

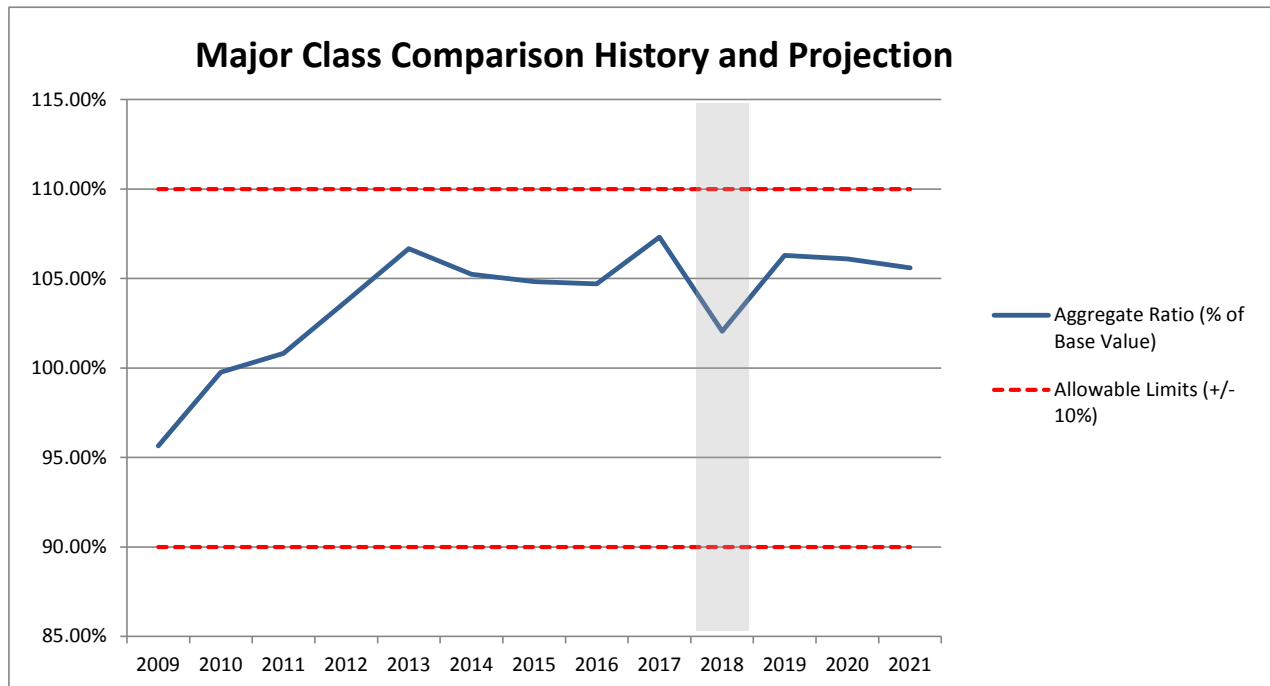
### Major Class Comparison History and Projection

Historic Data: Wisconsin Department of Revenue

2018 Data: Wisconsin Department of Revenue Preliminary

Projection Source: City of Manitowoc

Year	Aggregate Ratio (% of Base Value)
2009	95.64%
2010	99.77%
2011	100.82%
2012	103.73%
2013	106.67%
2014	105.24%
2015	104.82%
2016	104.70%
2017	107.31%
2018	102.06% (preliminary)
2019	106.30%
2020	106.10%
2021	105.59%





**Detailed Analysis of Pros and Cons**

	<b>12 Year Cost</b>	<b>Avg Annual Cost</b>	<b>Pros</b>	<b>Cons</b>
One Year Full Revaluation, Minimum Maintenance	\$ 2,940,000	\$ 245,000	Whole City revalued with physical inspections over shortest period; does not require long term commitment to service provider.	Largest up-front costs; highest annual cost; creates largest adjustments in City's tax rate; allows largest gaps between market and assessed values; risk of missing potential taxable value increases each year after revaluation completed.
One Year Full Revaluation, Full Value Maintenance	\$ 2,840,000	\$ 236,667	Whole City revalued with physical inspections over shortest period; compliance should last longer with improved maintenance; smooths the changes in City tax rate; attempts to minimize gap between market and assessed values; does not require long term commitment to service provider.	Largest up-front costs; relatively high annual cost; allows more moderated gaps between market and assessed values; risk of missing potential taxable value increases each year after revaluation completed.
Market Revaluation, Inspect Sales and Permits Only, Full Value Maintenance	\$ 2,640,000	\$ 220,000	Lower cost option to achieve compliance; whole City revalued on market (statistical) basis; smooths the changes in City tax rate; maintains zero gap between market and assessed values; shorter term commitment to service provider.	Limited physical inspections; based mostly on statistical analysis and sales; elevated risk of missing potential taxable value; fewer service providers offering this approach.
Full Value Maintenance, 1/4 Physical Inspect	\$ 2,640,000	\$ 220,000	Lower cost option; whole City revalued with physical inspections over moderate period; smooths the changes in City tax rate; maintains zero gap between market and assessed values; reduces risk of missing taxable value.	Four year commitment to service provider.
Full Value Maintenance, 1/6 Physical Inspect	\$ 2,640,000	\$ 220,000	Lower cost option; whole City revalued with physical inspections; smooths the changes in City tax rate; maintains zero gap between market and assessed values; reduces risk of missing taxable value.	Takes six years to complete inspections; longest commitment to service provider.

**Comparison of Relative Value Factors**

		<i>One Year Full Revaluation, Minimum Maintenance</i>	<i>One Year Full Revaluation, Full Value Maintenance</i>	<i>Market Revaluation, Inspect Sales and Permits Only, Full Value Maintenance</i>	<i>Full Value Maintenance, 1/4 Physical Inspect</i>	<i>Full Value Maintenance, 1/6 Physical Inspect</i>
Correcting Errors	All properties inspected in 1 year	✓	✓			
	All properties inspected in 4 years				✓	
	All properties inspected in 6 years					✓
	Timing of inspections unknown			✓		
	Lowest risk of missing taxable value		✓		✓	✓
	Moderate risk of missing taxable value	✓				
	Highest risk of missing taxable value			✓		
Moderating Change	Lowest potential for large swings in tax rate			✓	✓	✓
	Moderate potential for large swings in tax rate		✓			
	Highest potential for large swings in tax rate	✓				
	Lowest gaps between assessed and market values			✓	✓	✓
	Moderate gaps between assessed and market values		✓			
	Highest gaps between assessed and market values	✓				
Cost and Commitment	Lowest annual cost			✓	✓	✓
	Moderate annual cost		✓			
	Highest annual cost	✓				
	Shortest length commitment	✓	✓			
	Moderate length commitment			✓	✓	
	Longest length commitment					✓

**Summary Comparison of Value Factors**

Higher Value

Lower Value

