

**A COST-BENEFIT ANALYSIS OF SELECTED
SERVICES IN THE TOWNSHIP OF MCHENRY,
ILLINOIS**

Prepared for

**McHenry Township
Johnsburg, Illinois**

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Table of Contents

Executive Summary	4
Financial Comparison between the County and the Township	4
General Assistance Program	5
Property Assessment	5
Road District	6
Introduction	7
Cost-Benefit Analysis	7
Level-of-Service Approach to Cost-Benefit Analysis	7
Level-of-Service Comparison: McHenry Township versus McHenry County	8
Cost-Benefit Analysis Findings	10
General Assistance Program	10
Property Assessment	13
Road District	16
Conclusions	21
Appendix	22
Cost-Benefit Methodology	23
Data Collection and Interviews	23
Mathematical Analysis	23
Literature Review	23
About the Findings: A Cautionary Note	23
Limiting Conditions	23
Data Limitations	24
References	24
Acknowledgements	26
Contact Information	27
About the Consultant Firm	27
About the Author	28

List of Tables

Table 1: Financial Comparison: County vs. Township	9
Table 2: General Assistance Expenditures per Capita	11
Table 3: Assessment Cost per Parcel	14
Table 4: Total Assessment Cost per Capita	15
Table 5: Road District Operation Costs Per-Mile and Per-Capita	19
Appendix Table A - 1: Selected Socioeconomic Data.....	29
Appendix Table B - 1: General Assistance, Property Assessment & All Other Services	30
Appendix Table C - 1: Assessed Parcels by Township	31
Appendix Table C - 2: Equalized Assessed Values by Township.....	32
Appendix Table C - 3: Assessment Appeal Counts by Township.....	33
Appendix Table D - 1: Road District Operation Costs by Category (FYE 2009)	34
Appendix Table D - 2: Road District Operation Costs per Mile (FYE 2009)	35
Appendix Table D - 3: Road District Operation Costs per Capita (FYE 2009)	36
Appendix Table D - 4: Road District Operation Costs by Category (FYE 2019)	37
Appendix Table D - 5: Road District Operation Costs per Mile (FYE 2019)	38
Appendix Table D - 6: Road District Operation Costs per Capita (FYE 2019)	39
Appendix Table D - 7: Road Mileage.....	40

Executive Summary

In this report, the findings of a cost-benefit analysis of General Assistance services, Property Assessment services, and Road District services provided by the Township of McHenry, Illinois and the McHenry Township Road District (hereinafter referred to as “McHenry Township”) are presented. There are many different methodological approaches to cost-benefit analysis. The most common accounting approach is to simply measure the monetary benefit received from one dollar in cost incurred to produce that benefit. However, in public finance, especially at the local government level, there are policy implications to public decision-making that do not easily lend themselves to an accounting solution. While the cost to plow a mile of road after a snowfall or the cost to mow the grass in a park can be estimated easily, many programs such as public health and welfare programs have benefits to local residents that cannot be calculated easily in monetary terms. Cost-benefit analysis, therefore, must balance the mathematical approach with the commonsense understanding of how local public services are provided.

As the cost to run local township and county governments and the cost to provide new or maintain existing public infrastructure (such as roads and public facilities) continues to increase each year, decisions made by elected officials, policy makers, township and county staff, and residents in general have consequential short and long term fiscal implications.

Financial Comparison between the County and the Township

- The findings presented in this report indicate that at the end of fiscal year 2016, for every \$1.00 that the County spent in the provision of public services to its residents, the County received \$0.99 in revenues;
- This small deficit of \$0.01 remained the same for fiscal year end 2017 (\$0.01) and increased slightly in fiscal year end 2018 to (\$0.05);
- At the end of fiscal year 2017, for every \$1.00 that the Township spent in the provision of public services to its residents, the Township received only \$0.87 in revenues. This deficit of \$0.13 decreased slightly at the end of fiscal year 2018 (to \$0.12) but worsened by the end of fiscal year 2019 to \$0.21 (or \$0.79 in revenues received for every \$1.00 the Township spent to provide public services);
- Alternatively stated, at the end of fiscal year 2016, for every \$1.00 that the County received in revenues, the County spent \$1.01 in expenditures to provide public services;
- This small deficit increased slightly for fiscal year end 2017 (\$0.02) and increased a little more at fiscal year end 2018 to (\$0.05);
- At the end of fiscal year 2017, for every \$1.00 that the Township received in revenues, the Township spent \$1.15 in expenditures to provide public services. This spending deficit decreased slightly for fiscal year end 2018 (to \$0.14) but increased at the end of fiscal year 2018 to (\$0.26); and

- These findings do not support the argument that McHenry Township is more efficient in the provision of public services than McHenry County.

General Assistance Program

- On a per-capita basis, McHenry Township spent \$5.66 per person (per resident in the Township) to provide General Assistance (including Emergency Assistance) to those people in need in the Township;
- While it is commendable that McHenry Township has a very high commitment to providing General Assistance (including Emergency Assistance) to its residents, this per-capita expenditure in the Township is 2.72 times higher than the median average and almost two times higher (1.91) than the mean average when compared to 15 other townships in McHenry County;
- While the County does not provide the same type of services that the Township currently provides to its residents for general assistance services, the County does provide various public health and welfare programs and services;
- If the residents of the Township were to vote to dissolve the township, there does not appear to be any significant “ramp-up” or “leveling-up” costs associated with absorbing these General Assistance services into the County; and
- Thus, the cost to provide these services (or some portion of these services) would most likely be lower in the County than in the Township.

Property Assessment

- McHenry Township had the second highest level of property assessment spending among 15 townships analyzed in McHenry County;
- On a per-parcel basis, the mean average spending to assess property in all the townships analyzed was \$18.31 per parcel on a sample size of 139,974 parcels across the 15 townships;
- In McHenry Township, however, spending for Property Assessment services equaled \$20.75 per parcel;
- At \$20.75 per parcel, the amount spent by McHenry Township to assess property on a per-parcel basis is about 13.3 percent above the mean average cost to assess parcels and about 7.8 percent higher than the median average cost among all the townships analyzed; and
- While the County provides only supervisory assessment services, the cost of these services is less than one-third of the cost (32.7 percent) that McHenry Township spends (on a per-parcel basis) to assess its own parcels.

Road District

- At the end of fiscal year 2018, McHenry County spent \$74,629.46 per mile across six transportation funds on total transportation expenditures compared to McHenry Township at \$50,269.16 per mile in FY 2019;
- Advocates of townships maintaining their own roads argue that salaries per Road District worker in the townships tend to be lower than these same workers in the County;
- This may be true but a salary analysis represents just one small portion of total transportation costs including road maintenance costs, facilities, equipment, salaries and benefits, and other miscellaneous transportation costs. An analysis of salaries only does not account for these other costs;
- It should be noted that a per-capita (per-person) approach more accurately reflects the cost measurement of transportation spending. Roads can be single-lane or two-lane, paved or gravel, used frequently or used infrequently, rural versus in the city or in the township, have higher or lower levels-of-service ratings, et cetera. Based on a review of the literature, these variables are difficult to isolate and analyze in the per-mile cost comparison;
- The per-capita approach assumes that each person in the County or in the townships has equal access to these roads, regardless of the type or quality of these roads or the variables previously mentioned. The per-capita approach smooths out the anomalies in the data and lends itself to a better measure for comparing costs across townships; and
- The County, on a per-capita basis, spent \$57.10 per person compared to McHenry Township at \$103.42 per person. The argument that townships can maintain their roads at a lower cost than the County cannot be supported by the data.

Introduction

In November 2019, McHenry Township and the McHenry Township Road District issued a request for proposals for a cost-benefit analysis of selected township services. In December 2019 the Township awarded a contract to Urban Analytics, Inc. The scope-of-work was to conduct a cost-benefit analysis of General Assistance services, Property Assessment services, and Road District services.

Cost-Benefit Analysis

There are many different methodological approaches to cost-benefit analysis (sometimes referred to as benefit-cost analysis). The most common accounting approach is to simply measure the monetary benefit received from one dollar in cost incurred to produce that benefit. This is a fairly straight-forward accounting approach. However, in public finance, especially at the local government level, there are policy implications to public decision-making that do not easily lend themselves to an accounting solution. While the cost to plow a mile of road after a snowfall or the cost to mow the grass on a ball field can be estimated with a fair degree of certainty, many programs such as public health and welfare programs or public school education programs have benefits to local residents that cannot be calculated easily in monetary terms. Thus, in employing cost-benefit analytical techniques, the analyst (and the reader) should not forget that cost-benefit analysis is not a substitute for common sense. (Gramlich 1990, 5).

Level-of-Service Approach to Cost-Benefit Analysis

The age-old question that residents of a county, city or town often ask is “what I am receiving in services for the taxes that I am paying to my local government?” One approach to answering this question is the use of the level-of-service approach. The level-of-service approach to cost-benefit analysis is an example of common sense in action.

The level-of-service methodological approach is based on the theory of clubs in fiscal and economic analysis. In the application of the theory of clubs to public finance and local government, the municipality or community is the “club”, existing residents represent “club members”, and the benefits received by club members (in the form of local government services) are referred to as the “club level-of-service.” For any given size of the club, more members typically mean lower costs per member. This generally is a result of lower economies-of-scale as a municipality becomes more efficient in the acquisition and provision of public services. However, increased membership (increased population to the county, city or town) may lead to economic inefficiencies and excess membership may lead to overcrowding. These two scenarios may result in the benefits per member of being a member of the club to decline.¹ Just like being a member of a club, the benefits of being a resident of a county, city or town may increase or decrease, and this increase or decrease can be measured by analyzing the level-of-service from year to year.

¹ The literature on the theory of clubs in public finance is well documented. For an in-depth examination, please see Tiebout (1956), Buchanan (1965), and Rubinfeld (1987).

Level-of-Service Comparison: McHenry Township versus McHenry County

Advocates of the township form of government argue that in “Illinois, the data shows [*sic*] that smaller local governments, including townships, drive greater efficiency, despite theories to the contrary. Local government is simply less expensive, in large measure because people (voters) have more control” (Cox 2012, 3). To test this argument, a financial comparison of the last three fiscal years between McHenry Township and McHenry County was conducted, and the findings are presented in Table 1.

The level-of-service (LOS) for both the Township and the County are shown from two perspectives in Table 4: (a) an expenditure LOS; and (b) a revenue LOS. Financial data from McHenry County’s Comprehensive Annual Financial Report (the “CAFR”) for the fiscal years ending 2016, 2017 and 2018 and financial data from McHenry Township’s Annual Financial Report (the “AFR” or the “Audit”) were compared.² The findings shown in the **expenditure LOS** column are interpreted as follows; at the end of fiscal year 2016, the County received \$153,029,435 in revenues and spent \$155,197,109 in expenditures to provide public services for a small deficit of (\$2,167,674). In other words, for every \$1.00 that the County spent in the provision of public services to its residents, the County received \$0.99 in revenues. This small deficit remained the same for fiscal year end 2017 (\$0.01) and increased slightly in fiscal year end 2018 to (\$0.05). At the end of fiscal year 2017, McHenry Township received \$5,200,288 in revenues and spent \$5,962,160 in expenditures for public services, resulting in a deficit of (\$761,872). Alternatively stated, for every \$1.00 that the Township spent in the provision of public services to its residents, the Township received only \$0.87 in revenues. This deficit decreased slightly at the end of fiscal year 2018 (to \$0.88 in revenues for every \$1.00 in expenditures) but worsened by the end of fiscal year 2019, to \$0.79 in revenues received for every \$1.00 in expenditures to provide public services.

The findings shown in the **revenue LOS** column are interpreted as follows; at the end of fiscal year 2016, for every \$1.00 that the County received in revenues, the County spent \$1.01 in expenditures to provide public services. This small deficit increased slightly for fiscal year end 2017 (\$0.02) and increased a little more at fiscal year end 2018 to (\$0.05). At the end of fiscal year 2017, for every \$1.00 that the Township received in revenues, the Township spent \$1.15 in expenditures to provide public services. This spending deficit decreased slightly for fiscal year end 2018 (to \$0.14) but increased at the end of fiscal year 2018 to (\$0.26).

The findings in Table 1 do not support the argument that McHenry Township is more efficient in the provision of public services than McHenry County. Think of this conclusion from the perspective of a household or an individual. If a person or a household spends more money each year than they bring in annually in income, then that person or household might be “living beyond his or her or its means.” Yes, there are instances where this occurs due to unforeseen circumstances (e.g., losing one’s job, moving to another city and taking a job that pays less, an

²The County’s fiscal year ends on November 30th while the Township’s fiscal year ends on March 31st. The County’s CAFR for FYE2019 had not been released to the public as of the date of this report. Because of the mismatch in the ending dates of each jurisdiction, the fiscal year end financial data shown in the table are the most recent.

illness that requires a person to not have income for a month or two, an unexpected roof repair or other non-budgeted expense, etc.). The net result of these circumstances is that the individual or household has to cut back on expenses until the imbalance between annual income and annual expenditures is resolved. Until that imbalance is resolved, an individual or household (before taking on additional debt) must dip into any savings to cover the imbalance. Local governments do the same thing by drawing down their respective fund balances.

Table 1: Financial Comparison: County vs. Township
Last Three Fiscal Years

FYE ¹	County	General Fund	County	Illinois	Total	Expenditure	Revenue	
			Mental Health Fund	Municipal Retirement Fund	Nonmajor Governmental Funds			Total
2016	Revenues	\$ 87,102,440	\$ 10,739,670	\$ 7,917,878	\$ 47,269,447	\$ 153,029,435	\$ 0.99	\$ 1.00
2016	Expenditures	\$ 86,914,443	\$ 10,059,597	\$ 6,907,161	\$ 51,315,908	\$ 155,197,109	\$ 1.00	\$ 1.01
2016	Surplus/(Deficit)	\$ 187,997	\$ 680,073	\$ 1,010,717	\$ (4,046,461)	\$ (2,167,674)	\$ (0.01)	\$ (0.01)
2017	Revenues	\$ 90,429,622	\$ 11,099,923	\$ 7,955,146	\$ 48,010,447	\$ 157,495,138	\$ 0.99	\$ 1.00
2017	Expenditures	\$ 84,924,774	\$ 10,502,384	\$ 6,729,374	\$ 57,718,990	\$ 159,875,522	\$ 1.00	\$ 1.02
2017	Surplus/(Deficit)	\$ 5,504,848	\$ 597,539	\$ 1,225,772	\$ (9,708,543)	\$ (2,380,384)	\$ (0.01)	\$ (0.02)
2018	Revenues	\$ 90,741,054	\$ 10,649,004	\$ 7,860,705	\$ 45,874,693	\$ 155,125,456	\$ 0.95	\$ 1.00
2018	Expenditures	\$ 87,737,236	\$ 11,272,545	\$ 6,806,562	\$ 57,151,955	\$ 162,968,298	\$ 1.00	\$ 1.05
2018	Surplus/(Deficit)	\$ 3,003,818	\$ (623,541)	\$ 1,054,143	\$ (11,277,262)	\$ (7,842,842)	\$ (0.05)	\$ (0.05)

FYE ²	Township	General Fund	Road and Bridge Fund	Permanent Road Fund	General	Expenditure	Revenue	
					Assistance Fund			Total
2017	Revenues	\$ 1,850,162	\$ 1,385,075	\$ 1,812,689	\$ 152,362	\$ 5,200,288	\$ 0.87	\$ 1.00
2017	Expenditures	\$ 1,843,420	\$ 1,906,876	\$ 2,011,581	\$ 200,283	\$ 5,962,160	\$ 1.00	\$ 1.15
2017	Surplus/(Deficit)	\$ 6,742	\$ (521,801)	\$ (198,892)	\$ (47,921)	\$ (761,872)	\$ (0.13)	\$ (0.15)
2018	Revenues	\$ 1,681,629	\$ 1,544,430	\$ 1,423,523	\$ 136,692	\$ 4,786,274	\$ 0.88	\$ 1.00
2018	Expenditures	\$ 1,738,668	\$ 1,714,730	\$ 1,699,817	\$ 289,803	\$ 5,443,018	\$ 1.00	\$ 1.14
2018	Surplus/(Deficit)	\$ (57,039)	\$ (170,300)	\$ (276,294)	\$ (153,111)	\$ (656,744)	\$ (0.12)	\$ (0.14)
2019	Revenues	\$ 1,443,382	\$ 1,297,292	\$ 2,767,011	\$ 144,126	\$ 5,651,811	\$ 0.79	\$ 1.00
2019	Expenditures	\$ 2,018,846	\$ 1,725,079	\$ 3,125,895	\$ 265,687	\$ 7,135,507	\$ 1.00	\$ 1.26
2019	Surplus/(Deficit)	\$ (575,464)	\$ (427,787)	\$ (358,884)	\$ (121,561)	\$ (1,483,696)	\$ (0.21)	\$ (0.26)

Source : County of McHenry, Illinois. [Comprehensive Annual Financial Report](#) (CAFR) for FYE 2016, 2017 & 2018; McHenry Township, Illinois. [Annual Financial Report](#) (AFR) for FYE 2017, 2018 & 2019; Urban Analytics, Inc.

Note: ¹November 30th. ²March 31st.

An interesting observation from Table 1 is that while the County’s General Fund has reported a surplus in the past three years, the Township’s General Fund has reported a growing deficit in the past two years. The deficit at the end of fiscal year 2019 (a negative \$575,464) in

McHenry Township is about ten times greater than the reported deficit at the end of fiscal year 2018 (a negative \$57,039).

Cost-Benefit Analysis Findings

In this section, the findings of a cost-benefit analysis of three public services provided by the Township of McHenry are presented. These public services are: (1) the General Assistance Program; (2) Property Assessment services; and (3) the maintenance of McHenry Township Road District's roads and bridges. These findings are relevant to McHenry Township because they lay the groundwork for future discussion among residents, township staff, elected officials, and other stakeholders regarding the future of the Township.

It is important to note that while an analysis of the cost to provide these three public services between McHenry Township and McHenry County is the objective of this report, such a comparison is limited due to its small sample size. That is, while the comparison of one governmental entity to another (a sample size of two) is important, a more meaningful cost-benefit analysis would include a comparative analysis of a larger sample size. Thus, in this report, the analysis of the cost of McHenry Township services are also compared to the other sixteen townships in McHenry County. This larger sample size of 17 governments (17 townships) presents the groundwork for a more informed conclusion of the results presented in this report.

General Assistance Program

In Table 2, a per capita comparison of General Assistance expenditures in McHenry Township to those expenditures in the other townships in McHenry County is presented. Operating expenditures (the cost of providing public services associated with General Assistance including Emergency Assistance programs) totaled \$892,513 across the 15 townships analyzed as of the most recently released audited financial statements or approved budgets for each township.³ Of this \$892,513 in expenditures, Algonquin Township provided \$299,050 (or 33.5 percent of the total amount of these services among the townships analyzed), followed by McHenry Township at \$265,687 (or 29.8 percent). Collectively, these two townships expended almost two-thirds (63.3 percent) of all General Assistance program services among the 15 townships analyzed.

A rank-order analysis was prepared to place these General Assistance spending outlays into perspective. The mean average expenditure for General Assistance services was \$59,501 per township with half of the townships spending less than \$29,030 and half spending more than that amount. McHenry Township had the second highest level of spending among the 15 townships analyzed in McHenry County. On a per-capita basis, the mean average spending of all townships analyzed was \$2.96 per person on a sample size of 301,531 people (the U.S. Census Bureau estimated population in 2018 for the townships listed in Table 5. McHenry

³The townships of Coral and Hebron are excluded. As per the Illinois State Comptroller's Office, Coral's audit report is not available. Hebron did not separate general assistance expenditures from total township expenditures in their financial statements.

Township spending for General Assistance services equaled \$5.66 per person behind Greenwood Township at \$20.82 per person, Burton Township (\$14.76 per person), and Seneca at \$8.26 per person.

Table 2: General Assistance Expenditures per Capita
By Township
Assessment Year 2018

Township ¹	General Assistance Expenditures	Est. 2018 Population ²	Avg. Cost Per Capita
ALDEN	\$ 3,000	1,483	\$ 2.02
ALGONQUIN	\$ 299,050	87,440	\$ 3.42
BURTON	\$ 72,567	4,916	\$ 14.76
CHEMUNG	\$ 4,486	8,880	\$ 0.51
DORR	\$ 34,885	21,123	\$ 1.65
DUNHAM	\$ 3,314	55,143	\$ 0.06
GRAFTON	\$ 29,030	13,939	\$ 2.08
GREENWOOD	\$ 37,420	1,797	\$ 20.82
HARTLAND	\$ 13,100	2,400	\$ 5.46
MARENGO	\$ 42,530	7,392	\$ 5.75
MCHENRY	\$ 265,687	46,906	\$ 5.66
NUNDA	\$ 56,600	37,705	\$ 1.50
RICHMOND	\$ 4,949	6,635	\$ 0.75
RILEY	\$ 1,895	2,865	\$ 0.66
SENECA	\$ 24,000	2,907	\$ 8.26
Total	\$ 892,513	301,531	\$ 2.96
Mean Average	\$ 59,501	20,102	\$ 2.96
Median Average	\$ 29,030	7,392	\$ 2.08
Top 3	Highest 1st	2nd Highest 2nd	3rd Highest 3rd

Source:

Financial statements from each township; Urban Analytics, Inc.

Note:

¹ Coral and Hebron townships are excluded. Coral did not provide financial statements. Hebron did not report general assistance expenditures in their financial statements.

² Total Population. U.S. Census Bureau: [Table DP05 American Community Survey \(ACS\) Demographic and Housing Estimates, 2018](#). Data retrieved by Urban Analytics, Inc.

In Appendix Table B-1, a breakdown of how the townships allocated their General Assistance expenditures is provided. Of the \$265,687 in expenditures incurred by McHenry Township, \$68,744 or roughly one-quarter (25.9 percent) was charged to personnel services and benefits to administer the General Assistance program and the remaining \$196,943 was charged to running the program including providing the necessary General Assistance and Emergency Assistance services to those residents in need in the Township.

In Appendix Table A-1, selected socioeconomic data are shown for both McHenry County and McHenry Township. The percentage of people in the Township living below the poverty line was estimated to be 7.4 percent in 2018, slightly higher than the 7.1 percent living below the poverty line in the County. The number of residents under 18 years of age was estimated to be 12.1 percent in 2018 in the Township compared to 10.2 percent living somewhere within the County. The number of people age 65 years and over was 3.5 percent in the Township compared to 5.1 percent living elsewhere within the County.

The average cost per capita of \$5.66 shown in Table 5 represents the expenditure LOS for General Assistance in McHenry Township. While it is commendable that McHenry Township has a very high commitment to providing General Assistance (including Emergency Assistance) to its residents, this expenditure LOS in the Township is 2.72 times higher than the median average and almost two times higher (1.91) than the mean average of the 15 townships.

McHenry County issued a report on potential township dissolution considerations in early January that was posted to the County's website on February 14, 2020 (County 2020). While the County does not provide the same type of services that the Township currently provides to its residents for general assistance services, the County noted two administrative considerations should residents of the Township vote to dissolve the township. These considerations are (1) the County's Veterans' Assistance Commission (VAC) "administers GA to individuals; this experience can be leveraged." (County 2020, page 12); and (2) the County's finance department "performs accounting for GA to veterans already, so a transition would be possible without extreme difficulty" (ibid, page 12). While Cox (2012, p. 2) states that "government consolidations tend to produce higher costs because of the necessary 'leveling up' of labor costs to the cost structure of the most expensive consolidating government," the two statements made in the County's township dissolution report appear to indicate that ramp-up costs would not be that high.

What was very interesting to read in the County's considerations about township dissolution was the concern about financial budgeting associated with providing general assistance services. To wit, "a person without medical insurance who does not qualify for Affordable Care Act (ACA) could cost the GA provider substantial sums of unbudgeted medical expenses. ACA has reduced this risk, but it is still possible and remains a concern for Township Supervisors" (County 2020, page 12). McHenry County's general fund budget for public health and welfare programs and its budget for the County's mental health programs totaled \$17,064,309 at FYE2018 compared to the Township's general assistance budget of \$265,687 at FYE2019. In its township dissolution report, the County noted that it is not mandatory for the County to assume the administration of the General Assistance program from McHenry Township upon dissolution of the township (County 2020, page 1) and that the County Board "will need to determine if GA will be provided and if so, define the service level and standards for its administration" (County 2020, page 12).

Property Assessment

In Table 3, a per parcel comparison of Property Assessment expenditures in McHenry Township to those expenditures in the other townships in McHenry County is presented. Operating expenditures for Property Assessment (the cost of assessing property including salaries and benefits) totaled \$2,562,684 across the 15 townships analyzed as of the most recently released audited financial statements or approved budgets for each township.⁴ Of this \$2,562,684 in expenditures, Algonquin Township spent \$700,650 (or 27.3 percent of total assessment expenditures among the townships analyzed), followed by McHenry Township at \$503,391 (or 19.6 percent), and Nunda at \$453,750 (or 17.7 percent). Collectively, these three townships expended almost two-thirds (64.6 percent) or \$1,657,791 to assess their own parcels among the 15 townships analyzed.

A rank-order analysis was prepared to place these Property Assessment expenditures into perspective. The mean average expenditure for Property Assessment services was \$170,846 per township with half of the townships spending less than \$56,500 and half spending more than that amount. McHenry Township had the second highest level of spending among the 15 townships analyzed in McHenry County. On a per-parcel basis, the mean average spending of all townships analyzed was \$18.31 per parcel on a sample size of 139,974 parcels within the 15 townships. McHenry Township spending for Property Assessment services equaled \$20.75 per parcel. At \$20.75 per parcel, the amount spent by McHenry Township to assess property on a per-parcel basis is about 13.3 percent above the mean average cost to assess parcels and about 7.8 percent higher than the median average cost.

Grafton Township has 21,292 parcels compared to 24,262 parcels in McHenry Township; it is the township with the closest number of parcels to McHenry Township. Grafton Township spent \$15.06 per parcel (or 72.6 percent of what McHenry Township spent per parcel). Chemung Township (at \$20.75 per parcel), on the other hand, spent the same dollar amount per parcel as McHenry Township but only had 3,892 parcels while Seneca Township spent \$20.73 per parcel on only 1,809 parcels. Compared to the other townships analyzed, the cost to assess property in McHenry Township on a per-parcel basis was tied for the 4th highest among the 15 townships analyzed but, in aggregate, the total cost to assess parcels in McHenry Township was the second highest among the 15 townships reviewed.

McHenry County spent \$979,569 to provide supervisory assessment services on all 144,180 parcels in 17 townships across the County. This equates to \$6.79 per parcel as of the end of its fiscal year 2018. While the County provides only supervisory assessment services, the cost of these services are roughly a little more than one-third (37.1 percent) of the cost of the mean average per-parcel for the townships analyzed, and less than one-third of the cost (32.7 percent) to McHenry Township to assess its own parcels.

⁴The townships of Coral and Dunham are excluded. As per the Illinois State Comptroller's Office, Coral's audit report is not available. Dunham did not separate the cost to assess parcels from total township expenditures in their financial statements.

Table 3: Assessment Cost per Parcel
By Township
Assessment Year 2018

Township ¹	Assessment Expenditures	Total Parcels	Avg. Cost Per Parcel
ALDEN	\$ 25,000	1,486	\$ 16.82
ALGONQUIN	\$ 700,650	36,416	\$ 19.24
BURTON	\$ 19,800	2,892	\$ 6.85
CHEMUNG	\$ 80,771	3,892	\$ 20.75
DORR	\$ 125,430	9,207	\$ 13.62
GRAFTON	\$ 320,760	21,292	\$ 15.06
GREENWOOD	\$ 137,344	6,355	\$ 21.61
HARTLAND	\$ 56,500	1,408	\$ 40.13
HEBRON	\$ 34,970	1,773	\$ 19.72
MARENGO	\$ 25,836	3,437	\$ 7.52
MCHENRY	\$ 503,391	24,262	\$ 20.75
NUNDA	\$ 453,750	20,026	\$ 22.66
RICHMOND	\$ 38,520	3,898	\$ 9.88
RILEY	\$ 2,462	1,821	\$ 1.35
SENECA	\$ 37,500	1,809	\$ 20.73
Total	\$2,562,684	139,974	\$ 18.31
Mean Average	\$ 170,846	9,332	\$ 18.31
Median Average	\$ 56,500	3,892	\$ 19.24
Top 3	Highest 1st	2nd Highest 2nd	3rd Highest 3rd

Source:

McHenry County, IL. Office of Assessments. Annual Report, Assessment Year 2018.; Financial statements from each township; Urban Analytics, Inc.

Note:

¹ Coral and Dunham townships are excluded. Coral did not provide financial statements.

Dunham does not disaggregate the cost to assess parcels in their financial statements.

In Table 4, a per-capita comparison of Property Assessment expenditures in McHenry Township to those expenditures in the other townships in McHenry County is presented. On a per-capita basis, the mean average spending of all townships analyzed was \$8.50 per person on a sample size of 301,531 people within the 15 townships. McHenry Township spending for Property Assessment services equaled \$10.73 per person in the Township. At \$10.73 per capita, the amount spent by McHenry Township to assess property on a per-capita basis is about 26.2 percent above the mean average cost to assess real estate and about 17.9 percent higher than the median average cost. McHenry County spent \$3.18 per capita to provide supervisory assessment services as of the end of its fiscal year 2018.

Table 4: Total Assessment Cost per Capita
By Township
Assessment Year 2018

Township ¹	Assessment Expenditures	Est. 2018 Population ²	Avg. Cost Per Capita
ALDEN	\$ 25,000	1,483	\$ 16.86
ALGONQUIN	\$ 700,650	87,440	\$ 8.01
BURTON	\$ 19,800	4,916	\$ 4.03
CHEMUNG	\$ 80,771	8,880	\$ 9.10
DORR	\$ 125,430	21,123	\$ 5.94
GRAFTON	\$ 320,760	55,143	\$ 5.82
GREENWOOD	\$ 137,344	13,939	\$ 9.85
HARTLAND	\$ 56,500	1,797	\$ 31.44
HEBRON	\$ 34,970	2,400	\$ 14.57
MARENGO	\$ 25,836	7,392	\$ 3.50
MCHENRY	\$ 503,391	46,906	\$ 10.73
NUNDA	\$ 453,750	37,705	\$ 12.03
RICHMOND	\$ 38,520	6,635	\$ 5.81
RILEY	\$ 2,462	2,865	\$ 0.86
SENECA	\$ 37,500	2,907	\$ 12.90
Total	\$2,562,684	301,531	\$ 8.50
Mean Average	\$ 170,846	20,102	\$ 8.50
Median Average	\$ 56,500	7,392	\$ 9.10
Top 3	Highest 1st	2nd Highest 2nd	3rd Highest 3rd

Source:

McHenry County, IL. Office of Assessments. Annual Report, Assessment Year 2018.; Financial statements from each township; Urban Analytics, Inc.

Note:

¹ Coral and Dunham townships are excluded. Coral did not provide financial statements.

Dunham does not disaggregate the cost to assess parcels in their financial statements.

² Total Population. U.S. Census Bureau: Table DP05 American Community Survey (ACS) Demographic and Housing Estimates, 2018. Data retrieved by Urban Analytics, Inc.

The financial data on property assessment services in the townships analyzed are itemized in Appendix Table B-1. The number of assessed parcels by land-use type by township are shown in Appendix Table C-1. The equalized assessed values by land-use type are presented in Appendix Table C-2. McHenry Township has the third highest assessment base among the 17 townships at \$1,294,687,118 behind only Grafton Township at \$1,718,303,234 and Algonquin Township at \$2,807,357,493. The total number of assessment appeal counts by township for the seven-year period from 2012 to 2018 can be found in Appendix Table C-3. Of the 36,364 appeals that have occurred across the 17 townships from 2012 through 2018, McHenry

Township recorded the fourth highest number of appeal counts at 5,185 followed closely by Nunda Township at 5,258, Grafton Township at 7,040 and Algonquin Township at 10,093 appeal counts. Most interesting to note is that McHenry Township had either the second highest or third highest number of appeal counts (appeals that have been filed) in 5 out of the past 7 years.

In its township dissolution report, McHenry County states,

“that initially, the current McHenry Township assessment staff excluding the Township Assessor would need to be retained to absorb this function and would continue operating out of the local township assessment office. If contiguous townships dissolve, there is an opportunity to consolidate staff and operations into a regional assessment office. No additional staffing will be needed at the County Office of Assessments.” (County 2020, page 11).

A review of the literature in other states somewhat confirms that the initial costs to assess property would decline if consolidation took place. In 2008, the General Assembly of the State of Indiana passed the House Enrolled Act (HEA) 1001-2008 which resulted in the elimination of 995 out of 1,008 township assessors. (Indiana, 2009, 1). The duties and responsibilities of the eliminated townships were transferred to the appropriate county assessor. In a joint study prepared by the Indiana Office of Management and Budget and the Indiana State Department of Local Government Finance, the authors concluded from a review of a survey conducted by the Indiana County Assessors Association that “County Assessors [had] outperformed their township counterparts on timeliness, cost, and quality.” (Indiana, 2009, 1). Question 1 of that survey asked county assessors the following question: “As a result of the transition of the Township Assessors and Trustee/Assessors last year (either by legislative action or as a result of the referendum), have the overall costs of assessing changed in your county?” Of the 49 responses received⁵ for this question, 25 respondents (or 51.03 percent) indicated that costs of assessing had decreased, 13 respondents (26.53 percent) indicated that it was too early to tell, 6 respondents (12.24 percent) indicated that there had been no change in the cost of assessing, and the remaining 5 respondents (10.20 percent) indicated that costs had increased. (Indiana, 2009, 8).

Road District

In 2010, a study was conducted by the Illinois Department of Transportation to collect financial data (as of FYE 2009) on township road district costs including road mileage, road maintenance, equipment, facilities, personal services and benefits, and other costs (IDOT 2010). For this report, Urban Analytics replicated that study for fiscal year end 2019 for the purpose of identifying any trends in road district transportation costs over a ten-year period. The same expenditure classifications that were used in the IDOT study were used in the 2019 analysis. These classifications are as follows:

⁵There are 92 counties in the State of Indiana. So, 49 responses out of 92 counties represents a response rate of 53.3 percent for Question 1.

“Road Maintenance” consists of any bridge construction or maintenance; maintenance services for existing roads; repair and supplies; “Road Signs”; “Street Lights” (including electricity payments for street lights, when specified); services and supplies specific to winter maintenance (including sand, salt, ice control, etc.); and “Other” (including necessary tree removal, waste disposal, weed control, new construction, drainage costs, etc.).

“Equipment” consists of “Capital Outlay”; “Specific Automotive Costs” (including fuel, oil, lubricants, etc.); the costs of maintenance services and equipment-related supplies; the costs of general and office equipment not included as “Capital Outlay”; “Small Tools”; and “Other” (including equipment loan payments, truck safety tests, etc.).

“Facilities” consists of facility “Capital Outlay”; maintenance and supply costs; utilities (including telephone, gas and electric, etc.); and “Other (including general building funding not classified as “Capital Outlay”, landscaping, janitorial work not included in Personnel “Salaries”, etc.).

“Personal Services and Benefits” consists of “Insurance” (general, health, liability, Risk Management contributions, etc.); “Retirement/Illinois Municipal Retirement Fund (IMRF)” contributions; “Salaries” (including hourly wages and maintenance labor costs); “Social Security Contributions” (including Medicare and FICA); and “Other” (including payroll tax expenses, employee uniforms, drug and alcohol testing, etc.).

“Other” consists of “Communication Services” (including postage, printing, and publishing costs, newsletters, etc.); “Contingencies”; “Dues and Subscriptions”; miscellaneous and office supplies; “Professional Services” (including accounting, legal, and engineering consulting fees, etc.); all rentals (include machinery and equipment); “Municipal Replacement Taxes”; employee training and traveling costs (including conferences, etc.); and “Other” (including non-specified capital improvement costs, expenses budgeted as “miscellaneous”, mosquito abatement, various bank charges, non-specified community expenses, etc.). (IDOT 2010, page 3).

In Appendix Table D-1, the findings of the IDOT study are shown. The IDOT study only reported the findings shown in Appendix Table D-1 up to but before the “total” line. Urban Analytics analyzed the FYE 2009 financial data, calculated the total, mean and median average, conducted the rank-order analysis, and created Appendix Table D-2 and Appendix Table D-3. Then, Urban Analytics collected the financial data from the townships for FYE 2019 (unless otherwise noted) and constructed Appendix Tables D-4, D-5, D-6, and D-7.⁶

⁶While there are guidelines for the townships to report their Road District budgets, not all Road District budgets were consistent and uniform. Coral Township’s audit report is not available, according to the Illinois State Comptroller’s Office. Dunham Township aggregates all revenues and expenditures into three categories only. FYE 2017 audits were the latest financial

Of the 17 townships analyzed for fiscal year end 2009, McHenry Township had the third-highest amount of road district operations costs, spending \$3,977,663 that year, slightly behind Nunda Township at \$4,000,258 and Algonquin Township at \$4,392,200. On a per-mile basis, Algonquin Township was highest at \$77,944.99, followed by Grafton Township at \$63,885.98, Dorr Township at \$59,278.02, Nunda Township at \$40,719.24, and McHenry Township fifth at \$40,700.53 per mile (see Appendix Table D-2). On a per-capita basis, Alden Township was the highest in FY 2009 at \$206.25 per person in road district operations costs, followed by Hartland Township (\$147.77), and Coral Township at \$134.69 per mile. McHenry Township spent \$83.67 per mile in road district operations costs in FY 2009. The weighted average spending per mile in FY 2009 was \$69.55 for all 17 townships. At \$83.67 per mile, McHenry Township spending was 20.3 percent above the weighted average. That year, McHenry Township spent the third-highest amount in facilities costs, at \$10.10 per capita, behind Coral Township at \$10.27 per capita, and Dorr Township at \$37.77 per capita.

This same analysis (aggregate road district operations expenditures, per-mile costs, and per-capita costs) were conducted on the FY 2019 data. The findings are shown in Appendix Tables D-4, D-5 and D-6. In FY 2019, the aggregate cost of McHenry Township's road district operations costs was \$4,850,974, the highest of the 16 townships⁷ analyzed, while Algonquin Township was the second highest at \$4,639,450 followed by Nunda Township \$3,780,611. The mean average spending for total road district operation costs was \$1,377,689 for the 16 townships and the median average spending was \$528,836.

In Appendix Table D-7, the distribution of road mileage by township and municipality for state highway roads, toll roads and toll bridges, county roads, and township road district and municipal roads is presented. In Table 8, a comparative analysis of FY 2009 and FY 2019 for per-mile and per-capita costs are shown for each township and compared to the County for FY 2019. On a per-mile basis, McHenry Township was the fifth-highest spending township in FY 2009 for road district operation costs at \$40,700.53 per mile (in 2009 dollars). By FY 2019, McHenry Township had risen in rank to the third-highest township for road district operation costs at \$50,269.16 (in 2019 dollars). On a per-capita basis, McHenry Township spent \$83.67 per person in FY 2009 (in 2009 dollars) for total road costs and \$103.42 per capita in in FY 2019 (in 2019 dollars).

A break-down of road operation costs incurred by McHenry County at the end of FY2018 is listed in Table 5. In this table, McHenry County transportation costs are compared to the township road district costs on a per-mile and per-capita basis.

statements available for Dunham and Marengo Townships. Chemung, Greenwood, Hartland, and Seneca townships only had their FYE 2020 budgets available. Nunda Township only had their FYE 2018 budget available.

⁷Coral Township road district costs were not available.

Table 5: Road District Operation Costs Per-Mile and Per-Capita
Township vs. County
FY2009 versus FY2019 (current \$)

Township	FY2009 Per-Mile	FY2019 Per-Mile	FY2009 Per-Capita	FY 2019 Per-Capita ²	
ALDEN	\$ 7,239.66	\$11,154.42	\$ 206.25	\$ 285.58	
ALGONQUIN	\$ 77,944.99	\$80,123.70	\$ 48.95	\$ 53.06	
BURTON	\$ 7,565.35	\$21,755.79	\$ 21.01	\$ 62.07	
CHEMUNG	\$ 13,729.37	\$13,831.03	\$ 48.51	\$ 51.94	
CORAL ¹	\$ 8,162.93	n/a	\$ 134.69	n/a	
DORR	\$ 59,278.02	\$37,972.69	\$ 97.22	\$ 63.12	
DUNHAM	\$ 7,986.17	\$ 6,192.98	\$ 123.09	\$ 98.79	
GRAFTON	\$ 63,885.98	\$70,462.10	\$ 34.81	\$ 35.50	
GREENWOOD	\$ 25,787.53	\$29,887.07	\$ 81.84	\$ 95.64	
HARTLAND	\$ 8,726.49	\$ 9,175.60	\$ 147.77	\$ 216.69	
HEBRON	\$ 7,351.29	\$ 7,342.84	\$ 127.65	\$ 117.86	
MARENGO	\$ 15,000.41	\$14,377.56	\$ 70.88	\$ 72.37	
MCHENRY	\$ 40,700.53	\$50,269.16	\$ 83.67	\$ 103.42	
NUNDA	\$ 40,719.24	\$37,450.88	\$ 104.09	\$ 100.27	
RICHMOND	\$ 17,054.73	\$16,283.92	\$ 87.03	\$ 83.63	
RILEY	\$ 5,737.23	\$ 8,247.09	\$ 97.21	\$ 139.02	
SENECA	\$ 9,793.94	\$12,591.15	\$ 133.18	\$ 179.81	
<i>Mean Average</i>	\$ 27,406.40	\$30,006.39	\$ 69.55	\$ 72.44	
Top 3 Highest	1st	2nd Highest	2nd	3rd Highest	3rd
McHenry COUNTY		FYE 2018			
McDOT RTA Sales Tax Project Fund	\$ 3,503,734	\$14,877.22		\$ 11.38	
County Highway Fund	\$ 6,617,854	\$28,100.10		\$ 21.50	
Matching Fund	\$ 1,278,408	\$ 5,428.25		\$ 4.15	
County Bridge Fund	\$ 438,551	\$ 1,862.13		\$ 1.42	
County Option Motor Fuel Tax Fund	\$ 2,707,573	\$11,496.64		\$ 8.80	
Motor Fuel Tax Fund	\$ 3,029,865	\$12,865.12		\$ 9.84	
Total Transportation	\$17,575,985	\$74,629.46		\$ 57.10	

Source:

Illinois Department of Transportation; Financial statements from each township; McHenry County Comprehensive Annual Financial Report (CAFR) for FYE2018; Urban Analytics, Inc.

Note:

¹ n/a = not available.

² Total Population = 307,789. U.S. Census Bureau: Table DP05 American Community Survey (ACS) Demographic and Housing Estimates, 2018. Data retrieved by Urban Analytics, Inc.

According to the Comprehensive Annual Financial Report (CAFR) for McHenry County as of FYE 2018, the definitions of the six County transportation funds are as follows:

“The **McDOT RTA Sales Tax Project Fund** accounts for the collection of a sales tax, which is restricted for use on transportation programs. Revenue is from a sales tax. The **County Highway Fund** accounts for expenditures for highway maintenance and construction. Funding is primarily from property taxes and transfer in from other funds. The **Matching Fund** accounts for expenditures for road construction. Revenue is from property taxes. The **County Bridge Fund** accounts for expenditures to construct and maintain County bridges. Revenue is from property taxes. The **County Option Motor Fuel Tax Fund** accounts for the collection of an optional gasoline tax to be used for road maintenance and repair. Finally, the **Motor Fuel Tax Fund** accounts for allotments received from the State of Illinois and expenditures for highway construction and maintenance.”

McHenry County spent \$74,629.46 per mile across these six funds on total transportation expenditures in FY 2018 compared to McHenry Township at \$50,269.16 per mile in FY 2019. On a per-capita basis, the County spent \$57.10 per person compared to McHenry Township at \$103.42 per person. It should be noted here that a per-capita (per-person) approach more accurately reflects the cost measurement of transportation spending. Roads can be single-lane or two-lane, paved or gravel, used frequently or used infrequently, rural versus in the city or in the township, et cetera. Based on a review of the literature, these variables are difficult to isolate in the per-mile cost approach. The per-capita approach assumes that each person in the County or in the townships has equal access to these roads, regardless of the type or quality of these roads. The per-capita approach smooths out the anomalies in the data and lends itself to a better measure for comparing costs across townships.

A Brief Note on McHenry Township’s Road District Services

The McHenry Township Road District (MTRD) currently has eleven “(11) intergovernmental agreements (IGA) with the following townships and cities:

- City of McHenry – snow plowing services & roadway line striping
- Greenwood Township – snow plowing services and roadway line striping
- McCullom Lake – snow plowing services, patching and roadway line striping
- MCDOT – winter salt exchange agreement
- McHenry Township – rental and use of equipment, labor cost, gas, oil and garbage disposal
- Nunda Township - roadway line striping services, paving, sharing of specialized staff (welding, etc.).
- Richmond Township – snow plowing services, & roadway line striping
- Village of Johnsburg – snow plowing services, roadway line striping and mowing roadside & drainage improvements.
- Village of Lakemoor – snow plowing services & roadway line striping
- Village of Ringwood – snow plowing services, roadway line striping, mowing Village right-of-way, shoulder graveling within the Village as requested and respond to emergency situations & tree/vegetation trimming.

- Village of Wonder Lake - snow plowing services, roadway line striping, mowing Village right-of way on requested roads, and shoulder graveling within the Village as requested.” (Condon, 2020, 3)

According to the McHenry Township Road District (MTRD) highway commissioner, MTRD snow plow trucks drive on several County roads to get to their own township roads. The highway commissioner noted that:

“the McHenry County Department of Transportation (McDOT) and the Illinois Department of Transportation (IDOT) maintain their own roads, including snowplowing. “Both IDOT and McDOT do however utilize our salt storage facility when they are in this area and run out of salt on their trucks. This saves them from having to return to their facility to replenish their salt supply on the trucks. Also, this year IDOT stated they would like to start staging one snow plow in our yard so that they don’t need to drive all the way from Woodstock to plow the roads here. We made that recommendation/offer to them last year and this year they decided to take us up on this. All salt utilized by these agencies is replenished by them.” (Condon 2020, 3)

This is interesting to note because it brings up a question of economies of scale in snowplowing and road maintenance in general, and also addresses the issue of “leveling up” or “ramp-up” costs should the dissolution of the Township Road District occur. According to the County’s township dissolution report, if the voters of McHenry Township decided to dissolve the township, then the County is required to assume the functions and responsibilities of the McHenry Township Road District. The County’s report states that, “[due] to the disjointed nature of some township roads, coordination with local municipalities and/or other townships will be required.” The report also states that, “[due] to this disjointed issue, it is conceivable that a jurisdictional transfer with local municipalities to have a particular road in its entirety become a County road will result in greater services to the public at a more cost effective rate” (County 2020, page 8).

Conclusions

As the cost to run local township and county governments and the cost to provide new public infrastructure (such as roads, bridges and facilities) continues to increase each year, decisions made by elected officials, policy makers, township and county staff, and residents in general have consequential short and long term fiscal implications. Based on the data (financial and socio-economic) analyzed for the preparation of this report, it does not appear that McHenry Township can provide three types of public services - - General Assistance, Property Assessment, and Maintenance of Roads and Bridges - - on a more cost-effective basis than McHenry County. Based on a review of the past three years’ audited financial data for both McHenry Township and McHenry County, it does not appear that this conclusion will change in the near future.

Appendix

Cost-Benefit Methodology

Data Collection and Interviews

Dr. Bellas of Urban Analytics conducted in-person interviews from January 22, 2020 through January 24, 2020 with follow-up interviews by telephone and email with the individuals listed in the Acknowledgements section of this report. These individuals were either elected officials or senior-level staff in McHenry Township. Publicly available financial data for revenues and expenditures were provided either by McHenry Township or retrieved through the websites of the individual townships or the State of Illinois Comptroller's Office. Emails were sent to the townships that did not have their financial statements on their websites and follow-up telephone calls were also placed to these townships. The Illinois Department of Transportation website was accessed to collect data on road mileage in McHenry County. The source of the financial data was either the Comprehensive Annual Financial Report (CAFR) for the most recently ended fiscal year of each township that was available or the approved budget for the most recent fiscal year. When both the budget and the annual financial report (AFR) were available for review, the preferred report was the annual financial report (or the CAFR) because of two reasons: (1) the financial data reported in the CAFR or the AFR are based on actual spending, and (2) the data in the CAFR or AFR are audited by a third-party accounting firm.

Mathematical Analysis

All mathematical analyses were constructed using Microsoft Excel software.

Literature Review

An extensive literature search was conducted to include topics on township consolidation, county-city consolidation, and public finance related to local government issues. The literature is referenced in this report in the References section.

About the Findings: A Cautionary Note

The reader is cautioned that the findings shown and discussed in this report are based on a given point in time. For this analysis, the base year used (this given point in time) was fiscal year 2019 for McHenry Township and fiscal year 2018 for McHenry County (unless otherwise noted). The findings presented in this report will fluctuate year by year, as the budgets and audited financial reports of the County and the townships analyzed fluctuate year by year. Some readers might mistakenly assume that the findings calculated in one year will hold (will be the same) for future years. This is not an accurate assumption to make.

Limiting Conditions

All work undertaken in this report was conducted by Urban Analytics, Inc., in an objective and independent fashion. The results (findings) of the analyses conducted are based solely on the circumstances as Urban Analytics, Inc., sees them, as derived from research and analyses conducted by Urban Analytics, Inc., or third parties. The findings presented in this report were

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Data Limitations

The findings in this report are subject to the quality of the data provided to Urban Analytics, Inc., from various sources. When analyzing the data provided by any jurisdiction, the possibility exists that conflicting and contradictory data might appear in various documents. When such third-party data were utilized in the analysis and preparation of this report, Urban Analytics, Inc., relied upon such data in the formulation of all analyses and did not independently verify the accuracy of such third-party data. All information contained in this report which was furnished by others was assumed to be true, correct and reliable. Urban Analytics, Inc., assumes no responsibility for the accuracy of information provided by others.

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About the Consultant Firm

From the Latin word “Urbanus” which means of or relating to the city and from the classical Greek “Analytikos” which means of or relating to analysis, **Urban Analytics, Inc.**, is a real estate and urban planning consulting firm providing high-level urban development analytical services. Now in its twenty-fourth year of operations, Urban Analytics has provided specialized real estate financial analyses, market research studies, economic and fiscal impact studies, portfolio analyses, and analyses of public policy decisions to private, public and institutional sector clients. Urban Analytics is committed to providing its clients with the most effective analytical techniques available. These techniques include building models for almost any kind of economic, fiscal, financial, and econometric analysis.

Examples of the Company’s public-sector and institutional-sector assignments include: a study of housing conditions in Charles County, Maryland for the Charles County Board of County Commissioners; a countywide fiscal impact and economic study for the Prince William County, Virginia Planning and Finance Departments; a citywide and countywide fiscal impact study (with multiple school districts) for the City of Topeka and Shawnee County, Kansas; an analysis of the economic and fiscal impacts of proposed first-time home buyer down payment savings legislation statewide in the states of Iowa, Mississippi, New York, and Oregon; a countywide fiscal impact study with long-term growth scenarios (including a no-growth scenario) for the Queen Anne’s County, Maryland Economic Development Authority; a town-wide fiscal, economic, and capital asset impact study for the eastern shore towns of Trappe, Denton and Vienna, Maryland; an economic and fiscal impact analysis of a proposed video lottery terminal (slots) gaming facility in Cecil County, Maryland and the Town of Perryville,

Maryland; a fiscal impact analysis of the U.S. Government Department of Defense spending statewide in the State of Virginia; application review services for the U.S. Government Department of the Treasury Community Development Financial Institutions Fund; a fiscal and economic impact analysis of a proposed training facility for foreign service personnel for the U.S. Government Department of State, Bureau of Diplomatic Affairs in Queen Anne's County, Maryland; a social and economic impact analysis of the Joint Base Lewis-McChord Forestry Program in Washington State for the Department of the Army; a fiscal impact analysis for the Government of the District of Columbia for hosting the federal government; and revenue enhancement analyses of the relocation of the National Science Foundation (NSF) and Transportation Security Administration (TSA) headquarters buildings to the City of Alexandria, Virginia.

About the Author

Dean D. Bellas, Ph.D., is president of Urban Analytics, Inc., an Alexandria, Virginia-based real estate and urban planning consulting firm providing urban development analytical services to public and private-sector clients. Consulting services include fiscal and economic impact studies, market research analysis, real estate asset management, real estate development economics, and project feasibility studies. Since 1996, Dr. Bellas has analyzed the fiscal and economic impact of real estate development on towns, cities and counties in Iowa, New York, Maryland, Mississippi, Oregon, Virginia, West Virginia, Kansas, and the District of Columbia. During this time period, the fiscal impact on over 16,000 residential units and over 38.7 million square feet of non-residential space has been analyzed. The total estimated real estate value of all land-use types analyzed is over \$5 billion. Dr. Bellas has authored or co-authored over 125 research reports on the fiscal and economic impact of real estate development.

In addition to Urban Analytics, Dr. Bellas is affiliated with Georgetown University where he is an adjunct faculty member in the Real Estate Program in the School of Continuing Studies. Previously, he has been an adjunct faculty member at The Catholic University of America in the School of Architecture and Planning, the School of Professional Studies in Business and Education at the Johns Hopkins University, and in the School of Management at George Mason University. Dr. Bellas has also taught candidates for the CFA designation on behalf of the Washington Society of Investment Analysts.

Dr. Bellas received a Bachelor of Science in Business Administration from Western New England University with a concentration in Finance (1982), a Master of Urban and Regional Planning from the George Washington University (1993), and his Doctorate in Public Policy with a concentration in regional economic development policy at George Mason University (2005). His doctoral dissertation was entitled, "*Fiscal Impact Simulation Modeling: Calculating the Fiscal Impact of Development.*" His research interests include regional and local developmental growth patterns, economic and fiscal impact effects of real estate development on municipal government, and economic development policy. Dr. Bellas is a member of Lambda Alpha International, an honorary society for the advancement of land economics, and the National Economists Club. He is also a full member of the Urban Land Institute.

Appendix Table A - 1: Selected Socioeconomic Data
 McHenry County and McHenry Township
 2010 vs. 2018

	<i>McHenry County</i>		<i>McHenry Township</i>	
	2010	2018	2010	2018
Total Population ¹ :	306,050	307,789	47,539	46,906
Under 18 Years ¹ :	N/A	74,431	N/A	10,614
65 Years and Over ¹ :	29,462	41,446	5,058	7,127
Median Age ¹ :	37.1	40.2	37.2	41.3
Median Household Income ⁴ :	\$ 76,482	\$ 84,803	\$ 67,559	\$ 74,938
Number of Households ⁴ :	108,106	111,812	17,918	17,754
Average Household Size ³ :	2.82	2.74	2.65	2.64
Percentage of Population				
Living Below the Poverty Line ² :	7.7%	7.1%	N/A	7.4%
Under 18 years ² :	11.1%	10.2%	N/A	12.1%
65 Years and Over ² :	3.5%	5.1%	N/A	3.5%

Sources:

- ¹ U.S. Census Bureau: Table DP05 ACS Demographic & Housing Estimates, 2010 & 2018
- ² U.S. Census Bureau: Table S1701 Poverty Status in the Past 12 Months, 2010 & 2018
- ³ U.S. Census Bureau: Table S1101 Households & Families, 2010 & 2018
- ⁴ U.S. Census Bureau: Table S1903 Median Income in the Past 12 Months, 2010 & 2018
 Urban Analytics, Inc.: Table Construction

Notes:

- ⁵ N/A = Not Available

Appendix Table B - 1: General Assistance, Property Assessment & All Other Services

Population, Revenues and Expenditures by Township
FYE2019

Township	2018 Population ⁴	2019 Revenue	Expenditures by Category						Total
			Assessor		General Assistance		All Other Township Services		
			Personal Services & Benefits	All Other Expenditures	Personal Services & Benefits	All Other Expenditures	Personal Services & Benefits	All Other Expenditures	
² ALDEN	1,483	\$ 123,161.00	\$ 16,000.00	\$ 9,000.00	\$ -	\$ 3,000.00	\$ 83,800.00	\$ 53,646.00	\$ 165,446.00
³ ALGONQUIN	87,440	\$ 1,562,805.00	\$ 449,050.00	\$ 251,600.00	\$ 37,950.00	\$ 261,100.00	\$ 578,550.00	\$ 1,181,750.00	\$ 2,760,000.00
³ BURTON	4,916	\$ 146,022.00	\$ 9,000.00	\$ 10,800.00	\$ 1,291.00	\$ 71,276.00	\$ 84,400.00	\$ 78,028.00	\$ 254,795.00
¹ CHEMUNG	8,880	\$ 197,365.00	\$ 70,188.00	\$ 10,583.00	\$ -	\$ 4,486.00	\$ 70,337.00	\$ 15,311.00	\$ 170,905.00
⁵ CORAL	3,477	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
¹ DORR	21,123	\$ 623,957.00	\$ 96,035.00	\$ 29,395.00	\$ 2,462.00	\$ 32,423.00	\$ 321,656.00	\$ 90,761.00	\$ 572,732.00
⁶ DUNHAM	2,781	\$ 167,518.00	\$ -	\$ -	\$ -	\$ 3,314.00	\$ -	\$ 171,649.00	\$ 174,963.00
⁷ GRAFTON	55,143	\$ 1,007,524.00	\$ 293,416.00	\$ 27,344.00	\$ 8,029.00	\$ 21,001.00	\$ 314,212.00	\$ 61,949.00	\$ 725,951.00
⁷ GREENWOOD	13,939	\$ 513,066.00	\$ 124,733.00	\$ 12,611.00	\$ -	\$ 37,420.00	\$ 239,743.00	\$ 24,031.00	\$ 438,538.00
¹ HARTLAND	1,797	\$ 168,598.40	\$ 36,250.00	\$ 20,250.00	\$ -	\$ 13,100.00	\$ 101,150.00	\$ 28,954.85	\$ 199,704.85
⁸ HEBRON	2,400	\$ 168,650.06	\$ 29,703.87	\$ 5,265.72	\$ -	\$ -	\$ 69,277.38	\$ 54,020.06	\$ 158,267.03
⁹ MARENGO	7,392	\$ 320,272.00	\$ 16,215.00	\$ 9,621.00	\$ 18,995.00	\$ 23,535.00	\$ 244,330.00	\$ 27,911.00	\$ 340,607.00
⁷ MCHENRY	46,906	\$ 1,587,508.00	\$ 437,427.00	\$ 65,964.00	\$ 68,744.00	\$ 196,943.00	\$ 818,011.00	\$ 697,444.00	\$ 2,284,533.00
³ NUNDA	37,705	\$ 1,022,732.85	\$ 396,900.00	\$ 56,850.00	\$ 12,500.00	\$ 44,100.00	\$ 447,478.04	\$ 141,450.00	\$ 1,099,278.04
⁷ RICHMOND	6,635	\$ 311,077.00	\$ 29,089.00	\$ 9,431.00	\$ -	\$ 4,949.00	\$ 215,906.00	\$ 44,568.00	\$ 303,943.00
⁸ RILEY	2,865	\$ 202,756.00	\$ -	\$ 2,462.00	\$ -	\$ 1,895.00	\$ 124,392.00	\$ 71,791.00	\$ 200,540.00
¹ SENECA	2,907	\$ 150,550.00	\$ 30,000.00	\$ 7,500.00	\$ 500.00	\$ 23,500.00	\$ 120,000.00	\$ 32,200.00	\$ 213,700.00
Total	307,789	\$ 8,273,562.31	\$ 2,034,006.87	\$ 528,676.72	\$ 150,471.00	\$ 742,042.00	\$ 3,833,242.42	\$ 2,775,463.91	\$ 10,063,902.92
Mean Average	18,105	\$ 517,097.64							\$ 628,993.93
Median Average	6,635	\$ 256,916.50							\$ 279,369.00
Top 3 by Category		Highest	1st	2nd Highest	2nd	3rd Highest	3rd		

Source:

Financial statements from each township. Table construction and data compilation by Urban Analytics, Inc.

Note:

- ¹ Based on FYE2020 Budget.
- ² Based on FYE 2018 Budget.
- ³ Based on FYE 2019 Budget.
- ⁴ Total Population. U.S. Census Bureau: [Table DP05 American Community Survey \(ACS\) Demographic and Housing Estimates, 2018](#). Data retrieved by Urban Analytics, Inc.
- ⁵ As per the Illinois State Comptroller's Office, this township's audit report is not available.
- ⁶ Based on FYE2017 Audit. Dunham Township does not disaggregate revenues and expenditures into the above categories.
- ⁷ Based on FYE 2019 Audit.
- ⁸ Based on FYE 2019 actual spending as reported in the FYE 2020 Budget.
- ⁹ Based on FYE2017 Audit.

Appendix Table C - 1: Assessed Parcels by Township

Assessment Year 2018

Township	Residential	Commercial	Industrial	Farm	Railroads ¹	Minerals	Wind Turbine	Conservation Stewardship	Wooded Acreage	Total ²
ALDEN	455	26	0	1,005	0	0	0	0	0	1,486
ALGONQUIN	33,933	1,717	593	114	0	58	0	1	0	36,416
BURTON	2,550	45	10	261	8	18	0	0	0	2,892
CHEMUNG	2,926	282	62	619	0	3	0	0	0	3,892
CORAL	1,554	77	35	854	0	0	0	0	0	2,520
DORR	7,705	684	201	593	1	3	1	19	0	9,207
DUNHAM	908	133	8	629	0	7	0	1	0	1,686
GRAFTON	20,471	299	164	356	0	0	0	2	0	21,292
GREENWOOD	5,690	62	16	565	0	0	0	22	0	6,355
HARTLAND	630	22	83	669	0	0	0	4	0	1,408
HEBRON	986	88	37	651	10	1	0	0	0	1,773
MARENGO	2,503	261	52	620	0	0	0	1	0	3,437
MCHENRY	22,392	1,184	58	602	1	19	0	6	0	24,262
NUNDA	18,067	1,128	335	484	0	2	0	10	0	20,026
RICHMOND	2,984	253	125	513	19	3	0	1	0	3,898
RILEY	1,175	11	1	631	0	3	0	0	0	1,821
SENECA	967	29	12	797	0	1	0	3	0	1,809
Total	125,896	6,301	1,792	9,963	39	118	1	70	0	144,180
Mean Average	7,406	371	105	586						8,481
Median Average	2,550	133	52	619						3,437
Top 3	Highest	1st	Highest	2nd	Highest	3rd				

Source:

McHenry County, IL. Office of Assessments. Annual Report, Assessment Year 2018.; Urban Analytics, Inc.

Note:

¹ Assessed locally.

² Does not include non-homestead exempt parcels.

Appendix Table C - 2: Equalized Assessed Values by Township
Assessment Year 2018

Township	Residential	Commercial	Industrial	Farm	Railroads ¹	Minerals	Wind Turbine	Conservation Stewardship	Wooded Acreage	Total
ALDEN	\$ 27,472,664	\$ 1,546,109	\$ -	\$ 26,978,475	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 55,997,248
ALGONQUIN	\$2,270,454,417	\$400,033,861	\$122,150,849	\$ 7,331,532	\$ -	\$ 7,303,566	\$ -	\$ 83,268	\$ -	\$ 2,807,357,493
BURTON	\$ 146,058,870	\$ 4,409,095	\$ 1,787,619	\$ 2,712,821	\$ 9,045	\$ 1,471,260	\$ -	\$ -	\$ -	\$ 156,448,710
CHEMUNG	\$ 94,740,685	\$ 20,282,654	\$ 6,987,384	\$ 14,681,246	\$ -	\$ 104,515	\$ -	\$ -	\$ -	\$ 136,796,484
CORAL	\$ 101,194,132	\$ 7,765,639	\$ 8,267,579	\$ 29,504,075	\$ -	\$ 59,017	\$ -	\$ -	\$ -	\$ 146,790,442
DORR	\$ 400,705,698	\$102,398,420	\$ 31,122,983	\$ 17,151,169	\$ 462	\$ 416,231	\$60,186	\$2,462,357	\$ -	\$ 554,317,506
DUNHAM	\$ 40,049,734	\$ 14,875,223	\$ 3,750,101	\$ 15,904,153	\$ -	\$ 585,040	\$ -	\$ 118,818	\$ -	\$ 75,283,069
GRAFTON	\$1,624,342,334	\$ 58,279,978	\$ 21,905,444	\$ 13,325,782	\$ -	\$ 129,393	\$ -	\$ 320,303	\$ -	\$ 1,718,303,234
GREENWOOD	\$ 270,967,466	\$ 9,747,080	\$ 1,658,538	\$ 15,303,008	\$ -	\$ -	\$ -	\$ 943,483	\$ -	\$ 298,619,575
HARTLAND	\$ 48,152,755	\$ 2,476,027	\$ 7,109,569	\$ 25,684,654	\$ -	\$ -	\$ -	\$ 602,383	\$ -	\$ 84,025,388
HEBRON	\$ 38,699,744	\$ 4,237,883	\$ 3,509,560	\$ 16,292,728	\$ 12,127	\$ 310,150	\$ -	\$ -	\$ -	\$ 63,062,192
MARENGO	\$ 107,528,873	\$ 18,651,263	\$ 5,965,690	\$ 18,274,779	\$ -	\$ -	\$ -	\$ 200,043	\$ -	\$ 150,620,648
MCHENRY	\$1,107,230,748	\$163,134,067	\$ 9,237,361	\$ 12,406,154	\$ 47	\$ 2,314,284	\$ -	\$ 364,457	\$ -	\$ 1,294,687,118
NUNDA	\$1,018,177,447	\$123,958,739	\$ 68,665,481	\$ 17,491,207	\$ -	\$ 48,744	\$ -	\$1,691,541	\$ -	\$ 1,230,033,159
RICHMOND	\$ 175,800,413	\$ 24,788,831	\$ 23,804,355	\$ 15,241,052	\$ 41,058	\$ 159,970	\$ -	\$ 38,160	\$ -	\$ 239,873,839
RILEY	\$ 65,525,545	\$ 1,432,140	\$ 774,165	\$ 18,741,986	\$ -	\$ 1,116,499	\$ -	\$ -	\$ -	\$ 87,590,335
SENECA	\$ 71,713,375	\$ 1,884,743	\$ 959,963	\$ 27,052,301	\$ -	\$ 260,488	\$ -	\$ 512,545	\$ -	\$ 102,383,415
Total	\$7,608,814,900	\$959,901,752	\$317,656,641	\$294,077,122	\$ 62,739	\$14,279,157	\$60,186	\$7,337,358	\$ -	\$ 9,202,189,855
Mean Average	\$ 447,577,347	\$ 56,464,809	\$ 18,685,685	\$ 17,298,654	n/a	n/a	n/a	n/a	n/a	\$ 541,305,286
Median Average	\$ 107,528,873	\$ 14,875,223	\$ 6,987,384	\$ 16,292,728	n/a	n/a	n/a	n/a	n/a	\$ 150,620,648

Top 3

Highest

1st

2nd Highest

2nd

Highest

3rd

Source:

McHenry County, IL. Office of Assessments. Annual Report, Assessment Year 2018.; Urban Analytics, Inc.

Note:

¹ Assessed locally.

² n/a = not applicable.

Appendix Table C - 3: Assessment Appeal Counts by Township
Assessment Year 2018

Township	2012	2013	2014	2015	2016	2017	2018	Total
ALDEN	21	11	10	10	9	3	2	66
ALGONQUIN	3,300	2,009	872	1,081	1,109	936	786	10,093
BURTON	155	53	61	133	44	25	23	494
CHEMUNG	54	95	40	42	29	18	14	292
CORAL	41	43	26	36	55	21	8	230
DORR	1,051	899	515	362	257	224	180	3,488
DUNHAM	58	38	24	20	41	30	16	227
GRAFTON	2,244	1,308	682	884	805	559	558	7,040
GREENWOOD	655	509	228	414	175	158	113	2,252
HARTLAND	60	29	25	29	28	17	16	204
HEBRON	30	25	169	7	21	7	2	261
MARENGO	100	81	38	39	22	16	15	311
MCHENRY	953	619	801	780	822	666	544	5,185
NUNDA	1,496	1,226	720	583	502	453	278	5,258
RICHMOND	51	71	37	58	94	52	59	422
RILEY	41	20	30	34	43	19	6	193
SENECA	103	67	30	38	62	36	12	348
Total	10,413	7,103	4,308	4,550	4,118	3,240	2,632	36,364
Mean Average	613	418	253	268	242	191	155	2,139
Median Average	100	71	40	42	55	30	16	348

Top 3	Highest	1st	Highest	2nd	Highest	3rd
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Source:

McHenry County, IL. Office of Assessments. Annual Report, Assessment Year 2018.; Urban Analytics,

Note:

¹ Reflects the number of parcel appeals filed for each township (p. 18 of the annual report).

Appendix Table D - 1: Road District Operation Costs by Category (FYE 2009)

By Township in McHenry County, Illinois
FYE2009

Township	2009 Mileage	2008 Levy	Operation Costs by Category ³					Total
			Road Maintenance	Equipment	Facilities	Personal Services & Benefits	Other	
ALDEN	36.95	\$ 131,217.00	\$ 103,279.19	\$ 69,838.37	\$ 8,000.00	\$ 68,588.00	\$ 17,800.00	\$ 267,505.56
ALGONQUIN	56.35	\$ 3,671,000.00	\$ 798,000.00	\$ 1,169,500.00	\$ 805,600.00	\$ 1,033,400.00	\$ 585,700.00	\$ 4,392,200.00
¹ BURTON	13.65	\$ 148,806.00	\$ 34,370.25	\$ 25,325.75	\$ 25,325.75	\$ 18,245.25		\$ 103,267.00
CHEMUNG	32.45	\$ 478,600.00	\$ 100,000.00	\$ 51,075.00	\$ 53,295.00	\$ 194,612.00	\$ 46,536.00	\$ 445,518.00
CORAL	58.00	\$ 290,000.00	\$ 99,150.00	\$ 143,150.00	\$ 36,100.00	\$ 89,650.00	\$ 105,400.00	\$ 473,450.00
DORR	34.17	\$ 1,114,679.00	\$ 730,000.00	\$ 193,300.00	\$ 787,000.00	\$ 255,830.00	\$ 59,400.00	\$ 2,025,530.00
DUNHAM	43.17	\$ 280,345.00	\$ 116,200.00	\$ 97,763.00	\$ 12,500.00	\$ 82,500.00	\$ 35,800.00	\$ 344,763.00
GRAFTON	27.04	\$ 692,505.00	\$ 364,400.00	\$ 96,500.00	\$ 22,500.00	\$ 290,750.00	\$ 953,327.00	\$ 1,727,477.00
GREENWOOD	43.41	\$ 1,020,704.00	\$ 278,892.26	\$ 221,251.71	\$ 28,129.35	\$ 526,847.17	\$ 64,316.26	\$ 1,119,436.75
HARTLAND	41.30	\$ 239,645.00	\$ 190,000.00	\$ 51,000.00	\$ 6,500.00	\$ 98,500.00	\$ 14,404.00	\$ 360,404.00
² HEBRON	37.49	\$ 230,502.00	\$ 91,500.00	\$ 66,550.00	\$ 19,400.00	\$ 76,600.00	\$ 21,550.00	\$ 275,600.00
¹ MARENGO	36.21	\$ 472,589.00	\$ 192,048.55	\$ 71,716.06	\$ 11,771.53	\$ 182,708.32	\$ 84,920.38	\$ 543,164.84
MCHENRY	97.73	\$ 3,356,886.00	\$ 1,592,313.00	\$ 602,000.00	\$ 480,000.00	\$ 985,050.00	\$ 318,300.00	\$ 3,977,663.00
NUNDA	98.24	\$ 3,072,426.00	\$ 1,757,800.00	\$ 623,120.00	\$ 105,100.00	\$ 1,274,598.00	\$ 239,640.00	\$ 4,000,258.00
RICHMOND	33.16	\$ 452,008.00	\$ 160,120.00	\$ 78,500.00	\$ 38,250.00	\$ 173,691.00	\$ 114,974.00	\$ 565,535.00
RILEY	47.00	\$ 223,687.00	\$ 101,650.00	\$ 88,250.00	\$ 19,100.00	\$ 46,800.00	\$ 13,850.00	\$ 269,650.00
SENECA	40.40	\$ 246,859.00	\$ 63,825.00	\$ 56,575.00	\$ 18,925.00	\$ 50,650.00	\$ 205,700.00	\$ 395,675.00
Total	776.72	\$ 16,122,458.00	\$ 6,773,548.25	\$ 3,705,414.89	\$ 2,477,496.63	\$ 5,449,019.74	\$ 2,881,617.64	\$ 21,287,097.15
Mean Average	45.69	\$ 948,379.88	\$ 398,444.01	\$ 217,965.58	\$ 145,735.10	\$ 320,530.57	\$ 180,101.10	\$ 1,252,182.19
Median Average	40.40	\$ 452,008.00	\$ 160,120.00	\$ 88,250.00	\$ 25,325.75	\$ 173,691.00	\$ 74,618.32	\$ 473,450.00
Top 3		Highest	1st	2nd Highest	2nd	3rd Highest	3rd	

Source: Illinois Department of Transportation, Division of Highways, Bureau of Local Roads & Streets, December 27, 2010.

Note:

¹ Based on FYE2009 Actual Expenditures.

² Based on FYE 2010 Budget.

³ Based on FYE March 31, 2009 Annual Financial Report, unless otherwise noted.

Appendix Table D - 3: Road District Operation Costs per Capita (FYE 2009)

By Township in McHenry County, Illinois
FYE2009

Township	2010 Population ⁴	2008 Levy	Operation Costs per Capita (Cost per Person) ³					Total
			Road Maintenance	Equipment	Facilities	Personal Services & Benefits	Other	
ALDEN	1,297	\$101.17	\$ 79.63	\$ 53.85	\$ 6.17	\$ 52.88	\$13.72	\$206.25
ALGONQUIN	89,736	\$ 40.91	\$ 8.89	\$ 13.03	\$ 8.98	\$ 11.52	\$ 6.53	\$ 48.95
¹ BURTON	4,914	\$ 30.28	\$ 6.99	\$ 5.15	\$ 5.15	\$ 3.71	\$ -	\$ 21.01
CHEMUNG	9,184	\$ 52.11	\$ 10.89	\$ 5.56	\$ 5.80	\$ 21.19	\$ 5.07	\$ 48.51
CORAL	3,515	\$ 82.50	\$ 28.21	\$ 40.73	\$ 10.27	\$ 25.50	\$29.99	\$134.69
DORR	20,834	\$ 53.50	\$ 35.04	\$ 9.28	\$ 37.77	\$ 12.28	\$ 2.85	\$ 97.22
DUNHAM	2,801	\$100.09	\$ 41.49	\$ 34.90	\$ 4.46	\$ 29.45	\$12.78	\$123.09
GRAFTON	49,619	\$ 13.96	\$ 7.34	\$ 1.94	\$ 0.45	\$ 5.86	\$19.21	\$ 34.81
GREENWOOD	13,678	\$ 74.62	\$ 20.39	\$ 16.18	\$ 2.06	\$ 38.52	\$ 4.70	\$ 81.84
HARTLAND	2,439	\$ 98.26	\$ 77.90	\$ 20.91	\$ 2.67	\$ 40.39	\$ 5.91	\$147.77
² HEBRON	2,159	\$106.76	\$ 42.38	\$ 30.82	\$ 8.99	\$ 35.48	\$ 9.98	\$127.65
¹ MARENGO	7,663	\$ 61.67	\$ 25.06	\$ 9.36	\$ 1.54	\$ 23.84	\$11.08	\$ 70.88
MCHENRY	47,539	\$ 70.61	\$ 33.49	\$ 12.66	\$ 10.10	\$ 20.72	\$ 6.70	\$ 83.67
NUNDA	38,429	\$ 79.95	\$ 45.74	\$ 16.21	\$ 2.73	\$ 33.17	\$ 6.24	\$104.09
RICHMOND	6,498	\$ 69.56	\$ 24.64	\$ 12.08	\$ 5.89	\$ 26.73	\$17.69	\$ 87.03
RILEY	2,774	\$ 80.64	\$ 36.64	\$ 31.81	\$ 6.89	\$ 16.87	\$ 4.99	\$ 97.21
SENECA	2,971	\$ 83.09	\$ 21.48	\$ 19.04	\$ 6.37	\$ 17.05	\$69.24	\$133.18
Total	306,050							
<i>Weighted Avg.</i>		\$ 52.68	\$ 22.13	\$ 12.11	\$ 8.10	\$ 17.80	\$ 9.57	\$ 69.55
Top 3		Highest	1st	Highest	2nd	3rd Highest	3rd	

Source: Illinois Department of Transportation, Division of Highways, Bureau of Local Roads & Streets, December

Note:

¹ Based on FYE2009 Actual Expenditures.

² Based on FYE 2010 Budget.

³ Based on FYE March 31, 2009 Annual Financial Report, unless otherwise noted.

⁴ Total Population. U.S. Census Bureau: [Table DP05 American Community Survey \(ACS\) Demographic and Housing Estimates, 2010](#). Data retrieved by Urban Analytics, Inc.

Appendix Table D - 4: Road District Operation Costs by Category (FYE 2019)

By Township in McHenry County, Illinois
FYE2019

Township	2019 Mileage	2019 Revenue	Operation Costs by Category ³					Total
			Road Maintenance	Equipment	Facilities	Personal Services & Benefits	Other	
ALDEN	37.97	\$ 181,198.00	\$ 199,005.00	\$ 130,819.00	\$ 17,000.00	\$ 66,195.00	\$ 10,500.00	\$ 423,519.00
ALGONQUIN	57.90	\$ 4,148,390.60	\$ 1,025,700.00	\$ 1,117,500.00	\$ 813,950.00	\$ 1,264,500.00	\$ 417,800.00	\$ 4,639,450.00
BURTON	14.03	\$ 172,447.00	\$ 120,034.00	\$ 96,000.00	\$ 15,900.00	\$ 46,920.00	\$ 26,300.00	\$ 305,154.00
¹ CHEMUNG	33.34	\$ 376,524.00	\$ 73,153.00	\$ 96,454.00	\$ 32,728.00	\$ 226,262.00	\$ 32,594.00	\$ 461,191.00
⁷ CORAL	59.60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DORR	35.11	\$ 886,000.00	\$ 620,900.00	\$ 156,500.00	\$ 145,000.00	\$ 378,400.00	\$ 32,500.00	\$ 1,333,300.00
⁵ DUNHAM	44.36	\$ 226,024.00	\$ 133,262.00	\$ -	\$ 14,636.00	\$ -	\$ 126,824.00	\$ 274,722.00
GRAFTON	27.79	\$ 777,476.00	\$ 1,143,925.00	\$ 147,000.00	\$ 45,000.00	\$ 435,900.00	\$ 186,000.00	\$ 1,957,825.00
¹ GREENWOOD	44.61	\$ 984,857.48	\$ 614,752.51	\$ 208,218.12	\$ 52,250.00	\$ 444,426.78	\$ 13,520.00	\$ 1,333,167.41
¹ HARTLAND	42.44	\$ 273,798.12	\$ 143,000.00	\$ 111,800.00	\$ 5,800.00	\$ 122,700.00	\$ 6,100.00	\$ 389,400.00
HEBRON	38.52	\$ 246,836.18	\$ 89,567.26	\$ 81,832.21	\$ 27,150.00	\$ 75,023.36	\$ 9,300.00	\$ 282,872.83
⁶ MARENGO	37.21	\$ 608,958.00	\$ 229,097.00	\$ 76,210.00	\$ 18,294.00	\$ 187,368.00	\$ 23,996.00	\$ 534,965.00
⁴ MCHENRY	96.50	\$ 4,064,303.00	\$ 3,200,950.00	\$ 179,618.00	\$ 86,486.00	\$ 1,267,536.00	\$ 116,384.00	\$ 4,850,974.00
² NUNDA	100.95	\$ 3,489,095.00	\$ 1,318,608.71	\$ 581,987.86	\$ 234,766.90	\$ 1,437,184.18	\$ 208,063.35	\$ 3,780,611.00
⁴ RICHMOND	34.07	\$ 540,055.00	\$ 172,417.00	\$ 174,685.00	\$ 8,072.00	\$ 185,260.00	\$ 14,428.00	\$ 554,862.00
RILEY	48.30	\$ 239,741.00	\$ 136,850.00	\$ 181,100.00	\$ 19,500.00	\$ 45,300.00	\$ 15,550.00	\$ 398,300.00
¹ SENECA	41.51	\$ 290,811.00	\$ 200,000.00	\$ 191,407.00	\$ 18,500.00	\$ 98,500.00	\$ 14,300.00	\$ 522,707.00
Total	794.21	\$ 17,506,514.38	\$ 9,421,221.48	\$ 3,531,131.19	\$ 1,555,032.90	\$ 6,281,475.32	\$ 1,254,159.35	\$ 22,043,020.24
Mean Average	46.72	\$ 1,094,157.15	\$ 588,826.34	\$ 235,408.75	\$ 97,189.56	\$ 418,765.02	\$ 78,384.96	\$ 1,377,688.77
Median Average	41.51	\$ 458,289.50	\$ 199,502.50	\$ 156,500.00	\$ 23,325.00	\$ 187,368.00	\$ 25,148.00	\$ 528,836.00
Top 3		Highest	1st	2nd Highest	2nd	3rd Highest	3rd	

Source:

Financial statements from each township. Table construction and data compilation by Urban Analytics, Inc.

Note:

- ¹ Based on FYE2020 Budget.
- ² Based on FYE 2018 Budget.
- ³ Based on FYE 2019 Budget, unless otherwise noted.
- ⁴ Based on FYE 2019 Audit.
- ⁵ Based on FYE2017 Audit. Dunham Township aggregates all revenues and expenditures into three categories only.
- ⁶ Based on FYE2017 Audit.
- ⁷ Did not respond to consultant request for financial statements. As per the Illinois State Comptroller's Office, township's audit report is not available.

Appendix Table D - 5: Road District Operation Costs per Mile (FYE 2019)

By Township in McHenry County, Illinois
FYE2019

Township	2019 Mileage	2019 Revenue	Operation Costs per Mile ³					Total
			Road Maintenance	Equipment	Facilities	Personal Services & Benefits	Other	
ALDEN	37.97	\$ 4,772.30	\$ 5,241.29	\$ 3,445.44	\$ 447.74	\$ 1,743.41	\$ 276.54	\$11,154.42
ALGONQUIN	57.90	\$71,643.06	\$17,713.93	\$19,299.32	\$14,056.99	\$ 21,838.02	\$ 7,215.44	\$80,123.70
BURTON	14.03	\$12,294.52	\$ 8,557.76	\$ 6,844.27	\$ 1,133.58	\$ 3,345.14	\$ 1,875.04	\$21,755.79
¹ CHEMUNG	33.34	\$11,291.88	\$ 2,193.84	\$ 2,892.64	\$ 981.51	\$ 6,785.55	\$ 977.49	\$13,831.03
⁷ CORAL	59.60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DORR	35.11	\$25,233.48	\$17,683.37	\$ 4,457.16	\$ 4,129.63	\$ 10,776.92	\$ 925.61	\$37,972.69
⁵ DUNHAM	44.36	\$ 5,095.20	\$ 3,004.09	\$ -	\$ 329.94	\$ -	\$ 2,858.96	\$ 6,192.98
GRAFTON	27.79	\$27,981.35	\$41,169.85	\$ 5,290.53	\$ 1,619.55	\$ 15,688.04	\$ 6,694.14	\$70,462.10
¹ GREENWOOD	44.61	\$22,078.63	\$13,781.58	\$ 4,667.85	\$ 1,171.35	\$ 9,963.20	\$ 303.09	\$29,887.07
¹ HARTLAND	42.44	\$ 6,451.62	\$ 3,369.57	\$ 2,634.39	\$ 136.67	\$ 2,891.23	\$ 143.74	\$ 9,175.60
HEBRON	38.52	\$ 6,407.40	\$ 2,325.00	\$ 2,124.21	\$ 704.76	\$ 1,947.46	\$ 241.41	\$ 7,342.84
⁶ MARENGO	37.21	\$16,366.18	\$ 6,157.14	\$ 2,048.20	\$ 491.66	\$ 5,035.65	\$ 644.91	\$14,377.56
⁴ MCHENRY	96.50	\$42,117.13	\$33,170.47	\$ 1,861.33	\$ 896.23	\$ 13,135.09	\$ 1,206.05	\$50,269.16
² NUNDA	100.95	\$34,563.11	\$13,062.19	\$ 5,765.20	\$ 2,325.61	\$ 14,236.80	\$ 2,061.08	\$37,450.88
⁴ RICHMOND	34.07	\$15,849.37	\$ 5,060.04	\$ 5,126.60	\$ 236.89	\$ 5,436.95	\$ 423.43	\$16,283.92
RILEY	48.30	\$ 4,964.01	\$ 2,833.58	\$ 3,749.81	\$ 403.76	\$ 937.97	\$ 321.97	\$ 8,247.09
¹ SENECA	41.51	\$ 7,005.16	\$ 4,817.67	\$ 4,610.68	\$ 445.63	\$ 2,372.70	\$ 344.46	\$12,591.15
Total	794.21							
Mean Average		\$23,831.00	\$12,824.78	\$ 5,115.72	\$ 2,116.81	\$ 9,100.28	\$ 1,707.24	\$30,006.39

Top 3 Highest 1st 2nd Highest 2nd 3rd Highest 3rd

Source:

Financial statements from each township. Table construction and data compilation by Urban Analytics, Inc.

Note:

- ¹ Based on FYE2020 Budget.
- ² Based on FYE 2018 Budget.
- ³ Based on FYE 2019 Budget, unless otherwise noted.
- ⁴ Based on FYE 2019 Audit.
- ⁵ Based on FYE2017 Audit. Dunham Township aggregates all revenues and expenditures into three categories only.
- ⁶ Based on FYE2017 Audit.
- ⁷ Did not respond to consultant request for financial statements. As per the Illinois State Comptroller's Office, township's audit report is not available.

Appendix Table D - 6: Road District Operation Costs per Capita (FYE 2019)

By Township in McHenry County, Illinois
FYE2019

Township	2018 Population ⁸	2019 Revenue	Operation Costs per Capita (Cost per Person) ³					Total
			Road Maintenance	Equipment	Facilities	Personal Services & Benefits	Other	
ALDEN	1,483	\$122.18	\$ 134.19	\$ 88.21	\$ 11.46	\$ 44.64	\$ 7.08	\$285.58
ALGONQUIN	87,440	\$ 47.44	\$ 11.73	\$ 12.78	\$ 9.31	\$ 14.46	\$ 4.78	\$ 53.06
BURTON	4,916	\$ 35.08	\$ 24.42	\$ 19.53	\$ 3.23	\$ 9.54	\$ 5.35	\$ 62.07
¹ CHEMUNG	8,880	\$ 42.40	\$ 8.24	\$ 10.86	\$ 3.69	\$ 25.48	\$ 3.67	\$ 51.94
⁷ CORAL	3,477	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DORR	21,123	\$ 41.94	\$ 29.39	\$ 7.41	\$ 6.86	\$ 17.91	\$ 1.54	\$ 63.12
⁵ DUNHAM	2,781	\$ 81.27	\$ 47.92	\$ -	\$ 5.26	\$ -	\$45.60	\$ 98.79
GRAFTON	55,143	\$ 14.10	\$ 20.74	\$ 2.67	\$ 0.82	\$ 7.90	\$ 3.37	\$ 35.50
¹ GREENWOOD	13,939	\$ 70.65	\$ 44.10	\$ 14.94	\$ 3.75	\$ 31.88	\$ 0.97	\$ 95.64
¹ HARTLAND	1,797	\$152.36	\$ 79.58	\$ 62.21	\$ 3.23	\$ 68.28	\$ 3.39	\$216.69
HEBRON	2,400	\$102.85	\$ 37.32	\$ 34.10	\$11.31	\$ 31.26	\$ 3.88	\$117.86
⁶ MARENGO	7,392	\$ 82.38	\$ 30.99	\$ 10.31	\$ 2.47	\$ 25.35	\$ 3.25	\$ 72.37
⁴ MCHENRY	46,906	\$ 86.65	\$ 68.24	\$ 3.83	\$ 1.84	\$ 27.02	\$ 2.48	\$103.42
² NUNDA	37,705	\$ 92.54	\$ 34.97	\$ 15.44	\$ 6.23	\$ 38.12	\$ 5.52	\$100.27
⁴ RICHMOND	6,635	\$ 81.39	\$ 25.99	\$ 26.33	\$ 1.22	\$ 27.92	\$ 2.17	\$ 83.63
RILEY	2,865	\$ 83.68	\$ 47.77	\$ 63.21	\$ 6.81	\$ 15.81	\$ 5.43	\$139.02
¹ SENECA	2,907	\$100.04	\$ 68.80	\$ 65.84	\$ 6.36	\$ 33.88	\$ 4.92	\$179.81
Total	307,789							
<i>Weighted Avg.</i>		\$ 57.53	\$ 30.96	\$ 11.71	\$ 5.11	\$ 20.83	\$ 4.12	\$ 72.44
Top 3		Highest	1st	Highest	2nd	3rd Highest	3rd	

Source:

Financial statements from each township. Table construction and data compilation by Urban Analytics, Inc.

Note:

¹ Based on FYE2020 Budget.

² Based on FYE 2018 Budget.

³ Based on FYE 2019 Budget, unless otherwise noted.

⁴ Based on FYE 2019 Audit.

⁵ Based on FYE2017 Audit. Dunham Township aggregates all revenues and expenditures into three categories only.

⁶ Based on FYE2017 Audit.

⁷ Did not respond to consultant request for financial statements. As per the Illinois State Comptroller's Office, township's audit report is not available.

⁸ Total Population. U.S. Census Bureau: Table DP05 American Community Survey (ACS) Demographic and Housing Estimates, 2018. Data retrieved by Urban Analytics, Inc.

Appendix Table D - 7: Road Mileage

December 2018

	<u>Township</u>	<u>Municipal</u>	<u>Total</u>
State Highway	107.76	84.68	192.44
Tolls Roads and Toll Bridges	9.01	0.00	9.01
County Roads	172.87	62.64	235.51
Township Road/District and Municipal	<u>794.21</u>	<u>1,232.10</u>	<u>2,026.31</u>
Total	1,083.85	1,379.42	2,463.27

Source:

Illinois Department of Transportation: Table HS-1. Office of Planning and Programming - Planning Services Section. Mileage of Highways and Street. December 2018. Urban Analytics, Inc.

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