User:

Plan Name: Least Change AR 1

Plan Type: Congress

Measures of Compactness Report

Thursday, October 14, 2021

Number of cut edges: 1,744

| | Reock | Schwartzberg | Alternate Schwartzberg | Polsby- Popper | Population Polygon | Area/Convex Hull | Population Circle | Ehrenburg | Perimeter | Length-Width |
|-----------|-------|--------------|---------------------------|-------------------|-----------------------|---------------------|----------------------|-----------|-----------|--------------|
| Sum | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 3,333.42 | N/A |
| Min | 0.32 | 1.73 | 1.82 | 0.15 | 0.51 | 0.55 | 0.32 | 0.24 | N/A | 5.02 |
| Max | 0.56 | 2.30 | 2.58 | 0.30 | 0.86 | 0.81 | 0.77 | 0.41 | N/A | 54.66 |
| Mean | 0.42 | 2.00 | 2.17 | 0.23 | 0.69 | 0.71 | 0.56 | 0.33 | N/A | 29.64 |
| Std. Dev. | 0.10 | 0.30 | 0.36 | 0.07 | 0.19 | 0.11 | 0.24 | 0.08 | N/A | 27.73 |
| District | Reock | Schwartzberg | Alternate Schwartzberg | Polsby- Popper | Population Polygon | Area/Convex Hull | Population Circle | Ehrenburg | Perimeter | Length-Width |
| 1 | 0.38 | 2.22 | 2.58 | 0.15 | 0.53 | 0.75 | 0.37 | 0.29 | 1,332.31 | 52.61 |
| 2 | 0.56 | 1.74 | 1.90 | 0.28 | 0.85 | 0.72 | 0.76 | 0.41 | 460.00 | 5.02 |
| 3 | 0.32 | 2.30 | 2.36 | 0.18 | 0.86 | 0.55 | 0.77 | 0.24 | 567.35 | 6.25 |
| 4 | 0.41 | 1.73 | 1.82 | 0.30 | 0.51 | 0.81 | 0.32 | 0.37 | 973.76 | 54.66 |

Measures of Compactness Summary

Reock The measure is always between 0 and 1, with 1 being the most compact.

Schwartzberg The measure is usually greater than or equal to 1, with 1 being the most compact. **Alternate Schwartzberg** This measure is always greater than or equal to 1, with 1 being the most compact.

Polsby-PopperThe measure is always between 0 and 1, with 1 being the most compact.Population PolygonThe measure is always between 0 and 1, with 1 being the most compact.Area / Convex HullThe measure is always between 0 and 1, with 1 being the most compact.Population CircleThe measure is always between 0 and 1, with 1 being the most compact.EhrenburgThe measure is always between 0 and 1, with 1 being the most compact.

Perimeter The Perimeter test computes one number for the whole plan. If you are comparing several plans, the plan with the smallest total perimeter is the most

compact.

Length-Width A lower number indicates better length-width compactness.

Cut Edges A smaller number implies a more compact plan. The measure should only be used to compare plans defined on the same base layer.