

# Compactness Analysis Report

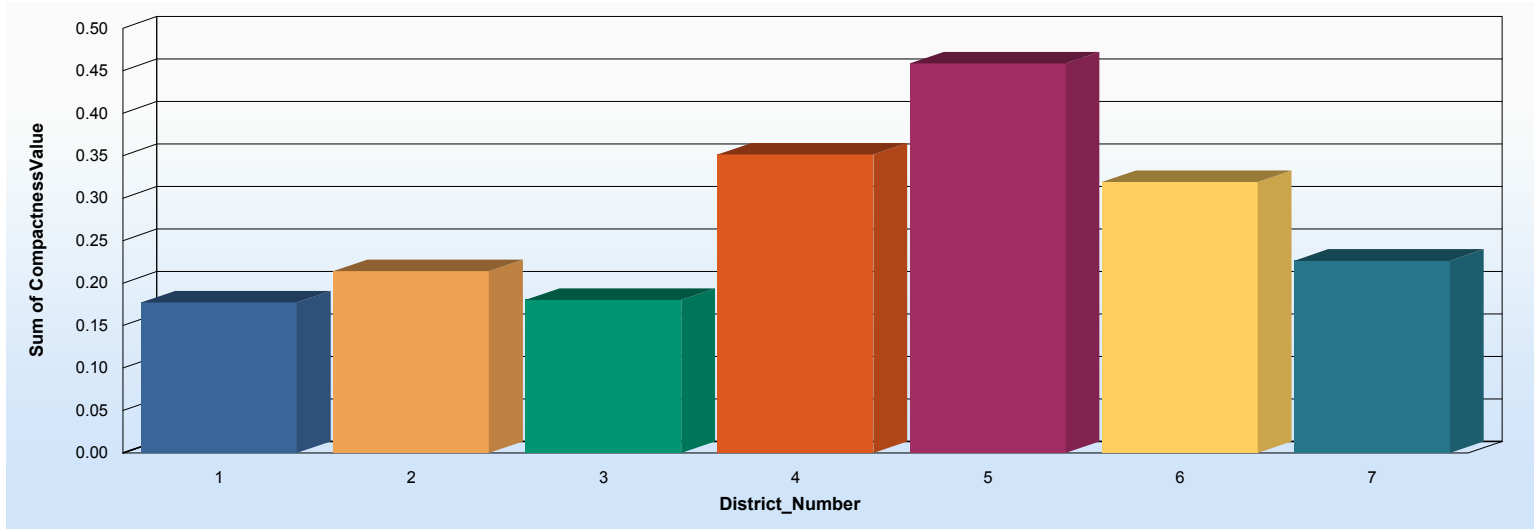
Plan Name: Workspace: AB Plans>>Discussion Plan 4  
 Plan Last Edited on: 1/21/2012 12:23:12 AM

1/22/2012

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## Compactness Measure:

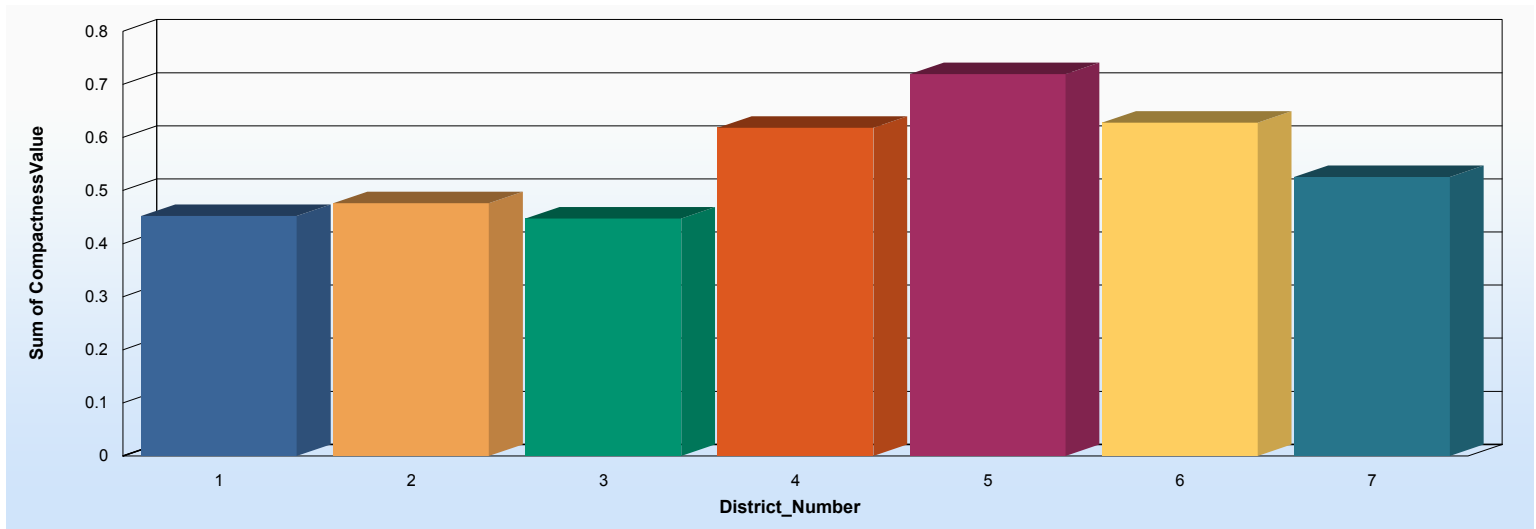
Circularity Ratio - Ratio of the area of the District to the area of a circle (the most compact shape) having the same perimeter. That ratio is expressed as  $M = 4\pi(\text{area}) / (\text{perimeter})^2$ . For a circle, the ratio is one. This

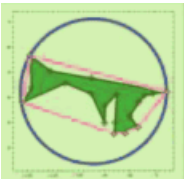


District:	1	Compactness Value:	0.18	As Percent:	17.7%
District:	2	Compactness Value:	0.21	As Percent:	21.4%
District:	3	Compactness Value:	0.18	As Percent:	18.0%
District:	4	Compactness Value:	0.35	As Percent:	35.1%
District:	5	Compactness Value:	0.46	As Percent:	45.9%
District:	6	Compactness Value:	0.32	As Percent:	31.9%
District:	7	Compactness Value:	0.23	As Percent:	22.6%

## Compactness Measure:

Circumference of an equal area circle divided by the perimeter of the district





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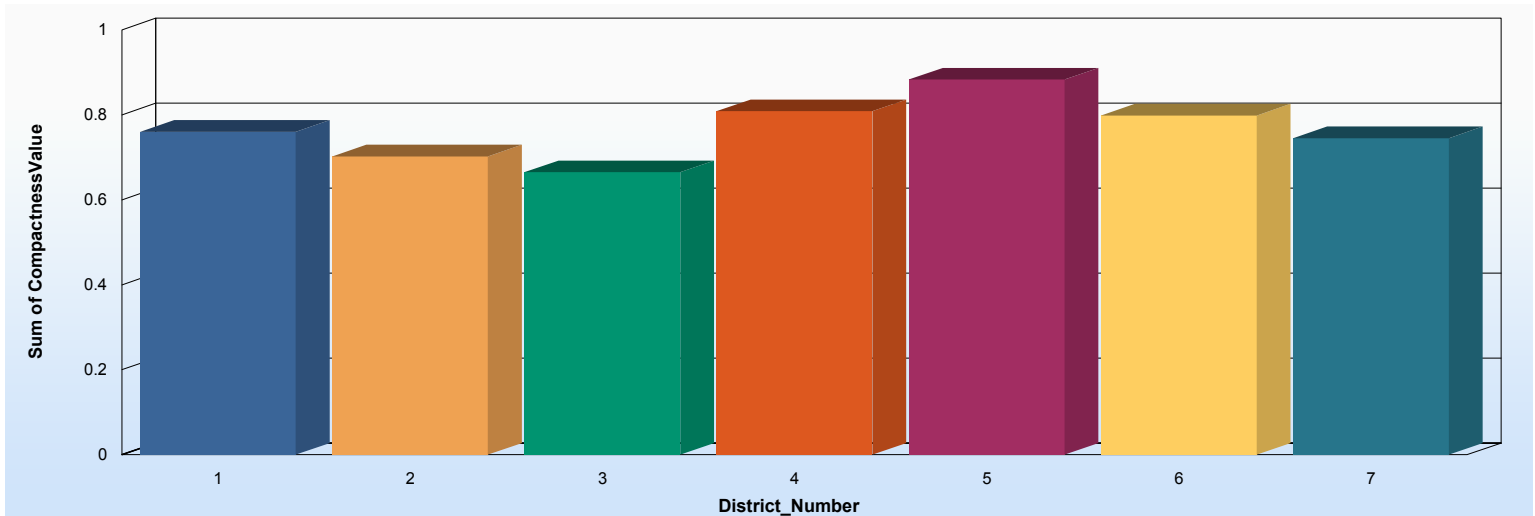
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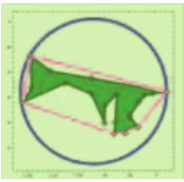
District:	1	Compactness Value:	0.45	As Percent:	45.2%
District:	2	Compactness Value:	0.48	As Percent:	47.6%
District:	3	Compactness Value:	0.45	As Percent:	44.7%
District:	4	Compactness Value:	0.62	As Percent:	61.8%
District:	5	Compactness Value:	0.72	As Percent:	71.9%
District:	6	Compactness Value:	0.63	As Percent:	62.8%
District:	7	Compactness Value:	0.53	As Percent:	52.5%

## Compactness Measure:

District area divided by the area of the district's Convex Hull. This method is also known as the Schwartzberg test.



District:	1	Compactness Value:	0.76	As Percent:	76.0%
District:	2	Compactness Value:	0.70	As Percent:	70.2%
District:	3	Compactness Value:	0.66	As Percent:	66.5%
District:	4	Compactness Value:	0.81	As Percent:	80.9%
District:	5	Compactness Value:	0.88	As Percent:	88.3%
District:	6	Compactness Value:	0.80	As Percent:	79.9%
District:	7	Compactness Value:	0.75	As Percent:	74.5%



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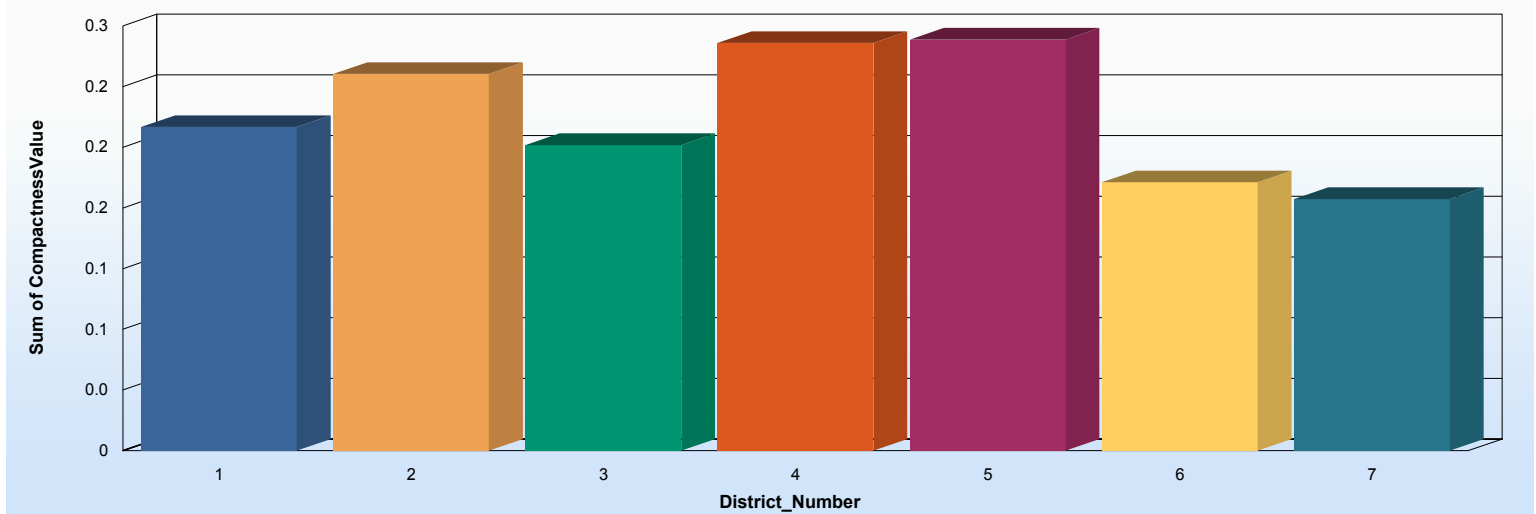
Plan Name: Workspace: AB Plans>>Discussion Plan 4

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## Compactness Measure:

District area divided by the area of the minimum circle bounding the district. This method is also known as the Roeck or Ehrenberg test.



District:	1	Compactness Value:	0.21	As Percent:	21.3%
District:	2	Compactness Value:	0.25	As Percent:	24.8%
District:	3	Compactness Value:	0.20	As Percent:	20.1%
District:	4	Compactness Value:	0.27	As Percent:	26.9%
District:	5	Compactness Value:	0.27	As Percent:	27.1%
District:	6	Compactness Value:	0.18	As Percent:	17.7%
District:	7	Compactness Value:	0.17	As Percent:	16.6%

**Total Perimeter for all Districts**

**833.27 Miles**