

State of Wisconsin \ Government Accountability Board

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MEMORANDUM

DATE: November 10, 2011

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Ross Hein
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FROM: Sarah Whitt
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SUBJECT: Census Blocks Conflicting with Municipal Boundaries

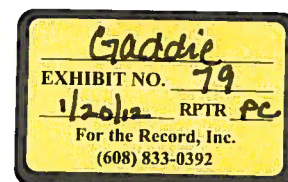
Through the conversations we have been having with local election officials, as well as state and local geographic information specialists, new issues have been brought to our attention that directly impact the Government Accountability Board's (G.A.B.) Redistricting Initiative. Several practical implementation concerns have arisen regarding census blocks conflicting with actual municipal boundaries. This memo provides a summary of the issues and a plan of action that addresses the issues.

Background

Every ten years, as part of the decennial Census, the U.S. Census Bureau collects demographic and geographic information from across the country and compiles the data for use by states, counties, and municipalities to draw new district lines. The census data is broken down by census blocks, which provide the basic building block for electoral districts. Census blocks contain population and demographic information necessary to draw fair and balanced districts. The boundaries for the census blocks frequently follow administrative boundaries such as municipal and school boundaries, and physical geographic features such as roads and waterways. Census blocks are used in Wisconsin to build wards. Sec. 5.15(1)(b), Wis. Stats.; 2011 Act 39, Sec. 2. These wards are then combined to form aldermanic, county supervisory, State Assembly, State Senate, and Congressional districts. 2011 Act 39, Secs. 3, 9, 11, 13, 15, 23; 2011 Act 43, Sec. 6; 2011 Act 44, Sec. 2.

The geographic information that results from the census, including census blocks, roads and waterways, municipal and school district boundaries, and other geographic data sets maintained by Census are provided to states in the form of Topologically Integrated Geographic Encoding and Referencing (TIGER) map files. According to the US Census website (www.census.gov), the boundaries shown in the TIGER map files are for Census Bureau statistical data collection and tabulation purposes only; their depiction and designation for statistical purposes does not constitute a determination of jurisdictional authority or rights of ownership or entitlement.

In Wisconsin, the Census TIGER map files and demographic information are loaded into a tool called WISE-LR, which is administered by the Legislative Technology Services Bureau. WISE-LR is then used by Wisconsin counties and municipalities, as well as the State Legislature, to create new districts.



Accuracy of TIGER Data and Census Blocks

After the 2000 Census redistricting effort, there was widespread complaints that the TIGER data from the 2000 census was inaccurate in both geography and administrative boundaries. Specifically, when the TIGER data was overlaid with actual municipal boundaries, road lines, and bodies of water, the TIGER data placed those features in the wrong place. This caused exceptions, such as voters who appeared on the legislative maps to be in one district, but actually live in a different district. This also became apparent during recall elections where addresses that were challenged using the legislative maps were then overturned by G.A.B. based on the information in Statewide Voter Registration System (SVRS).

From information gathered from localities thus far related to the 2010 redistricting, there appears to be consensus that the TIGER data from the 2010 census was more accurate in terms of geography (roads, waterways) than it was in 2000. However, it still contains substantial inaccuracies with administrative boundaries, specifically municipal boundaries and school district boundaries. Municipal boundary inaccuracies are usually due to either projection issues (the correct boundaries appearing in the wrong place), or annexations that were not included in the TIGER 2010 data. According to the 2010 Census TIGER/Line® Shapefiles Technical Documentation, the positional accuracy of the TIGER 2010 data meets a standard of approximately +/- 50 meters (+/- 167 feet). This appears to have been achieved in some cases, but there are other cases where the data is off by more than 50 meters. Even if lines are within 50 meters, that margin of error allows for multiple houses to be placed in the wrong district all along the boundary line. This becomes problematic particularly for municipal boundaries, because many voters can be affected if the Census municipal boundary is 50 meters or more away from its actual location.

Correcting Municipal Boundaries and Wards

Several counties maintain electoral districts such as wards and county supervisory districts in their local Geographic Information Systems (GIS) systems. The local GIS systems tend to be highly accurate, based on survey data for the parcels of land in their county. Many of these counties took the census block based wards and county supervisory districts, and loaded them into their local GIS systems. They then corrected the ward lines to reflect the actual physical municipal boundaries, local geography, and parcel lines. These corrected districts no longer follow the census blocks, and instead follow the more accurate geography and administrative boundaries that actually exist for that county. This is similar to what local clerks have done via their address ranges in SVRS in the past. The address ranges in SVRS reflect the actual municipal boundaries, and are not based on census blocks.

Based on initial analysis, Rock County identified approximately 200 addresses that were placed in the wrong municipality based on the TIGER 2010 data. Rock County provided a specific example of some corrections to municipal boundaries that directly conflict with census blocks and the specific statutory language of Acts 43 and 44, affecting State Assembly, State Senate, and Congressional districts. In this case, the municipal boundary between the Town of Harmony and the City of Janesville was approximately 0.1 mile off (528 feet) in the census data. This caused census blocks containing 9 houses that are in the City of Janesville to be incorrectly placed in the Town of Harmony. In addition, the same error caused census blocks containing one house or farm in the Town of Harmony to be incorrectly placed in the City of Janesville. Based upon the incorrect municipal boundaries, the Town of Harmony even created a separate Ward for these 9 houses. In order to correct this by adjusting the municipal boundaries, Rock County would have to shift census blocks from the Town of Harmony to the City of Janesville (likely negating the need for that Ward in the Town of Harmony), ignoring one entire census block (3004 which is entirely in the wrong municipality) and splitting another census block (3095 which is half in Harmony and half in Janesville). Obviously, this situation also creates the likelihood of a shift in the population for the City of Janesville and Town of Harmony under Act 43, which specifically attributed certain census blocks to incorrect municipalities. Please see the attached map for a visual representation of the discrepancy. This situation is repeated in many other counties, if not all counties.

Districts Created by Acts 43 and 44 and Conflict with Act 39

Because Acts 43 and 44 were passed creating the new State Senate, Assembly, and Congressional districts before municipalities had finished creating their local wards, these districts were built using census blocks. The text of these Acts, now in statute, specifies the district boundaries according to individual census blocks. For the City of Janesville/Town of Harmony example, the statute clearly states that the given Assembly district includes the Town of Harmony census blocks 3004 and 3059. This is problematic for enforcement purposes because those census blocks do not reflect the correct municipal boundaries and the results of implementing these incorrect boundaries in SVRS would place voters on the wrong poll books for each election. After local clerks make these corrections, the districts in SVRS would not match Acts 43 and 44 precisely. In addition, these corrections also require splitting census blocks, which may conflict with Act 39's prohibition on splitting census blocks. Secs. 59.10(2)(a), 59.10(3)(b)1, 62.08(1), Wis. Stats.; 2011 Act 29, Secs. 13, 15, 23.

G.A.B. Redistricting Initiative in SVRS

To update SVRS with the new districts resulting from 2011 Acts 39, 43, and 44, the G.A.B. technical team is importing the new census based wards, county supervisory districts, aldermanic districts (in some cases), State Assembly districts, State Senate districts, Congressional districts, and municipal boundaries from the Legislature, into SVRS.

Due to the inaccuracies of the TIGER 2010 data, some boundary lines will appear in the wrong place in SVRS, which will cause some voters to be assigned to the wrong districts. This will ultimately result in some voters appearing on the wrong poll lists, and potentially being given the wrong ballots. Clerks will be given exception reports that will identify voters who may have been put in the wrong district, and they will be asked to correct them. Therefore, the more accurate the boundary lines are in SVRS, the less manual work clerks need to perform, and the more likely it is that voters appear on the correct poll list and receive the correct ballot. This manual correction process may also conflict with precise compliance with Acts 39, 43, and 44.

Phase 1 of the SVRS updates that are part of the G.A.B. Redistricting Initiative will be available to clerks on December 1st. In Phase 1, clerks will be able to fix addresses that get put in the wrong place on the map. They will also be able to override the district assignment, if it is not assigned correctly (due to boundary line issues). They will not be able to move the boundary lines themselves. If a boundary line is in the wrong place in SVRS, G.A.B. technical staff will need to correct it. The ability to correct boundary lines will be available to clerks in Phase 2 of the SVRS updates after the Spring 2012 elections.

As a result of these issues, the G.A.B. is implementing an action plan to address the educational, administrative, and practical problems for the Spring 2012 elections, particularly if clerks have not completed correcting their exceptions prior to printing poll books. For example, many voters will show up to vote, only to find that they are not on the poll list. When attempting to register voters, an election official may be confused and register them in the wrong location or send them to another incorrect location to register. If a voter is not on the poll list (because they appeared on the wrong poll list) they may be asked to re-register at the polls. Many polling places use street range lists printed from SVRS to determine to which polling place a voter should go. If the boundaries are inaccurate in SVRS, election workers will not have accurate reports at the polling place and could send voters from polling place to polling place. Finally, inaccuracies and confusion regarding correct voting locations are likely to lead to challenges to voter qualifications and disputes in any recount process.

Use of Corrected Wards in SVRS

Approximately 21 counties thus far have asked that we use their corrected wards and/or municipal boundaries in SVRS, rather than the census-based lines we are getting from the Legislature, to ensure that the lines are placed accurately and thus voters show up on the correct poll lists. Because wards are the building blocks for all the other representational districts, if we use the corrected wards, this also corrects the municipal boundaries, county supervisor, aldermanic, State Senate, State Assembly, and Congressional districts. It is not possible to maintain census based legislative districts simultaneously with corrected wards, as the lines would conflict with each other.

Acts 43 and 44 define the State Senate, State Assembly, and Congressional districts at the census block level. The corrected wards and municipal boundaries deviate from the census blocks, therefore using the corrected districts could be interpreted as violating the statute. However, the statute must be violated in practice in order to give a voter the correct ballot. Residents of the City of Janesville cannot be given a Town of Harmony ballot simply because Acts 43 and 44, which were based on Census data, define the districts using inaccurate municipal boundaries.

Plan of Action

It is critical to have the most accurate boundary lines possible in SVRS, in order to assure voters of their correct districts, avoid voter and election official confusion, and to have a manageable workflow for clerks. To reach that goal, the technical team will use the corrected districts wherever it is possible to do so. Regardless of when these corrections occur (pre-Spring 2012 election or after), it is likely that the final districts will not precisely match those prescribed by Acts 43 and 44 because census blocks were attributed to incorrect municipalities. The action plan is as follows:

1. Work with counties that are willing to provide corrected data. They can validate that municipal boundaries and all other ward based districts are corrected accurately when we implement the corrected wards.
2. As part of the deployment of the G.A.B. Redistricting Initiative, Phase 1 SVRS updates, work with local clerks to review their boundary lines BEFORE they start correcting individual voters who were placed in the wrong districts. Any boundary line issues should be reported to the G.A.B. Help Desk so they can be corrected by the technical team.
3. Consult with the Legislative Reference Bureau regarding the use of corrected wards and municipal boundaries in relationship to the State Senate, State Assembly, and Congressional districts which are defined in statute at the census block level.
4. Develop a strategy to address voter and election official confusion regarding misplaced voters in SVRS and to correct information for voters registering on Election Day. In addition, develop a plan to complete corrections following the Spring 2012 election, and to communicate with affected municipalities and counties regarding the May 15, 2012 adjustments.
5. Work with the Legislature to develop legislation that will make necessary technical corrections to Acts 39, 43, and 44 to correct districts to properly reflect actual municipal boundaries rather than being strictly based on census blocks. The simplest way to accomplish this is to make technical corrections to the Acts to refer to the actual wards that comprise the districts, rather than referring to the census blocks.

Conclusion

The G.A.B. will use corrected wards and municipal boundaries at the earliest possible stage of implementing the new districts. The accuracy of the data in SVRS is a critical component to the integrity of the system, voters' confidence in the system, and to the overall administration of every

election. Clerks need effective tools in order to administer elections fairly and correctly, and voters must be assured that they will not be disenfranchised due to redistricting mapping inaccuracies. It is of the utmost importance that the most accurate data be used in SVRS at the earliest possible stage of implementation.

Thank you.

cc: Kevin Kennedy
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Government Accountability Board

