

# Compactness Analysis Report

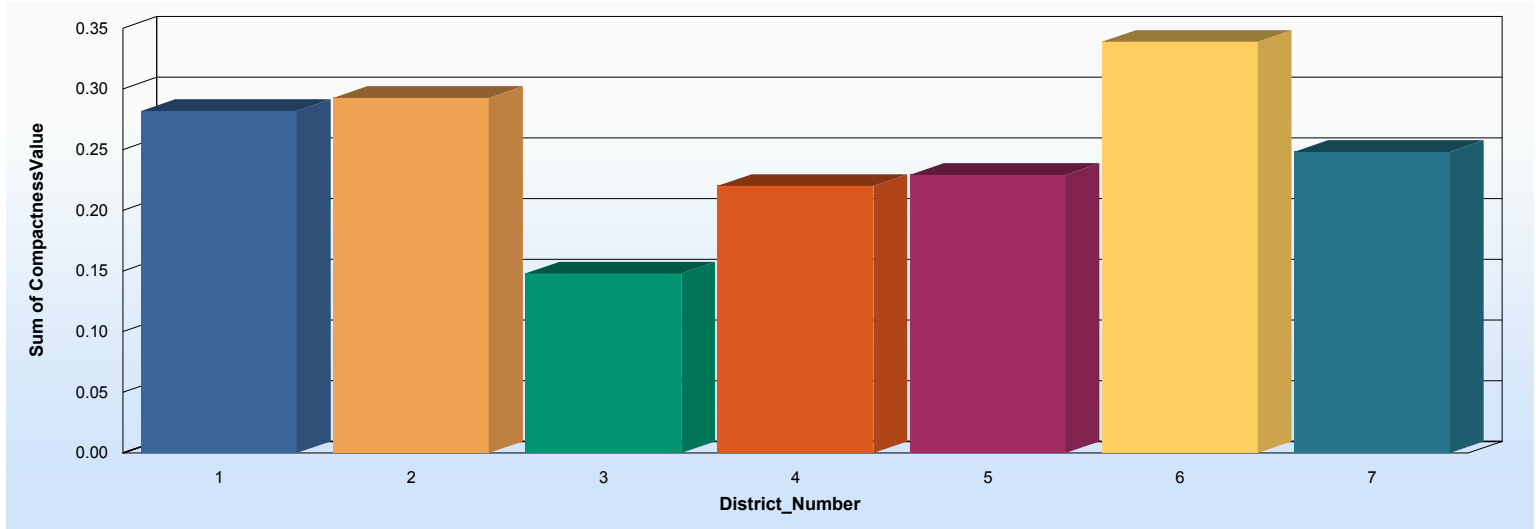
Plan Name: Workspace: AB Plans>>Discussion Plan 1  
 Plan Last Edited on: 1/20/2012 9:45:36 PM

1/22/2012

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## Compactness Measure:

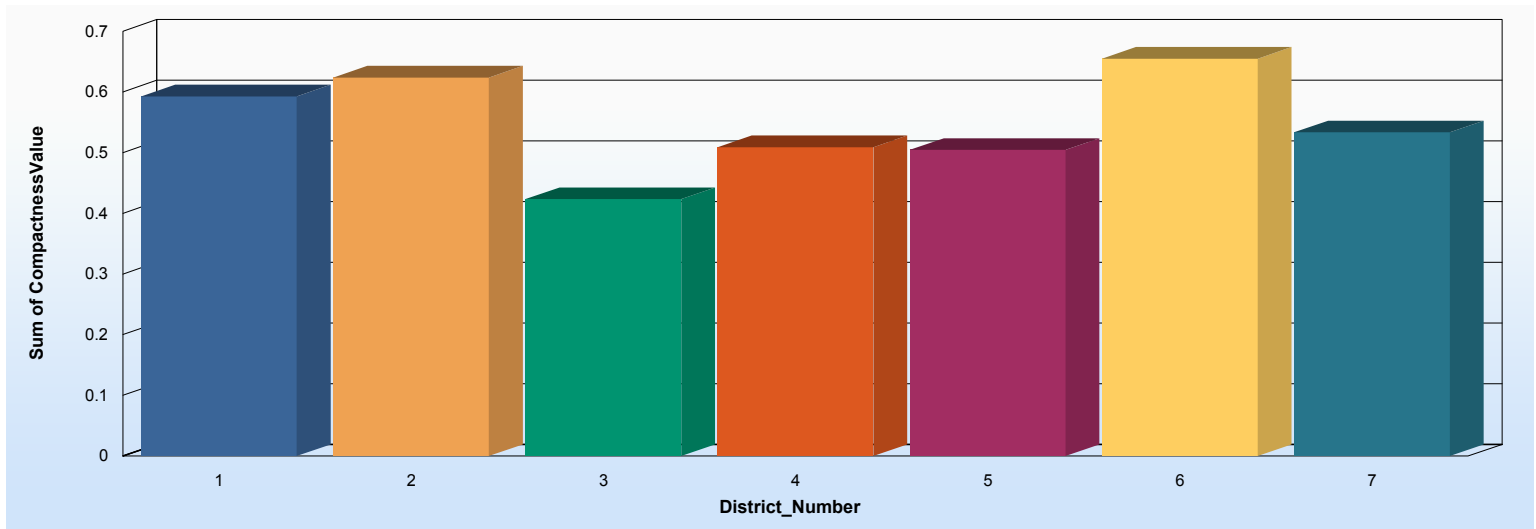
Circularity Ratio - Ratio of the area of the District to the area of a circle (the most compact shape) having the same perimeter. That ratio is expressed as  $M = 4\pi(\text{area}) / (\text{perimeter})^2$ . For a circle, the ratio is one. This

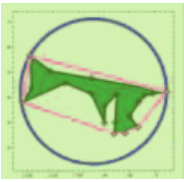


District:	1	Compactness Value:	0.28	As Percent:	28.2%
District:	2	Compactness Value:	0.29	As Percent:	29.3%
District:	3	Compactness Value:	0.15	As Percent:	14.8%
District:	4	Compactness Value:	0.22	As Percent:	22.0%
District:	5	Compactness Value:	0.23	As Percent:	22.9%
District:	6	Compactness Value:	0.34	As Percent:	33.9%
District:	7	Compactness Value:	0.25	As Percent:	24.8%

## Compactness Measure:

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





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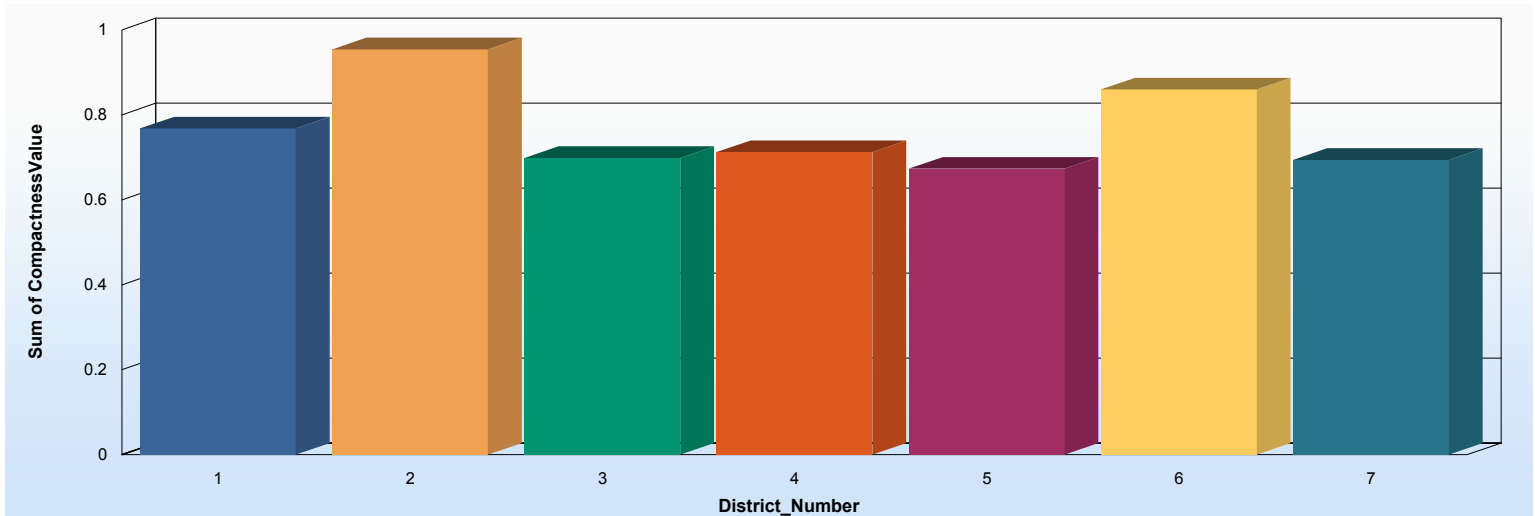
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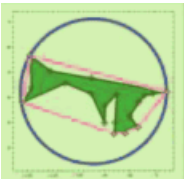
District:	1	Compactness Value:	0.59	As Percent:	59.3%
District:	2	Compactness Value:	0.62	As Percent:	62.4%
District:	3	Compactness Value:	0.42	As Percent:	42.3%
District:	4	Compactness Value:	0.51	As Percent:	50.9%
District:	5	Compactness Value:	0.50	As Percent:	50.4%
District:	6	Compactness Value:	0.65	As Percent:	65.5%
District:	7	Compactness Value:	0.53	As Percent:	53.4%

## 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:	0.77	As Percent:	76.8%
District:	2	Compactness Value:	0.95	As Percent:	95.4%
District:	3	Compactness Value:	0.70	As Percent:	69.9%
District:	4	Compactness Value:	0.71	As Percent:	71.3%
District:	5	Compactness Value:	0.67	As Percent:	67.3%
District:	6	Compactness Value:	0.86	As Percent:	86.0%
District:	7	Compactness Value:	0.69	As Percent:	69.4%



# Compactness Analysis Report

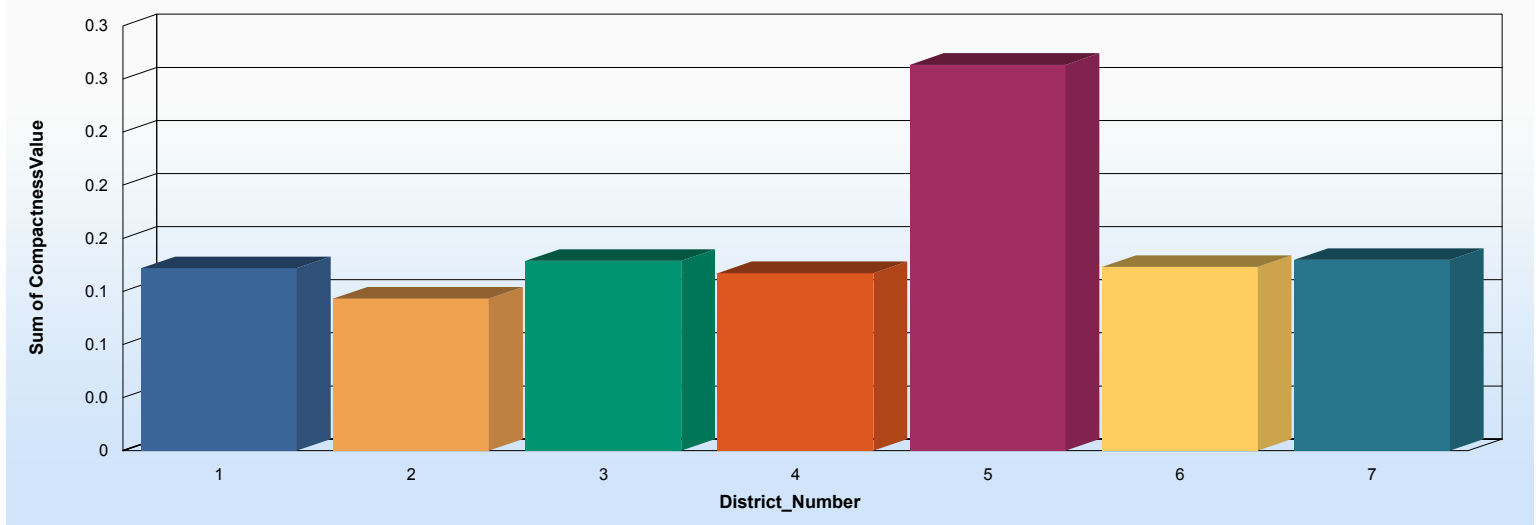
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## Compactness Measure:

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:	0.14	As Percent:	13.7%
District:	2	Compactness Value:	0.11	As Percent:	11.5%
District:	3	Compactness Value:	0.14	As Percent:	14.3%
District:	4	Compactness Value:	0.13	As Percent:	13.4%
District:	5	Compactness Value:	0.29	As Percent:	29.1%
District:	6	Compactness Value:	0.14	As Percent:	13.8%
District:	7	Compactness Value:	0.14	As Percent:	14.4%

**Total Perimeter for all Districts      829.55 Miles**