

Voter List Analysis

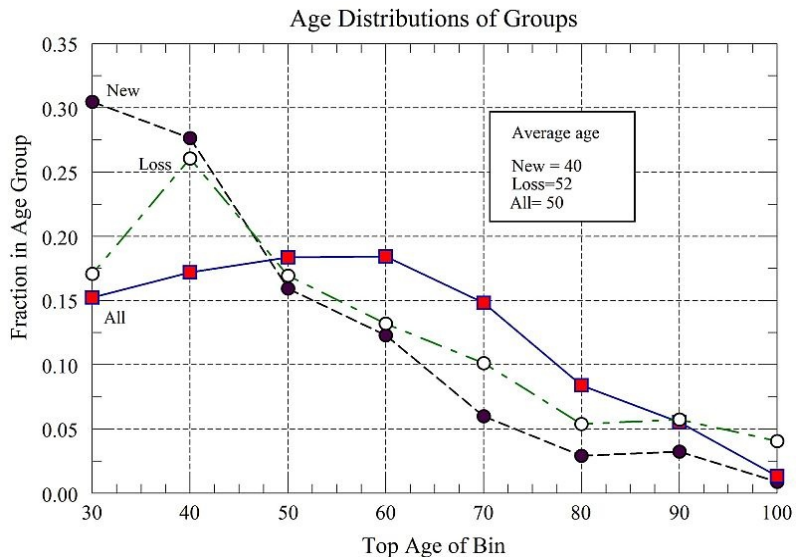
Roald Schrack 1 May 2011

The registered voter list produced at every election is a valuable resource for information about how the population has changed in the two years since the last election.. Ten percent or more new names are added to the voter list and a like number of names are taken off because the person has moved or died. The school board has a measure of this turnover rate called the mobility and is defined as the sum of gains and losses divided by the total. Rockville would thus have an adult mobility per year of about 0.10 . The elementary schools in the city have mobilities ranging from 0.11 to 0.23. The list just released by the city only covers the 18 months since the November 2009 election. Additional names will be added to the registration list until the close of registration for the November election on October 10.

The graph below shows the age distributions of three groups.

The group labeled All is the complete list of all registered voters and is shown by the solid curve with square data points. The average age of this group is 50. The total number in this group is 34911.

The group marked New consists of the names added since the last election. It is possible but not likely that a person could be living in the city for a number of years and then suddenly decides to register. This is now unlikely because the “motor-voter” law will now catch those changing the address on their driver’s license. The average age of this group is 40 and is shown on the graph by filled circles. The total number in this group is 4112



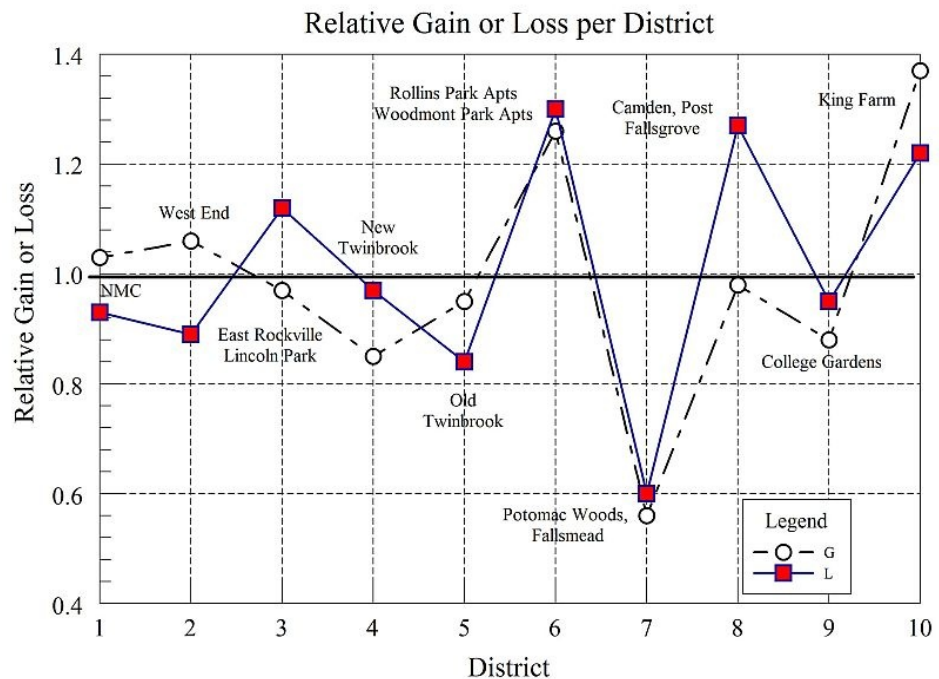
The third, the Loss group is composed of those names that were on the previous voter list and are not on the present list. The average age of this group is 52 and is shown on the graph as open circles. The total number in this group is 2974. Note that the New and Loss curves are quite similar. The New curve has a peak at the lowest age group caused by the people reaching voting age. The Loss curve is augmented for the older ages by the deaths of residents. Not all people who die are registered voters so a direct comparison to the expected death rate in the city is not possible but it is likely that the majority, if not all, of those on the Loss curve above the age of 70, are there because of their death. Rockville has a number of residents who came here to serve a tour of duty or fill a short term job and thus do not identify with the community. The average years-in-residence for the Loss group is 13 compared to 15 for the total registration list. The Loss group participation in the last election is 7% compared to 18% for the total registration list.

Adding up the new voters for the last five elections yields 32, 996 , the average population from 2000 to 2010 is 54,285. Thus, during the last ten years 61% of the population of Rockville has been replaced . This represents a 4.9% change per year. During the same ten year period , about 20,000 people left the voter list so that , overall, the voter list increased only 48%. The total

population increased by 29% from 47,388 to 61,181 going from 2000 to 2010. Since the population increased less than the voter list, the fraction of the population that were registered voters went from 52% in 2000 to 59% in 2010. If only the voting age population is considered (46,000) then 79% of the eligible voters are registered. This compares very favorably with the average of 71% of the eligible voters registered in the U.S. There seems little room for any sizable ineligible alien population in the city.

The graph below shows how the New and Loss lists distributed in the 10 voting districts in the city. The open circles

shown the number of people on the New list that moved to a district relative to the preexisting people registered for that district. If all the New people distributed themselves by district the same as the current distribution of registered voters, then all data points would have a value of 1. In like manner, the filled squares show the relative Loss caused by people leaving the registered voter list.



Values of relative gain or loss less than 10% should be seen as due to the statistical uncertainties associated with the measurement. Thus the deviations shown for districts 6,7,8, and 10 are worthy of note. Additions to the graph indicate names associated with the districts and on district 6 and 8 large apartment complexes.

District 7 is of particular interest because the deviation is negative and large. This district has the lowest number of apartments in the city, only 1/3 of 1% live in apartments. On the other hand districts 6, 8, and 10 have a substantial supply of available rental apartments.

Despite the interesting variations from one district to another, it appears that this variation was caused in large part by differences in the abundance of apartments in particular districts. The overall distribution of New registrants in apartments and single family homes is statistically consistent with the relative abundance of apartments in the city. The relative abundance of apartments in the housing stock of the city of 40% should be compared to the 39% of New registrants (1596, average age=43) who moved into apartments and 61% (2516, average age=38) who moved into single family homes during the 18 months covered by the city voting list. Real estate records indicate about 1000 resale homes in 2010 and 1 new home sale. There is no indication that the lack of new home construction in Rockville has had any effect on the influx of new residents as monitored by the registered voter lists.