Ohio Redistricting Competition
Rules and Scoring
2011

General Information

Who: Competition is open to all who are interested in democracy.

When: State legislative plans are to be submitted on or before 5:00 PM on <u>August 21, 2011</u>. Congressional plans are to be submitted on or before 5:00 PM on <u>Sept. 11, 2011</u>.

How: All information and software necessary to prepare redistricting maps are available on line at http://drawthelineohio.org.

Individuals may participate in the state legislative competition (which will involve preparing separate maps for the state senate and house districts) or the congressional competition, or both.

Background and Purpose of Competition

The Ohio Redistricting Competition is a project of the League of Women Voters of Ohio Education Fund and Ohio Citizen Action, funded by a grant from the Joyce Foundation. This effort is supported by the Midwest Democracy Network, and is patterned after a 2009 redistricting competition in Ohio and similar competitions this year in Virginia, Arizona, and Michigan.

The goals of the Competition are the following:

- To demonstrate that an open process based on objective criteria can produce fair legislative districts in Ohio.

- To encourage citizen involvement in the redistricting process and help educate Ohioans about this process.

- To identify fair and accountable redistricting maps for submission to the Ohio Legislature and the Ohio Apportionment Board for their consideration.

- To serve as a basis for future reform measures designed to promote a non-partisan, open, and accountable redistricting process.

A Brief History of Redistricting in Ohio

Periodic redistricting is necessary to allow districts to be redrawn to account for shifts in population, and must be done in 2011 using the results of the 2010 census. However, in practice the process has been used to gain political influence for the party in power. "Gerrymandering" became part of the American political lexicon in 1812, when members of the Anti-Federalist Party, led by Governor Elbridge Gerry, altered legislative district boundaries in Massachusetts in an attempt to win more seats.[1] Since then, political manipulation of legislative districts has become increasingly detailed and effective through the use of computers and other mapping tools. The Ohio Redistricting Competition provides a new tool in an ongoing effort to minimize undue political influence in the redistricting process.

From 1851 to 1967, Ohio's General Assembly districts were designated by county, not by population. In 1963, the United States Supreme Court ruled that this type of "county unit" system violated the United States Constitution.[2] The current process for redistricting of legislative districts was enacted by Ohio voters on November 7, 1967. Under this process, a five-member Apportionment Board composed of the Governor, Secretary of State, Auditor of State, and one appointee of the Speaker of the Ohio House of Representatives and legislative leader in the Senate of the Speaker's party, and one appointee of the legislative leaders of the minority party in the Ohio House of Representatives and Senate, is charged with redrawing legislative districts following each decennial census. The Apportionment Board is required to meet between August 1, 2011 and October 1, 2011 to establish legislative districts for the Ohio House and Senate.

Redistricting for Ohio's congressional districts is controlled by the General Assembly. During the late 19th century, Ohio's congressional districts were redrawn many times as partisan control of the General Assembly frequently shifted between the major parties. The state's congressional districts were also configured to include an "at large" district during parts of the early and mid-20th century. In recent decades, the General Assembly has only redrawn Ohio's congressional districts following each decennial census. As a result of the 2010 census, the Legislature is required to establish new congressional districts in Ohio which will reduce the number of districts from 18 to 16. The new districts must be in place for the 2012 elections.

Since the mid-1970s, a number of individuals and groups in Ohio have been concerned about excessive manipulation of legislative and congressional district boundaries to achieve political goals. Some of these individuals were state legislators, while others were affiliated with organizations such as the League of Women Voters of Ohio and Common Cause Ohio. Former State Representative Joan Lawrence and State

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[1] Black's Law Dictionary, 708-09 (8th ed. 2004).
[2] *Gray v. Sanders*, 372 U.S. 68 (1963).

Representative Vernon Sykes were leaders in this effort during the 1980s, sponsoring several proposals to reform the redistricting process.   In 2009 the Ohio Secretary of State collaborated with the League of Women Voters and others to conduct a redistricting competition which is a forerunner to this competition. See http://www.sos.state.oh.us/SOS/redistricting.aspx for more information about the 2009 competition.

Procedure

In crafting proposed redistricting criteria, competition partners paid special attention to the need for balance between traditional redistricting principles long recognized by courts and modern redistricting principles that can help achieve fairer districts in Ohio. In the competition, these principles will be applied in a quantifiable manner to each proposed congressional and state legislative plan.

For purposes of this competition, participants will be placed in the role of a redistricting authority in the year 2011 and will use the same 2010 Census data which will be used by the Legislature and the Apportionment Board. Participants may submit plans for both congressional and state legislative districts, or for one or the other.

This competition will test the use of four quantifiable factors in the redistricting process:

> **(1) Preserving County Boundaries**. This measure seeks to keep people who live in the same county in the same district by reducing the number of counties which are unnecessarily split into separate districts. This helps keep communities of interest together and makes it easier for citizens to understand in which district they live.

> **(2) Compactness.** Sometimes referred to as the "look" of a district, compactness promotes creating districts located within a closer geographical area and discourages bizarrely-shaped legislative districts. This measure helps promote communication within a district.

> **(3) Competitiveness.** Our democracy thrives when the marketplace of ideas is truly competitive, especially on Election Day. This measure seeks to increase the number of legislative districts that could be won by either party, providing Ohioans with a stronger voice in choosing their representatives and making representatives more accountable to the public

> **(4) Representational Fairness.** A final redistricting plan should not unfairly favor one political party over another. This measure seeks to promote a fair political balance by comparing the partisan balance of individual districts to the entire State, so that neither political party ends up with a disproportionate number of

favorable districts.

All of these measures are designed to provide for greater accountability for our elected representatives by keeping communities of interest together and by encouraging more compact, competitive, and fair districts.

Mandatory Criteria

Participants may submit plans for just the Congressional Districts or for the State Legislative Districts (House and Senate) or for all districts. To the extent practically possible, all plans must comply with applicable federal and state legal requirements so that the plans could be lawfully adopted. The following criteria are designed to assist participants in preparing legally sufficient plans.

Number of Districts:

Congress: 16 (reduced from 18 current districts)
State Senate: 33 (each Senate District must consist of three House Districts)
State House: 99

Census Blocks:

The new districts must account for shifts in the state's population as measured by the 2010 census. The districts must cover the entire area of the state. No portion of the state may be omitted. Districts may be created by combining census blocks or larger geographical areas.

Contiguity:

All districts within a plan must be contiguous, meaning that every part of a district must be reachable from every other part without crossing the district's borders. "Point contiguity" or "touch-point contiguity" where two sections of a district are connected at a single point is not permitted. Water contiguity is permitted for districts containing Lake Erie islands.

Islands and errors in geographic data can make it difficult for computer software to always detect contiguity correctly. If you have created a plan that contains districts that you believe are contiguous, but that the software reports as not-contiguous, please send a separate e-mail to jslagle@ohiocitizen.org explaining the situation.

Equal population:

Congress: All districts within a plan must have nearly equal population. Although the

law does not require perfectly equal population, the courts have said that congressional districts must be as close to equal as is "practicable." For purposes of this competition, each Congressional District must be within one half of one percent (0.50%) of the ideal population for a district.

Ohio's population according to the 2010 Census is 11,536,504. This means that the ideal population for an Ohio congressional district is 721,032. Each district will be required to have a population between 717,427 and 724,637 in order to be within 0.50% of the ideal population.

State Legislative Districts: For State Legislative Districts, the courts have only required that the districts have a substantial equality of population. The Ohio Constitution requires that each State Legislative District be within 5% of the average population.[3] The ideal population for state senate district is 349,591. Each state senate district will be required to have a population between 332,111 and 367,071 in order to be within 5% of the ideal population. The ideal population for a State House District is 116,530. Except as noted below, each state house district will be required to have a population between 110,704 and 122,357.

House Districts in Wayne, Allen, Columbiana, Richland, and Wood Counties:

The Ohio Constitution requires that in those instances where the population of a county is within 5% of the average population for a house district, that the whole county shall be a single house district. The Ohio Constitution further provides that when the population of a county is within 10% of the average population for a house district that reasonable efforts shall be made to create a house district consisting of the whole county.[4]

Wayne County's population (114,520) is within 5% of the ideal population for a house district. Therefore, Wayne County shall consist of a single house district.

The population of Allen County (106,331), Columbiana County (107,841), Richland County (124,475), and Wood County (125,488) is each within 10% of the ideal population for a house district, but is not within 5% of the population of an ideal house district. Therefore, for purpose of this competition, each of these four counties should consist of a single house district, if reasonably possible.

State House Boundary Lines:

The Ohio Constitution contains additional requirements for drawing districts for the

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[3] Art. XI, Sect. 3 & 4, Ohio Constitution.
[4] Art. XI, Sect. 3 & 9, Ohio Constitution.

House of Representatives which are outlined below.[5] Note: Participants will need to use tools available on District Builders to determine compliance with these requirements, as the software does not provide an automatic alert where there is non-compliance.

Where possible, district lines shall be drawn to delineate an area containing one or more whole counties. Where districts must be formed by combining the areas of governmental units, preference must be given to combining counties, townships, municipalities, and city wards in that order. Where it is necessary to divide a governmental unit between two districts in order to achieve the proper population, only one such governmental unit may be divided, with preference given in selecting the unit to be divided to a township, a city ward, a city, and a village in that order.[6]

District lines should be drawn as follows:

1. Assign one district to Wayne County.
2. Create single county districts for each of Allen, Columbiana, Richland, and Wood Counties, if reasonably possible.
3. Starting with the most populous county and proceeding in succession from the largest to the smallest, assign the appropriate number of individual districts to each county that has sufficient population to support more than one district. Any remaining territory within such county containing sufficient population to support a portion of a district shall be combined with adjoining territory outside of the county.
4. The remaining territory of the state shall be combined into house districts.
5. To the extent it is not necessary to change district boundaries in a district in order to achieve a population between 110,704 and 122,357 for that district or other districts or to comply with other legal requirements, current district boundaries should be used.

Tip: In order to comply with the constitutional requirements, it is helpful in the counties which have sufficient population to support multiple house districts, to identify the units of government within the county (starting with townships) which have sufficient population to support all or part of a house district without being divided and governmental units which may be combined to form individual districts.

Participants should run a splits report on District Builders to check districts for county, township, and municipal splits in order to determine whether a plan is in compliance

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[5] See Art. XI, Sect. 7-10, Ohio Constitution.
[6] See Art. XI., Sect. 7(C). The District Builders software does not easily determine whether a city ward has been split. For purpose of this competition, no plan will be disqualified for improperly splitting a city ward. However, to the extent possible, participants are encouraged to fully comply with the constitutional requirements so that plans created could be lawfully adopted without significant modification.

with constitutional requirements.

Note: Participants may conclude that it is not possible to fully comply with the Ohio Constitutional requirements in a particular area of the state (specifically Ashtabula, Lake, Geauga, and Trumbull Counties). If so, participants should come as close to full compliance as possible, and note the inability to fully comply in a separate e-mail to jslagle@ohiocitizen.org.

State Senate Districts:

The Ohio Constitution contains additional requirements for drawing districts for the State Senate which are outlined below.[7]

Each Senate district must be composed of three contiguous House districts.

Each county having a population of 349,591 or more shall have one or more Senate Districts which are located solely within the county, which shall be formed by combining three contiguous House districts located within the county. Thus, the following number of whole Senate Districts shall be located within the following counties: Cuyahoga County (3 districts – population 1,280,122); Franklin County (3 districts – population 1,163,414); Hamilton County (2 districts – population 802,374); Montgomery County (1 district – population 535,153); Lucas County (1 district – population 441,815); Stark County (1 district – population 375,586); Butler County (1 district – population 368,130). Any remaining territory in each of the above counties must be part of only one Senate district which will include territory within and outside of the county.

All counties in Ohio which have a population between 116,530 and 349,591 must be part of only one Senate district.

Tip: Participants may find it easier to draw state senate districts first, and then divide each senate district into three house districts, followed by any other necessary adjustments.

Federal Voting Rights Act:

All plans must comply with Section 2 of the Federal Voting Rights Act (VRA). In those areas where there is a sufficiently large and geographically compact minority population to constitute the majority of the voting age population in a district, the VRA generally prohibits diluting the minority voting strength by submerging minority voters into the white majority in order to deny them an opportunity to elect a candidate of their choice.[8]

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[7] Art. XI, Sect. 11, Ohio Constitution
[8] See generally *Thornburg v. Gingles,* 478 U.S. 30 (1986) and *Bartlett v. Strickland*, 129 S.Ct. 1231 (2009).

Although various provisions of the VRA protect numerous racial, ethnic, and language minority groups, for purposes of this competition participants will be supplied with Census Bureau data related to the African-American population only, because no other minority group has a sufficiently large and geographically compact population to constitute the majority in a single-member district in Ohio.

For purposes of this competition, compliance with the VRA will be assumed[9] if competitors draw at least the following majority-minority districts:[10]

Congress: For this competition, a valid plan must contain one majority-minority district in the Cleveland area.[11]

State Senate: For this competition, a valid plan must contain two majority-minority districts in Cuyahoga County.

State House: For this competition, a valid plan must contain at least five majority-minority districts, which shall include four majority-minority districts in Cuyahoga County and one majority-minority district in Franklin County.

Scoring Criteria

All plans which meet the threshold criteria will be scored based on objective criteria described below in each of the following categories:

1. Preserving County Boundaries
2. Compactness

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[9] The courts could ultimately determine that these majority-minority districts are not required by the VRA, or that additional majority-minority districts are required, as the compliance with the VRA requires a legal and factual analysis of the districts. In those areas where majority-minority districts are possible, participants are cautioned against diluting minority voting strength to an extent that there is not an opportunity to elect a candidate of the minority's choice,

[10] A majority-minority district is a district in which a majority of the voting age population is a member of the protected minority, in this case, African-American. For purposes of the VRA, African-Americans include multi-racial individuals who are partially African-American. In addition to creating the required majority-minority districts, as a matter of policy, participants may choose to create opportunity districts - districts in which a significant percentage (generally 40%) of the voting age population is a member of a protected minority, and highlight that as an additional policy consideration in support of a proposed plan (see p. 16).

[11] This may include a district drawn solely within Cuyahoga County or may include area within an adjacent county, at the discretion of the participant. A plan in which African-Americans make up at least 48% of the voting age population will be accepted for this district since the voting history in the Cleveland area demonstrates that African-Americans would have a full opportunity to elect a representative of their choice in such a district.

3. Competitiveness
4. Representational Fairness

(1) Preserving County Boundaries.

Note: For state legislative districts, the Ohio Constitution places significant limitations on dividing counties, townships, municipalities, and city wards. These mandatory requirements are described on page 5-7 and must be adhered to in this competition in order to submit a valid plan.

For purposes of the competition, the extent to which plans preserve county and municipal boundaries will be measured to demonstrate how a redistricting plan can be objectively evaluated for preservation of political subdivisions and communities of interest.

Each plan will be evaluated for the number of "county fragments" created by the plan. A "county fragment" exists where a county is divided between two or more districts. The number of county fragments corresponds to the number of districts in that county – i.e., if a county is divided between two districts, that would be scored as two county fragments, but if a county is divided among three districts, that would constitute three county fragments.

There are some instances where a municipal boundary crosses a county border, such as the City of Columbus, which lies primarily in Franklin County but also encompasses small portions of Delaware and Fairfield counties. If a district crosses a county line in order to avoid dividing a municipality between separate districts this will not be considered as a "county fragment."

Note: District Builders software will not recognize that a county fragment was created in order to avoid dividing a municipality. If you create a county fragment solely to avoid dividing a municipality, please note this in a separate e-mail to jslagle@ohiocitizen.org when you submit your plan, and your score will be adjusted manually.

Additionally, districts that are contained wholly within the boundaries of one county but do not cover the entire county will not be considered as "county fragments." For example, Hamilton County has a population of 802,374 which is more than may be included in one congressional district. If a competitor chooses to create one district located entirely within Hamilton County and then allocate the remaining population to one or more other districts, only the additional districts that reach into Hamilton County will be counted as county fragments. However, if a competitor breaks Hamilton County up into several congressional districts and groups it with other counties (or portions of counties) without creating a district located entirely within the county, each portion would be counted as a county fragment. Note: the mandatory

requirements for state legislative districts would prevent a plan from having more than one State House or Senate district which combined a portion of Hamilton County with territory outside of the county.

Scoring: Each plan will start with 50 points. For each <u>congressional district plan</u>, 1 point will be deducted for each county fragment created. Example: the current congressional districts create 44 county fragments. Thus, the score for this category would be 6 (50 – 44 = 6).

For each <u>state legislative district plan</u>, ½ point will be deducted for each county fragment in a senate district and ¼ point will be deducted for each county fragment in a house district. Example: if a state legislative plan created 18 county fragments for senate districts and 78 fragments for house districts, the score would be 21.5 [50 – (18/2) – (78/4) = 50 – 9 – 19.5 = 21.5]

Demo: The current congressional districts scores as follows on preserving county boundaries.

District	Number of County Fragments (partial counties included in district)
1	2 (Butler & Hamilton)
2	3 (Hamilton, Scioto & Warren)
3	2 (Montgomery & Warren)
4	1 (Wyandot)
5	4 (Ashland, Lucas, Mercer & Wyandot)
6	4 (Athens, Belmont, Mahoning & Scioto)
7	2 (Franklin & Ross)
8	3 (Butler, Mercer & Montgomery)
9	2 (Lorain & Lucas)
10	0 (Cuyahoga)
11	0 (Cuyahoga)
12	2 (Franklin & Licking)
13	4 (Cuyahoga, Lorain, Medina & Summit)
14	4 (Cuyahoga, Portage, Summit & Trumbull)
15	1 (Franklin)
16	2 (Ashland & Medina)
17	4 (Mahoning, Portage, Summit & Trumbull)
18	4 (Athens, Belmont, Licking & Ross)
Total	**44**

Thus, the current districts contain a total of 44 county fragments. Note that Districts 10 and 11 are actually composed of fragments of Cuyahoga County, but because they are completely contained within the county, they are not considered

"county fragments" for purposes of the competition scoring.

 (2) Compactness.

For purposes of the competition, the "compactness" of a district will be determined by using the Roeck Measure.[12] This measure draws the smallest possible circle around a district. The area of the district is compared with the area of the circle which surrounds the district to determine the percentage of the area of the circle which is in the district. Example: If the area of a district is 1500 square miles and the area of the smallest circle which can be drawn around the district is 3000 square miles, the percentage of area in the circle which is in the district is 50% (1500/3000 = .500).

This measure encourages compact districts which do not stretch out over larger geographical distances than necessary.   Since a circle is the most compact geometrical shape possible, building districts which are closer to the shape of a circle necessarily reduces the distance from one end of a district to the other and score higher under this measure.

Scoring: The percentage of the area of the smallest circle which can be drawn around a district which is part of the district will be determined for each district in a plan. The score for each plan will be the average percentage for each district rounded to the nearest 1/10th of one percent. For state legislative district plans, the compactness percentage for the house plan and the senate plan will be added together and divided by two.

 (3) Competitiveness.

For purposes of the competition, the political competitiveness of the proposed new districts will be judged using the results of the 2008 and 2010 general elections using the following statewide races (2008 - President; 2010 - Governor, Auditor, and Secretary of State).[13]

For each proposed district in a plan, the "partisan differential" for each district will be determined. A district's "partisan differential" will be calculated by subtracting the Democratic "partisan index" from the Republican "partisan index."[14]

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[12] See p. 14 The Midwest Mapping Project authored by Michael P. McDonald of George Mason University, available at: http://elections.gmu.edu/Midwest_Mapping_Project.pdf
[13] This includes all of the Apportionment Board races and the Presidential race. All four of these races were strongly contested by each major political party and on average are generally consistent with typical contested Ohio elections.
[14] Following the standard practice among academics who study elections, votes for minor party candidates are excluded in determining the partisan differential

Once the partisan differential for each district is calculated, plans will be assigned points based on the following schedule.

• 3 points for each "**heavily competitive district**" with partisan differential of less than or equal to 5% (i.e., districts ranging from 50%-50% to 52.5%-47.5%)

•2 points for each "**generally competitive district**" with partisan differential of more than 5% but less than or equal to 10% (i.e., districts ranging from 52.6%-47.4% to 55.0%-45.0%)

• 1 points for each "**generally noncompetitive district**" with partisan differential of more than 10% but less than or equal to 15% (i.e., districts ranging from 55.1%-44.9% to 57.5%-42.5%)

• 0 point for each "**heavily noncompetitive district**" with partisan differential of more than 15% (i.e., districts split 57.6%-42.4% or greater).

Scoring:

Congressional plans – each plan will receive the number of points calculated above. Maximum possible score if each of the 16 districts were heavily competitive is 48 (16 districts X 3 points = 48).

State legislative plans – The number of points for the Senate Districts and House Districts will be determined separately. The number of points for the House districts will be divided by three (since there are three times as many House districts as Senate districts). The number of points for each Senate district will be added to 1/3 of the number of points for each House district. The total will be divided by four to arrive at the final score. Maximum possible score if all 33 Senate districts and all 99 House districts were highly competitive is 49.5 {[(33 senate districts x 3 points = 99) + (99 house districts x 3 points = 297) ÷ 3 = 99] [(99 + 99 = 198 ÷ 4 = 49.5)]}.

Demo: The current congressional districts contain the following competitiveness data. Note: for purpose of this demo, the partisan index is determined using the 2000 Presidential election only. For this competition, the partisan index will be calculated using 2008 Presidential election and 2010 Governor, Auditor, and Secretary of State elections.

Dist.	Republican Presidential Votes	Republican Partisan Index	Democratic Presidential Votes	Democratic Partisan Index	Partisan Differential
1	136,804	53.0%	121,085	47.0%	**6.1%**
2	175,409	64.6%	96,146	35.4%	**29.2%**
3	130,477	53.8%	112,088	46.2%	**7.6%**
4	155,065	64.1%	86,844	35.9%	**28.2%**
5	158,166	61.3%	99,895	38.7%	**22.6%**
6	129,692	50.9%	125,300	49.1%	**1.7%**
7	137,648	57.2%	102,861	42.8%	**14.5%**
8	154,604	62.8%	91,468	37.2%	**25.7%**
9	98,538	42.6%	132,781	57.4%	**14.8%**
10	96,588	44.1%	122,186	55.9%	**11.7%**
11	38,375	18.2%	172,137	81.8%	**63.5%**
12	129,826	53.0%	115,067	47.0%	**6.0%**
13	110,502	45.4%	133,148	54.6%	**9.3%**
14	141,775	54.1%	120,266	45.9%	**8.2%**
15	117,130	54.4%	98,197	45.6%	**8.8%**
16	141,257	55.7%	112,216	44.3%	**11.5%**
17	88,393	36.9%	150,919	63.1%	**26.1%**
18	132,703	57.4%	98,383	42.6%	**14.9%**
Statewide	**2,272,952**	**52.1%**	**2,090,984**	**47.9%**	**4.2%**

Competitiveness Category	Number of Districts	Points
Heavily Competitive Districts (5% or less)	1	3
Generally Competitive Districts (5 – 10%)	6	12
Generally Noncompetitive Districts (10 – 15%)	5	5
Heavily Noncompetitive Districts (more than 15%)	6	0
Competitiveness Score		**20**

(4) Representational Fairness.

For purposes of the competition, representational fairness will be determined by calculating the "electoral disproportionality" of each plan. Electoral disproportionality is minimized (and representational fairness is improved) when the percentage of districts a party is likely to win closely mirrors that party's percentage of the statewide vote.

Using the 2008 Presidential election and 2010 Governor, Auditor, and Secretary of State

elections the political index for Ohio has been calculated as 51.4% Republican. Thus, an ideal district map would result in political indexes favoring the Republican party in 51.4% of the districts.   Thus, ideally 8.2 Congressional districts would favor Republicans, 17.0 Senate districts would favor Republicans, and 50.9 House districts would favor Republicans and 7.8 Congressional districts, 16.0 Senate districts, and 48.1 House districts would favor Democrats. Since districts which strongly favor one party or the other are more likely to elect a candidate representing that party than a district which only slightly favors one party, to determine the electoral disproportionality more weight will be given to districts which strongly favor one party.

In the competition, each newly-created district will be rated as follows:

>Strong Republican: Republican index in excess of 55%
>Lean Republican: Republican index between 51 – 55%
>Even District: Republican or Democratic index less than 51%
>Lean Democrat: Democratic index between 51 - 55%
>Strong Democrat: Democratic index in excess of 55%

To determine the overall partisan balance for a plan, the following calculation will be used:

1. Multiply the number of Strong Republican Districts by 1.5. Add this figure to the number of Lean Republican Districts and the number of Even Districts.
2. Multiply the number of districts which are Strong Republican or Democratic by 1.5. Add this to the number of districts which Lean Republican or Democratic plus 2 times the number of even districts.
3. Divide the number of arrived at in step one with the number arrived at in step 2. Convert to a percentage (rounded to $1/10^{th}$ of one percent) to arrive at the Republican balance for the plan.

Example: If a congressional plan created 4 Strong Republican Districts, 4 Lean Republican Districts, 2 Even Districts, 3 Lean Democratic Districts, and 3 Strong Democratic Districts, the partisan balance for the plan would be 55.8% Republican. [(4 SR x 1.5 = 6) + 4 LR + 2 ED = 12] divided by [(7 SR/SD x 1.5 = 10.5) + 7 LR/LD + (2 ED x 2 = 4) = 21.5] = 12/21.518/32 = .558 = 55.8%

The electoral disproportionality of the plan is the difference between the partisan balance for the plan and the political index for the state (51.4% Republican). In the example above the electoral disproportionality is 4.4 (55.8 – 51.4 = 4.4).

Scoring:

Congressional plans: Subtract the electoral disproportionality from 25 and multiply by 4 to arrive at a score. Maximum possible score is 100 for a plan with an electoral

disproportionality of zero.   In the example above, with an electoral disproportionality of 4.4, the score would be 88.8. [(25 – 4.4 = 20.6) x 4 = 82.4]

State Legislative plans: Determine the electoral disproportionality of the House and Senate plans separately. Subtract the electoral disproportionality for the Senate plan from 25 and multiply by 2. Subtract the electoral disproporationality for the House plan from 25 and multiply by 2. Add the two numbers together. Maximum possible score is 100 for a plan with an electoral disproportionality of zero for each.

Total Score:

Congressional and State Legislative Plans will be scored separately, as participants may compete in either or both categories. Total scores will be obtained by adding the scores for each of the categories identified above. Instructions to access a spreadsheet which will help calculate your score are posted on our website competition page.

Submitting a plan:

All competitors must submit their maps through District Builders, which may be accessed through www.drawthelineohio.org. Plan submission is accomplished by Sharing the Plan. Click share at the top of screen. Name your plan on the next screen and click save and share.

Participants should also send an e-mail to jslagle@ohiocitizen.org when submitting a plan. This will allow us to confirm that your plan was submitted and communicate with you regarding scoring and other issues. In your e-mail, please also identify any of the following issues, if applicable:

a.   Inability to comply with Ohio Constitution. Please describe location and reason. See p. 7.
b. Division of a county for the purpose of keeping a municipality intact or incorrectly detected by the software. Please identify district, county, and municipality. See p. 9.
c. Districts incorrectly detected as non-contiguous by the software.
d. Policy considerations. See p. 16.
e. Eligibility for scholarships as a high school or college student. Please provide name and address of school, years of attendance, and expected graduation date.

Policy considerations

One of the purposes of the redistricting competition is to help determine some of the best practices for a fair, open, and accountable redistricting process which could serve as the basis for future reform. For that reason, we encourage participants to provide a brief narrative explanation on any benefits of a proposed plan which are not specifically reflected in the objective scoring criteria or which the participant believes that the objective scoring distorts, or any other policy arguments which participants believe should be considered.

This could include factors about a plan which are not reflected in the scoring, such as maintaining certain communities of interest in the same district (such as media markets, public school districts, university communities, or other areas which face common interests), better ensuring a fair and equal opportunity for minorities to elect representatives of their choice by creating additional opportunity districts,[15] providing fewer changes in boundaries from existing districts, or how the plan effects existing incumbent legislators.

Policy arguments could also propose different scoring criteria, different formulas, or different weighting of the criteria, as well as an explanation of why the scoring formula used in the competition did not adequately rate an individual map.

No participant is required to submit a narrative explanation of his or her plan or any policy arguments to improve the system. However, this information is useful as we evaluate future redistricting reform proposals. Note: a $500 cash prize will be awarded for the most thoughtful policy suggestion. See Prize section.

Prizes:

$5,000 in cash prizes will be divided among the authors of the winning plans. Prizes will be awarded as follows:

State Legislative plans:

- $750 - highest scoring state legislative plan
- $500 - second highest scoring state legislative plan
- $250 - third highest scoring state legislative plan
- $250 - earliest submitted state legislative plan which ultimately scores in the top 50%*

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[15] Opportunity districts contain a significant minority population, generally 40% or more, so that there is an opportunity for voters to elect a minority candidate. See page 8.

Congressional plans:

- $750 highest scoring congressional plan
- $500 second highest scoring congressional plan
- $250 third highest scoring congressional plan
- $250 - earliest submitted congressional plan which ultimately scores in the top 50%*

Participants may submit multiple state legislative and/or congressional plans. However, only a participant's highest scoring state legislative plan and highest scoring congressional plan will be eligible for first, second, or third place consideration.

*The prizes for the earliest submitted plans which ultimately score in the top 25% is designed to encourage early submission of strong plans. Once plans are submitted, they may be reviewed, used, and improved upon by other participants in developing their own plans. Because our goal is to encourage the fairest legislative and congressional districts, improving upon plans created by other participants is permitted. However, this prize provides some recognition for strong plans which are submitted early in the process.

Additional student scholarships:

- $250 cash scholarship - highest scoring state legislative plan submitted by a high school student or 2011 high school graduate
- $250 cash scholarship - highest scoring state legislative plan submitted by a university student (must be registered for classes at an accredited university during at least academic quarter or semester in 2011)
- $250 cash scholarship for the highest scoring congressional plan submitted by a high school student or 2011 high school graduate
- $250 cash scholarship - highest scoring state legislative plan submitted by a university student (must be registered for classes at an accredited university during at least academic quarter or semester in 2011)

Participants who qualify as high school or university students should identify themselves as such by sending an e-mail to jslagle@ohiocitizen.org when submitting their plans to be considered for these prizes. Student plans will also be eligible for the other prizes identified herein.

All students (high school or university) who submit a valid plan will be recognized with a certificate for their participation in this competition.

<u>Policy Suggestions</u>

- $500 – most thoughtful redistricting policy considerations (to be awarded to one entry, or to be divided among several entries, at the discretion of the sponsors).

 Participants may participate in teams, in which case any prize will be divided among team members.

The sponsors of the competition, in their sole discretion, will determine which are the winning plans, the number of winning plans, and how prizes will be distributed.

Questions:

Participants with questions or who desire additional information may contact: Jim Slagle, Manager, Ohio Campaign for Accountable Redistricting, 85 E. Gay St., Suite 713, Columbus, Ohio 43215; 614-221-6077; jslagle@ohiocitzen.org.

See also District Builders user manual which may be linked from competition website. Participants may also participate in one or more webinar training events, either live or by watching a recorded webinar.

Participants are also encouraged to join a listserve at: https://lists.sourceforge.net/lists/listinfo/publicmapping-questions. This provides an opportunity to post questions for the developers about how to use the software. Questions can be e-mailed to: questions@lists.sourceforge.net.