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## Demographic Overview

The following section provides an overview of the demographic characteristics of the Village of Warwick in 2020. The demographic analysis is divided into three parts – population, households, and housing. The population section tracks changes in total population as well as the age of the population. Households and housing are distinct categories with the household data providing information on household numbers, size, and annual growth rates. The housing section focuses on the growth in housing stock as well as the portion of housing units that are owner occupied.

Demographic data from the Town of Warwick, Orange County, and the NYC Region (includes NYC and Long Island as well as parts of New York State, Connecticut, New Jersey, and Pennsylvania) are also included to provide points of comparison. The tables below use data from 2010 and 2020 to track changes over time. The 2010 numbers are US Census counts while the 2020 data is sourced from ESRI Business Analyst.

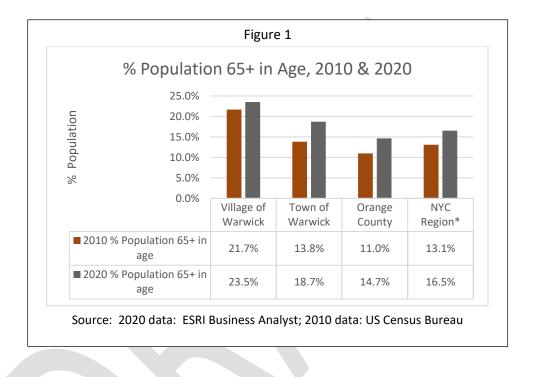
Table 1. Demographic Overvie	w (Population)	of the Village o	of Warwick, 20	10-2020
Population Characteristics:	Village of Warwick	Town of Warwick	Orange County	NYC Region*
2010 Total Population	6,762	32,079	372,876	20,866,507
2020 Total Population	7,063	33,438	394,613	21,580,264
% Change, 2010 to 2020	4.5%	4.2%	5.8%	3.4%
2020 Population Density (Pop per Square Mile)	2,921.5	330.0	486.2	1,898.3
2010 Median Age	46.2	43.2	36.5	37.7
2020 Median Age	47.5	45.7	37.3	39.2
2010 % Population 65+ in age	21.7%	13.8%	11.0%	13.1%
2020 % Population 65+ in age	23.5%	18.7%	14.7%	16.5%
Source: 2020 data: ESRI Business Ar	halyst; 2010 data	a: US Census B	ureau	

## Population

The Village of Warwick, the Town of Warwick, Orange County, and the NYC Region all experienced population growth from 2010 to 2020. The Village of Warwick saw 4.5% increase in population over the ten-year period. The population growth of the Village of Warwick was roughly in line with the town,

county, and region. The Village population was slightly higher than the Town of Warwick (4.2%) and the NYC Region (3.4%) but fell short of the 5.8% population increase seen in Orange County.

The Village and Town of Warwick both have median ages in the mid-forties while the median ages in Orange County and the NYC Region are in the late thirties. Despite the similar median age of the Village and Town, the Village has by far the greatest proportion of people over 65 at 23.5%. (See Figure 1.)

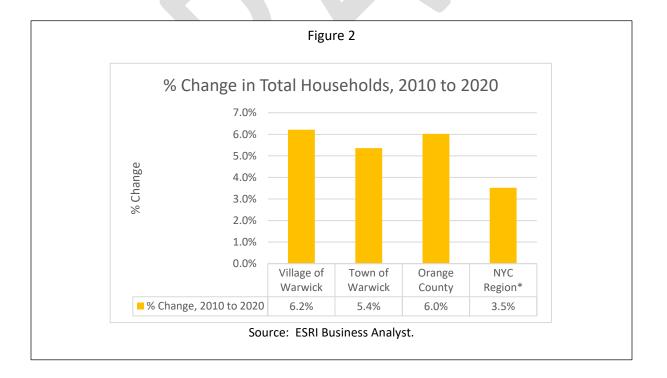


#### Households

The Village of Warwick saw the largest increase in total households at 6.2 percent. As shown in Figure 2, the Town of Warwick and Orange County were close behind at 5.4 percent and 6.0 percent while the NYC Region only experienced a 3.5 percent increase.

Although the Village underwent the greatest increase in households, it has the smallest average household size at 2.26. Looking back to the population characteristics in Table 1, the smaller household size could be due to almost a quarter of the population being over the age of 65, who are unlikely to have children in the household and probably live in households of one to two people (alone or with a spouse).

Household Characteristics:	Village of Warwick	Town of Warwick	Orange County	NYC Region*
	2.000	44.025		
2010 Total Households	2,896	11,835	125,925	7,631,053
2020 Total Households	3,076	12,469	133,510	7,899,578
% Change, 2010 to 2020	6.2%	5.4%	6.0%	3.5%
2020 Average Household Size	2.26	2.62	2.87	2.67
2000-2010 Households: Annual				
Growth Rate	0.96%	0.92%	0.93%	0.38%
2000-2010 Families: Annual Growth				
Rate	0.00%	0.66%	0.80%	0.15%
2010-2020 Households: Annual				
Growth Rate	0.59%	0.51%	0.57%	0.34%
2010-2020 Families: Annual Growth				
Rate	0.98%	0.35%	0.45%	0.21%



The Village of Warwick has also maintained a slightly higher household annual growth rate than the Town, County, and Region since 2000. From 2000 to 2010 the Village had a household annual growth rate of 0.96%. In the following decade, the Village rate fell to 0.59%. The Town of Warwick, Orange County, and the NYC Region all saw drops of a similar magnitude indicating that the cause of the slowing household growth rate was not specific to the Village of Warwick. Another metric of interest is the families annual growth rate. From 2000 to 2010, the families annual growth rate in the Village was 0.00% while the Town saw an annual rate of 0.66%. From 2010 to 2020 however, the families annual growth rate for the Village increased to 0.98% which was more than the double the rates of the Town, county, and region. Housing

Housing Characteristics:	Village of Warwick	Town of Warwick	Orange County	NYC Region*
2010 Owner Occupied Housing Units	1,785	9,356	86,756	4,024,076
2020 Owner Occupied Housing Units	1,933	9,521	88,118	4,071,278
2010 Vacant Housing Units	159	1,147	11,100	691,332
2020 Vacant Housing Units	173	1,248	12,766	796,223
2010 Housing Units	2,896	11,835	125,925	7,631,053
2020 Housing Units	3,249	13,717	146,276	8,695,801
% Change in Housing Units, 2010 -2020	12.2%	15.9%	16.2%	14.0%
% Owner Occupied Housing Units, 2010	61.6%	79.1%	68.9%	52.7%
% Owner Occupied Housing Units, 2020	66.7%	80.4%	70.0%	53.4%
% Vacant Housing Units, 2010	5.5%	9.7%	8.8%	9.1%
% Vacant Housing Units, 2020	5.3%	9.1%	8.7%	9.2%

Table 3. Demographic Overview (Housing) of the Village of Warwick, 2010-2020

From 2010 to 2020, the Village of Warwick experienced a 12.2% increase in the number of housing units. As can be seen in Figure 3, this change was the smallest of the areas with the Town of Warwick, Orange County, and the NYC Region all seeing changes several percentage points greater.

Table 3 contains data on the number of owner-occupied and vacant housing units in 2010 and 2020. Only 5.3% of the housing stock of the Village was vacant in 2020 while the Town (9.1%), County (8.7%), and NYC Region (9.2%) all had significantly higher rates. The percentage of vacant housing remained relatively constant from 2010 to 2020 across all four areas. The Village of Warwick had 61.6% owner occupied housing units in 2010 which increased to 66.7% in 2020. In both years, these rates left the Village of Warwick only above the NYC Region and lagging far behind the Town of Warwick which saw owner occupied housing rates of about 80% in both years.

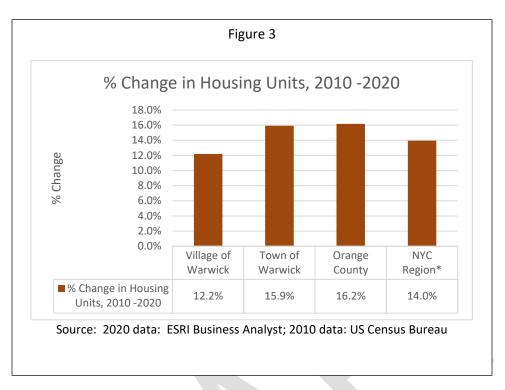
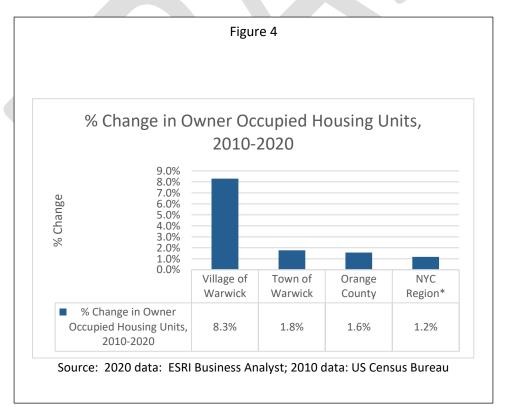


Figure 4 and shows the percent change in owner occupied housing units from 2010 to 2020. Although the Village of Warwick was middle of the pack in both 2010 and 2020, it saw the greatest growth in owner occupied housing at 8.3 percent with the surrounding areas all seeing less than 2 percent growth.



## Labor Force Overview

The following section provides an overview of the job figures for the Village of Warwick in 2020. The data includes information on both employment and occupation for the Village of Warwick, the Town of Warwick, Orange County, and the NYC Region. The employment data is defined by place of work while the occupation data is categorized by place of residence. Both the employment and occupation data are sourced from ESRI Business Analyst preliminary 2020 estimates and may not capture the full economic effects of the Covid-19 Pandemic.

The overview also examines commutation data for the Village of Warwick in 2018. The data looks at both modes of transportation and total commute times for workers over the age of 16. Similar to the occupation data, the commutation data are organized by place of residence. All commutation data are sourced from ESRI Business Analyst.

	Village of	Town of	Orange	NYC
2020 Industry Categories:	Warwick	Warwick	County	Region*
Civilian Population Age 16+ in Labor Force	3,557	17,773	197,164	11,393,365
Agriculture/Forestry/Fishing/Hunting	1.60%	1.04%	0.61%	0.18%
Mining/Quarrying/Oil & Gas Extraction	0.00%	0.00%	0.04%	0.02%
Construction	8.47%	8.93%	6.91%	6.43%
Manufacturing	6.29%	8.76%	6.89%	5.80%
Wholesale Trade	3.59%	2.81%	3.05%	2.72%
Retail Trade	14.66%	12.50%	11.25%	8.74%
Transportation/Warehousing	1.35%	3.31%	5.63%	5.42%
Utilities	2.41%	1.64%	1.33%	0.65%
Information	2.34%	3.46%	2.33%	2.93%
Finance/Insurance	6.19%	4.25%	3.97%	6.97%
Real Estate/Rental/Leasing	0.61%	1.56%	1.96%	2.71%
Professional/Scientific/Tech Services	4.23%	9.56%	6.62%	10.78%
Management of Companies/Enterprises	0.00%	0.39%	0.09%	0.15%
Admin/Support/Waste Management	0.38%	1.36%	2.98%	3.63%
Services				
Educational Services	14.82%	10.75%	12.17%	10.85%
Health Care/Social Assistance	14.47%	13.40%	15.97%	16.68%

## Employment by Industry

The employment data by industry in Table 4 are based on place of work so the Village of Warwick numbers refer to people who work but may not live in the Village. Educational services, retail trade, and health care/social assistance represent the three largest industry categories in the Village with each making up almost 15% of jobs. This trend is reflected across the Town of Warwick, Orange County, and the NYC

Region with all three benchmarks having retail, health care, and retail among their most represented industries.

At 14.66 percent, the Village has the greatest proportion of workers in the retail trade industry when compared to the benchmarks. This is unsurprising given that the Village is the most densely populated of the four and will therefore have a greater concentration of shops and stores in a small area. The Village also has the greatest proportion of workers in Educational Services at 14.82 percent. This elevated number could be explained by the presence of schools or other educational centers within the Village. The Health Care/Social Assistance Industry is well represented across all four areas with the Village (14.47%) being roughly the same as the benchmarks.

Both the Village and Town of Warwick have a higher proportion of construction jobs (8.47% and 8.93%) relative to the County and NYC Region (6.91% and 6.43%). This could be indicative of greater growth in the Village and Town than in the surrounding areas. The Village also has a relatively high proportion of jobs in the Finance/Insurance industry (6.19%) compared to only 4.25 percent in the Town of Warwick. This difference could potentially be due to businesses locating offices in the more densely populated Village. Another industry of note is Professional/Scientific/Tech Services. The Village of Warwick has the lowest proportion of jobs in the industry by a significant margin and less than half that of the Town.

## Employment by Occupation

The occupation data in Table 5 provides an overview of the professions of the residents of the Village, Town, County, and Region. Sales is the most popular occupation in the Village of Warwick at 12.32 percent with Management coming in a close second at 12.03 percent. Sales and Management are also the top two occupations in the Town of Warwick, but this is not the case for Orange County and the NYC Region. The Village of Warwick also has the highest proportion of residents working in Education/Training/Library when compared to three benchmarks.

Overall, the most popular occupations in both the Village and Town indicate a greater white-collar presence than the County and Region. The higher percentages of residents in Management and Education could also suggest higher levels of educational attainment in the Village and Town. The retail and service industries are also well represented in the Village of Warwick with 12.32 percent of residents working in Sales and 7.64% working in Food Preparation/Serving Related.

	Village of	Town of	Orange	NYC
2020 Occupation Categories:	Warwick	Warwick	County	Region*
2020 Employed Civilian Population Age 16+				
by Occupation Base	3,117	15,658	173,468	9,907,739
Management	12.03%	12.20%	9.58%	11.04%
Business/Financial	4.17%	3.93%	3.94%	6.30%
Computer/Mathematical	2.28%	3.15%	2.00%	3.11%
Architecture/Engineering	0.77%	1.71%	1.50%	1.44%
Life/Physical/Social Science	0.00%	0.79%	0.79%	0.99%
Community/Social Service	2.41%	1.65%	2.51%	1.99%
Legal	1.19%	1.48%	1.09%	2.03%
Education/Training/Library	10.88%	8.91%	8.23%	7.59%
Arts/Design/Entertainment/Sports/Media	1.51%	1.71%	1.59%	3.06%
Healthcare Practitioner/Technician	5.77%	5.67%	6.33%	6.00%
Healthcare Support	2.69%	1.98%	3.09%	3.78%
Protective Service	7.67%	5.05%	5.10%	2.74%
Food Preparation/Serving Related	7.64%	4.60%	3.99%	3.78%
Building/Grounds Cleaning/Maintenance	0.42%	2.11%	3.58%	4.13%
Personal Care/Service	2.05%	2.87%	3.24%	3.89%
Sales and Sales Related	12.32%	12.23%	10.71%	9.75%
Office/Administrative Support	10.91%	11.70%	13.92%	12.88%
Farming/Fishing/Forestry	0.00%	0.31%	0.35%	0.12%
Construction/Extraction	4.59%	5.58%	5.05%	4.74%
Installation/Maintenance/Repair	1.44%	2.46%	2.86%	2.17%
Production	2.73%	4.00%	4.01%	2.91%
Transportation/Material Moving	6.54%	5.91%	6.54%	5.55%
Source: ESRI Business Analyst				

## **Commuting Patterns**

(% of workers)							
Mode of Transportation:	Village of Warwick	Town of Warwick	Orange County	NYC Region*			
2018 Workers Age 16+	3,155	15,276	174,767	10,203,499			
Workers 16+ Drove Alone to Work	69.00%	75.39%	74.36%	51.66%			
Workers 16+ Carpooled	11.44%	8.71%	9.32%	6.55%			
Workers 16+ Took Public Transportation	5.17%	5.43%	5.45%	29.55%			
Workers 16+ Took a Bus or Trolley Bus	3.26%	3.44%	3.46%	7.11%			
Workers 16+ Took the Railroad	1.36%	1.51%	1.66%	3.96%			
Workers 16+ Took a Taxicab	0.00%	0.00%	1.03%	0.62%			
Workers 16+ Bicycled	0.00%	0.07%	0.13%	0.62%			
Workers 16+ Walked	6.91%	2.50%	3.72%	5.66%			
Workers 16+ Motorcycled	0.57%	0.12%	0.05%	0.06%			
Workers 16+ Took Other Means of							
Transportation	0.44%	0.58%	0.74%	0.79%			
Workers 16+ Worked at Home	6.47%	7.21%	5.20%	4.49%			

As shown in Table 6, across all four regions, the majority of people drive alone to work. Village residents show a slight preference for carpooling relative to the benchmarks with 11.44 percent of workers reporting a carpool as their mode of transport. The Village is roughly in line with the Town and County across the public transportation, Bus, and Railroad categories. Unsurprisingly, the NYC Region sees significantly higher utilization of those same three modes of transport.

The Village of Warwick appears to be relatively pedestrian friendly given that 6.91 percent of people walk to work compared to only 2.50 percent in the Town. Even the NYC Region only sees 5.66 percent of workers choosing to walk. No residents in the Village of Warwick reported biking to work. The Village and Town of Warwick also see a greater proportion of the workforce working at home. However, this data is from 2018 meaning that the numbers are likely much higher today due to the Covid-19 pandemic.

Table 7 indicates that the Village of Warwick has by far the highest percentage (5.59%) of people with a commute time under 5 minutes. These are likely people that both live and work in the Village. However, even in the Village, the vast majority of people have much longer commute times. The most common commute time for the Village, Town, County, and NYC Region is 5 to 29 minutes. The Village of Warwick has the second lowest average commute time at 34.9 minutes, but the averages of the benchmarks are not significantly different as they are also in the mid 30s.

	Village of	Town of	Orange County	NYC Region*
Commuting Time:	Warwick	Warwick		
2018 Workers Age 16+	3,155	15,276	174,767	10,203,499
2018 Workers Age 16+ Commute	2,951	14,175	165,674	9,745,672
to Work Base				
Under 5 Minutes	5.59%	2.69%	3.03%	1.60%
5 - 29 Minutes	45.72%	42.71%	52.78%	41.43%
30 - 59 Minutes	27.00%	29.73%	25.25%	35.50%
60+ Minutes	21.69%	24.87%	18.92%	21.47%
2018 Average Commute to Work	34.9	38.7	33.3	36.3
for Workers 16+				

## Retail Analysis

Retail has long been an anchor economic activity for the Village of Warwick. In light of the major disruption taking place in that sector due to on-line shopping, questions have been raised about the viability of village retail. Indeed, the current COVID-19 pandemic may dramatically change all of this. But, up to this point, many downtowns have been able to adapt to this trend by ensuring that their patrons have access to an experience that goes far beyond simply shopping:

The bottom line seems to be that while most "stuff" can be bought online, people will still go to brickand-mortar locations to have "experiences." These experiences can be wide-ranging, and include the following:

- Personal services such as nail and beauty salons.
- Health and fitness facilities such as yoga, massage and meditation studios, as well as traditional gyms.
- Restaurants.
- Cinemas and theaters that present plays, concerts, comedy shows, lectures and more.
- Art galleries and stores.<sup>1</sup>

Thus, it is possible for downtown areas to survive and possibly thrive in this new retail environment. The effect of the pandemic was to accelerate an already existing trend. In order to assess the potential for this approach, it is important to have a basic understanding of the dynamics of the local retail market. This can be done through the use of what is termed "leakage/surplus" analysis.

The following section provides an overview of the retail industry of the Village of Warwick in 2017. The data includes retail sales and retail potential numbers for a variety of industry groups with groups sorted

<sup>&</sup>lt;sup>1</sup> Maria Sicola, "The Rise of Experiential Retail," *NAIOP Commercial Real Estate Development Association, Development Magazine*, Summer, 2016.

by their North American Industrial Classification System (NAICS) codes. The retail data is sourced from ESRI 2017 Retail MarketPlace and Infogroup; demographic data comes from ESRI 2020 Updated Demographics.

#### Leakage Surplus Analysis

Leakage/Surplus measures the balance between the volume of retail sales generated by retail businesses and the volume of retail potential produced by household spending on retail goods within the same industry. Spending for residents in an area is estimated by matching the population in an area to demographic information linked to spending patterns as captured in the National Consumer Expenditures Survey. The data showing sales for stores is generated using the Economic Census that provides retail sales by categories for geographic areas. The difference between the estimated spending in a category for a geographic area and estimated sales in that category for that area determine if there is a surplus or leakage.

Leakage in an area represents a condition where sales by a category of stores in the area (supply) is less than the spending by the area's residents in that same category (demand). In other words, residents are leaving the area to go to retailers outside the market area to meet their demand. Therefore, demand is "leaking" out of the trade area. Leakage may present an opportunity for new retailers to enter the trade area or for existing retailers to extend their marketing outreach to accommodate the excess demand. Surplus in an area represents a condition where sales by stores in the area (supply) exceeds the spending by the area's residents in that category (demand). Retailers are attracting shoppers that reside outside the trade area. The "surplus" is in market supply. The area in question is drawing in shoppers for those particular types of stores. In the tables that follow, a surplus retail gap is indicated in red numbering. A leakage retail gap in indicated with green numbering.

Table 8. Retail Industry Summary (2017) for the Village of Warwick							
Industries:	NAICS	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Number of Businesses		
Total Retail Trade and	44-	\$146,141,868	\$50,878,998	\$95,262,870	86		
Food & Drink	45,722						
Total Retail Trade	44-45	\$131,444,403	\$38,444,319	\$93,000,084	50		
Total Food & Drink	722	\$14,697,465	\$12,434,679	\$2,262,786	36		
Source: Esri and Infogroup. Esri 2020 Updated Demographics. Esri 2017 Retail MarketPlace. ©2020 Esri. ©2017 Infogroup, Inc. All rights reserved.							

Surprisingly, in Table 8 the Village of Warwick shows significant leakage across the board. As a tourism center, it would be reasonable to expect a surplus as both tourists and residents should be spending money in the Village's restaurants and shops. However, the Total Retail Trade gap shows about \$93 million in leakage. While this gap could potentially be explained by a preference for online retail options, the Food & Drink industry (much less likely to be suffering due to online alternatives) also sees leakage. The gap here is much smaller but still amounts to over \$2 million.

Table 9 provides a breakdown of the retail data by industry group. The bolded industry group rows represent a broader industry group with smaller subgroups in plain text. Again, there is substantial leakage

in almost all industry groups. The Auto Parts, Accessories & Tire Stores and Home Furnishings Stores subgroups both have surpluses of roughly \$800,000. These numbers are not overly impressive considering that the Motor Vehicle & Parts Dealers and Furniture & Home Furnishings Stores industries still display leakage overall.

Table 9. Retail Industry Groups (2017)							
2017 Industry Groups:	NAICS	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Number of Businesses		
Motor Vehicle & Parts Dealers	441	\$26,109,213	\$2,998,736	\$23,110,477	3		
Automobile Dealers	4411	\$21,965,777	\$0	\$21,965,777	0		
Other Motor Vehicle Dealers	4412	\$1,961,829	\$0	\$1,961,829	0		
Auto Parts, Accessories & Tire Stores	4413	\$2,181,607	\$2,998,736	-\$817,129	3		
Furniture & Home Furnishings Stores	442	\$4,890,297	\$3,173,264	\$1,717,033	4		
Furniture Stores	4421	\$2,489,463	\$0	\$2,489,463	0		
Home Furnishings Stores	4422	\$2,400,834	\$3,173,264	-\$772,430	4		
Electronics & Appliance Stores	443	\$5,090,532	\$1,526,648	\$3,563,884	2		
Bldg Materials, Garden Equip. & Supply Stores	444	\$8,414,589	\$4,659,515	\$3,755,074	3		
Bldg Material & Supplies Dealers	4441	\$7,719,503	\$4,659,515	\$3,059,988	3		
Lawn & Garden Equip & Supply Stores	4442	\$695,086	\$0	\$695,086	0		
Food & Beverage Stores	445	\$23,014,999	\$1,776,937	\$21,238,062	4		
Grocery Stores	4451	\$19,427,499	\$884,750	\$18,542,749	1		
Specialty Food Stores	4452	\$1,513,736	\$482,299	\$1,031,437	2		
Beer, Wine & Liquor Stores	4453	\$2,073,764	\$409,888	\$1,663,876	1		
Health & Personal Care Stores	446,4461	\$11,157,507	\$10,671,882	\$485,625	7		
Gasoline Stations	447,4471	\$12,648,429	\$4,234,970	\$8,413,459	1		
Clothing & Clothing Accessories Stores	448	\$11,342,612	\$2,110,272	\$9,232,340	5		
Clothing Stores	4481	\$7,899,226	\$1,779,543	\$6,119,683	4		
Shoe Stores	4482	\$1,263,126	\$0	\$1,263,126	0		
Jewelry, Luggage & Leather Goods Stores	4483	\$2,180,260	\$330,729	\$1,849,531	1		
Sporting Goods, Hobby, Book & Music Stores	451	\$3,861,527	\$2,067,435	\$1,794,092	6		
Sporting Goods/Hobby/Musical Instr Stores	4511	\$3,239,935	\$1,968,829	\$1,271,106	5		
Book, Periodical & Music Stores	4512	\$621,592	\$98,606	\$522,986	1		
General Merchandise Stores	452	\$15,703,793	\$0	\$15,703,793	0		
Department Stores Excluding Leased Depts.	4521	\$9,800,944	\$0	\$9,800,944	0		

		Demand	Supply		Number of
2017 Industry Groups:	NAICS	(Retail Potential)	(Retail Sales)	Retail Gap	Businesses
Other General Merchandise Stores	4529	\$5,902,849	\$0	\$5,902,849	C
Miscellaneous Store Retailers	453	\$5,015,367	\$5,224,660	-\$209,293	15
Florists	4531	\$525,296	\$1,321,021	-\$795,725	3
Office Supplies, Stationery & Gift Stores	4532	\$1,556,825	\$631,319	\$925,506	3
Used Merchandise Stores	4533	\$639,690	\$382,519	\$257,171	4
Other Miscellaneous Store Retailers	4539	\$2,293,556	\$2,889,801	-\$596,245	5
Nonstore Retailers	454	\$4,195,538	\$0	\$4,195,538	C
Electronic Shopping & Mail- Order Houses	4541	\$3,463,446	\$0	\$3,463,446	C
Vending Machine Operators	4542	\$69,133	\$0	\$69,133	C
Direct Selling Establishments	4543	\$662,959	\$0	\$662,959	0
Food Services & Drinking Places	722	\$14,697,465	\$12,434,679	\$2,262,786	36
Special Food Services	7223	\$668,959	\$0	\$668,959	0
Drinking Places – Alcoholic Beverages	7224	\$976,967	\$656,692	\$320,275	2
Restaurants/Other Eating Places	7225	\$13,051,539	\$11,777,987	\$1,273,552	34

The only major industry group that has a surplus is Miscellaneous Store Retailers. The surplus is driven by Florists (\$795,725 surplus) and Other Miscellaneous Store Retailers (\$596,245 surplus). However, the overall surplus for the Miscellaneous Store industry group is still low at only \$209,293.

## Understanding the Village's Leakage Data

The second part of the analysis compares the retail data and demographics of the Village of Warwick to several similar towns and villages. The other villages serve as points of comparison or benchmarks for the Village of Warwick. The demographic data is sourced from ESRI Business Analyst.

As shown in Table 10, the 2020 Total Population seems unrelated to surplus or leakage as the Village of Warwick has a similar population to many of the other towns and villages, some of which have surplus and some of which do not. (NOTE: Villages with marked with a \* are county seats and those with \*\* are college towns.) Both the county seats (Goshen and Catskill) and the college town (New Paltz) have retail surpluses.

Table 10. Population Demographics Village of Warwick v. Benchmarks (2020)								
	2020 Total	2020 Total	Change in	% Change in	Total Retail Gap			
Sites (NY)	Population	Daytime	Population	Population	(Surplus/Leakage)			
		Population	(Daytime)	(Daytime)				
Village of Warwick	7,063	7,170	107	1.51%	\$95,262,870			
Florida Village	3,008	2,970	-38	-1.26%	\$16,426,900			
Greenwood Lake Village	3,365	3,298	-67	-1.99%	\$29,284,119			
Town of Warwick	33,438	29,796	-3,642	-10.89%	\$375,544,728			
Goshen Village*	5,531	8,057	2,526	45.67%	-\$91,862,866			
Beacon City	16,365	12,991	-3,374	-20.62%	\$69,067,247			
Catskill Village*	4,012	5,031	1,019	25.40%	-\$124,423,178			
Cornwall-on-Hudson	3,080	2,601	-479	-15.55%	\$54,357,080			
Village								
Hudson City	6,701	7,984	1,283	19.15%	-\$31,952,998			
Little Falls City	4,747	4,805	58	1.22%	-\$4,747,083			
New Paltz Village **	6,992	8,059	1,067	15.26%	-\$24,245,561			
Red Hook Village	2,016	2,249	233	11.56%	-\$797,785			
Rhinebeck Village	2,671	3,737	1,066	39.91%	-\$47,714,584			
Saranac Lake Village	5,178	5,447	269	5.20%	-\$33,663,551			

Source: Esri and Infogroup. Esri 2020 Updated Demographics. Esri 2017 Retail MarketPlace. ©2020 Esri. ©2017 Infogroup, Inc. All rights reserved.

\*county seat

\*\*college town

The change in daytime population seems to be associated with the retail gap. All towns that have a retail surplus see an increase in population during the day. Goshen Village, for example, sees a 45.67% increase in population in the daytime. With the exception of Corning City, all towns experiencing retail leakage have low or negative daytime changes in population. The Village of Warwick only has a slight daytime population increase (1.51%) and sees significant leakage.

Table 11 shows surplus and leakage compared to disposable income. The Village of Warwick is at the wealthier end of the income range when compared to the benchmark villages and towns, with the third highest Aggregate Disposable Income behind Beacon City and the Town of Warwick which are both much larger. One might think that wealthier areas would be more likely to have retail surpluses, but this does not appear to be the case. The villages with relatively low median and average disposable incomes see retail surpluses while the five wealthiest villages (including the Village of Warwick) experience retail leakage.

Table 11. Disposable Income Village of Warwick v. Benchmarks (2020)							
	2020 Median	2020	2020	Total Retail Gap			
Sites (NY)	Disposable	Average	Aggregate	(Surplus/Leakage)			
	Income	Disposable Income	Disposable Income				
Village of Warwick	\$61,524	\$77,498	\$238,384,022	\$95,262,870			
Florida Village	\$66,027	\$79,237	\$87,001,741	\$16,426,900			
Greenwood Lake Village	\$60,939	\$75,885	\$104,873,209	\$29,284,119			
Town of Warwick	\$71,749	\$88,832	\$1,107,644,626	\$375,544,728			
Goshen Village*	\$54,358	\$74,446	\$167,055,827	-\$91,862,866			
Beacon City	\$51,843	\$63,891	\$368,395,300	\$69,067,247			
Catskill Village*	\$32,675	\$47,452	\$82,756,429	-\$124,423,178			
Cornwall-on-Hudson Village	\$74,207	\$92,220	\$112,508,518	\$54,357,080			
Hudson City	\$33,720	\$44,011	\$122,087,082	-\$31,952,998			
Little Falls City	\$37,264	\$46,542	\$97,413,204	-\$4,747,083			
New Paltz Village **	\$38,159	\$52,482	\$96,671,813	-\$24,245,561			
Red Hook Village	\$44,272	\$63,343	\$58,592,016	-\$797,785			
Rhinebeck Village	\$45,545	\$69,291	\$90,979,688	-\$47,714,584			
Saranac Lake Village	\$39,443	\$50,626	\$127,932,869	-\$33,663,551			

Source: Esri and Infogroup. Esri 2020 Updated Demographics. Esri 2017 Retail MarketPlace. ©2020 Esri. ©2017 Infogroup, Inc. All rights reserved.

\*county seat

\*\*college town

This suggests that the issue may be unique to the Town of Warwick and its constituent villages. On the other hand, the existence of leakage in these wealthier communities could be simply a residue of how local spending by residence is calculated. As indicated above, the retail spending for each geographic area is estimated by applying the national consumer spending survey to a local population based on the demographics of the communities. It may be that wealthier communities have a lower propensity to spend than less wealthy communities. Thus, the standard formula ESRI uses to calculate resident spending may overstate how much local spending takes place. This in turn would indicate leakage exists in an area where it may not. Further research will be performed to better understand this situation.