

**To: Ann Henkener, Ohio League of Women Voters
Catherine Turcer, Ohio Citizens Action**
Cc: Leah Rush, Midwest Democracy Network
From: Jim Slagle, Manager, Ohio Campaign for Accountable Redistricting
Date: January 31, 2012
Re: 2011 Ohio Redistricting Competition – Assessment, recommendations

Purpose:

The purpose of this memo is to provide:

- A brief assessment of the 2011 Ohio Redistricting Competition, and
- Recommendations for future redistricting competitions.

Hopefully, this will be a benefit to the LWVO, OCA, MDN, and others who may be involved in future redistricting competitions.

Background:

The Ohio Campaign for Accountable Redistricting (OCAR) conducted a competition where members of the public could draw congressional and state legislative districts using the same census data and political information used by the official map drawers. OCAR was a project of the League of Women Voters of Ohio and Ohio Citizen Action, which was supported by the Midwest Democracy Network and grant funding from the Joyce Foundation. 25 organizations in Ohio signed on as co-sponsors of this competition. We also maintained a website at www.drawthelineohio.org which allowed the public to access the competition or keep up to date of current redistricting news or learn about the redistricting process.

I began working as Manager of the Ohio Campaign for Accountable Redistricting on May 7, 2011. Preparatory work on the competition began long before my involvement. This included a congressional map drawing competition conducted in conjunction with the Secretary of State's Office in 2009, which was used as a pattern for the 2011 competition. The Midwest Democracy Network helped support the work of Dr. Michael McDonald of George Mason University which led to the development of the District Builder's software which was used in the 2011 competition.

The competition kicked off on July 19, 2011, with state legislative maps due by Aug. 21, 2011 and congressional maps due by Sept. 11, 2011. A dozen state legislative maps and 53 congressional maps were submitted during the competition. Two of the state legislative maps were submitted to the Ohio Apportionment Board and eight of the congressional maps were submitted to the Legislature for consideration. The criteria used to evaluate maps in the competition, as well as the maps which were developed through the competition, provided a very useful way to demonstrate the partisan nature of the maps generated through the official process.

Relevant documents:

Attached are the following documents which should be a useful reference for conducting and promoting future competitions, as well as providing advocacy

- Information sheet to promote competition
- Competition Rules
- Tips for map drawers
- Prizes
- Scoring instructions
- Spreadsheet scoring congressional plans
- Spreadsheet scoring state legislative plans
- Analysis of state legislative districts – testimony at Sept. 26, 2011 Apport. Bd.
- News release announcing competition – July 19, 2011
- News release announcing winning state legislative maps – Aug. 24, 2011
- News release announcing submittal of congressional plan – Sept. 2, 2011
- News release announcing submittal of 2nd congressional plan – Sept. 8, 2011
- News release announcing winning congressional plans – Sept. 13, 2011
- News release scoring HB 319 congressional plan – Sept. 14, 2011
- News release announcing submittal of additional congressional plan – Sept. 16, 2011
- News release announcing competition plan introduced as legislation – Sept. 19, 2011
- News release scoring HB 369 congressional plan – Nov. 7, 2011
- Guest column promoting competition – July 26, 2011
- Guest column challenging Apport. Bd. to show their maps – Aug. 31, 2011
- Power point used during press conference for winning st. leg. Maps - Aug. 24, 2011 press
- Power point used during House Committee testimony – Sept. 13, 2011
- Power point used for group presentations (w/ multiple extra slides)
- Listing of editorials supporting redistricting reform

Assessment:

The competition was extremely successful in the following areas:

- **Media coverage:** The competition gave the media a way to cover the redistricting process in advance of official maps being generated by the Legislature or Apportionment Board. This also provided a way to educate the public about the use of nonpartisan criteria.
- **Evaluation of official maps:** The competition scoring system provided a way to objectively evaluate the official maps generated by the Legislature and Apportionment Board. We were

able to objectively demonstrate how partisan the official maps were, rather than just complaining that the official maps were too partisan.

- **Advocacy:** The vast majority of the public testimony during the Legislative and Apportionment Board process was related to the competition. The competition gave advocates a way to talk about the use of nonpartisan criteria, the consideration of maps generated by the public, and the need to make the process more transparent.
- **Evaluation of nonpartisan criteria:** The competition became a way to test how the use of nonpartisan criteria would actually work and what types of maps would result, which is a useful predecessor to any reform effort.
- **Public involvement:** The competition gave the public a way to participate in redistricting which had not been available previously.
- **Public resource:** The District Builders software was a useful resource to determine the actual boundaries of proposed districts, to determine political indexes for individual districts, and to demonstrate how the configuration of districts affects the ability of voters to have a meaningful voice in future elections.

The competition was unsuccessful in one major area – influencing the official process. We had hoped that the competition maps and public pressure would at least help at the margins, by causing the Legislature and Apportionment Board to avoid the most partisan maps and to provide some additional transparency in the process. However, this did not happen. The power of the pen was simply too great for those in power to cede any of this power voluntarily. The strategy was to create new districts which provided the greatest benefit to the political party in power and to minimize public scrutiny by releasing the maps late in the process and rushing them through to approval.

However, even this shortcoming was useful. It demonstrated that additional public scrutiny is not sufficient to influence the redistricting process. In order to obtain districts which are fair to the voters, the rules as to who draws the maps and how the maps are drawn must be changed.

Recommendations:

The following are recommendations for future redistricting competitions, although some of these may be obsolete by the time of the next redistricting cycle due to changing circumstances, including expected advances in technology.

Conduct a competition. I strongly believe that conducting a competition is an essential part of the advocacy effort. The competition assists the advocacy effort by providing a way to demonstrate that

fair maps can be drawn. Otherwise, the officials can justify their maps by claiming that the meeting legal requirements for population, contiguity, VRA, etc. required them to draw maps the way they did.

Use an objective scoring system for the competition. The Ohio competition differed from the competitions in other states (ex. – Michigan, Virginia, Arizona) as our competition used mathematical formulas to score each of the nonpartisan criteria. The other states measured some criteria objectively, but relied upon a team of evaluators to make a subjective judgment. While we had fairly complicated formulas, the advantages of an objective scoring system include:

- Results are can be calculated nearly immediately.
- Map drawers know exactly how the criteria will be evaluated.
- The official maps can be objectively compared with competition maps.

The last point is the most critical. We were able to demonstrate that the congressional map proposed and adopted by the Legislature scored markedly lower than all 53 maps submitted during our competition. This became a huge advocacy tool, which would not have had the same credibility if it were just determined by a panel of experts.

Post and score the official maps. The officials like to release maps in an unusable format – a legal description of the districts with pictures of the maps. We made repeated and public demands for block equivalency files of proposed maps long before the official maps were ever released. This allowed us to download the maps on District Builders, make them publicly available, score the maps, and determine the political indexes for each district. Because we were the only ones providing this information, the media came to us as their resource to evaluate and report on the official maps.

Competition timing. Have competition maps due before official maps are released so that they can be submitted to the Legislature or Apportionment Board and help influence the process. The timing was a challenge, as the competition could not be launched until the political and census data, which was prepared by Cleveland State, was submitted to and obtained from the Legislature. Then the computer software team (MCIC) had to load this into District Builders and make sure it worked. This took longer than expected which caused us to push back the start date for the competition. Many bugs in the system existed even after the competition started because there was not ample time for testing. We also did not know when the legislative process would take place for the congressional maps, which made our target dates difficult to assess.

- Legislative maps – Our legislative maps were due Aug. 21. We announced winners Aug. 24 which was during the week of regional hearing the Apportionment Board held (Aug. 22-26). It would have been better if maps had been due at least a week earlier.
- Congressional map – Our congressional maps were due Sept. 11. This was after regional hearings were held (July 20 – Aug. 2) and only two days before the official map was unveiled and

introduced into legislation on Sept. 13. We were caught by surprise when the Legislature started the congressional redistricting process earlier than expected. Fortunately, we had some quality maps submitted prior to the competition deadline, which we submitted to the legislature in advance of announcing our competition winners.

- Order – It was helpful that legislative and congressional maps were due at different times. This enhanced our publicity on each set of maps, allowed competition participants to work on one set of maps and then the other, and spread out my work in evaluating, scoring, and submitting maps. It also allowed the first competition to help promote the second competition. It may have been preferable to have congressional maps due first, as they are easier for the map drawers to generate due to fewer districts and less rules to follow.

Recruitment of participants. It is much easier to recruit participants for the congressional districts. They are easier to draw and there is more public interest in these districts. But, even for congressional districts, map drawing takes a lot of time. My first question was who will want to do this. The participants seem to be motivated by the problem solving aspect of the competition – for the same reason others do crossword puzzles, Rubik’s cubes, etc. Our map drawers had varying backgrounds. Some have a political interest. Some map drawers participated in our competition, as well as competitions in other states. Some had been involved as political staff during earlier redistricting processes and had a continuing interest. Our winning maps were produced by an Illinois State Legislator (and physics professor) who is interested in redistricting reform and who used our competition as a way to help test different aspects of a possible reform measure.

Starting in May I began contacting persons who may be interested in the competition. This included making some calls and sending a lot of e-mails to participants in the 2009 competition, participants in other state competitions, political science and geography professors, high school government teachers, and different political groups. I encouraged our various competition partners to forward competition information to their networks. Our website was also a useful tool to promote the completion. When we launched the competition on July 19 we had a press conference and obtained some statewide media. Some of our participants found out about the competition from each other, as well. We had hundreds of people who logged into District Builders – many just to see what it was about and many who considered drawing a map, but discovered how much time was involved.

We had limited success in recruiting high school and college students to participate. We ended up with five college and one high school student submitting congressional maps and one college student submitting a state legislative map. This likely could have been more successful, had we been contacting college professors and high school teachers in January instead of May. The Virginia competition was open only to teams of college students from various universities. But, the organizer was a college professor how reached out to other professors long before the competition took place.

Make the rules for competition maps consistent with the law. In order to fairly evaluate competition maps with official maps, it is critical that competition maps meet the legal requirements which bind the official map drawers. In the following areas, this is challenging.

1. **Population equality.** In Ohio the state legislative rules are easy as the Ohio Constitution requires that districts be within 5% of the ideal population. However, for congressional districts the law is less clear. Ohio and most states enact congressional districts which have equal population down to one person, although this is greater equality than the law requires. We required congressional districts to be within 0.5% of the average population for districts. This is too great a disparity to meet legal requirements. Although new case law will need to be evaluated in advance of the next redistricting cycle, I would recommend requiring that districts be within 0.05% of the average population (360 people).
2. **Voting Rights Act (VRA).** There is no perfect answer here. New case law, election trends, and minority population numbers will need to be evaluated before the next redistricting cycle to make the best judgment as to what the law requires. The increasing ability of African-American candidates to attract votes from white voters could result in VRA districts not being required in future Ohio elections, but that remains to be seen. See 3rd *Gingles* precondition. *Thornburg v. Gingles*, 478 U.S. 30, at 50-51 (1986).

To the extent VRA districts are required, the first step is to determine in what geographical areas the minority population could constitute a majority of the voters in a reasonably compact district. See *Bartlett v. Stickland*, 129 U.S. 1231 (2009). In Ohio, currently no minorities other than African-Americans have sufficient population to require VRA districts.

It is also necessary to determine whether VRA districts must be 50% African-American or a lesser percentage. Under current election trends, I would recommend that VRA districts only be required to have at least 40% of the voting age population be African-American. An African-American legislator currently represents 9 out of 10 Ohio legislative districts which have an African-American voting age population in excess of 40%. Thus, it is difficult to argue that districts with an African-American voting age population in excess of 40% will result in the majority white voters normally defeating the African-American candidate. See 3rd *Gingles* precondition.

3. **Ohio constitutional requirement for state legislative districts.** This is another difficult area due to the restrictions in dividing governmental units, combining whole units, and adhering to prior boundaries when possible. See Article 11, Ohio Constitution. The interpretation of some of these requirements is unclear, although pending litigation may provide some clarification. See *Wilson v. Kasich*, Ohio Supreme Court Case No. 2012-0019. Some of these issues can not be easily evaluated by the computer and would require some rigorous scrutiny. The rules we used in the 2011 competition are fairly good, but do include the following weaknesses:

- a) Township splits were not evaluated because of software limitations.
- b) Adherence to prior boundaries, where possible, was not evaluated.

Scoring: The scoring formula we used was strong, but not perfect. While the formulas were complicated, we did try to keep it as straightforward as possible. It is helpful to score sample plans in advance of the competition in order to make sure that the scoring formula does not have unintended consequences. I would recommend the following changes from the formula we used:

1. Compactness. We used the Roeck measure, which draws the smallest circle around a district and then determines the percentage of the circle which is in the district. This encourages districts which are not spread out geographically, however it does not consider irregular boundaries. I would recommend using a combination of two measures – one which measures how much a district is spread out, such as the Roeck measure, and one which measures the district perimeter.
2. Representational fairness. Our formula probably weighted this factor too heavily. I would recommend reducing this score by half. I would also recommend changing the multiplier for districts which heavily favor one party from 1.5 to 1.25.

Software: The major challenge will be the development of appropriate software. We were fortunate that District Builders was available for our use. While the software was very powerful, it still had a number of limitations, which are addressed below.

1. **Consider using the same redistricting software which will be used by the Legislature and Apportionment Board.** Maptitude which was developed by the Caliper Corporation was used by the Legislature and Apportionment Board. Our competition used District Builders which was developed by the Azavea Corp. The use of different software created the following additional challenges:
 - a. Data was not easily transferable. The block equivalency files (2 column spreadsheet listing each census block and the district to which it is assigned) needed converted. Maptitude used a “db” format, while District Builders used a “csv” format. This also added to the difficulty in submitting maps from the competition to the Legislature and Apportionment Board.
 - b. Government officials involved in the map drawing process were not familiar with District Builders software and could not easily access or work with the maps on our website.
 - c. Use of the same software would increase the credibility of the competition maps since it furthers the proposition that our competition maps were drawn using the same data as used by the official map drawers.

2. **Review functionality of District Builders or any other software which is used well in advance of the competition (to the extent possible during the year before redistricting takes place).** It is important to fully understand the needs of the map drawers and the competition, as sometimes the software developers did not fully appreciate what functions were important. While District Builders was a very powerful tool, the following were among the limitations in the functionality:
 - a. Speed. The biggest complaint was that District Builders was too slow. Each time an edit was made to a map (which must be done hundreds or thousands of times during the map drawing process), there was a delay of 30 seconds (when working optimally) to minutes (or even freezing up completely, when working less optimally). This was very frustrating for users and greatly increased the time necessary to draw maps.
 - b. Mapping units. One strength of District Builders was the ability to easily move whole counties, townships, or municipalities in a single edit. However, it could not move wards. As a result in the larger cities, it was necessary to edit by moving groups of census blocks (up to 200 at a time). This became a very time consuming process.
 - c. Data. District Builders did allow one to click on a political subdivision or census block and obtain relevant data (population, minority percentages, political index). However, this was cumbersome, as the data was provided one unit at a time, after a several second delay. In contrast, Dave's Redistricting (a publicly available redistricting software) provided this info just by hovering a geographical area.
 - d. District colors. It is difficult with District Builders to determine which district a portion of the map is in, particularly as one is zoomed in. By contrast, Dave's Redistricting allows the user to assign different colors to districts, which makes it much less confusing during the map drawing process.
 - e. Color maps. District Builders did not provide a means to produce color maps of districts which could be used for presentation purposes. This is a necessary function so that maps can be produced in a format which is useful in presentations to the media or the public, as well as in submitting maps to the Legislature or Apportionment Board.
 - f. Bugs in general. Due to delays by the software team in incorporating the official Cleveland State data into district builders, there was not adequate time for testing. Thus, during the first several weeks of the competition, bugs were continually being worked out. To the extent possible these should be worked out in advance. However, part of this is unavoidable as we are limited by when the official data becomes available and need to have the competition completed before the official maps are adopted.
3. **The software should be configured so that districts can be organized by either census block or precinct.** Historically, the Ohio Legislature has configured congressional districts by census

block, while the Ohio Apportionment Board has configured state legislative districts by precinct. Approximately 6000 of Ohio's 300,000+ census blocks split precincts. We were only equipped to map districts by census blocks. Thus, our state legislative maps did not perfectly correspond to the official maps for the 6000 census blocks which split precincts. The final revision of the data Cleveland State University provided to the Legislative Service Commission for use in redistricting contained split census blocks to address this issue. However, due to time constraints we were not able to incorporate this data for use in District Builders.

Future competitions. Depending on the success of reform efforts, a future redistricting competition could take place as soon as 2013 or as late as 2021. I would be happy to talk with anyone considering a future competition to provide further insight.

My current contact information is:

Jim Slagle
528 King Ave.
Marion, Ohio 43302
740-383-6265 – H
740-396-0195 – C
slaglej@frontier.com