

A new approach to evaluating the fiscal health of Michigan local governments: Comparing fiscal performance relative to available resources

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Executive Summary

The purpose of this report is to develop a scoring system for Michigan local governments that accurately reflects their fiscal condition. The previous scoring system used by the Department of Treasury from 2007 to 2010 fell short in several areas as explained below. One of the weaknesses was that economic and financial measures were both included to develop the fiscal distress score. The proposed new system calculates two scores, an internal score that measures the financial performance of local units and an external score that measures the fiscal resources available to a local unit. Presenting two scores allows local units to be evaluated based on how effectively they use their resources.

A comparison of these two scores may be most useful in identifying situations that warrant a deeper analysis to determine if assistance from the state would be appropriate. This type of analysis can help the state decide which cities may need state intervention and which cities can likely only benefit from a change in state policy, such as increased revenue sharing. For example, cities that rank in the 3rd or 4th quartile on the external score and the 4th quartile on the internal score are more likely to benefit from a change in state policy than state intervention. Cities that rank in the top or 2nd quartile on the external score but in the 4th quartile on the internal score may have management issues that may warrant state intervention.

The Internal scores for counties and cities were developed for two time periods, 2010-2012 and 2014-2016. For counties there were some significant changes in the internal score between the two time periods. (See **Exhibit 6**). However, only six counties had its internal quartile score move by two quartiles from 2010-2012 to 2014-2016.

The purpose of the external score was not to be a perfect predictor of the internal score, but rather to identify local units that were outliers and therefore candidates for further analysis, however the external score was a fairly accurate predictor of the internal score based on quartiles. For 2014-2016, only Oscoda County scored in the 4th quartile on the external score and the top quartile in the internal score, but six of these counties scored in the 2nd quartile. Of the counties that were in the top quartile on the external score, only Eaton scored in the bottom quartile on the internal score. Seven counties in the top quartile on the external score scored in the 3rd quartile on the internal score. (See **Exhibit 7**).

The city internal scores were generally stable from 2010-12 to 2014-16. There were, however, eight cities whose score changed by 20 points or more. These differences were due largely to one-time events such as the issuance or pay down of debt. (See **Appendix A2**).

For 2014-2016, there were 15 cities that that scored in the 4th quartile on the external score and the top quartile in the internal score. Of the cities that were in the top quartile on the external score, seven cities scored in the bottom quartile on the internal score. There were another 19 cities that scored in the top quartile on the external score and in the 3rd quartile on the internal score. (See **Exhibit 14**).

As with the counties, we did not compare the actual scores directly as, regression analysis indicates that the external score is not a good predictor of the internal score. Most of the cities that appear to outperform are the smaller population cities. For example, the 15 cities that score in the bottom quartile on the external score and the top quartile on the internal score have an average population of 2,700. This may be because although many of the smaller cities have few resources they also are providing fewer services. In some cases, the differences may be due to the quality of management, but a more detailed analysis would be required to determine if this is the case.

One of the key findings of this study is that despite an improving economy, the finances of most cities have not improved. The average internal score has not changed but most indicators on average have worsened since 2010-12. (The score measures a city's performance relative to other cities, therefore the score can remain unchanged although most or all cities are doing worse.) **Exhibit 1** shows the averages for the 10 internal indicators for 2010-12 and 2014-2016. The only indicator that has improved significantly since 2010-12 is the GF Balance as a % of GF Expenditures. Cities have taken on more debt, have fewer assets, and revenues have not improved relative to expenditures. Cities are clearly not prepared to deal with the next downturn in the economy.

Exhibit 1: Comparison of Internal Indicator Averages, Cities and Counties, 2010-12 & 2014-16

	2010-2012	2014-2016
City Internal Indicators		
Liquidity	3.4	3.2
Assets/Liabilities	10	7.8
GF Revenues/GF Expenditures	97.6%	98.6%
GF Fund Balance/GF Expenditures	39.6%	47.7%
GA Fund Balance/GA Expenditures	59.2%	24.2%
GA Intergovernmental/GA Revenues	25.9%	25.8%
GA Revenue/GA Expenditures	90.9%	90.7%
Long Term Debt/GA Revenue	45.9%	51.9%
Net Assets (unrestricted)/GA Expenditures	34.5%	-10.5%
GF Expenditures/TV	3.1%	2.9%
County Internal Indicators		
Liquidity	2.5	1.3
Assets/Liabilities	4.5	2.3
GF Revenues/GF Expenditures	94.5%	94.6%
GF Fund Balance/GF Expenditures	32.2%	35.6%
GA Fund Balance/GA Expenditures	44.3%	43.4%
GA Intergovernmental/GA Revenues	22.9%	22.7%
GA Revenue/GA Expenditures	87.5%	87.5%
Long Term Debt/GA Revenue	28.4%	31.8%
Net Assets (unrestricted)/GA Expenditures	25.1%	6.4%
GF Expenditures/TV	0.88%	0.93%

Most of the financial indicators for counties were little changed from 2010-12 to 2014-16. The exception were the three asset related indicators, which all worsened significantly over the period. It appears that both cities and counties suffered a decline in assets and /or an increase in liabilities. The overall internal score was 70 for both years. This indicates that despite an improving economy the overall financial situation of counties was unchanged.

Introduction

The ability to measure the financial condition of Michigan's local governments, particularly cities, has taken on more urgency in recent years. Michigan's 10-year economic malaise, sharp cuts in state revenue sharing payments, and its ranking as being among the strictest in the nation on limiting local government's revenue raising ability have combined to, arguably, produce more local units in fiscal distress than in any other state.

Last year, the Center published a report that focused on the issue of service solvency- the ability of Michigan cities to provide an adequate level of public services. How one measures "adequate" is a question that has not been sufficiently answered in this state or in any other state. Our report did not purport to answer this question directly, but used four measures to identify those cities that were, in our view, service insolvent or on the verge of service insolvency. The measures used were, General Fund (GF) spending per capita that was 75% or less than the average for the city's population group, taxable value (TV) per capita of less than \$20,000, a GF fund balance of 16.7% of expenditures or less, and an operating millage rate of 20-mills or more. The report identifies 32 cities as service insolvent or on the verge of service insolvency (based on FY 2015 data). One of the out growths of this study was the clear need to develop better measures of the fiscal condition of local governments. (Kleine, Robert and Schulz, Mary, *Service Solvency: The Ability of Michigan Cities to Provide an Adequate Level of Public Services*, The Center for Local Government Finance and Policy Michigan State Extension, September, 2017.)

In 2002, the Institute for Public Policy and Survey Research (IPPSR) at Michigan State University released a report titled, *Fiscal Distress Indicators: An assessment of current Michigan law and development of a new "early warning" scale for Michigan localities*, (Kleine, Robert, Kloha, Phil, and Weissert, Carol.) The report, commissioned by the Michigan Department of Treasury, proposed a 10-point scoring system to measure the fiscal condition of Michigan's local governments. The measures used focused on economic conditions, the property tax base, the condition of the general fund, and the level of debt (see **Exhibit 2** for a list and description of the measures). This system was used by the Michigan Department of Treasury to monitor the fiscal condition of local governments from 2007-2010.

Exhibit 2: Indicators Used In Earlier Fiscal Distress Scoring System

Indicator	Description
Population Growth	2 year growth
Real Taxable Value (TV) Growth	2 year growth
Large Decrease in Real TV	2 year period
General Fund (GF) Expenditures as % of TV	Current Year
GF Operating Deficit	Current Year
Prior GF Operating Deficits	2 previous years
GF Balance	Current year as % of GF revenue
Other Fund Deficits in Current or Previous Year	Deficit in major fund current and previous year
General Long-term Debt as a % of TV	Current Year

Michigan was one of the first states to commission and implement a municipal fiscal assessment system and as might be expected of any initial effort, the scoring system had several weaknesses.

First, it focused on the general fund rather than all governmental activity funds. Second, it mixed economic and financial indicators rather than developing separate scores. Third, a small difference in an indicator between local governments could result in a large difference in their two scores. Fourth, the score was based on one year's data, which could be misleading due to factors such as one-time spending or borrowing, rather than on an average of several years. Fifth, there was no measure of liquidity or the ratio of assets to liabilities. For a more detailed criticism of this scoring system see Crosby and Robbins, 2013, and Plerhoples and Scorsone, 2011.

Crosby and Robbins concluded, "After discovering a number of limitations with Michigan's financial indicator scores, we argued that the SOM (State of Michigan) test, which was created based on their own criticism of other indexes, does not measure a city's ability to pay its bills and fails to achieve its purpose- to provide "objective, measurable, and straightforward information concerning the degree of, or absence of fiscal health of local government."

The purpose of this study is to address these criticisms and develop a scoring system that achieves the stated purpose of the 2002 IPPSR study.

Methodolgy

Criteria

There are a number of conditions that indicators of fiscal distress should meet. These include:

- Theoretical validity
- Ability to predict fiscal distress before it occurs
- Ability to capture concepts relative to the State's interest
- Availability of the data
- Uniformity of data collection

- Frequency of data collected
- Ability to discern the progressing levels of distress
- Parsimony: that is, an indicator should be as simple as possible without losing predictive ability.
- Resistance to manipulation or “gaming”
- The minimization of both type I and type ii errors: that is, both the chance that a fiscally healthy unit is found to be fiscally distressed, and the chance that a fiscally stressed unit is found to be fiscally healthy.

We believe the indicators used in our proposed scoring system meet all these criteria.

Scoring system

Our proposed fiscal distress scoring system uses two scores, the first score measures the financial (or internal) performance of a local government, and the second score measures the fiscal resources available to a local unit (external). The maximum score in both cases is 100 and the minimum score is 40 for the financial performance score, and 25 for the financial resources score for cities and 40 for other local units of government.

Financial performance

The first step is to select the fiscal distress indicators that measure financial performance. After reviewing a number of different studies and using correlation and regression analysis to evaluate the relevance of the indicators we settled on 10 indicators, as listed below.

1. **Liquidity**- The measure is short term assets divided by liabilities. This indicator measures the ability of a local unit to pay its bills in a timely manner.
2. **Assets/Liabilities**- This indicator measures the overall financial strength of a local unit.
3. **General Fund (GF) Revenue/GF Expenditures**- This indicator measures whether a local unit has an annual surplus or deficit, and generally indicates the ability of a local unit to responsibly manage its resources.
4. **Governmental Activities (GA) Revenue /GA Expenditures**- This indicator measures the overall annual budget position of a local unit. It can be a better measure than the general fund as it accounts for transfers between funds. There is some correlation between this indicator and indicator 3 above (.48 for cities), but it is low enough to suggest that including both would add to the robustness of the scoring system.
5. **GA Intergovernmental Revenue/GA Revenue**- This indicator measures the reliance of a local government on assistance from state and local government. This may be counter intuitive but too much reliance on outside support could leave local units vulnerable when aid is cut, as has happened in Michigan, and a sign that own-source revenues may be inadequate. Supporting this conclusion is a regression analysis that shows that this indicator is negatively correlated with the unit’s overall fiscal stress score. That is the higher the share of intergovernmental aid the weaker the unit’s financial performance.

6. **GF Fund Balance/GF Expenditures**- This indicator measures a local unit's current reserves, and therefore their ability to cover unanticipated expenditures or an economic downturn without running a budget deficit. The GFOA recommend that local unit maintain a fund balance of two months expenditures, or 16.7%.
7. **GA Fund Balance/GA Expenditures**- This indicator measures a local unit's total current reserves for all funds (other than enterprise). This indicator is highly correlated with indicator 6 above (.75 for cities).
8. **GF Expenditures/Taxable Value**- This is a measure of spending to available resources. For many local governments, particularly cities, the property tax is the largest revenue source. TV measures the size of the property tax base. Those cities with a low tax base with have problems raising sufficient revenues to provide a reasonable level of services.
9. **Long-term Debt/GA Revenue**- This is a measure of the ability of a local unit to service its debt. We also considered two other debt measures, debt as a % of taxable value and debt as a % of net assets, but this appears to be a better measure of a local unit's fiscal condition.
10. **Net Assets (unrestricted)/GA expenditures**- This is a measure of the long-term solvency of a local unit.

Each indicator was divided into quartiles to develop a score for each local unit. The top quartile received 10 points, the second quartile 8 points, the third quartile 6 points and the bottom quartile 4 points. This scoring system is not as sensitive to small changes as was the fiscal distress scoring system formerly used by the Michigan Department of Treasury. For example, in the previous system a difference of 0.1% in an indicator could add one point to a local unit's score, representing anywhere from 10% to 100% of their score. Under the new system, a difference of 0.1% in an indicator would add 2 points to the score or from 2% to 5% of the total score.

Fiscal Resources

The second step is to select indicators to measure the fiscal resources available to local units. We selected five indicators for local governments. For cities, we used the five indicators listed below, and for other local governments we replaced the unused millage indicator with the unemployment rate. The millage cap is not relevant for governments other than cities and unemployment is only easily available and reliable for counties.

1. **Taxable Value Per Capita**- This measures the size of the property tax base and is the most important determinant of per capita expenditures. (Data 2016)
2. **Change in TV over last three years**- This is an indication of whether a local unit's tax base is expanding or declining. (Data 2013-2016)
3. **Population Growth, Last Three Years**- This is a measure of the economic strength of a local unit and their ability to attract and retain residents and businesses. (Data 2016)

4. **Per Capita Personal Income**- This is a measure of a local unit's economic strength and of the ability of residents to pay taxes. (Data 2016)
5. **Unused Millage (cities only)** - This is a measure of the number of mills a local unit is below its charter limit. Those local units with untapped millage can raise additional revenue to meet spending needs. (Data 2016)

OR

5. **Unemployment Rate (counties only)** - This is a measure of the economic strength of a community and the employment opportunities in that community. (Data 2016)

To develop a score for each local unit the quartile system was again used with 20 points awarded for the first quartile, 16 points for the second quartile, 12 points for the third quartile, and 8 points for the bottom quartile.

Data was collected from local government audit reports filed with the Michigan Department of Treasury for the years 2010 to 2016. A three-year moving average was used to develop the fiscal scores, starting with 2010. This has the advantage of smoothing out unusual one-year changes such as large capital outlay spending or use of bonding to raise one-time revenue. Using several years' data adds to the data collection burden but allows a trend analysis to determine if local unit finances are improving or regressing.

Quartiles

Both the internal and external scores are put into quartiles for ease of comparison among local governments within their type (i.e., county, city, or village). The first quartile is considered the "top" or "best". The second quartile is the "next best". The third quartile is "better than the lowest". The fourth quartile is considered the "lowest" quartile.

What this analysis can show is which local governments are "outperforming" their external fiscal resources. For example, a local government that scores in the 4th quartile for its external score and the 1st quartile on its internal score, that local government is referred to in the analysis as "outperforming".

This quartile system analysis can also highlight local governments that are "underperforming" their external resources. For example, a local government that scores in the 1st quartile for its external score and the 4th quartile on its internal score.

County Analysis

External Scores

The external score measures the resources available to a local government based largely on the economic condition of the local community. We used the latest data available to calculate the

external scores rather than calculating an external score for each of the years used in the analysis. In the future, the external score should be calculated, where possible, for the same year as the internal score.

The maximum score is 100 and the minimum score is 25. As shown in **Exhibit 3**, the scores range from 100 in Grand Traverse County to 30 in Baraga and Chippewa Counties. There are 22 counties with a score of 80 or above and 27 counties with a score of 50 or below. The average score was 63.

Exhibit 3: County External Scores (Latest Available Data)

	Final Score		Final Score Rank
Alcona	45	Grand Traverse	100
Alger	45	Livingston	95
Allegan	85	Oakland	95
Alpena	45	Ottawa	95
Antrim	80	Washtenaw	95
Arenac	45	Clinton	90
Baraga	30	Kent	90
Barry	85	Leelanau	90
Bay	45	Allegan	85
Benzie	85	Barry	85
Berrien	85	Benzie	85
Branch	75	Berrien	85
Calhoun	60	Cass	85
Cass	85	Charlevoix	85
Charlevoix	85	Eaton	85
Cheboygan	65	Emmet	85
Chippewa	30	Ingham	85
Clare	35	Mason	85
Clinton	90	Antrim	80
Crawford	45	Kalamazoo	80
Delta	50	Keweenaw	80
Dickinson	50	Monroe	80
Eaton	85	Branch	75
Emmet	85	Huron	75
Genesse	55	Macomb	75
Gladwin	55	Midland	75
Gogebic	40	Lenawee	70
Grand Traverse	100	Otsego	70
Gratiot	45	Sanilac	70
Hillsdale	50	Van Buren	70
Houghton	55	Cheboygan	65
Huron	75	Isabella	65
Ingham	85	Jackson	65
Ionia	60	Lapeer	65
Iosco	55	Mackinac	65
Iron	45	Marquette	65
Isabella	65	St. Joseph	65
Jackson	65	Calhoun	60
Kalamazoo	80	Ionia	60
Kalkaska	55	Manistee	60
Kent	90	Menominee	60
Keweenaw	80	Missaukee	60

	Final Score		Final Score Rank
Lake	55	Muskegon	60
Lapeer	65	Newaygo	60
Leelanau	90	Schoolcraft	60
Lenawee	70	Tuscola	60
Livingston	95	Genesse	55
Luce	40	Gladwin	55
Mackinac	65	Houghton	55
Macomb	75	Iosco	55
Manistee	60	Kalkaska	55
Marquette	65	Lake	55
Mason	85	Montcalm	55
Mecosta	50	Oceana	55
Menominee	60	Roscommon	55
Midland	75	St. Clair	55
Missaukee	60	Delta	50
Monroe	80	Dickinson	50
Montcalm	55	Hillsdale	50
Montmorency	45	Mecosta	50
Muskegon	60	Ontonagon	50
Newaygo	60	Presque Isle	50
Oakland	95	Shiawasee	50
Oceana	55	Alcona	45
Ogemaw	45	Alger	45
Ontonagon	50	Alpena	45
Osceola	45	Arenac	45
Oscoda	45	Bay	45
Otsego	70	Crawford	45
Ottawa	95	Gratiot	45
Presque Isle	50	Iron	45
Roscommon	55	Montmorency	45
Saginaw	45	Ogemaw	45
Sanilac	70	Osceola	45
Schoolcraft	60	Oscoda	45
Shiawasee	50	Saginaw	45
St. Clair	55	Wexford	45
St. Joseph	65	Gogebic	40
Tuscola	60	Luce	40
Van Buren	70	Wayne	40
Washtenaw	95	Clare	35
Wayne	40	Baraga	30
Wexford	45	Chippewa	30
Average	63	Average	63

A correlation analysis was run to determine the relationship between the five indicators (see **Exhibit 4**). There is some correlation between the indicators but it is not unusually high, suggesting that there is little duplication among the indicators.

Exhibit 4: Correlation, County External Indicators

	<i>TV PC</i>	<i>TV Change</i>	<i>Pop Change</i>	<i>PC Income</i>	<i>Unempl. Rate</i>
TV PC	1				
TV Change	0.220004	1			
Pop Change	-0.01126	0.2859618	1		
PC Income	0.384305	0.3417263	0.46316438	1	
Unempl. Rate	0.296059	-0.2585562	-0.51894897	-0.4630576	1

A regression analysis was also run using the final score as the dependent variable and the five indicators as the independent variables. The r-square was .873, and based on the t-values, all five indicators were significant determinants of the variation in scores. (See **Exhibit 5**).

Exhibit 5: External Indicators Counties

<i>Regression Statistics</i>	
Multiple R	0.93425692
R Square	0.87283599
Adjusted R Square	0.86446993
Standard Error	6.48090887
Observations	82

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	21910.57824	4382.116	104.330672	1.40208E-32
Residual	76	3192.165661	42.00218		
Total	81	25102.7439			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>
Intercept	27.8243295	7.808780072	3.563211
TVPC	0.00023823	5.94832E-05	4.005056
TV%Change	107.804819	18.88320159	5.709033
Pop	325.916426	52.95513906	6.154576
PCINC	0.00162585	0.000262174	6.201435
Unempl Rate	-2.4839569	0.663642267	-3.74292

Internal Scores

The scores for the years 2010-2012 and 2014-2016 are shown in **Exhibit 6**. For 2010-2012, scores range from 98 in Charlevoix and 94 in Antrim, Benzie, and St. Joseph counties to a low of 48 in Calhoun, Eaton and Ogemaw counties. For 2014-2016, the scores ranged from 94 in Keweenaw County and Otsego County to 46 in Baraga County. The average score for both time periods was 70.

Exhibit 6: County Internal Scores, 2010-2012 and 2014-2016

	Final Score 2010-2012		Final Score Rank		Final Score 2014-2016		Final Score Rank		Change, 2010-2012 to 2014-2016
Alcona	90	Charlevoix	98	Alcona	76	Keweenaw	94	Alcona	(14)
Alger	62	Antrim	94	Alger	56	Otsego	94	Alger	(6)
Allegan	82	Benzie	94	Allegan	68	Cheboygan	92	Allegan	(14)
Alpena	84	St Joseph	94	Alpena	80	Cass	90	Alpena	(4)
Antrim	94	Cheboygan	92	Antrim	82	Clinton	90	Antrim	(12)
Arenac	72	Keweenaw	92	Arenac	66	Kalkaska	90	Arenac	(6)
Baraga	56	Livingston	92	Baraga	46	Livingston	90	Baraga	(10)
Barry	50	Mackinac	92	Barry	66	Mackinac	90	Barry	16
Bay	62	Alcona	90	Bay	60	Charlevoix	88	Bay	(2)
Benzie	94	Menominee	90	Benzie	64	Mecosta	88	Benzie	(30)
Berrien	76	Cass	88	Berrien	78	Van Buren	88	Berrien	2
Branch	52	Clinton	88	Branch	70	Delta	86	Branch	18
Calhoun	48	Mason	88	Calhoun	50	Emmet	86	Calhoun	2
Cass	88	Ontonagon	88	Cass	90	Mason	86	Cass	2
Charlevoix	98	Emmet	86	Charlevoix	88	Iosco	84	Charlevoix	(10)
Cheboygan	92	Presque Isle	86	Cheboygan	92	Menominee	84	Cheboygan	0
Chippewa	50	Alpena	84	Chippewa	50	Oscoda	84	Chippewa	0
Clare	66	Otsego	84	Clare	56	Antrim	82	Clare	(10)
Clinton	88	Van Buren	84	Clinton	90	Lapeer	82	Clinton	2
Crawford	64	Allegan	82	Crawford	50	Missaukee	82	Crawford	(14)
Delta	76	Lapeer	82	Delta	86	Oceana	82	Delta	10
Dickinson	76	Missaukee	82	Dickinson	72	Alpena	80	Dickinson	(4)
Eaton	48	Montmorency	82	Eaton	52	Kalamazoo	80	Eaton	4
Emmet	86	Oscoda	82	Emmet	86	Berrien	78	Emmet	0
Genesee	54	Ottawa	80	Genesee	54	Ionia	78	Genesee	0
Gladwin	66	Berrien	76	Gladwin	62	Isabella	78	Gladwin	(4)
Gogebic	72	Delta	76	Gogebic	54	Leelanau	78	Gogebic	(18)
Grand Traverse	70	Dickinson	76	Grand Traverse	64	Ontonagon	78	Grand Traverse	(6)
Gratiot	62	Huron	76	Gratiot	74	Alcona	76	Gratiot	12
Hillsdale	52	Iosco	76	Hillsdale	52	Montmorency	76	Hillsdale	0
Houghton	62	Kalkaska	76	Houghton	66	Oakland	76	Houghton	4
Huron	76	Leelanau	76	Huron	72	Gratiot	74	Huron	(4)
Ingham	62	Manistee	76	Ingham	62	Luce	74	Ingham	0
Ionia	58	Isabella	74	Ionia	78	Ottawa	74	Ionia	20
Iosco	76	Arenac	72	Iosco	84	Washtenaw	74	Iosco	8
Iron	58	Gogebic	72	Iron	60	Dickinson	72	Iron	2
Isabella	74	Kalamazoo	72	Isabella	78	Huron	72	Isabella	4
Jackson	58	Mecosta	72	Jackson	52	Lenawee	72	Jackson	(6)
Kalamazoo	72	Grand Traverse	70	Kalamazoo	80	Manistee	72	Kalamazoo	8
Kalkaska	76	Lenawee	70	Kalkaska	90	Midland	72	Kalkaska	14

	Final Score 2010-2012		Final Score Rank		Final Score 2014-2016		Final Score Rank		Change, 2010-2012 to 2014-2016
Kent	60	Macomb	70	Kent	60	Osceola	72	Kent	0
Keweenaw	92	Oceana	70	Keweenaw	94	Tuscola	72	Keweenaw	2
Lake	64	Luce	68	Lake	66	Branch	70	Lake	2
Lapeer	82	Monroe	68	Lapeer	82	St. Joseph	70	Lapeer	0
Leelanau	76	Oakland	68	Leelanau	78	Allegan	68	Leelanau	2
Lenawee	70	Tuscola	68	Lenawee	72	Presque Isle	68	Lenawee	2
Livingston	92	Clare	66	Livingston	90	Roscommon	68	Livingston	(2)
Luce	68	Gladwin	66	Luce	74	Arenac	66	Luce	6
Mackinac	92	Marquette	66	Mackinac	90	Barry	66	Mackinac	(2)
Macomb	70	Osceola	66	Macomb	66	Houghton	66	Macomb	(4)
Manistee	76	Crawford	64	Manistee	72	Lake	66	Manistee	(4)
Marquette	66	Lake	64	Marquette	62	Macomb	66	Marquette	(4)
Mason	88	Roscommon	64	Mason	86	Monroe	66	Mason	(2)
Mecosta	72	Washtenaw	64	Mecosta	88	Benzie	64	Mecosta	16
Menominee	90	Alger	62	Menominee	84	Grand Traverse	64	Menominee	(6)
Midland	56	Bay	62	Midland	72	Newaygo	64	Midland	16
Missaukee	82	Gratiot	62	Missaukee	82	Gladwin	62	Missaukee	0
Monroe	68	Houghton	62	Monroe	66	Ingham	62	Monroe	(2)
Montcalm	52	Ingham	62	Montcalm	52	Marquette	62	Montcalm	0
Montmorency	82	Wexford	62	Montmorency	76	Bay	60	Montmorency	(6)
Muskegon	50	Kent	60	Muskegon	48	Iron	60	Muskegon	(2)
Newaygo	50	Saginaw	60	Newaygo	64	Kent	60	Newaygo	14
Oakland	68	Schoolcraft	60	Oakland	76	Schoolcraft	60	Oakland	8
Oceana	70	Ionia	58	Oceana	82	Wexford	60	Oceana	12
Ogemaw	48	Iron	58	Ogemaw	48	Saginaw	58	Ogemaw	0
Ontonagon	88	Jackson	58	Ontonagon	78	Sanilac	58	Ontonagon	(10)
Osceola	66	Sanilac	58	Osceola	72	St. Clair	58	Osceola	6
Oscoda	82	Shiawassee	58	Oscoda	84	Alger	56	Oscoda	2
Otsego	84	Baraga	56	Otsego	94	Clare	56	Otsego	10
Ottawa	80	Midland	56	Ottawa	74	Shiawassee	56	Ottawa	(6)
Presque Isle	86	Wayne	56	Presque Isle	68	Genesee	54	Presque Isle	(18)
Roscommon	64	Genesee	54	Roscommon	68	Gogebic	54	Roscommon	4
Saginaw	60	Branch	52	Saginaw	58	Eaton	52	Saginaw	(2)
Sanilac	58	Hillsdale	52	Sanilac	58	Hillsdale	52	Sanilac	0
Schoolcraft	60	Montcalm	52	Schoolcraft	60	Jackson	52	Schoolcraft	0
Shiawassee	58	Barry	50	Shiawassee	56	Montcalm	52	Shiawassee	(2)
St Clair	50	Chippewa	50	St. Clair	58	Calhoun	50	St. Clair	8
St Joseph	94	Muskegon	50	St. Joseph	70	Chippewa	50	St. Joseph	(24)
Tuscola	68	Newaygo	50	Tuscola	72	Crawford	50	Tuscola	4
Van Buren	84	St Clair	50	Van Buren	88	Wayne	50	Van Buren	4
Washtenaw	64	Calhoun	48	Washtenaw	74	Muskegon	48	Washtenaw	10
Wayne	56	Eaton	48	Wayne	50	Ogemaw	48	Wayne	(6)
Wexford	62	Ogemaw	48	Wexford	60	Baraga	46	Wexford	(2)
Average	70			Average	70				

There were some significant swings in the scores from 2010-2012 to 2014-2016 with 35 counties experiencing declines, despite the improving economy. The largest decline was 30 points in Benzie county, due mainly to the county taking on substantial debt. The largest improvement was 20 points in Ionia County due to pay down of a large amount of debt.

There were only six counties that had its internal quartile score move by two quartiles from 2010-2012 to 2014-2016. Benzie, Presque Isle and St. Joseph moved from the 1st to the 3rd quartile, and Gogebic moved from the 2nd to the 4th quartile. Ionia and Midland moved from the 4th quartile to the 2nd quartile. (See **Exhibit 7**)

Exhibit 7: External Internal Score Comparison by Quartiles, Counties, 2010-2012 & 2014-2016

	2010-2012 Internal Score	Quartile		External Score	Quartile		2014-2016 Internal Score	Quartile
Alcona	90	1	Alcona	45	4	Alcona	76	2
Alger	62	3	Alger	45	4	Alger	56	4
Allegan	82	2	Allegan	85	1	Allegan	68	3
Alpena	84	1	Alpena	45	4	Alpena	80	2
Antrim	94	1	Antrim	80	1	Antrim	82	1
Arenac	72	2	Arenac	45	4	Arenac	66	3
Baraga	56	4	Baraga	30	4	Baraga	46	4
Barry	50	4	Barry	85	1	Barry	66	3
Bay	62	3	Bay	45	4	Bay	60	3
Benzie	94	1	Benzie	85	1	Benzie	64	3
Berrien	76	2	Berrien	85	1	Berrien	78	2
Branch	52	4	Branch	75	2	Branch	70	3
Calhoun	48	4	Calhoun	60	2	Calhoun	50	4
Cass	88	1	Cass	85	1	Cass	90	1
Charlevoix	98	1	Charlevoix	85	1	Charlevoix	88	1
Cheboygan	92	1	Cheboygan	65	2	Cheboygan	92	1
Chippewa	50	4	Chippewa	30	4	Chippewa	50	4
Clare	66	3	Clare	35	4	Clare	56	4
Clinton	88	1	Clinton	90	1	Clinton	90	1
Crawford	64	3	Crawford	45	4	Crawford	50	4
Delta	76	2	Delta	50	3	Delta	86	1
Dickinson	76	2	Dickinson	50	3	Dickinson	72	2
Eaton	48	4	Eaton	85	1	Eaton	52	4
Emmet	86	1	Emmet	85	1	Emmet	86	1
Genesse	54	4	Genesse	55	3	Genesse	54	4
Gladwin	66	3	Gladwin	55	3	Gladwin	62	3
Gogebic	72	2	Gogebic	40	4	Gogebic	54	4
Grand Traverse	70	2	Grand Traverse	100	1	Grand Traverse	64	3
Gratiot	62	3	Gratiot	45	4	Gratiot	74	2
Hillsdale	52	4	Hillsdale	50	3	Hillsdale	52	4
Houghton	62	3	Houghton	55	3	Houghton	66	3
Huron	76	2	Huron	75	2	Huron	72	2
Ingham	62	3	Ingham	85	1	Ingham	62	3
Ionia	58	4	Ionia	60	2	Ionia	78	2
Iosco	76	2	Iosco	55	3	Iosco	84	1
Iron	58	4	Iron	45	4	Iron	60	3
Isabella	74	2	Isabella	65	2	Isabella	78	2
Jackson	58	4	Jackson	65	2	Jackson	52	4
Kalamazoo	72	2	Kalamazoo	80	1	Kalamazoo	80	2
Kalkaska	76	2	Kalkaska	55	3	Kalkaska	90	1

	2010-2012 Internal Score	Quartile		External Score	Quartile		2014-2016 Internal Score	Quartile
Kent	60	3	Kent	90	1	Kent	60	3
Keweenaw	92	1	Keweenaw	80	1	Keweenaw	94	1
Lake	64	3	Lake	55	3	Lake	66	3
Lapeer	82	2	Lapeer	65	2	Lapeer	82	1
Leelanau	76	2	Leelanau	90	1	Leelanau	78	2
Lenawee	70	2	Lenawee	70	2	Lenawee	72	2
Livingston	92	1	Livingston	95	1	Livingston	90	1
Luce	68	3	Luce	40	4	Luce	74	2
Mackinac	92	1	Mackinac	65	2	Mackinac	90	1
Macomb	70	2	Macomb	75	2	Macomb	66	3
Manistee	76	2	Manistee	60	2	Manistee	72	2
Marquette	66	3	Marquette	65	2	Marquette	62	3
Mason	88	1	Mason	85	1	Mason	86	1
Mecosta	72	2	Mecosta	50	3	Mecosta	88	1
Menominee	90	1	Menominee	60	2	Menominee	84	1
Midland	56	4	Midland	75	2	Midland	72	2
Missaukee	82	2	Missaukee	60	2	Missaukee	82	1
Monroe	68	3	Monroe	80	1	Monroe	66	3
Montcalm	52	4	Montcalm	55	3	Montcalm	52	4
Montmorency	82	2	Montmorency	45	4	Montmorency	76	2
Muskegon	50	4	Muskegon	60	2	Muskegon	48	4
Newaygo	50	4	Newaygo	60	2	Newaygo	64	3
Oakland	68	3	Oakland	95	1	Oakland	76	2
Oceana	70	2	Oceana	55	3	Oceana	82	1
Ogemaw	48	4	Ogemaw	45	4	Ogemaw	48	4
Ontonagon	88	1	Ontonagon	50	3	Ontonagon	78	2
Osceola	66	3	Osceola	45	4	Osceola	72	2
Oscoda	82	2	Oscoda	45	4	Oscoda	84	1
Otsego	84	1	Otsego	70	2	Otsego	94	1
Ottawa	80	2	Ottawa	95	1	Ottawa	74	2
Presque Isle	86	1	Presque Isle	50	3	Presque Isle	68	3
Roscommon	64	3	Roscommon	55	3	Roscommon	68	3
Saginaw	60	3	Saginaw	45	4	Saginaw	58	4
Sanilac	58	4	Sanilac	70	2	Sanilac	58	4
Schoolcraft	60	3	Schoolcraft	60	2	Schoolcraft	60	3
Shiawasee	58	4	Shiawasee	50	3	Shiawasee	56	4
St. Clair	50	4	St. Clair	55	3	St. Clair	58	4
St. Joseph	94	1	St. Joseph	65	2	St. Joseph	70	3
Tuscola	68	3	Tuscola	60	2	Tuscola	72	2
Van Buren	84	1	Van Buren	70	2	Van Buren	88	1
Washtenaw	64	3	Washtenaw	95	1	Washtenaw	74	2
Wayne	56	4	Wayne	40	4	Wayne	50	4
Wexford	62	3	Wexford	45	4	Wexford	60	3
Average	70			63			70	

A correlation analysis was run to determine the relationship between the 10 internal indicators. (See **Exhibit 8**). There is high correlation among some of the indicators. For example, the correlation between liquidity and assets to liability ratio is .88. This suggests that some of the indicators could be dropped without much impact on the individual scores. However, for purposes of this report and to keep the scoring system easily understood, we retain all 10 internal indicators.

Exhibit 8: Correlation, County Internal Indicators, 2014-2016

	Liquidity	Assets/ Liabilities	Net Assets (unrestricted) /GA Expenditures	GF Revenues/GF Expenditures	GF Fund Balance/GF Expenditures	GA Fund Balance/GA Expenditures	GA Intergovernmental /GA Revenues	GA Revenue/GA Expenditures	Long Term Debt/GA Revenue	GF Expenditures /TV	Score
Liquidity	1										
Assets/Liabilities	0.88168	1									
Net Assets (unrestricted)/GA Expenditures	0.580077	0.751167	1								
GF Revenues/GF Expenditures	0.012017	0.010637	0.044845177	1							
GF Fund Balance/GF Expenditures	0.556583	0.451324	0.476907247	0.099491135	1						
GA Fund Balance/GA Expenditures	0.697228	0.663631	0.617610924	0.159982545	0.76950184	1					
GA Intergovernmental/GA Revenues	-0.22509	-0.1354	0.059875355	-0.19314686	-0.22261386	-0.3364065	1				
GA Revenue/GA Expenditures	0.120949	0.040404	-0.21150196	0.417727309	0.10754485	0.157315024	-0.021804374	1			
Long Term Debt/GA Revenue	-0.37806	-0.32743	-0.094415519	-0.00373277	-0.08762999	-0.04093853	-0.121597761	-0.31672845	1		
GF Expenditures/TV	-0.18903	-0.08226	-0.230460063	-0.10349728	-0.32374247	-0.29326519	0.204794004	0.03297765	0.091789	1	
Score	0.726937	0.614504	0.610837298	0.26305059	0.75109999	0.786728179	-0.3147287	0.29344864	-0.39154	-0.51793125	1

A regression analysis was also run using the final score as the dependent variable and the 10 internal indicators as the independent variables (see **Exhibit 9**). The r-square was .944, and based on the t-values of greater than 2, all but one of the 10 indicators, (GF Revenues/GF Expenditures) were significant determinants of the variation in scores. However, one of the indicators, the ratio of (Assets/Liabilities) has the wrong sign- it should be positively correlated with the final score, but it has a negative correlation. If the indicator is run by itself against the score it is positively correlated and has a high t-value. This suggests the wrong sign is likely the result of a high correlation among some of the indicators. This may not hold true for all years or all groups of local governments but in developing a scoring system, some adjustment in the indicators used may be required.

Exhibit 9: Internal Indicators, Counties, 2014-2016

<i>Regression Statistics</i>	
Multiple R	0.9716033
R Square	0.9440129
Adjusted R Square	0.936237
Standard Error	3.3154489
Observations	83

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	10	13344.65788	1334.466	121.4011	6.23384E-41
Residual	72	791.4385033	10.9922		
Total	82	14136.09639			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>
Intercept	34.5097979	6.368866586	5.418515
Liquidity	5.89703861	1.03405593	5.702824
Assets/Liabilities	-3.54295499	0.641672072	-5.52144
Net Assets (unrestricted)/GA Expenditures	6.81030564	0.789278833	8.628517
GF Revenues/GF Expenditures	6.83825878	6.103071887	1.120462
GF Fund Balance/GF Expenditures	14.0333813	3.051900979	4.598243
GA Fund Balance/GA Expenditures	8.93518815	3.795153535	2.354368
GA Intergovernmental/GA Revenues	-32.0071577	5.625098218	-5.69006
GA Revenue/GA Expenditures	40.5572503	6.737275921	6.019829
Long Term Debt/GA Revenue	-13.1803863	1.887088072	-6.98451
GF Expenditures/TV	-1109.77917	196.2815314	-5.65402

Comparison of Internal and External Scores

The difference in the external and internal scores for the years 2010-2012 and 2014-2016 are shown above in **Exhibit 7**, classified by quartile. For 2010-2012, there are two counties that score in the 4th or bottom quartile on the external score but are in the top (1st) quartile on the internal score (Alcona and Alpena), and 4 counties that score in the bottom (4th) quartile on the external score but in the 2nd quartile on the internal score (Arenac, Gogebic, Montmorency, and Oscoda). Of the counties that were in the top (1st) quartile on the external score, two were in the bottom quartile on the internal quartile (Barry and Eaton) and five were in the 3rd quartile (Ingham, Kent, Monroe, Oakland and Washtenaw).

For 2014-2016, only Oscoda County scored in the 4th quartile on the external score and the top (1st) quartile in the internal score. Six counties scored in the 4th quartile on the external score and in the 2nd quartile for the internal score- Alcona, Alpena, Gratiot, Luce, Montmorency and Osceola. Of the counties that were in the top (1st) quartile on the external score, only Eaton scored in the bottom (4th) quartile on the internal score. Seven counties in the top (1st) quartile on the external score scored in the 3rd quartile on the internal score- Allegan, Barry, Benzie, Grand Traverse, Ingham, Kent and Monroe.

We did not compare the actual scores directly as, regression analysis indicates that the external score is not a good predictor of the internal score (r-square of .13). Most of the counties that appear to outperform their external score are the smaller population counties. This may be because although many of the smaller counties have few resources they also are providing fewer services. In some cases, the differences may be due to the quality of management, but a more detailed analysis would be required to determine if this is the case.

This data may be most useful in identifying situations that warrant a deeper analysis to determine if assistance from the state would be appropriate.

City Analysis

External Scores

The external score measures the resources available to a local government based largely on the economic condition of the local community.

We used five indicators to calculate the external score for cities: (1) TV per capita, 2016; (2) change in TV per capita, 2013-2016; (3) Population change, 2013-2016; (4) millage levied as % of millage limit; and (5) per capita income, 2016.

The maximum external score is 100 and the minimum score is 25. As shown in **Appendix A1**, the scores range from 100 in 11 cities to 25 in Albion, Detroit, Ecorse, Flint and Saginaw. Five of the cities with maximum (100) scores are suburbs of Detroit or Ann Arbor.

There are 76 cities with a score of 80 or above and 104 cities with a score of 50 or below. The average score was 62.5.

A correlation analysis was run to determine the relationship between the five external indicators (see **Exhibit 10**). There is some correlation between the indicators but it is not unusually high, suggesting that there is little duplication among the indicators. The highest correlation, .56, was between TV PC and Per Capita Income. An interesting result is that there is a negative correlation between the millage used indicator and the other four indicators. This suggests that relatively high millage rates are associated with low fiscal resources. The 2002 Kleine, Kloha, Weissert study found similar results and concluded that high millage rates are likely a cause of low population growth and low TV Per Capita rather than the effect of inadequate fiscal resources.

Exhibit 10: Correlation City External Indicators

	TVPC	TV Change	Pop. Change	Millage	PC Income
TVPC	1				
TV Change	0.286342	1			
Pop. Change	0.114885	0.21507	1		
Millage	-0.43005	-0.306857	-0.214950564	1	
PC Income	0.561349	0.335797	0.191381037	-0.5017	1

A regression analysis was also run using the final score as the dependent variable and the five indicators as the independent variables. The r-square was .773, and based on the t-values, four of the five indicators were significant determinants of the variation in scores. (See **Exhibit 11**). The indicator that was not significant (t-value of .798) was TV Per Capita, which is generally viewed as the most important indicator of a city's fiscal strength. This is likely because of some correlation between TV and the other indicators. If regressed by itself TV Per Capita has a high t-value (8.99).

Exhibit 11: Regression City External Indicators

<i>Regression Statistics</i>	
Multiple R	0.8795046
R Square	0.7735284
Adjusted R Squa	0.7693957
Standard Error	9.5438084
Observations	280

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	85242.55022	17048.51	187.1729	3.61698E-86
Residual	274	24957.09264	91.08428		
Total	279	110199.6429			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>
Intercept	80.034193	4.634558274	17.269
TV PC	1.486E-05	1.86189E-05	0.798259
TV Change	52.004528	5.919411399	8.785422
Pop. Change	339.43627	30.87115464	10.99526
Millage	-37.64495	4.66006532	-8.0782
PCPI	0.0005763	5.84612E-05	9.858052

Internal Scores

The scores for 2010-2012 and 2014-2016 are shown in **Appendix A2**. For 2010-2012, the scores range from 98 in Lake Angelus to 42 in Highland Park, Kalamazoo, and Pontiac. Flint and Munising had a score of 44 and Detroit a score of 46. The average score was 70.

The scores for 2014-2016 range from 100 in Lake Angelus to 46 in Crystal Falls, Manistique, Muskegon Heights, and Parchment. The average score was 70, unchanged from 2010-2012.

The scores were generally stable from 2010-12 to 2014-16. There were, however, eight cities whose score changed by 20 points or more. There can be various reasons for large changes. For example, Saugatuck's score increased from 62 in 2012-2014 to 94 in 2014-2016. This was due in large part to the receipt of additional Federal and state aid and the taking on of additional debt to purchase beach property in 2012.

A correlation analysis was run to determine the relationship between the 10 internal indicators. There is a very high correlation between the Liquidity and Asset/Liabilities indicators, .979. There is also a high correlation between the GF Fund Balance and GA Fund Balance as percent of Expenditures indicators, .798 and the Long Term Debt/GA revenue and Net Assets (unrestricted/GA Expenditures indicators, .769. (See **Exhibit 12**). This suggests that it would be possible to drop some of the indicators without significantly affecting the overall score.

Exhibit 12: Correlation Analysis Cities, 2014-2016

	Liquidity	Assets/ Liabilities	GF Revenues/GF Expenditures	GF Fund Balance/GF Expenditures	GA Fund Balance/GA Expenditures	GA Intergovernmental /GA Revenues	GA Revenue/GA Expenditures	Long Term Debt/GA Revenue	Net Assets (unrestricted) / GA Expenditures	GF Expenditures /TV	Score
Liquidity	1										
Assets/Liabilities	0.97971	1									
GF Revenues/GF Expenditures	0.05252	0.05614	1								
GF Fund Balance/GF Expenditures	0.44165	0.4541	0.221561332	1							
GA Fund Balance/GA Expenditures	0.44303	0.45166	0.075501561	0.79822757	1						
GA Intergovernmental/GA Revenues	0.09653	0.11321	-0.06763047	0.096264121	0.181983477	1					
GA Revenue/GA Expenditures	0.11596	0.12152	0.537338364	0.126032141	0.052955998	0.010328002	1				
Long Term Debt/GA Revenue	-0.27096	-0.33622	-0.02168362	-0.37979983	-0.40730866	-0.137290481	-0.08386097	1			
Net Assets (unrestricted)/GA Expenditures	0.23551	0.2801	-0.01224525	0.489488169	0.46309784	0.046811851	-0.10051514	-0.769616	1		
GF Expenditures/TV	-0.04047	-0.06051	-0.12553201	-0.25845642	-0.25179743	0.210863151	0.107917672	0.337337	-0.42355203	1	
Score	0.27475	0.33288	0.275466275	0.657522207	0.616080887	-0.07905641	0.268864414	-0.726258	0.708517547	-0.46622277	1

A regression analysis was run with the final internal score as the dependent variable and the 10 indicators as the independent variables. The r-square was .828 and all 10 internal indicators were significant- t-value of 2 or more. The coefficient for Liquidity is negative. This is likely because it is highly correlated with Assets/Liabilities (see **Exhibit 13**).

Exhibit 13: Regression Cities, 2014-2016

<i>Regression Statistics</i>	
Multiple R	0.91029043
R Square	0.82862868
Adjusted R Square	0.82225799
Standard Error	5.21000858
Observations	280

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	10	35306.19878	3530.62	130.0691	6.41786E-97
Residual	269	7301.786936	27.14419		
Total	279	42607.98571			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>
Intercept	48.3295098	4.008100682	12.05796
Liquidity	-0.5092902	0.125437957	-4.0601
Assets/Liabilities	0.25449083	0.072635537	3.503668
GF Revenues/GF Expenditures	9.47718592	4.224134934	2.24358
GF Fund Balance/GF Expenditures	7.93321151	1.626379137	4.877836
GA Fund Balance/GA Expenditures	11.0950778	2.354989025	4.711308
GA Intergovernmental/GA Revenues	-22.484672	3.602670486	-6.24111
GA Revenue/GA Expenditures	23.335442	3.686296097	6.330322
Long Term Debt/GA Revenue	-5.5331079	0.699139893	-7.91416
Net Assets (unrestricted)/GA Expenditures	3.27110085	0.7174389	4.559414
GF Expenditures/TV	-99.018058	24.53300048	-4.03612

Comparison of Internal and External Scores

The difference in the external and internal scores for the years 2010-2012 and 2014-2016 are shown in **Appendix A3 and A4**, classified by quartile. For 2010-2012, there are 13 cities that score in the 4th or bottom quartile on the external score but are in the top (1st) quartile on the internal score, and 14 cities that score in the bottom (4th) quartile on the external score but in the 2nd quartile on the internal score. Of the cities that were in the top (1st) quartile on the external score, 12 were in the bottom (4th) quartile on the internal quartile and 17 were in the 3rd quartile. (See **Appendix A3**).

For 2014-2016, there were 15 cities that scored in the 4th quartile on the external score and the top (1st) quartile in the internal score. Of the cities that were in the top (1st) quartile on the external score, seven cities scored in the bottom (4th) quartile on the internal score. There were another 19 cities that scored in the top (1st) quartile on the external score and in the 3rd quartile on the internal score. (See **Exhibit 14 & Appendix A4**).

As with the counties, we did not compare the actual scores directly as, regression analysis indicates that the external score is not a good predictor of the internal score. Most of the cities that appear to outperform their external score, are the smaller population counties. As noted above, this may be because although many of the smaller cities have few resources they also are providing fewer services. In some cases, the differences may be due to the quality of management, but a more detailed analysis would be required to determine if this is the case.

Exhibit 14: Cities that Out Performed or Under Performed their External Score

Outperformed	External Score	Internal Score
Alma	4	1
Bad Axe	4	1
Bronson	4	1
Brown City	4	1
Evart	4	1
Ithaca	4	1
Morenci	4	1
Omer	4	1
Onaway	4	1
Pinconning	4	1
Rose City	4	1
Sandusky	4	1
Stanton	4	1
Three Rivers	4	1
White Cloud	4	1
Underperformed		
Clarkston	1	4
Clawson	1	4
Gross Pointe Shores	1	4
Lowell	1	4
Norton Shores	1	4
St. Clair Shores	1	4
Sterling Heights	1	4

This data may be most useful in identifying situations that warrant a deeper analysis to determine if assistance from the state would be appropriate. This type of analysis can help the state decide which cities may need state intervention and which cities can likely only benefit from a change in state policy, such as increased revenue sharing. For example, cities that rank in the 3rd or 4th quartile on the external score and the 4th quartile on the internal score are more likely to benefit from a change in state policy than state intervention. Cities that rank in the 1st or 2nd quartile on the external score but in the 4th quartile on the internal score may have management issues that may warrant state intervention.

Village Analysis

There are 255 villages in Michigan. The average population is about 1,100. There are only 3 villages with a population of 5,000 or more, and 91 with a population of 1,000 or more. We were unable to collect data for all villages due to a lack of resources. However, we have

included a scaled down analysis of 25 villages for 2010 and 2016. We have included the three largest villages plus a random sample of villages with a population of 1,000 or more.

External Scores

We used four indicators to calculate the external score for villages: (1) TV per capita, 2016; (2) change in TV per capita, 2013-2016; (3) Population change, 2013-2016; and (4) per capita income, 2016.

We divided the villages with population of over 1,000 into quartiles for each of the indicators and assigned 25 points to those in the top quartile, 20 points for the 2nd quartile, 15 points for the 3rd quartile and 10 points for the bottom quartile. For purposes of analysis, the scores are included only for those villages in our sample. External scores for all villages are in **Appendix A5**.

Internal Scores

The scores for 2010 and 2016 are shown in **Exhibit 15**. For 2010, the scores range from 94 in Berrien Springs to 52 in Kingsley. For 2016, the scores range from 84 in Brooklyn to 58 in Goodrich and Kingsley. The average score was almost unchanged from 2010 (69.7) to 2016 (69.8). There is considerable variation in scores between the two years for some villages, due in most cases to changes in the amount of debt on the books.

Exhibit 15: Internal Scores Villages, 2010 and 2016

Village	Final Score 2010	Final Score 2016		Final Score Rank 2010		Final Score Rank 2016
Athens	78	66	Berrien Springs	94	Brooklyn	84
Berrien Springs	94	66	Mattawan	82	Decatur	84
Beverly Hills	74	62	Brooklyn	80	Elk Rapids	80
Blissfield	64	62	Goodrich	80	Lake Odessa	78
Brooklyn	80	84	Athens	78	Milford	78
Caledonia	74	76	Lakeview	78	Caledonia	76
Capac	74	68	Milford	78	Lexington	76
Cass City	66	74	Beverly Hills	74	Cass City	74
Cassopolis	62	60	Caledonia	74	Howard	74
Chesaning	68	64	Capac	74	Mancelona	74
Decatur	66	84	Lake Odessa	74	Sebewaing	74
Elk Rapids	60	80	Chesaning	68	Stockbridge	72
Fowlerville	58	68	Sebewaing	68	Capac	68
Goodrich	80	58	Cass City	66	Fowlerville	68
Holly	62	60	Decatur	66	Athens	66
Howard	60	74	Lexington	66	Berrien Springs	66
Kingsley	52	58	Mancelona	66	Lakeview	66
Lake Odessa	74	78	Blissfield	64	Chesaning	64
Lakeview	78	66	Cassopolis	62	Beverly hills	62
Lexington	66	76	Holly	62	Blissfield	62
Mancelona	66	74	Elk Rapids	60	Mattawan	62
Mattawan	82	62	Howard City	60	Cassopolis	60
Milford	78	78	Fowlerville	58	Holly	60
Sebewaing	68	74	Stockbridge	58	Goodrich	58
Stockbridge	58	72	Kingsley	52	Kingsley	58
Average	69.7	69.7		69.8		69.8

Comparison of Internal and External Scores

The difference in the external and internal scores is shown in Exhibit 16, classified by quartile. There were three villages that scored in the top (1st) quartile on the external score and the bottom (4th) quartile on the internal score, Beverley Hills, Blissfield, and Goodrich. Within this subset of 25 villages there were no villages that appear to outperform their external score. However there were two villages that scored in the 3rd quartile on the external score and the top (1st) quartile on the internal score.

Exhibit 16: External Internal Score Comparison by Quartiles, Villages, 2016

Village	Internal Score	Quartile	External Score	Quartile
Athens	66.0	3	65	3
Berrien Springs	66.0	3	75	2
Beverly Hills	62.0	4	80	1
Blissfield	62.0	4	85	1
Brooklyn	84.0	1	70	2
Caledonia	76.0	1	85	1
Capac	68.0	2	60	3
Cass City	74.0	2	60	3
Cassopolis	60.0	4	55	4
Chesaning	64.0	3	55	4
Decatur	84.0	1	65	3
Elk Rapids	80.0	1	75	2
Fowlerville	68.0	2	80	1
Goodrich	58.0	4	85	1
Holly	60.0	4	60	3
Howard	74.0	2	75	2
Kingsley	58.0	4	70	2
Lake Odessa	78.0	1	60	3
Lakeview	66.0	3	70	2
Lexington	76.0	1	80	1
Mancelona	74.0	2	60	3
Mattawan	62.0	4	75	2
Milford	78.0	1	85	1
Sebewaing	74.0	2	60	3
Stockbridge	72.0	2	80	1
Average	69.8			

Township Analysis

There are 1240 townships in Michigan. The average population is about 4,100. There are seven townships with a population over 50,000 and 243 with a population over 5,000.

We were unable to collect data for all townships due to a lack of resources.

However, if resources are constrained, we recommend the focus be on cities, villages and counties as townships tend to do better financially than cities and villages due to more room for new development and lower tax rates. For example, from 2008 to 2017, TV declined 18% in cities, 17.2% in villages, but only 0.3% in townships.

External Scores

We were able to develop external scores for townships because this data was online and downloadable. We used the same methodology to develop the external score for townships as for villages. The only difference is that we used the 243 townships with a population over 5,000 to develop the scores. The township external scores are in **Appendix A6**.

The average external score for townships is 70.2 compared with 62.5 for cities and 68.7 for villages. Further evidence that townships are stronger financially than cities and villages.

Internal Scores

The internal scores for the sample township analysis were not calculated due to a lack of resources.

Conclusion

There are several lessons we learned preparing this report that could be helpful in implementing a fiscal distress scoring system. First, local governments should be separated by population size as there appears to be a significant difference between the relative performance depending on the population size of the local unit. Further research is needed to determine the appropriate population classes. Second, considerable resources will be required due to the large number of local governments in Michigan, 1,858 cities, villages, townships, and counties. Third, for purposes of this report we used 10 indicators to develop the internal score. It may be possible to reduce the number of indicators as there is a high correlation between some of the indicators. (See **Exhibits 8 and 10**). There may be too much emphasis on debt as four of the indicators can be affected by changes in the amount of debt.

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Appendices

Appendix A1: City External Scores

	Final Score		Final Score Rank
Adrian	40	Birmingham	100
Albion	25	Bloomfield Hills	100
Algonac	75	Chelsea	100
Allegan	60	Douglas	100
Allen Park	60	East Grand Rapids	100
Alma	40	Ferrysburg	100
Alpena	45	Frankenmuth	100
Ann Arbor	95	Plymouth	100
Au Gres	55	Rochester Hills	100
Auburn	85	Saugatuck	100
Auburn Hills	80	Traverse City	100
Bad Axe	45	Ann Arbor	95
Bangor	50	Dewitt	95
Battle Creek	45	Dexter	95
Bay City	40	Frankfort	95
Beaverton	35	Grand Haven	95
Belding	50	Grandville	95
Belleville	65	Huntington Woods	95
Benton Harbor	45	Lake Angelus	95
Berkley	85	New Baltimore	95
Bessemer	45	New Buffalo	95
Big Rapids	45	Norton Shores	95
Birmingham	100	Novi	95
Bloomfield Hills	100	Orchard Lake Village	95
Boyer City	75	Rochester	95
Bridgman	70	Rockford	95
Brighton	90	Royal Oak	95
Bronson	40	South Lyon	95
Brown City	35	St. Joseph	95
Buchanan	55	Sylvan Lake	95
Burton	45	Walker	95
Cadillac	50	Brighton	90
Caro City	50	Grosse Pointe Woods	90
Carson City	70	Northville	90
Caseville City	80	Petoskey	90
Caspian	40	Pleasant Ridge	90
Cedar Springs	65	South Haven	90
Center Line	45	Grosse Pointe Shores City	90
Charlevoix	85	Zeeland	90
Charlotte	55	Auburn	85

	Final Score		Final Score Rank
Cheboygan	40	Berkley	85
Chelsea	100	Charlevoix	85
Clare	60	Clawson	85
Clawson	85	Farmington	85
Clio	45	Farmington Hills	85
Coldwater	50	Ferndale	85
Coleman	35	Grosse Pointe Farms	85
Coloma	60	Grosse Pointe Park	85
Coopersville	75	Keego Harbor	85
Corunna	50	Lowell	85
Croswell	30	Mackinac Island	85
Crystal Falls	35	Richmond	85
Davison	50	Troy	85
Dearborn	55	Utica	85
Dearborn Heights	55	Williamston	85
Detroit	25	Auburn Hills	80
Dewitt	95	Caseville City	80
Dexter	95	Grand Ledge	80
Douglas	100	Grosse Pointe	80
Dowagiac	45	Harbor Springs	80
Durand	65	Hudsonville	80
East Grand Rapids	100	Laingsburg	80
East Jordan	45	Lathrup Village	80
East Lansing	70	Linden	80
East Tawas	75	Livonia	80
Eastpointe	50	Mason	80
Eaton Rapids	55	Midland	80
Ecorse	25	North Muskegon	80
Escanaba	60	Saline	80
Essexville	60	St. Clair Shores	80
Ewart	35	Sterling Heights	80
Farmington	85	Clarkston	80
Farmington Hills	85	Walled Lake	80
Fennville	50	Wayland	80
Fenton	70	Wixom	80
Ferndale	85	Wyoming	80
Ferrysburg	100	Algonac	75
Flat Rock	65	Boyne City	75
Flint	25	Coopersville	75
Flushing	55	East Tawas	75

	Final Score		Final Score Rank
Frankenmuth	100	Grand Blanc	75
Frankfort	95	Kentwood	75
Fraser	70	Lake Angelus	75
Fremont	70	Memphis	75
Gaastra	40	Portage	75
Galesburg	65	Riverview	75
Garden City	65	Trenton	75
Gaylord	70	Bridgman	70
Gibraltar	70	Carson City	70
Gladstone	60	East Lansing	70
Gladwin	50	Fenton	70
Gobles	50	Fraser	70
Grand Blanc	75	Fremont	70
Grand Haven	95	Gaylord	70
Grand Ledge	80	Gibraltar	70
Grand Rapids	60	Holland	70
Grandville	95	Houghton	70
Grant	40	Howell	70
Grayling	45	Ludington	70
Greenville	60	Marysville	70
Grosse Pointe	80	Milan	70
Grosse Pointe Farms	85	Negaunee	70
Grosse Pointe Park	85	Ovid	70
Grosse Pointe Woods	90	Petersburg	70
Hamtramck	35	Potterville	70
Hancock	65	Rockwood	70
Harbor Beach	50	St. Clair	70
Harbor Springs	80	Tecumseh	70
Harper Woods	35	Whitehall	70
Harrison	60	Belleville	65
Harrisville	60	Cedar Springs	65
Hart	45	Durand	65
Hartford	50	Flat Rock	65
Hastings	65	Galesburg	65
Hazel Park	60	Garden City	65
Highland Park	40	Hancock	65
Hillsdale	40	Hastings	65
Holland	70	Madison Heights	65
Houghton	70	Marquette	65
Howell	70	Monroe	65

	Final Score		Final Score Rank
Hudson	55	Montague	65
Hudsonville	80	Newaygo	65
Huntington Woods	95	Perry	65
Imlay City	45	Plainwell	65
Inkster	30	Roosevelt Park	65
Ionia	50	Southfield	65
Iron Mountain	55	Southgate	65
Iron River	30	St. Johns	65
Ironwood	50	Stephenson	65
Ispeming	60	Westland	65
Ithaca	45	Allegan	60
Jackson	35	Allen Park	60
Jonesville	45	Clare	60
Kalamazoo	55	Coloma	60
Keego Harbor	85	Escanaba	60
Kentwood	75	Essexville	60
Kingsford	55	Gladstone	60
Laingsburg	80	Grand Rapids	60
Lake Angelus	95	Greenville	60
Lake Angelus	75	Harrison	60
Lansing	55	Harrisville	60
Lapeer	50	Hazel Park	60
Lathrup Village	80	Ispeming	60
Leslie	60	Leslie	60
Lincoln Park	35	Manistee	60
Linden	80	Marshall	60
Litchfield	50	Portland	60
Livonia	80	Reading	60
Lowell	85	Tawas City	60
Ludington	70	Woodhaven	60
Luna Pier	50	Ypsilanti	60
Mackinac Island	85	Au Gres	55
Madison Heights	65	Buchanan	55
Manistee	60	Charlotte	55
Manistique	35	Dearborn	55
Manton	50	Dearborn Heights	55
Marine City	55	Eaton Rapids	55
Marlette	40	Flushing	55
Marquette	65	Hudson	55
Marshall	60	Iron Mountain	55

	Final Score		Final Score Rank
Marysville	70	Kalamazoo	55
Mason	80	Kingsford	55
Mcbain	50	Lansing	55
Melvindale	45	Marine City	55
Memphis	75	Muskegon	55
Menominee	45	Oak Park	55
Midland	80	Otsego	55
Milan	70	Parchment	55
Monroe	65	Port Huron	55
Montague	65	Romulus	55
Montrose	30	Roseville	55
Morenci	40	Scottville	55
Mount Morris	45	St. Ignace	55
Mount Pleasant	40	Swartz Creek	55
Mt. Clemens	50	Warren	55
Munising	45	West Branch	55
Muskegon	55	Bangor	50
Muskegon Heights	45	Belding	50
Negaunee	70	Cadillac	50
New Baltimore	95	Caro City	50
New Buffalo	95	Coldwater	50
Newaygo	65	Corunna	50
Niles	35	Davison	50
North Muskegon	80	Eastpointe	50
Northville	90	Fennville	50
Norton Shores	95	Gladwin	50
Norway	50	Gobles	50
Novi	95	Harbor Beach	50
Oak Park	55	Hartford	50
Olivet	45	Ionia	50
Omer	35	Ironwood	50
Onaway	30	Lapeer	50
Orchard Lake Village	95	Litchfield	50
Otsego	55	Luna Pier	50
Ovid	70	Manton	50
Owosso	50	Mcbain	50
Parchment	55	Mt. Clemens	50
Perry	65	Norway	50
Petersburg	70	Owosso	50
Petoskey	90	Rogers City	50

	Final Score		Final Score Rank
Pinconning	35	Sturgis	50
Plainwell	65	Taylor	50
Pleasant Ridge	90	Watervliet	50
Plymouth	100	Whittemore	50
Pontiac	45	Wyandotte	50
Port Huron	55	Zilwaukee	50
Portage	75	Alpena	45
Portland	60	Bad Axe	45
Potterville	70	Battle Creek	45
Reading	60	Benton Harbor	45
Reed City	30	Bessemer	45
Richmond	85	Big Rapids	45
River Rouge	35	Burton	45
Riverview	75	Center Line	45
Rochester	95	Clio	45
Rochester Hills	100	Dowagiac	45
Rockford	95	East Jordan	45
Rockwood	70	Grayling	45
Rogers City	50	Hart	45
Romulus	55	Imlay City	45
Roosevelt Park	65	Ithaca	45
Rose City	40	Jonesville	45
Roseville	55	Melvindale	45
Royal Oak	95	Menominee	45
Saginaw	25	Mount Morris	45
Saline	80	Munising	45
Sandusky	40	Muskegon Heights	45
Saugatuck	100	Olivet	45
Sault Ste. Marie	45	Pontiac	45
Scottville	55	Sault Ste. Marie	45
South Haven	90	Springfield	45
South Lyon	95	Standish	45
Southfield	65	Stanton	45
Southgate	65	Wakefield	45
Springfield	45	Yale	45
St. Clair	70	Adrian	40
St. Clair Shores	80	Alma	40
St. Ignace	55	Bay City	40
St. Johns	65	Bronson	40
St. Joseph	95	Caspian	40

	Final Score		Final Score Rank
St. Louis	35	Cheboygan	40
Standish	45	Gaastra	40
Stanton	45	Grant	40
Stephenson	65	Highland Park	40
Sterling Heights	80	Hillsdale	40
Sturgis	50	Marlette	40
Swartz Creek	55	Morenci	40
Sylvan Lake	95	Mount Pleasant	40
Tawas City	60	Rose City	40
Taylor	50	Sandusky	40
Tecumseh	70	Wayne	40
Three Rivers	35	White Cloud	40
Traverse City	100	Beaverton	35
Trenton	75	Brown City	35
Troy	85	Coleman	35
Utica	85	Crystal Falls	35
Vassar	35	Ewart	35
Clarkston	80	Hamtramck	35
Grosse Pointe Shores City	90	Harper Woods	35
Wakefield	45	Jackson	35
Walker	95	Lincoln Park	35
Walled Lake	80	Manistique	35
Warren	55	Niles	35
Watervliet	50	Omer	35
Wayland	80	Pinconning	35
Wayne	40	River Rouge	35
West Branch	55	St. Louis	35
Westland	65	Three Rivers	35
White Cloud	40	Vassar	35
Whitehall	70	Croswell	30
Whittemore	50	Inkster	30
Williamston	85	Iron River	30
Wixom	80	Montrose	30
Woodhaven	60	Onaway	30
Wyandotte	50	Reed City	30
Wyoming	80	Albion	25
Yale	45	Detroit	25
Ypsilanti	60	Ecorse	25
Zeeland	90	Flint	25
Average	62.5		62.5

Appendix A2: City Internal Scores, 2010-2012 and 2014-2016

	Final Score 2010-12		Final Score 2014-16	Change in Score		Final Score Rank 2010-12		Final Score Rank 2014-16
Adrian	58	Adrian	70	12	Lake Angelus	98	Lake Angelus	100
Albion	54	Albion	72	18	Caro	96	Algonac	98
Algonac	86	Algonac	98	12	Lathrup	96	Mcbain	98
Allegan	66	Allegan	80	14	Pinconning	96	Auburn Hills	94
Allen Park	58	Allen Park	62	4	Bad Axe	94	Caro	94
Alma	92	Alma	80	(12)	Charlevoix	94	Coopersville	94
Alpena	78	Alpena	68	(10)	Harbor Beach	94	Newaygo	94
Ann Arbor	74	Ann Arbor	72	(2)	Zilwaukee	94	Rochester	94
Au Gres	76	Au Gres	84	8	Alma	92	Saugatuck	94
Auburn	88	Auburn	86	(2)	Auburn Hills	92	Stephenson	94
Auburn Hills	92	Auburn Hills	94	2	Douglas	92	Omer	92
Bad Axe	94	Bad Axe	84	(10)	Mcbain	92	Petersburg	92
Bangor	62	Bangor	82	20	Reading	92	Coloma	90
Battle Creek	60	Battle Creek	52	(8)	Rochester Hills	92	Grand Blanc	90
Bay City	60	Bay City	52	(8)	South Lyon	92	Harbor Beach	90
Beaverton	48	Beaverton	64	16	Stephenson	92	Rochester Hills	90
Belding	68	Belding	74	6	Brown City	90	Sandusky	90
Belleville	74	Belleville	72	(2)	Lake City	90	Swartz Creek	90
Benton Harbor	50	Benton Harbor	62	12	Rochester	90	Brown City	88
Berkley	70	Berkley	76	6	Swartz Creek	90	Buchanan	88
Bessemer	64	Bessemer	64	0	Wayland	90	DeWitt	88
Big Rapids	46	Big Rapids	50	4	Auburn	88	Douglas	88
Birmingham	84	Birmingham	86	2	Harrisville	88	Harrisville	88
Bloomfield Hills	72	Bloomfield Hills	68	(4)	Sandusky	88	Lake City	88
Boyne City	84	Boyne City	78	(6)	Stanton	88	Leslie	88
Bridgman	86	Bridgman	80	(6)	Algonac	86	South Lyon	88
Brighton	62	Brighton	60	(2)	Bridgman	86	Auburn	86
Bronson	64	Bronson	84	20	Carson City	86	Birmingham	86
Brown City	90	Brown City	88	(2)	Fennville	86	Evart	86
Buchanan	82	Buchanan	88	6	Fenton	86	Fennville	86
Burton	62	Burton	50	(12)	Kingsford	86	Grosse Pointe	86
Cadillac	78	Cadillac	70	(8)	Luna Pier	86	Ithaca	86
Caro	96	Caro	94	(2)	North Muskegon	86	New Buffalo	86
Carson City	86	Carson City	84	(2)	Pleasant Ridge	86	Onaway	86
Caseville	50	Caseville	68	18	St. Clair Shore	86	Rockford	86
Caspian	82	Caspian	78	(4)	Whittemore	86	Tawas	86
Cedar Springs	64	Cedar Springs	80	16	Birmingham	84	West Branch	86
Center Line	66	Center Line	52	(14)	Boyne City	84	Whittemore	86
Charlevoix	94	Charlevoix	84	(10)	Evart	84	Zilwaukee	86
Charlotte	66	Charlotte	70	4	Harbor Springs	84	Au Gres	84

	Final Score 2010-12		Final Score 2014-16	Change in Score		Final Score Rank 2010-12		Final Score Rank 2014-16
Cheboygan	60	Cheboygan	66	6	Mackinac Island	84	Bad Axe	84
Chelsea	70	Chelsea	70	0	Menominee	84	Bronson	84
Clare	60	Clare	54	(6)	Omer	84	Carson City	84
Clarkston	80	Clarkston	58	(22)	Otsego	84	Charlevoix	84
Clawson	56	Clawson	58	2	Petersburg	84	Harbor Springs	84
Clio	76	Clio	68	(8)	West Branch	84	Ovid	84
Coldwater	74	Coldwater	68	(6)	Buchanan	82	Three Rivers	84
Coleman	80	Coleman	70	(10)	Caspian	82	Troy	84
Coloma	78	Coloma	90	12	DeWitt	82	Wixom	84
Coopersville	68	Coopersville	94	26	Grand Blanc	82	Zeeland	84
Corunna	70	Corunna	70	0	Northville	82	Bangor	82
Croswell	68	Croswell	56	(12)	Norton Shores	82	East Tawas	82
Crystal Falls	58	Crystal Falls	46	(12)	Rose	82	Galesburg	82
Davison	68	Davison	62	(6)	Clarkston	80	Memphis	82
Dearborn	68	Dearborn	72	4	Coleman	80	Morenci	82
Dearborn Heights	50	Dearborn Heights	58	8	Grant	80	Pinconning	82
Detroit	46	Detroit	50	4	Grosse Pointe	80	Reading	82
DeWitt	82	DeWitt	88	6	Hillsdale	80	Richmond	82
Dexter	NA	Dexter	60	NM	Iron Mountain	80	Rose City	82
Douglas	92	Douglas	88	(4)	Laingsburg	80	St. Clair	82
Dowagiac	62	Dowagiac	52	(10)	Leslie	80	St. Joseph	82
Durand	60	Durand	64	4	Madison Heights	80	Stanton	82
East Grand Rapids	64	East Grand Rapids	72	8	Orchard Lake Village	80	Sylvan Lake	82
East Jordan	64	East Jordan	58	(6)	Owosso	80	Whitehall	82
East Lansing	54	East Lansing	54	0	Richmond	80	Allegan	80
East Tawas	78	East Tawas	82	4	Rockford	80	Alma	80
Eastpointe	68	Eastpointe	58	(10)	Roosevelt Park	80	Bridgman	80
Eaton Rapids	48	Eaton Rapids	56	8	Troy	80	Cedar Springs	80
Ecorse	50	Ecorse	62	12	Watervliet	80	Hartford	80
Escanaba	78	Escanaba	62	(16)	Alpena	78	Laingsburg	80
Essexville	66	Essexville	72	6	Cadillac	78	Litchfield	80
Ewart	84	Ewart	86	2	Coloma	78	Scottville	80
Farmington	64	Farmington	62	(2)	East Tawas	78	White Cloud	80
Farmington Hills	74	Farmington Hills	78	4	Escanaba	78	Boyer City	78
Fennville	86	Fennville	86	0	Ferrysburg	78	Caspian	78
Fenton	86	Fenton	78	(8)	Grand Haven	78	Farmington Hills	78
Ferndale	56	Ferndale	72	16	Harrison	78	Fenton	78
Ferrysburg	78	Ferrysburg	76	(2)	Hastings	78	Gobles	78
Flat Rock	52	Flat Rock	56	4	Ithaca	78	Grant	78
Flint	44	Flint	50	6	Marlette	78	Jonesville	78
Flushing	62	Flushing	64	2	Muskegon	78	Livonia	78

	Final Score 2010-12		Final Score 2014-16	Change in Score		Final Score Rank 2010-12		Final Score Rank 2014-16
Frankenmuth	62	Frankenmuth	72	10	Novi	78	Marine City	78
Frankfort	64	Frankfort	62	(2)	Port Huron	78	Monroe	78
Fraser	56	Fraser	52	(4)	St. Clair	78	North Muskegon	78
Fremont	68	Fremont	68	0	Whitehall	78	Northville	78
Gaastra	60	Gaastra	52	(8)	Zeeland	78	Otsego	78
Galesburg	68	Galesburg	82	14	Au Gres	76	Owasso	78
Garden City	50	Garden City	56	6	Clio	76	Sturgis	78
Gaylord	58	Gaylord	72	14	Grandville	76	Vassar	78
Gibraltar	62	Gibraltar	68	6	Hartford	76	Woodhaven	78
Gladstone	64	Gladstone	58	(6)	Ironwood	76	Berkley	76
Gladwin	64	Gladwin	76	12	Marysville	76	Ferrysburg	76
Gobles	74	Gobles	78	4	New Buffalo	76	Gladwin	76
Grand Blanc	82	Grand Blanc	90	8	Newaygo	76	Hudson	76
Grand Haven	78	Grand Haven	64	(14)	Onaway	76	Ludington	76
Grand Ledge	72	Grand Ledge	66	(6)	Springfield	76	Luna Pier	76
Grand Rapids	64	Grand Rapids	62	(2)	St. Louis	76	Mackinac Island	76
Grandville	76	Grandville	70	(6)	Three Rivers	76	Petoskey	76
Grant	80	Grant	78	(2)	Yale	76	St. Ignace	76
Grayling	74	Grayling	68	(6)	Ann Arbor	74	Standish	76
Greenville	72	Greenville	68	(4)	Belleville	74	Walled Lake	76
Grosse Pointe	80	Grosse Pointe	86	6	Coldwater	74	Belding	74
Grosse Pointe Farms	70	Grosse Pointe Farms	74	4	Farmington Hills	74	Grosse Pointe Farms	74
Grosse Pointe Park	62	Grosse Pointe Park	60	(2)	Gobles	74	Houghton	74
Grosse Pointe Shores	66	Grosse Pointe Shores	54	(12)	Grayling	74	Marlette	74
Grosse Pointe Woods	68	Grosse Pointe Woods	68	0	Manton	74	Utica	74
Hamtramck	52	Hamtramck	56	4	Marshall	74	Walker	74
Hancock	50	Hancock	60	10	Memphis	74	Albion	72
Harbor Beach	94	Harbor Beach	90	(4)	Mount Pleasant	74	Ann Arbor	72
Harbor Springs	84	Harbor Springs	84	0	Sturgis	74	Belleville	72
Harper Woods	52	Harper Woods	54	2	Walker	74	Dearborn	72
Harrison	78	Harrison	66	(12)	Walled Lake	74	East Grand Rapids	72
Harrisville	88	Harrisville	88	0	Wixom	74	Essexville	72
Hart	60	Hart	68	8	Bloomfield Hills	72	Ferndale	72
Hartford	76	Hartford	80	4	Grand Ledge	72	Frankenmuth	72
Hastings	78	Hastings	66	(12)	Greenville	72	Gaylord	72
Hazel Park	58	Hazel Park	54	(4)	Hudson	72	Hudsonville	72
Highland Park	42	Highland Park	60	18	Iron River	72	Imlay City	72
Hillsdale	80	Hillsdale	70	(10)	Jonesville	72	Manton	72
Holland	56	Holland	58	2	Ludington	72	Marquette	72
Houghton	62	Houghton	74	12	Midland	72	Marysville	72
Howell	58	Howell	56	(2)	Milan	72	Montague	72

	Final Score 2010-12		Final Score 2014-16	Change in Score		Final Score Rank 2010-12		Final Score Rank 2014-16
Hudson	72	Hudson	76	4	Monroe	72	Novi	72
Hudsonville	66	Hudsonville	72	6	Montague	72	Olivet	72
Huntington Woods	54	Huntington Woods	60	6	Mount Clemens	72	Royal Oak	72
Imlay City	66	Imlay City	72	6	Petoskey	72	Saline	72
Inkster	46	Inkster	54	8	Rogers	72	Warren	72
Ionia	60	Ionia	50	(10)	Scottville	72	Watervliet	72
Iron Mountain	80	Iron Mountain	66	(14)	Southfield	72	Adrian	70
Iron River	72	Iron River	68	(4)	St. Johns	72	Cadillac	70
Ironwood	76	Ironwood	62	(14)	Traverse City	72	Charlotte	70
Ishpeming	58	Ishpeming	54	(4)	Vassar	72	Chelsea	70
Ithaca	78	Ithaca	86	8	Wyoming	72	Coleman	70
Jackson	50	Jackson	52	2	Berkley	70	Corunna	70
Jonesville	72	Jonesville	78	6	Chelsea	70	Grandville	70
Kalamazoo	42	Kalamazoo	54	12	Corunna	70	Hillsdale	70
Keego Harbor	50	Keego Harbor	66	16	Grosse Pointe Farms	70	Kentwood	70
Kentwood	64	Kentwood	70	6	Litchfield	70	Kingsford	70
Kingsford	86	Kingsford	70	(16)	Olivet	70	Lathrup Village	70
Laingsburg	80	Laingsburg	80	0	Plainwell	70	Linden	70
Lake Angelus	98	Lake Angelus	100	2	Romulus	70	Menominee	70
Lake City	90	Lake City	88	(2)	Royal Oak	70	Midland	70
Lansing	50	Lansing	52	2	Tawas	70	New Baltimore	70
Lapeer	56	Lapeer	62	6	Woodhaven	70	Orchard Lake Village	70
Lathrup	96	Lathrup Village	70	(26)	Wyandotte	70	Reed	70
Leslie	80	Leslie	88	8	Belding	68	Yale	70
Lincoln Park	60	Lincoln Park	54	(6)	Coopersville	68	Alpena	68
Linden	64	Linden	70	6	Croswell	68	Bloomfield Hills	68
Litchfield	70	Litchfield	80	10	Davison	68	Caseville	68
Livonia	66	Livonia	78	12	Dearborn	68	Clio	68
Lowell	58	Lowell	58	0	Eastpointe	68	Coldwater	68
Ludington	72	Ludington	76	4	Fremont	68	Fremont	68
Luna Pier	86	Luna Pier	76	(10)	Galesburg	68	Gibraltar	68
Mackinac Island	84	Mackinac Island	76	(8)	Grosse Pointe Woods	68	Grayling	68
Madison Heights	80	Madison Heights	66	(14)	Manistee	68	Greenville	68
Manistee	68	Manistee	64	(4)	Marquette	68	Grosse Pointe Woods	68
Manistique	56	Manistique	46	(10)	Perry	68	Hart	68
Manton	74	Manton	72	(2)	South Haven	68	Iron River	68
Marine City	66	Marine City	78	12	Southgate	68	Mason	68
Marlette	78	Marlette	74	(4)	St. Joseph	68	Mount Clemens	68
Marquette	68	Marquette	72	4	Tecumseh	68	Pleasant Ridge	68
Marshall	74	Marshall	50	(24)	Westland	68	Pontiac	68

	Final Score 2010-12		Final Score 2014-16	Change in Score		Final Score Rank 2010-12		Final Score Rank 2014-16
Marysville	76	Marysville	72	(4)	White Cloud	68	Roosevelt Park	68
Mason	58	Mason	68	10	Allegan	66	South haven	68
Mcbain	92	Mcbain	98	6	Center Line	66	St. Johns	68
Melvindale	54	Melvindale	52	(2)	Charlotte	66	Wakefield	68
Memphis	74	Memphis	82	8	Essexville	66	Wayland	68
Menominee	84	Menominee	70	(14)	Grosse Pointe Shores	66	Williamston	68
Midland	72	Midland	70	(2)	Hudsonville	66	Wyoming	68
Milan	72	Milan	62	(10)	Imlay City	66	Cheboygan	66
Monroe	72	Monroe	78	6	Livonia	66	Grand Ledge	66
Montague	72	Montague	72	0	Marine City	66	Harrison	66
Montrose	64	Montrose	60	(4)	Morenci	66	Hastings	66
Morenci	66	Morenci	82	16	Portland	66	Iron Mountain	66
Mount Clemens	72	Mount Clemens	68	(4)	Sault Ste. Marie	66	Keego Harbor	66
Mount Morris	62	Mount Morris	58	(4)	Sterling Heights	66	Madison Heights	66
Mount Pleasant	74	Mount Pleasant	64	(10)	Trenton	66	Muskegon	66
Munising	44	Munising	52	8	Wakefield	66	Portand	66
Muskegon	78	Muskegon	66	(12)	Bessemer	64	Rockwood	66
Muskegon Heights	56	Muskegon Heights	46	(10)	Bronson	64	St. Louis	66
Negaunee	60	Negaunee	64	4	Cedar Springs	64	Traverse City	66
New Baltimore	58	New Baltimore	70	12	East Grand Rapids	64	Beaverton	64
New Buffalo	76	New Buffalo	86	10	East Jordan	64	Bessemer	64
Newaygo	76	Newaygo	94	18	Farmington	64	Durand	64
Niles	62	Niles	48	(14)	Frankfort	64	Flushing	64
North Muskegon	86	North Muskegon	78	(8)	Gladstone	64	Grand Haven	64
Northville	82	Northville	78	(4)	Gladwin	64	Manistee	64
Norton Shores	82	Norton Shores	56	(26)	Grand Rapids	64	Mount Pleasant	64
Norway	52	Norway	60	8	Kentwood	64	Negaunee	64
Novi	78	Novi	72	(6)	Linden	64	Perry	64
Oak Park	52	Oak Park	50	(2)	Montrose	64	Plymouth	64
Olivet	70	Olivet	72	2	Roseville	64	Portage	64
Omer	84	Omer	92	8	Sylvan Lake	64	Romulus	64
Onaway	76	Onaway	86	10	Warren	64	Southfield	64
Orchard Lake Village	80	Orchard Lake Village	70	(10)	Williamston	64	Springfield	64
Otsego	84	Otsego	78	(6)	Bangor	62	Tecumseh	64
Ovid	NA	Ovid	84	NM	Brighton	62	Allen Park	62
Owosso	80	Owosso	78	(2)	Burton	62	Benton Harbor	62
Parchment	54	Parchment	46	(8)	Dowagiac	62	Davison	62
Perry	68	Perry	64	(4)	Flushing	62	Ecorse	62
Petersburg	84	Petersburg	92	8	Frankenmuth	62	Escanaba	62
Petoskey	72	Petoskey	76	4	Gibraltar	62	Farmington	62

	Final Score 2010-12		Final Score 2014-16	Change in Score		Final Score Rank 2010-12		Final Score Rank 2014-16
Pinconning	96	Pinconning	82	(14)	Grosse Pointe Park	62	Frankfort	62
Plainwell	70	Plainwell	62	(8)	Houghton	62	Grand Rapids	62
Pleasant Ridge	86	Pleasant Ridge	68	(18)	Mount Morris	62	Ironwood	62
Plymouth	58	Plymouth	64	6	Niles	62	Lapeer	62
Pontiac	42	Pontiac	68	26	Portage	62	Milan	62
Port Huron	78	Port Huron	60	(18)	Saugatuck	62	Plainwell	62
Portage	62	Portage	64	2	St. Ignace	62	Potterville	62
Portland	66	Portand	66	0	Standish	62	Brighton	60
Potterville	56	Potterville	62	6	Battle Creek	60	Dexter	60
Reading	92	Reading	82	(10)	Bay City	60	Grosse Pointe Park	60
Reed	60	Reed	70	10	Cheboygan	60	Hancock	60
Richmond	80	Richmond	82	2	Clare	60	Highland Park	60
River Rouge	58	River Rouge	56	(2)	Durand	60	Huntington Woods	60
Riverview	50	Riverview	48	(2)	Gaastra	60	Montrose	60
Rochester	90	Rochester	94	4	Hart	60	Norway	60
Rochester Hills	92	Rochester Hills	90	(2)	Ionia	60	Port Huron	60
Rockford	80	Rockford	86	6	Lincoln Park	60	Rogers City	60
Rockwood	60	Rockwood	66	6	Negaunee	60	Trenton	60
Rogers	72	Rogers City	60	(12)	Reed	60	Wyandotte	60
Romulus	70	Romulus	64	(6)	Rockwood	60	Clarkston	58
Roosevelt Park	80	Roosevelt Park	68	(12)	Adrian	58	Clawson	58
Rose	82	Rose City	82	0	Allen Park	58	Dearborn Heights	58
Roseville	64	Roseville	56	(8)	Crystal Falls	58	East Jordan	58
Royal Oak	70	Royal Oak	72	2	Gaylord	58	Eastpointe	58
Saginaw	54	Saginaw	52	(2)	Hazel Park	58	Gladstone	58
Saline	56	Saline	72	16	Howell	58	Holland	58
Sandusky	88	Sandusky	90	2	Ishpeming	58	Lowell	58
Saugatuck	62	Saugatuck	94	32	Lowell	58	Mount Morris	58
Sault Ste. Marie	66	Sault Ste. Marie	54	(12)	Mason	58	Sterling Heights	58
Scottville	72	Scottville	80	8	New Baltimore	58	Crowell	56
South Haven	68	South haven	68	0	Plymouth	58	Eaton Rapids	56
South Lyon	92	South Lyon	88	(4)	River Rouge	58	Flat Rock	56
Southfield	72	Southfield	64	(8)	Ypsilanti	58	Garden City	56
Southgate	68	Southgate	54	(14)	Clawson	56	Hamtramck	56
Springfield	76	Springfield	64	(12)	Ferndale	56	Howell	56
St. Clair	78	St. Clair	82	4	Fraser	56	Norton Shores	56
St. Clair Shore	86	St. Clair Shores	56	(30)	Holland	56	River Rouge	56
St. Ignace	62	St. Ignace	76	14	Lapeer	56	Roseville	56
St. Johns	72	St. Johns	68	(4)	Manistique	56	St. Clair Shores	56
St. Joseph	68	St. Joseph	82	14	Muskegon Heights	56	Taylor	56

	Final Score 2010-12		Final Score 2014-16	Change in Score		Final Score Rank 2010-12		Final Score Rank 2014-16
St. Louis	76	St. Louis	66	(10)	Potterville	56	Clare	54
Standish	62	Standish	76	14	Saline	56	East Lansing	54
Stanton	88	Stanton	82	(6)	Albion	54	Grosse Pointe Shores	54
Stephenson	92	Stephenson	94	2	East Lansing	54	Harper Woods	54
Sterling Heights	66	Sterling Heights	58	(8)	Huntington Woods	54	Hazel Park	54
Sturgis	74	Sturgis	78	4	Melvindale	54	Inkster	54
Swartz Creek	90	Swartz Creek	90	0	Parchment	54	Ishpeming	54
Sylvan Lake	64	Sylvan Lake	82	18	Saginaw	54	Kalamazoo	54
Tawas	70	Tawas	86	16	Flat Rock	52	Lincoln Park	54
Taylor	52	Taylor	56	4	Hamtramck	52	Sault Ste. Marie	54
Tecumseh	68	Tecumseh	64	(4)	Harper Woods	52	Southgate	54
Three Rivers	76	Three Rivers	84	8	Norway	52	Battle Creek	52
Traverse City	72	Traverse City	66	(6)	Oak Park	52	Bay City	52
Trenton	66	Trenton	60	(6)	Taylor	52	Center Line	52
Troy	80	Troy	84	4	Utica	52	Dowagiac	52
Utica	52	Utica	74	22	Benton Harbor	50	Fraser	52
Vassar	72	Vassar	78	6	Caseville	50	Gaastra	52
Wakefield	66	Wakefield	68	2	Dearborn Heights	50	Jackson	52
Walker	74	Walker	74	0	Ecorse	50	Lansing	52
Walled Lake	74	Walled Lake	76	2	Garden City	50	Melvindale	52
Warren	64	Warren	72	8	Hancock	50	Munising	52
Watervliet	80	Watervliet	72	(8)	Jackson	50	Saginaw	52
Wayland	90	Wayland	68	(22)	Keego Harbor	50	Westland	52
Wayne	48	Wayne	48	0	Lansing	50	Big Rapids	50
West Branch	84	West Branch	86	2	Riverview	50	Burton	50
Westland	68	Westland	52	(16)	Beaverton	48	Detroit	50
White Cloud	68	White Cloud	80	12	Eaton Rapids	48	Flint	50
Whitehall	78	Whitehall	82	4	Wayne	48	Ionia	50
Whittemore	86	Whittemore	86	0	Big Rapids	46	Marshall	50
Williamston	64	Williamston	68	4	Detroit	46	Oak Park	50
Wixom	74	Wixom	84	10	Inkster	46	Ypsilanti	50
Woodhaven	70	Woodhaven	78	8	Flint	44	Niles	48
Wyandotte	70	Wyandotte	60	(10)	Munising	44	Riverview	48
Wyoming	72	Wyoming	68	(4)	Highland Park	42	Wayne	48
Yale	76	Yale	70	(6)	Kalamazoo	42	Crystal Falls	46
Ypsilanti	58	Ypsilanti	50	(8)	Pontiac	42	Manistique	46
Zeeland	78	Zeeland	84	6	Dexter	NA	Muskegon Heights	46
Zilwaukee	94	Zilwaukee	86	(8)	Ovid	NA	Parchment	46
Average	70		70	0				

Appendix A3: City Quartile Analysis, 2010-2012

	Final Score Internal	Quartile		Final Score External	Quartile
Adrian	58	4	Adrian	40	4
Albion	54	4	Albion	25	4
Algonac	86	1	Algonac	75	2
Allegan	66	3	Allegan	60	2
Allen Park	58	4	Allen Park	60	2
Alma	92	1	Alma	40	4
Alpena	78	2	Alpena	45	4
Ann Arbor	74	2	Ann Arbor	95	1
Au Gres	76	2	Au Gres	55	3
Auburn	88	1	Auburn	85	1
Auburn Hills	92	1	Auburn Hills	80	1
Bad Axe	94	1	Bad Axe	45	4
Bangor	62	3	Bangor	50	3
Battle Creek	60	4	Battle Creek	45	4
Bay City	60	4	Bay City	40	4
Beaverton	48	4	Beaverton	35	4
Belding	68	3	Belding	50	3
Belleville	74	2	Belleville	65	2
Benton Harbor	50	4	Benton Harbor	45	4
Berkley	70	2	Berkley	85	1
Bessemer	64	3	Bessemer	45	4
Big Rapids	46	4	Big Rapids	45	4
Birmingham	84	1	Birmingham	100	1
Bloomfield Hills	72	2	Bloomfield Hills	100	1
Boyne City	84	1	Boyne City	75	2
Bridgman	86	1	Bridgman	70	2
Brighton	62	3	Brighton	90	1
Bronson	64	3	Bronson	40	4
Brown City	90	1	Brown City	35	4
Buchanan	82	1	Buchanan	55	3
Burton	62	3	Burton	45	4
Cadillac	78	2	Cadillac	50	3
Caro	96	1	Caro City	50	3
Carson City	86	1	Carson City	70	2
Caseville	50	4	Caseville City	80	1
Caspian	82	1	Caspian	40	4
Cedar Springs	64	3	Cedar Springs	65	2
Center Line	66	3	Center Line	45	4
Charlevoix	94	1	Charlevoix	85	1
Charlotte	66	3	Charlotte	55	3
Cheboygan	60	4	Cheboygan	40	4
Chelsea	70	2	Chelsea	100	1
Clare	60	4	Clare	60	2

	Final Score Internal	Quartile		Final Score External	Quartile
Clarkston	80	1	Clarkston	80	1
Clawson	56	4	Clawson	85	1
Clio	76	2	Clio	45	4
Coldwater	74	2	Coldwater	50	3
Coleman	80	1	Coleman	35	4
Coloma	78	2	Coloma	60	2
Coopersville	68	3	Coopersville	75	2
Corunna	70	2	Corunna	50	3
Croswell	68	3	Croswell	30	4
Crystal Falls	58	4	Crystal Falls	35	4
Davison	68	3	Davison	50	3
Dearborn	68	3	Dearborn	55	3
Dearborn Heights	50	4	Dearborn Heights	55	3
Detroit	46	4	Detroit	25	4
DeWitt	82	1	Dewitt	95	1
Douglas	92	1	Douglas	100	1
Dowagiac	62	3	Dowagiac	45	4
Durand	60	4	Durand	65	2
East Grand Rapids	64	3	East Grand Rapids	100	1
East Jordan	64	3	East Jordan	45	4
East Lansing	54	4	East Lansing	70	2
East Tawas	78	2	East Tawas	75	2
Eastpointe	68	3	Eastpointe	50	3
Eaton Rapids	48	4	Eaton Rapids	55	3
Ecorse	50	4	Ecorse	25	4
Escanaba	78	2	Escanaba	60	2
Essexville	66	3	Essexville	60	2
Ewart	84	1	Ewart	35	4
Farmington	64	3	Farmington	85	1
Farmington Hills	74	2	Farmington Hills	85	1
Fennville	86	1	Fennville	50	3
Fenton	86	1	Fenton	70	2
Ferndale	56	4	Ferndale	85	1
Ferrysburg	78	2	Ferrysburg	100	1
Flat Rock	52	4	Flat Rock	65	2
Flint	44	4	Flint	25	4
Flushing	62	3	Flushing	55	3
Frankenmuth	62	3	Frankenmuth	100	1
Frankfort	64	3	Frankfort	95	1
Fraser	56	4	Fraser	70	2
Fremont	68	3	Fremont	70	2

	Final Score Internal	Quartile		Final Score External	Quartile
Gaastra	60	4	Gaastra	40	4
Galesburg	68	3	Galesburg	65	2
Garden City	50	4	Garden City	65	2
Gaylord	58	4	Gaylord	70	2
Gibraltar	62	3	Gibraltar	70	2
Gladstone	64	3	Gladstone	60	2
Gladwin	64	3	Gladwin	50	3
Gobles	74	2	Gobles	50	3
Grand Blanc	82	1	Grand Blanc	75	2
Grand Haven	78	2	Grand Haven	95	1
Grand Ledge	72	2	Grand Ledge	80	1
Grand Rapids	64	3	Grand Rapids	60	2
Grandville	76	2	Grandville	95	1
Grant	80	1	Grant	40	4
Grayling	74	2	Grayling	45	4
Greenville	72	2	Greenville	60	2
Grosse Pointe	80	1	Grosse Pointe	80	1
Grosse Pointe Farms	70	2	Grosse Pointe Farms	85	1
Grosse Pointe Park	62	3	Grosse Pointe Park	85	1
Grosse Pointe Shores	66	3	Grosse Pointe Shores	90	1
Grosse Pointe Woods	68	3	Grosse Pointe Woods	90	1
Hamtramck	52	4	Hamtramck	35	4
Hancock	50	4	Hancock	65	2
Harbor Beach	94	1	Harbor Beach	50	3
Harbor Springs	84	1	Harbor Springs	80	1
Harper Woods	52	4	Harper Woods	35	4
Harrison	78	2	Harrison	60	2
Harrisville	88	1	Harrisville	60	2
Hart	60	4	Hart	45	4
Hartford	76	2	Hartford	50	3
Hastings	78	2	Hastings	65	2
Hazel Park	58	4	Hazel Park	60	2
Highland Park	42	4	Highland Park	40	4
Hillsdale	80	1	Hillsdale	40	4
Holland	56	4	Holland	70	2
Houghton	62	3	Houghton	70	2
Howell	58	4	Howell	70	2
Hudson	72	2	Hudson	55	3
Hudsonville	66	3	Hudsonville	80	1
Huntington Woods	54	4	Huntington Woods	95	1

	Final Score Internal	Quartile		Final Score External	Quartile
Imlay City	66	3	Imlay City	45	4
Inkster	46	4	Inkster	30	4
Ionia	60	4	Ionia	50	3
Iron Mountain	80	1	Iron Mountain	55	3
Iron River	72	2	Iron River	30	4
Ironwood	76	2	Ironwood	50	3
Ishpeming	58	4	Ishpeming	60	2
Ithaca	78	2	Ithaca	45	4
Jackson	50	4	Jackson	35	4
Jonesville	72	2	Jonesville	45	4
Kalamazoo	42	4	Kalamazoo	55	3
Keego Harbor	50	4	Keego Harbor	85	1
Kentwood	64	3	Kentwood	75	2
Kingsford	86	1	Kingsford	55	3
Laingsburg	80	1	Laingsburg	80	1
Lake Angelus	98	1	Lake Angelus	95	1
Lake City	90	1	Lake Angelus	75	2
Lansing	50	4	Lansing	55	3
Lapeer	56	4	Lapeer	50	3
Lathrup	96	1	Lathrup Village	80	1
Leslie	80	1	Leslie	60	2
Lincoln Park	60	4	Lincoln Park	35	4
Linden	64	3	Linden	80	1
Litchfield	70	2	Litchfield	50	3
Livonia	66	3	Livonia	80	1
Lowell	58	4	Lowell	85	1
Ludington	72	2	Ludington	70	2
Luna Pier	86	1	Luna Pier	50	3
Mackinac Island	84	1	Mackinac Island	85	1
Madison Heights	80	1	Madison Heights	65	2
Manistee	68	3	Manistee	60	2
Manistique	56	4	Manistique	35	4
Manton	74	2	Manton	50	3
Marine City	66	3	Marine City	55	3
Marlette	78	2	Marlette	40	4
Marquette	68	3	Marquette	65	2
Marshall	74	2	Marshall	60	2
Marysville	76	2	Marysville	70	2
Mason	58	4	Mason	80	1
Mcbain	92	1	Mcbain	50	3
Melvindale	54	4	Melvindale	45	4
Memphis	74	2	Memphis	75	2

	Final Score Internal	Quartile		Final Score External	Quartile
Menominee	84	1	Menominee	45	4
Midland	72	2	Midland	80	1
Milan	72	2	Milan	70	2
Monroe	72	2	Monroe	65	2
Montague	72	2	Montague	65	2
Montrose	64	3	Montrose	30	4
Morenci	66	3	Morenci	40	4
Mount Clemens	72	2	Mt. Clemens	50	3
Mount Morris	62	3	Mount Morris	45	4
Mount Pleasant	74	2	Mount Pleasant	40	4
Munising	44	4	Munising	45	4
Muskegon	78	2	Muskegon	55	3
Muskegon Heights	56	4	Muskegon Heights	45	4
Negaunee	60	4	Negaunee	70	2
New Baltimore	58	4	New Baltimore	95	1
New Buffalo	76	2	New Buffalo	95	1
Newaygo	76	2	Newaygo	65	2
Niles	62	3	Niles	35	4
North Muskegon	86	1	North Muskegon	80	1
Northville	82	1	Northville	90	1
Norton Shores	82	1	Norton Shores	95	1
Norway	52	4	Norway	50	3
Novi	78	2	Novi	95	1
Oak Park	52	4	Oak Park	55	3
Olivet	70	2	Olivet	45	4
Omer	84	1	Omer	35	4
Onaway	76	2	Onaway	30	4
Orchard Lake Village	80	1	Orchard Lake Village	95	1
Otsego	84	1	Otsego	55	3
Owosso	80	1	Owosso	50	3
Parchment	54	4	Parchment	55	3
Perry	68	3	Perry	65	2
Petersburg	84	1	Petersburg	70	2
Petoskey	72	2	Petoskey	90	1
Pinconning	96	1	Pinconning	35	4
Plainwell	70	2	Plainwell	65	2
Pleasant Ridge	86	1	Pleasant Ridge	90	1
Plymouth	58	4	Plymouth	100	1
Pontiac	42	4	Pontiac	45	4
Port Huron	78	2	Port Huron	55	3

	Final Score Internal	Quartile		Final Score External	Quartile
Portage	62	3	Portage	75	2
Portland	66	3	Portland	60	2
Potterville	56	4	Potterville	70	2
Reading	92	1	Reading	60	2
Reed	60	4	Reed City	30	4
Richmond	80	1	Richmond	85	1
River Rouge	58	4	River Rouge	35	4
Riverview	50	4	Riverview	75	2
Rochester	90	1	Rochester	95	1
Rochester Hills	92	1	Rochester Hills	100	1
Rockford	80	1	Rockford	95	1
Rockwood	60	4	Rockwood	70	2
Rogers	72	2	Rogers City	50	3
Romulus	70	3	Romulus	55	3
Roosevelt Park	80	1	Roosevelt Park	65	2
Rose	82	1	Rose City	40	4
Roseville	64	3	Roseville	55	3
Royal Oak	70	3	Royal Oak	95	1
Saginaw	54	4	Saginaw	25	4
Saline	56	4	Saline	80	1
Sandusky	88	1	Sandusky	40	4
Saugatuck	60	4	Saugatuck	100	1
Sault Ste. Marie	66	3	Sault Ste. Marie	45	4
Scottville	72	2	Scottville	55	3
South Haven	68	3	South Haven	90	1
South Lyon	92	1	South Lyon	95	1
Southfield	72	2	Southfield	65	2
Southgate	68	3	Southgate	65	2
Springfield	76	2	Springfield	45	4
St. Clair	78	2	St. Clair	70	2
St. Clair Shore	86	1	St. Clair Shores	80	1
St. Ignace	62	3	St. Ignace	55	3
St. Johns	72	2	St. Johns	65	2
St. Joseph	68	3	St. Joseph	95	1
St. Louis	76	2	St. Louis	35	4
Standish	62	3	Standish	45	4
Stanton	88	1	Stanton	45	4
Stephenson	92	1	Stephenson	65	2
Sterling Heights	66	3	Sterling Heights	80	1
Sturgis	74	2	Sturgis	50	3
Swartz Creek	90	1	Swartz Creek	55	3
Sylvan Lake	64	3	Sylvan Lake	95	1

	Final Score Internal	Quartile		Final Score External	Quartile
Tawas	70	3	Tawas City	60	2
Taylor	52	4	Taylor	50	3
Tecumseh	68	3	Tecumseh	70	2
Three Rivers	76	2	Three Rivers	35	4
Traverse City	72	2	Traverse City	100	1
Trenton	66	3	Trenton	75	2
Troy	80	1	Troy	85	1
Utica	52	4	Utica	85	1
Vassar	72	2	Vassar	35	4
Wakefield	66	3	Wakefield	45	4
Walker	74	2	Walker	95	1
Walled Lake	74	2	Walled Lake	80	1
Warren	64	3	Warren	55	3
Watervliet	80	1	Watervliet	50	3
Wayland	90	1	Wayland	80	1
Wayne	48	4	Wayne	40	4
West Branch	84	1	West Branch	55	3
Westland	68	3	Westland	65	2
White Cloud	68	3	White Cloud	40	4
Whitehall	78	2	Whitehall	70	2
Whittemore	86	1	Whittemore	50	3
Williamston	64	3	Williamston	85	1
Wixom	74	2	Wixom	80	1
Woodhaven	70	3	Woodhaven	60	2
Wyandotte	70	3	Wyandotte	50	3
Wyoming	72	2	Wyoming	80	1
Yale	76	2	Yale	45	4
Ypsilanti	58	4	Ypsilanti	60	2
Zeeland	78	2	Zeeland	90	1
Zilwaukee	94	1	Zilwaukee	50	3

Appendix A4: City Quartile Analysis, 2014-2016

	Final Score Internal	Quartile		Final Score External	Quartile
Adrian	70	2	Adrian	40	4
Albion	72	2	Albion	25	4
Algonac	98	1	Algonac	75	2
Allegan	80	1	Allegan	60	2
Allen Park	62	3	Allen Park	60	2
Alma	80	1	Alma	40	4
Alpena	68	3	Alpena	45	4
Ann Arbor	72	2	Ann Arbor	95	1
Au Gres	84	1	Au Gres	55	3
Auburn	86	1	Auburn	85	1
Auburn Hills	94	1	Auburn Hills	80	1
Bad Axe	84	1	Bad Axe	45	4
Bangor	82	1	Bangor	50	3
Battle Creek	52	4	Battle Creek	45	4
Bay City	52	4	Bay City	40	4
Beaverton	64	3	Beaverton	35	4
Belding	74	2	Belding	50	3
Belleville	72	2	Belleville	65	2
Benton Harbor	62	3	Benton Harbor	45	4
Berkley	76	2	Berkley	85	1
Bessemer	64	3	Bessemer	45	4
Big Rapids	50	4	Big Rapids	45	4
Birmingham	86	1	Birmingham	100	1
Bloomfield Hills	68	3	Bloomfield Hills	100	1
Boyne City	78	2	Boyne City	75	2
Bridgman	80	1	Bridgman	70	2
Brighton	60	3	Brighton	90	1
Bronson	84	1	Bronson	40	4
Brown City	88	1	Brown City	35	4
Buchanan	88	1	Buchanan	55	3
Burton	50	4	Burton	45	4
Cadillac	70	2	Cadillac	50	3
Caro	94	1	Caro City	50	3
Carson City	84	1	Carson City	70	2
Caseville	68	3	Caseville City	80	1
Caspian	78	2	Caspian	40	4
Cedar Springs	80	1	Cedar Springs	65	2
Center Line	52	4	Center Line	45	4
Charlevoix	84	1	Charlevoix	85	1
Charlotte	70	2	Charlotte	55	3
Cheboygan	66	3	Cheboygan	40	4
Chelsea	70	2	Chelsea	100	1
Clare	54	4	Clare	60	2

	Final Score Internal	Quartile		Final Score External	Quartile
Clarkston	58	4	Clarkston	80	1
Clawson	58	4	Clawson	85	1
Clio	68	3	Clio	45	4
Coldwater	68	3	Coldwater	50	3
Coleman	70	2	Coleman	35	4
Coloma	90	1	Coloma	60	2
Coopersville	94	1	Coopersville	75	2
Corunna	70	2	Corunna	50	3
Croswell	56	4	Croswell	30	4
Crystal Falls	46	4	Crystal Falls	35	4
Davison	62	3	Davison	50	3
Dearborn	72	2	Dearborn	55	3
Dearborn Heights	58	4	Dearborn Heights	55	3
Detroit	50	4	Detroit	25	4
DeWitt	88	1	Dewitt	95	1
Dexter	60	3	Dexter	NA	
Douglas	88	1	Douglas	100	1
Dowagiac	52	4	Dowagiac	45	4
Durand	64	3	Durand	65	2
East Grand Rapids	72	2	East Grand Rapids	100	1
East Jordan	58	4	East Jordan	45	4
East Lansing	54	4	East Lansing	70	2
East Tawas	82	1	East Tawas	75	2
Eastpointe	58	4	Eastpointe	50	3
Eaton Rapids	56	4	Eaton Rapids	55	3
Ecorse	62	3	Ecorse	25	4
Escanaba	62	3	Escanaba	60	2
Essexville	72	2	Essexville	60	2
Evart	86	1	Evart	35	4
Farmington	62	3	Farmington	85	1
Farmington Hills	78	2	Farmington Hills	85	1
Fennville	86	1	Fennville	50	3
Fenton	78	2	Fenton	70	2
Ferndale	72	2	Ferndale	85	1
Ferrysburg	76	2	Ferrysburg	100	1
Flat Rock	56	4	Flat Rock	65	2
Flint	50	4	Flint	25	4
Flushing	64	3	Flushing	55	3
Frankenmuth	72	2	Frankenmuth	100	1
Frankfort	62	3	Frankfort	95	1
Fraser	52	4	Fraser	70	2
Fremont	68	3	Fremont	70	2

	Final Score Internal	Quartile		Final Score External	Quartile
Gaastra	52	4	Gaastra	40	4
Galesburg	82	1	Galesburg	65	2
Garden City	56	4	Garden City	65	2
Gaylord	72	2	Gaylord	70	2
Gibraltar	68	3	Gibraltar	70	2
Gladstone	58	4	Gladstone	60	2
Gladwin	76	2	Gladwin	50	3
Gobles	78	2	Gobles	50	3
Grand Blanc	90	1	Grand Blanc	75	2
Grand Haven	64	3	Grand Haven	95	1
Grand Ledge	66	3	Grand Ledge	80	1
Grand Rapids	62	3	Grand Rapids	60	2
Grandville	70	2	Grandville	95	1
Grant	78	2	Grant	40	4
Grayling	68	3	Grayling	45	4
Greenville	68	3	Greenville	60	2
Grosse Pointe	86	1	Grosse Pointe	80	1
Grosse Pointe Farms	74	2	Grosse Pointe Farms	85	1
Grosse Pointe Park	60	3	Grosse Pointe Park	85	1
Grosse Pointe Shores	54	4	Grosse Pointe Shores	90	1
Grosse Pointe Woods	68	3	Grosse Pointe Woods	90	1
Hamtramck	56	4	Hamtramck	35	4
Hancock	60	3	Hancock	65	2
Harbor Beach	90	1	Harbor Beach	50	3
Harbor Springs	84	1	Harbor Springs	80	1
Harper Woods	54	4	Harper Woods	35	4
Harrison	66	3	Harrison	60	2
Harrisville	88	1	Harrisville	60	2
Hart	68	3	Hart	45	4
Hartford	80	1	Hartford	50	3
Hastings	66	3	Hastings	65	2
Hazel Park	54	4	Hazel Park	60	2
Highland Park	60	3	Highland Park	40	4
Hillsdale	70	2	Hillsdale	40	4
Holland	58	4	Holland	70	2
Houghton	74	2	Houghton	70	2
Howell	56	4	Howell	70	2
Hudson	76	2	Hudson	55	3
Hudsonville	72	2	Hudsonville	80	1
Huntington Woods	60	3	Huntington Woods	95	1

	Final Score Internal	Quartile		Final Score External	Quartile
Imlay City	72	2	Imlay City	45	4
Inkster	54	4	Inkster	30	4
Ionia	50	4	Ionia	50	3
Iron Mountain	66	3	Iron Mountain	55	3
Iron River	68	3	Iron River	30	4
Ironwood	62	3	Ironwood	50	3
Ishpeming	54	4	Ishpeming	60	2
Ithaca	86	1	Ithaca	45	4
Jackson	52	4	Jackson	35	4
Jonesville	78	2	Jonesville	45	4
Kalamazoo	54	4	Kalamazoo	55	3
Keego Harbor	66	3	Keego Harbor	85	1
Kentwood	70	2	Kentwood	75	2
Kingsford	70	2	Kingsford	55	3
Laingsburg	80	1	Laingsburg	80	1
Lake Angelus	100	1	Lake Angelus	95	1
Lake City	88	1	Lake Angelus	75	2
Lansing	52	4	Lansing	55	3
Lapeer	62	3	Lapeer	50	3
Lathrup Village	70	2	Lathrup Village	80	1
Leslie	88	1	Leslie	60	2
Lincoln Park	54	4	Lincoln Park	35	4
Linden	70	2	Linden	80	1
Litchfield	80	1	Litchfield	50	3
Livonia	78	2	Livonia	80	1
Lowell	58	4	Lowell	85	1
Ludington	76	2	Ludington	70	2
Luna Pier	76	2	Luna Pier	50	3
Mackinac Island	76	2	Mackinac Island	85	1
Madison Heights	66	3	Madison Heights	65	2
Manistee	64	3	Manistee	60	2
Manistique	46	4	Manistique	35	4
Manton	72	2	Manton	50	3
Marine City	78	2	Marine City	55	3
Marlette	74	2	Marlette	40	4
Marquette	72	2	Marquette	65	2
Marshall	50	4	Marshall	60	2
Marysville	72	2	Marysville	70	2
Mason	68	3	Mason	80	1
Mcbain	98	1	Mcbain	50	3
Melvindale	52	4	Melvindale	45	4
Memphis	82	1	Memphis	75	2

	Final Score Internal	Quartile		Final Score External	Quartile
Menominee	70	2	Menominee	45	4
Midland	70	2	Midland	80	1
Milan	62	3	Milan	70	2
Monroe	78	2	Monroe	65	2
Montague	72	2	Montague	65	2
Montrose	60	3	Montrose	30	4
Morenci	82	1	Morenci	40	4
Mount Clemens	68	3	Mount Morris	45	4
Mount Morris	58	4	Mount Pleasant	40	4
Mount Pleasant	64	3	Mt. Clemens	50	3
Munising	52	4	Munising	45	4
Muskegon	66	3	Muskegon	55	3
Muskegon Heights	46	4	Muskegon Heights	45	4
Negaunee	64	3	Negaunee	70	2
New Baltimore	70	2	New Baltimore	95	1
New Buffalo	86	1	New Buffalo	95	1
Newaygo	94	1	Newaygo	65	2
Niles	48	4	Niles	35	4
North Muskegon	78	2	North Muskegon	80	1
Northville	78	2	Northville	90	1
Norton Shores	56	4	Norton Shores	95	1
Norway	60	3	Norway	50	3
Novi	72	2	Novi	95	1
Oak Park	50	4	Oak Park	55	3
Olivet	72	2	Olivet	45	4
Omer	92	1	Omer	35	4
Onaway	86	1	Onaway	30	4
Orchard Lake Village	70	2	Orchard Lake Village	95	1
Otsego	78	2	Otsego	55	3
Ovid	84	1	Ovid	NA	
Owosso	78	2	Owosso	50	3
Parchment	46	4	Parchment	55	3
Perry	64	3	Perry	65	2
Petersburg	92	1	Petersburg	70	2
Petoskey	76	2	Petoskey	90	1
Pinconning	82	1	Pinconning	35	4
Plainwell	62	3	Plainwell	65	2
Pleasant Ridge	68	3	Pleasant Ridge	90	1
Plymouth	64	3	Plymouth	100	1
Pontiac	68	3	Pontiac	45	4
Port Huron	60	3	Port Huron	55	3

	Final Score Internal	Quartile		Final Score External	Quartile
Portage	64	3	Portage	75	2
Portland	66	3	Portland	60	2
Pottersville	62	3	Pottersville	70	2
Reading	82	1	Reading	60	2
Reed	70	2	Reed City	30	4
Richmond	82	1	Richmond	85	1
River Rouge	56	4	River Rouge	35	4
Riverview	48	4	Riverview	75	2
Rochester	94	1	Rochester	95	1
Rochester Hills	90	1	Rochester Hills	100	1
Rockford	86	1	Rockford	95	1
Rockwood	66	3	Rockwood	70	2
Rogers City	60	3	Rogers City	50	3
Romulus	64	3	Romulus	55	3
Roosevelt Park	68	3	Roosevelt Park	65	2
Rose City	82	1	Rose City	40	4
Roseville	56	4	Roseville	55	3
Royal Oak	72	2	Royal Oak	95	1
Saginaw	52	4	Saginaw	25	4
Saline	72	2	Saline	80	1
Sandusky	90	1	Sandusky	40	4
Saugatuck	94	1	Saugatuck	100	1
Sault Ste. Marie	54	4	Sault Ste. Marie	45	4
Scottville	80	1	Scottville	55	3
South haven	68	3	South Haven	90	1
South Lyon	88	1	South Lyon	95	1
Southfield	64	3	Southfield	65	2
Southgate	54	4	Southgate	65	2
Springfield	64	3	Springfield	45	4
St. Clair	82	1	St. Clair	70	2
St. Clair Shores	56	4	St. Clair Shores	80	1
St. Ignace	76	2	St. Ignace	55	3
St. Johns	68	3	St. Johns	65	2
St. Joseph	82	1	St. Joseph	95	1
St. Louis	66	3	St. Louis	35	4
Standish	76	2	Standish	45	4
Stanton	82	1	Stanton	45	4
Stephenson	94	1	Stephenson	65	2
Sterling Heights	58	4	Sterling Heights	80	1
Sturgis	78	2	Sturgis	50	3
Swartz Creek	90	1	Swartz Creek	55	3
Sylvan Lake	82	1	Sylvan Lake	95	1

	Final Score Internal	Quartile		Final Score External	Quartile
Tawas	86	1	Tawas City	60	2
Taylor	56	4	Taylor	50	3
Tecumseh	64	3	Tecumseh	70	2
Three Rivers	84	1	Three Rivers	35	4
Traverse City	66	3	Traverse City	100	1
Trenton	60	3	Trenton	75	2
Troy	84	1	Troy	85	1
Utica	74	2	Utica	85	1
Vassar	78	2	Vassar	35	4
Wakefield	68	3	Wakefield	45	4
Walker	74	2	Walker	95	1
Walled Lake	76	2	Walled Lake	80	1
Warren	72	2	Warren	55	3
Watervliet	72	2	Watervliet	50	3
Wayland	68	3	Wayland	80	1
Wayne	48	4	Wayne	40	4
West Branch	86	1	West Branch	55	3
Westland	52	4	Westland	65	2
White Cloud	80	1	White Cloud	40	4
Whitehall	82	1	Whitehall	70	2
Whittemore	86	1	Whittemore	50	3
Williamston	68	3	Williamston	85	1
Wixom	84	1	Wixom	80	1
Woodhaven	78	2	Woodhaven	60	2
Wyandotte	60	3	Wyandotte	50	3
Wyoming	68	3	Wyoming	80	1
Yale	70	2	Yale	45	4
Ypsilanti	50	4	Ypsilanti	60	2
Zeeland	84	1	Zeeland	90	1
Zilwaukee	86	1	Zilwaukee	50	3

Appendix A5: Village External Scores

	Population	Final Score		Final Score Rank
ALMONT VILLAGE	2,764	70	ROMEO VILLAGE	100
ARMADA VILLAGE	1,740	65	SCHOOLCRAFT VILLAGE	95
ATHENS VILLAGE	1,005	65	DIMONDALE VILLAGE	90
BALDWIN VILLAGE	1,206	65	DUNDEE VILLAGE	90
BARAGA VILLAGE	1,995	55	OXFORD VILLAGE	90
BELLAIRE VILLAGE	1,064	65	SPARTA VILLAGE	90
BELLEVUE VILLAGE	1,296	70	STEVENSVILLE VILLAGE	90
BERRIEN SPRINGS VILLAGE	1,752	75	BLISSFIELD VILLAGE	85
BEVERLY HILLS VILLAGE	10,470	80	CALEDONIA VILLAGE	85
BINGHAM FARMS VILLAGE	1,133	80	FRANKLIN VILLAGE	85
BIRCH RUN VILLAGE	1,466	70	GOODRICH VILLAGE	85
BLISSFIELD VILLAGE	3,244	85	LAKE ISABELLA VILLAGE	85
BRECKENRIDGE VILLAGE	1,300	45	MANCHESTER VILLAGE	85
BROOKLYN VILLAGE	1,192	70	MILFORD VILLAGE	85
CALEDONIA VILLAGE	1,618	85	SPRING LAKE VILLAGE	85
CAPAC VILLAGE	1,841	60	BEVERLY HILLS VILLAGE	80
CARLETON VILLAGE	2,344	75	BINGHAM FARMS VILLAGE	80
CASS CITY VILLAGE	2,337	60	FOWLerville VILLAGE	80
CASSOPOLIS VILLAGE	1,725	55	FRUITPORT VILLAGE	80
CENTREVILLE VILLAGE	1,409	55	GRASS LAKE VILLAGE	80
CHESANING VILLAGE	2,272	55	LEXINGTON VILLAGE	80
CLINTON VILLAGE	2,264	70	MIDDLEVILLE VILLAGE	80
COLON VILLAGE	1,153	65	STOCKBRIDGE VILLAGE	80
CONCORD VILLAGE	1,046	70	WEBBERVILLE VILLAGE	80
CONSTANTINE VILLAGE	2,047	65	BERRIEN SPRINGS VILLAGE	75
DECATUR VILLAGE	1,762	65	CARLETON VILLAGE	75
DIMONDALE VILLAGE	1,247	90	ELK RAPIDS VILLAGE	75
DUNDEE VILLAGE	4,002	90	HOWARD CITY VILLAGE	75
EDMORE VILLAGE	1,195	60	LAKE ORION VILLAGE	75
EDWARDSBURG VILLAGE	1,222	45	MATTAWAN VILLAGE	75
ELK RAPIDS VILLAGE	1,614	75	PIGEON VILLAGE	75
FOWLER VILLAGE	1,223	70	PINCKNEY VILLAGE	75
FOWLerville VILLAGE	2,916	80	SOUTH ROCKWOOD VILLAGE	75
FRANKLIN VILLAGE	3,244	85	VICKSBURG VILLAGE	75
FRUITPORT VILLAGE	1,130	80	ALMONT VILLAGE	70

	Population	Final Score		Final Score Rank
GOODRICH VILLAGE	1,846	85	BELLEVUE VILLAGE	70
GRASS LAKE VILLAGE	1,164	80	BIRCH RUN VILLAGE	70
HOLLY VILLAGE	6,146	60	BROOKLYN VILLAGE	70
HOMER VILLAGE	1,631	65	CLINTON VILLAGE	70
HOWARD CITY VILLAGE	1,803	75	CONCORD VILLAGE	70
KALKASKA VILLAGE	2,039	70	FOWLER VILLAGE	70
KENT CITY VILLAGE	1,108	60	KALKASKA VILLAGE	70
KINGSLEY VILLAGE	1,567	70	KINGSLEY VILLAGE	70
LAKE ISABELLA VILLAGE	1,668	85	LAKEVIEW VILLAGE	70
LAKE ODESSA VILLAGE	2,032	60	L'ANSE VILLAGE	70
LAKE ORION VILLAGE	3,046	75	ORTONVILLE VILLAGE	70
LAKEVIEW VILLAGE	1,010	70	PAW PAW VILLAGE	70
LAKEWOOD CLUB VILLAGE	1,289	50	RAVENNA VILLAGE	70
L'ANSE VILLAGE	1,918	70	ST CHARLES VILLAGE	70
LAURIUM VILLAGE	1,947	60	WHITE PIGEON VILLAGE	70
LAWTON VILLAGE	1,865	65	WOLVERINE LAKE VILLAGE	70
LEXINGTON VILLAGE	1,111	80	ARMADA VILLAGE	65
MANCELONA VILLAGE	1,363	60	ATHENS VILLAGE	65
MANCHESTER VILLAGE	2,145	85	BALDWIN VILLAGE	65
MARCELLUS VILLAGE	1,151	60	BELLAIRE VILLAGE	65
MATTAWAN VILLAGE	1,944	75	COLON VILLAGE	65
MIDDLEVILLE VILLAGE	3,344	80	CONSTANTINE VILLAGE	65
MILFORD VILLAGE	6,471	85	DECATUR VILLAGE	65
MILLINGTON VILLAGE	1,024	60	HOMER VILLAGE	65
NASHVILLE VILLAGE	1,641	60	LAWTON VILLAGE	65
NEW HAVEN VILLAGE	4,692	65	NEW HAVEN VILLAGE	65
NEWBERRY VILLAGE	1,452	60	NORTH BRANCH VILLAGE	65
NORTH BRANCH VILLAGE	1,021	65	ONTONAGON VILLAGE	65
ONTONAGON VILLAGE	1,308	65	REESE VILLAGE	65
ORTONVILLE VILLAGE	1,457	70	ROSCOMMON VILLAGE	65
OXFORD VILLAGE	3,532	90	SHEPHERD VILLAGE	65

	Population	Final Score		Final Score Rank
PAW PAW VILLAGE	3,448	70	THREE OAKS VILLAGE	65
PIGEON VILLAGE	1,152	75	CAPAC VILLAGE	60
PINCKNEY VILLAGE	2,457	75	CASS CITY VILLAGE	60
QUINCY VILLAGE	1,630	55	EDMORE VILLAGE	60
RAVENNA VILLAGE	1,219	70	HOLLY VILLAGE	60
REESE VILLAGE	1,394	65	KENT CITY VILLAGE	60
ROMEO VILLAGE	3,613	100	LAKE ODESSA VILLAGE	60
ROSCOMMON VILLAGE	1,042	65	LAURIUM VILLAGE	60
SARANAC VILLAGE	1,335	60	MANCELONA VILLAGE	60
SCHOOLCRAFT VILLAGE	1,565	95	MARCELLUS VILLAGE	60
SEBEWAING VILLAGE	1,669	60	MILLINGTON VILLAGE	60
SHELBY VILLAGE	2,008	45	NASHVILLE VILLAGE	60
SHEPHERD VILLAGE	1,516	65	NEWBERRY VILLAGE	60
SOUTH ROCKWOOD VILLAGE	1,644	75	SARANAC VILLAGE	60
SPARTA VILLAGE	4,337	90	SEBEWAING VILLAGE	60
SPRING LAKE VILLAGE	2,462	85	UNION CITY VILLAGE	60
ST CHARLES VILLAGE	1,942	70	BARAGA VILLAGE	55
STEVENSVILLE VILLAGE	1,119	90	CASSOPOLIS VILLAGE	55
STOCKBRIDGE VILLAGE	1,234	80	CENTREVILLE VILLAGE	55
THREE OAKS VILLAGE	1,569	65	CHESANING VILLAGE	55
UNION CITY VILLAGE	1,573	60	QUINCY VILLAGE	55
VICKSBURG VILLAGE	3,283	75	LAKESWOOD CLUB VILLAGE	50
WEBBERVILLE VILLAGE	1,281	80	BRECKENRIDGE VILLAGE	45
WHITE PIGEON VILLAGE	1,511	70	EDWARDSBURG VILLAGE	45
WOLVERINE LAKE VILLAGE	4,546	70	SHELBY VILLAGE	45
Average		68.7		

Appendix A6:

	Population	Final Score		Final Score Rank
ADA TOWNSHIP	13811	90	BRIGHTON TOWNSHIP	100
ADAMS TOWNSHIP	5546	50	COMMERCE CHARTER TOWNSHIP	100
ADDISON TOWNSHIP	6482	95	GRAND HAVEN CHARTER TOWNSHIP	100
ADRIAN TOWNSHIP	6216	70	GRAND RAPIDS CHARTER TOWNSHIP	100
ALGOMA TOWNSHIP	10457	85	GREEN OAK TOWNSHIP	100
ALLENDALE CHARTER TOWNSHIP	21333	70	LAKETOWN TOWNSHIP	100
ALMONT TOWNSHIP	6616	80	LODI TOWNSHIP	100
ALPENA TOWNSHIP	8938	60	LYON CHARTER TOWNSHIP	100
ALPINE TOWNSHIP	13637	50	OAKLAND CHARTER TOWNSHIP	100
ANTWERP TOWNSHIP	12118	55	PENINSULA TOWNSHIP	100
ARGENTINE TOWNSHIP	6735	65	PITTSFIELD CHARTER TOWNSHIP	100
ARMADA TOWNSHIP	5430	90	TEXAS CHARTER TOWNSHIP	100
ASH TOWNSHIP	7736	60	WATERTOWN CHARTER TOWNSHIP	100
ATLAS TOWNSHIP	7848	85	ADDISON TOWNSHIP	95
AUGUSTA CHARTER TOWNSHIP	6893	70	BLOOMFIELD CHARTER TOWNSHIP	95
BAGLEY TOWNSHIP	5873	65	CANNON TOWNSHIP	95
BANGOR CHARTER TOWNSHIP	14471	50	CASCADE CHARTER TOWNSHIP	95
BATH CHARTER TOWNSHIP	11825	85	DEXTER TOWNSHIP	95
BEAR CREEK TOWNSHIP	6291	75	HOWELL TOWNSHIP	95
BEDFORD CHARTER TOWNSHIP	9458	45	LONG LAKE TOWNSHIP	95
BEDFORD TOWNSHIP	30940	75	MACOMB TOWNSHIP	95
BENTON CHARTER TOWNSHIP	14533	40	MARION TOWNSHIP	95
BENTON TOWNSHIP	5963	65	OCEOLA TOWNSHIP	95
BERLIN CHARTER TOWNSHIP	9162	70	ORION CHARTER TOWNSHIP	95
BERLIN TOWNSHIP	5394	65	OXFORD CHARTER TOWNSHIP	95
BERRIEN TOWNSHIP	5035	45	PARK TOWNSHIP	95
BINGHAM TOWNSHIP	7042	75	SALEM TOWNSHIP	95
BIRCH RUN TOWNSHIP	5907	60	SOUTHFIELD TOWNSHIP	95
BLACKMAN CHARTER TOWNSHIP	24198	40	ADA TOWNSHIP	90
BLAIR TOWNSHIP	8459	70	ARMADA TOWNSHIP	90
BLENDON TOWNSHIP	6030	85	BYRON TOWNSHIP	90
BLOOMFIELD CHARTER TOWNSHIP	41907	95	COURTLAND TOWNSHIP	90
BOSTON TOWNSHIP	5726	70	FENTON CHARTER TOWNSHIP	90
BRADY TOWNSHIP	6543	70	GENOA TOWNSHIP	90
BRANDON CHARTER TOWNSHIP	15462	80	GROVELAND TOWNSHIP	90
BREITUNG CHARTER TOWNSHIP	5834	65	HAMBURG TOWNSHIP	90
BRIDGEPORT CHARTER TOWNSHIP	10296	40	INDEPENDENCE CHARTER TOWNSHIP	90
BRIGHTON TOWNSHIP	18033	100	JAMESTOWN CHARTER TOWNSHIP	90

	Population	Final Score		Final Score Rank
BROWNSTOWN CHARTER TOWNSHIP	30576	70	LEIGHTON TOWNSHIP	90
BRUCE TOWNSHIP	10956	85	MERIDIAN CHARTER TOWNSHIP	90
BUENA VISTA CHARTER TOWNSHIP	8408	40	MILFORD CHARTER TOWNSHIP	90
BYRON TOWNSHIP	21451	90	MILTON TOWNSHIP	90
CALEDONIA CHARTER TOWNSHIP	13071	85	NORTHVILLE TOWNSHIP	90
CALEDONIA TOWNSHIP	5499	55	SHELBY CHARTER TOWNSHIP	90
CALUMET CHARTER TOWNSHIP	6398	55	SPRING LAKE TOWNSHIP	90
CAMBRIDGE TOWNSHIP	5696	65	SPRINGFIELD CHARTER TOWNSHIP	90
CANNON TOWNSHIP	13898	95	ST CLAIR TOWNSHIP	90
CANTON CHARTER TOWNSHIP	89256	85	SUPERIOR CHARTER TOWNSHIP	90
CARROLLTON TOWNSHIP	5960	40	TALLMADGE CHARTER TOWNSHIP	90
CASCADE CHARTER TOWNSHIP	18015	95	WASHINGTON TOWNSHIP	90
CASCO TOWNSHIP	6965	80	ALGOMA TOWNSHIP	85
CHESTER TOWNSHIP	5086	70	ATLAS TOWNSHIP	85
CHESTERFIELD TOWNSHIP	44048	75	BATH CHARTER TOWNSHIP	85
CHIPPEWA TOWNSHIP	6070	55	BLENDON TOWNSHIP	85
CHOCOLAY CHARTER TOWNSHIP	5982	60	BRUCE TOWNSHIP	85
CLAY TOWNSHIP	8924	80	CALEDONIA CHARTER TOWNSHIP	85
CLAYTON CHARTER TOWNSHIP	7379	55	CANTON CHARTER TOWNSHIP	85
CLINTON CHARTER TOWNSHIP	98477	60	EAST BAY TOWNSHIP	85
CLYDE TOWNSHIP	7618	50	FRUITLAND TOWNSHIP	85
COLDWATER TOWNSHIP	5659	50	GEORGETOWN CHARTER TOWNSHIP	85
COLFAX TOWNSHIP	5715	65	HAMLIN TOWNSHIP	85
COLUMBIA TOWNSHIP	11245	80	HIGHLAND CHARTER TOWNSHIP	85
COMMERCE CHARTER TOWNSHIP	41553	100	IRA TOWNSHIP	85
COMSTOCK CHARTER TOWNSHIP	15240	70	LAKE TOWNSHIP	85
COOPER CHARTER TOWNSHIP	10357	70	LARKIN CHARTER TOWNSHIP	85
COURTLAND TOWNSHIP	8076	90	PUTNAM TOWNSHIP	85
DALTON TOWNSHIP	9285	55	WEST BLOOMFIELD CHARTER TOWNSHIP	85
DAVISON TOWNSHIP	19159	60	YORK CHARTER TOWNSHIP	85
DEERFIELD TOWNSHIP	16629	75	ALMONT TOWNSHIP	80
DELHI CHARTER TOWNSHIP	25964	75	BRANDON CHARTER TOWNSHIP	80
DELTA CHARTER TOWNSHIP	32849	80	CASCO TOWNSHIP	80
DENTON TOWNSHIP	5434	55	CLAY TOWNSHIP	80
DEWITT CHARTER TOWNSHIP	14569	80	COLUMBIA TOWNSHIP	80
DEXTER TOWNSHIP	6273	95	DELTA CHARTER TOWNSHIP	80
DORR TOWNSHIP	7542	80	DEWITT CHARTER TOWNSHIP	80
DUNDEE TOWNSHIP	6679	65	DORR TOWNSHIP	80

	Population	Final Score		Final Score Rank
EAST BAY TOWNSHIP	11139	85	GREEN LAKE TOWNSHIP	80
EGELSTON TOWNSHIP	9813	50	HARRISON CHARTER TOWNSHIP	80
ELBA TOWNSHIP	6635	60	HARTLAND TOWNSHIP	80
EMMETT CHARTER TOWNSHIP	11665	55	LINCOLN CHARTER TOWNSHIP	80
FENTON CHARTER TOWNSHIP	15286	90	LOWELL CHARTER TOWNSHIP	80
FLINT CHARTER TOWNSHIP	31088	40	OAKFIELD TOWNSHIP	80
FLUSHING CHARTER TOWNSHIP	10380	55	OLIVE TOWNSHIP	80
FOREST TOWNSHIP	6786	50	OSHEMO CHARTER TOWNSHIP	80
FORSYTH TOWNSHIP	6223	50	PLAINFIELD CHARTER TOWNSHIP	80
FORT GRATIOT CHARTER TOWNSHIP	11113	65	RICHLAND TOWNSHIP	80
FRANKLIN TOWNSHIP	5443	60	RICHMOND TOWNSHIP	80
FREMONT TOWNSHIP	7749	55	ROSE TOWNSHIP	80
FRENCHTOWN TOWNSHIP	20175	60	WHITE LAKE CHARTER TOWNSHIP	80
FRUITLAND TOWNSHIP	5583	85	BEAR CREEK TOWNSHIP	75
FRUITPORT CHARTER TOWNSHIP	13692	70	BEDFORD TOWNSHIP	75
GAINES CHARTER TOWNSHIP	25815	70	BINGHAM TOWNSHIP	75
GAINES TOWNSHIP	6674	55	CHESTERFIELD TOWNSHIP	75
GARFIELD CHARTER TOWNSHIP	16668	75	DEERFIELD TOWNSHIP	75
GARFIELD TOWNSHIP	8050	55	DELHI CHARTER TOWNSHIP	75
GENESEE CHARTER TOWNSHIP	20832	40	GARFIELD CHARTER TOWNSHIP	75
GENOA TOWNSHIP	20158	90	GRASS LAKE CHARTER TOWNSHIP	75
GEORGETOWN CHARTER TOWNSHIP	48844	85	GROSSE ILE TOWNSHIP	75
GRAND BLANC CHARTER TOWNSHIP	36778	70	HAYES TOWNSHIP	75
GRAND HAVEN CHARTER TOWNSHIP	15744	100	JEFFERSON TOWNSHIP	75
GRAND RAPIDS CHARTER TOWNSHIP	17482	100	LEROY TOWNSHIP	75
GRANT TOWNSHIP	17579	60	NORTHFIELD TOWNSHIP	75
GRASS LAKE CHARTER TOWNSHIP	5801	75	PLYMOUTH CHARTER TOWNSHIP	75
GRAYLING CHARTER TOWNSHIP	5746	50	PORTER TOWNSHIP	75
GREEN LAKE TOWNSHIP	6029	80	ROBINSON TOWNSHIP	75
GREEN OAK TOWNSHIP	18015	100	OLON TOWNSHIP	75
GREENWOOD TOWNSHIP	5682	60	TYRONE TOWNSHIP	75
GROSSE ILE TOWNSHIP	10189	75	ZEELAND CHARTER TOWNSHIP	75
GROVELAND TOWNSHIP	5576	90	ADRIAN TOWNSHIP	70
GUN PLAIN TOWNSHIP	5942	60	ALLENDALE CHARTER TOWNSHIP	70

	Population	Final Score		Final Score Rank
HAMBURG TOWNSHIP	21573	90	AUGUSTA CHARTER TOWNSHIP	70
HAMLIN TOWNSHIP	6767	85	BERLIN CHARTER TOWNSHIP	70
HAMPTON CHARTER TOWNSHIP	9557	60	BLAIR TOWNSHIP	70
HANDY TOWNSHIP	8163	60	BOSTON TOWNSHIP	70
HANOVER TOWNSHIP	5254	65	BRADY TOWNSHIP	70
HARRISON CHARTER TOWNSHIP	24861	80	BROWNSTOWN CHARTER TOWNSHIP	70
HARTLAND TOWNSHIP	14947	80	CHESTER TOWNSHIP	70
HAYES TOWNSHIP	9169	75	COMSTOCK CHARTER TOWNSHIP	70
HIGHLAND CHARTER TOWNSHIP	19603	85	COOPER CHARTER TOWNSHIP	70
HOLLAND CHARTER TOWNSHIP	36929	60	FRUITPORT CHARTER TOWNSHIP	70
HOLLY TOWNSHIP	11564	60	GAINES CHARTER TOWNSHIP	70
HOMER TOWNSHIP	6979	50	GRAND BLANC CHARTER TOWNSHIP	70
HOWARD TOWNSHIP	6185	60	LAKETON TOWNSHIP	70
HOWELL TOWNSHIP	6829	95	ONTWA TOWNSHIP	70
HURON CHARTER TOWNSHIP	15680	60	OTSEGO TOWNSHIP	70
INDEPENDENCE CHARTER TOWNSHIP	35727	90	OVID TOWNSHIP	70
IRA TOWNSHIP	5016	85	RILEY TOWNSHIP	70
JAMESTOWN CHARTER TOWNSHIP	7546	90	SCHOOLCRAFT TOWNSHIP	70
JEFFERSON TOWNSHIP	5547	75	SCIO TOWNSHIP	70
KALAMAZOO CHARTER TOWNSHIP	22349	50	SHERIDAN TOWNSHIP	70
KIMBALL TOWNSHIP	9233	45	THORNAPPLE TOWNSHIP	70
KINROSS CHARTER TOWNSHIP	7693	45	WEBSTER TOWNSHIP	70
KOCHVILLE TOWNSHIP	5026	60	ARGENTINE TOWNSHIP	65
LAKE TOWNSHIP	7030	85	BAGLEY TOWNSHIP	65
LAKETON TOWNSHIP	7597	70	BENTON TOWNSHIP	65
LAKETOWN TOWNSHIP	5587	100	BERLIN TOWNSHIP	65
LANSING CHARTER TOWNSHIP	8092	60	BREITUNG CHARTER TOWNSHIP	65
LAPEER TOWNSHIP	5070	60	CAMBRIDGE TOWNSHIP	65
LARKIN CHARTER TOWNSHIP	5298	85	COLFAX TOWNSHIP	65
LEE TOWNSHIP	9415	50	DUNDEE TOWNSHIP	65
LEIGHTON TOWNSHIP	5129	90	FORT GRATIOT CHARTER TOWNSHIP	65
LENOX TOWNSHIP	10618	55	HANOVER TOWNSHIP	65
LEONI TOWNSHIP	13793	45	OREGON TOWNSHIP	65
LEROY TOWNSHIP	8379	75	RAISINVILLE TOWNSHIP	65
LINCOLN CHARTER TOWNSHIP	14545	80	SHERMAN TOWNSHIP	65
LINCOLN TOWNSHIP	10822	50	SUMMIT TOWNSHIP	65
LODI TOWNSHIP	6264	100	SUMPTER TOWNSHIP	65
LONG LAKE TOWNSHIP	9054	95	THOMAS TOWNSHIP	65
LOWELL CHARTER TOWNSHIP	6200	80	TITTABAWASSEE TOWNSHIP	65
LYON CHARTER TOWNSHIP	16462	100	UNION CHARTER TOWNSHIP	65

	Population	Final Score		Final Score Rank
MACOMB TOWNSHIP	83618	95	WINDSOR CHARTER TOWNSHIP	65
MADISON CHARTER TOWNSHIP	8545	40	ALPENA TOWNSHIP	60
MAPLE GROVE TOWNSHIP	5510	45	ASH TOWNSHIP	60
MARION TOWNSHIP	16141	95	BIRCH RUN TOWNSHIP	60
MAYFIELD TOWNSHIP	9537	50	CHOCOLAY CHARTER TOWNSHIP	60
MERIDIAN CHARTER TOWNSHIP	40844	90	CLINTON CHARTER TOWNSHIP	60
MILFORD CHARTER TOWNSHIP	16323	90	DAVISON TOWNSHIP	60
MILLS TOWNSHIP	6114	45	ELBA TOWNSHIP	60
MILTON TOWNSHIP	6060	90	FRANKLIN TOWNSHIP	60
MONITOR CHARTER TOWNSHIP	10655	55	FRENCHTOWN TOWNSHIP	60
MONROE CHARTER TOWNSHIP	14394	45	GRANT TOWNSHIP	60
MONTROSE CHARTER TOWNSHIP	6067	50	GREENWOOD TOWNSHIP	60
MT MORRIS TOWNSHIP	20945	40	GUN PLAIN TOWNSHIP	60
MUNDY TOWNSHIP	14796	55	HAMPTON CHARTER TOWNSHIP	60
MUSKEGON CHARTER TOWNSHIP	17778	50	HANDY TOWNSHIP	60
NAPOLEON TOWNSHIP	6780	55	HOLLAND CHARTER TOWNSHIP	60
NILES TOWNSHIP	13967	50	HOLLY TOWNSHIP	60
NORTHFIELD TOWNSHIP	8443	75	HOWARD TOWNSHIP	60
NORTHVILLE TOWNSHIP	28732	90	HURON CHARTER TOWNSHIP	60
NOTTAWA TOWNSHIP	6133	60	KOCHVILLE TOWNSHIP	60
OAKFIELD TOWNSHIP	5947	80	LANSING CHARTER TOWNSHIP	60
OAKLAND CHARTER TOWNSHIP	17676	100	LAPEER TOWNSHIP	60
OCEOLA TOWNSHIP	12200	95	NOTTAWA TOWNSHIP	60
OLIVE TOWNSHIP	7385	80	PAVILION TOWNSHIP	60
ONTWA TOWNSHIP	6523	70	RAISIN TOWNSHIP	60
OREGON TOWNSHIP	5799	65	VAN BUREN CHARTER TOWNSHIP	60
ORION CHARTER TOWNSHIP	36359	95	VERNON TOWNSHIP	60
ORONOKO CHARTER TOWNSHIP	9149	40	WATERFORD CHARTER TOWNSHIP	60
OSCODA CHARTER TOWNSHIP	6881	55	YPSILANTI CHARTER TOWNSHIP	60
OSHTEMO CHARTER TOWNSHIP	22267	80	ANTWERP TOWNSHIP	55
OTSEGO TOWNSHIP	5616	70	CALEDONIA TOWNSHIP	55
OVID TOWNSHIP	6140	70	CALUMET CHARTER TOWNSHIP	55
OXFORD CHARTER TOWNSHIP	21078	95	CHIPPEWA TOWNSHIP	55
PARK TOWNSHIP	20899	95	CLAYTON CHARTER TOWNSHIP	55
PAVILION TOWNSHIP	6294	60	DALTON TOWNSHIP	55
PAW PAW TOWNSHIP	6969	55	DENTON TOWNSHIP	55
PENINSULA TOWNSHIP	5680	100	EMMETT CHARTER TOWNSHIP	55
PENNFIELD CHARTER TOWNSHIP	8948	50	FLUSHING CHARTER TOWNSHIP	55
PITTSFIELD CHARTER TOWNSHIP	36316	100	FREMONT TOWNSHIP	55
PLAINFIELD CHARTER TOWNSHIP	32043	80	GAINES TOWNSHIP	55
PLYMOUTH CHARTER TOWNSHIP	27071	75	GARFIELD TOWNSHIP	55
PORT HURON CHARTER TOWNSHIP	10479	40	LENOX TOWNSHIP	55
PORTER TOWNSHIP	7519	75	MONITOR CHARTER TOWNSHIP	55
PUTNAM TOWNSHIP	8410	85	MUNDY TOWNSHIP	55

	Population	Final Score		Final Score Rank
RAISIN TOWNSHIP	7551	60	NAPOLEON TOWNSHIP	55
RAISINVILLE TOWNSHIP	5807	65	OSCODA CHARTER TOWNSHIP	55
REDFORD CHARTER TOWNSHIP	47615	40	PAW PAW TOWNSHIP	55
REYNOLDS TOWNSHIP	5234	50	SAGINAW CHARTER TOWNSHIP	55
RICHFIELD TOWNSHIP	12152	45	SPARTA TOWNSHIP	55
RICHLAND TOWNSHIP	17059	80	ADAMS TOWNSHIP	50
RICHMOND TOWNSHIP	6107	80	ALPINE TOWNSHIP	50
RILEY TOWNSHIP	5378	70	BANGOR CHARTER TOWNSHIP	50
ROBINSON TOWNSHIP	6311	75	CLYDE TOWNSHIP	50
ROSE TOWNSHIP	7733	80	COLDWATER TOWNSHIP	50
SAGINAW CHARTER TOWNSHIP	40340	55	EGELSTON TOWNSHIP	50
SALEM TOWNSHIP	10371	95	FOREST TOWNSHIP	50
SCHOOLCRAFT TOWNSHIP	10321	70	FORSYTH TOWNSHIP	50
SCIO TOWNSHIP	20699	70	GRAYLING CHARTER TOWNSHIP	50
SHELBY CHARTER TOWNSHIP	76004	90	HOMER TOWNSHIP	50
SHERIDAN TOWNSHIP	6599	70	KALAMAZOO CHARTER TOWNSHIP	50
SHERMAN TOWNSHIP	13067	65	LEE TOWNSHIP	50
SOLON TOWNSHIP	7729	75	LINCOLN TOWNSHIP	50
SOUTHFIELD TOWNSHIP	14816	95	MAYFIELD TOWNSHIP	50
SPARTA TOWNSHIP	9261	55	MONTROSE CHARTER TOWNSHIP	50
SPRING ARBOR TOWNSHIP	8265	45	MUSKEGON CHARTER TOWNSHIP	50
SPRING LAKE TOWNSHIP	14701	90	NILES TOWNSHIP	50
SPRINGFIELD CHARTER TOWNSHIP	14247	90	PENNFIELD CHARTER TOWNSHIP	50
ST CLAIR TOWNSHIP	6744	90	REYNOLDS TOWNSHIP	50
SUMMIT TOWNSHIP	23457	65	VIENNA CHARTER TOWNSHIP	50
SUMPTER TOWNSHIP	9370	65	WELLS TOWNSHIP	50
SUPERIOR CHARTER TOWNSHIP	13408	90	BEDFORD CHARTER TOWNSHIP	45
TALLMADGE CHARTER TOWNSHIP	7778	90	BERRIEN TOWNSHIP	45
TEXAS CHARTER TOWNSHIP	15782	100	KIMBALL TOWNSHIP	45
THETFORD TOWNSHIP	6836	45	KINROSS CHARTER TOWNSHIP	45
THOMAS TOWNSHIP	11767	65	LEONI TOWNSHIP	45
THORNAPPLE TOWNSHIP	7903	70	MAPLE GROVE TOWNSHIP	45
TITTABAWASSEE TOWNSHIP	9816	65	MILLS TOWNSHIP	45
TYRONE TOWNSHIP	15054	75	MONROE CHARTER TOWNSHIP	45

	Population	Final Score		Final Score Rank
UNION CHARTER TOWNSHIP	12900	65	RICHFIELD TOWNSHIP	45
VAN BUREN CHARTER TOWNSHIP	28369	60	SPRING ARBOR TOWNSHIP	45
VERNON TOWNSHIP	5821	60	THETFORD TOWNSHIP	45
VIENNA CHARTER TOWNSHIP	12934	50	BENTON CHARTER TOWNSHIP	40
WASHINGTON TOWNSHIP	28436	90	BLACKMAN CHARTER TOWNSHIP	40
WATERFORD CHARTER TOWNSHIP	72986	60	BRIDGEPORT CHARTER TOWNSHIP	40
WATERTOWN CHARTER TOWNSHIP	5092	100	BUENA VISTA CHARTER TOWNSHIP	40
WEBSTER TOWNSHIP	6988	70	CARROLLTON TOWNSHIP	40
WELLS TOWNSHIP	6835	50	FLINT CHARTER TOWNSHIP	40
WEST BLOOMFIELD CHARTER TOWNSHIP	65918	85	GENESEE CHARTER TOWNSHIP	40
WHITE LAKE CHARTER TOWNSHIP	30758	80	MADISON CHARTER TOWNSHIP	40
WINDSOR CHARTER TOWNSHIP	6845	65	MT MORRIS TOWNSHIP	40
YORK CHARTER TOWNSHIP	8871	85	ORONOKO CHARTER TOWNSHIP	40
YPSILANTI CHARTER TOWNSHIP	54118	60	PORT HURON CHARTER TOWNSHIP	40
ZEELAND CHARTER TOWNSHIP	10491	75	REDFORD CHARTER TOWNSHIP	40
Average Score		70.2		70.2