Rotary District 7600 Relative Membership Growth Potential Analysis by County

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Nonprofit Research Project

February 2013

The Nonprofit Research Project
NPRP Brief 2013/5

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This brief applies a simple framework for assessing the relative potential for Rotary membership growth in different geographic areas. The analysis is relative in that areas are compared to each other through an econometric procedure. By design about half of the areas are considered as performing comparatively well in that they have membership rates above expectations. The other areas are considered as performing less well because they have membership rates below expectations, and thereby more potential for growth. The simulations entail assessing how much membership growth could be achieved by raising the performance of less well performing areas to their expected levels of performance. That is, relative membership potential gains are estimated by raising the performance of less well performing areas to the average performance in zone 33 as a whole, taking into account the fact that expected membership rates differ between areas. The analysis is conducted for Rotary zone 33 as a whole, which covers part of the Mid Atlantic and South Atlantic regions of the United States, but the results provided in this brief are for 31 geographic areas within district 7600, which covers parts of Virginia. The results suggest that district 7600 has a comparatively low Rotary membership rate, so that there is substantial potential for membership growth.

Introduction

Membership growth is a priority for many Rotary districts, especially in the United States. This is also the case for district 7600, which covers parts of Virginia. In 2010, the year for which the analysis in this brief is conducted, the district had 64 clubs and 2962 Rotarians.

This brief does not discuss how membership growth could be achieved. But it does suggest a framework to identify geographic areas that could be targeted by the district leadership team for growth. Targeting specific areas for growth is likely to be beneficial. Indeed, Rotary districts cover large geographic areas and the resources available to leadership teams for recruiting and retaining new members are limited. It therefore makes sense to focus efforts on areas where the potential for higher membership is likely to be largest.

The approach used in this district to identify areas with potential for membership growth is very simple. Membership rates in Rotary are estimated by comparing the number of Rotarians in an area to the number of high income households in that area. Next, expected membership rates are estimated on the basis of data for zone 33 as a whole. The difference between actual and expected membership rate together with the number of high income households in an area are then used to assess the potential for growth by area.

This brief presents a simple approach to measure how different areas are doing in terms of Rotary membership and where the potential for higher membership may be largest. The approach is applied to district 7600.

The brief is structured as follows. The next section describes the methodology used for measuring membership rates. In the following two sections, results are provided for district 7600 for current and potential membership rates. The last two sections discuss the magnitude of the potential membership gains that could be achieved in district 7600 and the potential contribution of the district to membership growth in zone 33. A conclusion follows.

Methodology

Rotary membership potential brief 2012/1 in this series discusses the methodology adopted for the analysis, and more details are available in Wodon (2012). This section summarizes very briefly the main features of the methodology.

An area's membership rate (denoted by MR) is defined as the number of Rotarians in the area divided by the area's number of high income households. For all areas in zone 33, the income threshold to qualify as a high income household is $100,000, with the exception of districts 7610 and 7620 where the threshold has been set at $150,000, in large part because of a higher cost of living in those areas.

The analysis is carried at the level of counties and other similar independent administrative entities within each Rotary district, because carrying the analysis at lower levels such as that of zip codes would not yield reliable results (see Membership potential brief 2012/1 for the reasons that led to this choice).

Membership data for zone 33 suggest that there is a strong negative relationship between membership rates and the number of high income households in an area. Areas with many high income households tend to have much lower membership rates. Several hypotheses could be advanced for explaining this relationship. In areas with a many high income households, work pressures and time availability to participate in Rotary may be more constrained, the prestige associated with being a member of Rotary may be lower, and the opportunities to be involved in service work through other organizations may be more numerous. Whatever the underlying causes of this negative relationship, it should not be ignored because it is not reasonable to expect that areas with many high income households will be able to reach the same membership rates as areas with fewer high income households. For this reason, expected membership rates are estimated for all areas within zone 33. The simulations provided in this brief rely on the differences between actual and expected membership rates by area.

Membership Rates

Table 1 provides data on the number of geographic areas (typically counties), clubs, and Rotarians in each of the 15 districts in zone 33. The table also displays the number of high income households (HIH) by district as obtained

from the American Community Survey and the resulting membership rates.

According to the Census Bureau, district 7600 had a total of 228,711 households with yearly income above US$100,000 (estimates for 2005-2009). The district accounts for a large share of high income households in zone 33 (12.4%), but it accounts for a smaller share of the Rotary membership in the zone (8.1%) (2,962 Rotarians out of a total of 36,539).

District 7600 accounts for 12.4% of high income households, and 8.1% of Rotarians in zone 33. Its membership rate is 1.3%, versus an average of 2.8% in all districts in zone 33.

Table 1: Membership Rates by District in Zone 33, 2010

District	Areas	Clubs	HIH	Mem.	R (%)
7530	19	30	25878	1147	4.4%
7550	16	28	30952	1279	4.1%
7570	38	84	91124	3701	4.1%
7600	31	64	228711	2962	1.3%
7610	23	53	235567	2177	0.9%
7620	13	67	323161	2480	0.8%
7630	11	39	110503	1688	1.5%
7670	20	53	52303	2581	4.9%
7680	14	53	148138	2941	2.0%
7690	15	52	100065	2834	2.8%
7710	10	44	143939	1847	1.3%
7720	22	44	42815	1683	3.9%
7730	14	51	60323	2032	3.4%
7750	19	54	107707	2889	2.7%
7770	24	79	138279	4298	3.1%
Mean	19	53	122631	2436	2.8%
Sum	289	795	1839465	36539	-

Source: Author

The district membership rate was 1.3% as of July 2010. All other districts except districts 7610, 7620, and 7710 have higher membership rates, with an average rate of 2.8% across the 15 districts. Because of the negative relationship mentioned earlier between membership rates and the number of high income households in an area, the fact that district 7600 has a low membership rate does not necessarily imply poor performance in attracting Rotarians. Still, the potential for attracting new Rotarians in the district is likely to be significant.

Table 2 provides data on membership rates for the counties in the district. In some cases, the areas are independent cities as opposed to counties. Membership rates vary from 0.2% in Chesterfield County to 11.0% in Northampton, with an average rate of 3.4% across areas (this average is not the same as the district membership rate). Of the 31 areas, 21 have membership rates below three percent. Richmond County is the area with the largest number of Rotarians, at 550, and also the largest numbers of clubs. It has a membership rate of 5.1%. The area with the smallest membership is Lunenburg County, with 22 Rotarians in a single club and a membership rate of 6.9%.

Within district 7600, membership rates vary from 0.2% in Chesterfield County to 11.0% in Northampton. The average membership rate across geographic areas is 3.4%.

Expected Membership Rates

Regression analysis is used to estimate expected membership rates by area (see Rotary membership potential brief 2012/1, as well as Wodon (2012) for details). Next, simple simulations are conducted on the basis of the differences between current and expected membership rates by area.

Table 2: Membership Rates by County in District 7600, 2010

Area (County)	Clubs	HIHs	Mem.	R(%)
Accomack	2	1781	27	1.5%
Brunswick	1	419	43	10.3%
Chesapeake	2	21228	125	0.6%
Chesterfield	3	33362	75	0.2%
Colonial Heights	1	1028	23	2.2%
Fluvanna	1	1948	29	1.5%
Goochland	1	2236	50	2.2%
Greensville	1	365	28	7.7%
Halifax	1	1326	36	2.7%
Hampton	1	7321	80	1.1%
Hanover	2	12614	57	0.5%
Henrico	2	28730	120	0.4%
Isle of Wight	1	3483	33	0.9%
James City	3	9049	170	1.9%
Lunenburg	1	319	22	6.9%
Mecklenburg	3	1207	98	8.1%
New Kent	1	1723	28	1.6%
Newport News	5	10348	280	2.7%
Norfolk	3	10723	191	1.8%
Northampton	2	663	73	11.0%
Nottoway	1	611	24	3.9%
Petersburg	2	837	74	8.8%
Portsmouth	2	4631	134	2.9%
Powhatan	1	2579	36	1.4%
Price Edward	1	556	43	7.7%
Prince Georges	2	2605	66	2.5%
Richmond	9	10719	550	5.1%
Southampton	1	1383	45	3.3%
Suffolk	2	7415	133	1.8%
Virginia Beach	5	39451	229	0.6%
York	1	8051	40	0.5%
Mean	2.1	7378	96	3.4%
Sum	64	228711	2962	-

Source: Author

Specifically, two simulations are implemented. In both simulations the areas that have a higher membership rate than the expected rate keep their membership rate (they continue to "over-perform"). The difference between the two simulations relates to the treatment of areas with membership rates below expected levels.

(1) 100% gap reduction: This case assumes that all areas with lower membership rates than expected see their membership rate bumped up to the expected level.

(2) 50% gap reduction: A more reasonable – but still ambitious – goal would be to reduce by half the gap between actual and expected membership for areas that have lower than expected membership rates. This is what is done in the second simulation.

Two simulations are carried for potential membership rates: (1) all areas with lower membership than expected see their membership rate reach the expected level; (2) only half of the gap between actual and expected membership is bridged for areas with lower than expected rates.

Table 3 reports the results of the two simulations for the counties and other entities in district 7600. Under the first scenario, the average membership rate across the areas would increase from 3.4% to 4.6% and the number of Rotarians in the district would reach 4,729. Under the second simulation the average membership rate across the areas increases from 3.4% to 4.0%, and the number of Rotarians in the district would reach 3,846. Even this second simulation may be optimistic given the decline in membership observed throughout the United States for some time. Therefore it could represent a medium term objective for the district.

In the first simulation, the number of Rotarians in the district increases to 4,729. In the second, it reaches 3,846. Other simulations can readily be performed with the data provided.

Table 3: Potential Membership Rates by County in District 7600, 2010

Area (County)	100% gap reduction		50% gap Reduction	
	Mem.	R(%)	Mem.	R(%)
Accomack	79	4.4%	53	3.0%
Brunswick	43	10.3%	43	10.3%
Chesapeake	288	1.4%	207	1.0%
Chesterfield	364	1.1%	219	0.7%
Colonial Heights	59	5.7%	41	4.0%
Fluvanna	83	4.2%	56	2.9%
Goochland	89	4.0%	69	3.1%
Greensville	33	9.1%	31	8.4%
Halifax	67	5.1%	52	3.9%
Hampton	166	2.3%	123	1.7%
Hanover	220	1.7%	138	1.1%
Henrico	337	1.2%	228	0.8%
Isle of Wight	112	3.2%	73	2.1%
James City	185	2.0%	178	2.0%
Lunenburg	31	9.7%	26	8.3%
Mecklenburg	98	8.1%	98	8.1%
New Kent	77	4.5%	53	3.1%
Newport News	280	2.7%	280	2.7%
Norfolk	202	1.9%	197	1.8%
Northampton	73	11.0%	73	11.0%
Nottoway	44	7.2%	34	5.6%
Petersburg	74	8.8%	74	8.8%
Portsmouth	134	2.9%	134	2.9%
Powhatan	96	3.7%	66	2.6%
Price Edward	43	7.7%	43	7.7%
Prince Georges	96	3.7%	81	3.1%
Richmond	550	5.1%	550	5.1%
Southampton	69	5.0%	57	4.1%
Suffolk	167	2.2%	150	2.0%
Virginia Beach	397	1.0%	313	0.8%
York	174	2.2%	107	1.3%
Mean	153	4.6%	124	4.0%
Sum	4729	-	3846	-

Source: Author

Another way to express the potential gains by county consists in computing realized membership rates by dividing the number of Rotarians in an area by the potential number of Rotarians under each of the two simulations. Districts with the lowest realized membership rates may well have the highest potential for growth. Realized membership rates can be computed under the two simulations. The realized membership rates are by definition lower when considering the 100% gap reduction than when considering the 50% reduction.

Table 4: Realized Membership Rates by County in District 7600, 2010 (%)

Area (County)	100% gap reduction	50% gap reduction
Accomack	34.3%	51.1%
Brunswick	100.0%	100.0%
Chesapeake	43.4%	60.5%
Chesterfield	20.6%	34.2%
Colonial Heights	39.2%	56.3%
Fluvanna	35.1%	52.0%
Goochland	56.3%	72.0%
Greensville	84.1%	91.3%
Halifax	53.5%	69.7%
Hampton	48.3%	65.1%
Hanover	25.9%	41.2%
Henrico	35.6%	52.5%
Isle of Wight	29.4%	45.4%
James City	91.9%	95.8%
Lunenburg	71.2%	83.2%
Mecklenburg	100.0%	100.0%
New Kent	36.2%	53.2%
Newport News	100.0%	100.0%
Norfolk	94.5%	97.2%
Northampton	100.0%	100.0%
Nottoway	54.3%	70.4%
Petersburg	100.0%	100.0%
Portsmouth	100.0%	100.0%
Powhatan	37.6%	54.6%
Price Edward	100.0%	100.0%
Prince Georges	68.5%	81.3%
Richmond	100.0%	100.0%
Southampton	65.4%	79.1%
Suffolk	79.7%	88.7%
Virginia Beach	57.7%	73.2%
York	23.0%	37.4%
Mean	64.1%	74.4%

Source: Author

The realized membership rates for areas within district 7600 are provided in table 4. For example, as a proportion of what could be achieved with a 50% gap reduction, the realized membership rates for the areas which are below their expected levels of membership range from 34.2% in Chesterfield County to 97.2% for the city of Norfolk.

In eight areas the realized membership rates are considered to be at 100% because those areas have a higher number of Rotarians than the expected level for their number of high income households.

In order to target areas for growth at the level of a district, one may combine the potential for increasing the membership rate and the size of the high income population. This is done in table 5 which provides the net gains in membership under the 50% simulation. Since estimates of the gains in membership are proportional to the gaps between actual and expected membership, it is straightforward to provide estimates for other targets. For example the gains under the 100% simulation would be twice those under the 50% simulation, and the gains under a 25% gap reduction would be half of those under the 50% gap reduction. Apart from providing expected gains in membership under the 50% gap reduction simulation, table 5 also ranks the counties in terms of the number of members gained (the ranks would be the same for any other proportional gap reduction simulation).

In district 7600, the top five contributors of new members under the gap reduction simulations would be Chesterfield County, Henrico County, Virginia Beach, Chesapeake, and Hanover. These areas are ranked higher in terms of potential membership gains because they typically combine a larger high income population with membership rates below expected rates. The eight areas with a membership rate above the expected level do not contribute to membership gains under the simulations, but this does not mean of course that in reality there is no potential for growth there as well.

In district 7600, the five areas with the largest number of new members might be Chesterfield County, Henrico County, Virginia Beach, Chesapeake, and Hanover.

Table 5: Potential Membership Gain by County in District 7600, 2010

Area (County)	Gain with 50% gap Reduction	Area rank (largest to smallest)
Chesterfield	144	1
Henrico	108	2
Virginia Beach	84	3
Chesapeake	82	4
Hanover	81	5
York	67	6
Hampton	43	7
Isle of Wight	40	8
Powhatan	30	9
Fluvanna	27	10
Accomack	26	11
New Kent	25	12
Goochland	19	13
Colonial Heights	18	14
Suffolk	17	15
Halifax	16	16
Prince Georges	15	17
Southampton	12	18
Nottoway	10	19
James City	8	20
Norfolk	6	21
Lunenburg	4	22
Greensville	3	23
Brunswick	0	-
Mecklenburg	0	-
Newport News	0	-
Northampton	0	-
Petersburg	0	-
Portsmouth	0	-
Price Edward	0	-
Richmond	0	-
Sum	884	-

Source: Author

Contribution to Zone Growth

To what extent would gains in district 7600 contribute to overall gains for zone 33 under the simulations presented in this brief? The answer to this question is provided in table 6. In the table, membership has been increased in all districts using the same simulations for counties with memberships below expectations and the results aggregated at the level of the districts (note that the district level average membership rate is not equal to the mean membership rate across counties in a district since these are not linear functions but ratios). Membership in the zone could increase to 47,436 under the first simulation, and 43,205 under the second simulation.

Table 6: Potential Membership Rates by District in Zone 33, 2010

District	50% gap reduction		100% gap reduction	
	Mem.	Rate	Mem.	Rate
7530	1236	4.8%	1325	5.1%
7550	1425	4.6%	1570	5.1%
7570	4005	4.4%	4310	4.7%
7600	3846	1.7%	4729	2.1%
7610	2736	1.2%	3296	1.4%
7620	3232	1.0%	3984	1.2%
7630	1910	1.7%	2132	1.9%
7670	2658	5.1%	2735	5.2%
7680	2982	2.0%	3023	2.0%
7690	3026	3.0%	3217	3.2%
7710	2005	1.4%	2163	1.5%
7720	1828	4.3%	1974	4.6%
7730	2135	3.5%	2237	3.7%
7750	3016	2.8%	3143	2.9%
7770	4465	3.2%	4632	3.3%
Mean	2700	3.0%	2965	3.2%
Sum	43205		47436	

Source: Author

Finally, table 7 provides the realized membership rates for each of the districts in the zone under the two simulations, as well as the gain in membership that would be obtained. Under the 50% gap reduction simulation, the additional 884 members in district 7600 would represent 20.9% of the membership growth for the zone (this proportion is by construction the same for the 100% gap reduction). With a somewhat low overall membership rate, and because of its relatively large high income population, district 7600 would contribute to growth in the zone in a proportion that would be substantially above its current membership share.

From a base of 36,539, zone 33 membership could increase to 47,436 under the first simulation, and 43,205 under the second. District 7600 would account for 20.9% of zone growth.

Table 7: Realized Membership Rates and Potential Membership Gain by District in Zone 33, 2010

District	50% gap reduction		100% gap reduction	
	Potential Gain	RMR (%)	Potential Gain	RMR (%)
7530	89	92.8%	178	86.5%
7550	146	89.8%	291	81.4%
7570	304	92.4%	609	85.9%
7600	884	77.0%	1767	62.6%
7610	559	79.6%	1119	66.1%
7620	752	76.7%	1504	62.2%
7630	222	88.4%	444	79.2%
7670	77	97.1%	154	94.4%
7680	41	98.6%	82	97.3%
7690	192	93.7%	383	88.1%
7710	158	92.1%	316	85.4%
7720	145	92.0%	291	85.3%
7730	103	95.2%	205	90.8%
7750	127	95.8%	254	91.9%
7770	167	96.3%	334	92.8%
Mean	264	90.5%	529	83.3%
Sum	4230		8461	

Source: Author

Conclusion

This brief has presented the results of a membership potential analysis for

Rotary district 7600 by geographic area. The district has one of the highest membership rates in zone 33 in part because it includes few areas with a large number of high income households, and because membership rates tend to be higher in such areas. Still, the analysis suggests that there is potential for growth in the district, with the top five areas for growth likely to be Chesterfield County, Henrico County, Virginia Beach, Chesapeake, and Hanover.

These results should be considered as indicative only given that alternative modeling approaches could have been used for assessing membership growth potential and would have yielded different results. Still, it is hoped that the analysis will be of some value for District officials developing strategies for membership growth.

Reference

Wodon, Q., 2013. *Estimating the Potential for Membership Growth in Service Clubs: Framework and Application to Rotary*, Washington, DC: The Nonprofit Research Project.

Disclaimer and Acknowledgments

The author is a member of the Rotary Club of Washington, DC. The opinions expressed in this brief are those of the author only and need not reflect those of the author's Rotary club, district, zone, or Rotary International. This idea behind this brief and the other membership potential briefs prepared for the districts in zone 33 emerged from discussions with Bob Parkinson, District Governor of Rotary district 7620 for 2012-13, and Peter Kyle, District Governor Elect. Any mistakes or omissions remain however solely the responsibility of the author.

The Nonprofit Research Project

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