isolated from the rest of that district by the Hood Canal while their neighbors just across the street are in the 35th.

This also puts
Alderbrook Resort in a different LD than Union.

## II (B) Fain's 39th



In this map, there is no way to get from Galena or Index to the other parts of the 39th, without going through Gold Bar and Sultan which are in the 44th.

## (2) (b) Convenient, contiguous, and compact territory - cont'd

## Areas of concern in the Republican Commissioners' maps:

III. Graves claims that he drew this map for the people of Washington, not with current legislators in mind. However, he disregarded public input and broke up communities of interest across the state to displace 22 Democratic incumbents, while also drawing awkward fingers and increasing city splits to keep $97 \%$ of Republican incumbents in their districts.

(2) (c) Whenever practicable, a precinct shall be wholly within a single legislative district.

## Split Precincts in each map:

Walkinshaw: ..... 201
Sims: ..... 246
Fain: ..... 423
Graves: ..... 261

## (5) The commission shall exercise its powers to provide fair and effective representation and to encourage electoral competition.

Electoral competition is vital for democracy, which is why it was included in the voter-approved initiative nearly 40 years ago. Electoral competition is not limited to the simple idea of parity between the two largest political parties-it must be judged by its ultimate consequences: more democratic debate, greater civic engagement and participation, and richer political discourse in every community across our state. This is especially critical for historically marginalized and underrepresented communities.

Although Commissioners Walkinshaw and Sims did not use partisan metrics to draw their maps, the end result are maps that keep communities together and reflect the reality of Washington state. The 2016-2020 Composite from DRA puts the state of WA at $57 \%$ Democratic, which equals 28 D districts. The partisan split of the median district in Walkinshaw's proposed map matches that of the state overall.

Fain's plan would create 24 D districts, which would be appropriate for a state that is $\mathbf{4 9 \%}$ Democratic. Graves' plan would create 23 D districts, which would be appropriate for a state that is $47 \%$ Democratic.

The people of Washington eliminated partisan primaries more than a decade ago, in part to ensure that all districts are competitive. Multiple legislators from both major parties have lost reelection to a challenger from within the same party. When communities are kept together, they can collectively exercise their political power and elect candidates of their choosing. Creating artificial partisan electoral competition at the expense of both logical community boundaries and historically underrepresented groups undermines fair and effective representation. Too often past legislative and congressional maps have reflected this unfortunate reality.

## (5)The commission's plan shall not be drawn purposely to favor or discriminate against any political party or group - cont'd

According to independent analysis done through Dave's Redistricting App, both the Republican commissioners' maps showed bias toward Republicans in all but one category.

Using the "Advanced" Analytics tool on Dave's Redistricting App.

| Metric | Walkinshaw | Sims | Fain | Graves | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Seats bias | 0.67\% | 1.92\% | 5.07\% | 4.94\% | Half the difference in seats at 50\% vote share |
| Votes bias | 0.20\% | 0.59\% | 2.91\% | 2.76\% | The excess votes required for half the seats |
| Declination | -5.09\% | -3.18\% | 10.93\% | 9.45\% | A geometric measure of packing \& cracking |
| Global symmetry | 2.23\% | 2.35\% | 3.19\% | 3.03\% | The overall symmetry of the seats-votes curve |
| Gamma | -4.33\% | -2.82\% | 9.54\% | 9.50\% | The fair difference in seats at the map-wide vote share |
| Efficiency gap | -2.21\% | -1.36\% | 6.28\% | 5.40\% | The relative two-party difference in wasted votes |
| Partisan bias | 3.97\% | 4.10\% | 6.66\% | 6.06\% | The difference in seats between the map-wide vote share \& the symmetrical counterfactual share |
| Proportional | -8.95\% | -8.10\% | -0.46\% | -1.34\% | The simple deviation from proportionality using fractional seat shares |
| Mean-median | -0.49\% | 0.26\% | 2.38\% | 4.69\% | The average vote share across all districts minus the median vote share |
| Turnout bias | 0.18\% | 0.16\% | 0.33\% | 0.31\% | The difference between the map-wide vote share and the average district share |
| Lopsided outcomes | 5.30\% | 5.78\% | 9.27\% | 8.89\% | The relative two-party difference in excess vote shares |
| Boundary bias | 0.23\% | 1.07\% | 8.72\% | 7.84\% | The bias due to district lines |



## Bias Measures (copied directly from the "Analytics" Section of Dave's Redistricting App):

Seats bias ( $\alpha \square$ ) - The seats bias at $50 \%$ Democratic vote share. This is the fraction of seats less than (or greater than) half that Democrats win with half the votes. Alternatively, you can think of this as the difference in seats won by the two parties when the vote is evenly split. ${ }^{1}$

Votes bias $\left(\alpha_{\mathrm{v}}\right)$ - The votes bias at $50 \%$ Democratic seat share. This is the fraction of votes more than (or less than) half that Democrats need to win half the seats. ${ }^{2}$
Declination ( $\delta$ ) - This is the value of the declination angle (in degrees) calculated using fractional seats and votes. ${ }^{3}$ Declination measures the packing and cracking in a plan. When shown graphically, it visually illustrates "walls" of safe seats that are characteristic of unfair maps. The declination lines are overlaid on the rank-vote graph at the top. Declination is not defined for states with fewer than five districts or when one party might "sweep" all the seats (like Massachusetts)

Global symmetry (GS) - This measures a combination of seats and votes bias. ${ }^{4}$
Gamma ( $\gamma$ ) - This is a new measure of bias that combines seats and responsiveness. ${ }^{5}$
Efficiency gap (EG) - This is calculated by taking one party's total wasted votes in an election, subtracting the other party's total wasted votes, and dividing by the total number of votes cast. It measures the extent to which district lines crack and pack one party's voters more than the other party's voters.

Partisan bias ( $\beta$ ) - The seats bias at the statewide Democratic vote share, not $50 \%$. IOW, this estimates the difference in seats won by the two parties at the statewide Democratic vote share. ${ }^{s}$
Proportional representation (PR) - This is the simple deviation from proportionality - the difference between the likely share of fractional seats won by Democrats and their statewide vote share. ${ }^{9}$
Mean-median $(\mathrm{mM})$ - This is the mean Democratic vote share by district minus the median Democratic vote share. When the mean and the median diverge significantly, the district distribution is skewed in favor of one party and against its opponent. ${ }^{10}$

Turnout bias (TO) - This measures bias in voter turnout between the parties as the difference between the statewide Democratic vote share and the average their average district vote share. ${ }^{11}$
Lopsided outcomes (LO) - This measures discriminatory packing. The ideal is that the average excess vote share for districts won by the two parties is the same. You can gauge this using the rank-vote graph at the top as the difference between the average vote shares for the Democratic and Republican wins. ${ }^{12}$ LO is not defined for states when one party might "sweep" all the seats (like Massachusetts)

Boundary bias - This measures the explicit bias due to where the district lines are drawn in the map, by subtracting map seats from geographic seats and dividing by the number of districts.

