

APPENDIX E.

TRANSPORTATION SYSTEM DATA

The data used to support the LRTP are included in the same order as in the plan.

Demographic Data

Demographic data are presented in Table E-1 through Table E-9. Population data was obtained from the US Census. Population forecasts were obtained from Cornell Program on Applied Demographics and IHS Global Insight. These data are all at the County level.

TABLE E-1: US CENSUS DATA

US CENSUS	BROOME COUNTY	% CHANGE	TIOGA COUNTY	% CHANGE	BROOME + TIOGA	
1950	184,698	–	30,166	–	214,864	–
1960	212,661	15.1%	37,802	25.3%	250,463	16.6%
1970	221,815	4.3%	46,513	23.0%	268,328	7.1%
1980	213,648	-3.7%	49,812	7.1%	263,460	-1.8%
1990	212,102	-0.7%	52,484	5.4%	264,586	0.4%
2000	200,197	-5.9%	51,809	-1.3%	252,006	-5.0%
2010	200,675	0.2%	51,010	-1.6%	251,685	-0.1%
2018 Estimated	191,659	-4.7%	48,560	-5.0%	240,219	-4.8%

Source: US Census Bureau

TABLE E-2: POPULATION FORECAST, BY DECADE (TO 2040)

YEAR	BROOME COUNTY	% CHANGE	TIOGA COUNTY	% CHANGE	BROOME + TIOGA	
2010	200,675	–	51,010	–	251,685	–
2020	192,262	-4.4%	47,864	-6.6%	240,126	-4.8%
2030	186,950	-2.8%	45,090	-6.2%	232,040	-3.5%
2040	183,176	-2.1%	42,696	-5.6%	225,872	-2.7%

Source: Cornell Program on Applied Demographics

TABLE E-3: POPULATION FORECAST, BY DECADE (TO 2040)

YEAR	BROOME COUNTY	% CHANGE	TIOGA COUNTY	% CHANGE	BROOME + TIOGA	
2010	200,675	–	51,010	–	251,685	–
2020	197,716	-1.5%	51,220	0.4%	248,936	-1.1%
2030	197,672	0.0%	50,812	-0.8%	248,484	-0.2%
2040	196,088	-0.8%	50,320	-1.0%	246,408	-0.8%

Source: IHS Global Insight

TABLE E-4: POPULATION FORECAST, BY DECADE (TO 2040)

YEAR	BROOME COUNTY	% CHANGE	TIOGA COUNTY	% CHANGE	BROOME + TIOGA	
2010	200,675	–	51,010	–	251,685	–
2020	194,989	-2.9%	49,542	-3.0%	244,531	-2.9%
2030	192,311	-1.4%	47,951	-3.3%	240,262	-1.8%
2040	189,632	-1.4%	46,508	-3.1%	236,140	-1.7%

Source: RSG

TABLE E-5: POPULATION AND FORECAST, AGE > 65

YEAR	BROOME COUNTY		TIOGA COUNTY		BROOME + TIOGA	
	Number	% of total pop.	Number	% of total pop.	Number	% of total pop.
1990	30,769	14.5%	5,445	10.4%	36,214	13.7%
2000	32,266	16.1%	6,654	12.8%	38,920	15.4%
2010	35,731	17.8%	7,761	15.2%	43,492	17.3%
2020	45,483	23.3%	10,666	21.5%	56,149	23.0%
2030	54,601	28.4%	13,277	27.7%	67,878	28.3%
2040	58,148	30.7%	14,142	30.4%	72,290	30.6%

Source: IHS Global Insight

TABLE E-6: TOTAL NONFARM EMPLOYMENT FORECAST

YEAR	BROOME COUNTY	% CHANGE	TIOGA COUNTY	% CHANGE	BROOME + TIOGA	
2010	95,352	–	13,981	–	109,333	–
2020	100,116	4.8%	14,556	4.0%	114,672	4.7%
2030	100,997	0.9%	14,277	-2.0%	115,274	0.5%
2040	101,861	0.8%	14,217	-0.4%	116,078	0.7%

Source: IHS Global Insight

TABLE E-7: SERVICE SECTOR EMPLOYMENT FORECAST

YEAR	BROOME COUNTY	% CHANGE	TIOGA COUNTY	% CHANGE	BROOME + TIOGA	
2010	59,280	–	6,232	–	65,512	–
2020	64,284	7.8%	6,877	9.4%	71,161	7.9%
2030	65,627	2.0%	7,008	1.9%	72,635	2.0%
2040	67,476	2.7%	7,273	3.6%	74,749	2.8%

Source: IHS Global Insight

TABLE E-8: EDUCATION AND HEALTH CARE SECTOR EMPLOYMENT FORECAST

YEAR	BROOME COUNTY	% CHANGE	TIOGA COUNTY	% CHANGE	BROOME + TIOGA	
2010	15,162	–	1,230	–	16,392	–
2020	16,990	10.8%	1,346	8.6%	18,336	10.6%
2030	17,389	2.3%	1,389	3.1%	18,778	2.4%
2040	17,880	2.7%	1,453	4.4%	19,333	2.9%

Source: IHS Global Insight

TABLE E-9: EMPLOYMENT PER CAPITA

YEAR	BROOME COUNTY	% CHANGE	TIOGA COUNTY	% CHANGE	BROOME + TIOGA	
2010	0.48	–	0.27	–	0.43	–
2020	0.51	7.5%	0.29	6.7%	0.47	7.4%
2030	0.53	2.2%	0.30	1.3%	0.48	2.3%
2040	0.54	2.2%	0.31	2.6%	0.49	2.4%

Source: IHS Global Insight

Asset Data

Ownership

Table E-10 presents centerline mileage sorted by functional class, and Table E-11 presents centerline mileage sorted by jurisdiction. Table E-12 presents centerline mileage by municipal owner and sorts this by functional class.

TABLE E-10: CENTERLINE MILEAGE, BY FUNCTIONAL CLASS

FC CODE	FUNCTIONAL CLASS DESCRIPTION	BROOME COUNTY (BMTS PLANNING AREA)		TIOGA COUNTY (BMTS PLANNING AREA)		TOTAL BMTS CENTERLINE MILES	% COMBINED TOTAL
		Centerline Miles	%	Centerline Miles	%		
1	Rural Principal Arterial Interstate	25.37	1.71%	0.00%		25.37	1.71%
2	Rural Principal Arterial Expressway	14.87	1.00%	10.72	1.57%	25.59	2.57%
4	Rural Principal Arterial Other	2.88	0.19%	0.00%		2.88	0.19%
6	Rural Minor Arterial	4.57	0.31%	15.95	2.33%	20.52	2.64%
7	Rural Major Collector	28.7	1.94%	36.93	5.40%	65.63	7.34%
8	Rural Minor Collector	81.64	5.51%	95.31	13.94%	176.95	19.45%
9	Rural Local	302.58	20.43%	329.94	48.26%	632.52	68.69%
11	Urban Principal Arterial Interstate	84.3	5.69%	0.00%		84.3	5.69%
12	Urban Principal Arterial Expressway	48.15	3.25%	46.15	6.75%	94.3	10.00%
14	Urban Principal Arterial Other	15.41	1.04%	3.76	0.55%	19.17	1.59%
16	Urban Minor Arterial	114.06	7.70%	37.6	5.50%	151.66	13.20%
17	Urban Major Collector	156.92	10.60%	22.96	3.36%	179.88	13.95%
18	Urban Minor Collector	3.61	0.24%	0.57	0.08%	4.18	0.33%
19	Urban Local	597.83	40.37%	83.81	12.26%	681.64	52.63%
Total		1,480.89	100.00%	683.7	100.00%	2,164.59	200.00%

Source: NYS Department of Transportation, Engineering Division, Roadway Inventory System, NYS GIS Clearinghouse, Region 9 2018
<https://gis.ny.gov/gisdata/inventories/member.cfm?organizationID=539>

TABLE E-11: CENTERLINE MILEAGE, BY JURISDICTION TYPE

MAINTENANCE JURISDICTION	BROOME COUNTY (BMTS PLANNING AREA) CENTERLINE MILES	%	TIOGA COUNTY (BMTS PLANNING AREA) CENTERLINE MILES	%	COMBINED TOTAL CENTERLINE MILES
NYSDOT	289.12	19.52%	125.09	18.30%	414.21
County	218.04	14.72%	81.48	11.92%	299.52
Town	705.76	47.66%	453.97	66.40%	1,159.73
City or village	253.45	17.11%	20.78	3.04%	274.23
Local Parks	0.06	0.00%	0.67	0.10%	0.73
Other State agencies	9.36	0.63%		0.00%	9.36
Private or Restricted Access	5.1	0.34%	1.71	0.25%	6.81
Total	1,480.89	100.00%	683.7	100.00%	2,164.59

Source: NYS Department of Transportation, Engineering Division, Roadway Inventory System, NYS GIS Clearinghouse, Region 9 2018
<https://gis.ny.gov/gisdata/inventories/member.cfm?organizationID=539>

TABLE E-12: CENTERLINE MILEAGE BY MUNICIPAL OWNER, BY FUNCTIONAL CLASS

MUNICIPALITY	1	2	4	6	7	8	9	11	12	14	16	17	18	19	TOTAL
Binghamton	–	–	–	0.2	5.3	10.5	22.8	–	–	–	1.4	8.0	–	23.8	72.0
Binghamton (City)	–	–	–	–	–	–	–	15.0	10.4	2.0	17.4	25.8	–	118.5	189.0
Candor	–	–	–	8.1	12.1	20.3	118.7	–	–	–	0.9	–	–	0.1	160.1
Candor (V)	–	–	–	1.2	0.5	–	2.9	–	–	–	–	–	–	–	4.7
Chenango	11.3	–	2.9	–	2.2	1.0	20.3	6.1	–	5.0	6.0	16.0	–	49.2	120.0
Conklin	–	–	–	–	–	6.6	13.4	–	–	–	6.6	11.4	–	34.1	72.2
Dickinson	–	–	–	–	–	–	–	5.3	1.6	–	3.0	3.7	–	14.4	28.0
Endicott (V)	–	–	–	–	–	–	–	–	0.5	–	4.4	8.7	–	33.5	47.1
Fenton	–	–	–	1.2	8.4	8.3	38.0	16.1	0.3	0.1	1.6	9.3	–	16.4	99.6
Johnson City (V)	–	–	–	–	–	–	–	–	9.6	1.1	6.3	7.3	–	39.8	64.1
Kirkwood	0.3	–	–	0.0	–	6.3	21.8	37.8	0.4	–	7.6	15.6	0.2	28.7	118.8
Maine	–	–	–	3.2	2.7	11.9	44.2	–	–	–	14.9	5.9	1.2	17.0	100.9
Nichols	–	9.7	–	2.1	0.1	17.0	44.7	–	4.2	0.6	–	3.2	–	1.9	83.4
Nichols (V)	–	1.0	–	1.0	–	0.2	1.7	–	–	–	–	–	–	–	3.9
Owego	–	–	–	3.5	4.5	34.5	90.1	–	39.5	0.8	31.1	10.2	–	67.1	281.3
Owego (V)	–	–	–	–	–	–	–	–	2.4	2.4	3.0	4.0	–	12.2	24.1
Port Dickinson (V)	–	–	–	–	–	–	–	0.0	1.9	0.4	–	1.7	–	4.0	8.1
Tioga	–	–	–	–	19.8	23.3	71.8	–	–	–	2.6	5.6	0.6	2.6	126.2
Union	–	–	–	–	–	–	–	–	7.7	–	22.9	20.2	–	115.5	166.2
Vestal	–	–	–	–	–	9.0	25.4	–	15.7	6.8	22.0	23.4	–	94.7	197.0
Windsor	12.1	13.5	–	–	8.8	26.7	112.8	4.0	–	–	–	–	2.3	8.2	188.4
Windsor (V)	1.6	1.4	–	–	1.2	1.5	3.9	–	–	–	–	–	–	–	9.6
Total	25.4	25.6	2.9	20.5	65.6	177.0	632.5	84.3	94.3	19.2	151.7	179.9	4.2	681.6	2,164.6

Source: NYSDOT

Pavement Data

BMTS Ratings, Nonstate System

BMTS rates all federal-aid eligible roadways off the State highway system, using the NYSDOT visual scoring method (Table E-13 through Table E-18).

TABLE E-13: BMTS PAVEMENT SUFFICIENCY RATINGS ANALYSIS FOR EACH MUNICIPALITY—PERCENTAGE FOR EACH RATING CLASSIFICATION* (2018)

MUNICIPALITY	ABRV.	[C] CONSTRUCTION	[1-5] POOR	[6] FAIR	[7-8] GOOD	[9-10] EXCELLENT
Broome County	BCo	0.0%	5.9%	14.1%	56.3%	23.7%
City of Binghamton	CB	0.0%	8.2%	19.4%	51.5%	20.9%
Town of Binghamton	TB	0.0%	0.0%	0.0%	75.0%	25.0%
Town of Chenango	TCh	0.0%	0.0%	0.0%	100.0%	0.0%
Town of Dickinson	TD	0.0%	0.0%	0.0%	100.0%	0.0%
Town of Fenton	TF	0.0%	0.0%	14.3%	57.1%	28.6%
Town of Kirkwood	TK	0.0%	40.0%	20.0%	20.0%	20.0%
Town of Union	TU	4.8%	9.5%	38.1%	38.1%	9.5%
Town of Vestal	TV	0.0%	16.7%	33.3%	46.7%	3.3%
Village of Endicott	VE	2.4%	28.6%	26.2%	31.0%	11.9%
Village of Johnson City	VJC	3.8%	34.6%	19.2%	38.5%	3.8%
Village of Port Dickinson	VPD	0.0%	16.7%	16.7%	66.7%	0.0%
Tioga County	TCo	0.0%	0.0%	14.3%	78.6%	7.1%
Town of Owego	TO	0.0%	0.0%	12.5%	37.5%	50.0%
Town of Tioga	TT	0.0%	0.0%	50.0%	50.0%	0.0%
Village of Owego	VO	0.0%	0.0%	6.3%	81.3%	12.5%
	ALL	0.7%	10.9%	19.0%	51.7%	17.7%

[C] - under construction

* - Percentages may not add up to 100% due to rounding function

TABLE E-14: BMTS PAVEMENT SUFFICIENCY RATINGS ANALYSIS FOR EACH MUNICIPALITY—PERCENTAGE FOR EACH RATING CLASSIFICATION* (2017)

MUNICIPALITY	ABRV.	[C] CONSTRUCTION	[1-5] POOR	[6] FAIR	[7-8] GOOD	[9-10] EXCELLENT
Broome County	BCo	0.0%	4.4%	17.0%	51.1%	27.4%
City of Binghamton	CB	1.5%	6.0%	17.9%	47.0%	27.6%
Town of Binghamton	TB	0.0%	12.5%	0.0%	87.5%	0.0%
Town of Chenango	TCh	0.0%	0.0%	0.0%	100.0%	0.0%
Town of Dickinson	TD	0.0%	0.0%	0.0%	100.0%	0.0%
Town of Fenton	TF	0.0%	0.0%	0.0%	71.4%	28.6%
Town of Kirkwood	TK	0.0%	0.0%	40.0%	60.0%	0.0%
Town of Union	TU	0.0%	14.3%	42.9%	23.8%	19.0%
Town of Vestal	TV	0.0%	16.7%	26.7%	53.3%	3.3%
Village of Endicott	VE	0.0%	31.0%	26.2%	31.0%	11.9%
Village of Johnson City	VJC	0.0%	34.6%	15.4%	34.6%	15.4%
Village of Port Dickinson	VPD	0.0%	16.7%	0.0%	83.3%	0.0%
Tioga County	TCo	0.0%	0.0%	0.0%	71.4%	28.6%
Town of Owego	TO	0.0%	12.5%	12.5%	37.5%	37.5%
Town of Tioga	TT	0.0%	0.0%	50.0%	50.0%	0.0%
Village of Owego	VO	0.0%	0.0%	6.3%	68.8%	25.0%
	ALL	0.4%	10.3%	18.3%	48.9%	22.1%

[C] - under construction

* - Percentages may not add up to 100% due to rounding function

TABLE E-15: BMTS PAVEMENT SUFFICIENCY RATINGS ANALYSIS FOR EACH MUNICIPALITY—PERCENTAGE FOR EACH RATING CLASSIFICATION* (2016)

MUNICIPALITY	ABRV.	[C] CONSTRUCTION	[1-5] POOR	[6] FAIR	[7-8] GOOD	[9-10] EXCELLENT
Broome County	BCo	3.7%	5.9%	20.7%	60.7%	8.9%
City of Binghamton	CB	0.0%	14.2%	12.7%	52.2%	20.9%
Town of Binghamton	TB	0.0%	12.5%	0.0%	87.5%	0.0%
Town of Chenango	TCh	0.0%	0.0%	0.0%	100.0%	0.0%
Town of Dickinson	TD	0.0%	0.0%	0.0%	100.0%	0.0%
Town of Fenton	TF	0.0%	14.3%	14.3%	57.1%	14.3%
Town of Kirkwood	TK	0.0%	0.0%	40.0%	60.0%	0.0%
Town of Union	TU	0.0%	19.0%	28.6%	38.1%	14.3%
Town of Vestal	TV	0.0%	23.3%	23.3%	50.0%	3.3%
Village of Endicott	VE	0.0%	26.2%	28.6%	38.1%	7.1%
Village of Johnson City	VJC	0.0%	30.8%	11.5%	42.3%	15.4%
Village of Port Dickinson	VPD	0.0%	16.7%	0.0%	83.3%	0.0%
Tioga County	TCo	0.0%	0.0%	14.3%	78.6%	7.1%
Town of Owego	TO	0.0%	0.0%	25.0%	62.5%	12.5%
Town of Tioga	TT	0.0%	0.0%	50.0%	50.0%	0.0%
Village of Owego	VO	0.0%	0.0%	6.3%	75.0%	18.8%
	ALL	1.1%	13.1%	17.9%	55.5%	12.4%

[C] - under construction

* - Percentages may not add up to 100% due to rounding function

TABLE E-16: BMTS PAVEMENT SUFFICIENCY RATINGS ANALYSIS FOR EACH MUNICIPALITY—PERCENTAGE FOR EACH RATING CLASSIFICATION* (2015)

MUNICIPALITY	ABRV.	[C] CONSTRUCTION	[1-5] POOR	[6] FAIR	[7-8] GOOD	[9-10] EXCELLENT
Broome County	BCo	0.0%	5.2%	23.0%	57.0%	14.8%
City of Binghamton	CB	3.0%	11.2%	15.7%	49.3%	20.9%
Town of Binghamton	TB	0.0%	0.0%	12.5%	87.5%	0.0%
Town of Chenango	TCh	0.0%	0.0%	0.0%	100.0%	0.0%
Town of Dickinson	TD	0.0%	0.0%	50.0%	0.0%	50.0%
Town of Fenton	TF	0.0%	14.3%	14.3%	14.3%	57.1%
Town of Kirkwood	TK	0.0%	20.0%	0.0%	80.0%	0.0%
Town of Union	TU	9.5%	28.6%	23.8%	38.1%	0.0%
Town of Vestal	TV	0.0%	23.3%	13.3%	63.3%	0.0%
Village of Endicott	VE	0.0%	26.2%	14.3%	52.4%	7.1%
Village of Johnson City	VJC	3.8%	34.6%	7.7%	46.2%	7.7%
Village of Port Dickinson	VPD	0.0%	16.7%	0.0%	50.0%	33.3%
Tioga County	TCo	0.0%	0.0%	14.3%	85.7%	0.0%
Town of Owego	TO	0.0%	0.0%	25.0%	75.0%	0.0%
Town of Tioga	TT	0.0%	0.0%	50.0%	50.0%	0.0%
Village of Owego	VO	0.0%	0.0%	6.3%	75.0%	18.8%
	ALL	1.5%	12.7%	17.0%	55.0%	13.8%

[C] - under construction

* - Percentages may not add up to 100% due to rounding function

State Highway System

TABLE E-17: NYSDOT SYSTEM PAVEMENT CONDITION, BY FUNCTIONAL CLASS (2017)

FC CODE	FUNCTIONAL CLASS (FEDERAL AID ELIGIBLE)	EXCELLENT		FAIR		GOOD		POOR		TOTAL
		Miles	%	Miles	%	Miles	%	Miles	%	
1	Rural Principal Arterial Interstate	5.76	10.80%	5.59	6.83%	9.98	5.69%	0	0.00%	21.33
2	Rural Principal Arterial Expressway	11.91	22.33%	0.64	0.78%	8.38	4.78%	0.84	1.75%	21.77
4	Rural Principal Arterial Other	0	0.00%	2.88	3.52%	0	0.00%	0	0.00%	2.88
6	Rural Minor Arterial	2.07	3.88%	0.89	1.09%	8.39	4.78%	8.94	18.60%	20.29
7	Rural Major Collector	9.77	18.32%	13.22	16.14%	12.19	6.95%	7.39	15.37%	42.57
11	Urban Principal Arterial Interstate	5.19	9.73%	13.91	16.98%	43.91	25.04%	2.76	5.74%	65.77
12	Urban Principal Arterial Expressway	13.14	24.64%	9.96	12.16%	48.71	27.78%	3.29	6.84%	75.1
14	Urban Principal Arterial Other	1.58	2.96%	10.55	12.88%	0.67	0.38%	0	0.00%	12.8
16	Urban Minor Arterial	3.91	7.33%	15.58	19.02%	32.03	18.27%	24.61	51.20%	76.13
17	Urban Major Collector	0	0.00%	8.68	10.60%	11.1	6.33%	0.24	0.50%	20.02
		53.33	100.00%	81.9	100.00%	175.36	100.00%	48.07	100.00%	358.66

Source: NYSDOT, 2017 Pavement Data Report, Region 9

TABLE E-18: NYSDOT SYSTEM PAVEMENT INTERNATIONAL ROUGHNESS INDEX (IRI), BY FUNCTIONAL CLASS (2017)

FC CODE	FUNCTIONAL CLASS (FEDERAL AID ELIGIBLE)	VERY SMOOTH		SMOOTH		FAIR		ROUGH		VERY ROUGH		TOTAL
		Miles	%	Miles	%	Miles	%	Miles	%	Miles	%	
1	Rural Principal Arterial Interstate	9.16	11.8%	8.69	5.2%	1.31	1.8%	0.7	2.8%	1.47	10.4%	21.33
2	Rural Principal Arterial Interstate	3.01	3.9%	14.27	8.5%	3.09	4.2%	1.11	4.4%	0.29	2.0%	21.77
4	Rural Principal Arterial Expressway	0.37	0.5%	2.16	1.3%	0.2	0.3%	0.05	0.2%	0.1	0.7%	2.88
6	Rural Minor Arterial	1.59	2.1%	10.83	6.4%	7.03	9.5%	0.62	2.5%	0.22	1.6%	20.29
7	Rural Minor Arterial	7.82	10.1%	16.71	9.9%	10.64	14.4%	5.29	21.1%	2.11	14.9%	42.57
11	Rural Major Collector	19.73	25.5%	28.25	16.8%	10.43	14.1%	4.8	19.2%	2.56	18.1%	65.77
12	Urban Principal Arterial Interstate	31.19	40.3%	28.92	17.2%	8.64	11.7%	4.98	19.9%	1.37	9.7%	75.1
14	Urban Principal Arterial Expressway	0.18	0.2%	7.62	4.5%	3.17	4.3%	0.31	1.2%	1.52	10.7%	12.8
16	Urban Principal Arterial Other	4.01	5.2%	40.23	23.9%	22.36	30.3%	5.75	23.0%	3.78	26.7%	76.13
17	Urban Minor Arterial	0.25	0.3%	10.63	6.3%	7	9.5%	1.41	5.6%	0.73	5.2%	20.02
Total		77.31	100%	168.31	100%	73.87	100%	25.02	100%	14.15	100%	358.66

Source: NYSDOT, 2017 Pavement Data Report, Region 9

Bridge Data

All bridges are inspected by NYSDOT no less than every two years; scour inspections for bridges with piers in water, every five years (Table E-19).

TABLE E-19: BRIDGE SUFFICIENCY RATING, BY OWNER (2019)

OWNER	# OF BRIDGES	AVERAGE CONDITION RATING	# STRUCTURALLY DEFICIENT	% STRUCTURALLY DEFICIENT
City	15	4.57	4	26.67%
County	117	5.62	24	20.51%
NYSDOT	257	5.50	56	21.79%
Other	1	–	–	–
Private – Industrial	4	–	–	–
Railroad	36	–	–	–
Town	73	5.12	28	38.36%
Village	8	5.68	2	25.00%
TOTAL	511	5.30	114	22.31%

Source: NYS GIS Clearinghouse, NYS DOT Bridges and Culverts 2019

BMTS Bridge Ranking Spreadsheet is too large to display, may be obtained from BMTS.

Mobility Data

Data on travel demand comes from BMTS. Data on travel time reliability comes from the National Performance Measure Research Data Set (NPMRDS) maintained by FHWA. This is a large database that cannot be displayed. Data may be obtained from BMTS.

VMT data showing the impact of the COVID-19 pandemic was obtained from Streetlight.

Freight

Data on freight movement is extracted from the New York State Freight Transportation Plan, available at <https://www.dot.ny.gov/freight-plan> Much of the base data for that plan was obtained from IHS Global Insight.

Truck travel time reliability data is extracted from the NPMRDS, described above.

Transit

Broome County submits annual reports to the Federal Transit Administration's National Transit Database. This includes ridership, operating, and financial data.

Links to annual Broome County profiles:

2018 https://cms7.fta.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2018/20003.pdf

2017 https://cms7.fta.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2017/20003.pdf

2016 https://cms7.fta.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2016/20003.pdf

2015 https://cms7.fta.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2015/20003.pdf

The most relevant data is summarized in Table E-20.

TABLE E-20: BROOME COUNTY TRANSIT DATA

METRIC	2015	2016	2017	2018	CHANGE (2015-18)
Ridership - unlinked trips	2,264,073	2,054,806	1,984,941	1,952,682	-15.9
Passenger miles	7,802,254	7,297,643	7,195,868	7,028,557	-11.0%
Vehicle revenue miles	1,193,322	1,168,425	1,141,494	1,157,919	-3.1%
Vehicle revenue hours	102,392	98,540	97,507	97,462	-5.1%
Operating expense	\$8,045,801	\$8,101,757	\$7,640,579	\$8,447,777	4.8%
Fare revenue	\$1,543,406	\$2,383,675	\$2,551,381	\$2,474,022	37.6%
Farebox recovery ratio	19.2%	29.4%	33.4%	29.3%	34.5%
Operating expense per revenue mile	\$6.74	\$6.93	\$6.69	\$7.30	7.6%
Operating expense per revenue hour	\$78.58	\$82.22	\$78.36	\$86.68	9.3%
Operating expense per passenger trip	\$3.55	\$3.94	\$3.85	\$4.33	17.9%
Operating expense per passenger mile	\$1.03	\$1.11	\$1.06	\$1.20	14.2%
Trips per vehicle revenue mile	1.90	1.76	1.74	1.69	-12.5%
Trips per vehicle revenue hour	22.11	20.85	20.36	20.04	-10.4%

Source: FTA National Transit Database

Safety Data

All safety data is obtained from NYSDOT's GIS-based Accident Location Information System (ALIS). The raw crash data is provided by the NYS Department of Motor Vehicles from MV-104 crash data forms (Table E-21 through Table E-23).

TABLE E-21: CRASHES, BY MUNICIPALITY (2015–2019)

MUNICIPALITY	2015	2016	2017	2018	2019
City of Binghamton	1,071	1,208	1,596	1,741	1,761
Town of Binghamton	80	73	79	75	57
Town of Candor	102	108	100	97	97
Village of Candor	9	12	4	8	14
Town of Chenango	384	334	328	326	319
Town of Conklin	110	119	107	111	89
Town of Dickinson	254	191	215	201	171
Village of Endicott	208	201	232	357	369
Town of Fenton	160	143	174	156	155
Village of Johnson City	398	472	467	552	524
Town of Kirkwood	352	302	331	354	332
Town of Maine	126	131	159	150	159
Town of Nichols	113	115	117	154	145
Village of Nichols	4	12	6	7	9
Town of Owego	371	427	378	416	380
Village of Owego	117	98	118	135	141
Village of Port Dickinson	26	23	23	30	33
Town of Tioga	109	98	71	89	69
Town of Union	544	529	470	592	530
Town of Vestal	664	789	770	899	887
Town of Windsor	165	168	144	195	192
Village of Windsor	15	8	16	19	12
Total	5,382	5,561	5,905	6,664	6,445

Source: NYSDOT Accident Location Information System

TABLE E-22: CRASH DATA ELEMENTS (2015–2019)

CRASH DATA ITEM	2015	2016	2017	2018	2019
Property Damage	2,491	2,556	2,602	4,099	4,315
Property Damage And Injury	703	714	648	760	790
Injury	355	352	305	172	120
Fatal	14	19	10	10	12
Non-Auto	2	0	2	1	1
Crash Type Not Reported	1,817	1,921	2,338	1,622	1,207
	1,817	1,921	2,332	1,611	1,186
Total	7,199	7,483	8,243	8,286	7,652
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Total Injuries	1,396	1,411	1,205	1,249	1,144
Total Serious Injuries	133	152	115	134	133
Fatalities	15	21	11	11	13
Total	1,544	1,584	1,331	1,394	1,290
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Pedestrian Accidents	85	97	75	79	73
Bicycle Accidents	56	52	58	41	41
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Serious Pedestrian Accidents	8	14	8	9	13
Serious Bicycle Accidents	8	4	4	4	8
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Fatal Pedestrian Accidents	4	5	2	3	1
Fatal Bicycle Accidents	0	0	0	0	1

Source: NYS DOT ALIS

TABLE E-23: HIGH-CRASH LOCATIONS, NONSTATE FEDERAL AID SYSTEM

ROAD SEGMENTS 2000-5000 AADT	SEGMENT	LENGTH	OWNER	LOCATION	NOTES
Robinson St.	Bigelow St.-Broad Ave.	0.41	City of Binghamton	Binghamton	Signalized and unsignalized intersection crashes.
Beethoven St.	Riverside Dr.-Leroy St.	0.21	City of Binghamton	Binghamton	Mostly intersection accidents at Leroy and Riverside.
Robinson St.	NYS 7-Chenango St.	0.31	City of Binghamton	Binghamton	Mostly crashes at the signalized intersections.
Vestal Ave.	Mill St.-S Washington St.	0.35	City of Binghamton	Binghamton	Almost all intersection crashes.
Kirkwood Industrial Park S Entrance	CR 52-Ind. Park Loop	0.21	Broome County	Kirkwood	Many non-intersection accidents.
ROAD SEGMENTS ABOVE 5000 AADT	SEGMENT	LENGTH	OWNER	LOCATION	NOTES
Front St.	Main St.-Leroy St.	0.28	City of Binghamton	Binghamton	Mostly intersections at Leroy and Main. Three pedestrian accidents at Main.
Jarvis St.	Main St.-Clinton St.	0.26	City of Binghamton	Binghamton	Crashes at signalized and non-signalized intersections. Five pedestrian.
Glenwood Ave.	Main St.-Clinton St.	0.29	City of Binghamton	Binghamton	Mostly intersection accidents at Main and Clinton. Some mid-block.
CFJ Blvd.	Airport Rd.-Lester Ave.	0.24	Village of Johnson City	Johnson City	Mostly intersection accidents at Airport, with some at Lester or Gannett.
African Rd.	NY434-Old Vestal Rd.	0.21	Town of Vestal	Vestal	Mostly intersection accidents at NY 434.
Robinson St.	Broad Ave.-NYS 7	0.49	City of Binghamton	Binghamton	Mix of hitting RR overpass, signalized and unsignalized intersection crashes.
Leroy St.	Front St.-Murray St.	0.21	City of Binghamton	Binghamton	A lot of accidents at Oak and Murray.
Broad Ave.	East Frederick St.-Robinson St.	0.28	City of Binghamton	Binghamton	Mostly intersection crashes at Robinson. Two ped accidents; one at George St.
Sycamore Rd.	Ny434-Old Vestal Rd.	0.35	Town of Vestal	Vestal	Mostly accidents at NY 434 and Old Vestal intersections, with a few at
Lester Ave.	Main St.-Erie Lackawanna	0.20	Village of Johnson City	Johnson City	Almost all were accidents at Main Street. Three ped accidents at Main.

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McKinley Ave.	North St.-Columbus St.	0.26	Village of Endicott	Endicott	Mostly rear-end and right-angle crashes at the Monroe and North intersections.
Prospect St.	Airport Rd.-"CB Line"	0.25	Broome County	Dickinson	Mostly accidents at CFJ and unsignalized intersections.
Harry L Dr.	Airport Rd.-Lester Ave.	0.22	Village of Johnson City	Endicott	Almost all intersection accidents. 2/3 at Airport Road; the rest at Lester,
Airport Rd.	Lewis Rd.-"TU Line"	0.30	Broome County	Union	Mostly non-intersection accidents; many are collisions with deer or FO.
North St.	McKinley Ave.-Jefferson Ave.	0.31	Village of Endicott	Endicott	Mostly intersection accidents all along the length of segment.

Source: NYSDOT ALIS

Performance Data

Data used for the System Performance Report comes from NYSDOT for all measures except transit asset management, which comes from Broome County.

Infrastructure metrics are in the NYSDOT Transportation Asset Management Plan available at <https://www.dot.ny.gov/programs/capital-plan/repository/Final%20TAMP%20June%2028%202019.pdf>

Safety metrics are based on the NYS Strategic Highway Safety Plan available at <https://www.dot.ny.gov/divisions/operating/osss/highway/strategic-plan>

Transit asset metrics are in the Broome County Transit Asset Management Plan available from the Broome County Department of Public Transportation.