Compactness Analysis Report

Plan Name: Workspace: AB Plans>>Option 5

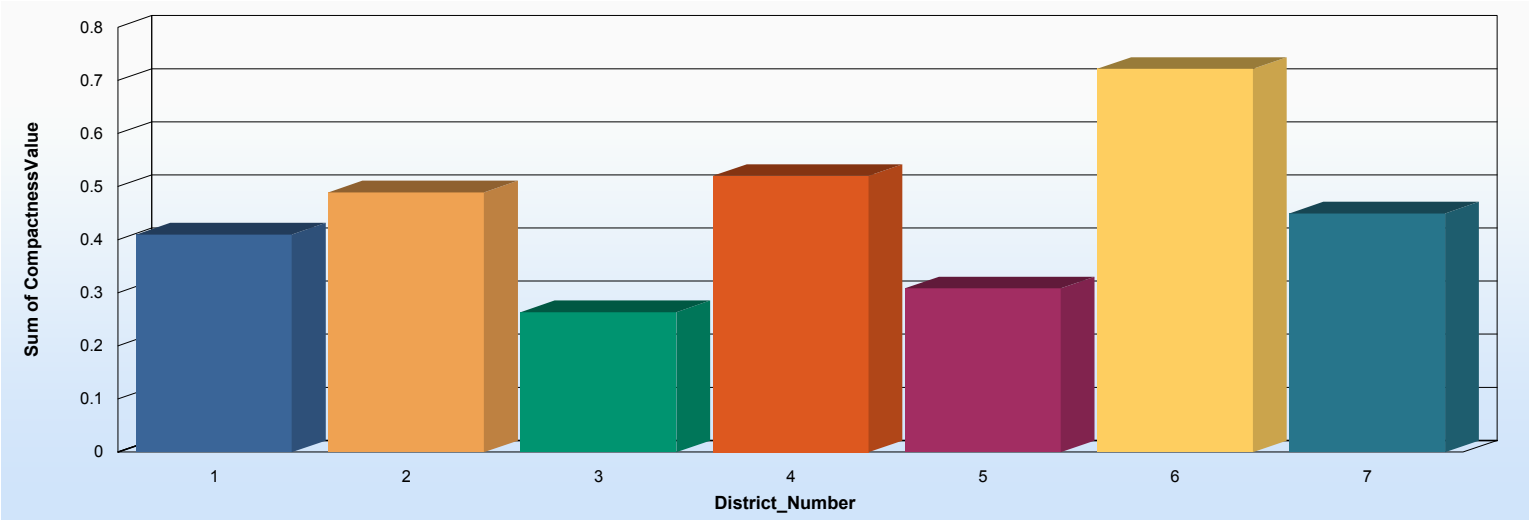
Plan Last Edited on: 2/2/2012 3:06:41 AM

2/2/2012

Data Driven Detroit donated this report.

Compactness Measure:

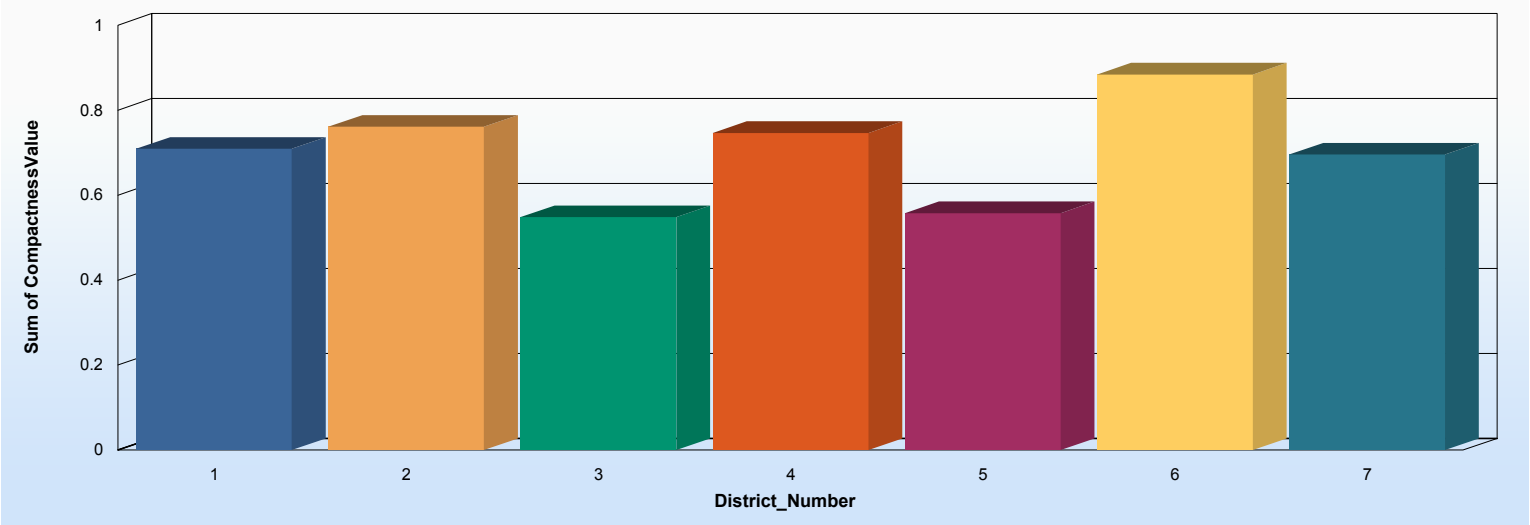
Circularity Ratio - Ratio of the area of the District to the area of a circle (the most compact shape) having the same perimeter. That ratio is expressed as M = 4pi(area) / (perimeter)2. For a circle, the ratio is one. This



District:	1	Compactness Value:	0.41	As Percent:	41.0%
District:	2	Compactness Value:	0.49	As Percent:	48.9%
District:	3	Compactness Value:	0.26	As Percent:	26.4%
District:	4	Compactness Value:	0.52	As Percent:	52.1%
District:	5	Compactness Value:	0.31	As Percent:	30.9%
District:	6	Compactness Value:	0.72	As Percent:	72.2%
District:	7	Compactness Value:	0.45	As Percent:	45.0%

Compactness Measure:

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



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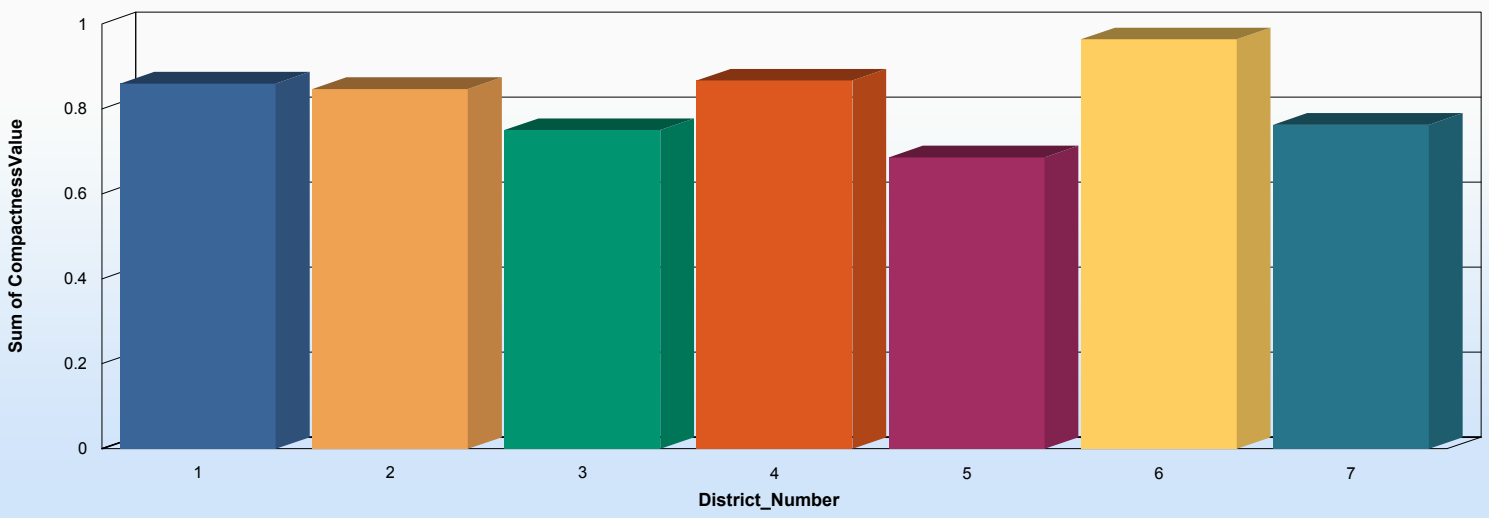
District:	1	Compactness Value:	0.71	As Percent:	70.9%
District:	2	Compactness Value:	0.76	As Percent:	76.1%
District:	3	Compactness Value:	0.55	As Percent:	54.9%
District:	4	Compactness Value:	0.75	As Percent:	74.7%
District:	5	Compactness Value:	0.56	As Percent:	55.8%
District:	6	Compactness Value:	0.88	As Percent:	88.4%
District:	7	Compactness Value:	0.70	As Percent:	69.6%

Compactness Measure:

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



District:	1	Compactness Value:	0.86	As Percent:	86.0%
District:	2	Compactness Value:	0.85	As Percent:	84.8%
District:	3	Compactness Value:	0.75	As Percent:	75.1%
District:	4	Compactness Value:	0.87	As Percent:	86.7%
District:	5	Compactness Value:	0.69	As Percent:	68.7%
District:	6	Compactness Value:	0.96	As Percent:	96.4%
District:	7	Compactness Value:	0.76	As Percent:	76.3%

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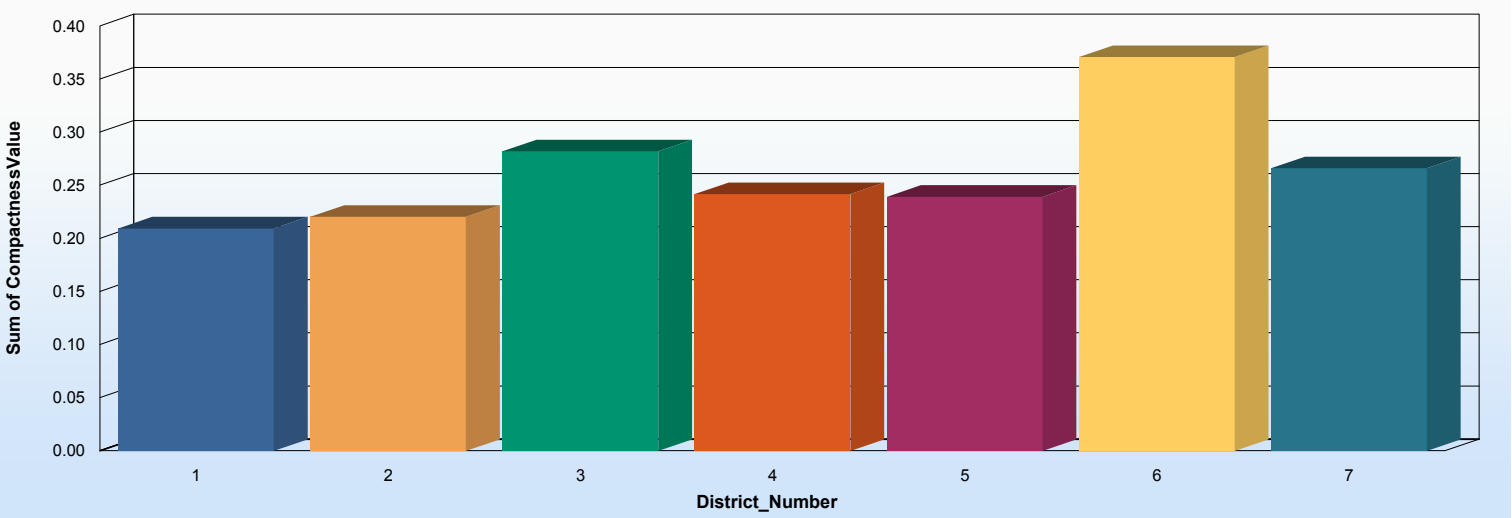
Compactness Measure:

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



District:	1	Compactness Value:	0.21	As Percent:	21.0%
District:	2	Compactness Value:	0.22	As Percent:	22.1%
District:	3	Compactness Value:	0.28	As Percent:	28.2%
District:	4	Compactness Value:	0.24	As Percent:	24.2%
District:	5	Compactness Value:	0.24	As Percent:	23.9%
District:	6	Compactness Value:	0.37	As Percent:	37.1%
District:	7	Compactness Value:	0.27	As Percent:	26.6%

Total Perimeter for all Districts **647.85 Miles**