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GIS Will Affect the Political Landscape for the Next Decade and Beyond

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GIS Will Affect the Political Landscape for the Next Decade and Beyond

Mark Salling, Ph.D., GISP¹

Redistricting may be the most important application of GIS technology – period!

Every day the political vitriol spews out in the news media at us. Both major parties are more aggressive and uncompromising than ever.

That climate is sure to carry-over into the redistricting of congressional and state legislative districts in the coming months, as we now have the 2010 census data which is required in drawing district boundaries.

Redistricting is on the mind of every legislator across the country and the heat that it creates will intensify over the coming months. Redistricting will have a major impact on the politics we hear and read every day, and the results will affect our

nation's political make-up and thus the decisions made by legislators and our government for the next ten years, at least until the next census and new redistricting after the 2020 census.

GIS is at the heart of the process. It provides the critical tools needed for the redistricting task, enabling the user to draw lines on a map and get the resulting population (and recent election results if added to the database) almost instantaneously. Move a boundary and see the new population data in each affected district.

And it provides measures with which to compare and evaluate district plans. Calculate compactness of districts, their contiguity, the likely minority districts, the number of communities of interest divided by district boundaries, the competitiveness of each district based on the

proportion of party votes in previous elections, and the representational fairness of the plan as measured by how the likely distribution of winners in each party compares to the overall distribution of votes for those parties.

When augmented with some of these tools GIS becomes a spatial decision support system that the decision makers can use to make district plans that meet their criteria – including making it so that one party has a significant advantage over others. And that advantage does not hold merely for the next election using the new district boundaries, but for the elections that follow, until the next redistricting takes place ten years later.

To underscore the importance of redistricting, I offer the following facts about elections in Ohio over the last decade.

¹The *URISA Journal* will publish an article by Mark Salling later this year titled "Public Participation Geographic Information Systems for Redistricting: A Case Study in Ohio".

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In Ohio, like most states, redistricting is decided in a partisan process. That is, the politicians draw the boundaries. Some have compared this to letting the fox guard the henhouse.

The most partisan decisions are possible when one party is in control – has a majority. This happened ten years ago in Ohio, when Republicans won two of the three statewide races – Governor and Secretary of State – that help to compose the Apportionment Board. That board, which also includes the state auditor and one from each party of the state legislature, draws the state legislative districts in the upper (senate) and lower (house) chambers. Republicans also took majority control of both parts of the legislature. Congressional districts in Ohio are created by legislation – the legislature with signature of the governor draw congressional boundaries. Thus Republicans controlled, without restraint, redistricting of both the state legislature and the 18 congressional seats the state held.

How effective were the district plans they drew in helping Republicans win elections? We present the numbers.

Before that though, please note that the presentation of data showing the benefits that Republicans gained as a result of their control

of redistricting is not a condemnation of that political party. The Democrats would have done the same thing if they had the opportunity.

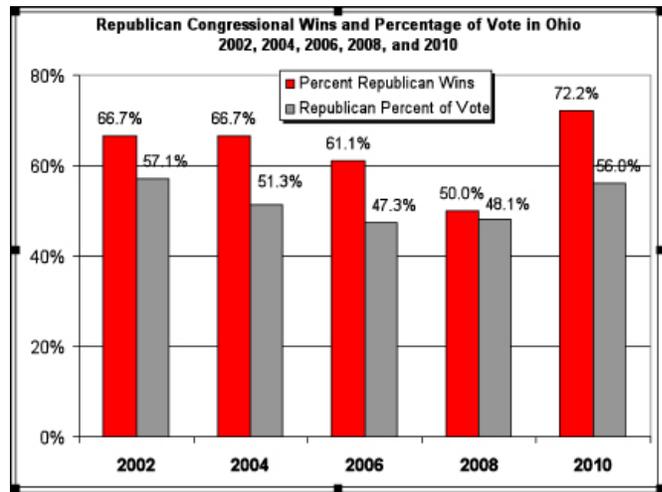
This is an argument about the importance of redistricting, and the impact that partisan control has on election outcomes – regardless of which party is in control.

Here are the results.

In state house elections in 2002, Republican candidates won 62 of the 99 seats – 63 percent. They did that with only 56 percent of the total votes statewide. If the split in the number of seats won was proportionate to the 56 percent of voters voting for Republican candidates, they would have won seven fewer seats. Their “representationally fair” total would have been 55 instead of 62 victories. It is reasonable to conclude that Republicans won seven seats just because they drew district boundaries to their advantage.

But this advantage lasted longer than the first election after the districts were re-drawn. In 2004, Republican candidates for the House won 59 of the 99 seats (60%), while getting just over half – 52 percent - of the votes statewide. That gave them eight seats more than what they would have won had the seats gone in proportion to the state’s voters’ preferences for Republican and Democratic candidates overall.

In 2006, despite



garnering less than half - fewer than 48 percent - of the votes, Republicans won 53 seats – a majority. That is six seats won due to how the districts were drawn back in 2001 by the Apportionment Board. It enabled the party in control of redistricting five years earlier to keep a majority in the House despite getting less than half of the votes. Without the disadvantage of geography, the Democrats would have taken majority of the House in 2006. They had 52 percent of the total votes.

Instead they had to wait until the Obama tidal wave in 2008, when they took control of the House 52 to 47. The Obama effect was so strong that the Democrats actually won two seats more than their share of votes.

But the impact of district boundaries favoring Republicans returned in the 2010 elections, when they returned to control in the House with 59 seats. Based on overall statewide preferences for the two parties Republicans won four seats due to how the lines were drawn 10 years

earlier.

The pattern is the same in the Ohio Senate, where half of the 33 seats are at stake every other year. There are 16 or 17 seats contested every two years.

Again, the party that drew the lines has been able to win a disproportionate number of seats in every election.

In the 2002 election, with less than half the votes, they won 9 of 17 races – a majority. In 2004, they won 13 of 16 seats – 81 percent, when their statewide votes – 63 percent - would seem to only merit winning 11. Again with fewer than half - only 42 percent! - of the votes in 2006, they managed to take 8 of the 17 seats – one more than their vote share would indicate.

It continues. In 2008, they won 58 percent of the vote while taking 81 percent of the Senate seats – 13 out of 16. And in the most recent election they won 10 of 17 (59%) contested seats with only a bare majority of votes statewide (51%).

That is the work of the Apportionment Board 10

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years earlier.

With ratification by the governor the state legislature draws the US congressional boundaries.

The one-party-controlled legislature 10 years ago had a goal in mind – give Democrats some easy (non-competitive) districts by concentrating them in a few districts so that they have less chance of winning elsewhere. Spread the Republican votes around so that there is enough to ensure a probable Republican win.

As a result Republican candidates won 12 of 18 (67%) congressional seats in both 2002 and 2004 - with 57% and 51% of the votes in those years. Even more remarkable, in 2006 they won 11 of 18 races with only 47 percent of the statewide votes.

Their boundary advantages were offset by the Obama candidacy in 2008 with only 9 of the 18 seats won; but they were able to do that with

only 46% of the vote.

The partisan redistricting effect returned in the 2010 election – Republicans won 13, or 72 percent, of the races - while garnering only 56 percent of the vote.

With this most recent election, the voters again chose Republicans to control the Apportionment Board and the state legislature - and therefore the political landscape of Ohio for the next decade or more.

The one-party-controlled legislature, which is at least partly in the majority now due to its ability to draw boundaries 10 years ago, is set to draw the congressional boundaries in its favor for the next decade. If they are good at it, and there is no Obama or similar game-changer, they could maintain their advantage well beyond.

Let's make the point – in almost every election in the last 10 years, the party that had exclusive control over redistricting ten years ago won a disproportionate

number of elections compared to their vote totals. The only exception was the Obama effect in 2008 - and that was only in the Ohio House.

Let me repeat --- this critical analysis is not aimed at those who drew the districts, nor their party. The purpose is to show what happens when the redistricting process allows one party to make the decisions. It is a huge advantage, one that few people really appreciate.

Certainly few realize how their vote for Governor, Secretary of State, and State Auditor can give such lasting advantage to one party. Few Ohioans can even name the State Auditor.

But though GIS facilitates drawing boundaries in favor of one candidate or party over others, it also now offers more potential than ever to evaluate districting plans. And because of advances in GIS and the Internet there will be more scrutiny of the redistricting process than ever before. Today's

technology makes drawing boundaries by non-experts relatively easy. And it facilitates comparisons of plans using "non-partisan" measures – such as representational fairness, compactness, and others.

Though improvements are still needed, GIS available via the Internet can be used by the average citizen with relatively little training to draw districts, evaluate results, and compare them to others. Non-partisan and fair election interest groups, especially, will be able to suggest plans that, based on measurable criteria, may be judged "better" by the public than those that the politically partisan decision makers will draw. Through this public participation application of GIS, there is a good chance that the issue of representational fairness in our representational democracy will enter the public debate.