

Appendix C

Research and Reference Documents

1. Quantitative Analysis of the Lycoming County Comprehensive Plan Public Outreach Efforts
2. Rural Planning Area Background Data Profile with Population Projections
3. Top 50 Lycoming County Employers
4. State Transportation Commission Survey Results
5. Community Facilities and Infrastructure Background Data
6. County &/or Local Municipal Jurisdiction/Administration of Respective Land & Resource Ordinances
7. Municipal Fire/EMS Service Delivery Chart
8. Impacts of Lycoming County's Colleges on the Local and Regional Economy

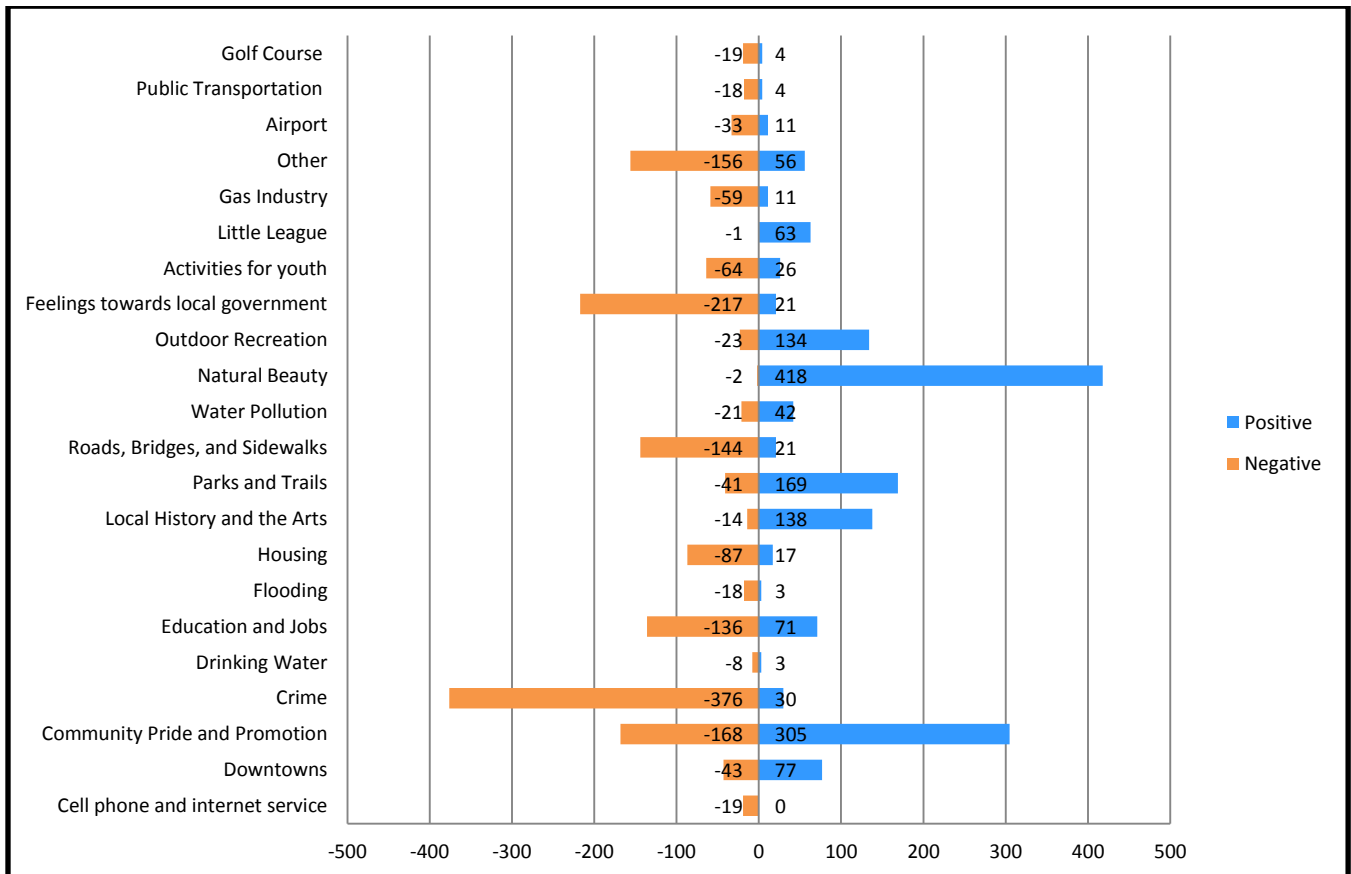
Quantitative Analysis of the Lycoming County Comprehensive Plan Public Outreach Efforts

Analysis for the Countywide Survey Results

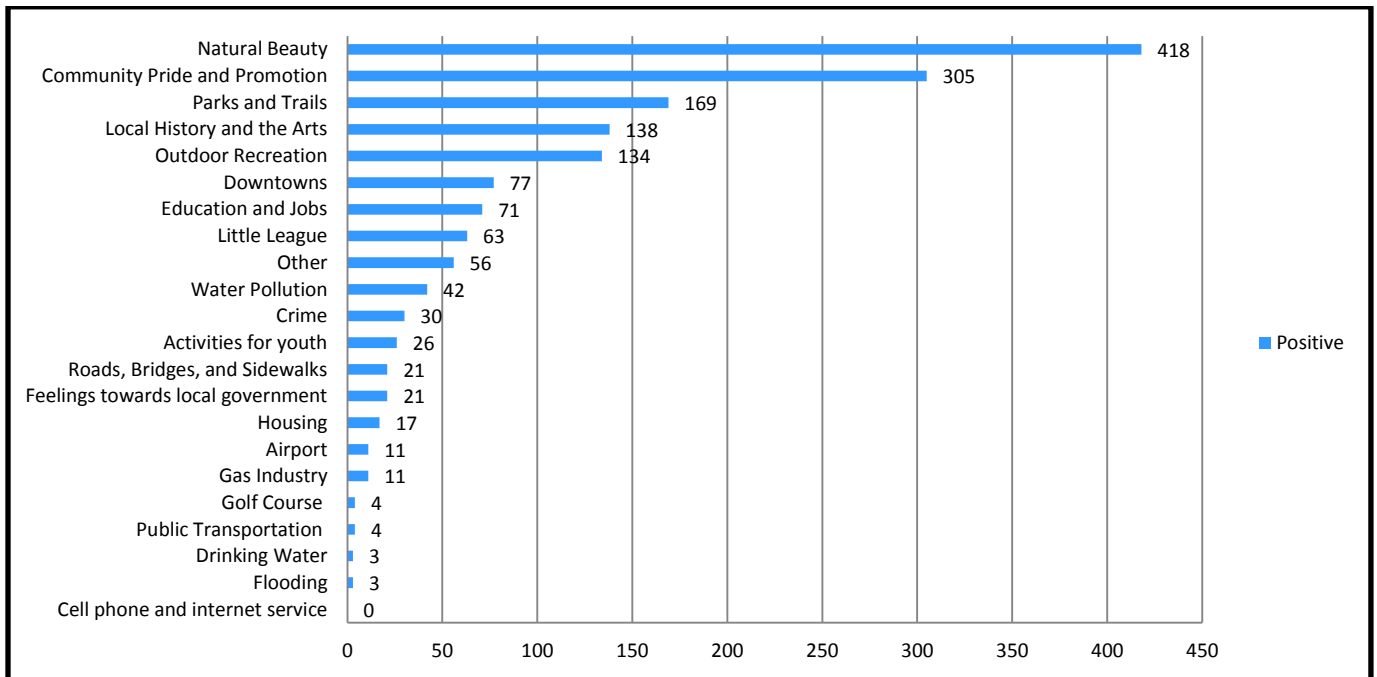
In the summer of 2016, the Lycoming County Department of Planning and Community Development (PCD) conducted several public outreach efforts where they collected data to determine which topics were most important to members of the public and what they liked and didn't like about Lycoming County. These outreach efforts were mainly centered around two specific methods. First, from May to August, PCD staff members conducted "Intercept Surveys" where they went to public events and conducted one-on-one survey sessions. Then from August 12th through September 18th the county hosted a survey online. 935 people participated in the online survey and 197 participated in the intercept survey for a total of 1,132 survey respondents.

Qualitative Analysis

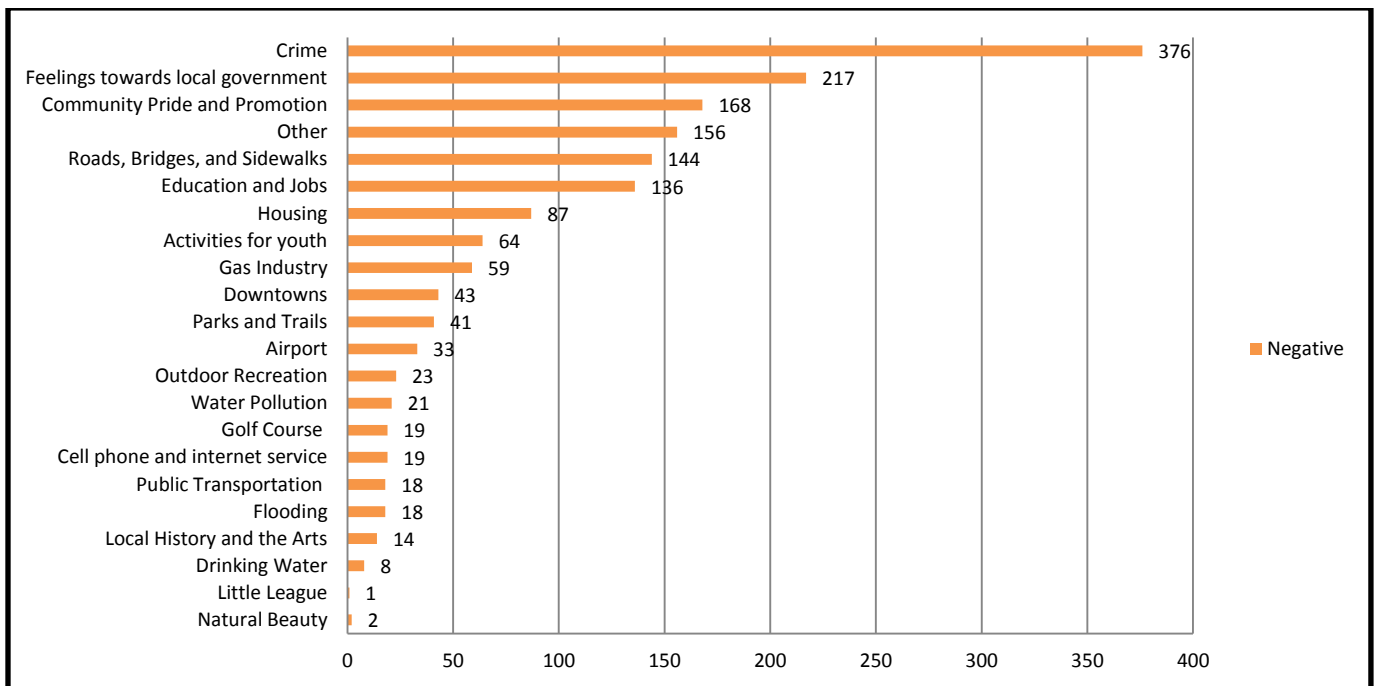
The online and intercept surveys both had open ended questions which allowed people to give their thoughts and opinions on the County. The first question asked "What do you like about Lycoming County and want to make sure lasts well into the future?" The second question was "What don't you like about Lycoming County and wish were different?" The responses from these two questions were analyzed by the department and comments were quantified into 22 separate categories (listed below). Comments which said something positive about the subject were separated from comments which said something negative about the subject. Positive numbers reflect positive comments and negative numbers reflect negative comments. The total of all positive comments was 1,624 comments while the total off all negative comments was 1,667 comments. These numbers are higher than the number of survey respondents since respondents could comment on multiple categories in a single comment.



Qualitative Analysis continued



Culture, recreation, and scenic beauty were the themes of the top 5 most commented on positive categories by citizens of the County. Many citizens believe these topics are important to their quality of life and do not want to see them negatively changed.

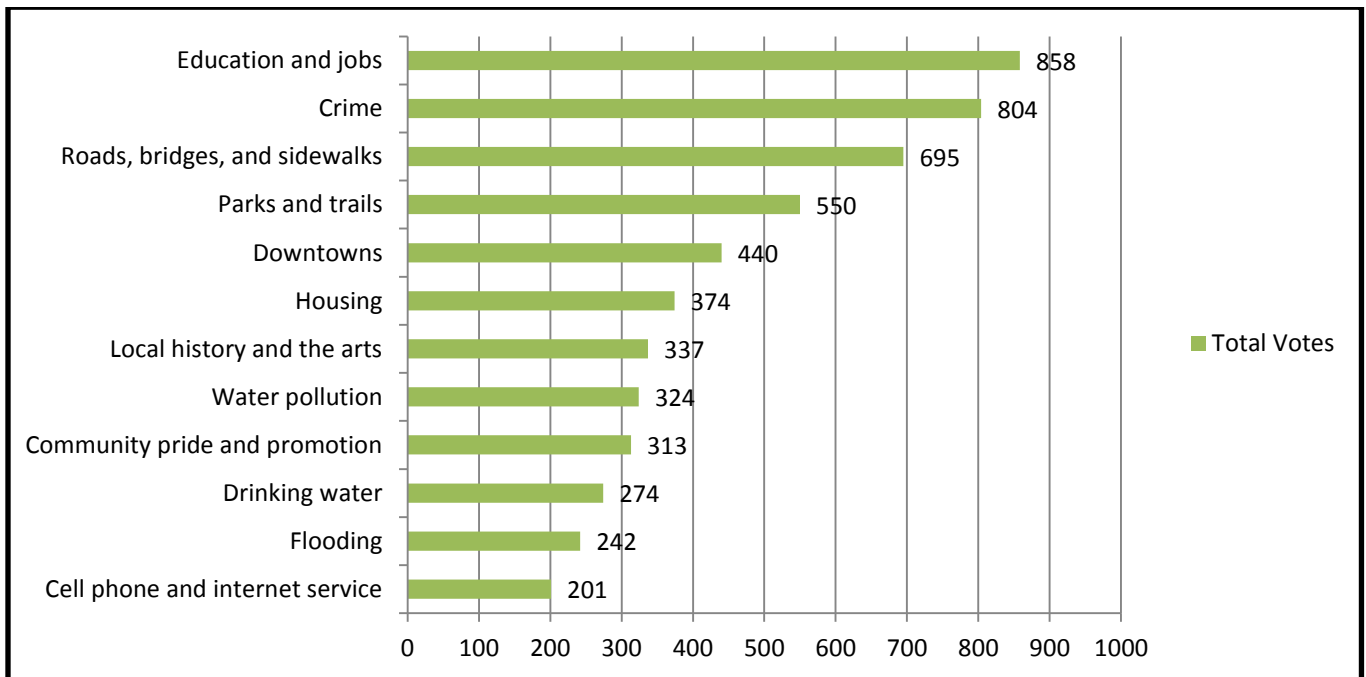


The most important topic which citizens of the County identified as something they want to see changed was crime. Additionally, citizens are also unhappy with government, however, the reasons varied from people who believed government was doing too much to those who thought it wasn't doing enough. Citizens also identified community pride/promotion and infrastructure as important topics. The other category was a variety of responses which covered topics including the lack of new businesses, emergency services, and the lack of resources available for underprivileged families to succeed.

Lyco Bucks Exercise

This part of the survey allowed participants to take 5 theoretical dollars to allocate them towards their top priorities if they were in charge of making decisions. Participants could use all of the money towards one category or spread it out across up to five categories. Twelve separate categories were provided (listed in the graph below). Below is a graph showing how survey participants within the planning area responded to this portion of the exercise.

Survey participants identified education and jobs and crime as the two most important priorities. Next came roads, bridges, and sidewalks followed by parks and trails. The priority of least concern was flooding. Drinking water and Cell phone and internet service were viewed as less important priorities as well.

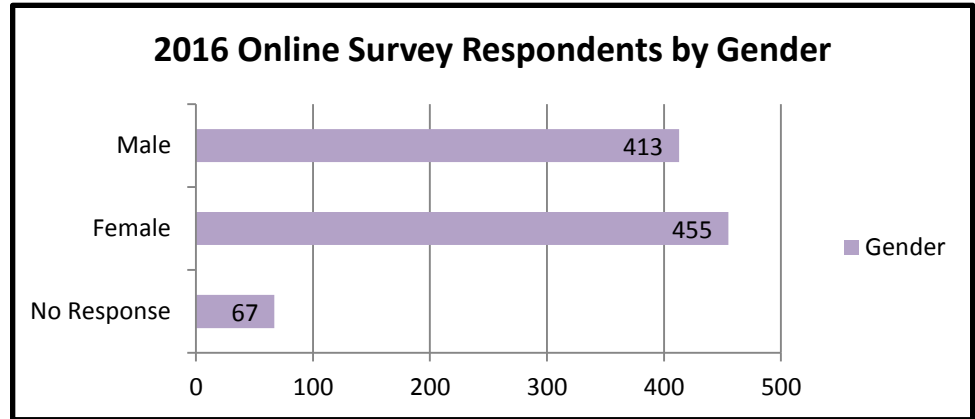


Respondent Demographics

While completing the online survey, respondents were asked to provide information about themselves so that planning department staff could get an idea of the cross section of the community that was being reached during the outreach process. Respondents were asked to indicate their Gender, Age, and Race/Ethnicity. The analysis below indicates the responses which were provided through the online survey responses. Gender, Age, and Race/Ethnicity were not asked during the intercept survey.

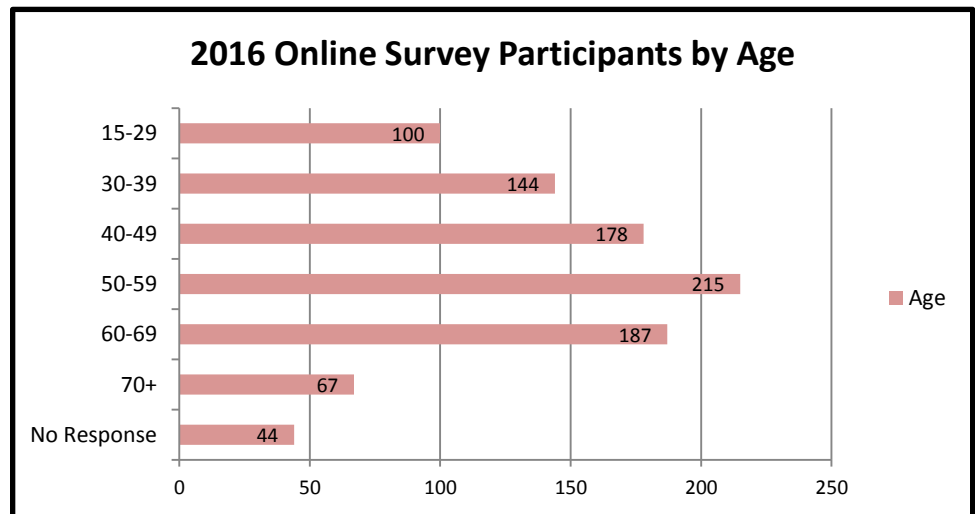
Gender

Respondent gender was fairly evenly split with slightly more female participation than male participation. Of all online survey participants, 48.6% were Female while 44.1% were male. Another 7.2% of respondents chose not to indicate their gender.



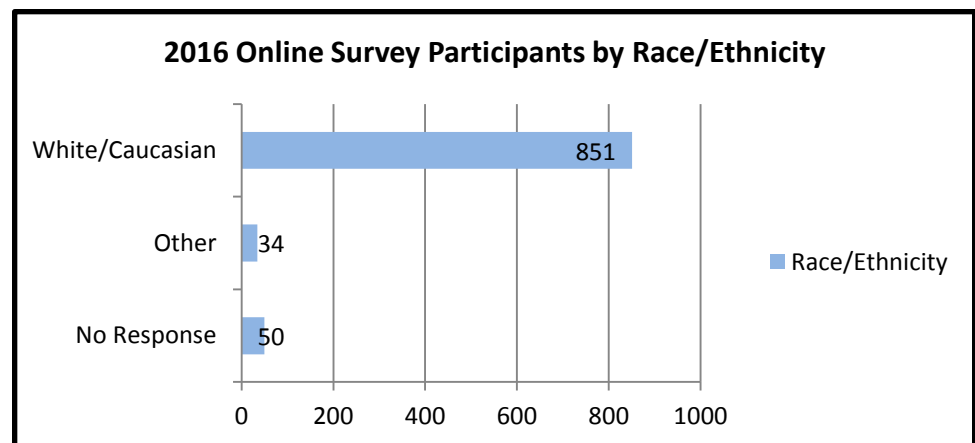
Age

The youngest survey respondent was 15 years old and the oldest was 95. Overall, respondent age was skewed more heavily towards older citizens. This may be because the survey was mainly advertised on television and in the newspaper. Social media advertisement should be improved in future public outreach attempts.



Race/Ethnicity

The majority of online survey participants were White/Caucasian. Of the 34 non-white survey respondents: 7 were Hispanic/Latino, 9 were Black/African American, 4 were Asian/Pacific Islander/Native Hawaiian, 12 were American Indian/Alaska Native, and 2 were Other.

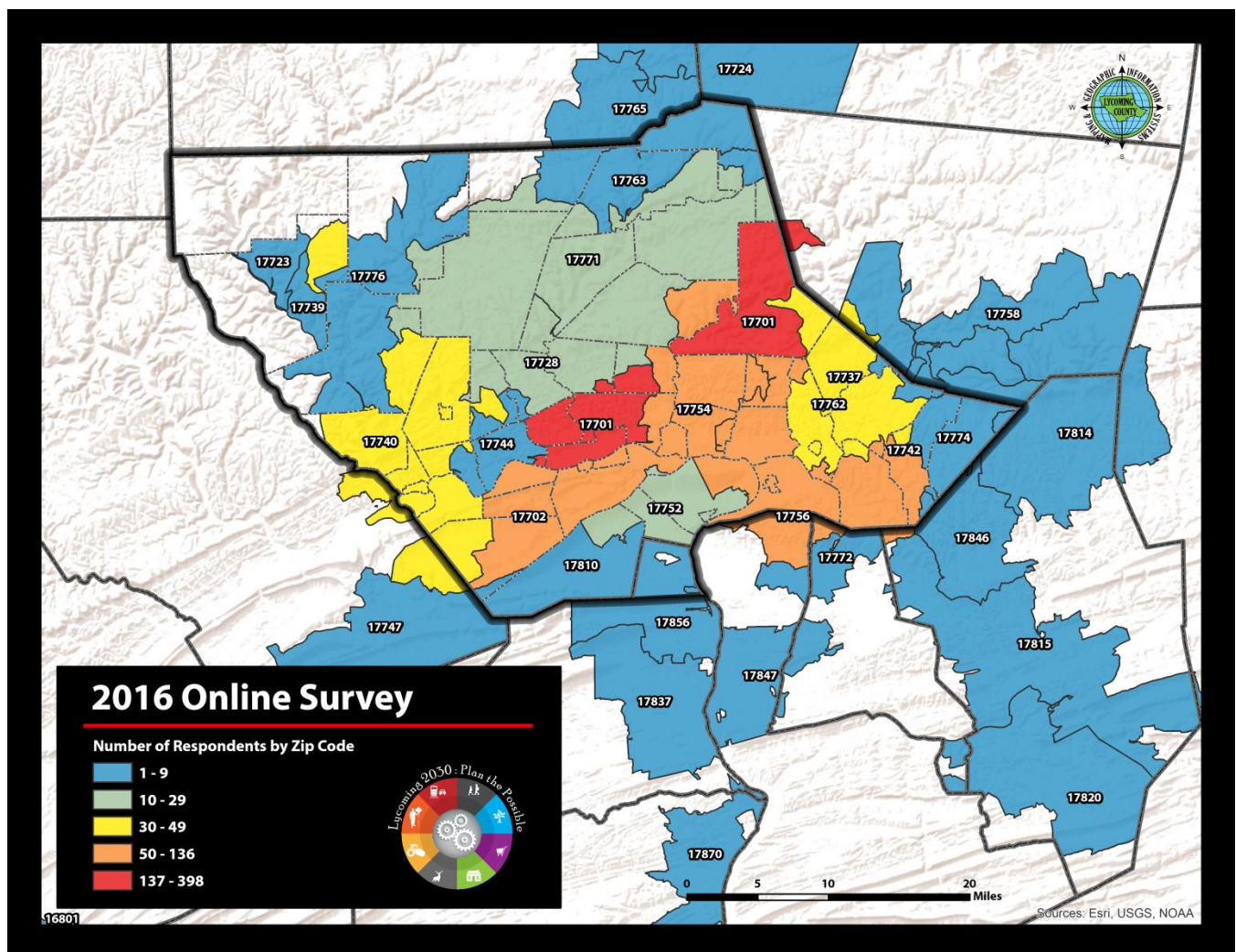


Geographic Distribution of Survey Respondents

Respondents were also asked during both the online and intercept survey to provide their zip code to indicate whether they were Lycoming County citizens or from some other location. Respondents from the 17701 zip code were also asked to indicate whether they lived in the city or outside of the city.

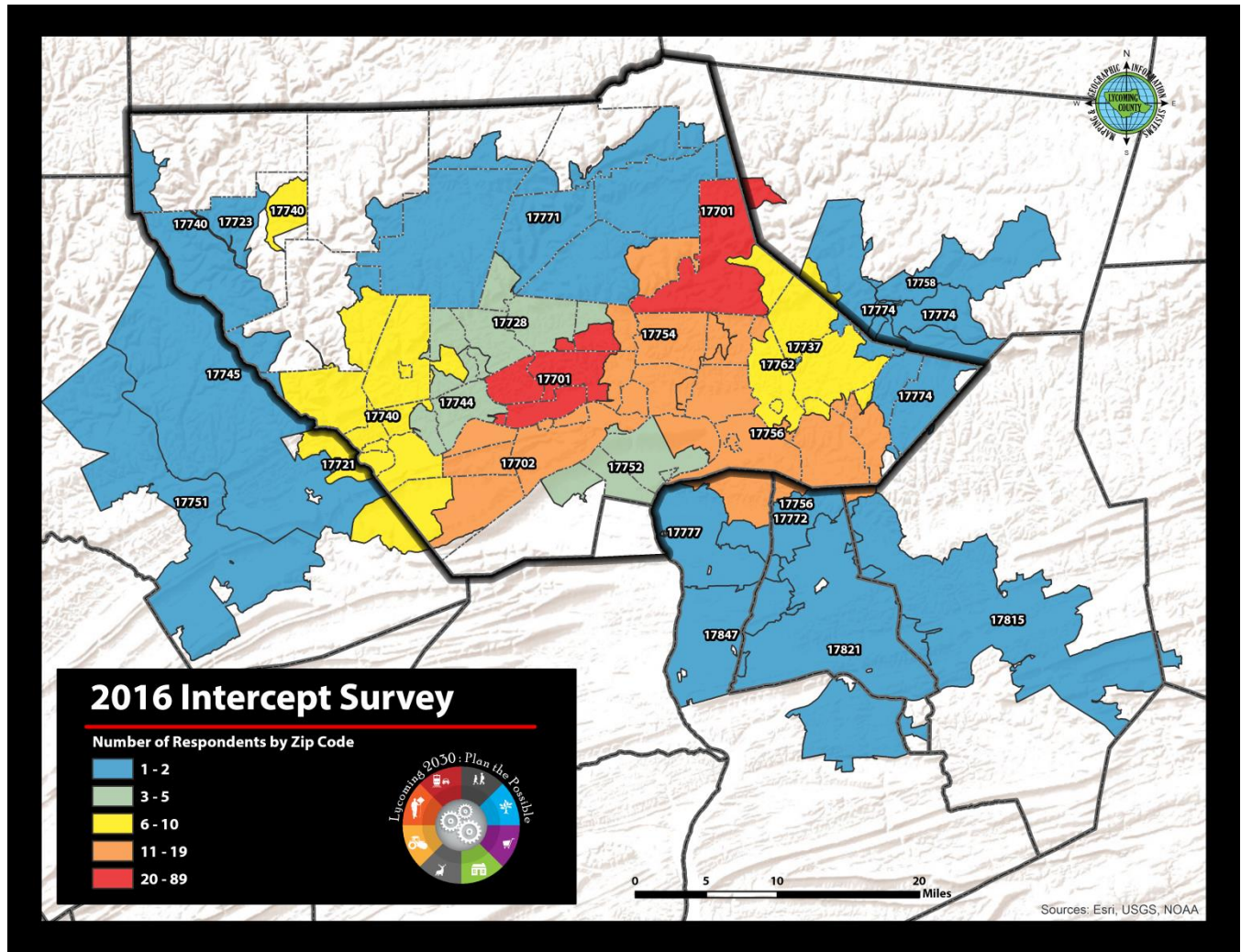
Geographic Distribution of Online Survey Respondents

Survey respondents were clustered mostly around the urbanized areas of the county with the bulk of the comments coming from the 17701 zip code which includes the City of Williamsport, Old Lycoming Township, and portions of Loyalsock, Hepburn, Eldred, and Plunketts Creek Townships. Of the 398 online respondents from 17701, 262 reported that they lived in the city, 135 reported that they lived outside of the city, and one respondent did not provide an answer. The online survey received comments from 18 people from 14 different zip codes located entirely outside of the County. Most out of county responses were from counties adjacent to Lycoming County, however, responses were received from Abingdon, MD and Portsmouth, VA. The online survey received one response from the 27754 zip code which does not exist and may have been intended to be the 17754 zip code.



Geographic Distribution of Intercept Survey Respondents





Survey respondents were clustered mostly around the urbanized areas of the county with the bulk of the comments coming from the 17701 zip code which includes the City of Williamsport, Old Lycoming Township, and portions of Loyalsock, Hepburn, Eldred, and Plunketts Creek Townships. Of the 89 intercept respondents from 17701, 7 reported that they lived in the city, 55 reported that they lived outside of the city, and 27 respondents did not provide an answer. The intercept survey received comments from 8 people from 8 different zip codes located entirely outside of the County. Most out of county responses were from counties adjacent to Lycoming County, however, responses were received from Centerville, VA.

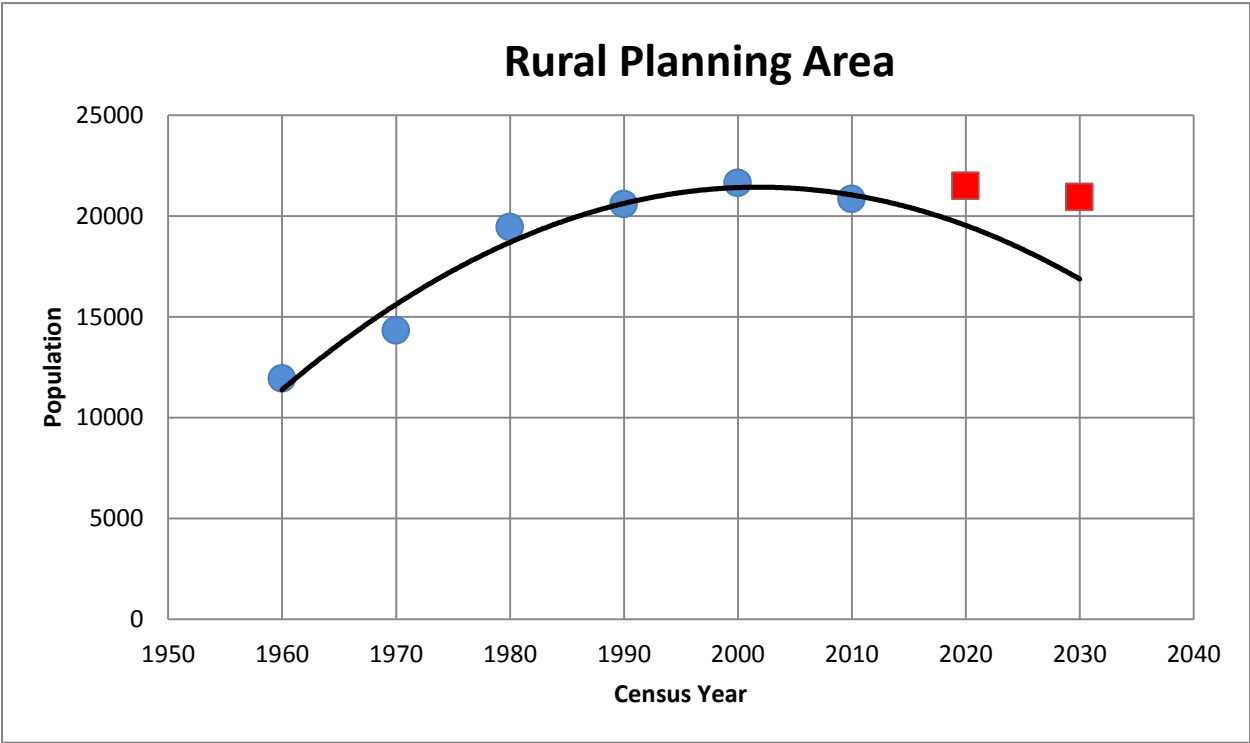




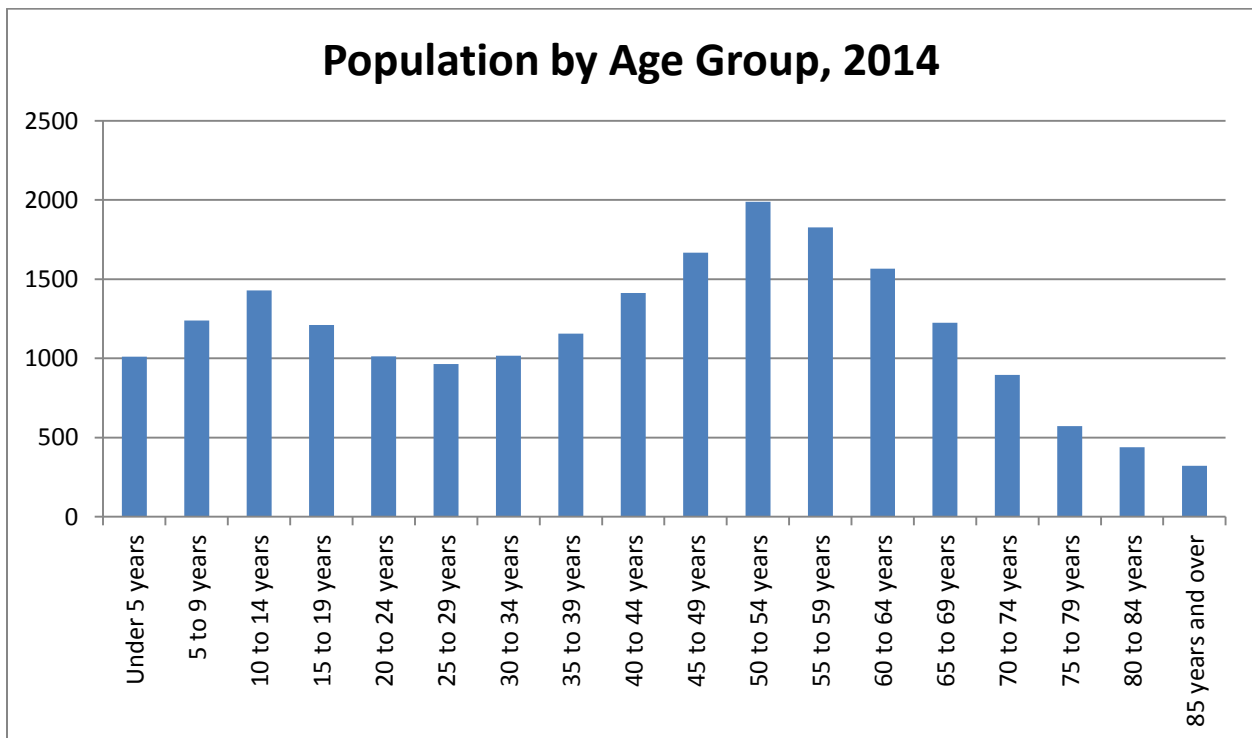
Rural Planning Area Data Profile

Population change and projections

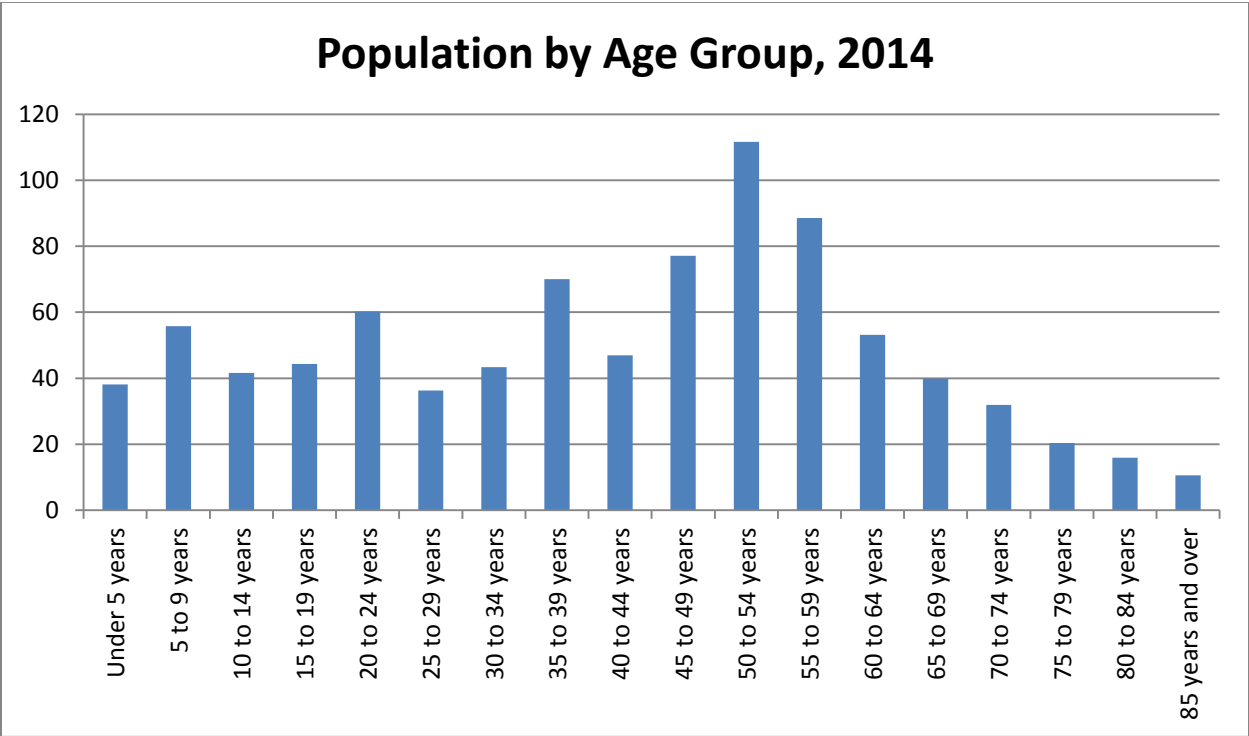
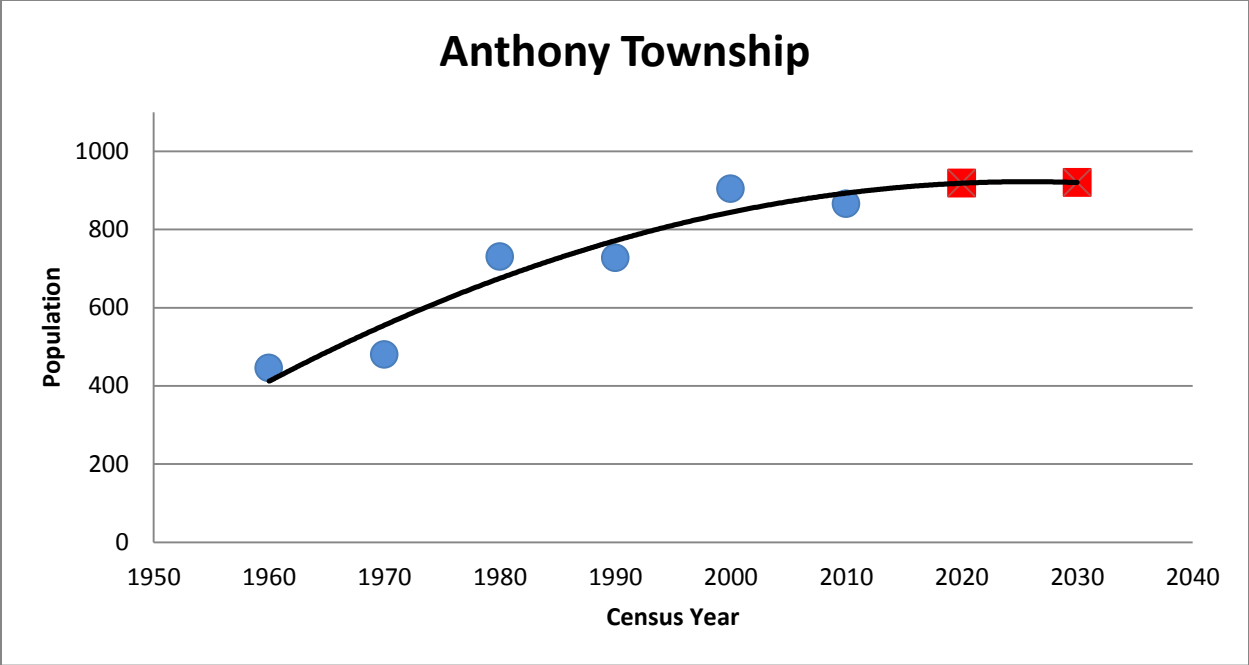
-  Census Count of Population Used to Calculate Population Change Projection
-  Census Count of Population Excluded From Calculations
-  Projected Future Population Count
-  Best Fit Population Change Trend Based on 30-50 Years of Census Population Counts

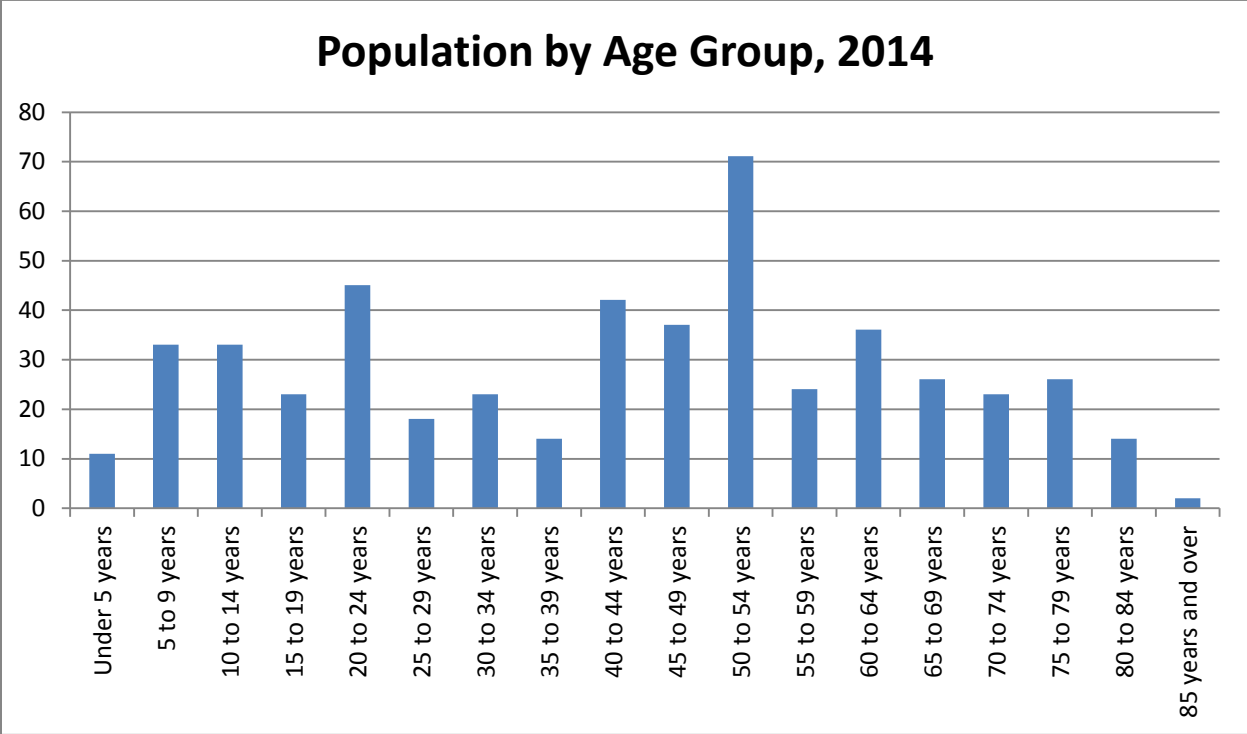
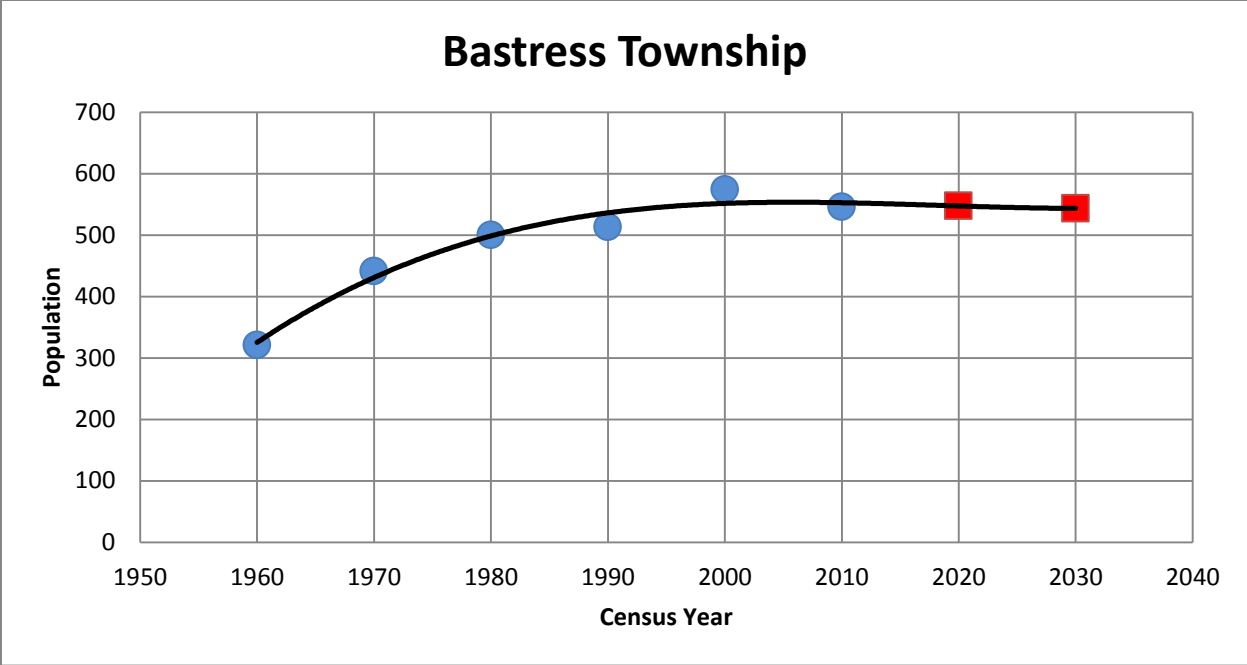


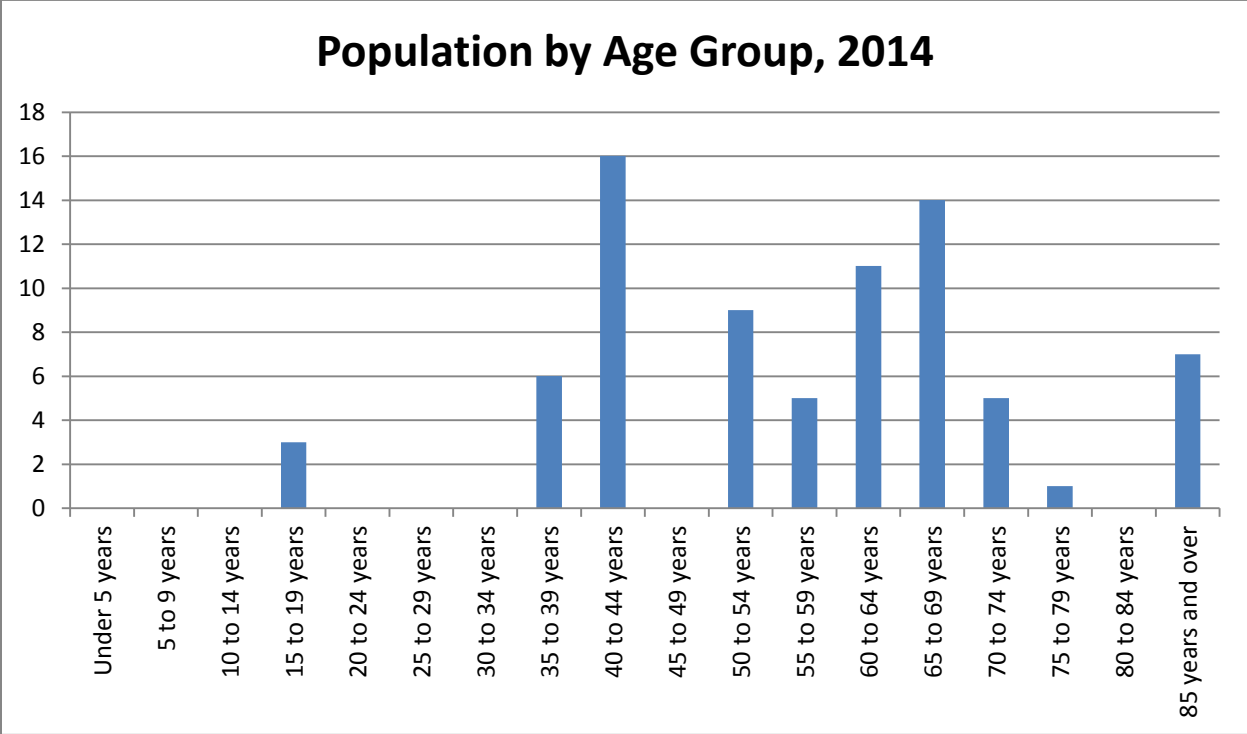
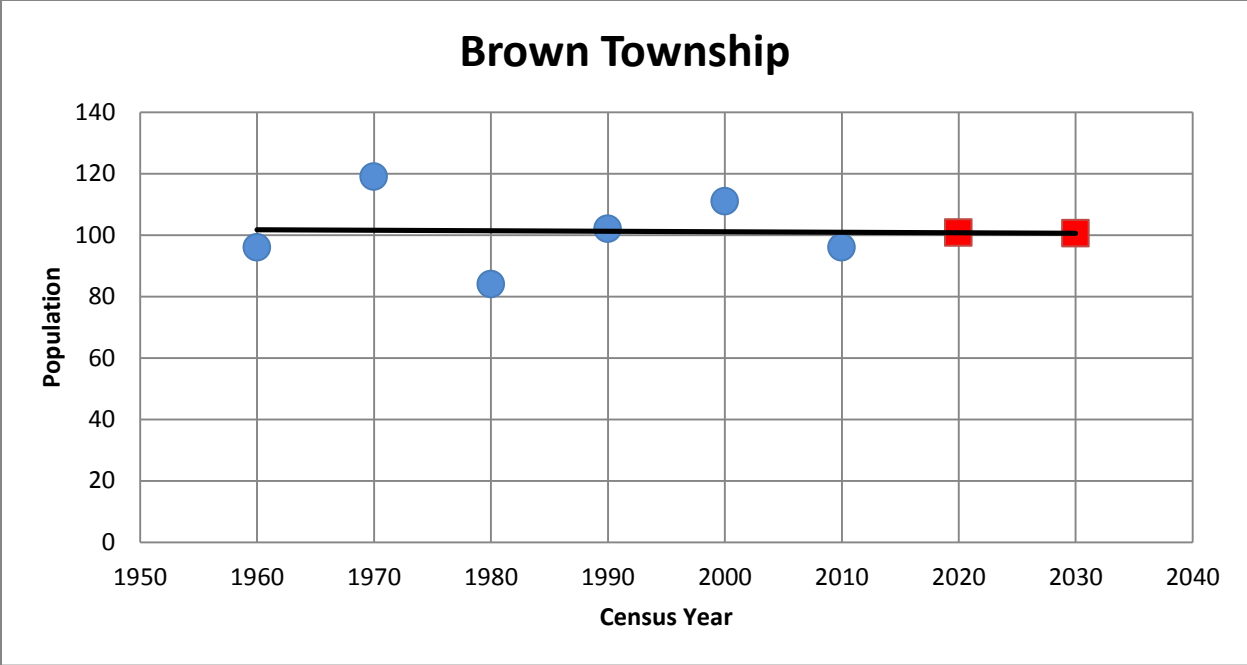
	1960	1970	1980	1990	2000	2010	2020	2030
Anthony	445	480	730	727	904	865	918	920
Brown	96	119	84	102	111	96	101	101
Cascade	168	219	364	382	419	413	512	564
Cogan House	633	521	819	807	974	955	1,081	1,165
Cummings	148	321	369	334	355	273	297	286
Eldred	701	1,066	1,771	2,055	2,178	2,122	1,982	1,656
Franklin	681	645	819	914	915	933	964	966
Gamble	394	461	676	744	854	756	746	655
Jackson	310	352	449	421	414	396	355	313
Jordan	606	663	822	871	878	863	982	1,038
Limestone	944	1,168	1,839	1,893	2,136	2,019	2,168	2,246
McHenry	147	241	204	246	145	143	161	153
McIntyre	529	720	698	588	539	520	529	509
McNett	207	192	235	200	211	174	189	185
Mifflin	513	688	985	1,110	1,145	1,070	964	758
Mill Creek	225	265	417	477	572	604	714	796
Moreland	576	621	868	984	1,036	943	913	794
Penn	546	513	739	788	900	960	1,069	1,163
Pine	272	321	312	290	329	294	276	247
Plunketts Creek	592	692	710	905	771	684	558	363
Salladasburg	255	239	273	301	260	238	207	160
Susquehanna	803	1,046	1,099	1,046	993	1,000	931	866
Upper Fairfield	873	1,174	1,761	1,774	1,854	1,823	1,870	1,896
Washington	728	860	1,368	1,552	1,613	1,619	1,980	2,177
Watson	226	291	530	565	550	537	487	416
Bastress	321	441	500	513	574	546	547	543
TOTAL	11,939	14,319	19,441	20,589	21,630	20,846	21,499	20,935

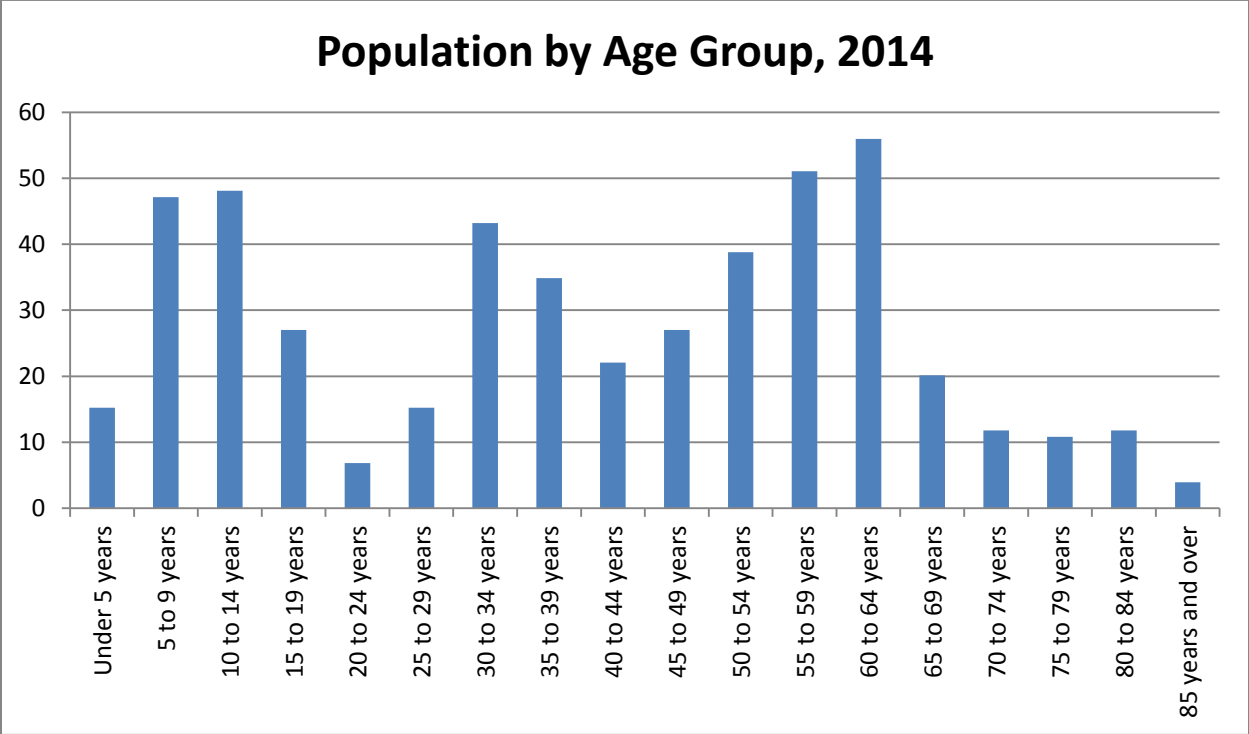
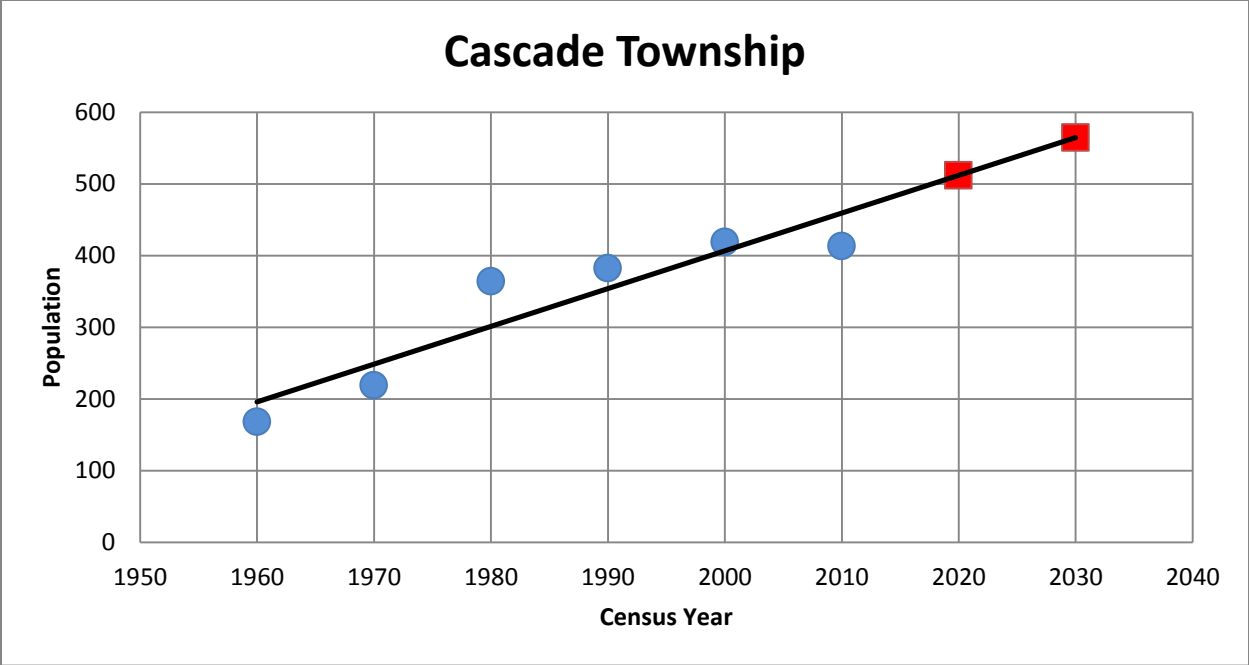


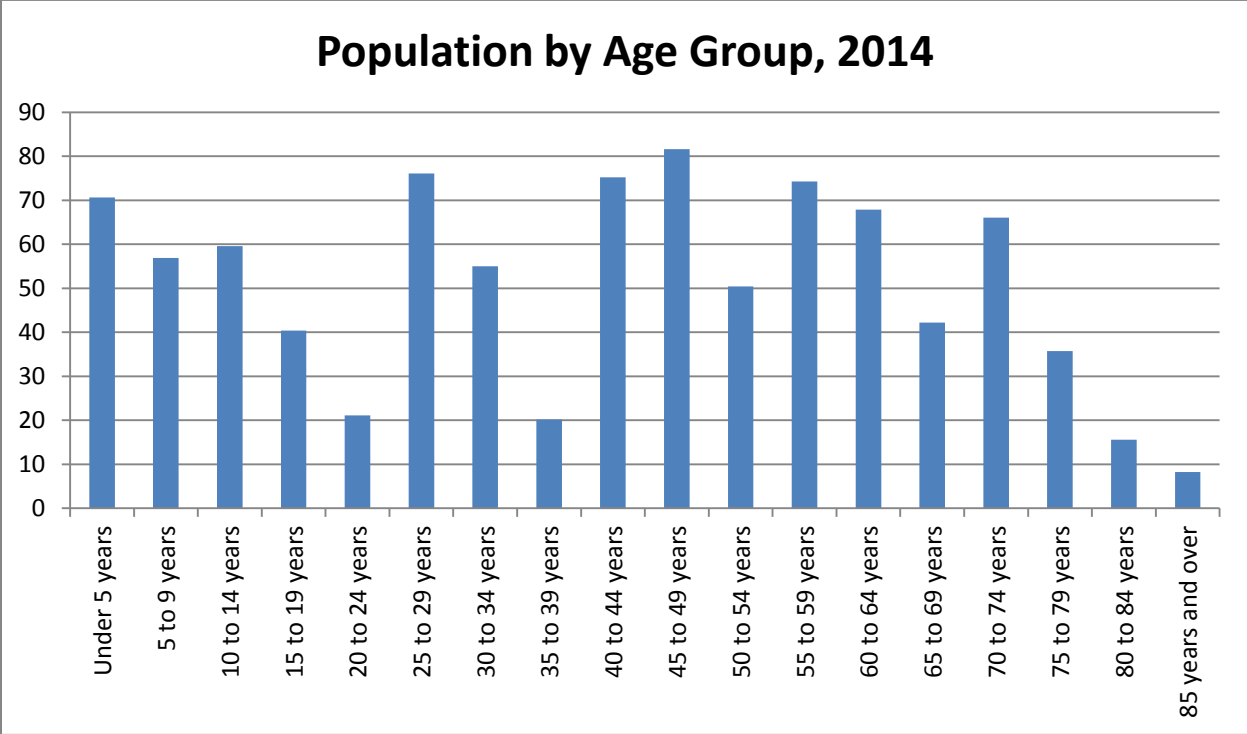
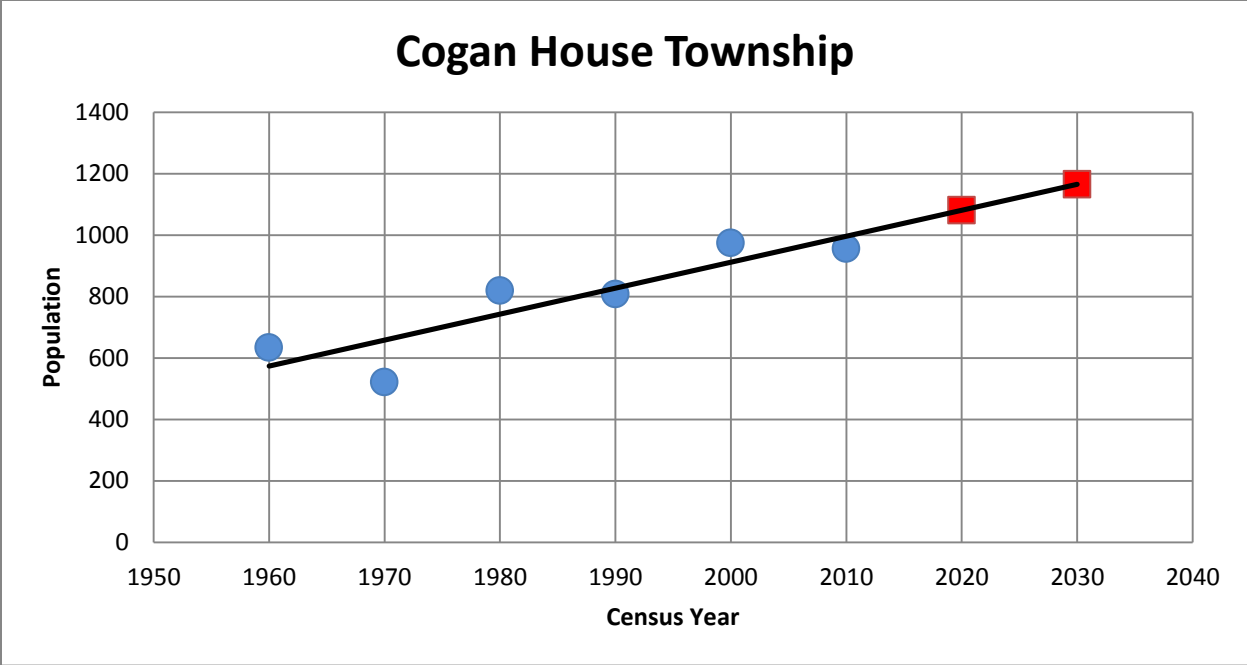
	Median age
TOWNSHIP OF ANTHONY	45.6
TOWNSHIP OF BASTRESS	47.3
TOWNSHIP OF BROWN	59.8
TOWNSHIP OF CASCADE	41.5
TOWNSHIP OF COGAN HOUSE	44.5
TOWNSHIP OF CUMMINGS	55.8
TOWNSHIP OF ELDRED	48.9
TOWNSHIP OF FRANKLIN	41.9
TOWNSHIP OF GAMBLE	46.2
TOWNSHIP OF JACKSON	44.8
TOWNSHIP OF JORDAN	38.1
TOWNSHIP OF LIMESTONE	40.4
TOWNSHIP OF MCHENRY	47.5
TOWNSHIP OF MCINTYRE	43.2
TOWNSHIP OF MCNETT	54.3
TOWNSHIP OF MIFFLIN	45.7
TOWNSHIP OF MILL CREEK	43
TOWNSHIP OF MORELAND	44.3
TOWNSHIP OF PENN	48.2
TOWNSHIP OF PINE	49.8
TOWNSHIP OF PLUNKETTS CREEK	46.8
BOROUGH OF SALLADASBURG	38
TOWNSHIP OF SUSQUEHANNA	47.3
TOWNSHIP OF UPPER FAIRFIELD	48.2
TOWNSHIP OF WASHINGTON	40
TOWNSHIP OF WATSON	48.5

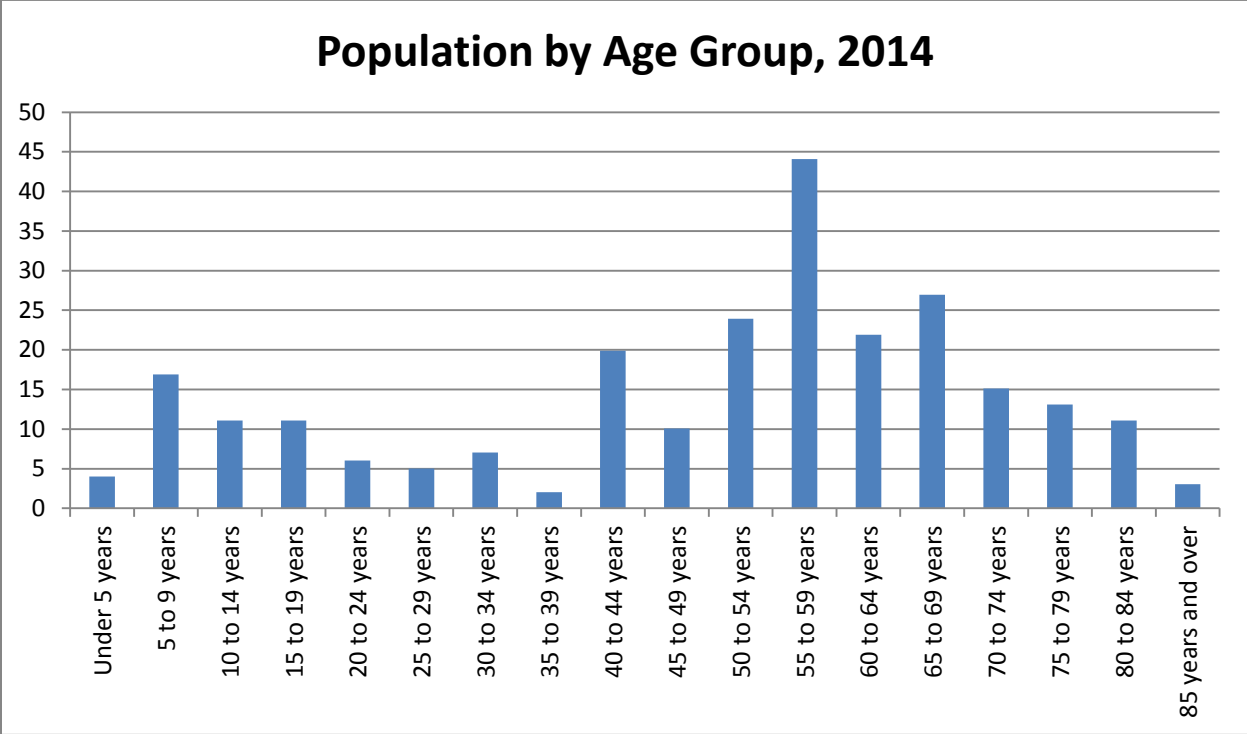
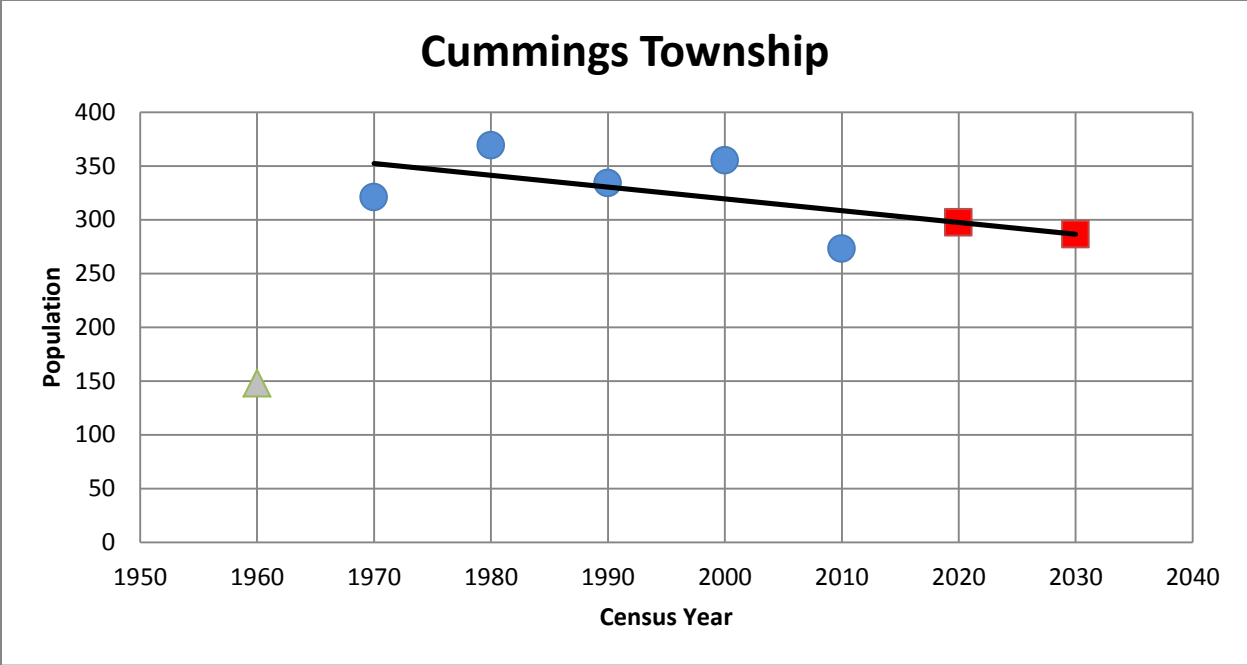


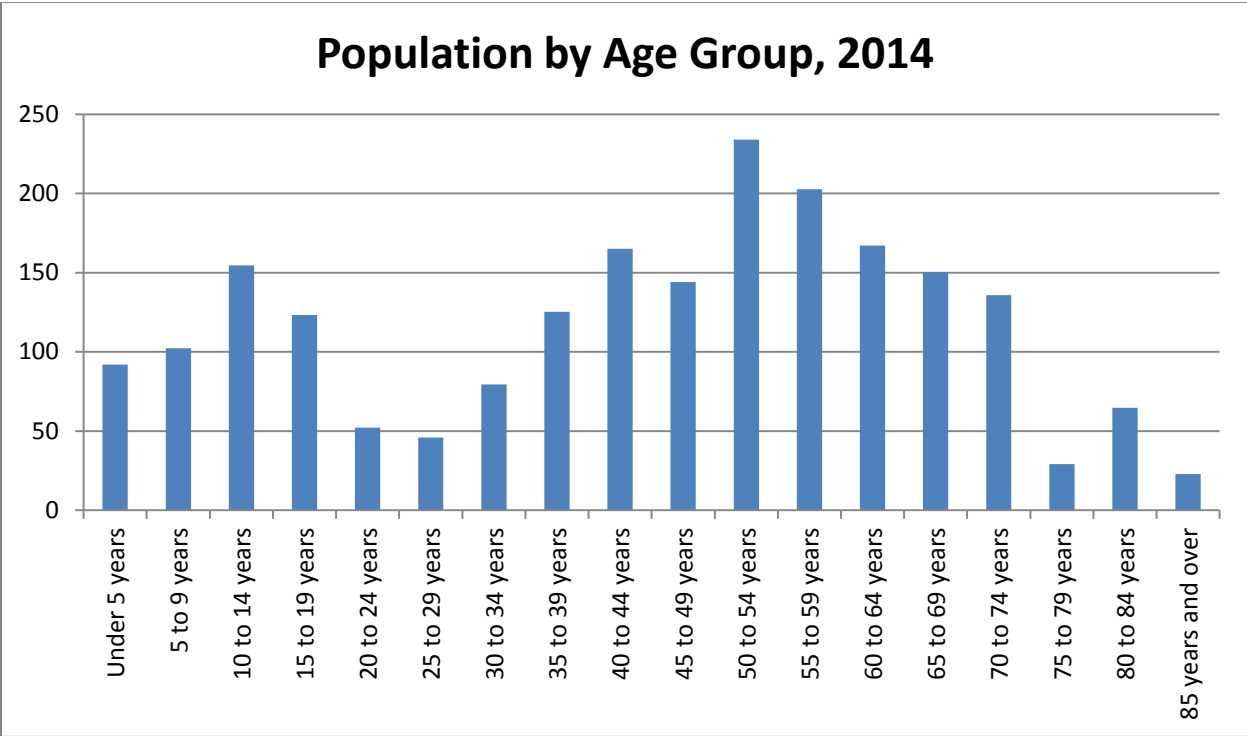
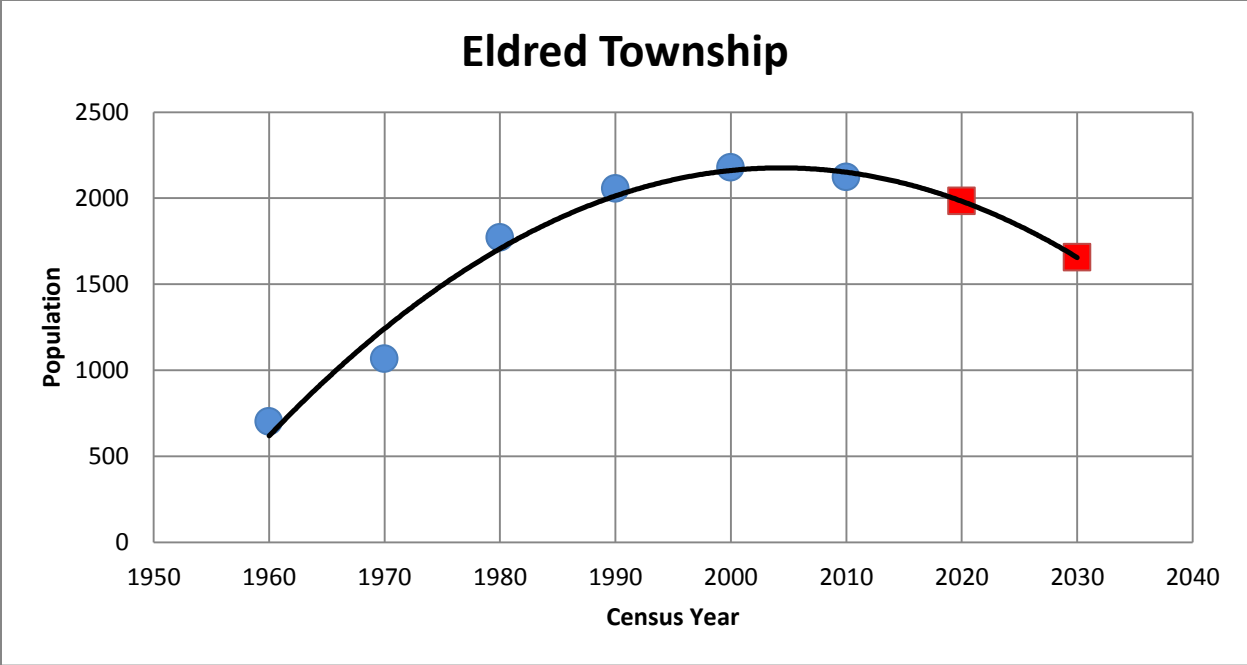


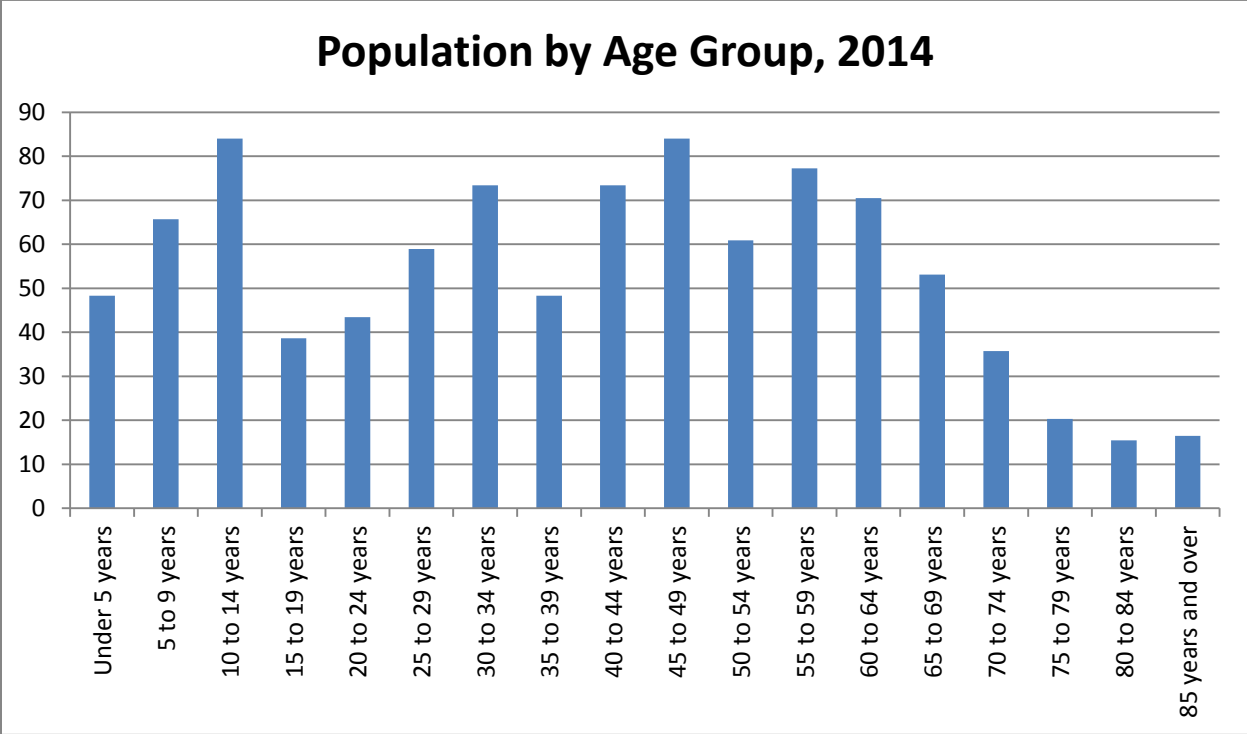
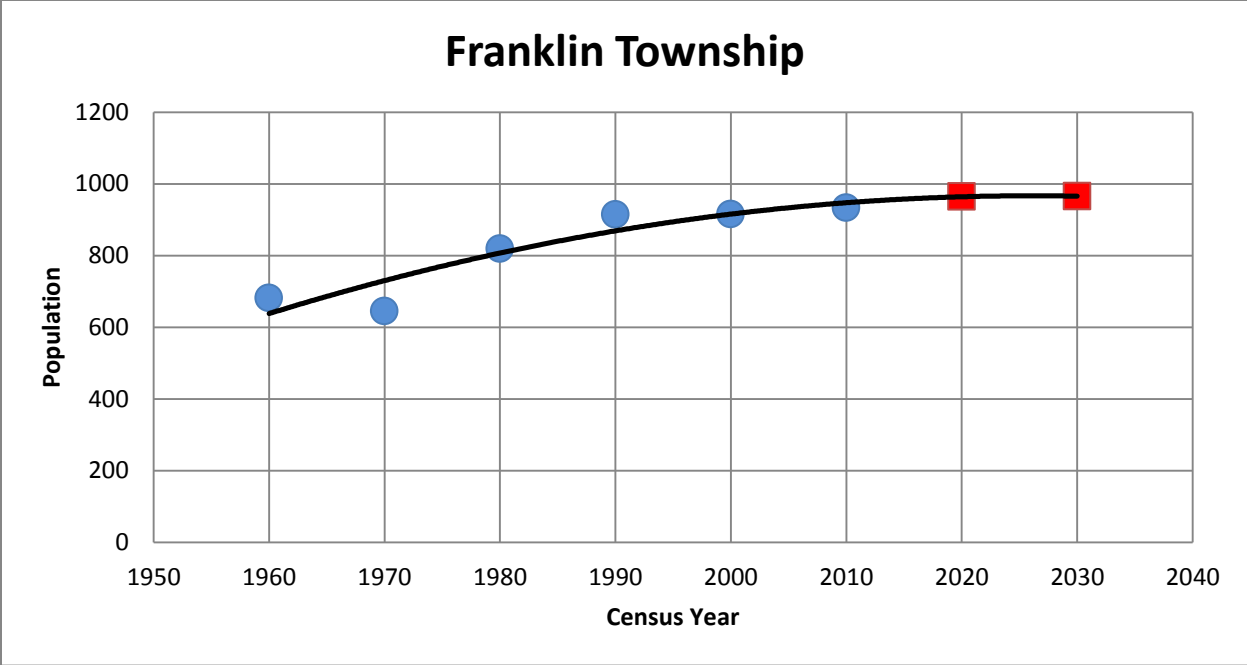


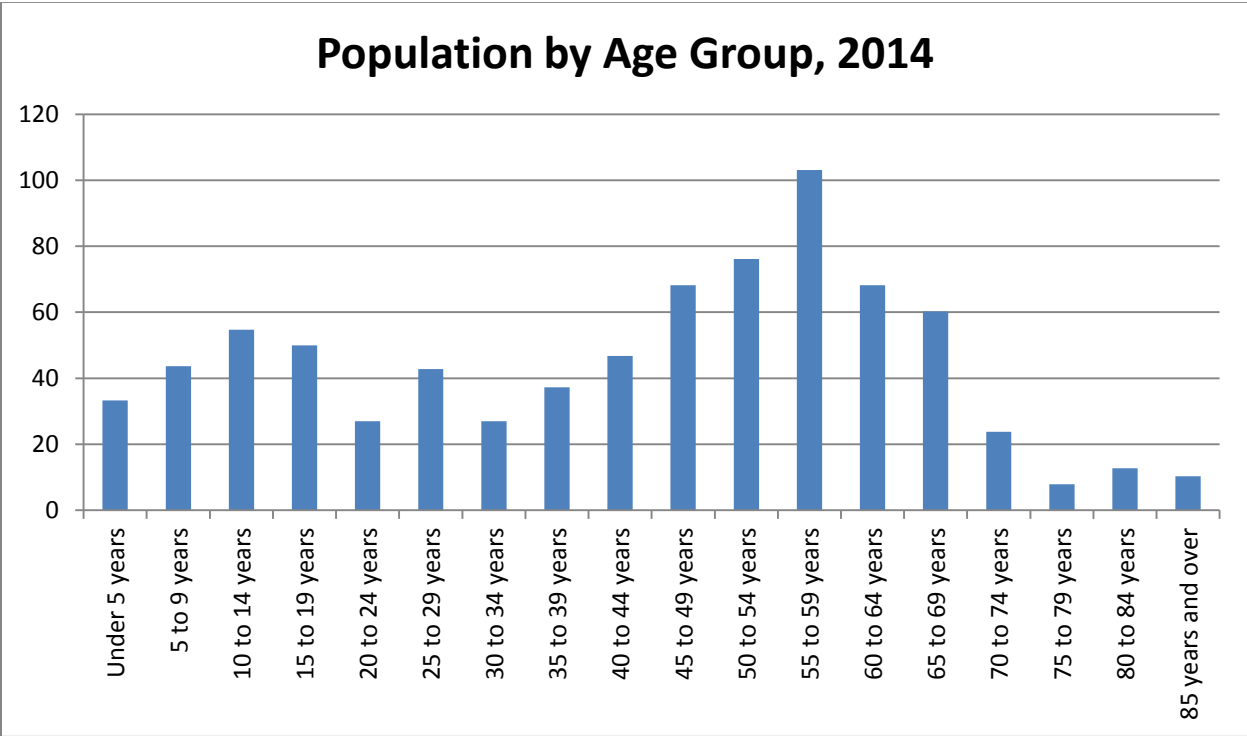
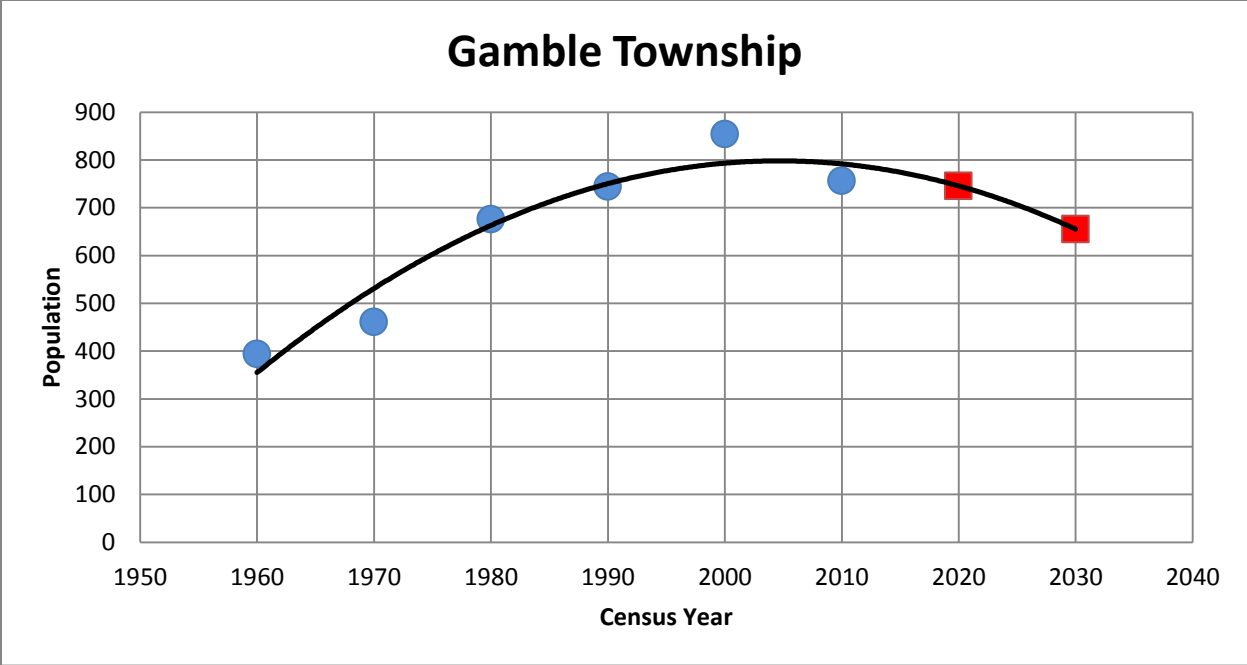


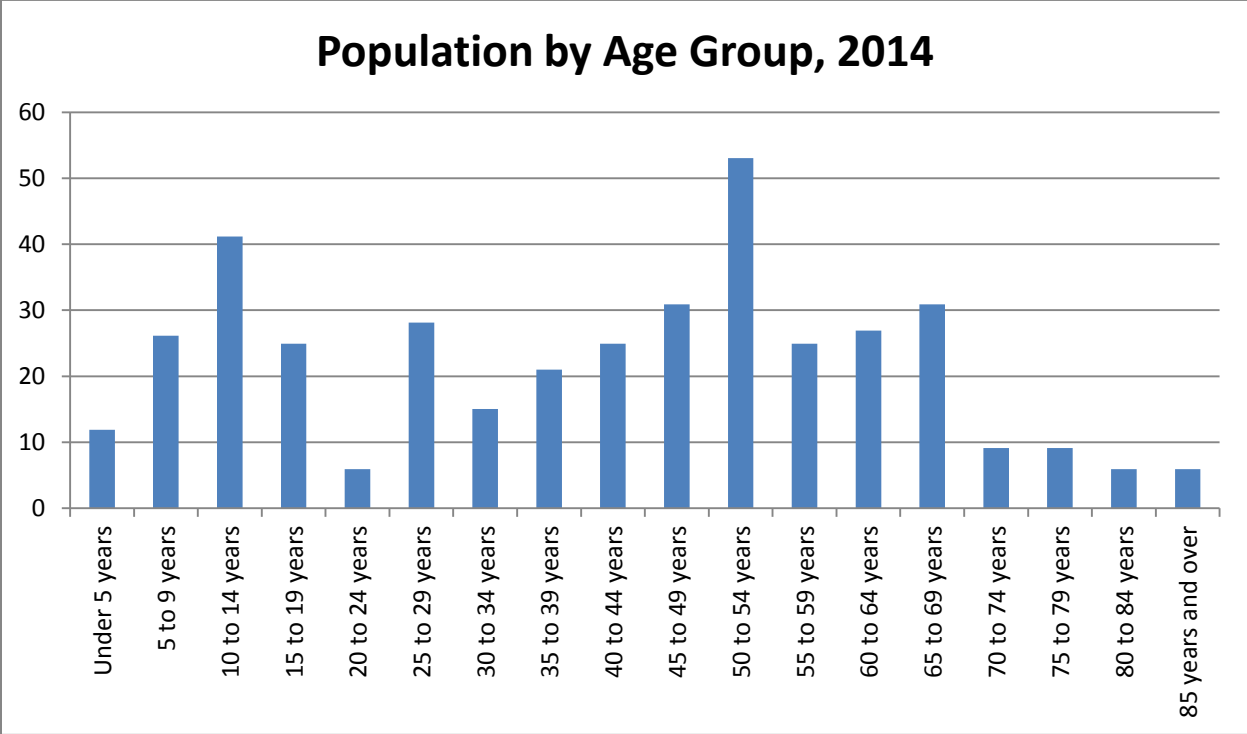
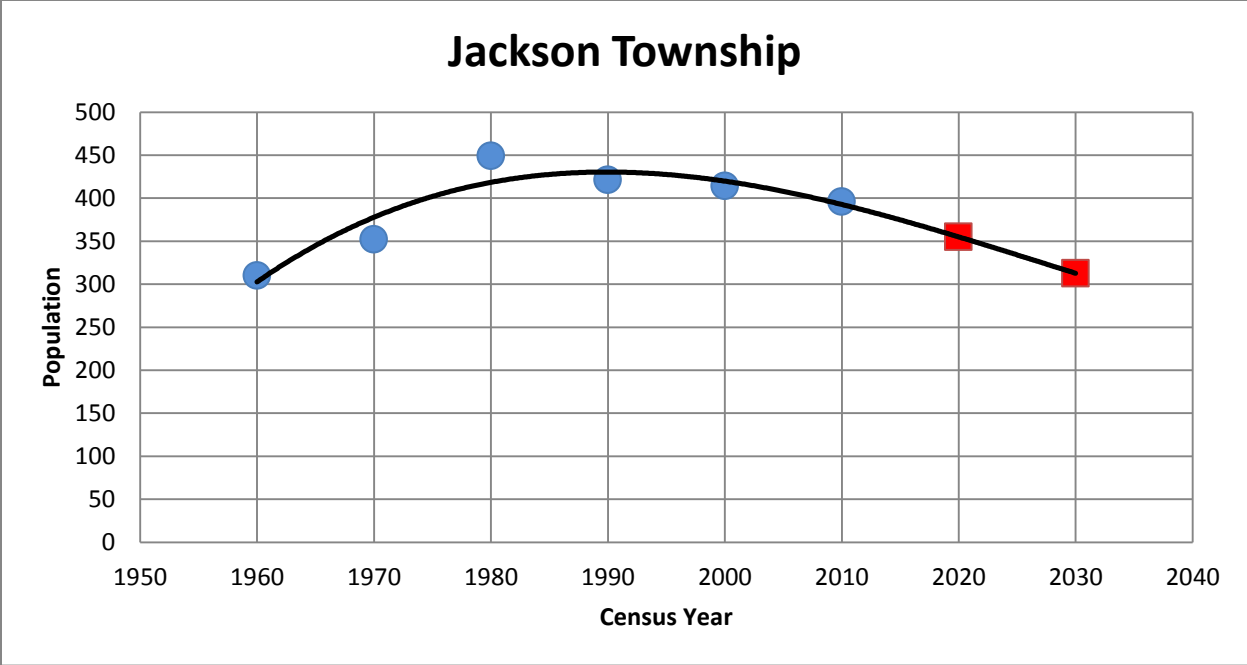


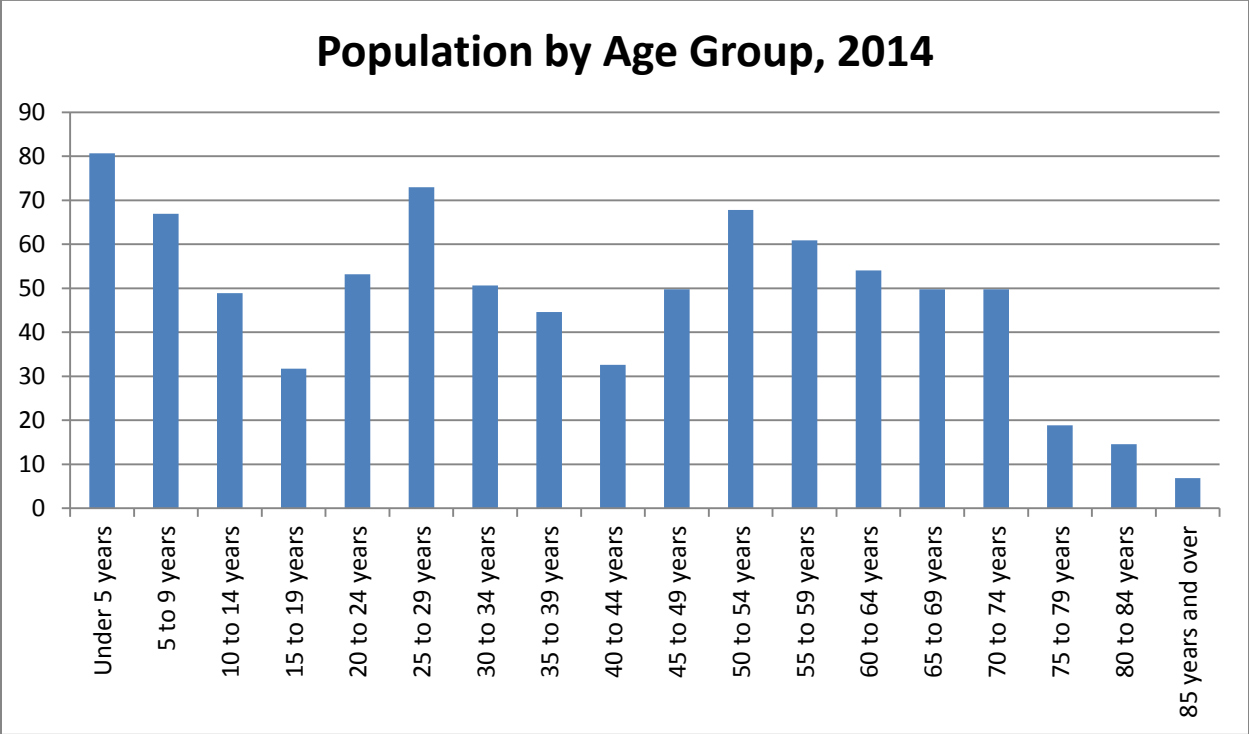
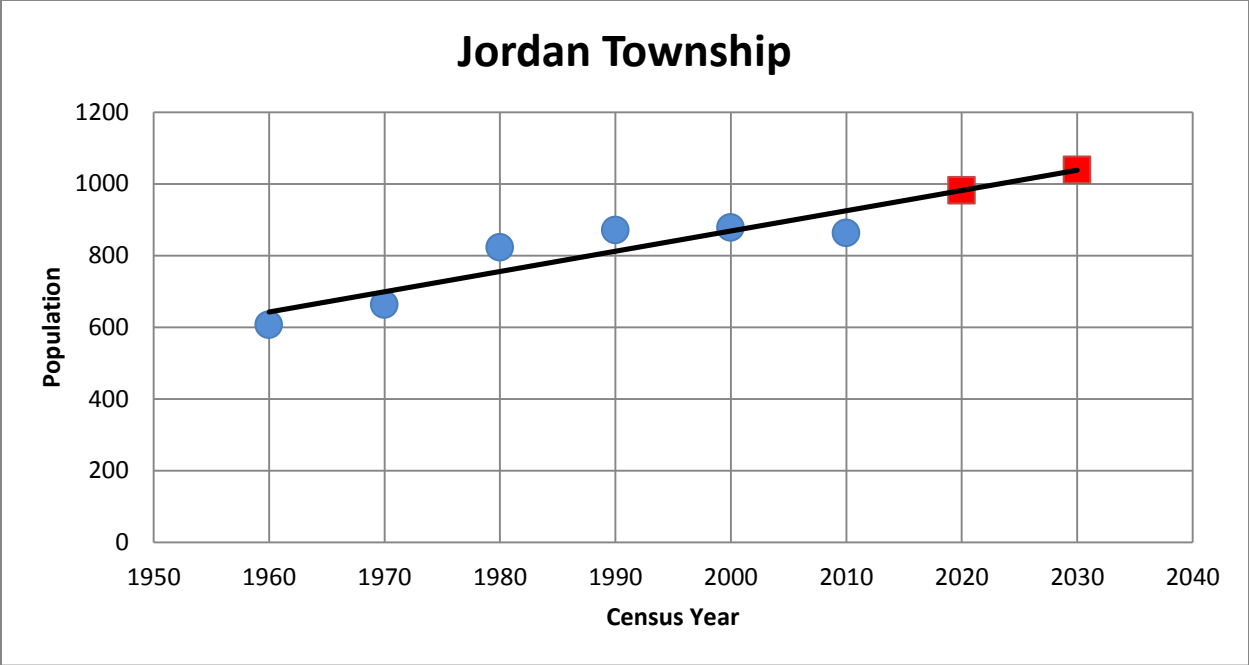


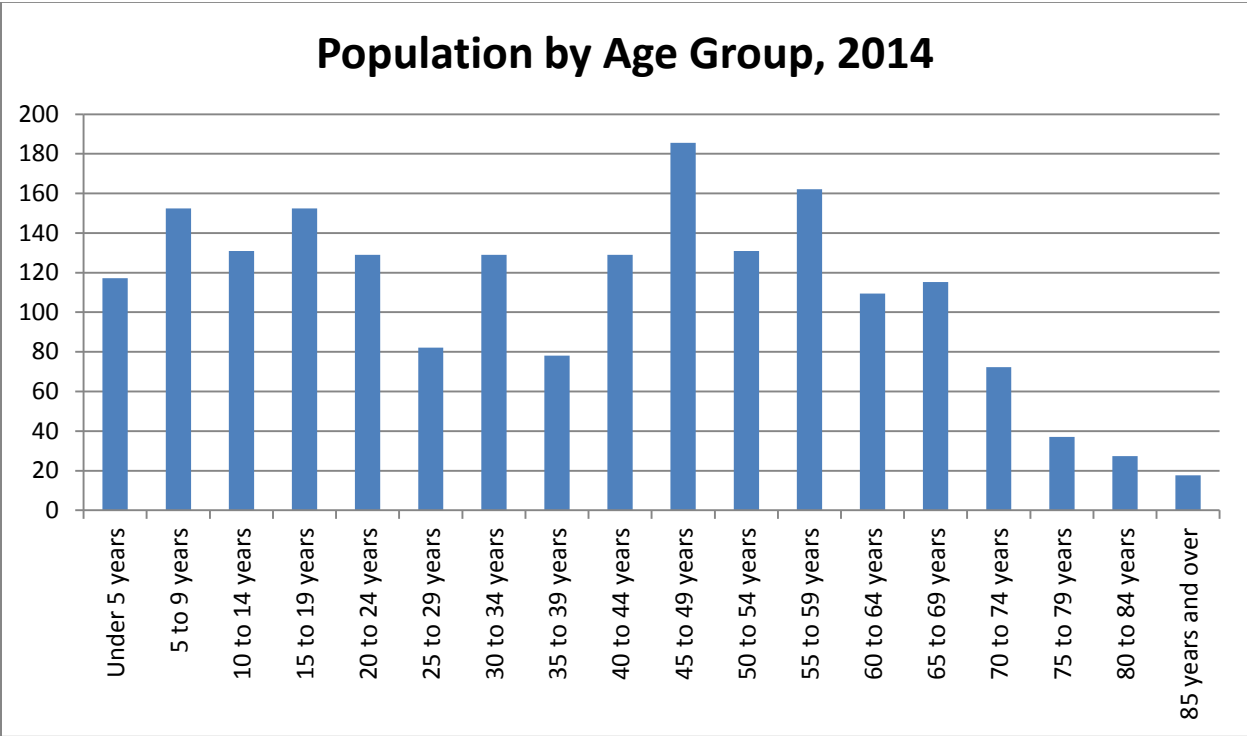
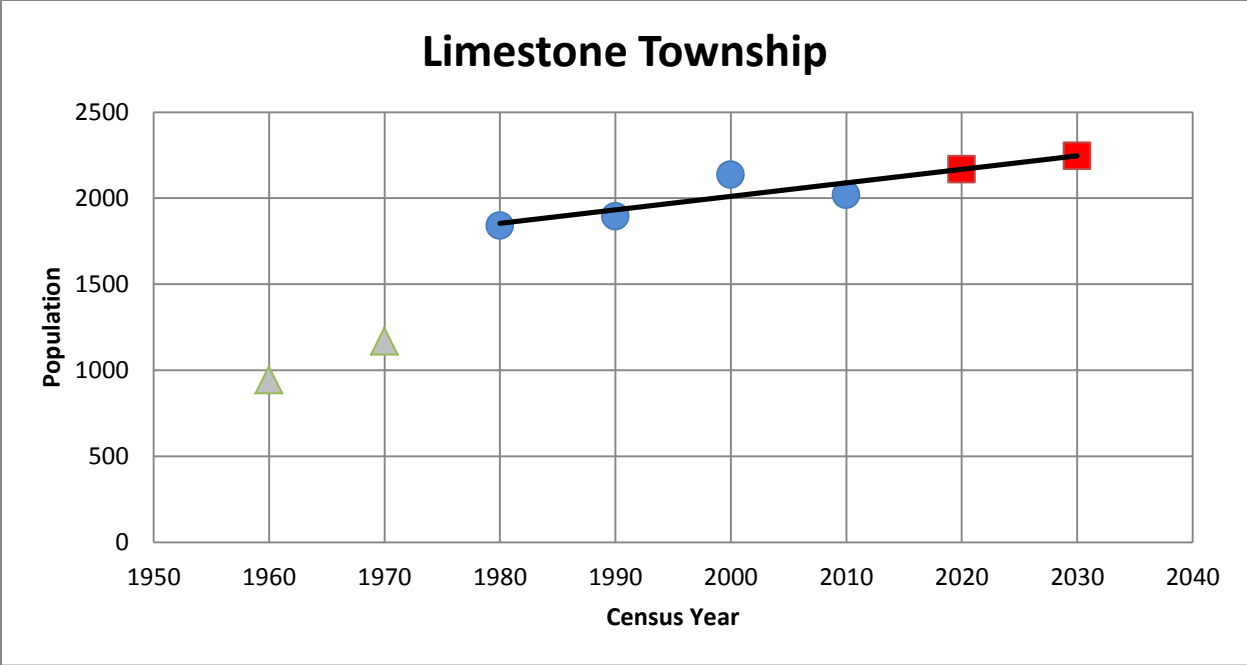


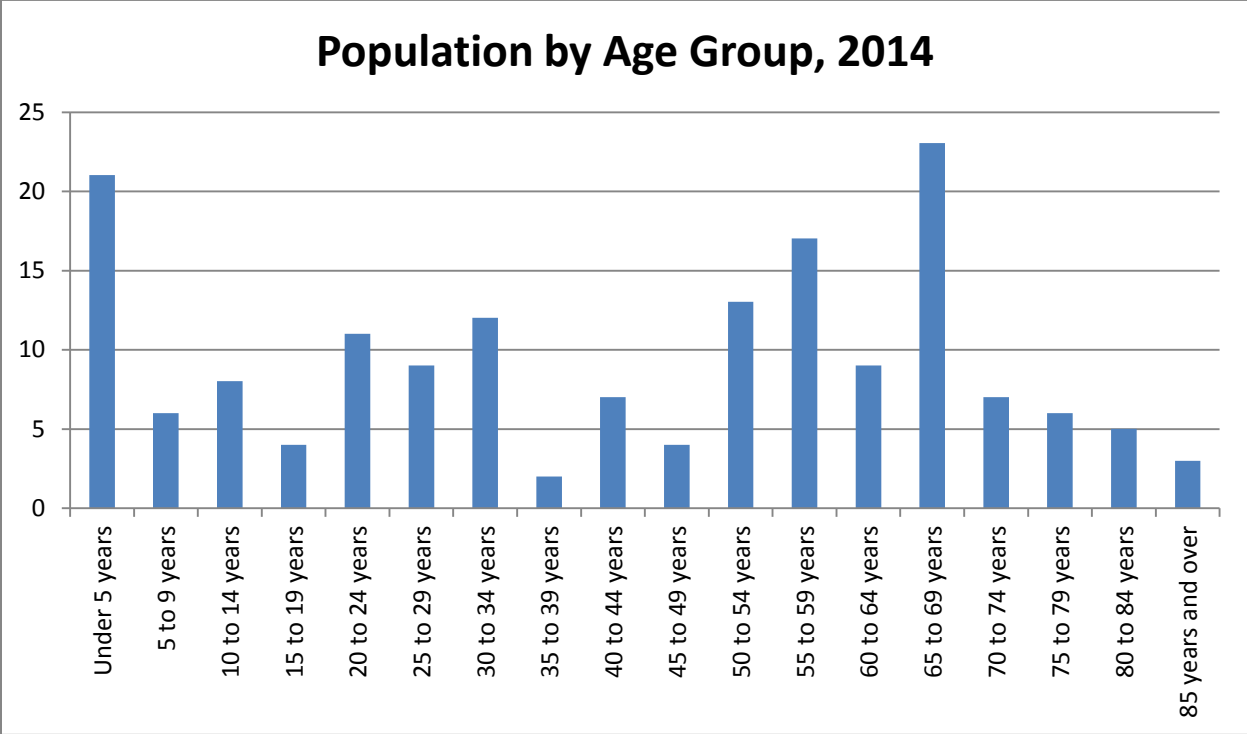
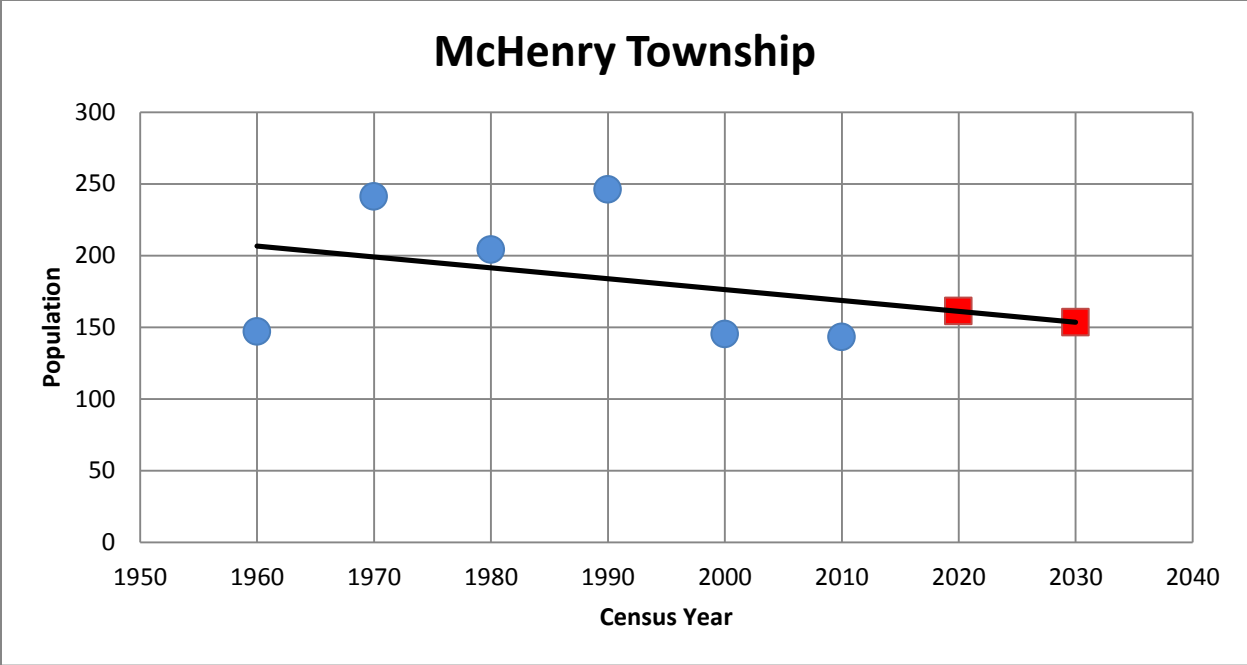


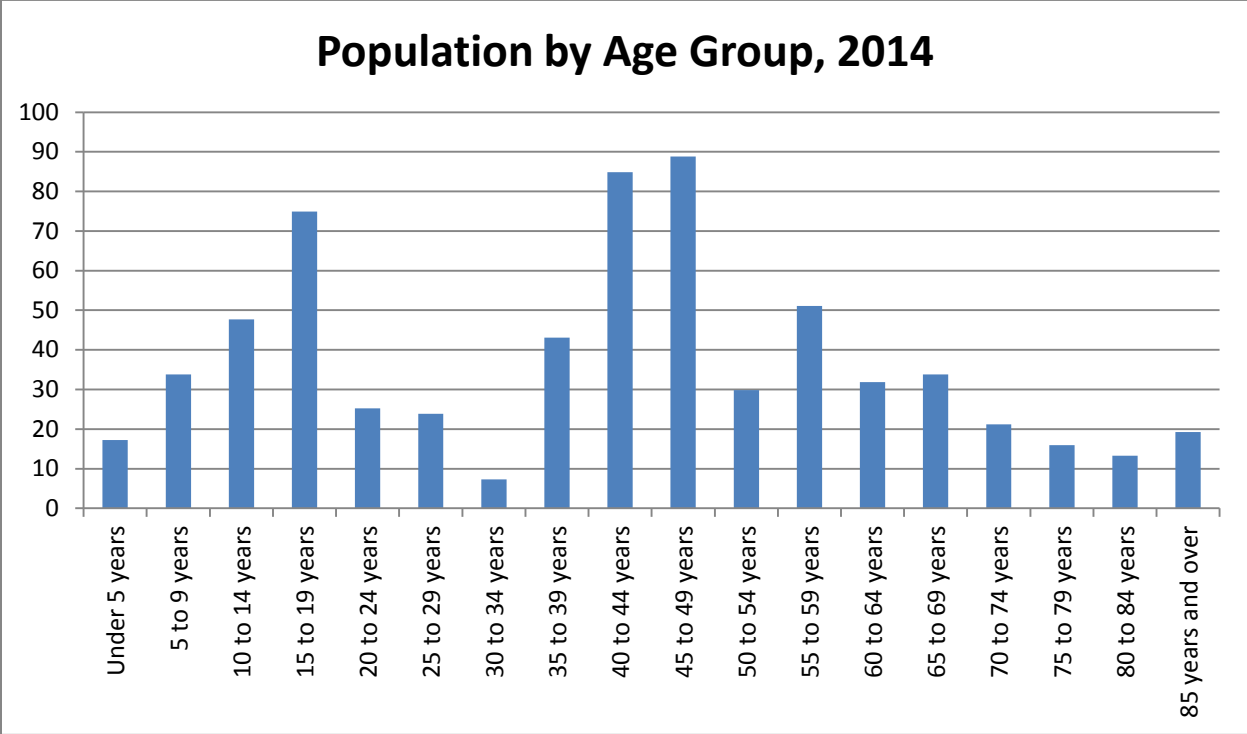
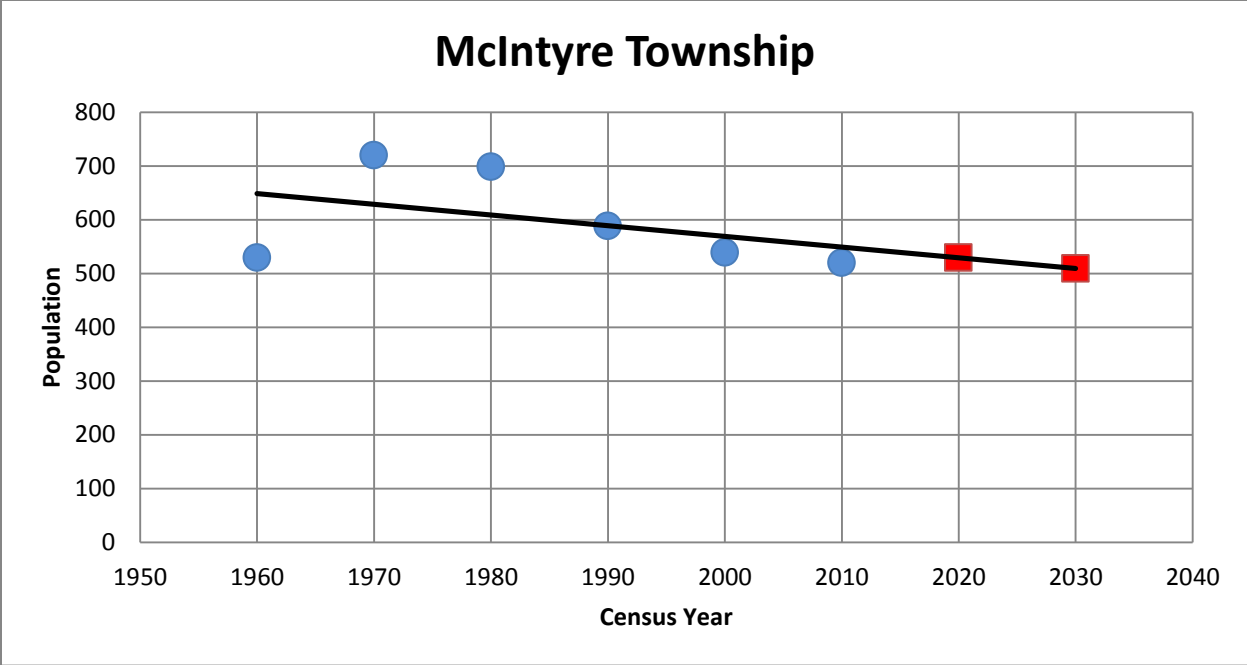


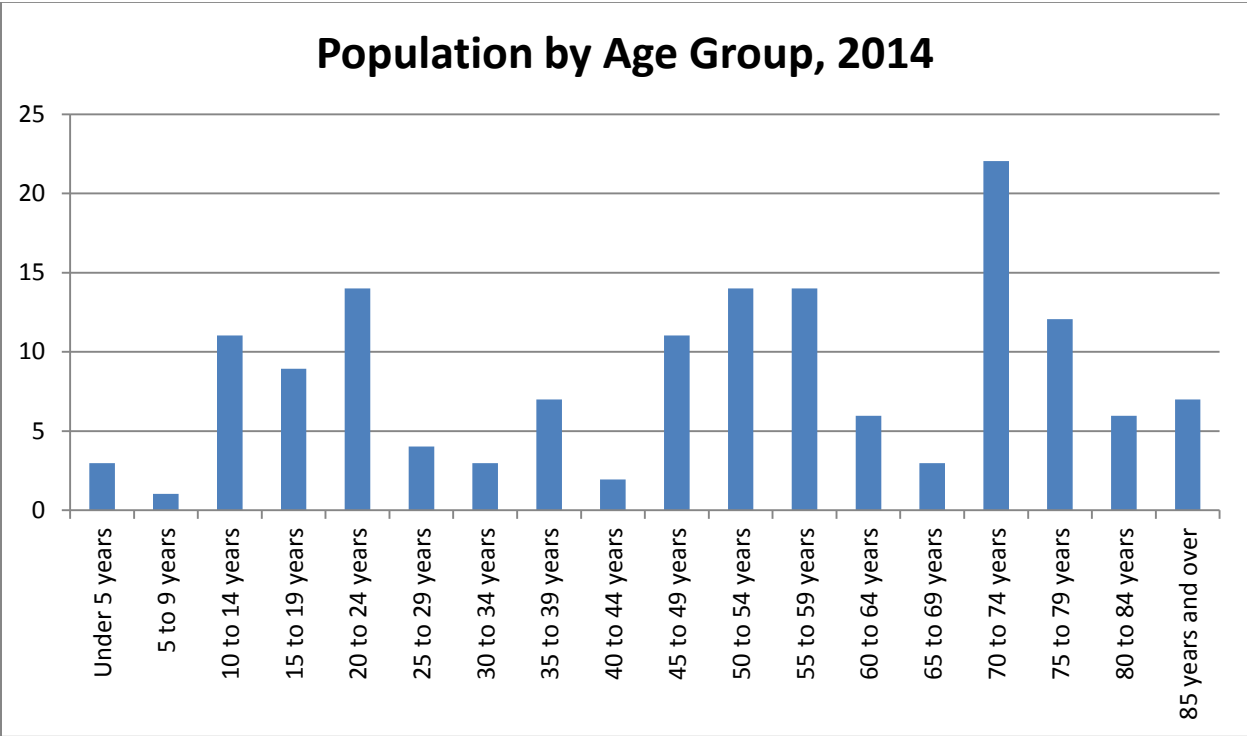
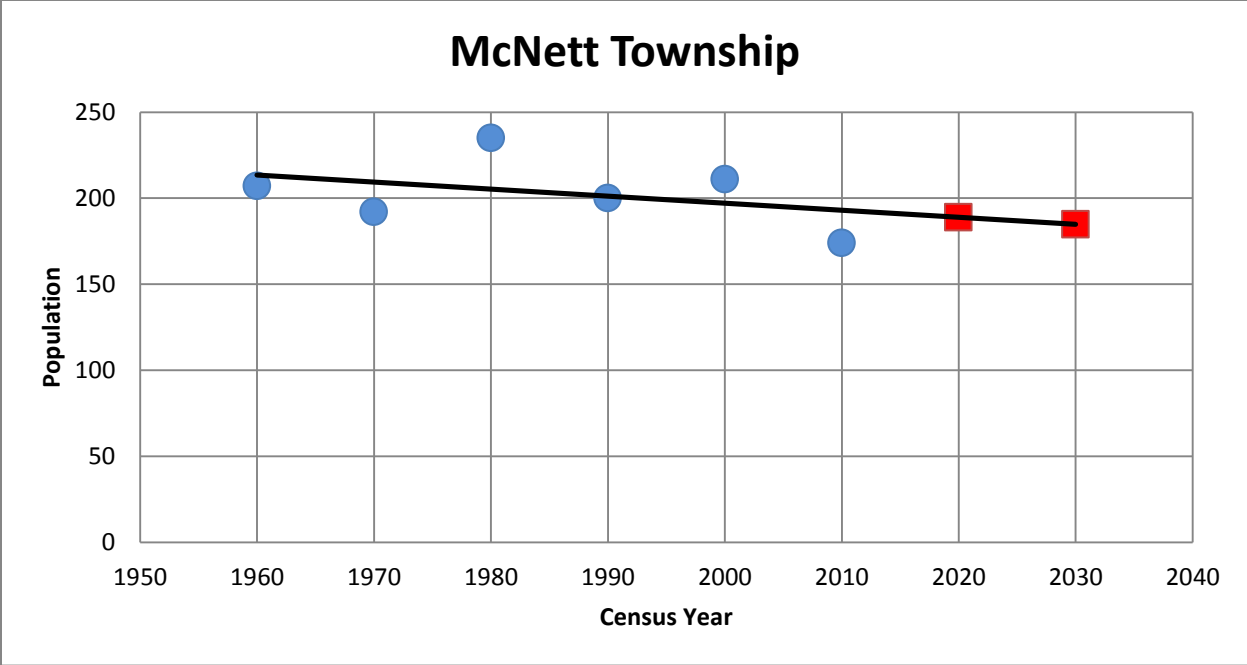


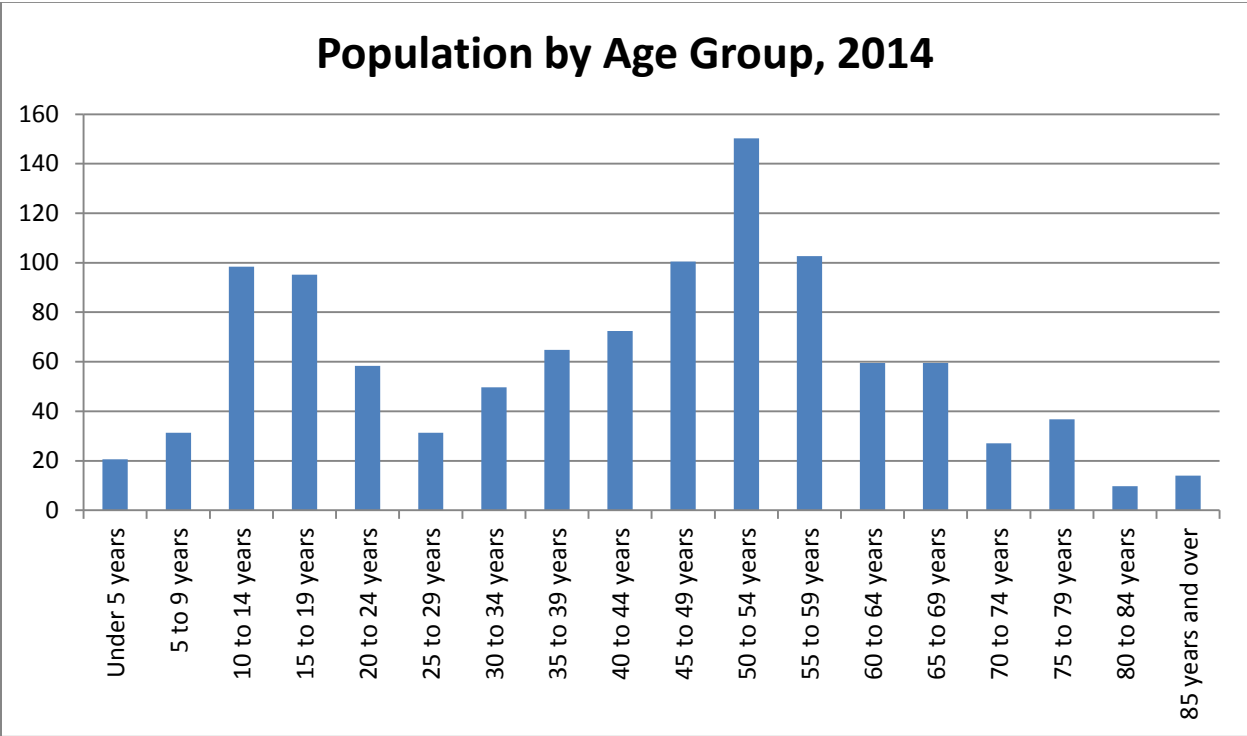
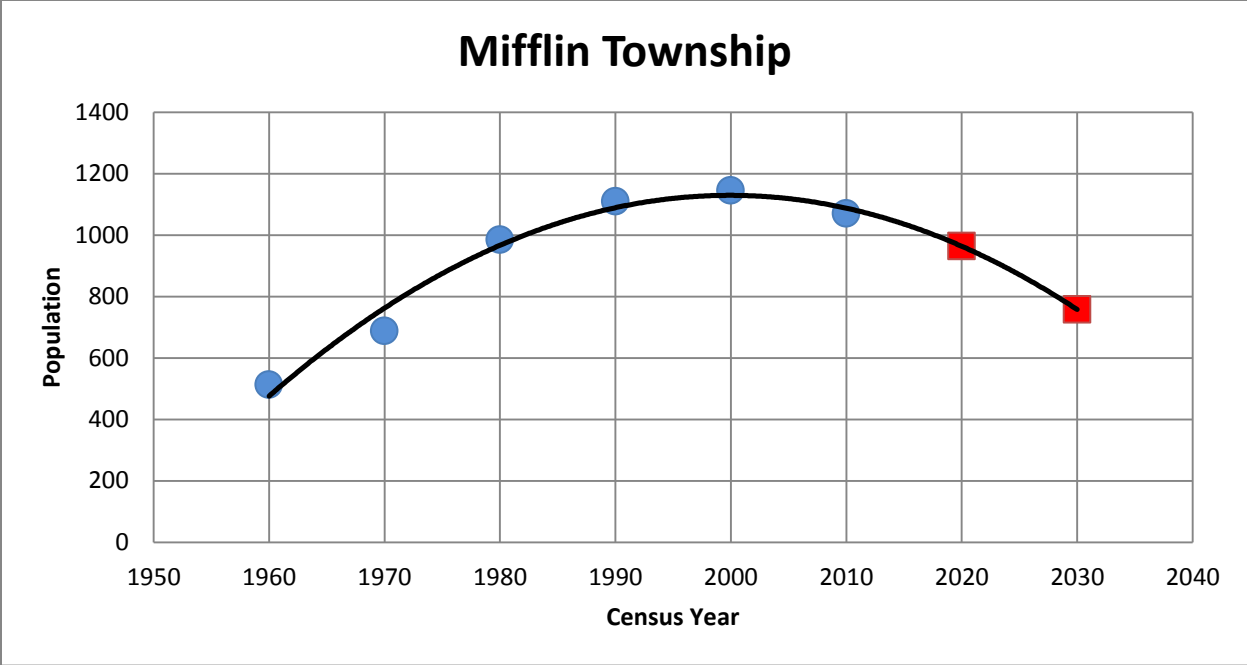




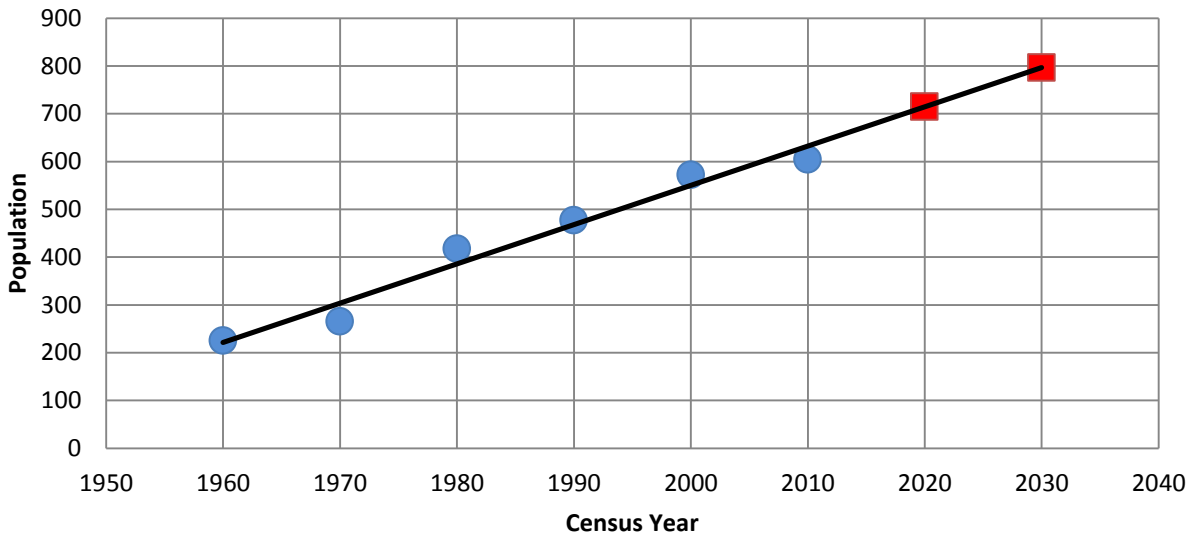




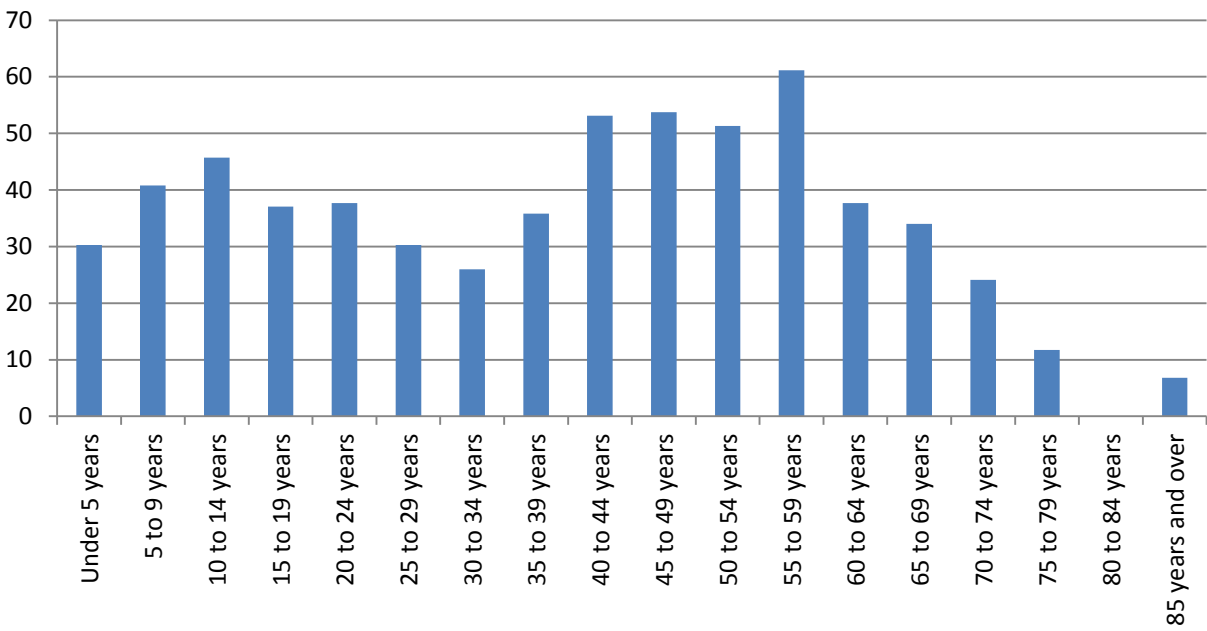


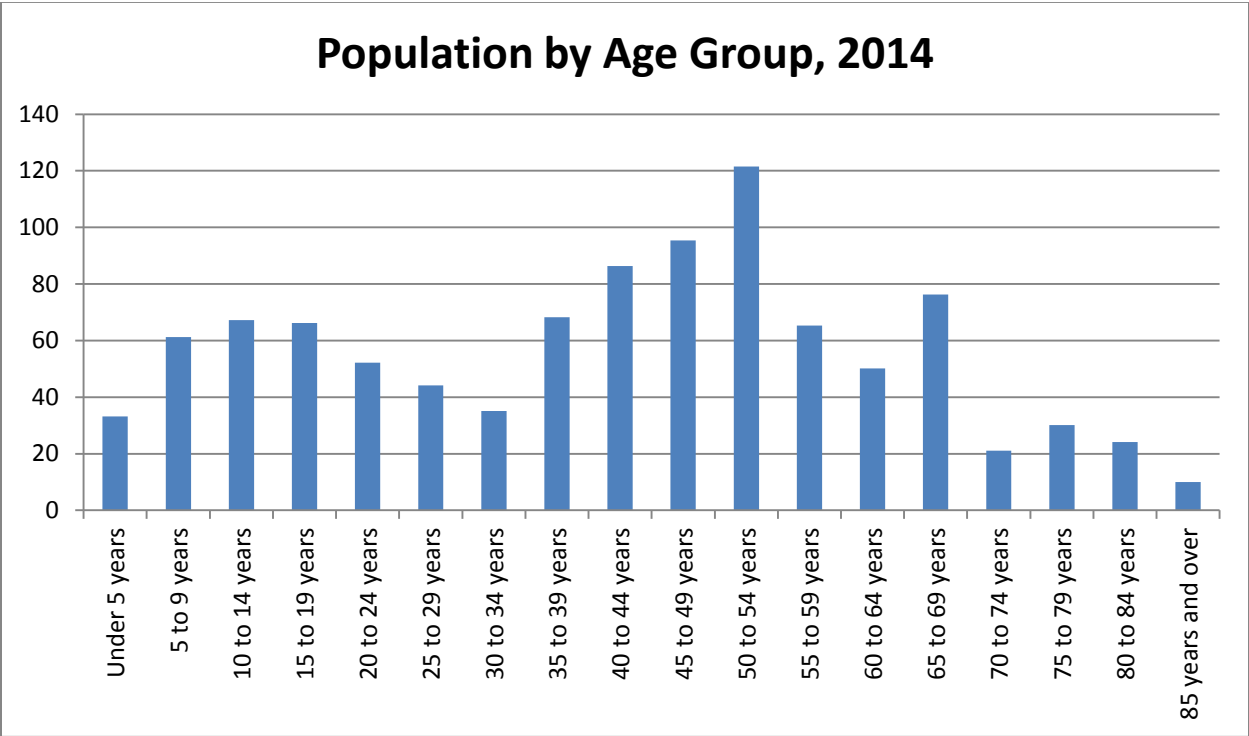
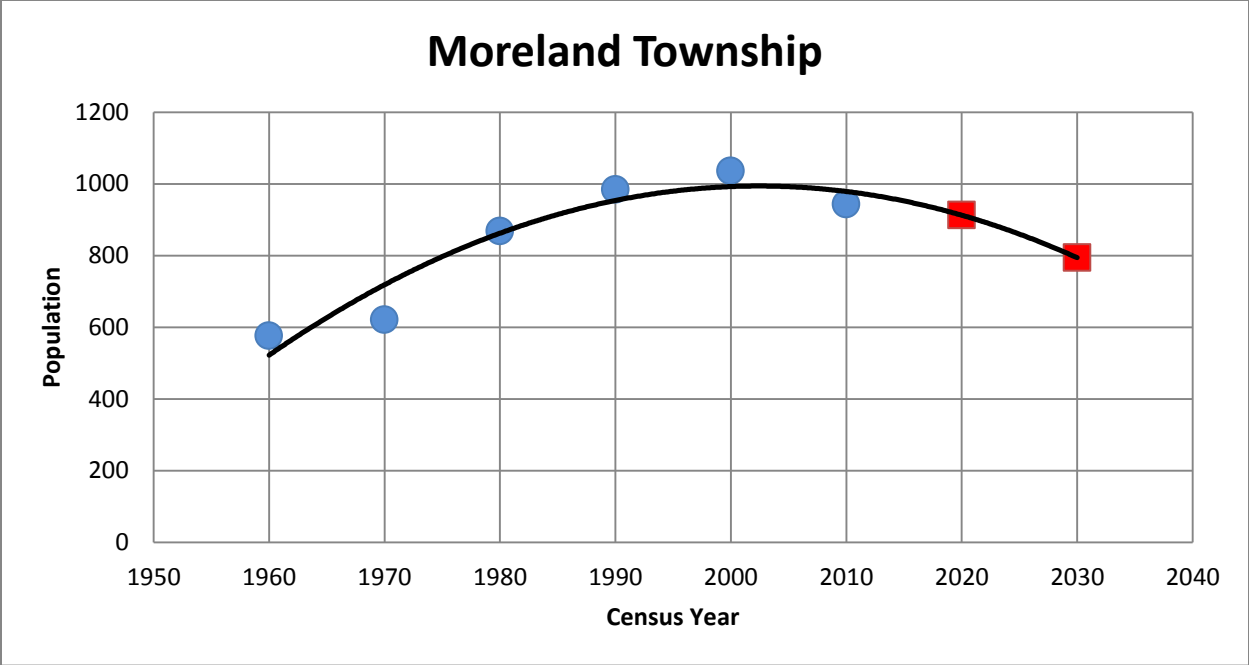


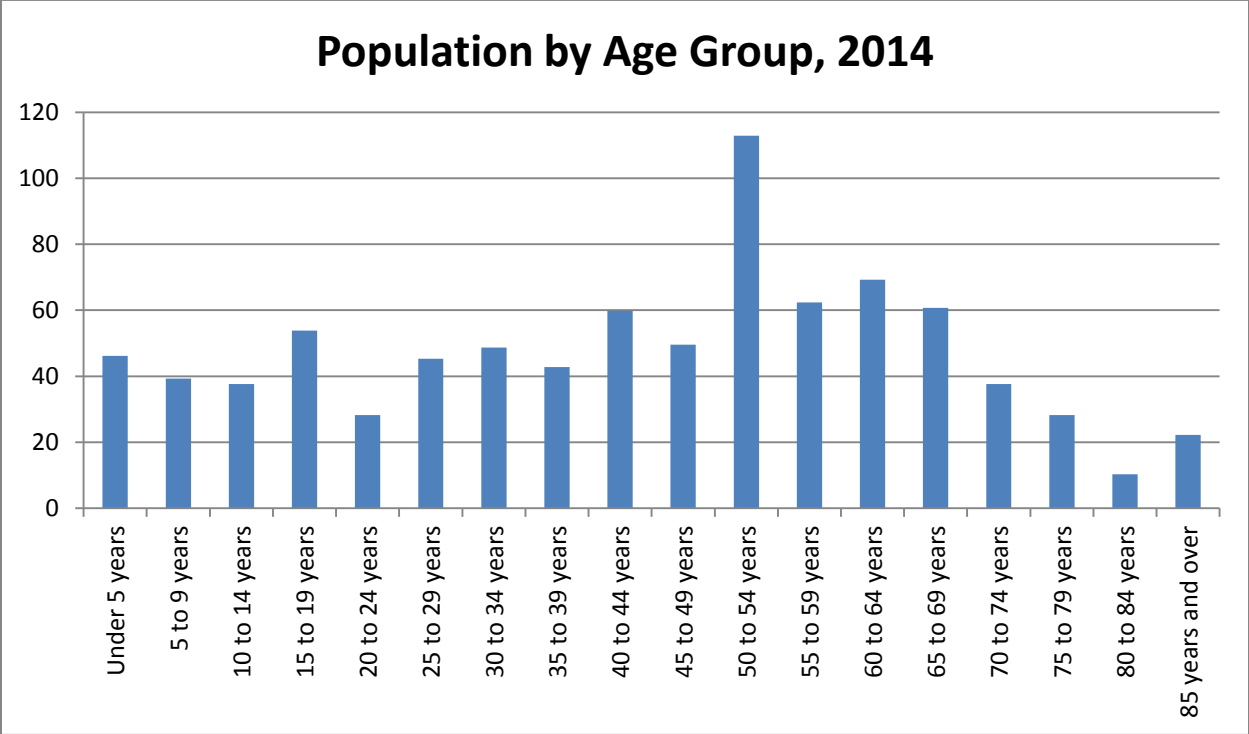
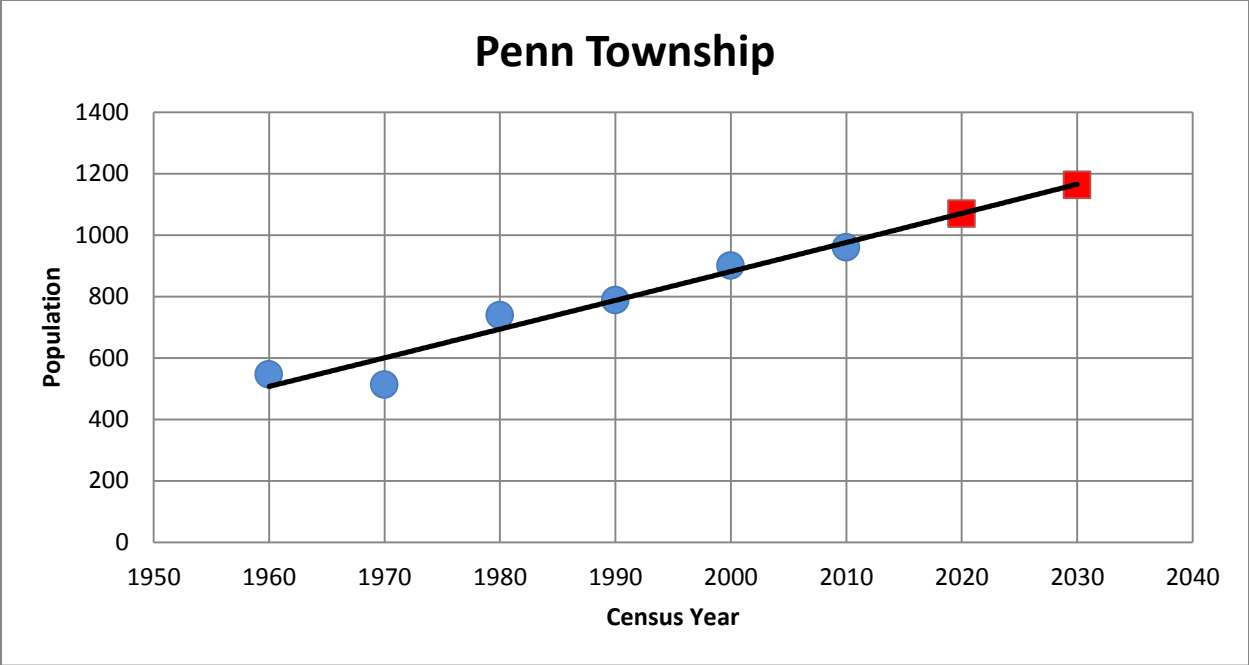
Mill Creek Township

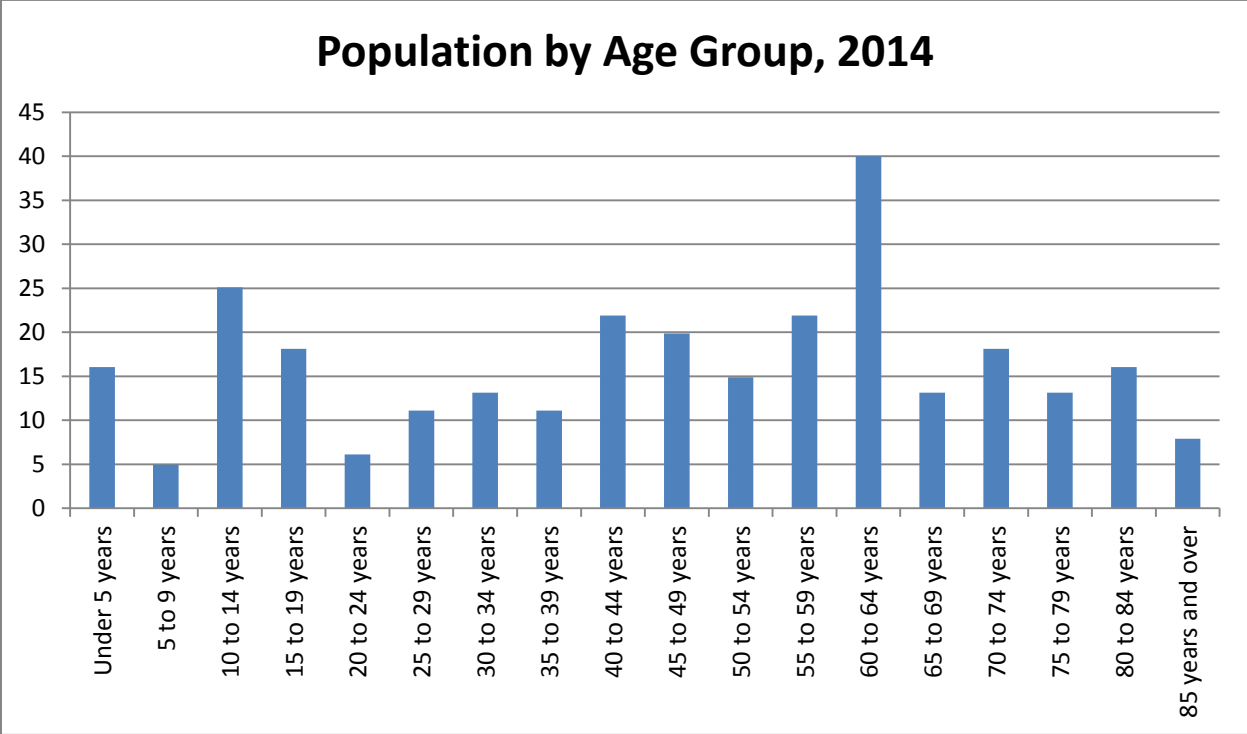
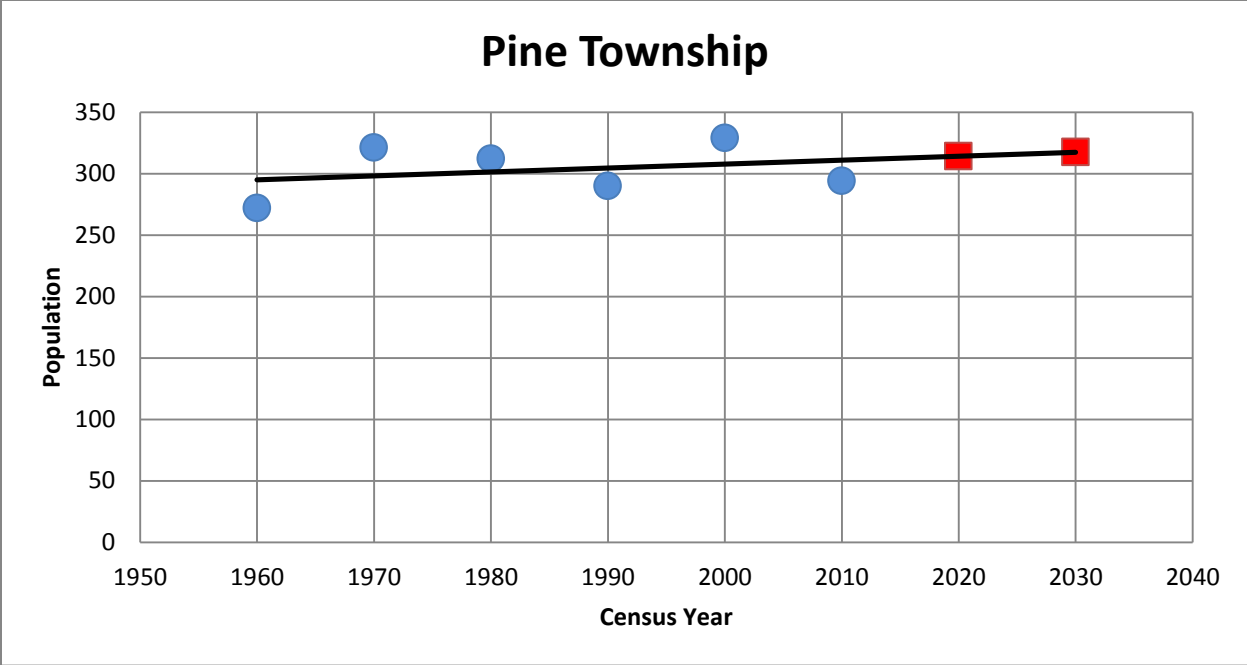


Population by Age Group, 2014

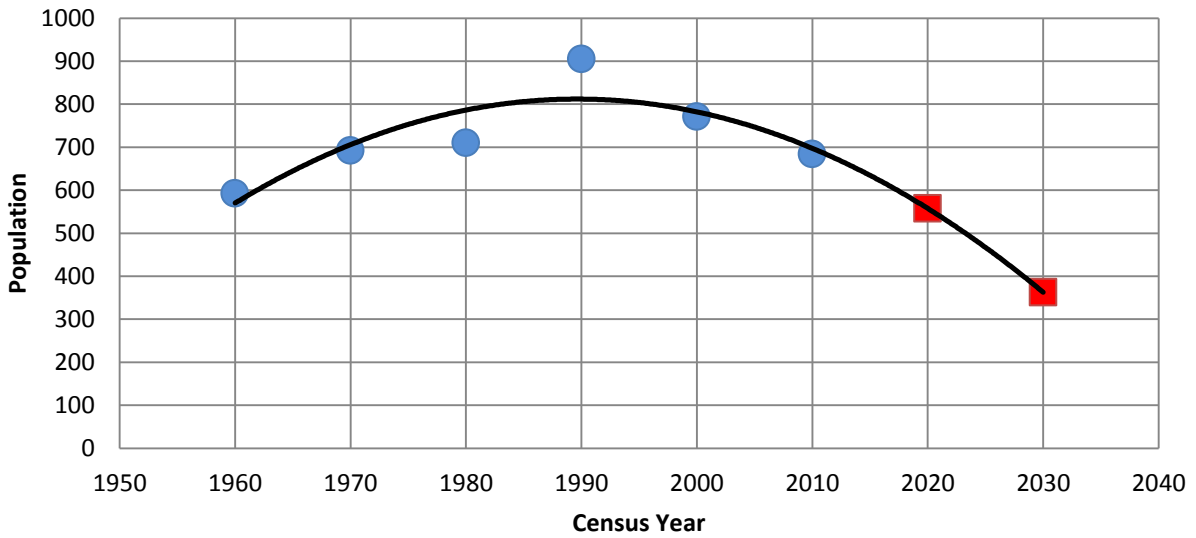




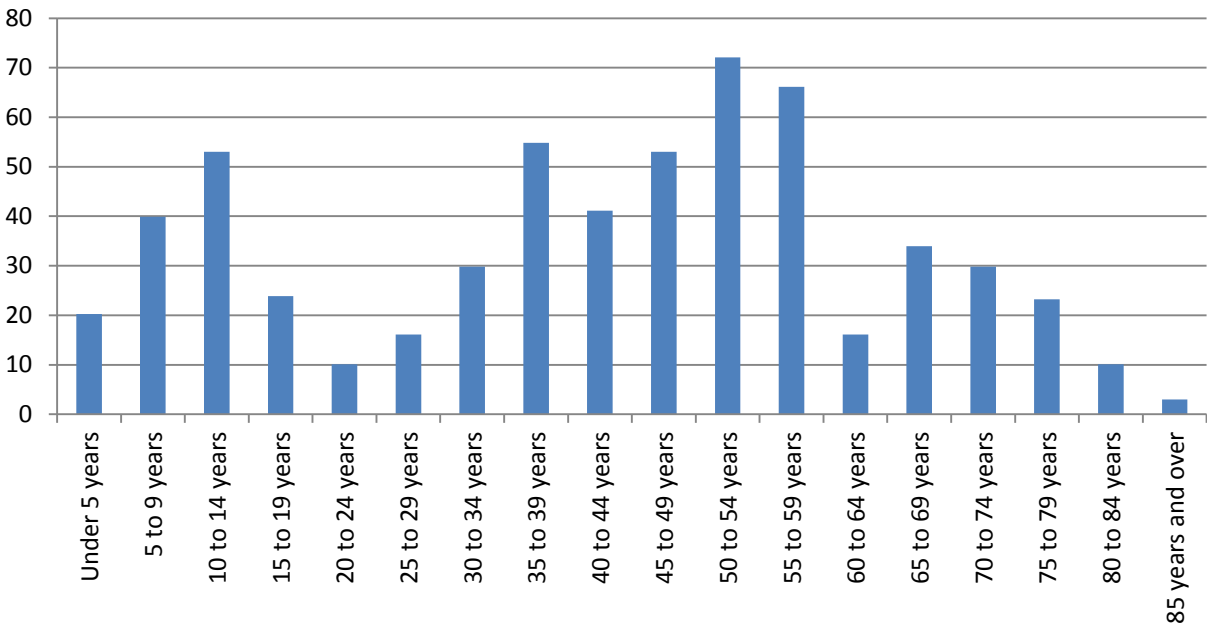


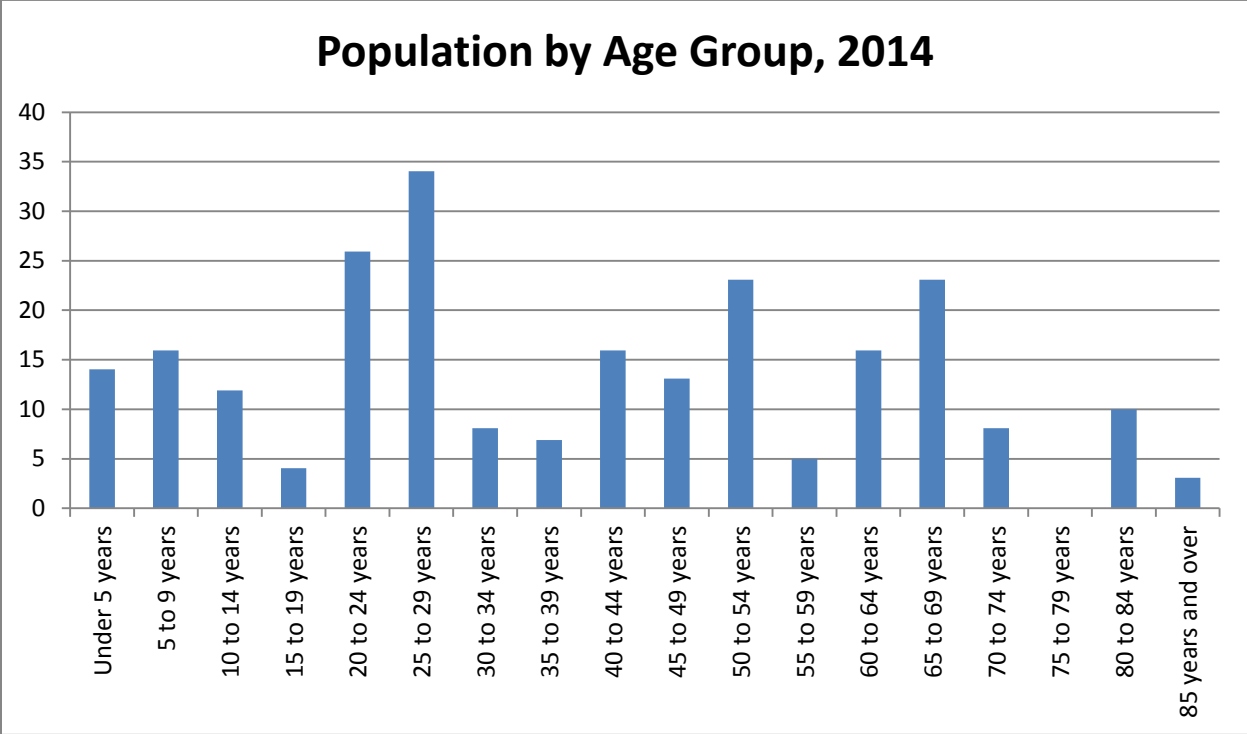
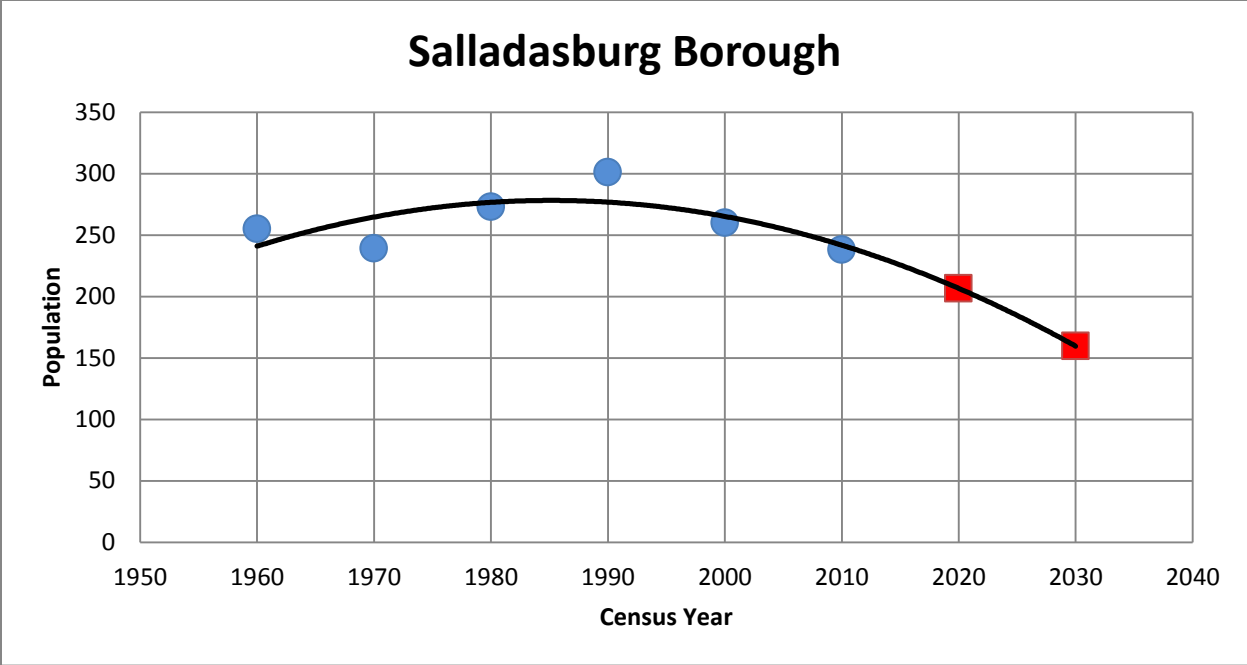


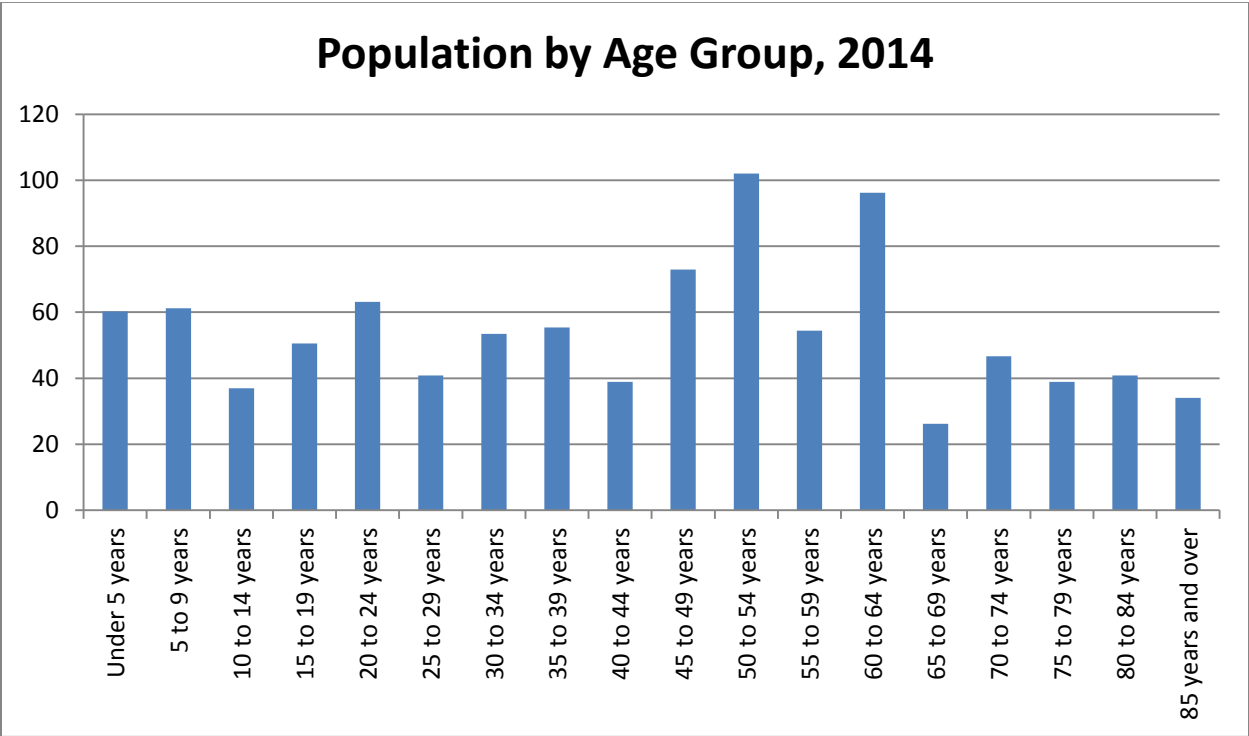
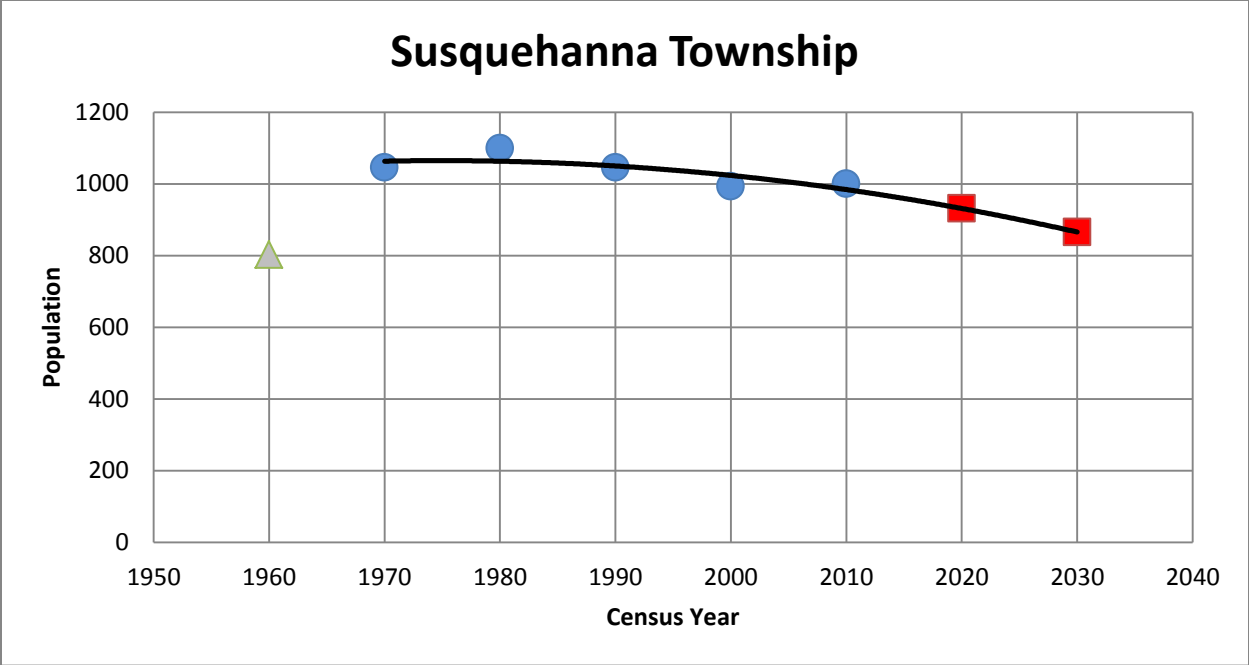
Plunketts Creek Township



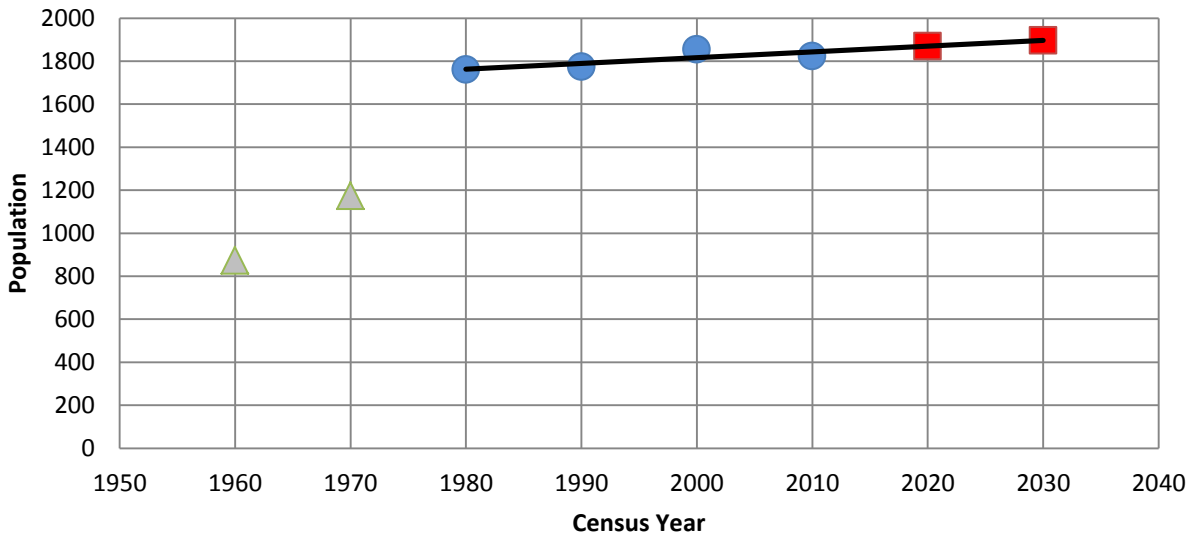
Population by Age Group, 2014



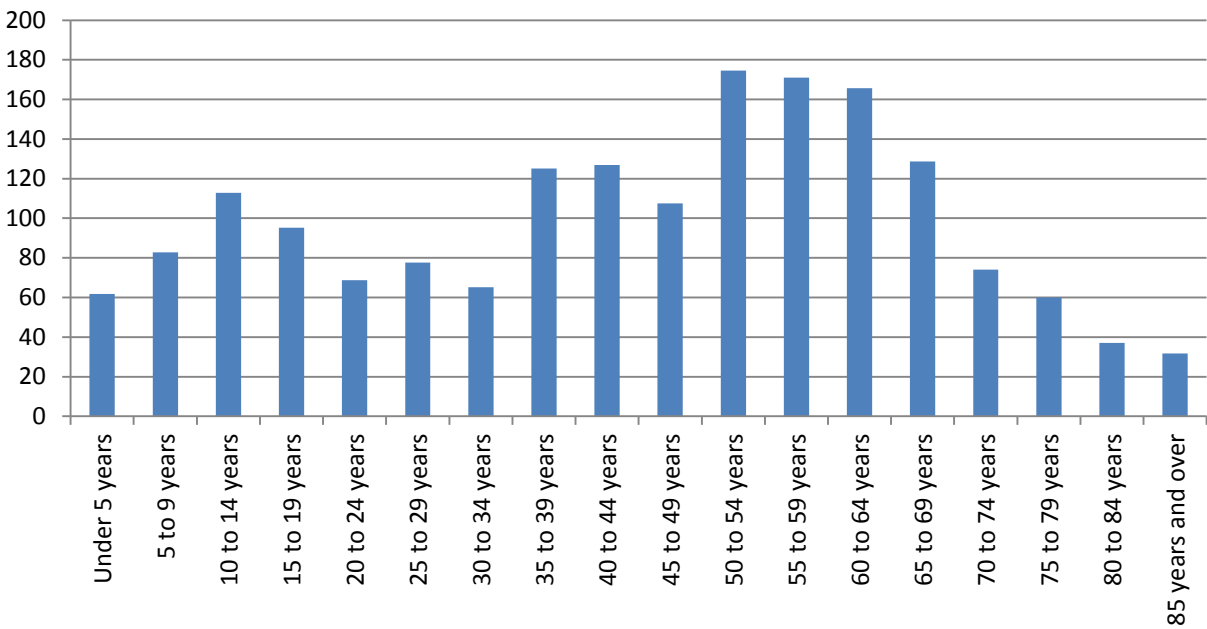


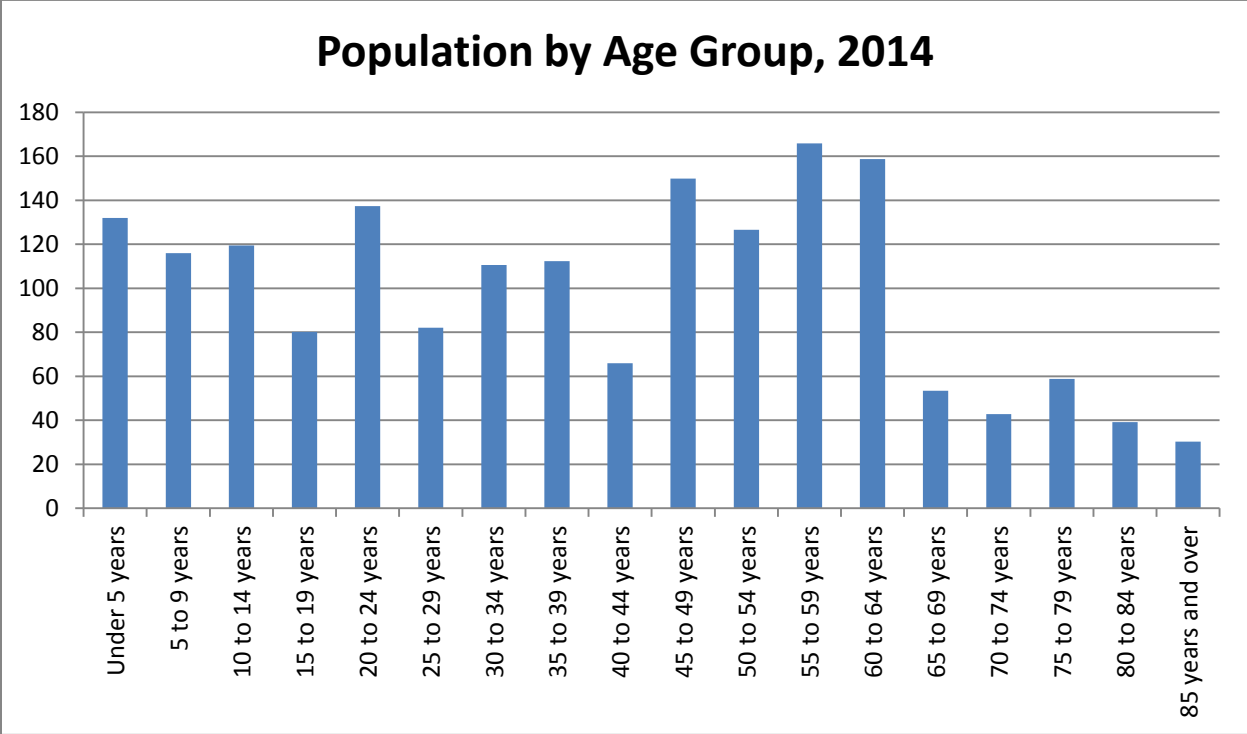
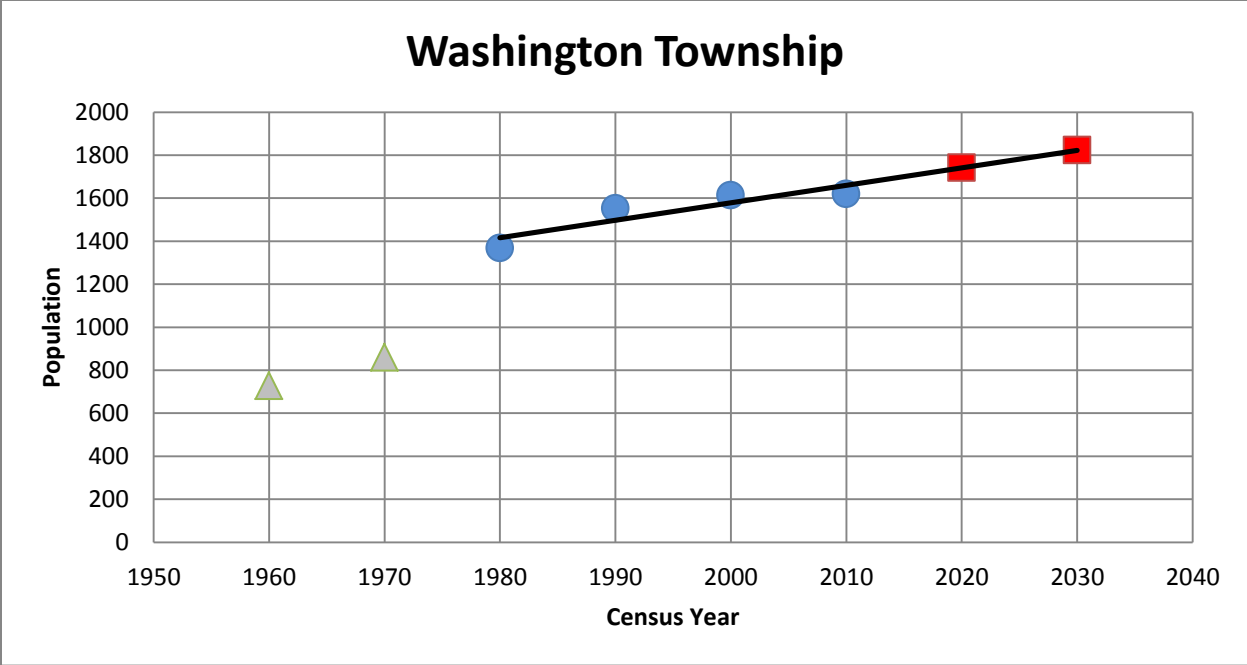


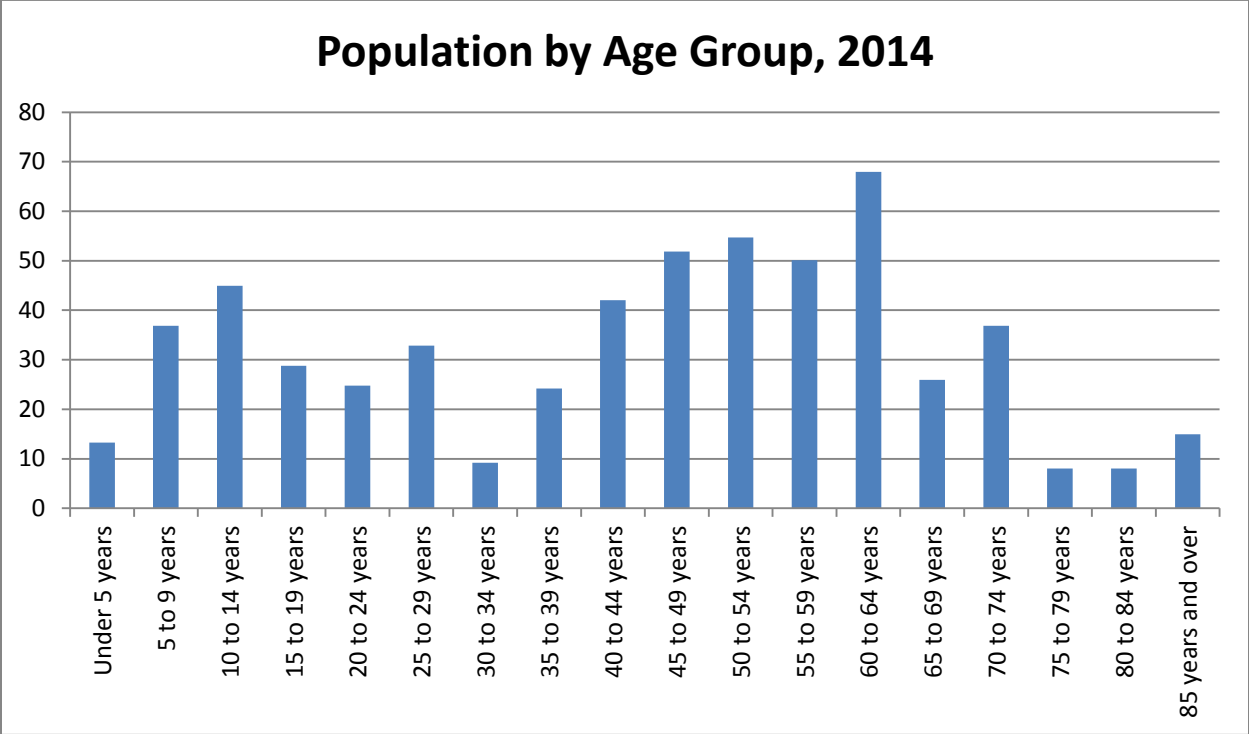
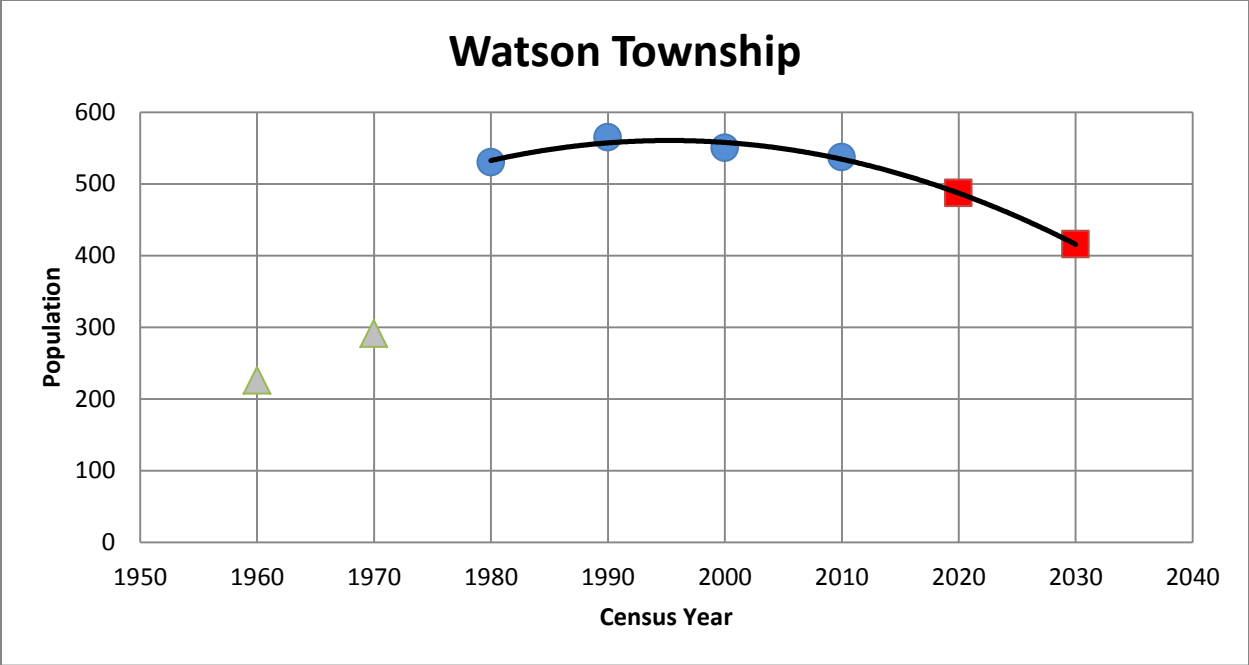
Upper Fairfield Township



Population by Age Group, 2014



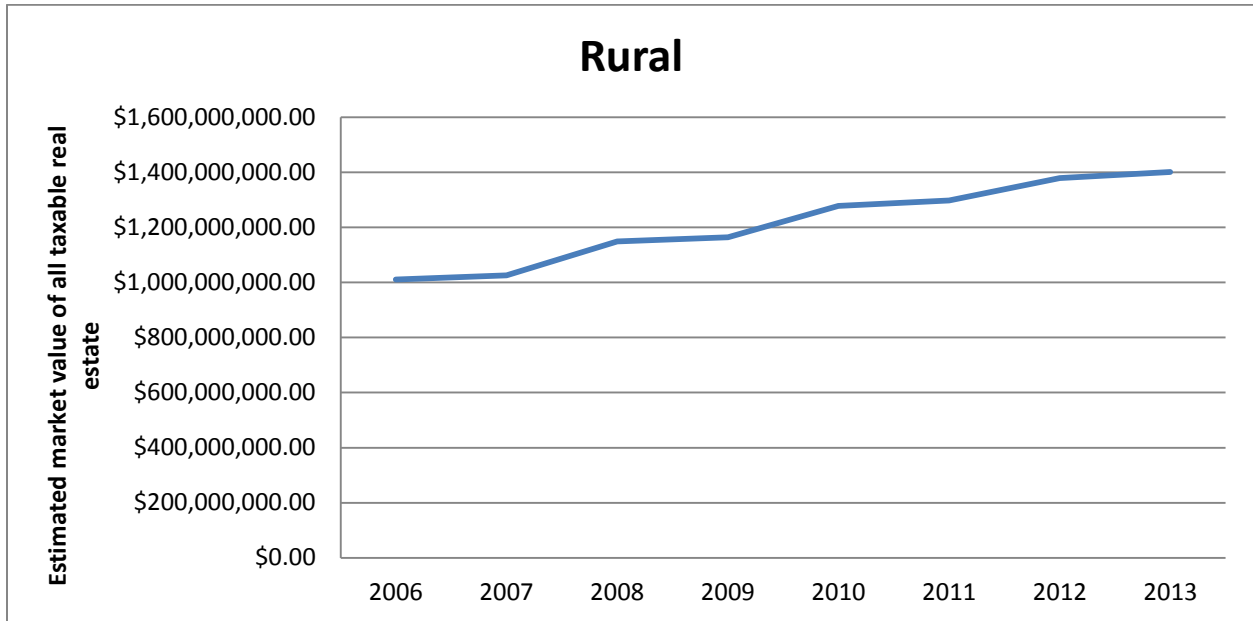




Housing

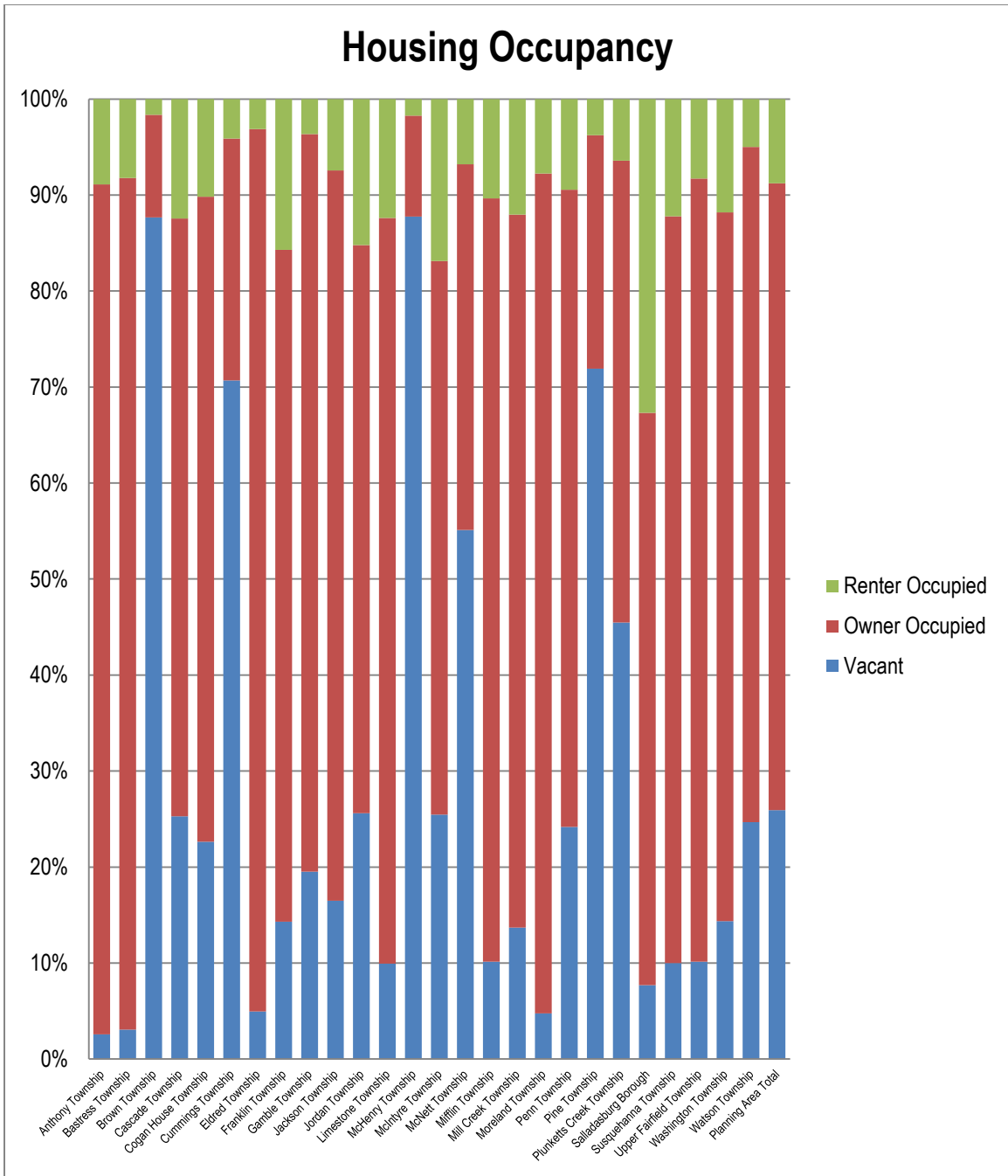
Taxable real estate market value

Data source: State Tax Equalization Board



	2006	2007	2008	2009	2010	2011	2012	2013
Anthony Township	\$38,936,500.00	\$40,776,834.03	\$45,114,206.43	\$45,791,602.64	\$46,322,965.13	\$46,359,320.51	\$45,757,037.88	\$46,484,716.87
Bastress Township	\$24,827,200.00	\$24,882,476.10	\$27,219,447.45	\$28,141,971.18	\$28,363,915.71	\$28,588,179.80	\$29,868,046.27	\$30,130,853.08
Brown Township	\$35,569,900.00	\$35,172,907.11	\$42,796,388.81	\$43,340,180.32	\$48,387,734.43	\$49,304,674.11	\$51,187,677.23	\$51,724,853.70
Cascade Township	\$22,935,500.00	\$22,658,280.93	\$25,348,033.53	\$25,389,918.05	\$27,434,501.84	\$27,718,211.80	\$29,816,721.84	\$30,099,193.30
Cogan House Township	\$45,694,000.00	\$46,493,507.65	\$53,350,092.72	\$53,721,835.69	\$59,836,011.80	\$60,623,394.63	\$64,700,175.00	\$67,197,624.27
Cummings Township	\$32,631,200.00	\$32,756,144.58	\$38,069,890.28	\$38,420,267.00	\$44,009,923.40	\$44,488,940.58	\$46,233,037.79	\$49,424,690.19
Eldred Township	\$90,335,600.00	\$91,243,230.41	\$97,763,659.25	\$98,734,828.48	\$104,322,540.53	\$104,834,489.13	\$109,934,571.67	\$110,553,450.77
Franklin Township	\$39,591,500.00	\$39,789,041.92	\$45,550,158.66	\$45,943,646.54	\$49,909,831.58	\$51,019,255.04	\$48,053,787.34	\$48,647,529.02
Gambie Township	\$45,247,400.00	\$46,023,016.68	\$49,692,495.74	\$50,066,064.59	\$54,180,529.54	\$55,278,388.89	\$62,832,100.29	\$63,742,908.27
Jackson Township	\$19,573,900.00	\$19,501,727.85	\$22,304,466.23	\$22,863,218.09	\$25,711,091.88	\$26,247,253.07	\$28,159,563.93	\$29,062,931.74
Jordan Township	\$33,251,300.00	\$34,129,048.81	\$38,714,696.75	\$39,736,588.46	\$46,384,199.09	\$47,018,849.51	\$51,110,263.16	\$51,213,969.84
Limestone Township	\$76,674,400.00	\$78,009,056.21	\$90,681,366.74	\$91,245,798.41	\$101,573,033.76	\$102,653,281.01	\$112,385,572.20	\$113,847,977.80
McHenry Township	\$29,572,700.00	\$29,592,286.26	\$35,179,370.34	\$35,670,959.06	\$45,089,728.79	\$45,571,480.92	\$50,673,733.67	\$51,068,999.18
McIntyre Township	\$16,504,500.00	\$16,677,456.70	\$19,032,182.26	\$19,223,740.63	\$22,333,733.29	\$22,586,415.97	\$25,977,469.46	\$26,936,332.95
McNett Township	\$10,841,800.00	\$10,867,653.49	\$13,306,028.40	\$13,406,163.06	\$14,920,390.89	\$15,076,354.98	\$13,774,155.30	\$14,053,286.36
Mifflin Township	\$40,923,200.00	\$42,386,104.14	\$45,270,871.44	\$45,629,250.87	\$51,569,057.66	\$52,185,763.51	\$57,711,611.79	\$57,516,889.51
Mill Creek Township	\$27,012,200.00	\$27,811,003.10	\$30,289,848.73	\$31,092,482.87	\$33,895,683.64	\$34,697,983.21	\$40,188,147.68	\$40,767,307.29
Moreland Township	\$47,097,500.00	\$47,775,994.56	\$52,740,410.27	\$53,729,731.76	\$58,781,978.33	\$60,252,484.94	\$67,293,930.54	\$67,962,616.27
Penn Township	\$40,521,300.00	\$41,190,832.29	\$47,254,640.61	\$47,983,864.92	\$53,701,531.78	\$56,324,280.96	\$60,503,622.57	\$61,671,307.58
Pine Township	\$28,838,100.00	\$28,779,972.88	\$29,865,029.64	\$29,685,860.16	\$30,559,191.99	\$30,658,190.13	\$32,294,074.42	\$33,350,195.31
Plunketts Creek Township	\$43,786,700.00	\$44,167,243.14	\$49,799,622.54	\$50,552,048.56	\$55,060,668.00	\$55,536,757.18	\$58,139,577.09	\$58,387,048.56
Salladasburg Borough	\$7,675,100.00	\$7,773,806.47	\$8,145,699.84	\$8,226,409.20	\$8,601,906.14	\$8,603,854.23	\$8,734,321.99	\$8,776,288.25
Susquehanna Township	\$37,856,400.00	\$38,239,196.32	\$41,774,865.05	\$41,997,250.02	\$45,295,611.51	\$45,433,532.83	\$47,634,040.29	\$47,878,149.49
Upper Fairfield Township	\$79,865,500.00	\$80,084,429.17	\$88,016,403.19	\$89,268,542.00	\$92,762,788.50	\$93,590,167.40	\$93,714,302.29	\$94,289,452.76
Washington Township	\$64,223,300.00	\$66,989,201.62	\$77,211,679.87	\$79,062,309.66	\$90,242,576.67	\$92,712,397.42	\$99,375,604.84	\$101,887,163.63
Watson Township	\$30,129,400.00	\$31,911,799.08	\$34,812,451.94	\$35,133,844.02	\$39,116,388.49	\$40,271,170.52	\$43,329,719.72	\$43,978,027.52
PLANNING AREA TOTAL	\$1,010,116,100.00	\$1,025,682,251.30	\$1,149,303,006.71	\$1,164,058,376.24	\$1,278,367,514.37	\$1,297,635,072.28	\$1,379,382,866.25	\$1,400,653,769.51

	Percent change, 2006-2013	Dollar change, 2006-2013
Anthony Township	19%	\$7,548,216.87
Bastress Township	21%	\$5,303,653.08
Brown Township	45%	\$16,154,953.70
Cascade Township	31%	\$7,163,693.30
Cogan House Township	47%	\$21,503,624.27
Cummings Township	51%	\$16,793,490.19
Eldred Township	22%	\$20,217,850.77
Franklin Township	23%	\$9,056,029.02
Gamble Township	41%	\$18,495,508.27
Jackson Township	48%	\$9,489,031.74
Jordan Township	54%	\$17,962,669.84
Limestone Township	48%	\$37,173,577.80
McHenry Township	73%	\$21,496,299.18
McIntyre Township	63%	\$10,431,832.95
McNett Township	30%	\$3,211,486.36
Mifflin Township	41%	\$16,593,689.51
Mill Creek Township	51%	\$13,755,107.29
Moreland Township	44%	\$20,865,116.27
Penn Township	52%	\$21,150,007.58
Pine Township	16%	\$4,512,095.31
Plunketts Creek Township	33%	\$14,600,348.56
Salladasburg Borough	14%	\$1,101,188.25
Susquehanna Township	26%	\$10,021,749.49
Upper Fairfield Township	18%	\$14,423,952.76
Washington Township	59%	\$37,663,869.63
Watson Township	46%	\$13,848,627.52
PLANNING AREA TOTAL	39%	\$390,537,669.51



Note: "Vacant" housing units include the following

- For rent
- Rented but not yet occupied
- For sale
- Sold but not yet occupied
- Seasonal, recreational or occasional use

	Median Household Income	Median Annual Housing Costs for Homeowner with Mortgage, 2014	Annual Housing Costs for Homeowner with Mortgage as Percentage of Median Family Income	Median Annual Housing Rental Costs, 2014	Annual Housing Rental Costs as Percentage of Median Family Income
TOWNSHIP OF ANTHONY	\$69,792.00	\$14,520.00	20.8%	\$5,952.00	8.5%
TOWNSHIP OF BASTRESS	\$53,875.00	\$14,640.00	27.2%		
TOWNSHIP OF BROWN	\$49,063.00	\$16,872.00	34.4%		
TOWNSHIP OF CASCADE	\$43,409.00	\$14,808.00	34.1%	\$8,904.00	20.5%
TOWNSHIP OF COGAN HOUSE	\$51,071.00	\$14,928.00	29.2%	\$9,300.00	18.2%
TOWNSHIP OF CUMMINGS	\$42,321.00	\$16,416.00	38.8%	\$8,100.00	19.1%
TOWNSHIP OF ELDRED	\$55,724.00	\$17,172.00	30.8%	\$5,352.00	9.6%
TOWNSHIP OF FRANKLIN	\$45,469.00	\$13,464.00	29.6%	\$7,824.00	17.2%
TOWNSHIP OF GAMBLE	\$57,083.00	\$16,404.00	28.7%	\$8,856.00	15.5%
TOWNSHIP OF JACKSON	\$48,750.00	\$15,264.00	31.3%	\$15,000.00	30.8%
TOWNSHIP OF JORDAN	\$49,375.00	\$14,784.00	29.9%	\$7,716.00	15.6%
TOWNSHIP OF LIMESTONE	\$64,531.00	\$17,148.00	26.6%	\$9,600.00	14.9%
TOWNSHIP OF MCHENRY	\$38,750.00	\$13,752.00	35.5%		
TOWNSHIP OF MCINTYRE	\$42,321.00	\$13,896.00	32.8%	\$11,016.00	26.0%
TOWNSHIP OF MCNETT	\$45,000.00	\$14,496.00	32.2%	\$7,500.00	16.7%
TOWNSHIP OF MIFFLIN	\$53,056.00	\$14,064.00	26.5%	\$9,228.00	17.4%
TOWNSHIP OF MILL CREEK	\$67,778.00	\$15,180.00	22.4%	\$10,704.00	15.8%
TOWNSHIP OF MORELAND	\$65,625.00	\$15,828.00	24.1%	\$7,932.00	12.1%
TOWNSHIP OF PENN	\$61,094.00	\$14,772.00	24.2%	\$12,900.00	21.1%
TOWNSHIP OF PINE	\$51,000.00	\$13,320.00	26.1%	\$7,800.00	15.3%
TOWNSHIP OF PLUNKETTS CREEK	\$58,125.00	\$15,960.00	27.5%	\$12,456.00	21.4%
BOROUGH OF SALLADASBURG	\$46,786.00	\$14,832.00	31.7%	\$8,904.00	19.0%
TOWNSHIP OF SUSQUEHANNA	\$46,607.00	\$13,212.00	28.3%	\$11,376.00	24.4%
TOWNSHIP OF UPPER FAIRFIELD	\$61,875.00	\$16,548.00	26.7%	\$9,048.00	14.6%
TOWNSHIP OF WASHINGTON	\$53,333.00	\$14,628.00	27.4%	\$7,656.00	14.4%
TOWNSHIP OF WATSON	\$59,010.00	\$15,984.00	27.1%	\$7,800.00	13.2%

2014 American Community Survey Estimates

	2014 American Community Survey Estimate, Household Median Income
Lycoming County	\$45,877.00
Pennsylvania	\$53,115.00

2014 American Community Survey Estimates

	Median Year of Construction of Housing Units
TOWNSHIP OF ANTHONY	1977
TOWNSHIP OF BASTRESS	1975
TOWNSHIP OF BROWN	1968
TOWNSHIP OF CASCADE	1971
TOWNSHIP OF COGAN HOUSE	1977
TOWNSHIP OF CUMMINGS	1967
TOWNSHIP OF ELDRED	1976
TOWNSHIP OF FRANKLIN	1967
TOWNSHIP OF GAMBLE	1975
TOWNSHIP OF JACKSON	1970
TOWNSHIP OF JORDAN	1972
TOWNSHIP OF LIMESTONE	1975
TOWNSHIP OF MCHENRY	1962
TOWNSHIP OF MCINTYRE	1964
TOWNSHIP OF MCNETT	1971
TOWNSHIP OF MIFFLIN	1972
TOWNSHIP OF MILL CREEK	1983
TOWNSHIP OF MORELAND	1975
TOWNSHIP OF PENN	1977
TOWNSHIP OF PINE	1969
TOWNSHIP OF PLUNKETTS CREEK	1958
BOROUGH OF SALLADASBURG	1948
TOWNSHIP OF SUSQUEHANNA	1969
TOWNSHIP OF UPPER FAIRFIELD	1978
TOWNSHIP OF WASHINGTON	1974
TOWNSHIP OF WATSON	1972

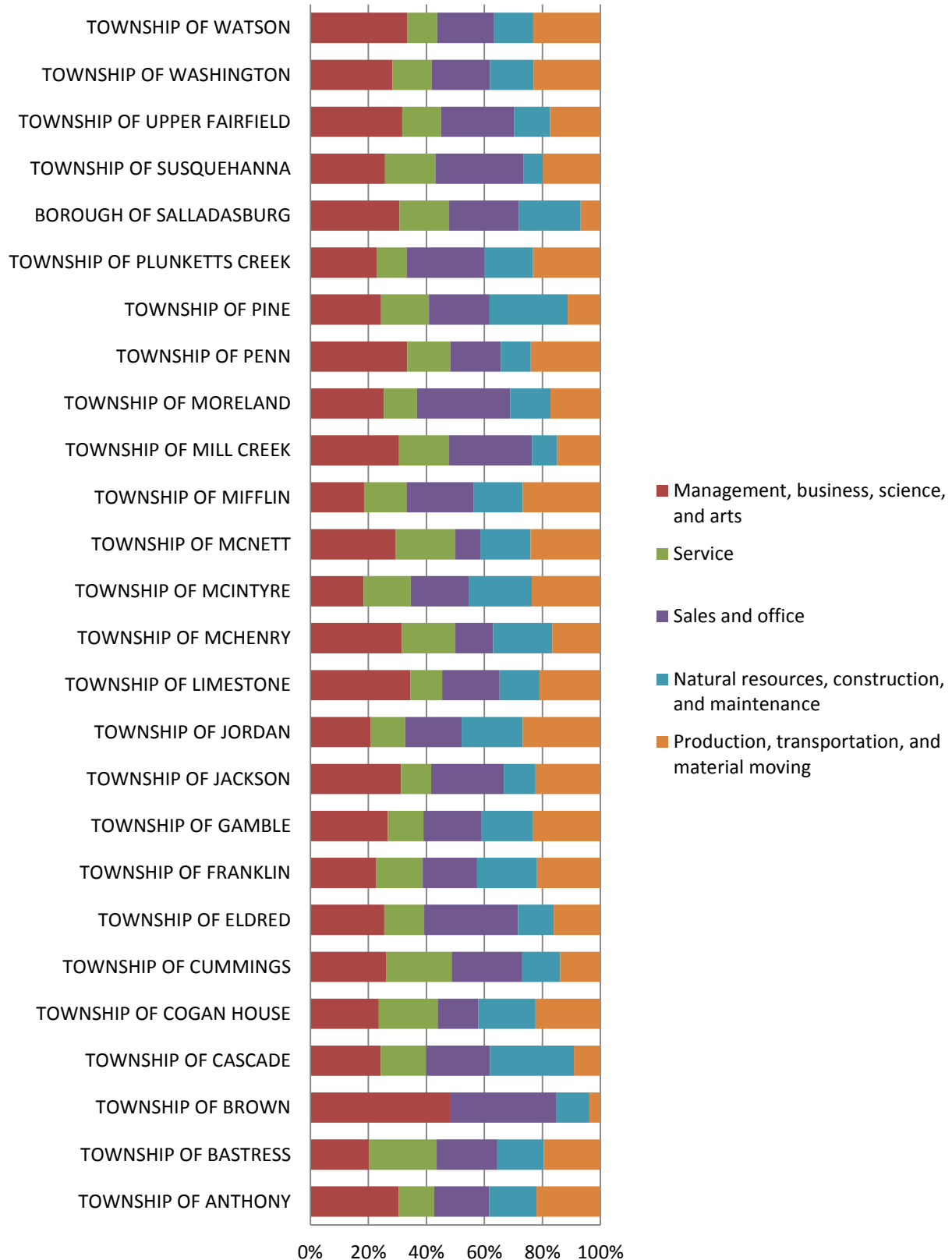
2014 American Community Survey Estimates

Floodplain and Flood Insurance

Data Sources: FEMA National Flood Insurance Program Policy and Claim Statistics and Lycoming County

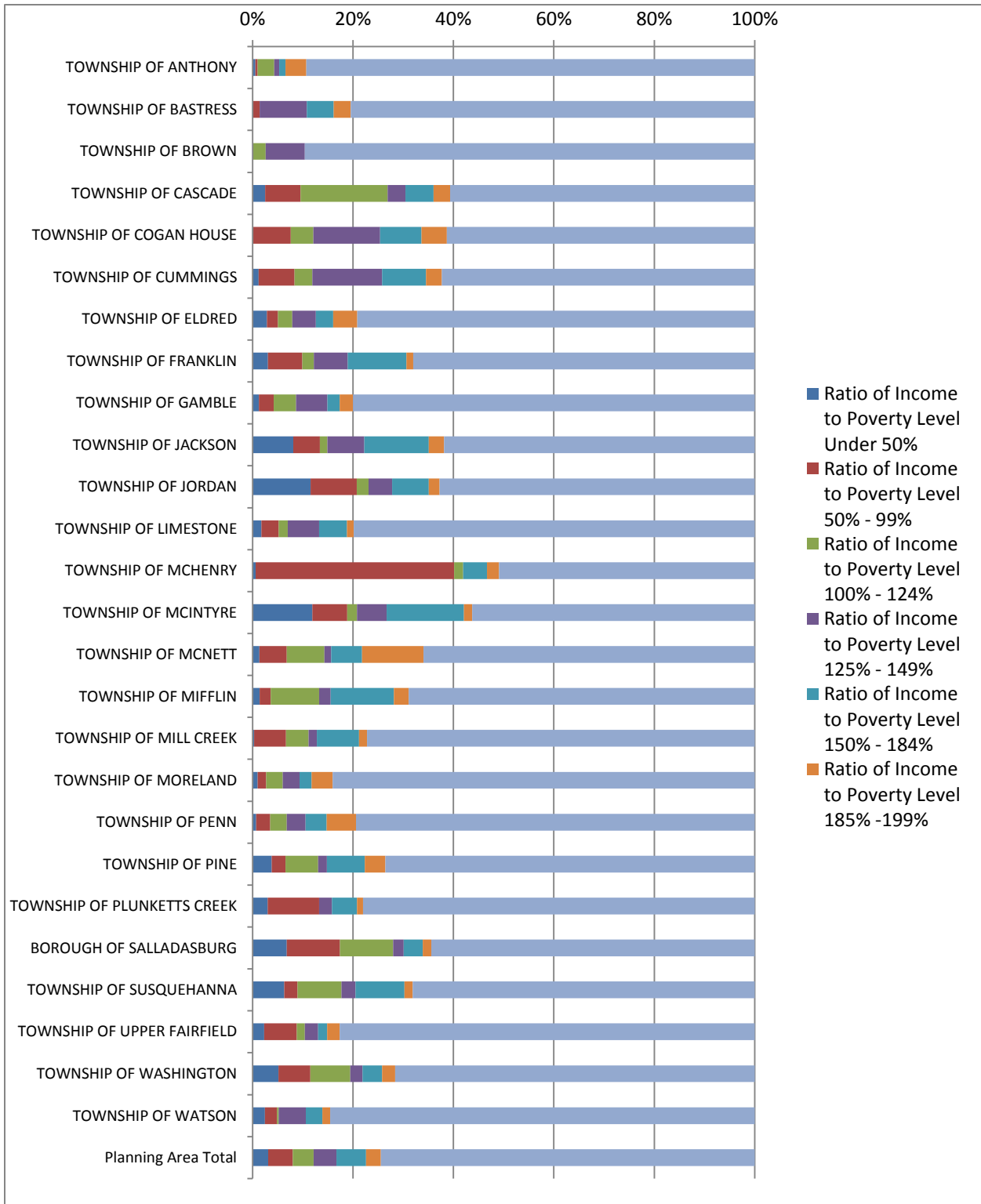
	Policies	Insured Amount	Total Premiums	Total Claims	Total Payments	Total Number of Tax parcels	Parcels Containing Regulatory Floodplain	Percent Containing Floodplain
TOWNSHIP OF ANTHONY	0	\$0.00	\$0.00	0	\$0.00	399	34	8.5%
TOWNSHIP OF BASTRESS	0	\$0.00	\$0.00	0	\$0.00	257	0	0.0%
TOWNSHIP OF BROWN	13	\$2,555,600.00	\$12,803.00	5	\$109,020.24	381	137	36.0%
TOWNSHIP OF CASCADE	3	\$412,600.00	\$2,927.00	1	\$24,918.48	350	25	7.1%
TOWNSHIP OF COGAN HOUSE	3	\$219,900.00	\$2,819.00	1	\$1,491.56	621	75	12.1%
TOWNSHIP OF CUMMINGS	61	\$8,161,500.00	\$58,554.00	70	\$557,665.49	506	274	54.2%
TOWNSHIP OF ELDRED	15	\$2,475,800.00	\$13,298.00	17	\$290,543.71	845	79	9.3%
TOWNSHIP OF FRANKLIN	5	\$287,300.00	\$3,297.00	5	\$80,942.13	543	73	13.4%
TOWNSHIP OF GAMBLE	11	\$2,705,300.00	\$8,704.00	13	\$498,222.35	556	58	10.4%
TOWNSHIP OF JACKSON	0	\$0.00	\$0.00	0	\$0.00	290	66	22.8%
TOWNSHIP OF JORDAN	2	\$385,000.00	\$685.00	1	\$554.66	538	52	9.7%
TOWNSHIP OF LIMESTONE	11	\$1,292,700.00	\$7,920.00	1	\$0.00	892	54	6.1%
TOWNSHIP OF MCHENRY	24	\$3,497,700.00	\$21,185.00	35	\$195,776.27	642	175	27.3%
TOWNSHIP OF MCINTYRE	24	\$2,478,800.00	\$24,191.00	62	\$541,559.58	347	233	67.1%
TOWNSHIP OF MCNETT	2	\$75,000.00	\$720.00	3	\$32,830.94	248	5	2.0%
TOWNSHIP OF MIFFLIN	18	\$1,926,900.00	\$16,321.00	3	\$17,057.98	483	145	30.0%
TOWNSHIP OF MILL CREEK	2	\$300,000.00	\$3,607.00	0	\$0.00	303	0	0.0%
TOWNSHIP OF MORELAND	5	\$328,800.00	\$4,143.00	12	\$170,706.98	494	83	16.8%
TOWNSHIP OF PENN	5	\$663,500.00	\$4,176.00	11	\$217,790.17	615	51	8.3%
TOWNSHIP OF PINE	19	\$2,475,000.00	\$24,919.00	23	\$292,902.27	485	164	33.8%
TOWNSHIP OF PLUNKETTS CREEK	73	\$13,719,700.00	\$63,967.00	13	\$6,077,087.55	619	333	53.8%
BOROUGH OF SALLADASBURG	3	\$464,000.00	\$2,783.00	2	\$0.00	112	49	43.8%
TOWNSHIP OF SUSQUEHANNA	34	\$3,549,400.00	\$33,021.00	49	\$313,567.93	507	201	39.6%
TOWNSHIP OF UPPER FAIRFIELD	20	\$2,794,700.00	\$13,240.00	12	\$2,580,634.83	845	110	13.0%
TOWNSHIP OF WASHINGTON	7	\$786,600.00	\$6,214.00			834	177	21.2%
TOWNSHIP OF WATSON	49	\$5,590,800.00	\$43,710.00	60	\$471,472.83	396	184	46.5%
PLANNING AREA TOTAL	409	\$57,146,600.00	\$373,204.00	399	\$12,474,745.95	13108	2837	21.6%

Employment by Occupation Category



Poverty

2014 American Community Survey Estimates
Federal Poverty Level for Individuals in 2014: \$11,670



Lycoming County

3rd Quarter, 2017

Combined Government Ownerships

Rank	Employer	Rank	Employer
1	Susquehanna Health System	26	East Lycoming School District
2	State Government	27	Step Inc
3	Pennsylvania College of Technology	28	Shop Vac Corporation
4	Williamsport Area School District	29	Wirerope Works Inc
5	Weis Markets Inc	30	Advanced Drainage Systems Inc
6	Lycoming County	31	Loyalsock Township School District
7	West Pharmaceutical Services Inc	32	Jersey Shore Hospital
8	Aramark Facility Services LLC	33	Montoursville Area School District
9	CS Group Payroll Services LLC	34	Lycoming Community Care Inc
10	Lycoming Division	35	Novitas Solutions Inc
11	Wal-Mart Associates Inc	36	The Williamsport Home
12	Lycoming College	37	City of Williamsport
13	Hope Enterprises Inc	38	General Cable Industries Inc
14	Primus Technologies Corp	39	Halliburton Energy Services Inc
15	Gemma Power Systems LLC	40	VT Hackney Inc
16	Federal Government	41	Overhead Door Corp
17	Kellogg USA Inc	42	Aerotek Inc
18	Heartland Employment Services LLC	43	Unique Industries Inc
19	Jersey Shore Area School District	44	South Williamsport Area School District
20	Andritz Inc	45	Community Services Group Inc
21	Wegmans Food Markets Inc	46	Frito Lay Inc
22	American Customer Care Inc	47	RCJFPA Management Inc
23	Springs Window Fashions LLC	48	F D Muncy Corporation
24	Brodart Co	49	United Parcel Service Inc
25	River Valley Regional YMCA	50	Jersey Shore State Bank

Source: Quarterly Census of Employment and Wages

Center for Workforce Information & Analysis

(877) 4WF-DATA • www.workstats.dli.pa.gov • workforceinfo@pa.gov

February 2018

Lycoming County

3rd Quarter, 2017

Rank	NAICS Industry Description	NAICS
1	Restaurants and other eating places	7225
2	General medical and surgical hospitals	6221
3	Elementary and secondary schools	6111
4	Colleges and universities	6113
5	Grocery stores	4451
6	Individual and family services	6241
7	Executive, legislative and general government	9211
8	Nursing care facilities, skilled nursing	6231
9	Offices of physicians	6211
10	Plastics product manufacturing	3261
11	Architectural and engineering services	5413
12	Support activities for mining	2131
13	Automobile dealers	4411
14	Justice, public order, and safety activities	9221
15	Employment services	5613
16	Depository credit intermediation	5221
17	Department Stores	4522
18	Services to buildings and dwellings	5617
19	Business support services	5614
20	Home health care services	6216
21	Building equipment contractors	2382
22	Architectural and structural metals mfg.	3323
23	Semiconductor and electronic component mfg.	3344
24	Insurance agencies and brokerages	5242
25	Civic and social organizations	8134
26	Traveler accommodation	7211
27	Management of companies and enterprises	5511
28	Utility system construction	2371
29	Gasoline stations	4471
30	Building material and supplies dealers	4441
31	Aerospace product and parts manufacturing	3364
32	Child day care services	6244
33	Rubber product manufacturing	3262
34	Sugar and confectionery product manufacturing	3113
35	Automotive repair and maintenance	8111
36	Outpatient care centers	6214
37	Industrial machinery manufacturing	3332
38	General Merchandise Stores, including Warehouse Clubs and Supercenters	4523
39	Other food manufacturing	3119
40	Health and personal care stores	4461
41	General freight trucking	4841
42	Legal services	5411
43	Professional and similar organizations	8139
44	Vocational rehabilitation services	6243
45	Misc. nondurable goods merchant wholesalers	4249
46	Couriers and express delivery services	4921
47	Other specialty trade contractors	2389
48	Machinery and supply merchant wholesalers	4238
49	Converted paper product manufacturing	3222
50	Facilities support services	5612



A Closer Look at Your Region

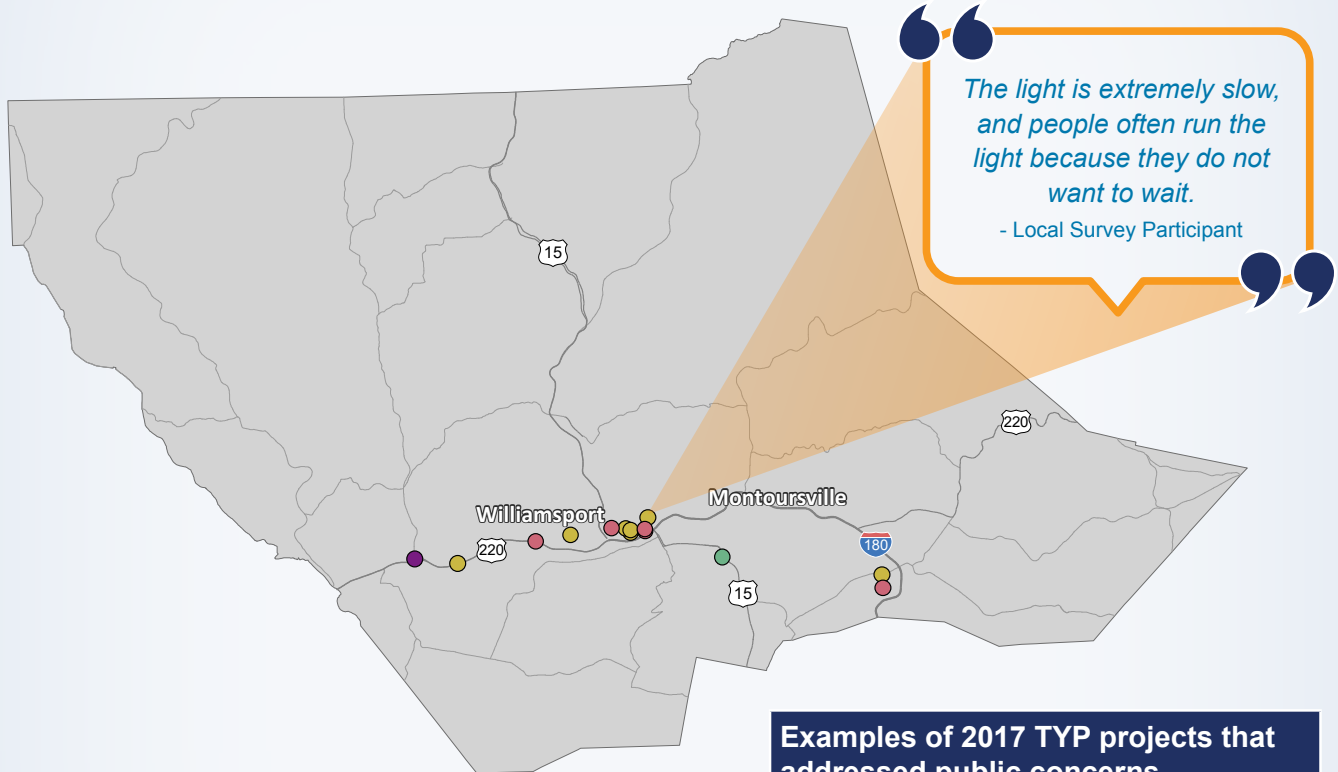
The State Transportation Commission’s six-week public comment period for the 2019 Twelve Year Program (TYP) Update began in March and concluded in April 2017. During the comment period, the public had the opportunity to take an online survey and participate in an online public meeting. All public feedback received was analyzed to better understand public priorities and transportation trends.

State Transportation Commission
2019 Twelve Year Program Update

Transportation Issues Identified

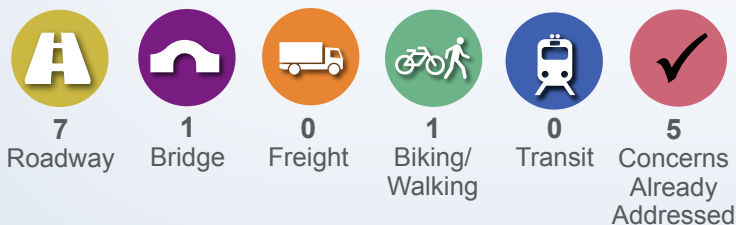
Statewide, survey participants mapped over **3,500** transportation concerns. **14** of these are located within the **Williamsport region**.

During the mapping exercise, some discovered their concerns were already addressed by projects on the 2017 TYP. See the map and data below for more details.



Number of Issues Identified

The icons below correspond with the dots on the map.



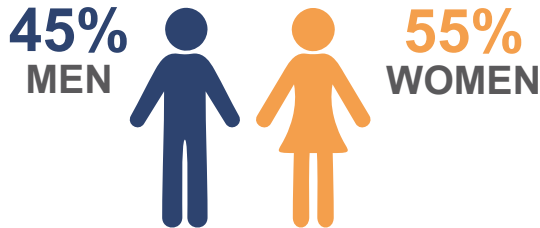
Examples of 2017 TYP projects that addressed public concerns

- Main Street Reconstruction in Muncy
- Route 2016, Via Bella Drive to Third Street Resurfacing in Williamsport
- US 220/4th Street Interchange
- Route 2014, Campbell Street to Basin Street Reconstruction in Williamsport
- Fourth Street Reconstruction Between US 15 and Campbell Street in Williamsport

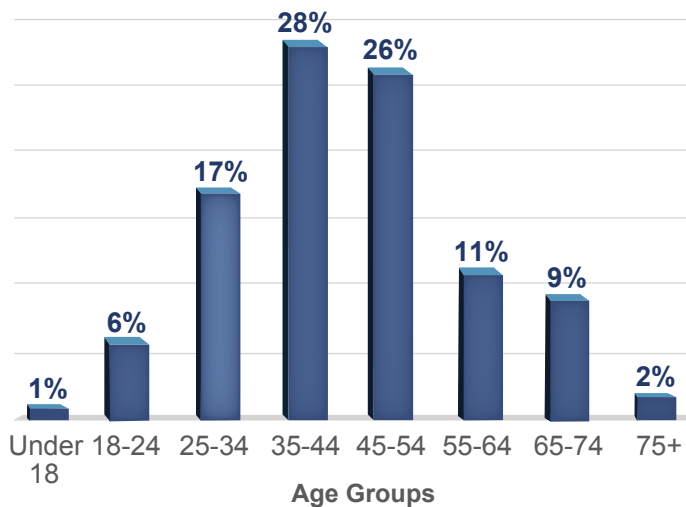
About the Survey Participants in Your Region

Nearly 5,000 individuals participated in the online survey statewide and 86 of the survey participants identified with the Williamsport region through feedback provided. Learn more about the participants from this region.

Gender



Age



Top 3 Transportation Modes



- 1 Road Pavement
- 2 Bridges
- 3 Traffic Flow
- 4 Walking
- 5 Interstate Highways
- 6 Bicycling
- 7 Aviation
- 8 Transit
- 9 Passenger Rail
- 10 Freight

For More Information

Office of the State Transportation Commission
and Transportation Advisory Committee

P.O. Box 3365 | Harrisburg, PA 17105-3633

Phone: 717-783-2262

Email: RA-PennDOTSTC@pa.gov



www.TalkPATransportation.com

Community Facilities and Infrastructure Background Data

This is the full source data compiled in the preparation of the Chapter 2 section on Community Facilities and Infrastructure.

Community facilities include a wide range of structures, including those owned by municipalities as well as quasi-governmental entities and non-profits. These facilities are typically highly visible to county residents. Infrastructure, however, is often unseen and underappreciated yet it supports the community's and economy and quality of life.

The County has a sustained record of partnering with local municipalities, public authorities and other infrastructure providers. The overarching goal of all community facilities and public infrastructure is to support and enhance the quality of life of county residents and set the stage for continued economic growth and desired community development.

Community Facilities changes since 2006

The 2018 Comprehensive Plan Update includes the following community facilities:

- Health Care Facilities
- Community Parks & Recreation Facilities
- Educational Facilities
- Community Centers
- Municipal Facilities
- Public Safety Facilities

Community Facilities Selected Highlights
Community Parks & Recreation Facilities
Susquehanna Riverwalk Construction
White Deer Golf Course Renovation
Pine Creek Rail Trail Connector
River Valley Regional YMCA Completed
Liberty Arena & Village Green Constructed
Historic Bowman Field renovated
Health Care Facilities
UPMC-Susquehanna Health Integration
Williamsport Hospital Expansion/Upgrade
Health Innovation Center
Divine Providence Hospital Expansion/Upgrade
Muncy Valley Hospital Expansion/Upgrade
Community Dental & Health Center
Educational Facilities
Penn College Campus Expansion
Lycoming College Housing Addition
WAHS Return to Glory Facilities
Loyalsock Township SD MS/HS Complex Finished
Community Centers
River Walk Community Center Constructed
Municipal Facilities
Watson Township Municipal Building Finished
Lycoming County Landfill Expanded

Community Parks and Recreation Facilities

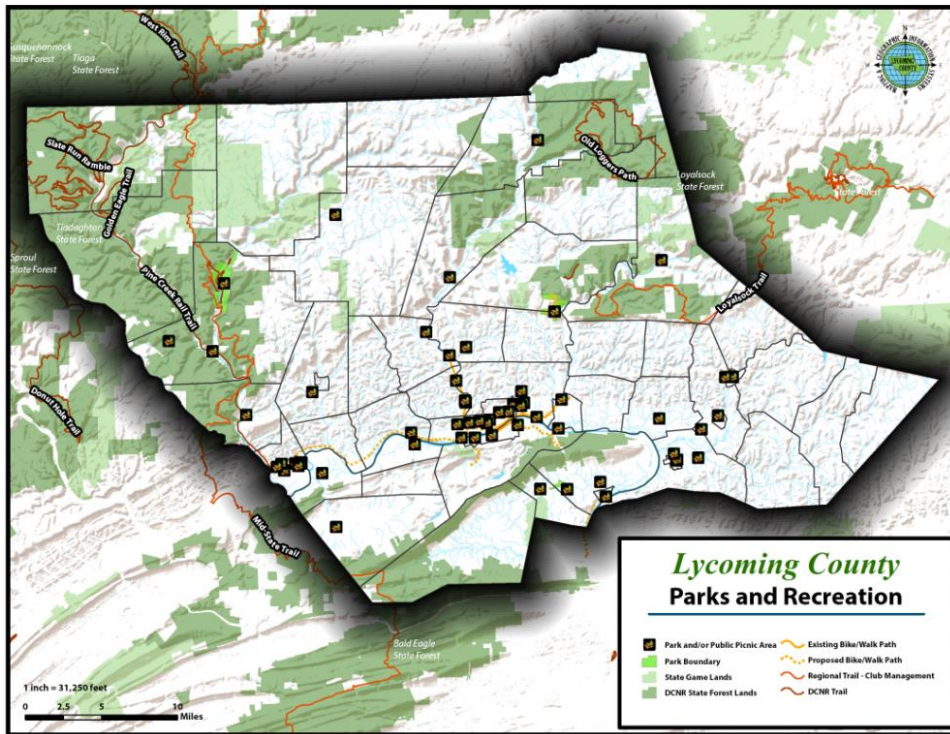
Citizens of Lycoming County are blessed with a wide array of community parks and recreation facilities. These facilities are comprised of four major categories of recreation: *Community Parks, Trails, Water Activities, and Forest Activities*. Survey analysis of 1,120 Lycoming County citizens conducted as part of the development of this plan indicated that County residents highly value nature and outdoor recreation facilities.



The table below summarizes nationwide outdoor recreation trends over the past 9 years as published in Outdoor Recreation Participation Topline Report 2016 from the Outdoor Foundation. ([Source](#)) This table shows that there are five outdoor activities which significantly gained popularity over the past 9 years (marked in green) and four which significantly lost popularity over the past 9 years (marked in red). This indicates where the largest changes of total participants have been by activity. The report also indicates that 48.4% of Americans (142.4 million) participate in at least one outdoor activity and collectively went on 11.7 billion outdoor outings in 2015.

Nationwide Outdoor Recreation Participant Statistics From: Outdoor Recreation Participation Topline Report		Percentage Change (black = data not available)			Total Change in thousands (black = data not available)		
Activity/Year	2015 (in thousands)	3 Year Change	5 Year Change	9 Year Change	3 Year Change	5 Year Change	9 Year Change
Running/Jogging	48,496	-10.50%	-4.37%	25.77%	-5,692	-2,217	9,937
Bicycling (Road)	38,280	-6.38%	-5.13%	-0.46%	-2,608	-2,069	-177
Fishing (Freshwater/other)	37,682	-0.30%	-3.05%	-12.57%	-114	-1,186	-5,418
Hiking (Day)	37,232	8.30%	7.95%	24.68%	2,854	2,741	7,369
Camping (Other)	27,742	-5.22%	-15.74%	-22.11%	-1,527	-5,183	-7,876
Wildlife Viewing	20,718	-3.00%	-5.67%	2.09%	-641	-1,246	424
Camping (RV)	14,699	0.98%	-11.97%	-13.26%	143	-1,999	-2,247
Birdwatching	13,093	-7.48%	2.34%	18.27%	-1,059	299	2,023
Hunting (Rifle)	10,778	10.07%	-0.27%	-4.13%	986	-29	-464
Canoeing	10,236	0.82%	4.59%	11.82%	83	449	1,082
Backpacking	10,100	11.37%	42.35%	42.92%	1,031	3,005	3,033
Kayaking	9,499	8.98%	15.43%	129.78%	783	1,270	5,365
Hunting (Shotgun)	8,438	6.89%	-2.77%	-6.11%	544	-240	-549
Bicycling (Mountain)	8,316	-2.65%	22.01%	23.18%	-226	1,500	1,565
Trail Running	8,139	19.83%	45.08%	78.57%	1,347	2,529	3,581
Skateboarding	6,436	1.35%	10.45%	-36.47%	86	609	-3,694
Fishing (Fly)	6,089	3.59%	7.14%	0.30%	211	406	18
Hunting (Bow)	4,564	11.89%	-1.49%	17.78%	485	-69	689
Skiing (Cross-Country)	4,146	22.77%	13.87%		769	505	
Snowshoeing	3,885	28.98%	-5.50%		873	-226	
Rafting	3,883	1.23%	1.62%	7.59%	47	62	274
Hunting (Handgun)	3,400	6.32%	27.29%	34.65%	202	729	875
Stand Up Paddling	3,020	51.53%	143.16%		1,027	1,778	
Triathlon (Off-Road)	2,498	79.71%	252.33%	788.97%	1,108	1,789	2,217
Kayak Fishing	2,265	25.97%	88.59%		467	1,064	
Triathlon (Road)	1,744	-22.90%	25.20%	172.50%	-518	351	1,104

The table on the previous page shows that interest in outdoor recreation is considerably gaining throughout the United States and these trends should continue as recreation opportunities become more widely available to the public. Most categories showed some level of gain over the 9 year period of which statistics were available. These trends offer opportunities to grow our economy by promoting outdoor recreation tourism.



Community Parks

Community Parks include large rural expanses, such as Rider Park which overlooks Loyalsock Creek, City areas such as Brandon and Memorial Parks, as well as a multitude of smaller parks scattered throughout the urbanized and rural sections of the County.

These parks host many forms of recreational amenities such as tennis courts, soccer fields, swimming pools, baseball & softball fields, golf courses, walking paths, dog parks, community gardens, basketball

courts, playgrounds, picnic facilities, comfort stations, and a variety of youth sports. Collectively, Lycoming County parks occupy an area of 4,142 acres or approximately 6.5 square miles.

Historic Bowman Field

Historic Bowman Field, the second oldest minor league baseball stadium in the United States (1926), has a long and storied history up into the 1960's. Then due to a lack of use and maintenance, Bowman Field became very dilapidated.

Bowman Field resurgence began in 1993 with the arrival of a minor league club, kicked-off by a series of improvements including a concessions concourse, restroom, and office expansion in 2000.

Since 2006, improvements continue to be made with more significant changes have occurring over the past 4 years. Enhancements include a batting cage pavilion (2006), stadium roof repairs and painting (2013), backstop netting replacement and parking paving (2014), a major upgrade with the First Base deck known as "Loggers Landing", (2016-2017), along with major renovations for the creation of a new upper and lower stadium seating bowl, new team dugouts, and complete playing field improvements including sprinkler and storm drainage systems (2017).

The latest changes are the most significant renovations to Bowman Field in its history.



Source: Tripod.com

In 2014 and 2017 the Lycoming County Commissioners opened a Mini-Grant Park Program. Grants could not exceed \$20,000. 24 Applications were received with 21 being funded. The grants were used to rehabilitate and renovate 33 parks in Lycoming County. The funds came from the Act 13 Legacy Funds that could only be used for recreational purposes. The total amount granted was \$529,620. The grants enabled municipalities and authorities to much needed work on parks in the County.

As summarized below, there are about 60 parks in the County, many of which are publically owned-the others are privately held.

Municipality	Park Name	Acres
BRADY	<i>Brady Township Community Center</i>	2
CLINTON	<i>Clinton Township Park</i>	5
CLINTON	<i>White Deer Golf Course</i>	421
COGAN HOUSE	<i>Cogan House</i>	12
CUMMINGS	<i>Cummings Twp Rec Park</i>	2
CUMMINGS	<i>Little Pine State Park</i>	2022
CUMMINGS	<i>Upper Pine Bottom Park</i>	1
DUBOISTOWN	<i>Duboistown Borough Park</i>	1
GAMBLE	<i>Rider Park</i>	897
HEPBURN	<i>Neil Mulcher Park</i>	51
HEPBURN	<i>Bair Park</i>	7
HUGHESVILLE	<i>Bodine Park</i>	6
JERSEY SHORE	<i>Jersey Shore Recreation Area</i>	19
JERSEY SHORE	<i>Veterans Park</i>	0
JERSEY SHORE	<i>Grieco Park</i>	0
JERSEY SHORE	<i>Pine Creek Rail Trail Parking</i>	10
JERSEY SHORE	<i>Gazebo Lot</i>	0
JERSEY SHORE	<i>Richmond Park</i>	1
JERSEY SHORE	<i>Nichols Run Recreation Area</i>	26
LEWIS	<i>Trout Run Park</i>	8
LIMESTONE	<i>Limestone Township Park</i>	1
LOYALSOCK	<i>Heshbon Park</i>	15
LOYALSOCK	<i>James Short Park</i>	23
LOYALSOCK	<i>Bruce Henry Park</i>	14
LOYALSOCK	<i>Riverfront Park</i>	58
LOYALSOCK	<i>Faxon Circle</i>	1
LYCOMING	<i>Dauber Park Metzger Field</i>	13
MCINTYRE	<i>Ralston Park</i>	2
MIFFLIN	<i>Mifflin Township Municipal Park</i>	11
MONTGOMERY	<i>Montgomery Park</i>	21

Municipality	Park Name	Acres
MONTOURSVILLE	<i>Indian Park</i>	86
MONTOURSVILLE	<i>Mill Street Boat Launch</i>	3
MUNCY	<i>Muncy Park</i>	3
MUNCY CREEK	<i>Keiss Memorial Park</i>	18
MUNCY CREEK	<i>Muncy Pool</i>	5
MUNCY CREEK	<i>Muncy Area Lions Club Park</i>	3
MUNCY TWP	<i>Pennsdale</i>	7
NIPPENOSE	<i>Antes Fort Village Park</i>	20
OLD LYCOMING	<i>Carl E Stotz Park</i>	9
OLD LYCOMING	<i>Minnie's Place</i>	2
PICTURE ROCKS	<i>Rock Park</i>	3
PICTURE ROCKS	<i>Van Rensselaer Park</i>	7
PLUNKETTS CREEK	<i>Barbours School Playground</i>	5
PORTER	<i>Porter Twp Municipal Field</i>	2
SOUTH WILLIAMSPORT	<i>South Wmspt Community Park Complex</i>	90
SOUTH WILLIAMSPORT	<i>Little Mountaineer Park</i>	2
SUSQUEHANNA	<i>Susquehanna Township Municipal Park</i>	11
	<i>Pine Creek Valley Recreation Park</i>	8
WATSON		
WILLIAMSPORT	<i>Shaw Place Park</i>	10
WILLIAMSPORT	<i>Youngs Woods Park</i>	3
WILLIAMSPORT	<i>Memorial Park</i>	50
WILLIAMSPORT	<i>Flanigan Park</i>	5
WILLIAMSPORT	<i>Ways Garden Park</i>	3
WILLIAMSPORT	<i>Newberry Park</i>	3
WILLIAMSPORT	<i>Brandon Park</i>	42
WILLIAMSPORT	<i>Susquehanna State Park</i>	18
WILLIAMSPORT	<i>Lose School Playground</i>	2
WOLF	<i>East Lycoming Recreation Area</i>	64
WOODWARD	<i>Woodward Township Volunteer Fire Co Park</i>	8

Trails

There are at least 30 named trails contained within or passing through Lycoming County. Lycoming County has partnered with numerous organizations, such as PA DCNR, Lumber Heritage Region, Susquehanna Greenway Partnership, PennDOT, First Community Foundation of PA, Local Municipalities, among others to ensure its family of trails *are well planned, coordinated, & properly funded*. Most trails can be broken into two categories: Rural Trails (usually owned and maintained by the state) and Urban Trails (usually locally owned and maintained). The types of trails vary considerably from small interpretative trails to mountainous hiking trails-from biking trails on paved courses to off-road mountain biking adventures. Some trails have engineered constructed paths while others rely solely on the natural footway.

Rural Trails in Lycoming County consist mostly of state owned trails in and around the state parks and forests of Lycoming County. These trails include the Loyalsock Trail, Pine Creek Rail Trail, and the Mid-State Trail. Conditions of these trails vary from flat graveled paths to rugged mountain foot paths. These trails are most typically utilized by “weekend warriors” who use them for long distance and/or multi-day activities. As such, these trails attract people from across the region and country and provide an excellent means to promote sustainable, low-impact, high economic benefit

tourism. As indicated in the outdoor recreation participation table, hiking and backpacking have gained significant nationwide popularity.

In addition to its Rural Trails, Lycoming County residents are blessed with a strong network of urban trails. These trails are typically owned and maintained by local government or non-profit entities and include trails such as the Susquehanna Riverwalk, Lycoming Creek Bikeway, and the Loyalsock Bikeway. Residents of the County utilize these trails for exercise, casual hiking, and as an alternative mode of transportation. As indicated in the outdoor recreation participation table, running and jogging has the most participation nationwide and continues to grow interest. Some of these trails are not connected to one another but long term goals include making connections between existing urban trails to form one large urban trail network.

Pine Creek Rail Trail

This 65 mile, crushed limestone, world-class rail trail extends north from the Borough of Jersey Shore along the Pine Creek through several quaint villages then the Pennsylvania Grand Canyon on its way to Ansonia in Tioga County. It has gentle grades and is relatively flat making it well suited for biking, hiking, or watching eagles, hawks, even black bears in the surrounding forests.



Conservation Learning Trail

Located on the County’s Lysock View Complex, this 1.3 mile pathway was opened in 2012 and uses a set of interpretative panels to educate trail users about conservation and environmental issues, water shed management techniques, and forest stewardship practices. It is designed as a classroom without walls.



2006-2017 Completed Trail Initiatives

- *Susquehanna Riverwalk*
- *Conservation Learning Trail*
- *Pine Creek Rail Trail Extension*
- *Bald Eagle Mountain Ridge Trail Feasibility Study*

Susquehanna Riverwalk

The Susquehanna Riverwalk was completed in late 2009 with the intent of connecting the Loyalsock Bikeway with Maynard Street Bridge and Market Street Bridge. The Riverwalk features an 8 foot wide path with benches and 12 historic/interpretive signs. Since its completion, considerable work has been completed to expand the Riverwalk network including the completion of a 1.5 mile connection in 2011 to the South Williamsport Recreation Complex near the Little League Headquarters and plans to create extensions to the Lycoming Creek Bikeway and Susquehanna State Park in the coming years. The eventual goal would be to create connections to

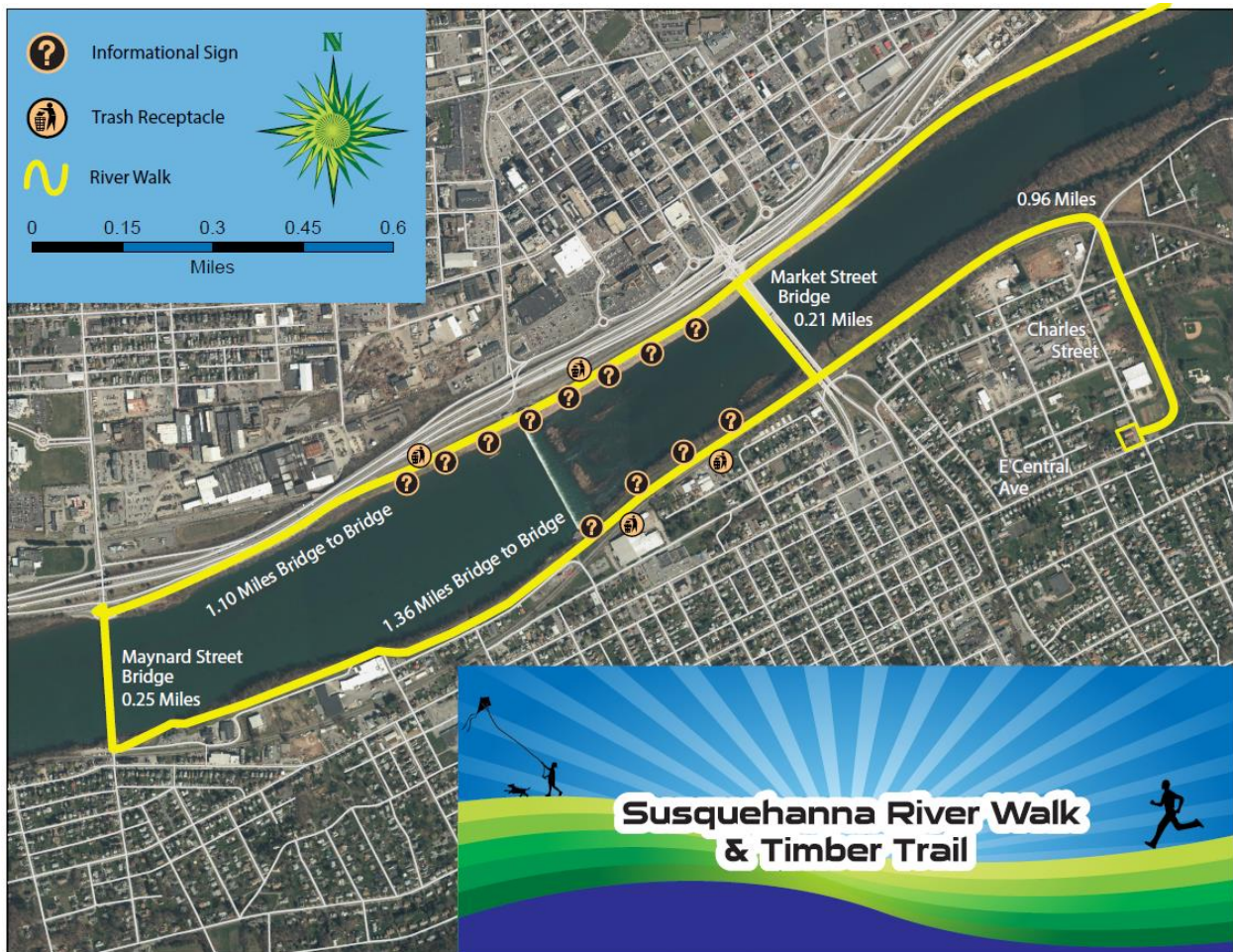


Photo by Terry Moore Photography 2010

Muncy Borough and Jersey Shore Borough to connect to the Pine Creek Rail Trail. In addition to the 2011 extension, improvements to the Riverwalk parking area near Commerce Park Drive were made including line painting and fencing.



Known as the Woodhick this bronze statue was created by Pam Madai Barner as a tribute to Williamsport's heritage as a lumber city.



Water Activities

Lycoming County is fortunate to have many miles of Exceptional Value (EV) and High Quality Cold Water Fisheries (HQ-CWF) streams and watersheds.

Beyond the West Branch

Susquehanna River the County

includes six major streams: Muncy

Creek, Loyalsock Creek, Lycoming

Creek, Larry's Creek, Pine Creek, and White Deer Hole Creek.

As depicted in the water resources map, over 2,200 miles of waterways traverse Lycoming County, reportedly more than any other county in Pennsylvania.



Source: SlateRun.com

There has been significant progress made over the past 15 years to improve the quality of these water courses, yet this task is never ending. The challenge is to integrate enjoyment and recreation of these water bodies while concurrently respecting and safe-guarding their pristine quality. This balance can be best achieved when water

safety education and training is accompanied by increased access by the general public to these waters.



Source: FindYourChesapeake.com

Including lakes, ponds streams, and creeks, Lycoming County has approximately 15 square miles of water. Across the County's six multi-municipal planning areas as well as the rural sectors of the County there was a consistent theme expressed by local residents: outdoor recreation is a highly valued element of their culture and one of the most important reasons they like to live in

Lycoming County. These waterways support a wide array of recreational activities including, swimming, power boating, rowing, sailing, canoeing, kayaking, tubing, water skiing, wind surfing, fly fishing, ice fishing, etc. Of particular note, kayaking has gained substantial nationwide popularity adding over 5,365,000 new participants over the past 9 years for a total of 9,499,000 kayakers nationwide. This represents a 129.78% increase from the 4,134,000 kayakers in 2006. Considering Lycoming County's proximity to major national population centers, this nationwide increase in popularity represents an opportunity to capture additional economic development from tourism generated from increased nationwide interest in kayaking. Also of note is that freshwater fishing has become significantly less popular nationwide with a net loss of 5,418,000 fishers. This however only represents a 12.57% decrease from 2006 participants.

The current access points to the West Branch Susquehanna River need to be maintained and enhanced while additional access points need to be developed. It is important to note that improved access to the West Branch Susquehanna River has 4 distinct dimensions: visual access, boating access, swimming access, and fishing access.

River access points for the general public can be found in the Borough of Jersey Shore, Susquehanna State Park in Williamsport, Loyalsock Township's Riverfront Park, Montoursville's Mill Street public boat ramp, Muncy Borough's access at the Pennsylvania Fish and Boat Commission ramp, and at Montgomery Park. Some of these access points have an intermodal dimension: Jersey Shore ramp connects to the Pine Creek Rail Trail. Access Points also represent egress paths.

Forest Activities

Lycoming County is well known as a hunter's haven. Private hunting camps can be found in many rural areas.

Hunters seek to pursue antlered and antlerless deer, black bears, wild turkeys and numerous types

of small game animals. Beyond the physical activity and exercise it offers, hunting is integral to the culture of Lycoming County and is-for many residents-an essential element in the definition of "quality of life."

Beyond hunting, forest activities may include: lumber heritage exploring, cross-country skiing, birding, hiking, snowmobiling, ATV riding, camping, and equestrian activities.

Given its lumber heritage past, it is not surprising to find that Lycoming County contains approximately 612,000 acres identified as forests. Lycoming County, which is larger than the entire state of Rhode Island, has 75% of its



land covered with a tree canopy of which the largest land owner is the Commonwealth. Almost one-third of the County's forest (or 203,000 acres) is designated as State Forest while an additional 46,000 acres is defined as State Game Land.

The rural portions of Lycoming County are dominated by distinctive features. Forests are the dominant feature in the northern portion of the County. This large expanse lies within the Allegheny High Plateaus section of the Appalachian Plateaus Province and is characterized by rolling hills dissected by steep stream valleys-exemplified by the Pine Creek Gorge. The Allegheny Front, the distinctive wall of mountains north of Williamsport, marks the beginning of this Province.

Related to the trails domain described in the preceding section, Lycoming County's forests are a natural setting for equestrian trails as well as rambling paths for snow-mobiles and ATVs.

Adjacent to PA Route 14 in Lewis Township is Camp Susque which is a non-profit, non-denominational Christian camp which opened its doors in 1947 as a Summer Youth Camp. Since then, the camp has grown to include other year-round programming, such as: wilderness trips, family camps, winter youth camps, field trips, etc.



Lycoming County forests are also a mecca for nature based tourism. This is a burgeoning eco-based tourism opportunity since Lycoming County is positioned as the eastern gateway to the PA Wilds and PA Lumber Heritage Region. The majestic views within the forest abound particularly during the Fall foliage.

The primary infrastructure needs related to forest activities are focused on access and parking as well as outdoor restroom facilities.

Community Centers

STEP Inc. provides a variety of services to county citizens. One of their more prominent services are their Centers for Healthy Aging where senior citizens are offered a variety of activities to promote healthy lifestyles and to encourage social interaction. The Centers for Healthy Aging provide social/recreational activities such as art classes, holiday parties, picnics, dancing, tai chi, and Zumba. Meals are also provided to senior citizens Monday through Friday. In January 2016, a new senior center (RiverWalk Center) was opened in South Williamsport.

Health Care Facilities

There are two major healthcare systems located in Lycoming County, UPMC Susquehanna and Geisinger. UPMC Susquehanna is by far the most significant healthcare provider in the County. UPMC and Susquehanna Health completed a merger in fall of 2016. Prior to the merger, Susquehanna Health had made several major changes to their healthcare system within the County.

UPMC Susquehanna: Divine Providence Hospital

In 2007, major renovations were made to the Divine Providence Hospital. Also constructed at Divine Providence within the last 10 years was a Healing Garden.

UPMC Susquehanna: Williamsport Regional Medical Center

In 2005 the President of Susquehanna Health System requested the Lycoming County Planning Commission to evaluate the final sites under consideration by the Board for location of the new medical center. The Planning Commission staff prepared an analysis and report for the Board. The analysis considered the availability at each of the sites of the availability of the different types of infrastructure and utilities. Transportation infrastructure and ease of access to each site was analyzed including public transportation. Availability of each site was also analyzed for proximity to the health systems client base. After a thorough evaluation the Williamsport Rural Avenue site was determined to be the best location for the new medical center. The report also recommended accommodations that would need to be made by the City to enable the new medical center campus. Zoning changes were recommended as well as an enlarged Institutional District. Transportation improvements were also

“The new building enabled a core expansion of space critical to patient care, improved patient safety, and infection control. A new imaging center, a birthplace center, education & conference center, heart and vascular surgical services, and joint center was included. The emergency department was expanded to double its original size, replacing curtained bays with private examination rooms.”

- [Structure Tone Organization Website](#)
(Project Engineer)

recommended to improve access from I-180 to the hospital campus. The recommendations facilitated the birth of the Pathway to Health Project. The report was a very important factor in the hospital Board deciding to locate the new medical center improvements in Williamsport.

In 2012, Susquehanna Health completed its Patient Tower at the Williamsport Regional Medical Center. This project involved 375,000 sf of new construction (including the 300,000 sf, 6-story Patient Tower), 70,000 sf of renovations, and the construction of a 3-story, 21,000 sf central utility and cogeneration plant. In 2013 the Patient Tower was granted LEED certification. With the expansion and improvements of these facilities city and health system officials recognized a need for a better connection between the hospital and I-180 which resulted in the “Pathway to Health” plan which is a 4 phase project to create improved access to the hospital. Phases 1 & 2 have been completed and Phases 3 & 4 are left to be

completed.

Completed in 2015 at the Williamsport Regional Medical Center was the Health Innovation Center (HIC). This is an 87,000 sf facility which includes an outpatient pharmacy, heart and vascular testing, general surgery office, and an education and family residency center. These modernizations have allowed UPMC Susquehanna to remain relevant in the region and continue to attract skilled medical professionals.

UPMC Susquehanna: Muncy Valley Hospital

Muncy Valley Hospital is the main healthcare provider for the eastern portion of the County. The Muncy Valley Hospital Emergency Room (ER) was originally designed for about 6,000 patients per year, however, usage increased from 6,000 patients per year to over 16,500 patients per year between 2011 and 2016. This increase in demand along with other needs necessitated expansions and renovations at this hospital. In November of 2015 work was started on a project at the hospital involving a 5,400 sf addition to Muncy Valley Hospital along with renovating 11,000 sf of existing building. The ER department has been upgraded from five curtained bays to eight private rooms with six additional rooms designed for rapid treatment, triage, decontamination, and behavioral health patients. Also involved in the project were access and safety improvements to nearby Route 405.

Geisinger: Jersey Shore Hospital

There is only one significant healthcare facility within Lycoming County outside of UPMC Susquehanna healthcare system, the Jersey Shore Hospital located in the borough of Jersey Shore and owned by Geisinger Health System.

Educational Facilities

A total of 11 different school districts provide K-12 classes to residents of the county. Among those districts, only a few had any substantial changes over the past 10 years. No school districts had major expansions over the past 10 years and several school districts have actually consolidated schools in order to “right size” their facilities to accommodate shrinking enrollment.

Williamsport Area School District

Over the past 10 years, Williamsport Area School District has seen multiple, significant changes to district infrastructure. A major effort was to reduce costs by consolidating facilities. The district closed three primary schools (Sheridan, Round Hills, and Woodward) and moved the district offices into an addition to the renovated Williamsport Area Middle School. Renovations to Jackson Primary were also completed in this time period to accommodate consolidation. The school district also updated and expanded their Career & Technical Education (CTE) facilities located in the Williamsport Area High School. The school district’s CTE facilities are one-of-a-kind in the county and other school districts pay a per student fee to enroll students in this facility. The school district also finalized a full renovation and expansion of the high



Source: [Williamsport Area School District](#)

school football stadium in a project called “Return to Glory.” The new stadium will allow the school to host various tournaments.

Jersey Shore Area School District

The Jersey Shore Area School District closed the Nippenose Valley Elementary School at the end of the 2013-14 school year. Renovations to the Jersey Shore Elementary School were also completed in 2013-14. Students from Nippenose Valley Elementary School were then consolidated into Jersey Shore Elementary School.

Southern Tioga Area School District

The Southern Tioga Area School District closed the North Penn Jr/Sr High School and consolidated those students with the two remaining Jr/Sr High Schools. Those two schools were renamed North Penn-Mansfield Jr/Sr High School and the North Penn-Liberty Jr/Sr High School. The school district also made upgrades to all five school buildings in the district with an emphasis on energy savings and updating the buildings.

In addition to K-12 facilities, the county is also home to two higher education facilities, Pennsylvania College of Technology and Lycoming College.

Pennsylvania College of Technology

Pennsylvania College of Technology (PCT) has completed several projects over the past 10 years to improve their educational facilities. In 2006, PCT completed the Penn College Center for Workforce Development. In 2008, an addition to the automotive building was completed which allowed PCT to update their automotive facilities to meet current industry standards. Also in 2008, a new dormitory student housing building was constructed. In 2010, a new building for the Masonry Department was built.

Lycoming College

Only one significant building project was completed in the past 10 years for Lycoming College. In 2006, a 22 unit student housing structure was built for the university. The project was noteworthy because the structures were designed to complement the existing surrounding neighborhood.

Municipal Facilities

Municipal facilities have not changed much in the past 10 years. The most notable change was the construction of the Watson Township Municipal Building. Completed in 2014, the Watson Township Municipal Building is a 4,000 sf with maintenance garage and a recycling center on the property. A generator was also purchased for the maintenance building to provide power during emergency situations. With this generator the Watson Township Municipal Building can function as an Emergency Operations Center (EOC).



Public Safety Facilities

In 2014, Lycoming County utilized Act 13 funds to upgrade the County's microwave communication system, operated and maintained by the Department of Public Safety (DPS). The government equipment provides a public safety network for a bi-county region. DPS provides an umbrella of emergency service operations including the 9-1-1 communications center, the emergency management agency, regional emergency medical services, hazardous materials planning, and homeland security. DPS is also responsible for coordinating all emergency calls for fire, police, and emergency medical services in both Lycoming and Sullivan Counties.

In addition, this Lycoming County government-managed communication system provides the connection between the County's Emergency Operations Center at its Lysock View complex and the 22 stream level gauges deployed along the County's creeks in support of the Advanced Flood Warning System. This system of gauges relies on the communications backbone that is anchored by three mountain-top towers: Waterville (west), Armstrong Mountain (center), and Long Ridge (east). Each tower provides microwave connectivity from rural locations to Lysock View.

In 2014, the Montoursville Volunteer Fire Company (VFC) completed an expansion to their firehouse. This expansion included bunk rooms to allow the VFC to start their Live-In Program where they allow students to live in the firehouse in exchange for EMS and Fire coverage in the evening and nighttime hours.



Infrastructure changes since 2006

The 2018 Comprehensive Plan Update includes the following community facilities:

- **Public Water**
- **Sanitary Sewer**
- **Storm Water Sewer**
- **Flood Protection Systems**
- **Public Utilities (Communications, natural gas, electric)**

Public Water, Sewer and Stormwater

Two of the strategies identified in the 2006 Lycoming County Comprehensive Plan concerning infrastructure were, infrastructure services should be shared or possibly regionalized and key infrastructure facilities should be located outside of the floodplain. Two examples of addressing this issue are the Tiadaghton Valley Regional Municipal Authority (TVMA) and the West Branch Regional Authority (WBRA). Both authorities are sewer authorities. In both cases Townships, borough's and authorities worked together to combine existing entities into a single authority. TVMA and WBRA were formed. The authorities were able to construct much needed new sewer treatment plants that serve multiple municipalities. Outdated sewer plants were demolished that were located in the floodway and replaced with new state of the art plants located outside of the floodplain.

Cooperation and partnerships have created an economy of scale. In the case of WBRA, two aged plants were demolished and replaced with one new plant. Seven entities are represented by the WBRA. The TVMA demolished one aged plant. TVMA represents four entities. These partnerships will help to keep sewer rates lower in the future. It is becoming too expensive for municipalities to provide services on an individual basis. Partnerships, coalitions, and cooperation are the way of the future. Finances will necessitate a new level of cooperative between municipalities.

Notable Infrastructure Highlights
Williamsport Sanitary Authority
Central Wastewater Treatment Plant Upgrades
West Wastewater Treatment Plant Upgrades
Sewer System Expansion thru Woodward Twp
Water Filtration Plant Enhancement
West Branch Regional Authority
Authority Established & Chartered
Regional Wastewater Treatment Plant Constructed
Sewer Collection System Renewed & Expanded
Former Montgomery Plant Converted
Former Muncy Plant Converted
Water System Expansion to County Landfill
Sewer System Expansion to White Deer/Rt. 15
Tiadaghton Valley Municipal Authority
Authority Established & Chartered
New Wastewater Treatment Plant Constructed
Sewer System Expansion to Antes Forte Village
Lycoming County Water & Sewer Authority
Halls Station Regional Sewer System Expansion
LCWSA Wastewater Treatment Plant Upgrades
LCWSA Regional Water System Development
Muncy Borough Interconnection—Water
Lycoming Mall Interconnection—Water & Sewer
Mifflin Manor Sewer System Upgrade
Limestone Water System Rehabilitation
Beaver Lake Sewer System Rehabilitation
Woodward Township Sewer Collection System
Village Water Company System Acquisition

Water, Sewer, and Stormwater Infrastructure

As essential elements of public infrastructure, the design/construction/operation & management (O&M) of water, sanitary sewer and stormwater sewer systems represent a technically complex, big business. Unlike transportation infrastructure which is funded primarily by taxes collected at various levels of government, water and sanitary sewer costs are covered by the system's rate payers; i.e. users of those services. At the current time, the public stormwater sewer systems located in many of the County's urban communities are generally owned and operated by the governing municipality. As such, the operation and maintenance of stormwater systems are funded as a line item in the budget of the respective municipality.

Major Water & Sanitary Sewer Providers
Williamsport Sanitary Authority
Williamsport Municipal Water Authority
Jersey Shore Area Joint Water Authority
Lycoming County Water & Sewer Authority
Hughesville-Wolf Authority
Hughesville Borough Water Authority
Muncy Borough Municipal Authority
Montgomery Water and Sewer Authority
Tiadaghton Valley Municipal Authority
Old Lycoming Area Authority
West Branch Regional Authority
Montoursville Borough Water Works

Today, the water and sanitary sewer needs of the urbanized areas of Lycoming County are being fulfilled by a number of public entities. Thirteen of the major providers are listed above. With billions of dollars in capital assets under their astute management, these infrastructure providers are constantly challenged to meet an increasingly strict set of environmental compliance requirements while maintaining an affordable rate structure for the residents and businesses being served.

Outlined below are major initiatives which were completed since the adoption of the 2006 Lycoming County Comprehensive Plan related to water, sanitary sewer, and stormwater infrastructure. The common challenge that each provider grapples with is the balancing of cost of debt service as well as operation and maintenance of these multi-million dollar infrastructure systems.

Water

Published in 2001, Lycoming County's Water Supply Plan identified 37 community water systems serving a population estimated at 74,632. These water systems utilized a total of 79 wells, four streams and three springs. Each of the 37 systems owned, operated, and maintained its own sources of supply, treatment and distribution facilities. Water supplies were evaluated as having generally good yields and water quality. The Plan also noted that there was inadequate finished storage among about half of the County's community water systems. Many systems were in need of management improvements, chiefly mobile home communities. Eighteen systems lacked certified primary operators; while 31 systems lacked certified secondary operators. As many as 23 systems lacked approved O&M Plans.

One of the primary recommendations in the 2001 Plan called for regional solutions to achieve economies of scale and achieve increased coordination and cooperation. In fact, the most efficiently and effectively managed systems were encouraged to expand their service and, in some instances, to incorporate smaller or more financially challenged systems. Finally, the Plan also identified the need for wellhead protection programs to protect water quality. Over the past 16 years, many of the major recommendations in the 2001 Water Supply Plan have been advanced.

Public water vs private water

Summarized below are major projects completed over the past 10 years related to water infrastructure.

Lycoming County Water and Sewer Authority (LCWSA)

The largest water infrastructure expansion project completed in the last 10 years was the construction of the Muncy/Montoursville Regional Water System which is owned and operated by the LCWSA. This \$7.8 million project was designed to provide up to 1,500,000 gallons per day to a 900 acre growth area between Montoursville Borough and Muncy Borough. The project was completed in four phases and included the following improvements:

- A well house completed in early 2007
- 300,000 gallon storage tank located in Muncy Township
- Grey Fox Plaza elevated 200,000 gallon water storage tank was completed in summer 2011
- 25,000 ft. of 12-inch waterline
- An Interconnection with the Muncy Borough Municipal Authority water system including:
 - A booster station
 - 11,300 ft. of waterline

Another significant water development related to LCWSA occurred in January 2013 when the authority assumed responsibilities for the ownership, operation, and maintenance of the Limestone Township Municipal Water Authority which operates near Collumsville and Oval in Limestone Township.

Other LCWSA projects related to sanitary sewer will be covered below.

West Branch Regional Authority (WBRA)

The WBRA was established in July 2010 to answer the problems of increasing sewage treatment requirements and fragmented sewer and water systems in the Montgomery/Muncy area. The authority's main mission was to address sewage treatment requirements mandated by the federal government in order to improve water quality in the Chesapeake Bay, however, the authority also took the opportunity to offer their assistance to the boroughs of Muncy and Montgomery to operate and maintain their water systems. In January 2013 WBRA assumed responsibility of operation and maintenance of the Muncy Borough Municipal Authority water system and the Montgomery water system.

In 2017 WBRA began work to expand water service into the US-15 corridor in Clinton Township. More information on this project is provided in the sanitary sewer section.

Jersey Shore Area Joint Water Authority (JSA-JWA)

The JSA-JWA completed a \$1,089,000 rehabilitation project for the Larry's Creek Filtration Plant.



LCWSA's new elevated water storage tank located in Grey Fox Plaza in Fairfield Township and LCWSA's above-ground 300,000 gallon water storage tank located in Muncy Township.



North Central Source Water Protection Alliance (NCSWPA)

The NCSWPA was formed in June 2010 as a regional group of public drinking water suppliers with the aim of sharing information and resources and collaborating to protect public drinking water supplies. Partners in the organization gather three times per year to share knowledge and ideas, discuss current and future challenges, and promote the efficient and effective use of resources to support the protection of our water resources. According to its mission statement: “The North Central Source Water Protection Alliance serves to protect the region’s drinking water sources from all Potential Sources of Contamination (PSOCs) by proactively evaluating susceptibility to contamination, working to minimize or eliminate specific potential threats, creating long-range strategies to protect sources, encouraging local planning and inter-municipal coordination efforts, and educating the public about source water protection.”



This proactive approach is crucial to maintaining the high-quality, cost effective water supplies presently available to our communities. According to DEP, cleaning up polluted sites can cost 200 times more than preventing contamination, and some aquifers, once polluted, can never be used again. An early success for the NCSWPA came from collaborative discussions with PennDOT, which agreed to design the Rt. 15 corridor project in such a manner that would prevent stormwater runoff from the roadway (and any potential spills from accidents) from entering the water reservoir serving Montoursville.

Baseline Groundwater Quality Monitoring Program

In 2014, Lycoming County and its partners conducted a county-wide groundwater sampling program to help understand the quality of groundwater in privately owned wells within the county. This study was intended to provide information on the current conditions of our groundwater and was an opportunity to understand what is native to our source water in order to assess the impact of agricultural, mining, and other land-use practices on our groundwater. As part of this project, 75 randomly selected wells were sampled throughout the county in the summer of 2014. The site selection process included voluntary participation by residents. The study analyzed a comprehensive list of water quality parameters for each well including substances such as minerals, gases, and bacteria.



Sewer

Regarding sanitary sewer systems, major infrastructure investments have been made by public authorities to address two daunting environmental issues. The sewer systems of tributary communities were required to collect, store and convey 100% of their flow to the servicing WWTP. Extremely expensive improvements in the respective sanitary sewer collection systems were mandated. The second challenge involved the biological nutrient removal criteria imposed by the Chesapeake Bay Tributary Strategy (CBTS). This US EPA mandate required the removal of increased amounts of nitrogen, phosphorus, and sediment from incoming flows. Over \$188 million in upgrades were completed to four major sewer authorities in the county.

The science and technology required to address these unfunded environmental mandates is another indication of the sophistication of sanitary sewer system operation and maintenance and why it has become a highly technical,

complex business enterprise. Equally important, these same providers must maintain financially sound operations while providing an affordable rate structure to the communities they serve, including the surrounding businesses and industries.

A succinct summary of some of the notable highlights in sanitary sewer infrastructure is provided on the next page. Many of these accomplishments were leveraged by the willingness of these same providers to creatively structure partnerships to improve the efficiency and effectiveness of the services delivered. Today, some municipalities are beginning to partner with these major authorities to manage or even own the community's sanitary sewer collection systems. Tributary Communities have also made significant investments in their sanitary sewer infrastructure, including the construction of several massive sanitary sewer overflows (SSO) holding tanks.

West Branch Regional Authority (WBRA)

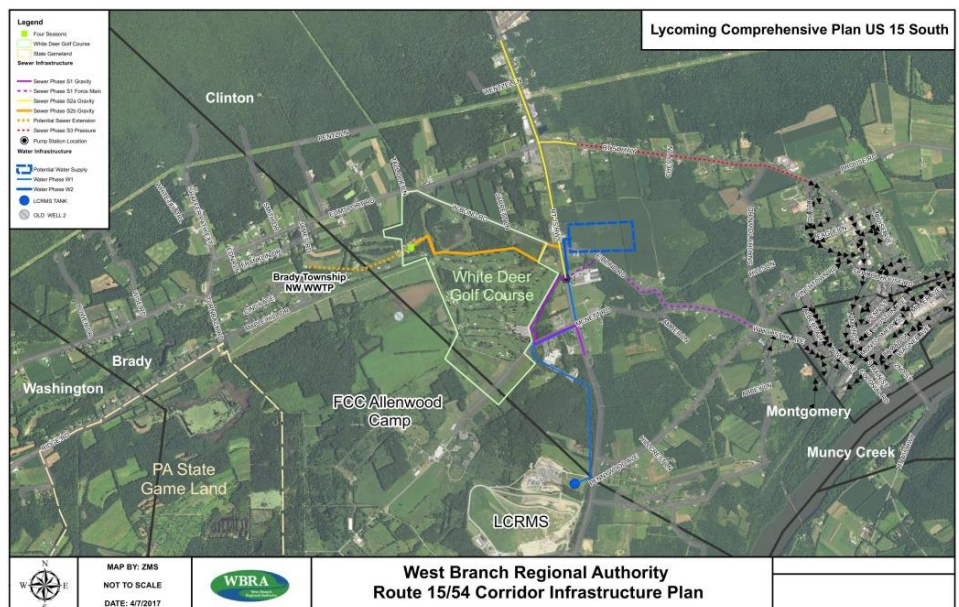
When faced with the challenges presented by the CBTS requirements and an aging and failing sanitary sewer infrastructure system; Montgomery Borough, Muncy Borough, Muncy Creek Township, the Montgomery Water and Sewer Authority, the Muncy Borough Municipal Authority, and the Muncy Creek Township Sewer Authority decided to work together to find a regionalized strategy to address these problems. They worked together to develop a regional sanitary sewer service. The West Branch Regional Authority (WBRA) was formed in July 2010 and become owner and operator of the sewer systems in July 2012. Construction of a new \$33 million regional Waste Water Treatment Plant (WWTP) was completed in 2014 (located outside the floodzone).



WBRA's new WWTP that serves four municipalities: Muncy and Montgomery Boroughs and Muncy Creek and Clinton Townships.

In 2017 WBRA assumed operation and maintenance responsibilities for the Brady Township Package Plant on a contract basis.

Also in 2017, construction began in the US-15 Corridor in Clinton Township on a \$6 million water and sewer expansion project to provide water and sewer service to the corridor. This expansion is meant to serve homes and businesses in the area with failing septic systems, a major problem in the area due to poor soil types.



Williamsport Sanitary Authority (WSA)

Since 2006 the WSA completed \$125 million in combined upgrades to both the Central Plant on Basin Street and the West Plant on Arch Street. In addition to providing sanitary sewer overflow holding tanks these upgrades allowed the WSA to meet their permitting requirements and to provide better water quality. In 2010-11 the combined nitrogen discharge was 602,251 pounds and combined phosphorus discharge was 54,017 pounds. Permit caps were set at 230,970 pounds of nitrogen and 28,755 pounds of phosphorus. These upgrades allowed the WSA to meet these permit requirements.



WSA's Central Wastewater Treatment Plant was a multi-million dollar expansion and technological upgrade to satisfy federal environmental regulations

Tiadahton Valley Municipal Authority (TVMA)

Like the Williamsport Area and Eastern Lycoming County, the Jersey Shore Area was also faced with challenges in meeting the CBTS requirements. In order to meet the requirements the TVMA was created and a new \$20 million WWTP was built in Nippenose Township to serve the Jersey Shore Borough, Porter Township, and Nippenose Township. The new WWTP went into operation on March 25, 2014 and the old plant (which was located in the floodway) was demolished later that year. In addition to the new WWTP, sewer service was also expanded to include the Antes Fort area of Nippenose Township.



TVMA's new WWTP to serve Jersey Shore and urbanized areas of Porter and Nipponese Townships

Lycoming County Water and Sewer Authority (LCWSA)

LCWSA owns and operates the Montoursville Regional Sewer System (MRSS) which originally only served eastern Loyalsock Township, Montoursville Borough, and Fairfield Township south of I-180. In 2004, expansion was initiated into Muncy Township and Muncy Creek Township in the areas south of I-180. Today the MRSS consists of 14 pump stations, about 10 miles of force main (pressure sewer), and approximately 35 miles of gravity sewer main. The WWTP has an average capacity of 1.5 million gallons per day and an instantaneous maximum capacity of 3.75 million gallons per day with 40% of the WWTP's capacity reserved to accommodate future development and growth. LCWSA completed a \$10 million upgrade in fall 2012 to comply with CBTS requirements.

In addition to running the MRSS, the LCWSA provides a variety of services to municipalities related to water, sewer, and stormwater including the following sewer services:

- LCWSA operates and maintains a sewer system located in Armstrong Township along US-15. Sewage from this collection system is treated at the WSA Central Plant. This system consists of over one mile of gravity sewer main, a half mile of force main, and one pump station.
- LCWSA provides billing/invoicing services for South Williamsport Borough's collection system.
- LCWSA provides operation, maintenance, and management of the Duboistown Borough collection system.
- LCWSA has acquired two small package treatment plants:
 - The Beaver Lake Sewer System in Penn Township was acquired. This system serves a small development to the west of Beaver Lake.
 - The Mifflin Manor Sanitary System in Mifflin Township was acquired in January 2017. This system serves a small development south of Salladasburg.

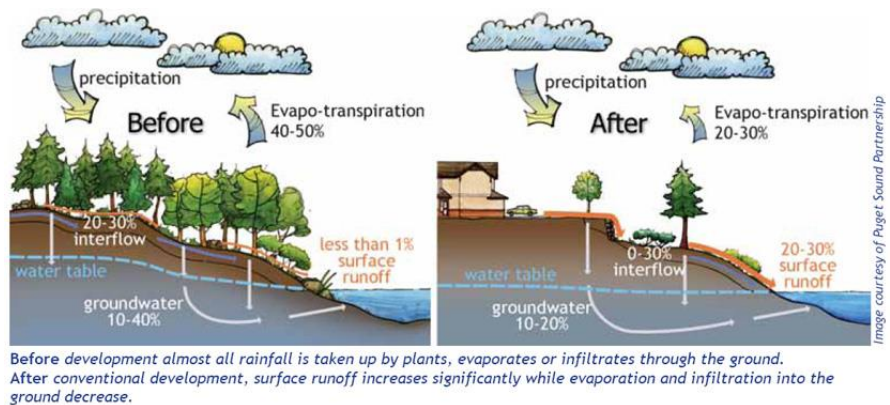
Hughesville-Wolf Authority

In 2006 the Hughesville-Wolf Authority constructed a new digester for their WWTP almost doubling their capacity. This upgrade was completed prior to the EPA mandate leaving the Hughesville-Wolf Authority to figure out how to meet their phosphorus discharge requirements (their improvements allowed them to meet nitrogen discharge requirements). In order to address this issue the Hughesville-Wolf Authority purchases nutrient credits through a program covered in the next section.

Stormwater

Stormwater is water from precipitation that flows across the ground and pavement when it rains or when snow and ice melt. The water seeps into the ground or drains into storm sewer systems – a system with inlets and pipes that directly connect to local waterways. Stormwater becomes a problem when it picks up debris, chemicals, dirt and other pollutants, clogging storm sewers and causing flooding and erosion of stream banks. This untreated stormwater runoff empties in our local streams and rivers. Inadequate stormwater management results in:

- Increase in flood flows and velocities
- Increased erosion and sedimentation
- Inadequate carrying capacity of streams and storm sewers
- Increased cost of public facilities
- Reduced groundwater recharge
- Undermined floodplain management efforts
- Endangered public health and safety



Source: [State of Washington Department of Ecology](#)

The negative impacts of stormwater runoff can be reduced by practicing effective stormwater management strategies. Some strategies are simple and low-cost ways to reduce runoff pollution and problems caused by flooding. Some examples include: rain barrels, rain gardens, vegetated filter strips, level spreaders, disconnecting impervious surfaces, porous pavements and many others Best Management Practices (BMPs).

Pennsylvania's Stormwater Management Act, or Act 167, was enacted in 1978 in response to the damaging impacts seen from accelerated stormwater runoff as land was developed around the state. Act 167 requires that counties prepare and adopt stormwater management plans and requires municipalities to adopt and implement ordinances to regulate development consistent with these plans. The West Branch Susquehanna River is a major tributary to the Chesapeake Bay. The Chesapeake Bay is the largest estuary in North America and has been well known for its pollution problems since 1973. Since then, major tributary states have been working with the U.S. Environmental Protection Agency (EPA) to address this issue. In 1987 a Chesapeake Bay Agreement was completed which set numeric goals to reduce pollution in the Chesapeake Bay. In the same year, amendments to the U.S. Clean Water Act created Municipal Separate Storm Sewer Systems (MS4) which in Phase I originally only included municipal storm sewer systems in census defined urban areas exceeding 100,000 people. MS4s are required to receive permits where they demonstrated that they have implemented a collective series of programs to reduce the discharge of pollutants from the given storm sewer system in a manner that protects the water quality of nearby streams rivers, and wetlands. In 2003, the EPA issued water quality criteria to Chesapeake Bay states requiring them to more stringently manage water quality. Also in 2003, the MS4 Phase II regulations began implementation requiring municipalities within any urban population greater than 7,000 people (including the Williamsport area) to receive a permit. These MS4 permits also required permittees of Chesapeake Bay tributary communities to develop Pollutant Reduction Plans designed to reduce pollutants to the Chesapeake Bay. In 2010 the EPA established Total Maximum Daily Load (TMDL) due to insufficient progress and poor water quality in the Chesapeake Bay. TMDL set Bay watershed limits for nitrogen, phosphorus, and sediment. Stormwater has become a significant infrastructure challenge facing our communities since the adoption of the previous comprehensive plan. Much of the burden of the above mentioned stormwater regulations have fallen on the shoulders of municipalities throughout the Chesapeake Bay watershed.

Lycoming County Stormwater Plan

In order to address Act 167, Lycoming County adopted the Lycoming Creek Stormwater Plan and the Lycoming County Stormwater Plan in May 2010 with extensive input from local engineers, developers, and municipal officials. Both plans included model implementation ordinances which municipalities could enact. Since the adoption of the stormwater plans, most Lycoming County municipalities have adopted a stormwater management ordinance. Most municipalities within the Lycoming County Subdivision and Land Development Ordinance partnership have opted to have the Lycoming County Planning Commission administer their stormwater ordinance on their behalf.

Lycoming County MS4 Coalition

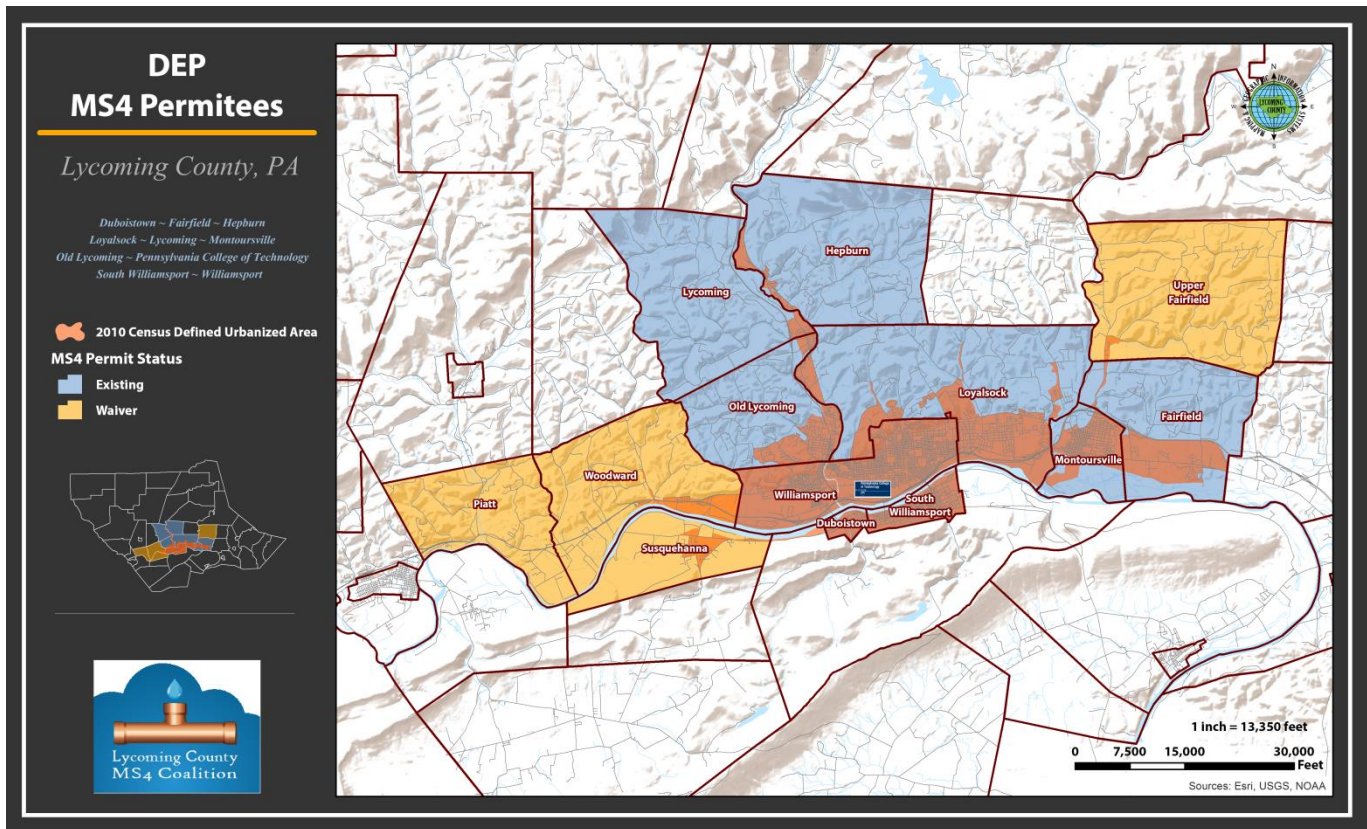
The Clean Water Act Phase II required municipalities within the census defined urbanized area surrounding Williamsport partnered with the County to form the Lycoming County MS4 Coalition. The MS4 Program is a federal regulatory requirement that is passed through and administered by the PA DEP. MS4 permittees are designated following U.S. Census Bureau guidelines for urbanized areas. The MS4 Coalition works together to incorporate six requirements (called Minimum Control Measures or MCMs) into their stormwater management programs:

- Public outreach and education
- Public involvement and participation
- Illicit discharge detection and elimination



- Construction site runoff control
- Post-construction stormwater management in new development and redevelopment
- Pollution prevention and good housekeeping for municipal operations and maintenance.

Within Lycoming County, there are currently ten MS4 permittees. Moreover, it is likely the MS4 program will be expanded to involve more municipalities. The map below shows the 10 MS4 permittees. It is likely that the MS4 Program requirements will be expanded to include municipalities adjacent to the Williamsport metro area and potentially further extended to additional populated communities such as the Boroughs of Muncy and Jersey Shore.



Traditionally, stormwater sewer systems have been under the ownership and operation of the governing municipality. Today, the MS4 communities are exploring options which include ways in which water and sewer authorities may assist with MS4 compliance and the overall inspection and maintenance of aging storm water systems.

The cost of stormwater management is on the rise. In order to meet the sediment removal requirements imposed by the Chesapeake Bay Pollution Reduction Plan, it seems very likely that MS4 members will be required to fund streambank stabilization/restoration projects and Best Management Practices (BMP) projects to compensate for the sediment loading attributed to their stormwater outfall points.

Given the environmental mandates embedded in the Chesapeake Bay Pollutant Reduction Plan (CBPRP) and as further detailed by the MS4 program, the need to better control and eventually treat stormwater will pose a significant challenge to all MS4 municipalities. These challenges are unavoidable and must be addressed thoughtfully, cost-effectively, and with the highest degree of efficiency possible.

Nutrient Credit Trading Program

Implementation of this program began in 2009 with the goals of reducing nutrient and sediment pollution flowing into the West Branch Susquehanna River, enhancing local environmental quality, and promoting home-grown conservation practices. Credit trading allows regulated point sources, including sewer plants, large industrial dischargers, and private developers to purchase credits in lieu of making costly upgrades to their on-site wastewater treatment facilities. In many cases, purchasing credits can dramatically reduce the cost of complying with nutrient reduction mandates, saving ratepayer dollars, and increasing economic competitiveness. An Advisory Committee and three work groups were formed to guide the development of the program. Stakeholders who participated in these groups included representatives from wastewater treatment authorities, local municipalities, the farming community, conservation groups, and others.

Farmers earned credits by going above and beyond the minimum legal requirements to do more than what is considered the farm's fair share of pollution reduction. Multiple agricultural BMPs were implemented on the participating farms including: riparian buffers, no-till and cover cropping, off-stream watering, rotational grazing, and manure hauling.

In 2012, Hughesville-Wolf Authority determined that purchasing nutrient credits could be 89% less costly than upgrading the wastewater treatment plan.

Other Minor Stormwater Projects

Some other minor stormwater projects have been completed since the adoption of the previous comprehensive plan including:

Montgomery Borough Park Riparian Buffer

Completed in April 2013, the Montgomery Borough Park Riparian Buffer was designed to enhance the habitat, beauty, and recreational value of the Montgomery Borough Park and to improve the water quality by slowing and filtering stormwater runoff from the borough as it enters Adams Creek.



Photos by PCD Staff



Jersey Shore Public Library Porous Parking Area

Completed in April 2013, the project demonstrates one alternative to traditional lot surfacing that allows rainfall to absorb into the ground rather than running off. Onsite infiltration projects such as this one reduce stormwater runoff, naturally filter water, and recharge groundwater supplies.



Photos by PCD Staff

Flood Protection Systems

Lycoming County's developed areas are mostly concentrated along the West Branch of the Susquehanna River which flows across the southern section of the County parallel to Bald Eagle Mountain. The Greater Williamsport Area is protected by a levee. The Levee was authorized by the Army Corps of Engineers (USACE) following the 1936 flood and was completed in the mid 1950's. There are four Levee systems: North West Williamsport and South East Williamsport, owned by the City of Williamsport; South Williamsport Levee, owned by South Williamsport; and Bull Run System-Completed after Tropical Storm Agnes in 1972 , owned by Loyalsock Township. These protected areas are exempt from the mandatory purchase of Flood Insurance and are not required to follow the municipality's floodplain ordinances.

Following levee failures in New Orleans after TS Katrina and failures along the Mississippi River, the USACE developed more stringent review criteria when conducting regular reviews. FEMA and the National Flood Insurance developed a list of items a levee needed to meet in order for the area behind the levee to receive the non-regulatory floodplain designation. Since the last comprehensive plan, the levee system's viability, the accreditations and the impact to property owners has become a high priority.

Private Utilities

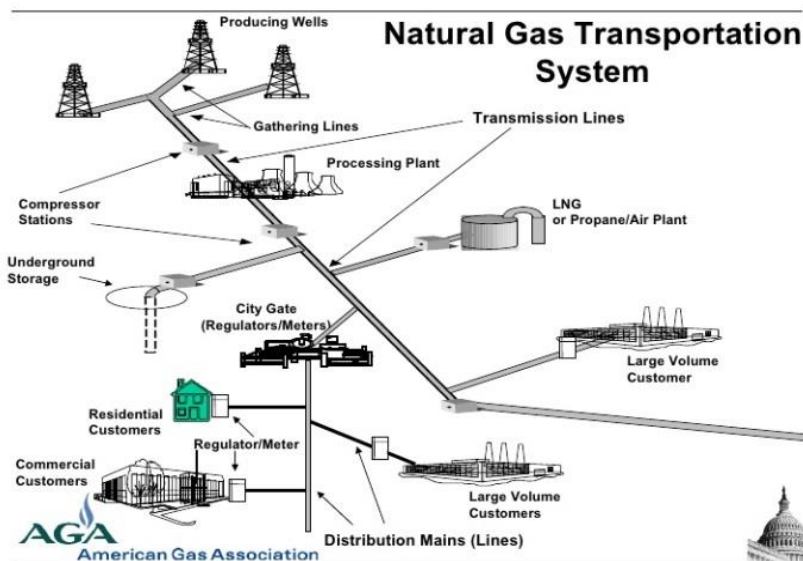
Natural Gas Infrastructure (Marcellus Shale Boom)

Lycoming County is located in the center of one of the nation's largest shale gas formations. The Marcellus Shale formation spans from West Virginia through West and North Pennsylvania and East Ohio to Southern New York. In the County, the formation occurs between 6,000 ft. and 9,000 ft. below the surface and is usually around 100 ft. to 250 ft. thick. Traditional vertical wells are not effective for releasing gas from Marcellus Shale because the gas is released through vertical joints in the rock. A horizontal well combined with hydraulic fracturing allows drillers to cost-effectively drill into the vertical joints of this formation to release the gas. In 2003 the first horizontal Marcellus Shale well was drilled in Washington County, Pennsylvania by Range Resources. Improvements in technology have allowed natural gas from Marcellus Shale to be cost-effectively gathered. Lycoming County experienced a boom in Marcellus Gas extraction between 2010 to 2014 with 782 wells being drilled in that time period (851 wells were drilled between 2007 and 2017).



Source: www.City-Data.com

Methane gas is extracted from wells and conveyed through gathering lines to transmission lines. These transmission lines then feed distribution lines which transport the gas to their destinations which can include a variety of customers including gas fired power plants, Compressed Natural Gas (CNG) filling stations, large volume, residential, and commercial customers. Most of the infrastructure related to the natural gas industry is designed, funded, constructed, owned, and maintained by private companies.



Source: American Gas Association

Land owners are compensated by two means for the gas below their property, signing bonus and royalty payments. The signing bonus is paid upfront based upon the number of acres that an owner is leasing. In 2008 signing bonuses hit \$2,000 or more per acre in Lycoming County. Signing bonuses have since dropped off. The signing bonus is a guaranteed payment to the land owner. Royalties are based upon production and usually amount to 12.5%. This income comes in over time.

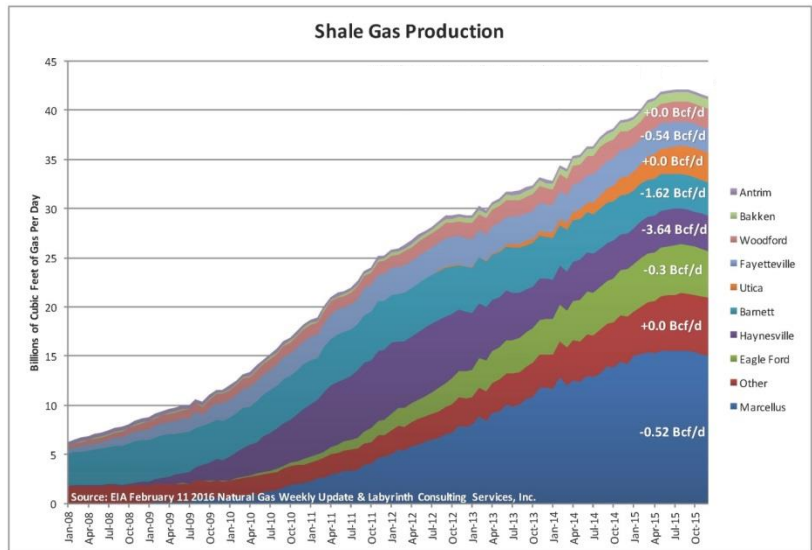
In 2015 14.4 billion cubic feet of gas was produced in the Marcellus play. Marcellus produced 36% of shale gas and 18% of dry gas in the United States. It is estimated that Marcellus Shale gas production could last for decades, if true Marcellus Shale will be a major economic factor in Lycoming County for years to come.

During the height of the drilling in Lycoming County many gas workers moved to the county. It is estimated that 3,500 gas workers came to the County. This exacerbated an existing housing shortage in the county. As a result housing prices including rent increased making it difficult for lower income families to afford suitable housing. On a positive note the increase in population with a large amount of disposable income lead to the opening of new restaurants in Williamsport and the construction of five new hotels in the county. Over 80 new businesses or existing business expansions occurred during this time.

Lycoming County responded to the drilling activity in two ways. First, the County created a Gas Task Force. The task force was made up off County officials, Chamber officials, state legislators, realtors, bankers, DEP representative, and business officials. The purpose of the task force was to deal with issues as they came up, both with residents and with the industry. The task force met until 2012. It has been inactive for the last five years.

In 2011 the County passed an oil and gas amendment to the Lycoming County Zoning Ordinance. The Lycoming County Zoning Ordinance had no regulations concerning oil and gas exploration because it had never been an issue in the county before. The County sought to strike a balance with the regulations. The goal was to craft regulations that protected the quality of life in the county while being able to enjoy the economic benefits that the industry had to offer. The County’s ordinance amendment has been used in Harrisburg by the industry and legislators as a model in the state. The City of Williamsport has been revitalized in large part due to the industry. At the same time we were able to protect our scenic valleys, particularly Pine Creek Valley through the ordinance amendments made. Drilling is occurring in Pine Creek Valley but it is not visible from the valley floor. This is due to the zoning ordinance not permitting steep slope development and requiring setbacks from the ridge tops.

To take advantage of natural gas production, River Valley Transit (RVT) invested in the creation of a Compressed Natural Gas (CNG) fueling station. RVT currently has a fleet of 29 buses with six being fueled with CNG. Through 2017, they will replace eight additional buses with CNG vehicles and then four more in 2018. By the end of 2018, the majority of RVT’s buses will be CNG fueled. CNG offers a 25% reduction in carbon emissions versus gasoline and also has the possibility to have much lower fuel costs than gasoline.



Source: [Art Berman](#)



Electric

Two electric generation plants were constructed in Lycoming County over the past 10 years. The Panda Patriot Power Project, owned and operated by Panda Power Funds, was constructed in Clinton Township. This 829 megawatt (MW) power plant runs exclusively on natural gas and can generate enough electricity to power one million homes. The Panda Patriot Plant began operation in 2016. ([Panda Power Funds](#))



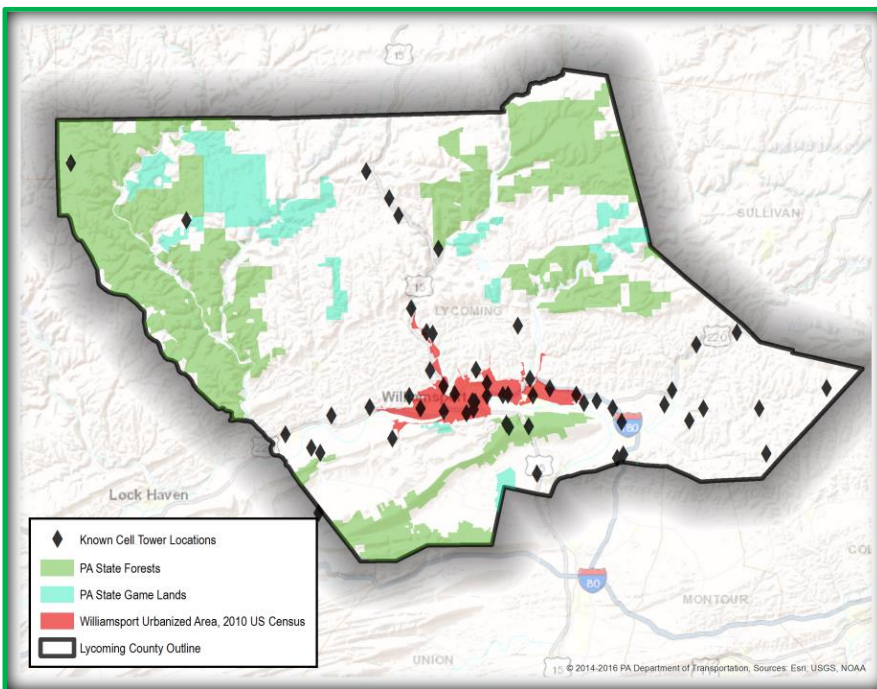
The Laurel Hill Wind Energy facility, which is owned and operated by Duke Energy, is a 69 megawatt (MW) wind powered electric generating, transmitting, and interconnecting facility. There are thirty individual 2.3MW Siemens Wind Turbines within a seven mile long lease corridor located along the Laurel Hill Ridge between Jackson and McIntyre Townships in Lycoming County. This facility began operation in October of 2012 and can provide enough electricity to power 20,000 homes. The Laurel Hill Wind Energy facility supplies electricity to Delaware Municipal Electric Corporation under the terms of a 25-year agreement. ([Duke Energy](#)) ([Larson Design Group](#))



Laurel Hill Wind Energy Facility Substation with turbines on the ridge in the background

Communications Facilities (Cellphone and Internet)

Broadband and wireless communication infrastructure is a critical component of community infrastructure. Lycoming County's large geographic expanse together with its mountainous terrain and low population densities make it unprofitable for private companies to provide total coverage in the rural areas of the county for these services whether it's broadband service or cellular service. As a result, the rural areas of the county either have very poor coverage or no coverage at all. The map to the right shows known cell tower locations in the county.



The map shows that towers are located around the urban areas and along US-15 and I-180. More towers are located in the eastern portion of the county where the terrain is not as cumbersome.

County &/or Local Municipal Jurisdiction/Administration of Respective Land & Resource Ordinances

Rural Areas Planning Advisory Teams

PAT: ↓		SLDO		Zoning		Storm-water	Flood-plain	Oil & Gas	Medical Marijuana
		County	Local	County	Local				
A. Rural East									
A.1	Eldred	□	○	--	○	○	○	○	--
A.2	Franklin	□	○	--	○	--	○	--	--
A.3	Jordan	■	□	■	□	■	■	■	■
A.4	Mill Creek	■	□	--	○	○	○	(○)	--
A.5	Moreland	■	□	■	□	■ ^{SFE}	■	■	■
A.6	Penn	■	□	■	□	■ ^{SFE}	■	■	■
A.7	Plunketts Creek	□	○	--	○	--	○	○	--
A.8	Upper Fairfield	□	○	--	○	○	○	--	(○)
B. Rural Northcentral									
B.1	Cascade	□	○	■	□	■ ^{SFE}	■	■	■
B.2	Cogan House	■	□	■	□	■	■	■	■
B.3	Gamble	■	□	■	□	■	■	■	■
B.4	Jackson	■	□	■	□	■	■	■	■
B.5	McIntyre	■	□	■	□	■	■	■	■
B.6	McNett	■	□	■	□	■ ^{SFE}	■	■	■
C. Rural West									
C.1	Anthony	■	□	--	○	○	○	--	--
C.2	Bastress	■	□	■	□	■	■	■	■
C.3	Brown	■	□	■	□	■	■	■	■
C.4	Cummings	■	□	■	□	■	■	■	■
C.5	Limestone	■	□	■	□	■	■	■	■
C.6	McHenry	■	□	■	□	■	■	■	■
C.7	Mifflin	■	□	■	□	■ ^{SFE}	■	■	■
C.8	Pine	■	□	■	□	■	■	■	■
C.9	Salladasburg Boro	■	□	■	□	■	■	■	■
C.10	Susquehanna	□	○	--	○	--	○	--	○
C.11	Washington	□	○	--	○	○	○	--	(○)
C.12	Watson	■	□	--	○	○	○	○	--
Total / (County/Municipal)		19	7	17	9	23 (17/6)	26 (17/9)	21 (17/4)	20 (17/3)
Percentage		73%	27%	65%	35%	88%	100%	81%	77%

Key:

■^{SFE} = Single Family Dwellings in these townships are exempt from Stormwater Management Plan requirements

■ = county
○ = local municipal

□○ = County reviews municipal plans

■□ = Township reviews County plans or issues Zoning Placard after county review

County &/or Local Municipal Jurisdiction/Administration of Respective Land & Resource Ordinances
Growth Area Planning Advisory Teams

PAT: ↓		SLDO		Zoning		Storm-water	Flood-plain	Oil & Gas	Medical Marijuana
		Co	Mun	Co	Mun				
D. Muncy Creek PAT									
D.1	Hughesville Boro	■	□	--	○	○	○	--	--
D.2	Muncy Creek	□	○	--	○	--	○	--	--
D.3	Muncy Boro	□	○	--	○	--	○	--	--
D.4	Picture Rocks Boro	■	□	--	○	○	○	○	○
D.5	Shrewsbury	■	□	--	○	○	○	--	--
D.6	Wolf	□	○	--	○	○	○	○	(○)
E. US 15 South PAT									
E.1	Brady	□	○	--	○	--	○	--	--
E.2	Clinton	□	○	--	○	○	○	--	--
E.3	Gregg (Union Co)		○	--	○	○	○	--	--
E.4	Montgomery Boro	□	○	--	○	--	○	--	--
F. US 220/I-99 PAT									
F.1	Jersey Shore Boro	□	○	--	○	○	○	--	■
F.2	Nippenose	□	○	--	○	○	○	(○)	--
F.3	Piatt	■	□	■	□	--	■	■	■
F.4	Porter *	■	□	■	□*	○	■	■	■
F.5	Woodward	□	○	--	○	○	○	--	
G. Montoursville-Muncy PAT									
G.1	Fairfield	□	○	--	○	○	○	○	--
G.2	Montoursville	□	○	--	○	○	○	--	--
G.3	Muncy (Township)	■	□	■	□	○	■	■	■
H. Lower Lycoming PAT									
<i>Headwaters</i>									
H.1.a.	Hepburn	□	○	--	○	○	○	○	--
H.1.b	Lewis	□	○	■	□	■	■	■	■
H.1.c	Lycoming	□	○	--	○	○	○	--	--
<i>Greater Williamsport Transitional Zone</i>									
H.2.a	Loyalsock	□	○	--	○	○	○	○	--
H.2.b	Old Lycoming	□	○	--	○	○	○	○	--
I. Greater Williamsport PAT									
I.1	Armstrong	□	○	--	○	--	○	--	--
I.2	Dubois Boro	□	○	--	○	○	○	--	○
I.3	South Williamsport Boro	□	○	--	○	○	○	--	--
I.4	Williamsport City	□	○	--	○	○	○	--	--
Total / (County/Municipal)		6	21	4	27 (4/23)	21(1/20)	27 (4/23)	11 (4/7)	8 (5/3)
		22%	78%	15%	100%	78%	100%	41%	30%

Key:

■ = county

○ = local municipal

□○ = County reviews municipal plans

■□ = Township reviews County plans or issues Zoning Placard after county review

* = County Zoning office issues placard in Porter Township; other townships issue placards for their respective areas

(○) = pending local municipal amendment or ordinance

MUNICIPAL FIRE/EMS SERVICE DELIVERY CHART

Based upon a meeting of the undersigned, this summary chart identifies the primary provider of services to the community.

- Fire Suppression* _____
- Hazardous Materials – Awareness Level _____
- Hazardous Materials – Operations Level _____
- Fire Police _____
- Rescue (vehicle, elevator, light entrapment) _____
- Confined Space Rescue _____
- Trench Rescue _____
- Technical (structural collapse) Rescue _____
- Water Rescue _____
- Wilderness Rescue _____
- High Angle Rescue _____
- Basic Life Support – EMS _____
- Advanced Life Support – EMS _____
- QRS _____
- Mass Casualty Incident _____
- Terrorism Response _____

Fire Official

EMS Official

Municipal Official

Date _____

Issues/Challenges/needs faced that require action:

* includes structure fires, brush fires, vehicle fires, etc. requiring basic suppression via water usage

Standard of Service Level (attach Standard of Service Level Matrix)

Fire _____

EMS _____

Budget

Year	Operating Budget	Capital Budget
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Objectives for Fire and Rescue Services

- Year _____
1. _____ Implement PENNFIRS _____
 2. _____
 3. _____
 4. _____
- Year _____
1. _____
 2. _____
 3. _____
 4. _____
- Year _____
1. _____
 2. _____
 3. _____
 4. _____

Standard of Service Matrix

It is important for us to consider the vast differences in the communities of the Commonwealth. Therefore, we must be cautious in creating standards too stringent for small communities with limited personnel, but also hold to acceptable levels of service for the residents of such communities.

SERVICE LEVEL*	DESCRIPTION
Defensive Service Level F	<ul style="list-style-type: none"> a. Personnel required – 3 b. Equipment – 1 NFPA criteria engine (pumper) c. Exterior Defensive Firefighting capabilities only d. Expectations – Protect surrounding exposures, loss of involved property – NO TIME LIMITS
Offensive Service Level E	<ul style="list-style-type: none"> a. Personnel required – 5 b. Equipment – 1 NFPA criteria engine (pumper) c. Interior Firefighting capabilities only of room or contents and small buildings under 750 square feet, NFPA PPE/SCBA. d. Expectations – Ability to extinguish a fire and save life and property. Respond within 9 minutes, plus travel time.
Offensive Service Level D	<ul style="list-style-type: none"> a. Personnel required – 5 b. Equipment – 1 NFPA criteria engine (pumper) c. Interior Firefighting capabilities only of room or contents and small buildings under 750 square feet. Also, vehicle extrication capabilities with little or no power equipment. NFPA PPE/SCBA. d. Expectations – Ability to extinguish a fire and save life and property. The ability to extricate a person from a motor vehicle efficiently. Respond within 9 minutes, plus travel time.
Offensive Service Level C	<ul style="list-style-type: none"> a. Personnel required – 6 b. Equipment – 1 NFPA criteria engine (pumper) c. Interior Firefighting capabilities of room or contents and small buildings under 1000 square feet. Vehicle rescue capabilities with power or no power equipment and provide Operations level Hazardous Materials Response. NFPA PPE/SCBA. d. Expectations – Ability to extinguish a fire and save life and property. The ability to perform and extricate a person from a motor vehicle efficiently. The ability to identify and provide operations level hazardous materials response. Arrive on scene within 14 minutes, 80% of the time.
Offensive Service Level B	<ul style="list-style-type: none"> a. Personnel required – 10 b. Equipment – 2 NFPA criteria engine (pumper) c. Interior Firefighting capabilities of room or contents and small buildings under 5000 square feet. Vehicle rescue capabilities with power or no power equipment and provide Operations level Hazardous Materials Response. NFPA PPE/SCBA. d. Expectations – Ability to extinguish a fire and save life and property. The ability to perform and extricate a person from a motor vehicle efficiently. The ability to identify and provide operations level hazardous materials response. Arrive on scene within 10 minutes of dispatch, 80% of the time.
Offensive Service Level A	<ul style="list-style-type: none"> a. Personnel required – 15 b. Equipment – 2 NFPA criteria engine (pumper), and one truck company (aerial or support truck) c. Interior Firefighting capabilities of room or contents and small buildings under 10,000 square feet. Vehicle rescue capabilities with power or no power equipment and provide Operations level Hazardous Materials Response. NFPA PPE/SCBA for each person. d. Expectations – Ability to extinguish a fire and save life and property. The ability to perform and extricate a person from a motor vehicle efficiently. The ability to identify and provide operations level hazardous materials response. Arrive on scene within 9 minutes of dispatch, 90 % of the time.

* An ultimate (most basic) goal is to have a turnout time (time from dispatch to time first vehicle leaves the door) is 9 minutes 90% of the time, plus travel time to the incident. (Levels E and F)

* Communities may have more than one service level

NOTE: SPECIAL RISKS REQUIRE ADDED SERVICES AS DETERMINED LOCALLY

SERVICE LEVEL	TRAINING REQUIREMENTS**
Defensive Service Level F	Firefighter – Basic firefighting course Pump Operator – Basic Pump course
Offensive Service Level E	Firefighter – Basic firefighting course, Haz Mat R&I, NIMS Pump Operator – Basic Pump course, Basic firefighting course
Offensive Service Level D	Firefighter – Basic firefighting course, Basic vehicle rescue course, Haz Mat R&I, NIMS Pump Operator – Basic Pump course, Basic firefighting course, Basic vehicle rescue course, Haz Mat R&I, NIMS
Offensive Service Level C	Firefighter – Basic firefighting course, Basic vehicle rescue course, Haz Mat Operations Course, NIMS Pump Operator – Basic Pump course, Basic firefighting course, Basic vehicle rescue course, Haz-mat Operations Course, NIMS
Offensive Service Level B	Firefighter – Basic firefighting course, Advanced vehicle rescue course, Haz Mat Operations Course, RIT Course, Truck Company Operations Course, NIMS Pump Operator – Basic Pump course, Basic firefighting course, Advanced vehicle rescue course, Haz-mat Operations Course, Truck Company Operations Course, NIMS
Offensive Service Level A	Firefighter – Firefighter I Certification, Advanced vehicle rescue course, Haz Mat Operations Course, RIT Course, Truck Company Operations Course, NIMS. Pump Operator – Basic Pump course, Firefighter I Certification, Advanced vehicle rescue course, Haz-mat Operations Course, Truck Company Operations Course, NIMS

** Applies to 50% of active responders not including fire police.

EMS Service Level D	First Aid Response by 2 First Responders
EMS Service Level C	Quick Response Unit with 1 EMT and 1 First Responder
EMS Service Level B	Basic Life Support – 1 EMT and 1 First Responder
EMS Service Level A	Advanced Life Support – 1 EMT and 1 Paramedic

Suggested Minimum Training for Administrative Officers:

President - Rules of Order, By-laws, Conducting of Meetings, Grant Writing
Treasurer - IRS Reporting, Grant Writing, Charitable Registrations.

The Impact of Lycoming County's Colleges on the Local and Regional Economy

Noteworthy Investments in Facilities, Programs, and Development Projects

Lycoming College

Since 2008, Lycoming College has invested over \$25 million in its physical plant. The most recent major construction project, the Lynn Science Center, serves as the new home for physics, astronomy, and the college's new astrophysics program. The facility includes a state of art planetarium, which provides both classroom and experiential learning to students, as well as the community through shows and programs made available every first Friday of the month. In addition, the College opened a new art gallery in downtown Williamsport and hosts student and professional artist shows continually throughout the year. Lycoming College has established a strategic and financial partnership with Penn College and the Community Arts Center, leveraging performances and productions provided through the College's music and theatre programs.

Academically, Lycoming College has established new programs in astrophysics, neuroscience, entrepreneurship, energy studies, energy science, and biochemistry. These academic programs respond to both regional and national needs related STEM education; healthcare and the need for new and high performing healthcare providers and leaders; the production, management, politics, and economics of energy; and the critical roles that innovation and entrepreneurship play in the economy.

Lycoming College has also invested across its curriculum to provide students a 21st century liberal arts and sciences education that is defined by students who couple their classroom learning with internships, undergraduate research, study abroad, and community-based learning. These experiences further position Lycoming graduates to not simply enter into meaningful careers, but also ready and able them to better understand career trajectory and employer needs and opportunities.

As part of the Old City / East Third Street Gateway Redevelopment Strategy, Lycoming College has taken the lead on several aspects of that initiative, including the Basin Street Redevelopment Project and a new Gateway Building on the southeast corner of the campus. The redevelopment strategy is a university-community partnership that involves the City, the County, River Valley Transit, PennDOT, local businesses, developers, and elected officials. The project encourages private and public investment, addresses transportation and mobility deficiencies that have stymied economic development for decades, and intends to re-create a livable walkable neighborhood for the eastern end of the City of Williamsport. By 2020, Lycoming College anticipates the completion of the Gateway Building and investment in the Basin Street corridor over the next 5-10 years. The Gateway Redevelopment Project will help develop a "college town" feel by creating an interconnection between Lycoming College administrators, faculty, staff, and most importantly students and the Williamsport and regional economies and communities.

Penn College of Technology

In 2016, Penn College added the first and only for-credit program in the Commonwealth for Brewing & Fermentation Science major. This is an example of a program launched in response to a workforce need: in this instance, the booming craft beer industry.

Penn College's first Master's Degree program was approved in 2017 as a combined Bachelor/Master's Degree in Physician Assistant Studies. The first degrees will be awarded in 2022.

A Dental Hygiene Clinic expansion allowed for additional enrollment in the program and provided for current methodologies of infection control, electronic medical records and digital radiographs to become standard practice in the clinic.

A laboratory expansion for the Welding program is in the design phase, but will allow the College to enroll 60 additional students each fall semester. The brick-and-mortar facility is funded in part by a \$2 million U.S. Department of Commerce Economic Development Administration grant, but equipping the facility falls under new-initiative funding.

The 10 largest program enrollments for 2017-18 are: Nursing, 401; Information Technology, 392; Welding, 330; Management, 251; Automotive, 235, Electrical, 226; Building Construction, 206; Engineering and Industrial Design Technology, 185; Heating, Ventilation and Air Conditioning, 160; and Automated Manufacturing and Machining, 159.

Since 2006, Penn College has added the following new majors:

2006-2008

Information Technology Security Specialist (now is Information Assurance & Cyber Security) - BS

2008-2009

Health Information Management - BS

Building Science and Sustainable Design - BS

Electric Power Generation Technology (now is Onsite Power Generation) - AAS

2009-2010

Web Design and Multimedia (now is Web & Interactive Media) - BS

Industrial and Human Factors Design (now is Industrial Design) - BS

2010-2011

Gaming and Simulation (now is Game & Simulation Programming) - BS

2011-2012

English as a Second Language - Certificate

Automotive Restoration Technology - AAS

2012-2013

Mechatronics Engineering Technology - AAS

Applied Technology Studies - BS

Emergency Management Technology - BS

2013-2014

Automotive Technology: Mopar CAP Emphasis - AAS

2014-2015

Business Administration: Sport and Event Management Concentration - BS

2015-2016

Physical Therapist Assistant - AAS

Applied Innovation Leadership - Certificate

Brewing and Fermentation Science - AAS

2016-2017

Concrete Science Technology - AAS

Physician Assistant Studies - Combined Bachelor/Master

Metal Fabrication Technology - AAS

Entrepreneurial Innovation - BS

Applied Innovation - BS

Impacts on the Local and Regional Communities and the Economy

Lycoming College

Lycoming College employs more than 350 full and part-time individuals. The College's operational budget of \$44 million and institutional endowment of \$220M+ (December 31, 2017) provides significant economic impact and local/regional investment on an annual basis. Lycoming College annually makes a voluntary payment of \$130,000 to local government - \$25,000 for fire and police services and \$105,000 on roughly 50 tax exempt parcels of property owned by the College – to provide additional support for government and community services.

Approximately 10% of Lycoming College students hail from Lycoming County, however, approximately 15% of the college's alumni currently lives in the County. This indicates a positive workforce impact that the college is having on the local economy.

Lycoming College graduates are leaders, physicians, and administrators in some of the area's largest healthcare providers, including the CEO of UPMC Susquehanna. Lycoming alumni own and operate their own businesses throughout the County and region; lead and provide exceptional legal services; provide leadership and management in the banking, financial and investment sectors; serve as teachers, administrators and superintendents across all eight (8) Lycoming County school districts; fill vital roles within the criminal justice system, social services, and not-for-profit sectors; serve as elected officials at the local (city council members, school board members), state (Senator Gene Yaw) and federal (Tom Marino) levels; and provide creative inspiration and contributions to our cultural life in the arts, music and theatre.

Lycoming College also contributes to the health and wellbeing of its students and community through several institutes and centers including the Clean Water Institute (CWI). The College's CWI has

contributed to water quality and monitoring for over 30 years. Under the direction of Dr. Mel Zimmerman, the institute has tracked and monitored local waterways and tributaries for research and analysis in service to local and regional watershed projects including the Chesapeake Bay; students have been educated and trained to work at the state and federal level around environmental and water quality agencies; and served as a vital resource to local agencies who depend on clean water and a healthy fish and Hellbender population as a measure of water quality.

Penn College of Technology

Penn College contributes \$234 million of economic impact to the local and regional community each year. This is through salaries, student spending, off-campus housing rents, and payments in lieu of taxes to the City, County and school district, among other things.

The Community Arts Center, a wholly-owned subsidiary of Penn College of Technology is entering its 25th year as a home not only to touring productions, but also to many community-based organizations such as Uptown Music Collective, Williamsport Symphony Orchestra and Youth Orchestra and local dance recitals. In addition to supporting local performers, the CAC has developed a strong culture of collaboration, partnering with over 250 local non-profits and other organizations by providing fundraising help, meeting space, technical support, and promotional considerations.

Le Jeune Chef Restaurant, on the campus of Pennsylvania College of Technology in Williamsport, presents a fine-dining experience hosted by the College's School of Business & Hospitality. The restaurant offers a gourmet menu and features the area's most extensive wine list.

The Gallery at Penn College strives to be an important educational resource for students and a cultural asset to Pennsylvania College of Technology and local communities. The Gallery is dedicated to promoting art appreciation through exhibitions of contemporary art and accompanying programs, and offers opportunities for personal growth, social awareness, cultural diversity, and education through direct experiences with original works of art. The Gallery also oversees the College's permanent art collection.

Pennsylvania College of Technology's Wildcat Athletics teams will compete as full members of NCAA Division III. Twelve of Penn College's 15 intercollegiate athletic teams participate in the NEAC: men's and women's soccer, men's and women's basketball, men's and women's tennis, men's and women's cross country, women's volleyball, men's golf, baseball, and softball. The college's wrestling team competes at the Division III level as an independent; the men's and women's archery team has no affiliation with the NCAA and competes in USA Archery.

In the summer, the College offers a variant of overnight and day camps for youth of varying ages. Academic focused camps include: Architecture Odyssey Camp, Autism Spectrum Post-Secondary Interest Experience (ASPIE), Automotive Restoration Camp, Aviation Camp, Designing a Digital Future Camp, Engineering Camp, Future Restaurateurs Camp, Graphic Design Summer Studio, Grow & Design Horticulture Camp, Health Careers Camp and SMART Girls Summer Camp, along with arts/ sports camps.

The School of Health Sciences at Penn College conducts a Dental Hygiene Clinic – open to the public – during the school year. Staffed by licensed dental hygienists and dentists, the clinic provides an opportunity for Penn College Dental Hygiene students to put their skills to work in a clinical environment, performing preventative services for a nominal fee. The students have extensive training prior to their clinical experience and must demonstrate competency in clinical skills before providing patient care.

Response to Workforce Needs

Lycoming College

In 2014, Lycoming College established the Williamsport Internship Summer Experience (WISE) Program. The program provides organizations and companies in Lycoming County the opportunity to benefit from student interns and a mutual opportunity to consider potential full time employment upon graduation.

Lycoming College has identified several strategic priorities that will contribute meaningfully to workforce development needs in the future. Currently under development, Lycoming is exploring enhancing its computer science department and adding a data science or data analytics program. Based in the areas of applied mathematics and computer science, educating students to analyze big data, build algorithms, and design data collection systems that drive decision making, will be critical to jobs and companies in the 21st century. Lycoming College recognizes that manufacturing will continue to be a vital part of the local economy and preparing young minds who can help innovate, create greater efficiencies, and leaders who can help companies compete in national, and even global, markets will be essential.

Penn College of Technology

Workforce Development & Continuing Education at Penn College continues to fill a crucial need for companies who seek training for their incumbent workforce. Workforce programs exceeded 7,500 enrollments in 2017. Penn College is meeting the vital skill-development needs of companies through innovative training programs, including apprenticeships. The College's company-centered apprentice training delivery model minimizes work disruption and supports development of apprenticeship consortia, allowing more companies to reap the benefits of apprenticeship while spreading the cost. They continue to improve programs by developing pathways for apprentices to earn college credit and constructing pre-apprenticeship programs to build pipelines of potential new apprentices.

WEDnetPA is funded through the state's PA First appropriation under the Department of Community and Economic Development and is administered by Penn College. Since WEDnetPA's inception in 1999, DCED's investment in the program has helped 20,000 Pennsylvania manufacturers and technology companies improve the skills of hundreds of thousands of workers. As one of the 27 partner institutions that support WEDnetPA, last year alone Penn College managed training grants for 58 companies, investing more than \$750,000 to help train nearly 3,000 employees.

The Plastics Innovation & Resource Center (PIRC) provides training and technology resources to facilitate the growth and success of the plastics industry in the United States and throughout the world. The center serves the education, training, and research and development needs of plastic processors, resin suppliers, mold builders and equipment manufacturers, offering access to extensive material testing laboratories, industrial scale process equipment, world-class training facilities and a highly skilled training and consulting staff. The center boasts processing capabilities in blow molding, rotational molding, thermoforming, extrusion and injection molding.

The National Sustainable Structure Center (NSSC) is a nationally-recognized U.S. Department of Energy legacy training center that is funded through DCED to provide technical expertise and training to Pennsylvania home energy professionals that participate in the Department of Energy's Weatherization Assistance Program. Additionally, NSSC is funded through the Department of Environmental Protection's State Energy Program to provide energy-efficiency training to facilities managers and building operators in K-12 schools, local/municipal governments and community colleges in Pennsylvania. Since 1985, NSSC has taught hands-on building science principles and energy-efficient retrofit techniques to more than 17,000 community action agency workers, residential construction contractors, and commercial facilities and maintenance staff in the Commonwealth. NSSC's training programs include nationally recognized certifications such as Building Operator Certification and Home Energy Professional, which help Pennsylvania residents, businesses, K-12 schools and local governments save money on their utility bills while improving the comfort for occupants.