

Town of Bethlehem Demographic and Growth Analysis 1991-2018



Capital District Regional Planning Commission

One Park Place | Suite 102 | Albany, New York 12205-2676

www.cdrpc.org



December 2019

Cover Picture Courtesy of Bethlehem Business Women

Contents

About the Capital District Regional Planning Commission	5
Executive Summary.....	6
Introduction – Comprehensive Plan Update Context.....	7
CDRPC Technical Assistance.....	8
Comparison to Peer Communities.....	8
Housing Growth and Characteristics	9
Change in Total Residential Housing Units Over Time.....	9
Chart 1: Total Number of Housing Units by Decade for Bethlehem and Peer Towns 1970-2017.....	10
Chart 2: Housing Growth Rates by Decade for Bethlehem and Peer Towns 1970-2017.....	10
Residential Growth: Type and Geography	11
Single-Family Development	11
Chart 3: Bethlehem Single Family Building Permits 1991- 2019.....	11
Chart 4: Annual Number of Single-Family Units Built in Bethlehem	12
Chart 5: Single-Family Permit Issuance for Bethlehem and Peer Towns.....	13
Multi-Family Development	17
Chart 6: Bethlehem Residential Building Permits 1991-2019.....	17
Chart 7: Multi-Family Permit Issuance for Bethlehem and Peer Towns.....	18
Total Residential Development Compared to Peer Towns.....	19
Chart 8: Total Permit Issuance for Bethlehem and Peer Towns.....	19
Housing Types	21
Chart 9: Residential Structures by Number of Units for Bethlehem and Peer Towns.....	21
Chart 10: Number of Housing Units in Structure for Bethlehem and United States.....	22
Chart 11: Attached vs. Detached Units for Bethlehem and Peer Towns.....	23
Occupancy.....	24
Chart 12: Occupancy - Bethlehem, Albany, Albany County, NYS, and United States.....	24
Chart 13: Occupancy in Bethlehem and Peer Towns.....	25
Housing Affordability	26
Chart 14: Monthly Housing Costs for Occupied Units for Bethlehem and Albany MSA.....	26
Demographic Composition and Change	28
Population Totals	28
Table 1: Population Change Comparison.....	28
Population Age Distribution.....	28

Chart 15: Age Cohorts - Bethlehem, City of Albany, Albany County, NYS, and United States	29
Chart 16: Bethlehem Age Cohort Projections.....	30
Age-Child Ratio.....	31
Age-Dependency Ratio	31
School Age Children	32
Chart 17: Student Enrollment by Generation	32
Racial Makeup.....	33
Chart 18: Racial Makeup - Bethlehem, City of Albany, Albany County, NYS, and United States.....	33
Educational Attainment	34
Chart 19: Educational Attainment (Age 25+) for Bethlehem and Peer Towns.....	34
Economic Overview.....	35
Industries	35
Chart 20: Number of Establishments per Sector	35
Chart 21: Share of Establishments per Sector for Bethlehem and Albany MSA.....	36
Table 2: Industry Breakdown	37
Revenue Generated by Sector	38
Chart 22: Revenue Generated by Sector for Bethlehem Establishments.....	38
Occupation	39
Chart 23: Occupations - Bethlehem, City of Albany, Albany County, NYS, and United States	39
Employment.....	40
Chart 24: Employment - Bethlehem, City of Albany, Albany County, NYS, and United States.....	40
Transportation	41
Chart 25: Transportation Mode for Commuting to Work - Bethlehem, City of Albany, Albany County, NYS, and United States.....	41
Inflow Outflow	43
Chart 26: Employment Inflow/Outflow for Bethlehem and Peer Towns	43
Conclusion.....	44
Appendices.....	45

About the Capital District Regional Planning Commission

Our Mission

The Capital District Regional Planning Commission (CDRPC) is a regional planning and resource center serving Albany, Rensselaer, Saratoga, and Schenectady counties. CDRPC provides objective analysis of data, trends, opportunities, and challenges relevant to the Region's economic development and planning communities. CDRPC serves the best interests of the public and private sectors by promoting intergovernmental cooperation; communicating, collaborating, and facilitating regional initiatives; and sharing information and fostering dialogues on solutions to regional challenges.

Our History

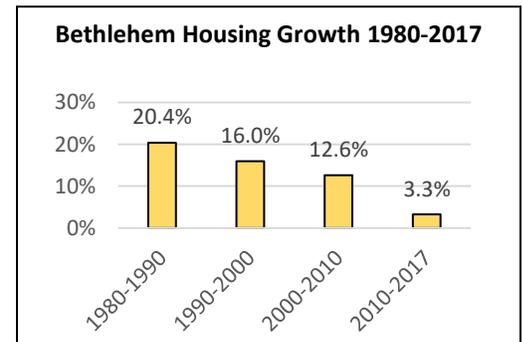
CDRPC was established as a regional planning board in 1967 by a cooperative agreement among the counties of Albany, Rensselaer, Saratoga, and Schenectady. Its original purpose was to perform and support comprehensive planning work, including surveys, planning services, technical services, and the formulation of plans and policies to promote sound and coordinated development of the entire Region. Over time, the mission of the Planning Commission evolved in response to changes in the Region's needs, funding sources, organizational structure, and information technology. While continuing to provide a wide variety of comprehensive planning services, CDRPC has also assumed the functions of Data and Information Center, Economic Development District, Foreign-Trade Zone Administrator, Clean Energy Communities Program Coordinator, and Water Quality Manager.



Executive Summary

For any municipality to successfully plan for their future, they must first understand the history and makeup of their municipality. For the Town of Bethlehem, a solid understanding of the town's recent residential development history, demographic trends, and economic makeup is an important starting point for discussing the Town's vision for the future as it updates the 2005 Comprehensive Plan. The Town of Bethlehem has seen significant residential growth since the 1980s, with a faster rate of growth than Albany County overall. While the town has seen growth in housing units every decade since 1980, the rate of growth has slowed over time. Development in the town occurred at a higher rate in the 1990s and early 2000s than it has after 2005.

Housing units increased by 20.4% between 1980-1990, but only increased 16% between 1990-2000 and a 12.6% between 2000-2010. Between 2010 and 2017, Bethlehem has seen only a 3.3% increase in housing units, a rate that is on pace to be lower than the previous decade's rate. The town is dominated by single-family housing units compared to other types of housing units. While growth in Bethlehem mirrors regional trends, Bethlehem is one of the highest issuers of building permits in the region. Between 1991 and 2004, Bethlehem issued the second most residential building permits, 2,761, amongst peer communities within the Capital Region. Bethlehem issued almost 400 more building permits than the next closest community, Halfmoon. Distribution became more closely aligned from 2005 to 2018 however, with Bethlehem issuing the fourth most permits with 1,454.



Specifically, Bethlehem saw a lower rate of development in single-family units between 2004-2018 than it did between 1991-2004. **From 1991 through 2004, Bethlehem developed 2,101 residential housing units on 2,112 acres of land. From 2005 through 2018, there were 733 residential units developed on 836 acres of land.** Based on these figures, development in the last 13 years was approximately 35% of the total residential development seen in the previous 13 year period. With 14,485 total housing units, Bethlehem is dominated by single-family housing units with 10,784 or 74.4% of all housing units being single-family. This is higher than the United States average share of single-family units at 60.4%. This is also higher than the New York State average of 44.1% and the Albany County average of 32.5%.

While development slowed during the period since the 2005 Comprehensive Plan, the trend may change. Nearly 1,500 residential units are in the development pipeline, meaning they have (1) been approved but are awaiting construction, (2) are in land use review, or (3) proposed in conceptual form to the Town. Single family detached residences make up about 34% of the total number of residential units in the pipeline, while single family attached residences make up roughly 18%. Approximately 48% of the residential units in the residential development pipeline are multifamily units, but the majority of these units are either under review or proposed and have not received land use approvals. Residential development under review and approved in the next 1 to 2 years may or may not serve the housing needs of the Town.

Some other notable highlights from our findings include:

- Bethlehem’s population increased 6,104 people between 1990 and 2010 and had a faster rate of growth than both the United States and Albany County between 2010 and 2017. Bethlehem increased by 4.2%, while Albany County increased by 1% in that time.
- Bethlehem’s largest age cohort at 30% of the population is between the ages of 45 and 64 years old, but significant portions of the population are of potentially more dependent age ranges, with school age children at 16.7% and older adults at 17.2%. Less significant portions of the population are preschool age children and college age adults at 6.1% and 8.5% respectively.
- The total population is projected to grow to 36,088 residents by 2030 and 36,735 by 2040. The Comprehensive Plan Update should consider housing for new growth based on age cohort projections. These population projections show an increase in residents age 65 or older of more than 2,400 by the year 2030.
- Bethlehem is a highly educated community, with 33% of residents having a Graduate or Professional degree, compared to only 11.8% throughout the rest of the country.
- Over 50% of Bethlehem’s resident home-owners with a mortgage are paying more than \$2,000 per month in monthly housing costs, but the Town’s high median household income of \$96,384 may suggest these high housing costs aren’t unaffordable to the average resident. Affordability may be difficult for households with incomes at or below \$65,743 (reflecting the Albany MSA) that currently reside or desire to reside in Town.
- The main industry sectors in Town are: 1. educational services, health care, and social assistance; 2. public administration; and 3. professional, scientific, management, and administrative and waste management services.
- A majority (60%) of employed residents hold an occupation in management, business, science, and the arts.
- Compared to national standards, more residents drive to work alone and more work from home.

Introduction – Comprehensive Plan Update Context

Bethlehem is a large town that spans village, suburban, and rural areas. It is located in Albany County in the Capital District of New York, with a population most recently estimated to exceed 35,000 residents. The purpose of this demographic and growth analysis is to provide a foundation for community discussion and planning as the Town and its community members update the 2005 Comprehensive Plan. A solid understanding of the Town's development, demographic trends, and economic makeup is an important starting point for discussing the Town's vision for the future. Who is the town as a population? What type of growth – particularly residential – has it experienced? And how does it compare with similar municipalities in the Capital Region? These are important questions to answer when taking stock in the community's current state. With this information at hand, we can begin to understand possibilities for the future based on existing trends, policies, and programs and determine if the current path the town is on is worth following or changing. The establishment of a community vision for the next 15 years can be served by new strategies, regulations, and policies, informed in part by these characteristics and trends.

CDRPC Technical Assistance

CDRPC provided technical assistance through the 2019 CDRPC/CDTC Technical Assistance Program by preparing this analysis. This report will provide an analysis of Bethlehem's residential development trends as well as provide a comparison to selected peer communities within the Capital Region. To understand Bethlehem's growth, this analysis will look at the two time periods between 1991 and 2018: Period 1-1991 – 2004; Period 2-2005 – 2019. Looking at these two periods, as well as gathering data since 1990, will give us distinct periods of growth to compare and analyze. This report will also provide some demographic and economic metrics for context. The analysis includes a variety of demographic indicators including population, age, educational attainment, economic development, building permits, and more.

The Town of Bethlehem is embarking upon a Comprehensive Plan Update process to which this document is envisioned to establish an important baseline of current conditions, analysis of trends over time, and aim to assist in providing emphasis or background to future policy creation. The Town of Bethlehem Planning Department has provided input and included key takeaways that will be helpful or important to consider in the Comprehensive Plan update process. These sections are denoted as Bethlehem Planning Department Takeaways.

Data in this report is from the Census Bureau and other sources that CDRPC collects data from. Census Bureau data is typically retrieved from the 10-year Decennial Census, the 5-year American Community Survey (ACS), or the Economic Census. Data from the Decennial Census are exact counts, while data from the ACS are estimates. Though the ACS data is not exact, it is useful for determining trends.

Comparison to Peer Communities

While it is beneficial to compare Bethlehem to the rest of New York State, the region, as well as the country, it is also beneficial to compare Bethlehem to peer communities in the Capital Region that are geographically similar in their location to regional cities and experience of recent growth. Comparing the profiles of Bethlehem to communities in the region of similar development sizes, proximity to major employment areas, and makeup can be beneficial to determine if Bethlehem is on trend with its peers or is an outlier in specific categories. For this report, Bethlehem is compared to the Towns of Colonie, Halfmoon, Malta, and Rotterdam. Comparisons are made between residential building permit

issuance, educational attainment, affordability of housing in the respective communities, and other development and demographic areas.

Housing Growth and Characteristics

The characteristics and quality of a community's housing stock have important implications for how communities function. For example, the types of housing and their location can influence travel modes and traffic volumes. Communities with a higher share of owner-occupied single family detached housing units may have a larger number of children and families, while renter-occupied multi-family units could trend toward younger professionals or empty nesters. The affordability level of a community's housing can correlate with greater levels of diversity in age, racial and ethnic characteristics, or disability status. These demographics can in turn influence the types of services provided by the Town, and varieties of businesses that choose to locate in the community.

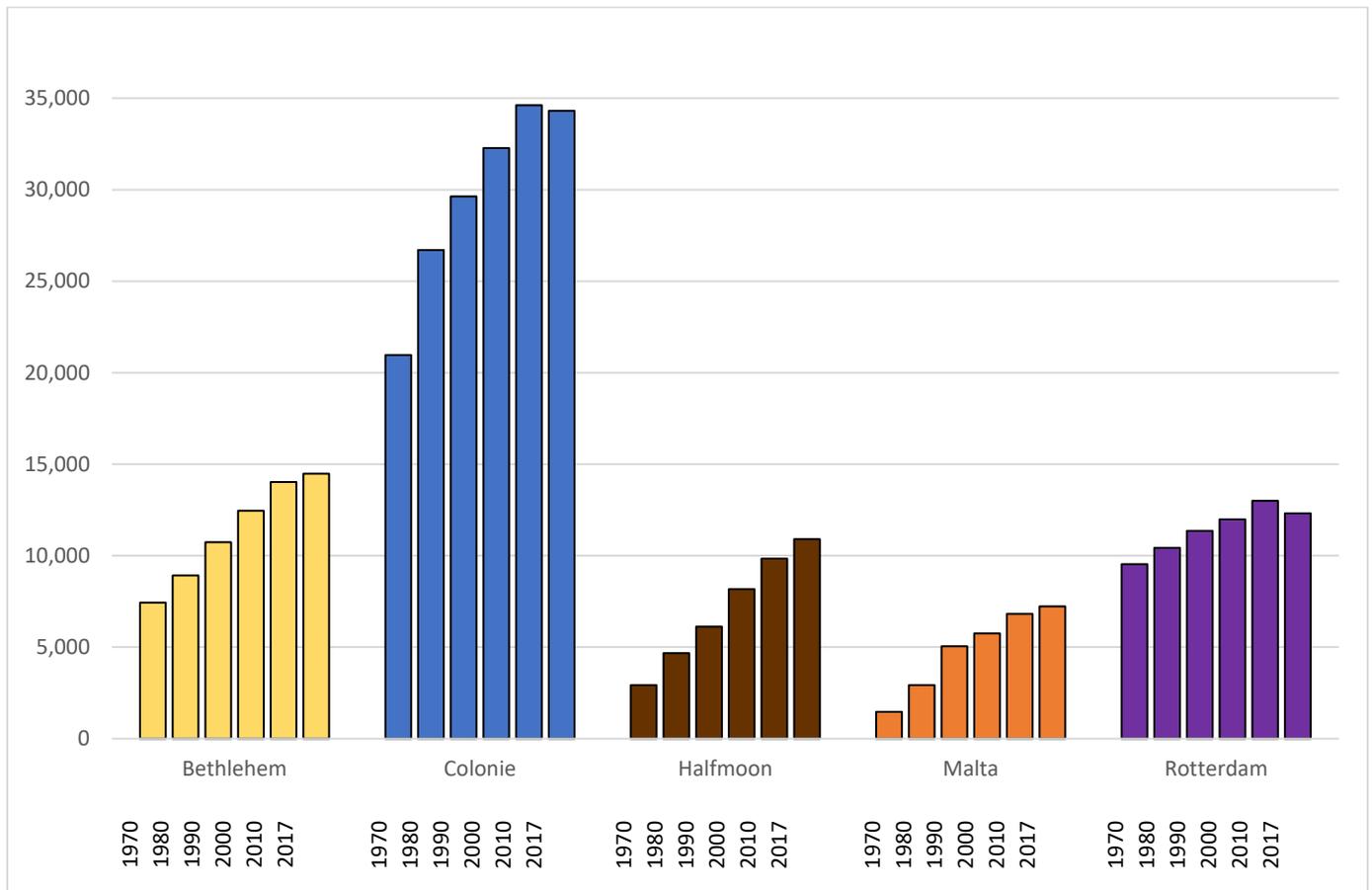
Since housing built now will be around for a long time, building the right kinds of housing now and in the short-term can help address housing needs the town expect to have in the future. Evaluating the housing stock characteristics and changes in those characteristics over time can reveal various relationships and dynamics in a community. Housing growth can be tracked through building permits. Other housing trends can be seen in changing shares of renter versus owner, vacant housing units, and the types of new construction. Housing growth happens unevenly across a region. Comparing one community's housing characteristics and trends to others can provide some context for understanding and discussing Bethlehem's growth and how the town is either unique or experiencing a regional change alongside other peer communities.

Housing characteristics data comes from the American Community Survey, which provides estimates based on 1-year and 5-year data collection periods. While five year data is not an exact count, it provides a look at the general trend in the community and is generally more reliable than one year data due to the larger sample size.

Change in Total Residential Housing Units Over Time

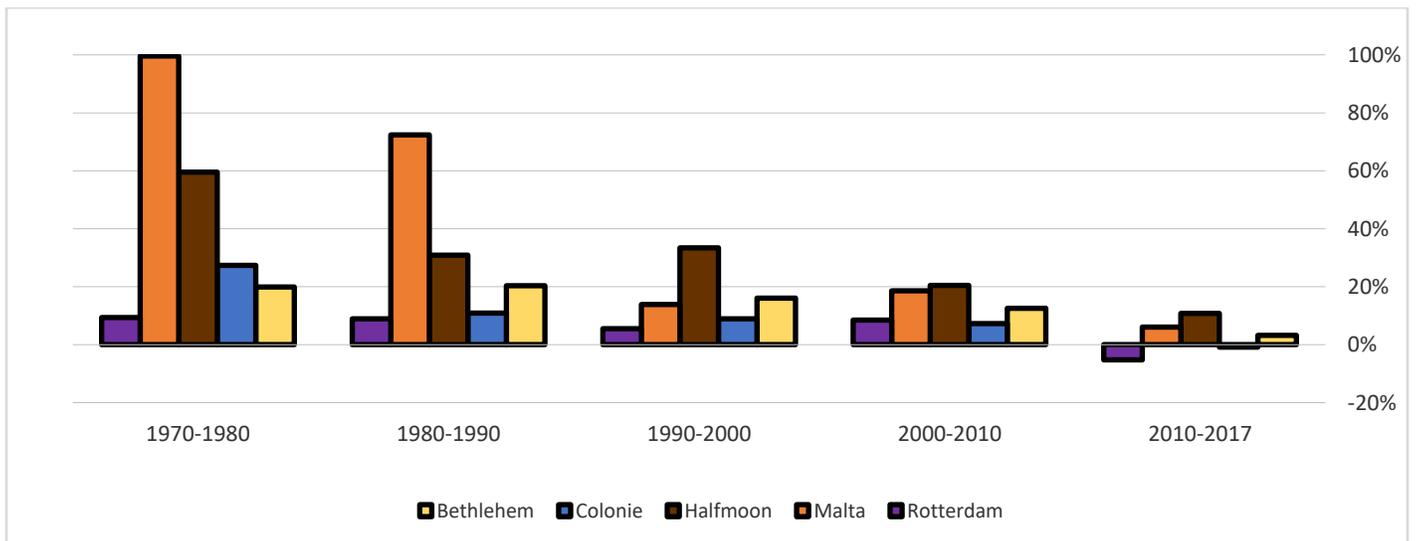
Starting in 1970 with 7,440 housing units, the Town of Bethlehem now has approximately 14,485 housing units according to the latest estimates, a 94.7% increase over a nearly fifty year period. The Town of Bethlehem has seen a lot of growth and development since 1980. Bethlehem saw consistent growth in the three decades from 1970. Between 1980 to 1990, Bethlehem saw its largest increase in housing units, adding 1,818 units for a total of 10,739, a 20.4% increase. The town added 1,720 units during the 1990s for a total of 12,459 in 2000, a 16% increase. The growth continued through 2010, adding 1,570 units for a total of 14,029, a 12.6% increase. In 2017, there were approximately 14,485 housing units in the town, a 456 or 3.3% increase since 2010. While Bethlehem's housing units have been growing steadily since the 1980s, the rate of growth has decreased over time, which is a story shared by other peer towns.

Chart 1: Total Number of Housing Units by Decade for Bethlehem and Peer Towns 1970-2017



Source: U.S. Decennial Census 1970-2010, ACS 2017-2013 5-Year Estimates

Chart 2: Housing Growth Rates by Decade for Bethlehem and Peer Towns 1970-2017



Residential Growth: Type and Geography

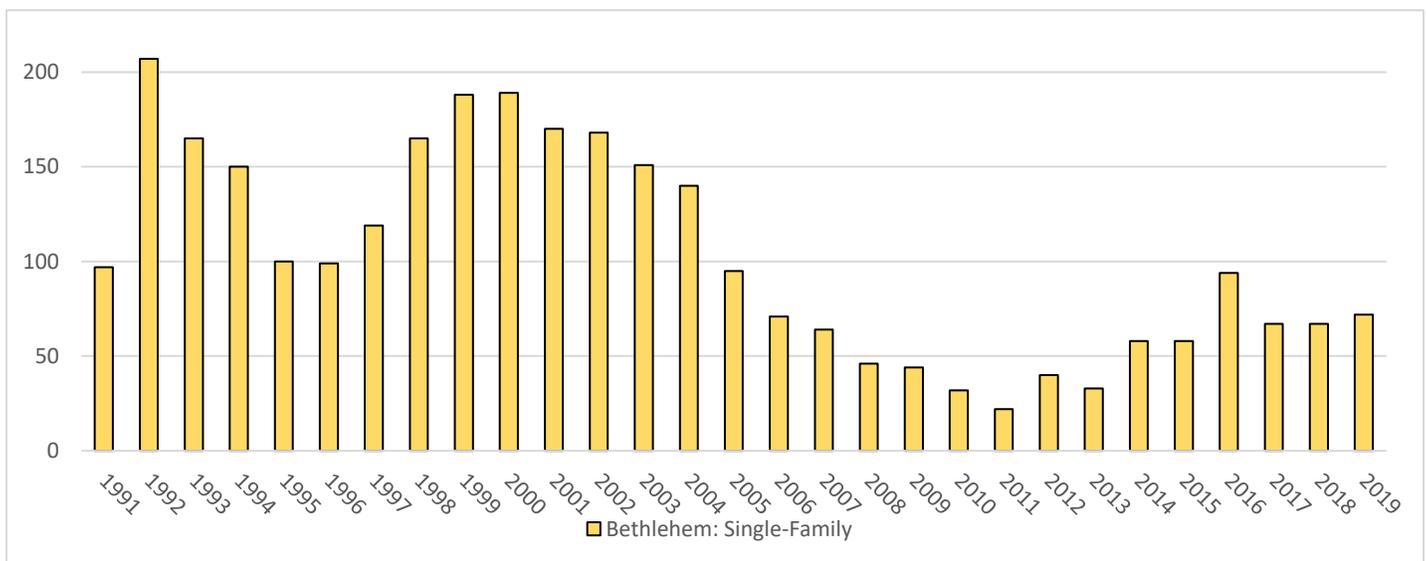
Overall growth may have slowed over time, but how exactly has Bethlehem been developing prior to the 2005 Comprehensive Plan and how has it been growing since? To get a better sense of the kinds of residential development in Bethlehem and how different kinds of development have progressed over the past 20 years, we can compare the residential development in separate periods before and after the 2005 Comprehensive Plan. For this analysis, we will compare housing units developed between 1991-2004 to units developed between 2005-2018.

Building permits are issued to approve the construction of new homes in a community after residential developments receive approvals from Planning and/or Town Boards. Building permits are categorized as single-family and multi-family permits. Issuance has varied greatly year to year since 1991. When homes are later built they receive a Certificate of Occupancy and tax parcel data is updated afterward. This data can be used to illustrate the rate and location of residential growth over time. The following sections will focus on single-family and multi-family residential development trends for the two periods in question separately before evaluating the total residential development trends.

Single-Family Development

Single-family homes are the dominant residential development type in Bethlehem. The issuance of single-family permits has fluctuated significantly on a year-to-year basis since 1991. Starting at 97 permits in 1991, single-family permits hit a high of 207 permits in 1992 but then saw declines through 1996. Permits rose steadily through 2000, where they hit 189 permits. Single-family permits then saw a steady decline before and after the housing crisis and subsequent Great Recession. A low of 22 permits was issued in 2011. Single-family development has risen steadily after this low, reaching 67 permits in both 2017 and 2018, but development activity has not returned to the levels seen prior to the 2005 Comprehensive Plan.

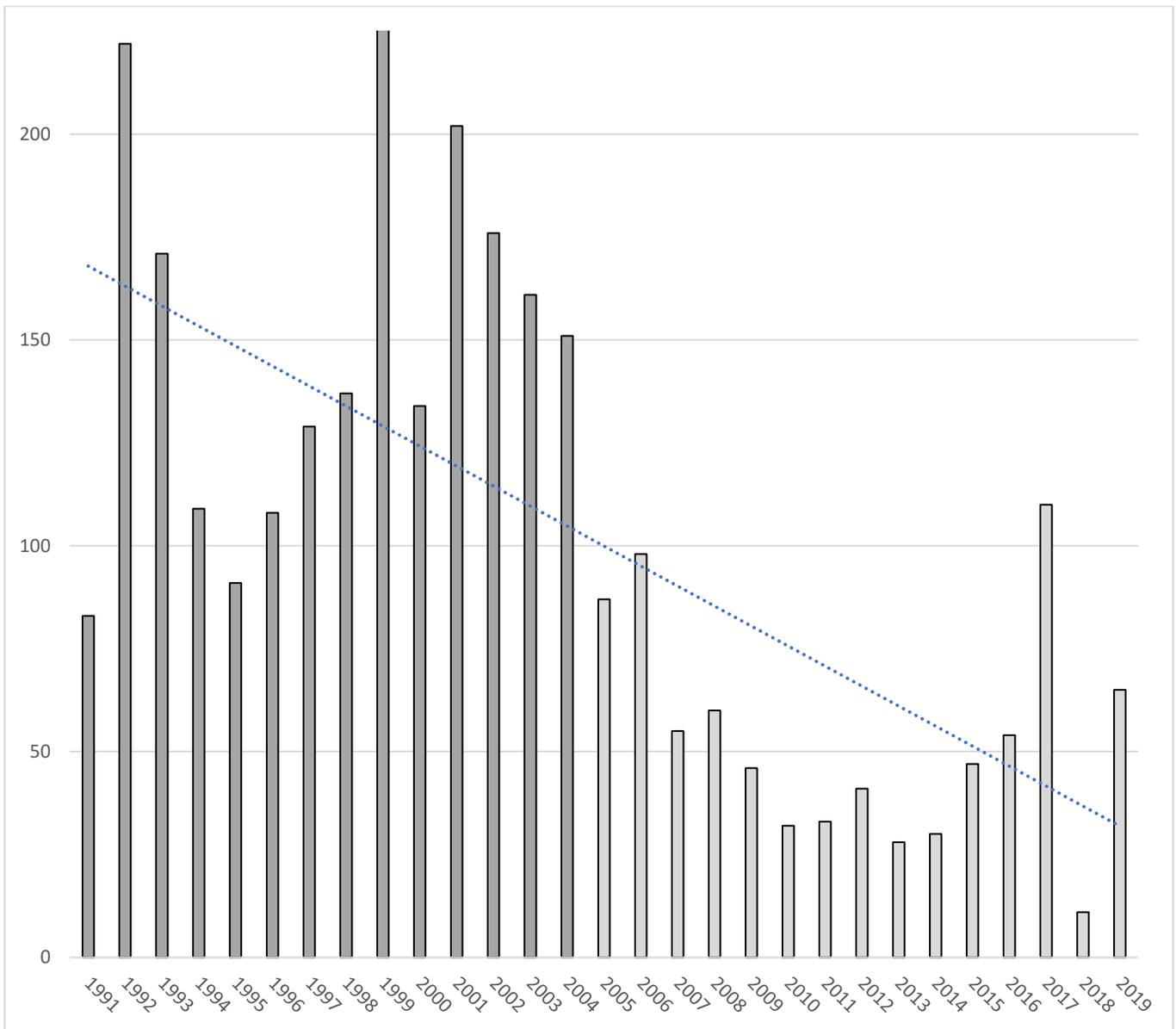
Chart 3: Bethlehem Single Family Building Permits 1991- 2019



Note: 2019 Data through 12/11/2019

Source: U.S. Census Bureau Building Permit Survey

Chart 4: Annual Number of Single-Family Units Built in Bethlehem



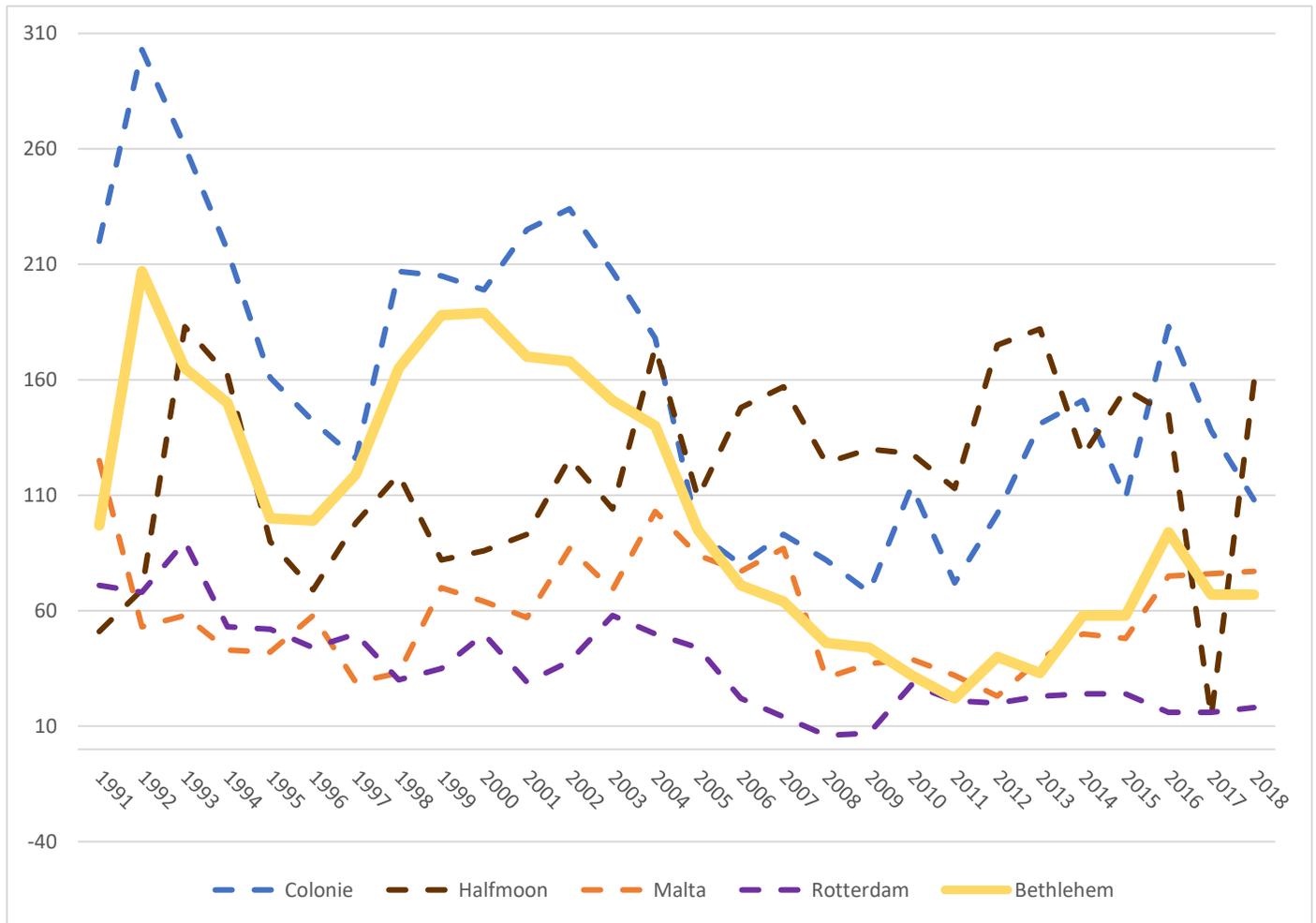
Note: Data reflects certificates of occupancy issued. 2019 Data through 12/11/2019

Source: Town of Bethlehem Planning Department

Looking closely at the two separate periods, we can see that the issuance of certificates of occupancy for single-family units was far higher between 1991-2004. While there was still development after 2004, the rate at which it took place dropped off greatly. In the 14 years since the 2005 Comprehensive Plan was developed and adopted (2005 – 2018), Bethlehem has seen close to 35% the single family development that occurred in the years prior, between 1991 and 2004. Of note is that economic recession that occurred in the 2007-2009 period, which is reflected in the significantly low number of units built during and soon after that period. Comparatively, the economy came out of the recession starting in 2009 which is reflecting of the slight increase in units built a few years later. While there is a slight increase seen starting in 2015, these levels are still reflective of a low building period for residential units in Bethlehem.

Between 1991 and 2004, Bethlehem was consistently the second-highest issuer of permits amongst the peer communities, behind only Malta. After issuing 189 permits in 2000, permits in Bethlehem began to decline. This was also true for the other peer communities except for Halfmoon, which saw increases through 2013. After 2005, Halfmoon and Colonie consistently issued more permits than Bethlehem and Rotterdam has issued the fewest single family-permits from 1991-2018. Bethlehem and Malta saw similar rates of permit issuance from 2005 onwards.

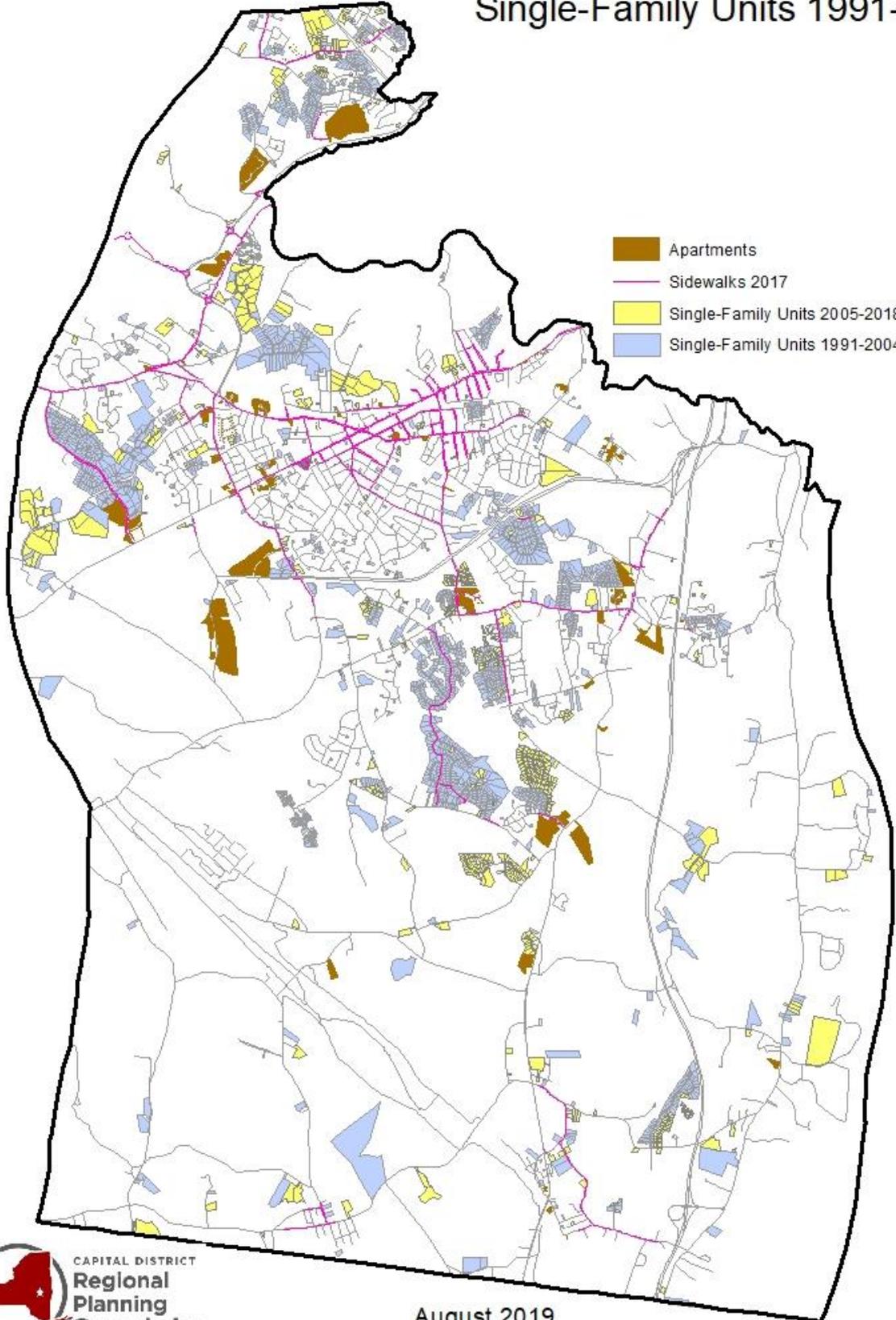
Chart 5: Single-Family Permit Issuance for Bethlehem and Peer Towns



Source: U.S. Census Bureau Building Permit Survey

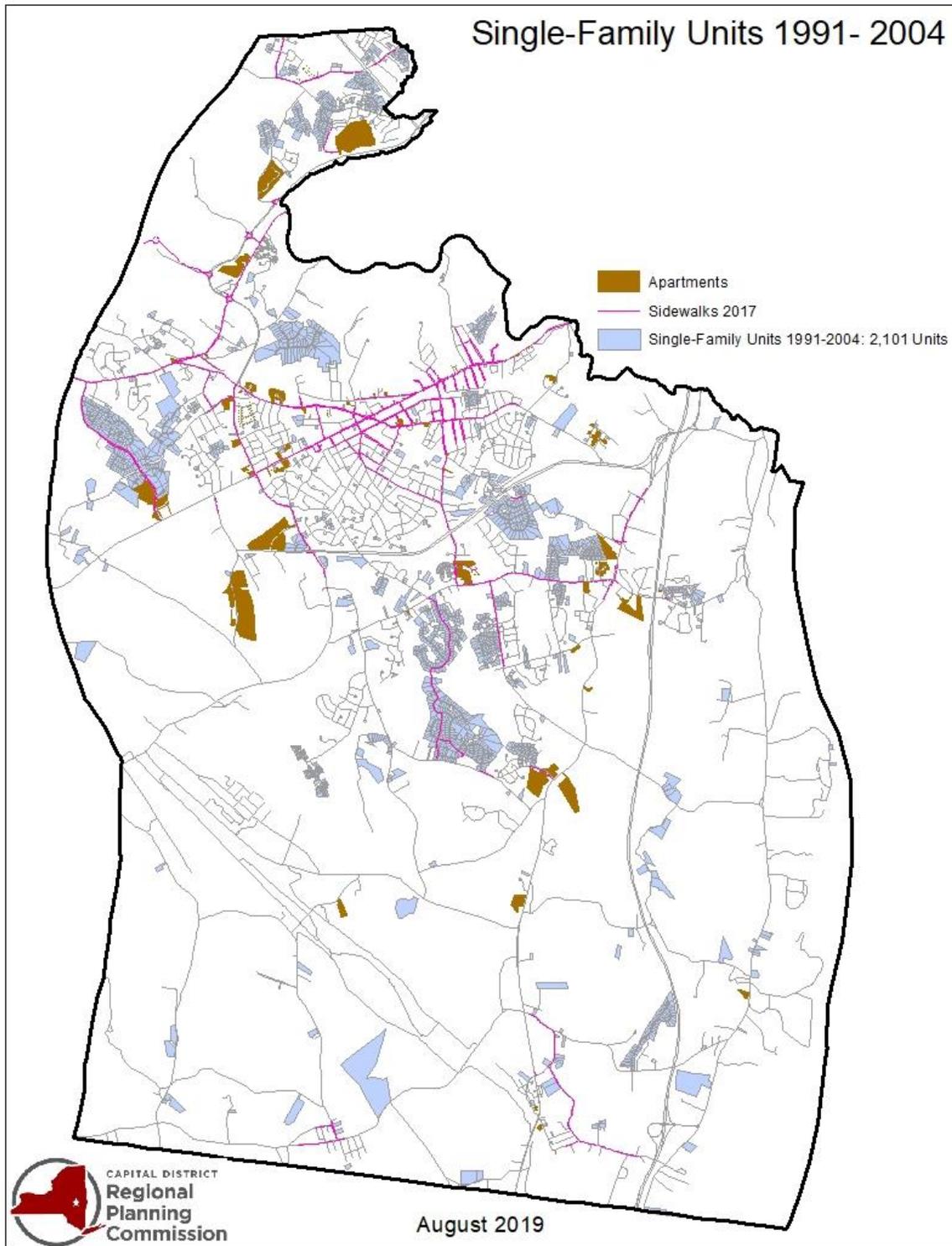
Since 1991, the Town of Bethlehem has developed 2,834 parcels of land over 2,948 acres of land with single-family residential housing units. The Development of these units occurred in clusters in relative proximity to existing development. As the maps on the following pages show parcels developed prior to and after the 2005 Comprehensive Plan. Roadways on the map can be an indicator of existing development and provide a sense of how near or far new development occurred from existing residences or businesses. Sidewalks are shown in purple and provide a sense of how new developments have or lack pedestrian connections to other parts of town.

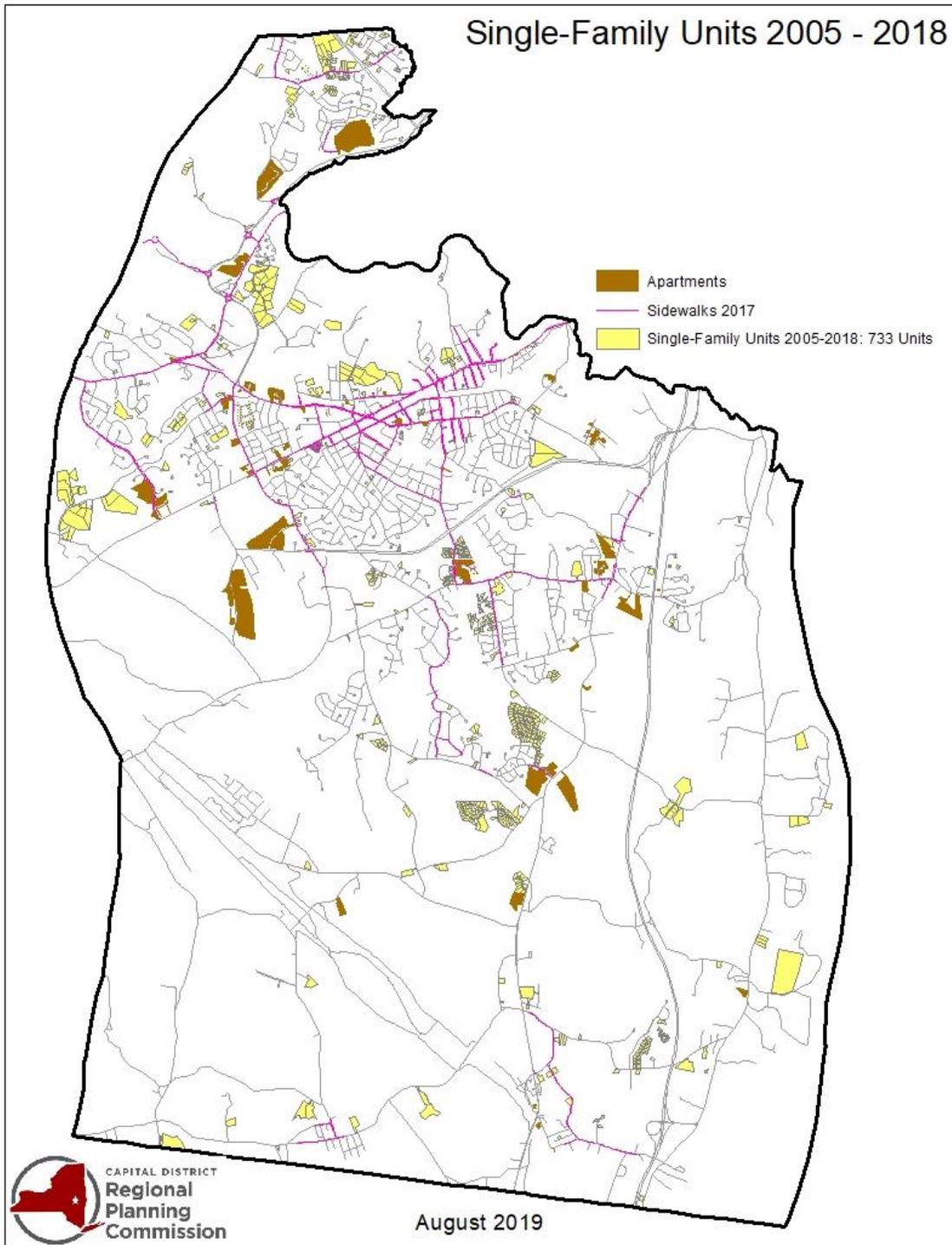
Single-Family Units 1991- 2018



- Apartments
- Sidewalks 2017
- Single-Family Units 2005-2018: 733 Units
- Single-Family Units 1991-2004: 2,101 Units

Looking at the location of Bethlehem single-family residential units between 1991 and 2004, we can see that development typically occurred in large clusters of units near existing developed parcels. In this period, the town developed 2,101 parcels of land over 2,112 acres.





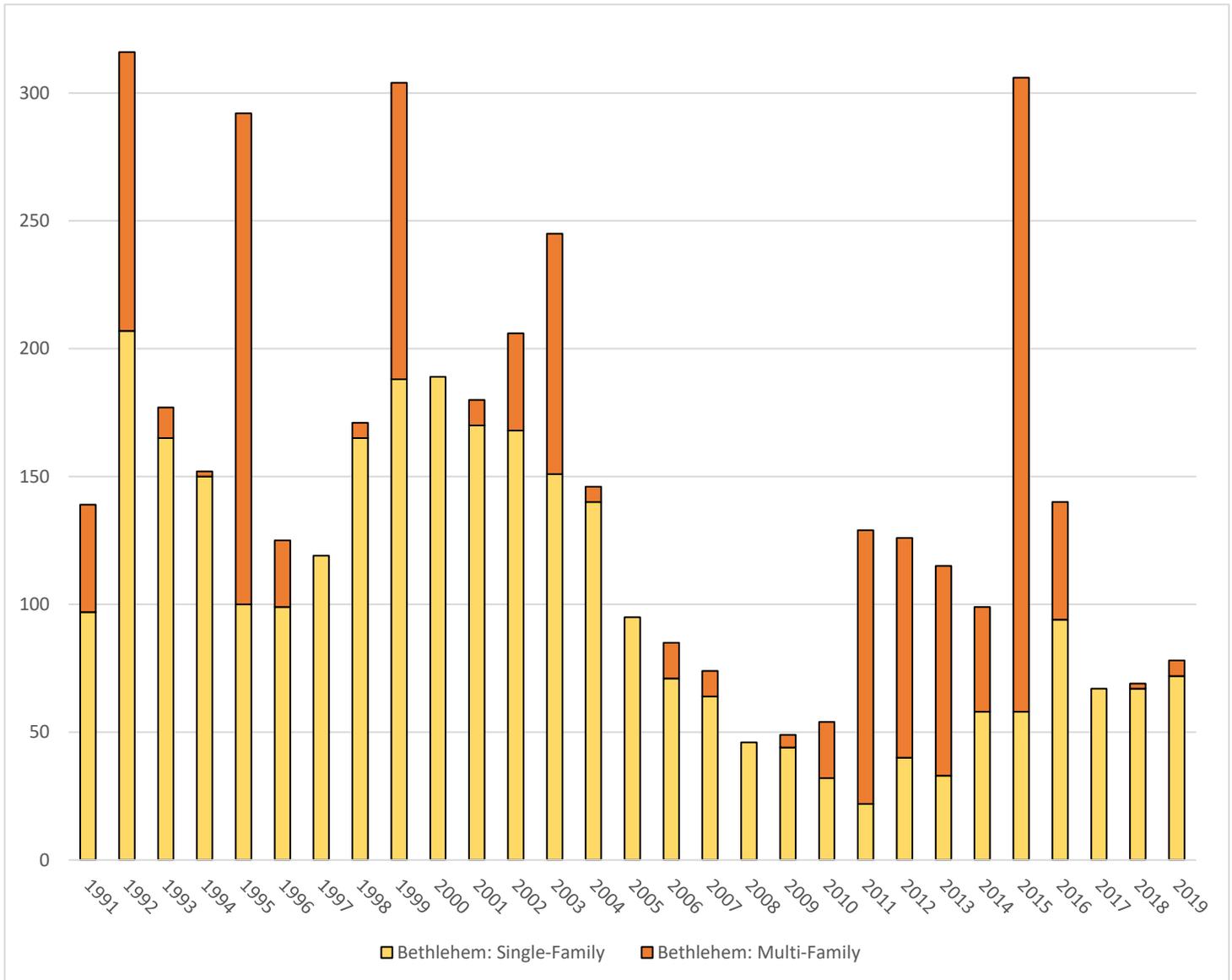
Development in Bethlehem has slowed since 2004, with 733 parcels being developed over 836 acres between 2005 and 2018. Development in this time frame was similarly dispersed across the town, but with some lots developing a little further from the core of the Town in Delmar.

In terms of future development, Single family detached residences make up approximately 34% of the residential units in the pipeline, while single family attached residences make up approximately 18%.

Multi-Family Development

For Bethlehem, 45 multi-family units were issued permits in 1991, but this would fall to 0 permits in 1994 before hitting 192 in 1995, a figure multi-family permits would not reach again until 2015. After 1995, multi-family permits fluctuated yearly but ultimately declined through 2008, when 0 permits were issued. After 2008, permit issuance rose to over 100 in 2011 and a 20-year high of 248 in 2015. After this high, multi-family permits fell sharply to 0 in 2017 and 2 in 2018.

Chart 6: Bethlehem Residential Building Permits 1991-2019



Note: 2019 Data through 12/11/2019

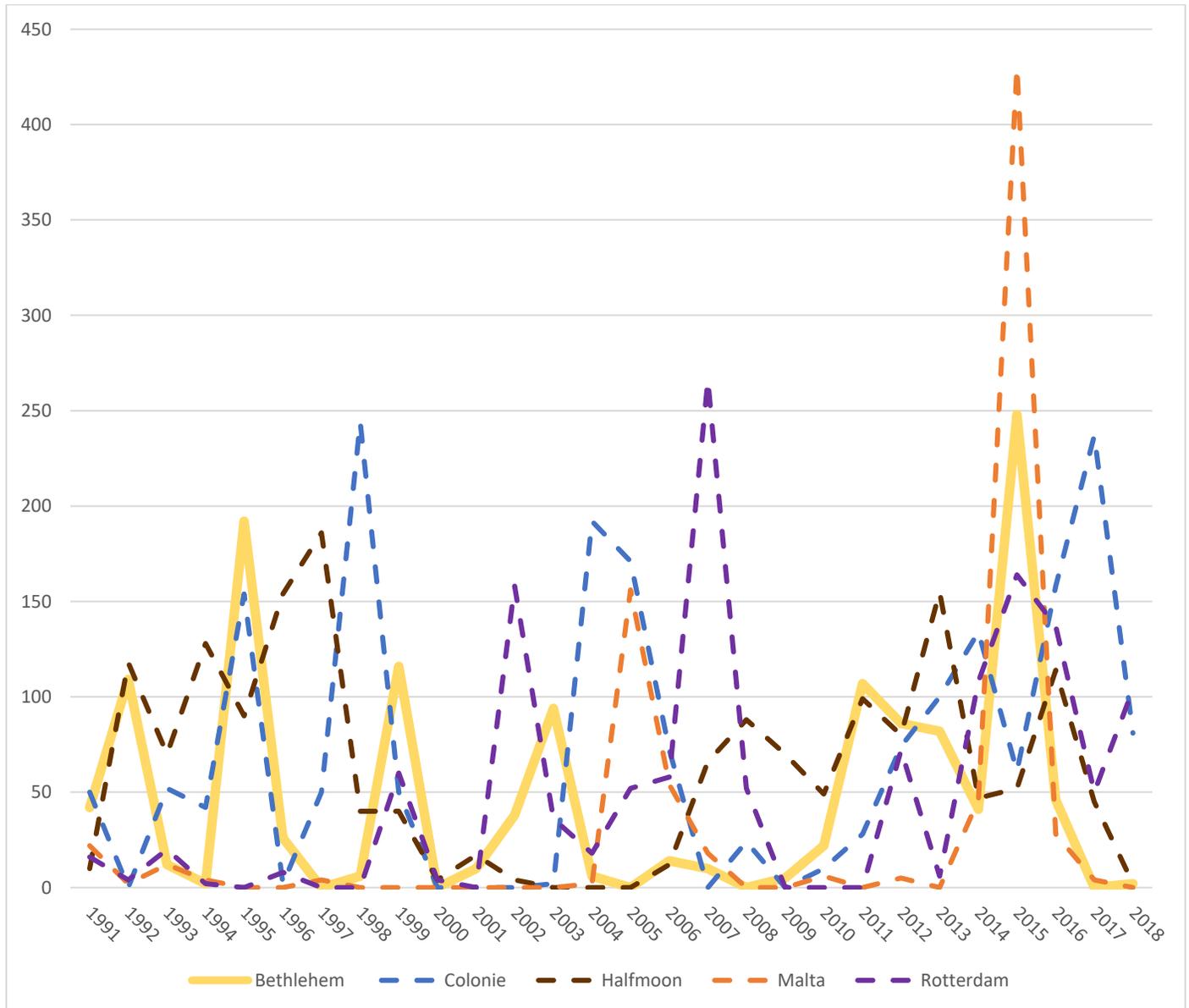
Source: U.S. Census Bureau Building Permit Survey

Multi-family permit issuance saw years of sharp fluctuation across all the peer communities. Starting in 1991, Bethlehem, Colonie, and Halfmoon saw the highest permit issuance throughout the communities. However, this issuance would drop after 1995 and begin a pattern of yearly spikes and decreases throughout the next 20 years.

Generally, communities would see groups of two or three years where no multi-family permits were given out followed by a large spike the following year. The highest single-year permit issuance for any community would be in Malta in 2015 with 430 permits.

Approximately 48% of the residential units in the residential development pipeline are multifamily units, but the majority of these units have not yet been approved for development by the Town.

Chart 7: Multi-Family Permit Issuance for Bethlehem and Peer Towns

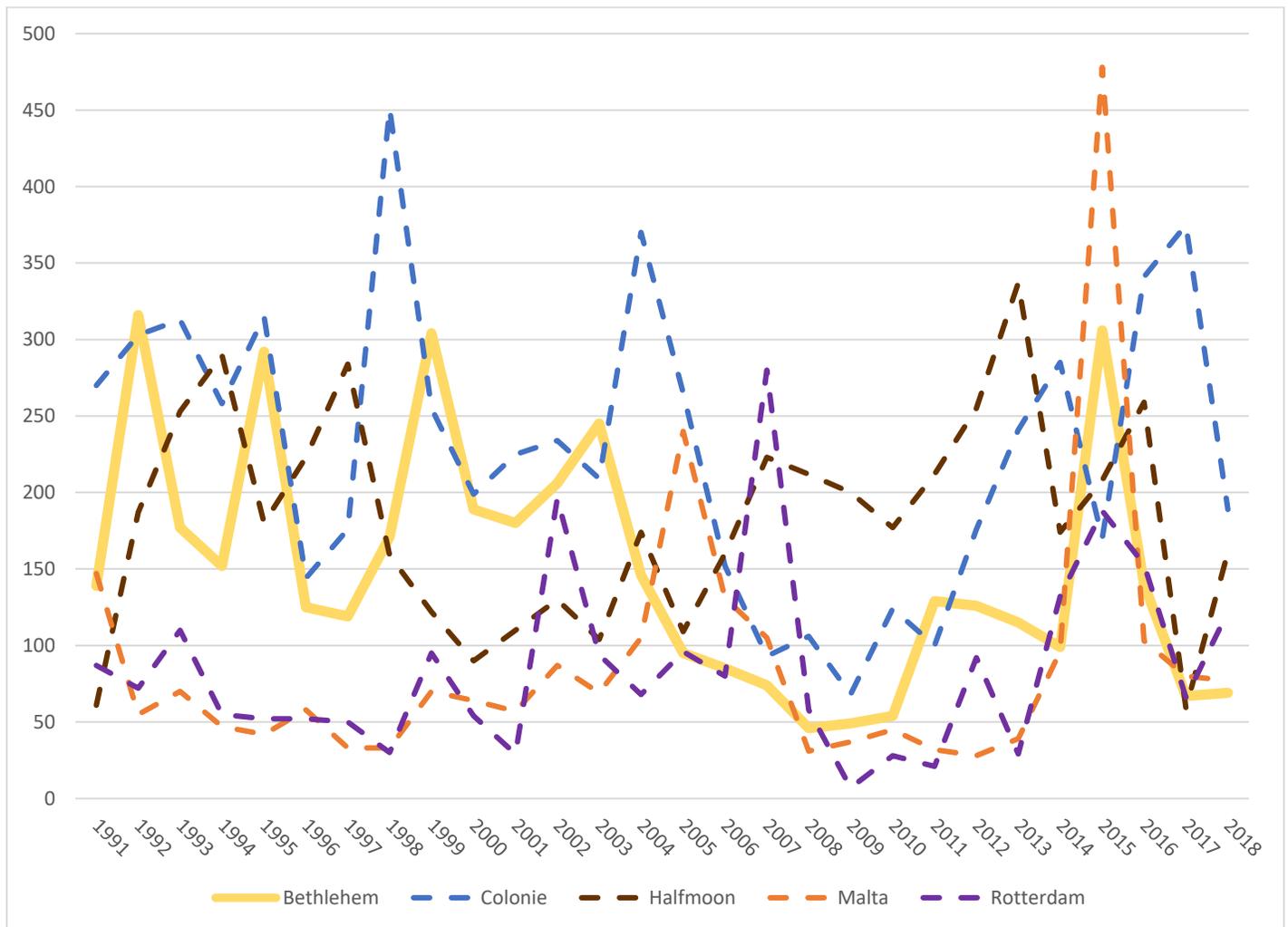


Source: U.S. Census Building Permit Survey

Total Residential Development Compared to Peer Towns

In looking at single family and multifamily development combined, between 1991 and 2004, Colonie saw the highest number of permits issued with 3,722, followed by Bethlehem with 2,761 and Halfmoon with 2,367. The other peer communities did not see more than 1,100 permits issued in this time with Malta and Rotterdam issuing 937 and 1,044 permits respectively. However, from 2005 to 2018, permit issuance became more evenly distributed amongst the communities. Halfmoon, Colonie, and Malta saw the highest issuance with 2,746, 2,685, and 1,522 total permits. Bethlehem saw the fourth most permits issued with 1,454 permits, 1,307 fewer than the previous 10-year period. Rotterdam was not far behind, with 1,352 permits issued. Permit issuance between 2005 and 2018 was much more in line amongst the peer communities than the previous decade's distribution.

Chart 8: Total Permit Issuance for Bethlehem and Peer Towns



Source: U.S. Census Building Permit Survey

Overall, while the Town of Bethlehem has seen growth since 1980, the rate of development for residential housing units has slowed in recent years. For total housing units issued in 2018, Bethlehem is near its lowest rate of development

since 2008. Looking more closely at single-family development, there was a higher rate of development between 1991-2004 with 2,101 parcels of land over 2,112 acres compared to only 733 parcels being developed over 836 acres between 2005-2018.

While development has slowed during the recent period since the 2005 Comprehensive Plan, the trend may change as nearly 1,500 residential units have been approved but are awaiting construction, are in land use review, or have been proposed in conceptual form to the Town.

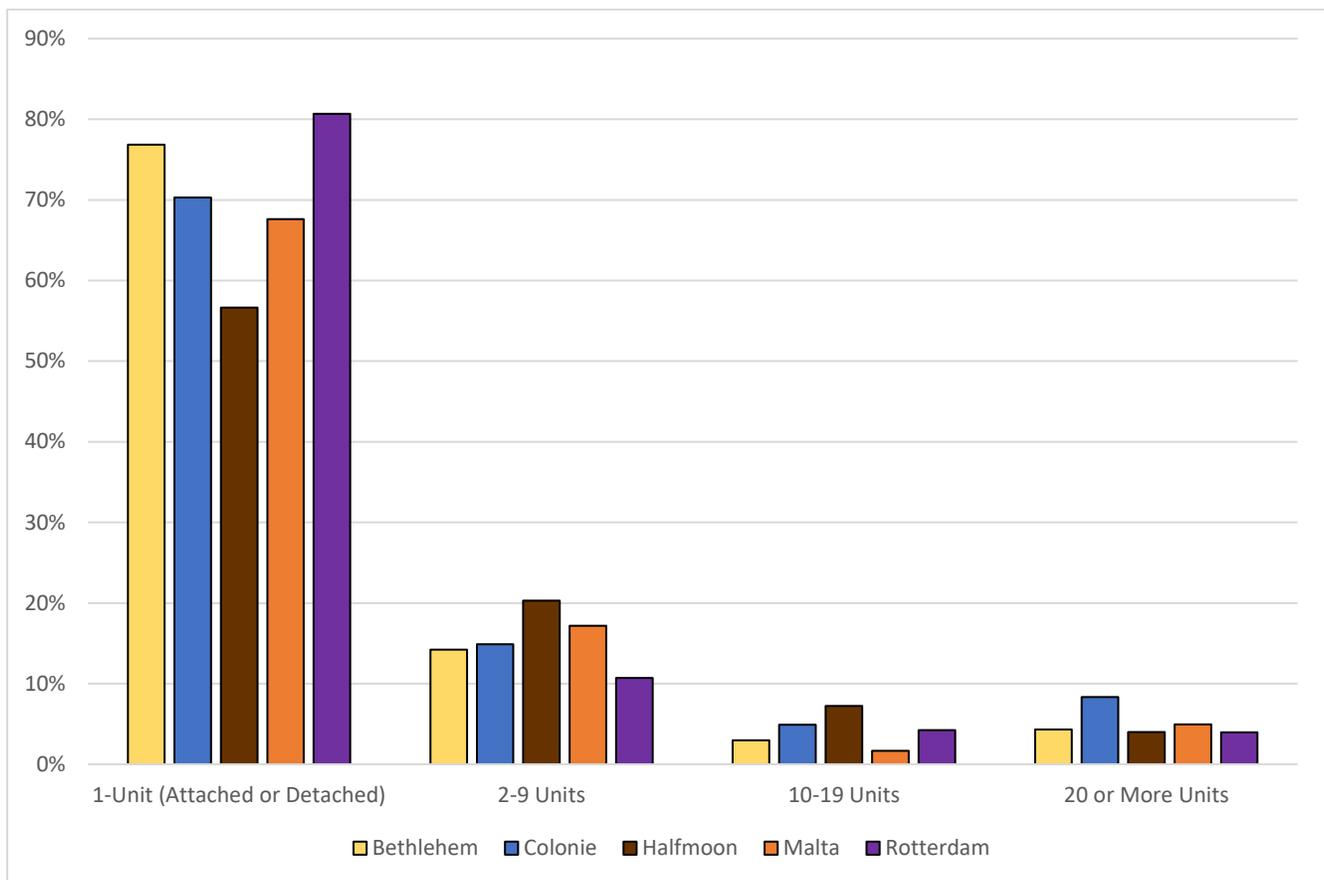
Bethlehem Planning Department Takeaways

- *In the 14 years since the 2005 Comprehensive Plan was adopted (2005 – 2018), Bethlehem has seen close to 35% of the single family residential development that occurred in the years prior, between 1991 and 2004.*
 - *Total multi-family permitting was about the same between these two periods, but since the 2005 Comprehensive Plan was adopted, multifamily permit issuance occurred in a tighter timeframe during the period between 2011 and 2016. This is most likely the result of the housing market’s interest in multi-family housing and zoning amendments made as a result of the 2005 Comprehensive Plan allowing for hamlet zoning districts that permit multi-family dwellings.*
 - *Housing growth has slowed for Bethlehem and other peer towns over the past 7 years compared to previous decades growth.*
 - *Regarding location of residential development, both periods reflect growth focused towards south of the Delmar Bypass (Rt. 32), with other areas reflecting to the north and west.*
 - *Consider the breakdown of housing types in the development pipeline in relation to the demographic changes the Town expects to experience in the next 10 years. As the share of older adults (age 65+) grows, will residential development projects under review now address their housing needs? Do we wish to attract a younger generation, and if so, what are their housing needs?*
-

Housing Types

Housing units are classified by the number of residential units within a single building. A building can be a standalone home designed for one family, which can be attached to another unit or detached, or a building can contain multiple housing units. The number of residential units a building can hold can vary greatly, from just two units to more than twenty. A breakdown of the number of housing units in structures throughout a community can provide understanding about how housing is distributed throughout the community, how the housing fits within the local economy, and what kinds of infrastructure and services are needed to accommodate the housing types in each area. It can also help the Town anticipate traffic patterns and where new businesses may want to locate nearby.

Chart 9: Residential Structures by Number of Units for Bethlehem and Peer Towns

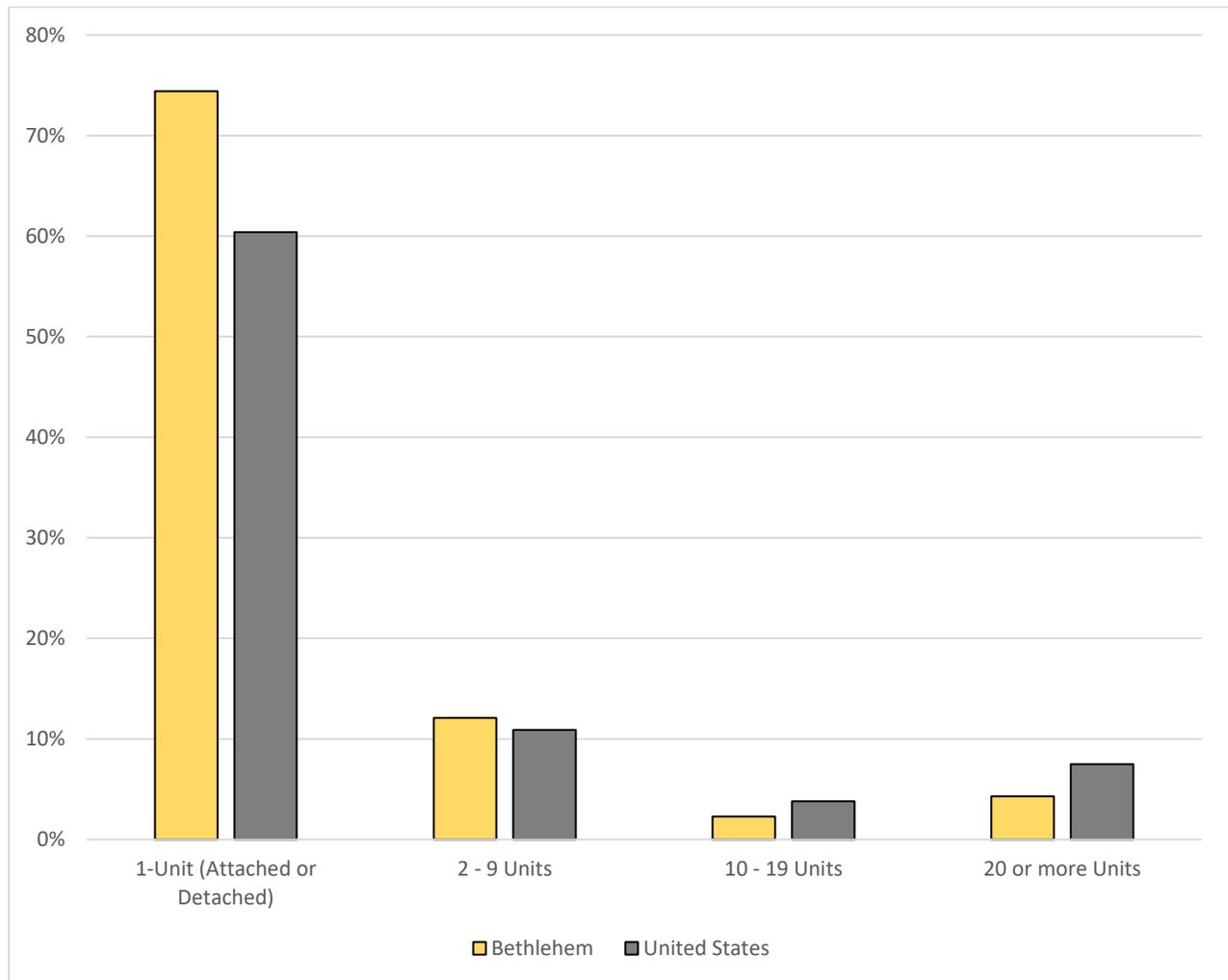


Source: U.S. Census Bureau 5-Year ACS 2017-2013

Bethlehem and its peer towns are dominated by single-family housing units. There are nearly 14,485 housing units in Bethlehem, and 10,784 of these or 74.4% are single-family units. Bethlehem has the second highest share of single-family units behind Rotterdam's 80.7%. Bethlehem is in-line with the other peer communities for other types of multi-unit residential structures, if not on the lower end of the group.

While single-family units are the predominant housing unit across the country, the U.S. share of these units is only 60.4%. Compared to peer towns, Bethlehem has the second highest share of single-family housing units with 76.8%. Bethlehem has the second lowest share of 2-9 and 10-19 unit structures amongst the peer communities at 14.2% and 3% respectively. Bethlehem has the third fewest structures of 20 units or more at 4.3%.

Chart 10: Number of Housing Units in Structure for Bethlehem and United States

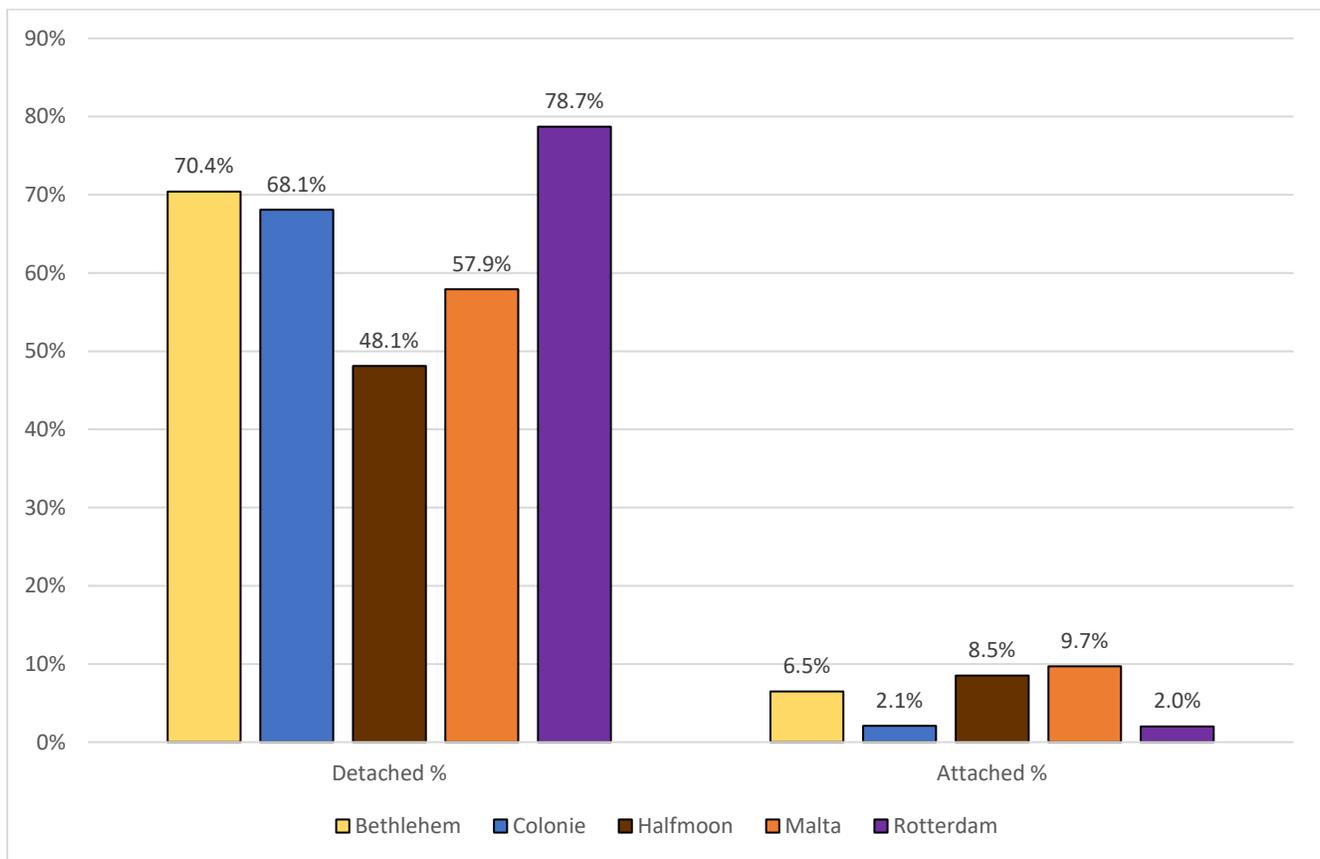


Source: U.S. Census Bureau 5-Year ACS 2017-2013

Single-family residential units are typically divided between two categories; attached and detached. Attached units are single-family homes that have at least one wall in common with an adjoining unit, such as those found in Walden Fields or Chadwick Square. Detached units are a building designed for one family that is not connected to any other residential units, like what is found in a typical home in a suburban area.

Bethlehem’s single-family housing units are dominated by detached units. As of 2017, there were 13,729 occupied housing units in Bethlehem. 71.9% or 9,867 of these units are detached and 6.7% or 917 units are attached. Compared to peer towns, Bethlehem has the second highest share of single-family detached units at 70.4% behind Rotterdam. Colonie is close behind with a 68.1% share of detached units. In terms of attached units, Bethlehem has the third highest share of units with 6.5%.

Chart 11: Attached vs. Detached Units for Bethlehem and Peer Towns



Source: U.S. Census Bureau 5-Year ACS 2017-2013

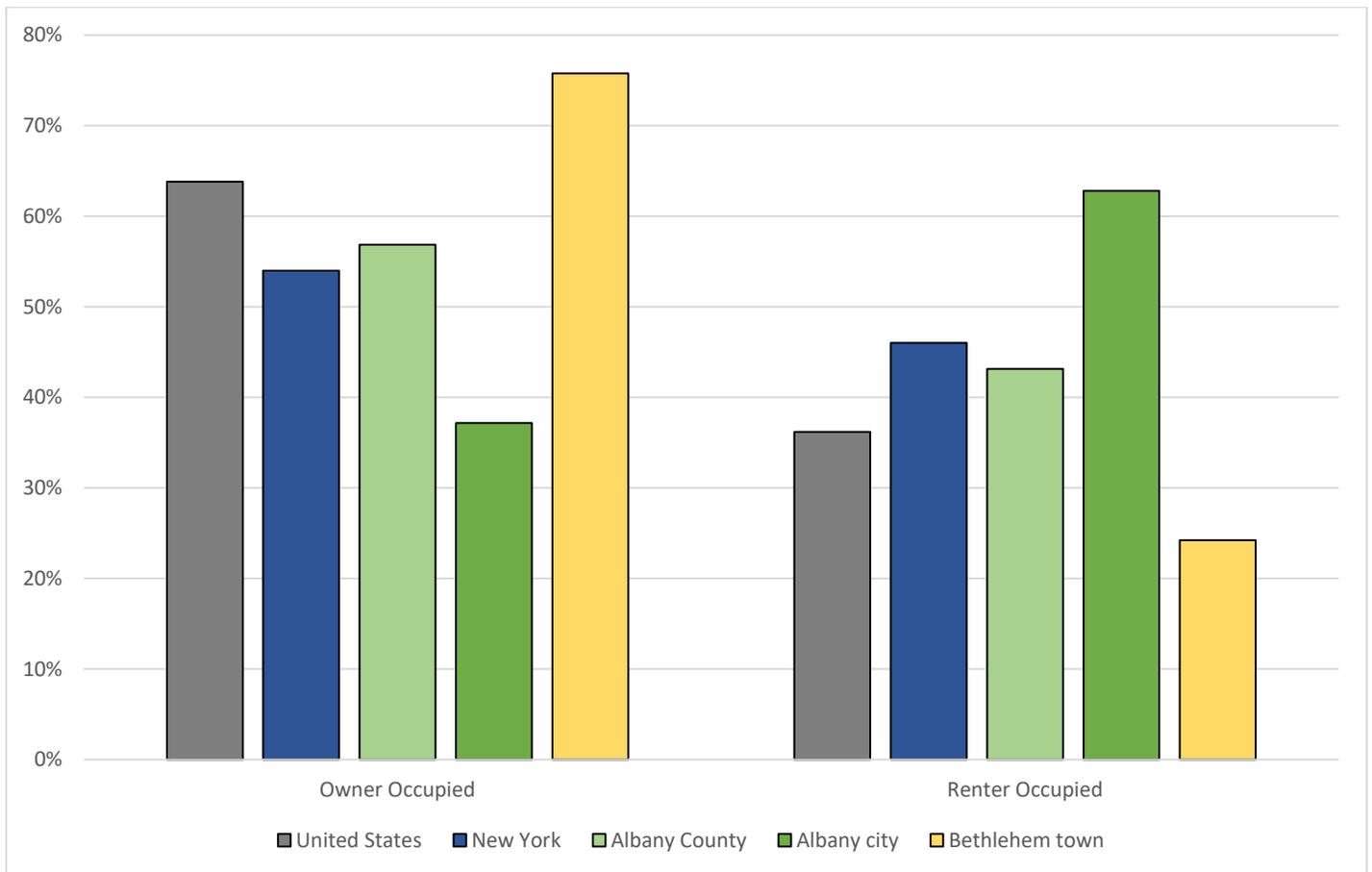
Bethlehem Planning Department Takeaways:

- *Bethlehem’s ratio of single-family detached to single-family attached has remained consistent over the last 7 years. Developments such as Walden Fields and Chadwick Square provide single-family attached townhome housing options for residents. Do we need more single-family attached homes?*
 - *Bethlehem’s higher rates of single family and owner occupied units and lesser amount of multifamily and rental units may indicate a limited supply of attainable and affordable housing in the Town.*
 - *What types of housing (single-family detached, single-family attached townhomes, multi-family) does Bethlehem need?*
-

Occupancy

Residents living in housing units are classified as either owners or renters. Housing units can also be classified as vacant for seasonal use. These units are owned but are not occupied for the entire year. These units can be used as vacation homes or be used as a primary residence that is left vacant while the owners live elsewhere for months at a time.

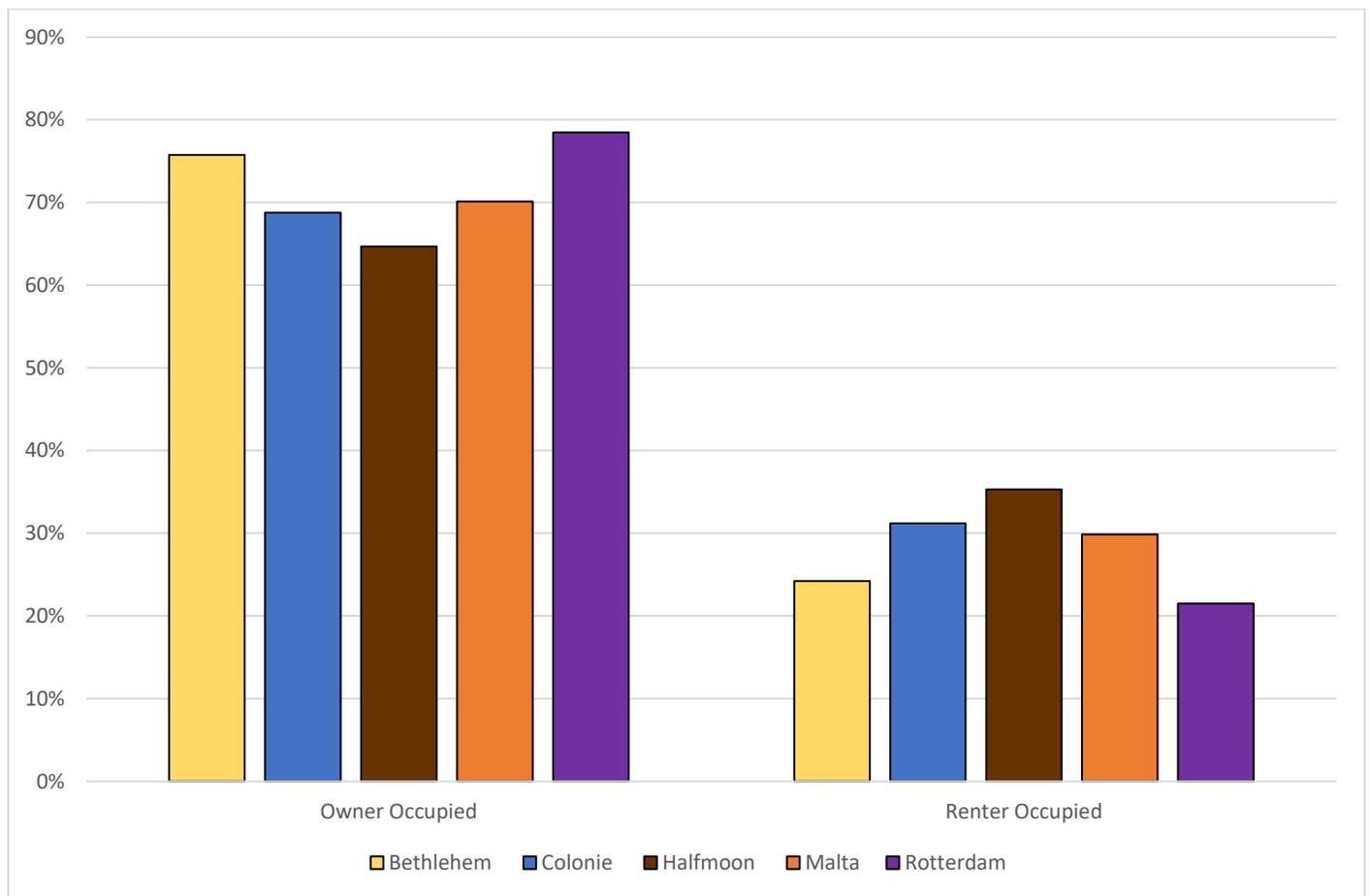
Chart 12: Occupancy - Bethlehem, Albany, Albany County, NYS, and United States



Source: U.S. Census Bureau 5-Year ACS 2017-2013

Bethlehem has a much higher share of owner-occupied units at 75.8% than the rest of the country at 63.8%, as well New York State and Albany County. Renters make up only 24.2% of Bethlehem, approximately a fourth of all housing units, a much lower percentage than the state, county, and country.

Chart 13: Occupancy in Bethlehem and Peer Towns



Source: U.S. Census Bureau 5-Year ACS 2017-2013

Bethlehem has the second highest share of owner-occupied housing units at 75.8% behind Rotterdam at 78.5%. Bethlehem has the second lowest share of renter occupied units amongst the peer communities with 24.2%. Only Rotterdam had a lower share of renter units with 21.5%. Halfmoon had the highest share of renter units at 35.5%

Bethlehem Planning Department Takeaways:

- *Bethlehem’s low number of rental and multi-family units may make it difficult for young adults who have grown up in the area to stay in the community if they attend college locally or to return after graduating from college.*
 - *People working middle to low wage occupations who desire to live in the Town may be priced out of living in the community.*
 - *What limitations exist (e.g. zoning laws, neighborhood opposition, etc.) that restrict the construction of various housing types (e.g. housing size, affordability, etc.) in the community?*
-

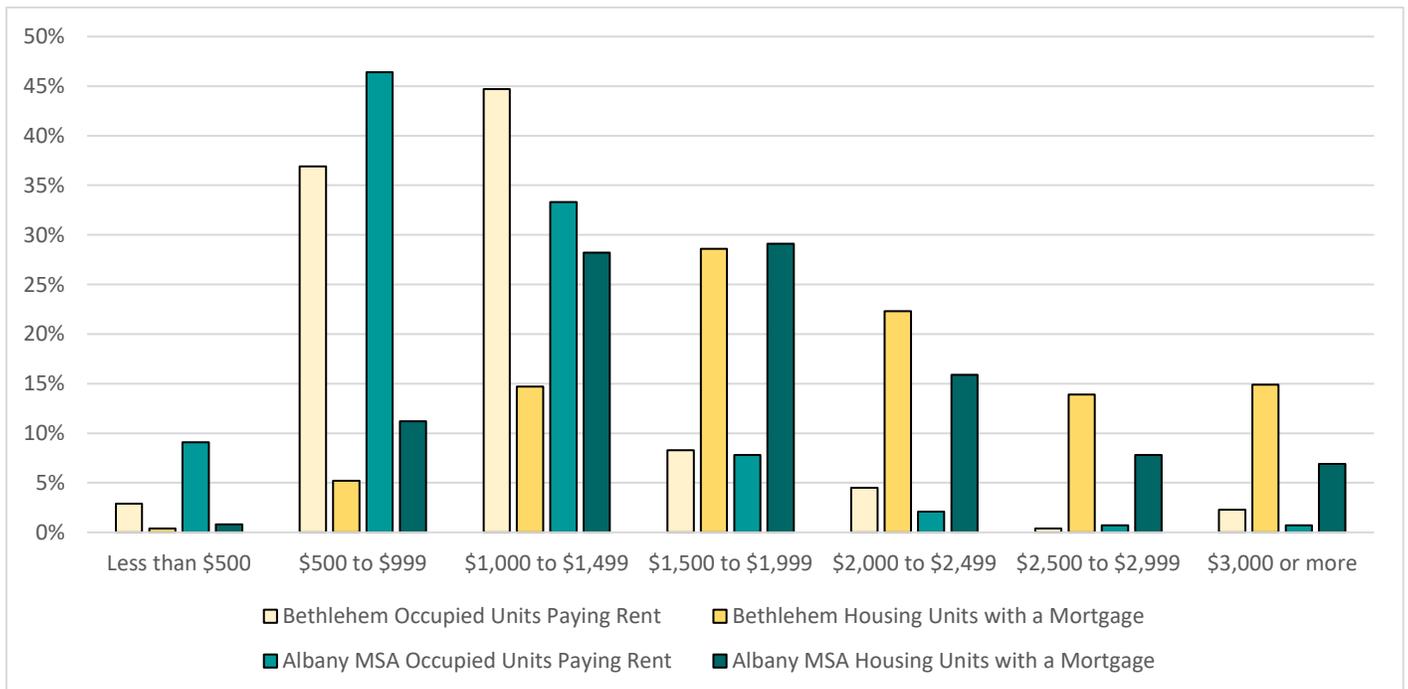
Housing Affordability

Housing affordability is a complex issue at the metropolitan regional level (or commuting shed) and it involves many factors. Communities with housing options that are affordable to a wide range of incomes allow a wider range of people to contribute to the community. This applies to new residents, but also to existing residents, who may be at risk of being forced out if housing costs increase or if there is an economic downturn. In today’s economy, it’s not only food service/retail workers, teachers, and librarians who may find it difficult to find adequate housing, but also young professionals with student debt and seniors on fixed incomes. If a community does not provide housing for large segments of its workforce, that means local businesses, organizations, agencies, and schools must hire from outside the community, increasing the commuting distance, and potentially making traffic congestion an issue. It also increases transportation related GHG emissions.

Affordable housing units can be renter-occupied or owner-occupied housing units and can be single family units or multifamily units. Financial planners recommend households spend no more than 30% of the household income on housing costs (mortgage and rent payments). Bethlehem’s median household income is \$96,384, while the median household income in the Albany MSA is \$65,743. Over 50% of Bethlehem’s owner-occupied homes with a mortgage are paying more than \$2,000 per month in monthly housing costs, which for many Bethlehem residents aligns with the 30% recommendation. However, affordability may be difficult for those households with incomes at or below \$65,743 (reflecting the Albany MSA) that currently reside or desire to reside in Town.

While rental units are more affordable (see chart below), there are fewer of them, as rental units make up less than a quarter of the Town’s housing stock. And although these units may be more affordable, approximately 45% of renters are housing cost burdened, paying more than 30% of household income on housing costs (see Appendix 6) according to the American Community Survey.

Chart 14: Monthly Housing Costs for Occupied Units for Bethlehem and Albany MSA



Source: U.S. Census Bureau 5-Year ACS 2017-2013

Bethlehem Planning Department Takeaways:

- In discussing and reviewing existing and proposed land uses, the Town and community members should consider the availability of attainable and affordable housing and the types of housing options that are affordable that fit harmoniously into the variety of residential and mixed-use areas within the Town.*
 - Staff to review median home purchase price in Bethlehem to help in understanding affordability concern.*
-

Demographic Composition and Change

Demography is the study of a population in terms of size, composition or structure, spatial distribution, characteristics, and changes over time. The Town can utilize demographic composition data to inform Comprehensive Plan Update discussions for topics such as housing, education, health care services, infrastructure, and economic development projects. Characteristics such as age, gender, racial and ethnic background, occupation, educational attainment, marital status, and living conditions provide crucial information as there are diverse needs in the community in terms of housing, transportation, shopping, recreation, raising families, and community activities. Population analysis and projections can help Bethlehem anticipate future needs for housing, parks, businesses, and services and develop strategies for meeting those needs.

Population Totals

Exact population counts are taken every ten years through the Decennial Census, and yearly estimates are provided through the American Community Survey. The next Census will be conducted in 2020. Bethlehem's rate of population change is higher than both Albany County and New York State's rates between 2010 and 2017. It is also higher than the growth rates for peer towns Colonie and Rotterdam, but Halfmoon grew more than twice as fast as Bethlehem during this period and Malta grew slightly faster.

Table 1: Population Change Comparison

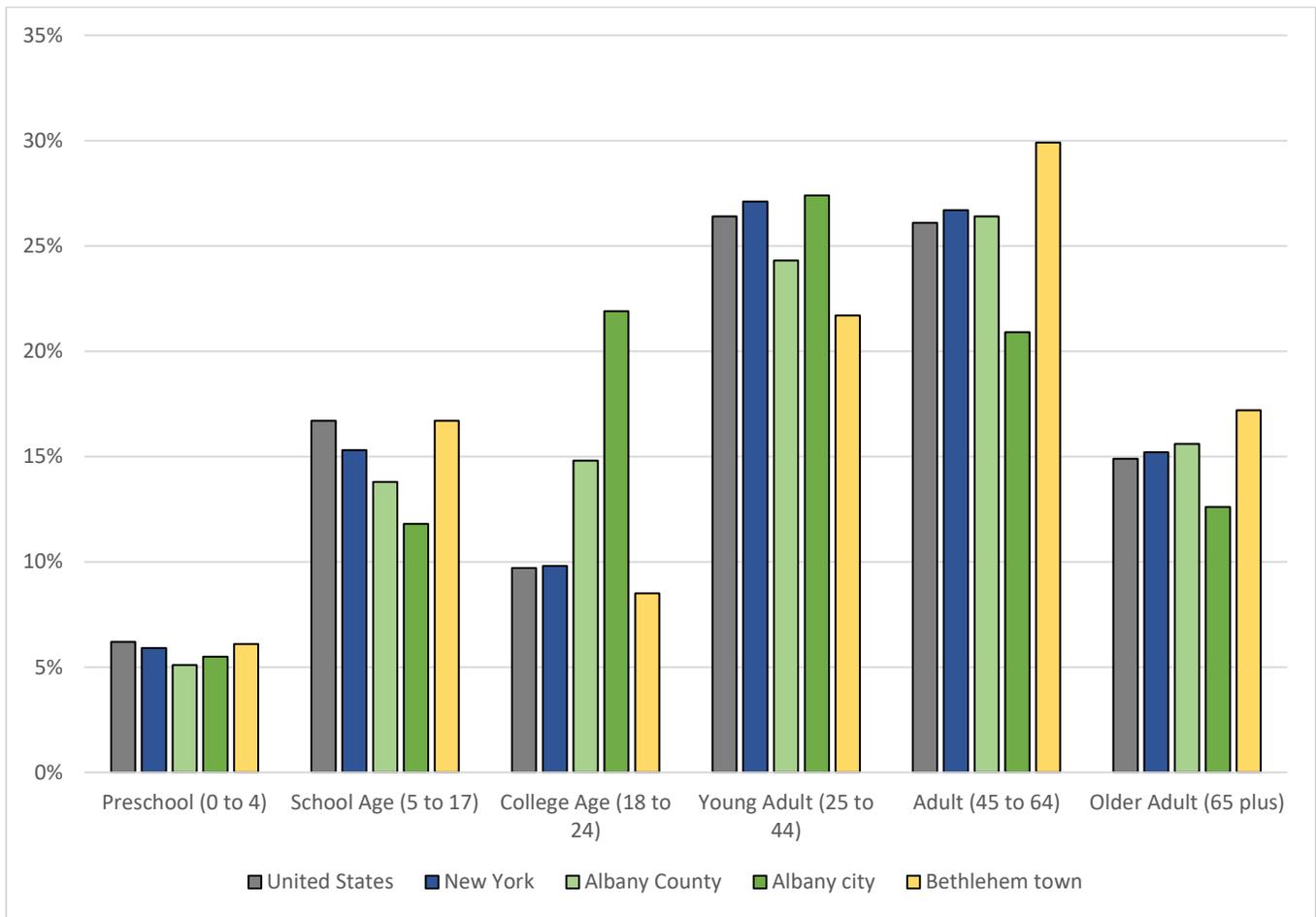
Location	2010	2017	2010-2017% Change	Population Difference
Town of Bethlehem	33,387	34,912	4.57%	+1,525
Colonie	81,591	83,051	1.79%	+1,460
Halfmoon	21,535	23,660	9.87%	+2,125
Malta	14,520	15,373	5.87%	+853
Rotterdam	29,094	29,415	1.10%	+321
Albany County	304,032	308,580	1.00%	+4,548
New York State	19,229,752	19,798,228	0.80%	568,476

Source: U.S. Decennial Census & 2012-2017 American Community Survey

Population Age Distribution

Categorizing populations into age cohorts helps to better understand the different types of services communities need. Age cohorts combine similar age years with similarities into one group to better allow for analysis and comparison. For example, a higher percentage of residents under the age of 15 may imply the need for emphasis on schools, primary health care services, and recreational needs. In contrast, a higher percentage of a population that is 65+ may require easier access to health care facilities and specialized transportation modes and facilities. Compared to the national average, Bethlehem has a higher percentage share of older residents than the rest of the country. With 47.1% of residents being 45 or older, Bethlehem outpaces the rest of the country's 41% of residents of the same age. Bethlehem is equal or nearly equal with the preschool, school age, and college-age cohorts. Bethlehem is below the national average in the young adult (24 to 44) cohort however, with only 21.7% of its population in this range opposed to the national average of 26.4%. It is important to note that the City of Albany contains multiple colleges, so their high share in the college age cohort is to be expected.

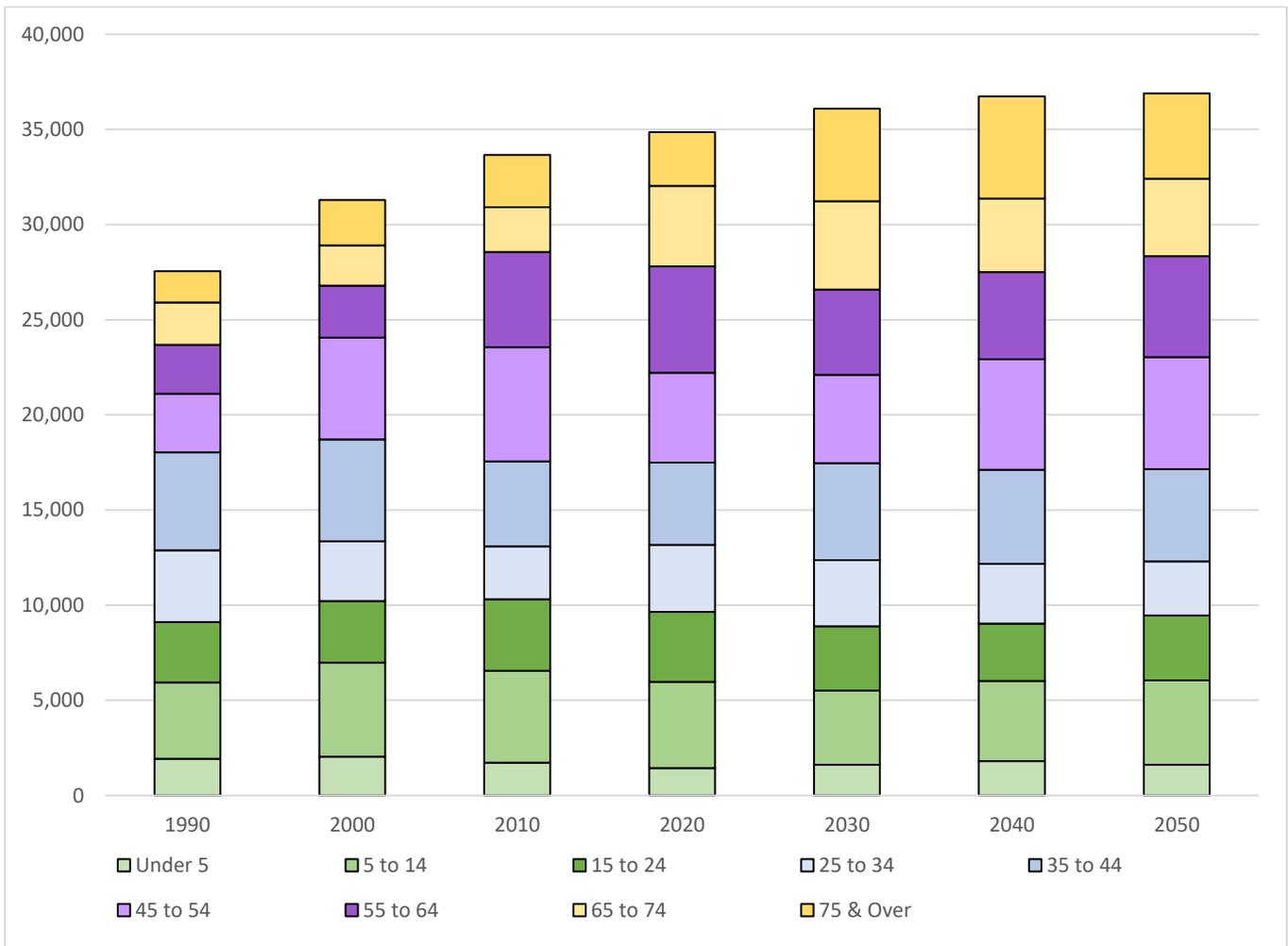
Chart 15: Age Cohorts - Bethlehem, City of Albany, Albany County, NYS, and United States



Source: U.S. Census Bureau, 2012-2017 5-Year ACS Estimates

The age cohort projections predict the change in Bethlehem’s population through 2050. Over the next few decades, Bethlehem is projected to see an overall population increase of over 3,000 from the 2010 population. By 2050, the 45 to 54 and 55 to 64 are expected to continue to be the largest cohorts as they were in 2010. The 65 to 74 and 75+ are anticipated to see increases of almost 2,000 people, or 120%, each by 2050 which will continue to shift Bethlehem towards being an older community. Since the 1990s there has been an increase of 120% of people residents age 65+. The number of school age children and young adults up to age 24 will decrease initially and then gradually rebound, staying under 10,000.

Chart 16: Bethlehem Age Cohort Projections



Source: U.S. Dept. of Commerce, Bureau of the Census, & CDRPC Projections

Bethlehem Planning Department Takeaways:

- *This Comprehensive Plan Update will be the best opportunity to discuss what these changing demographics mean for the community. As we age, what services and needs should be addressed?*
- *The Town will need to develop strategies for meeting the housing, transportation, and other needs of growing segments of the population (seniors) while appropriately adjusting for declines in other age groups (young/school age).*

Age-Child Ratio

The aged-child ratio indicates whether a population is young or older. The ratio is calculated by dividing the number of 65+ individuals in a population by the number of newborns through age 14. This ratio is useful when evaluating public services for these two groups as their balance shifts within a community. It also offers insight into future land use patterns based on the types of housing options (affordability, assisted living facilities, etc.) and businesses (medical office, home based health care, urgent care, etc.) that would be in demand in the future.

The rate of increase for the older population in Bethlehem has been consistently rising over the past 20 years, with a 10.7% increase between 2000 and 2012 and an 18.4% increase between 2012 and 2017. For the Town of Bethlehem, the aged-child ratio for the year 2017 is 93.6, indicating that older residents substantially outnumber children. This aged-child ratio rose from 75.2 in 2012 and 64.5 in 2000.

Age-Dependency Ratio

The age dependency ratio indicates the number of people who are viewed as being dependent versus those that are viewed to be in the "working age groups". This typically refers to persons under 18 and over the age of 65 as being dependent. The dependency can be on a caretaker or government services that a municipality may provide such as transportation or health services. The 2017 age dependency ration for Bethlehem is 53 (6399+5993/23520). This ratio means that there are 53 dependents per 100 working-age people in the town.

In 1990, the age dependency ratio of the community was 55.3 and in the year 2000 the age dependency ratio was 58. In 2010 the age dependency ratio dropped down to 53 and remain steady through 2017. Based on age cohort projections produced by CDRPC, by 2030 the age dependency ratio would rise to 71.2.

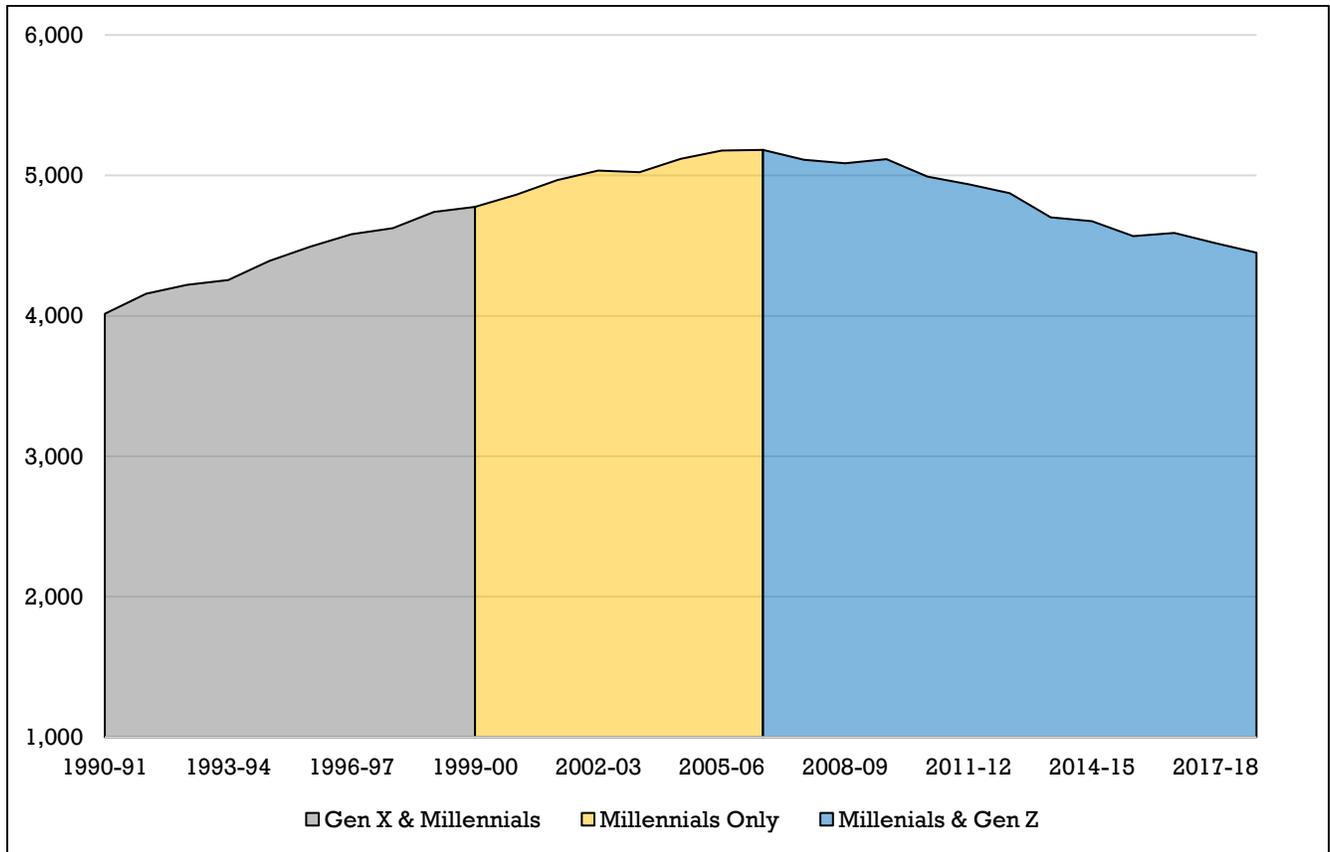
Bethlehem Planning Department Takeaways:

- ***The large increase in the number of dependent population (children, seniors) in the town emphasizes the need for thoughtful planning for transportation, housing, and services to support the dependent population in the long term.***
 - ***The Town may want to attract more young and middle aged adults to the Town to balance out the polarization in the age distribution. Is this a goal for the Comprehensive Plan Update? What land uses, services, or activities do we need that we don't have to attract young and middle aged adults?***
-

School Age Children

In the Bethlehem Central School District, overall, the current generation of children, “Generation Z”, is smaller than previous generations of children. We can see that the current generation of students is shrinking. The population projection data (Chart 16) show further declining projections for school age groups through 2030, rebounding gradually from 2030 to 2050.

Chart 17: Student Enrollment by Generation

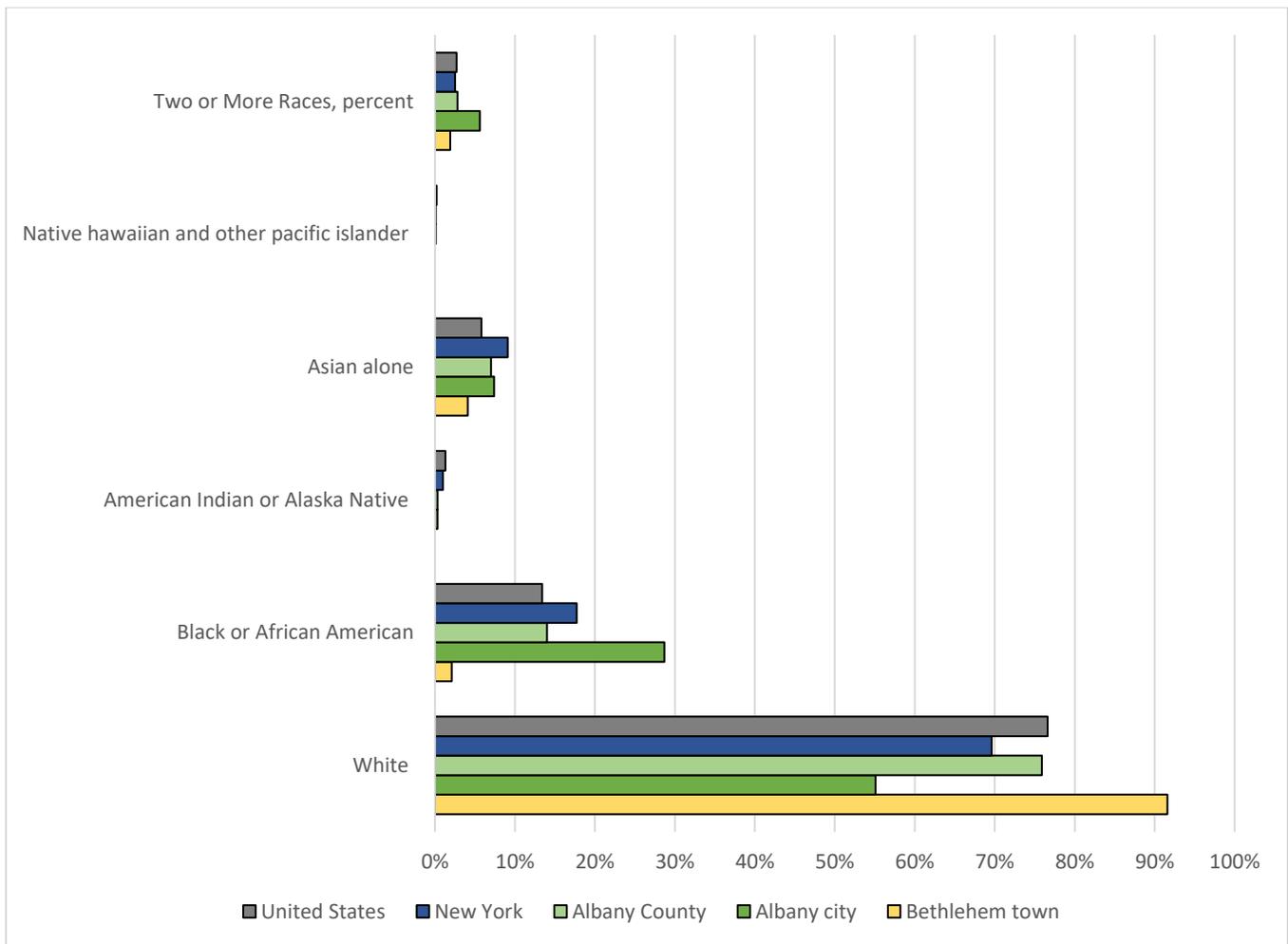


Source: CDRPC School Enrollment Projections

Racial Makeup

Understanding Bethlehem’s racial makeup provides valuable information for addressing the varying planning-related needs of different sociocultural and socioeconomic groups within the community. It is also important for expanding choice, opportunity, health, and access for all persons and promoting racial and economic integration. This type of data is also used to identify environmental justice communities who are vulnerable to impacts of land use decisions that may have significant environmental impacts. Individuals filling out the American Community Survey can report themselves as any race with which they identify as and can also report multiple races.

Chart 18: Racial Makeup - Bethlehem, City of Albany, Albany County, NYS, and United States



Source: U.S. Census Bureau, 2012-2017 5-Year ACS Estimates

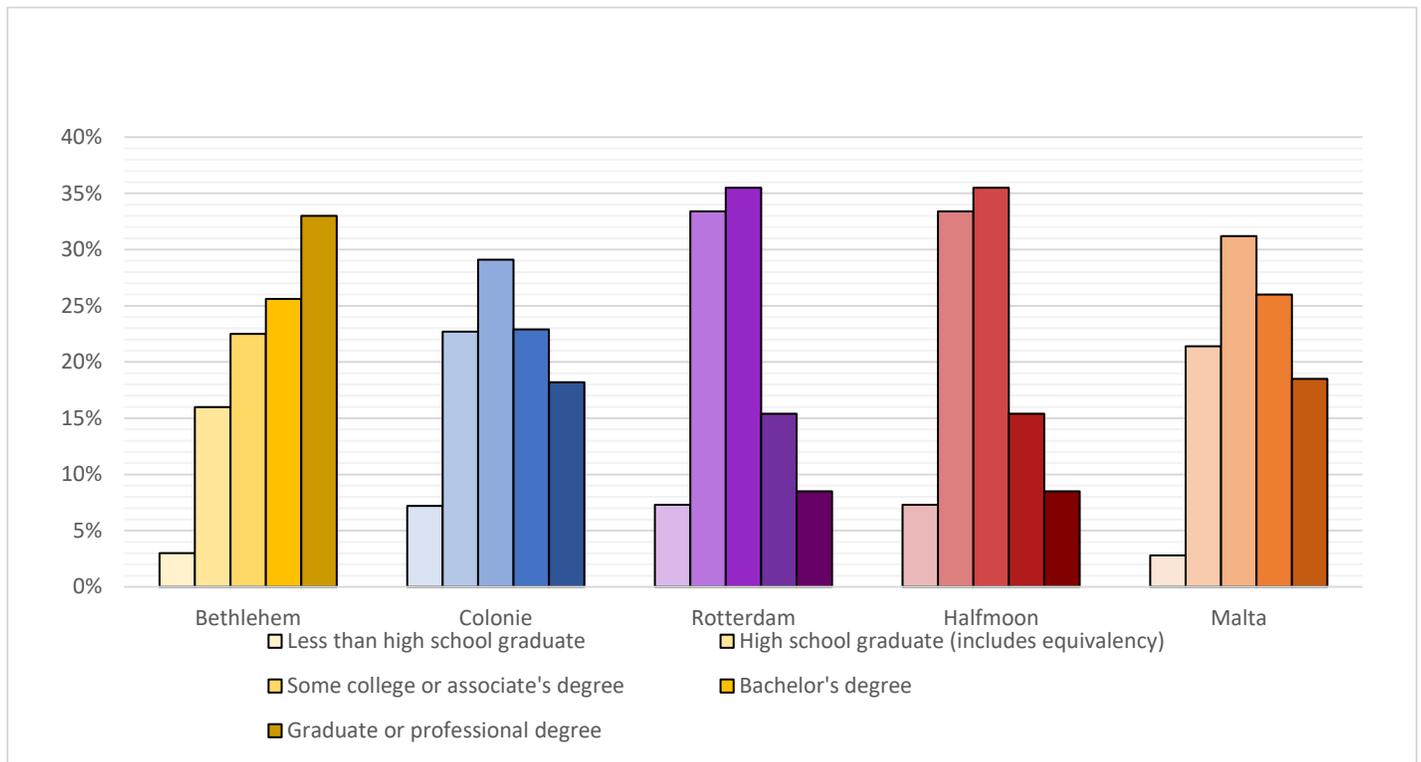
While Bethlehem is a diverse town in a number of ways, Bethlehem lacks the racial diversity found at the regional, State, and National level. Bethlehem’s residents are predominately White non-Hispanic, with 90.3% of residents estimated to be White non-Hispanic. About 4% of residents are estimated to be Asian, 2% Black or African American, and 2% two or more races. This is similar to most of its peer towns, with the exception of Colonie, who is 78.1% White non-Hispanic. Census Bureau data suggests that Bethlehem may have gotten less racially diverse since 2008.

Educational Attainment

Educational attainment refers to the highest level of education a person has achieved. Educational attainment can help determine the abilities of the workforce and help identify potential needs for educational or workforce programs. Educational attainment, in this case, is taken for members of the population that are 25 or older. Compared to the other peer towns, Bethlehem has a much higher rate of graduate or professional degrees amongst its residents. With 33% of residents having a graduate or professional degree, Bethlehem is significantly above the next highest community, Malta, at 18.5%. Bethlehem also has the second-highest share of residents with only a bachelor's degree at 25.6%, behind only Malta which 26% of its population with only a Bachelor's degree.

The Town of Bethlehem's percentage of residents with Graduate or Professional degrees is also significantly higher than the national average at 11.8%. Bethlehem also has a larger share of residents with a bachelor's degree at 25.6% compared to the national average of 19.1%. Overall, only 3% of Bethlehem residents did not complete high school, whereas the national average is at 12.6%.

Chart 19: Educational Attainment (Age 25+) for Bethlehem and Peer Towns



Source: U.S. Census Bureau, American Community Survey, latest 5-Year Estimates

Bethlehem Planning Department Takeaway:

- ***The community should consider ways it could leverage its considerable levels of educational attainment.***

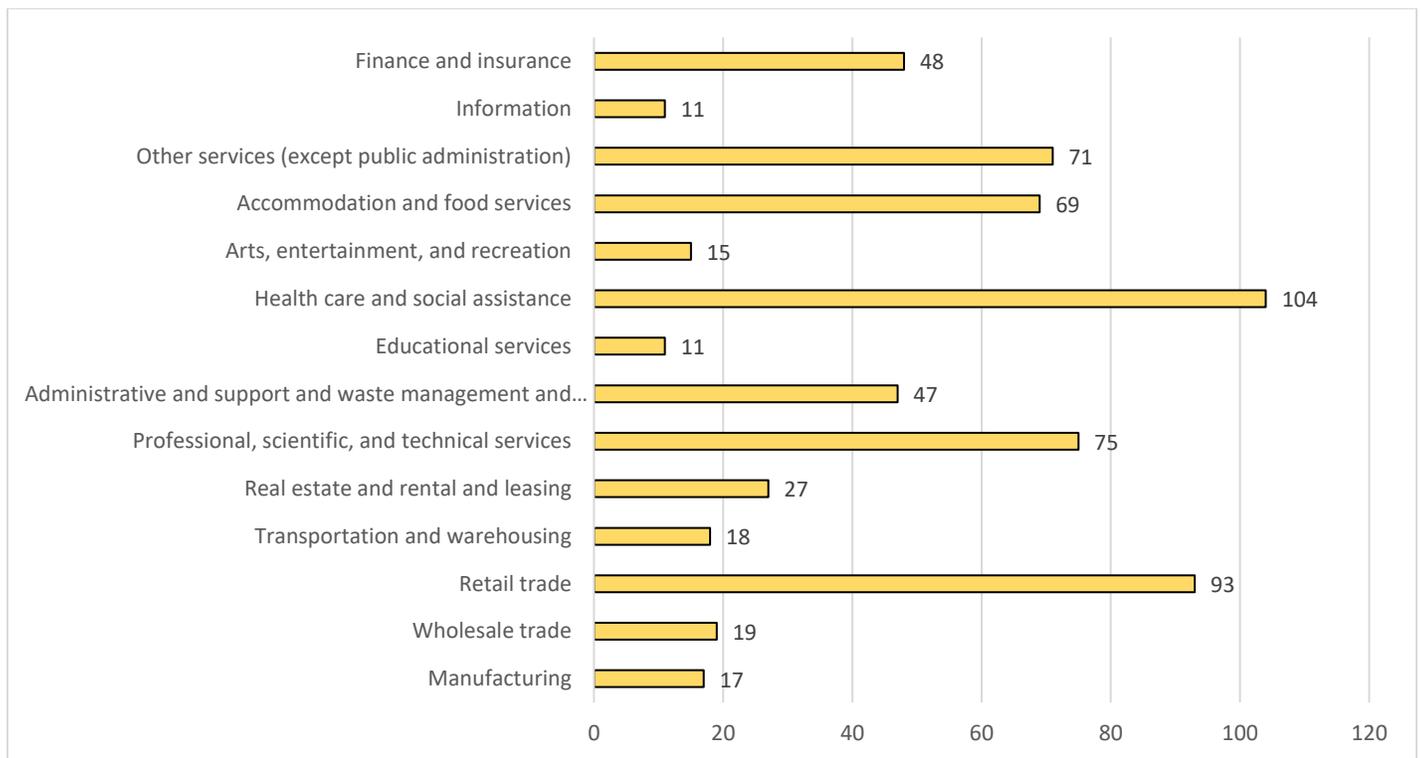
Economic Overview

Understanding Bethlehem’s industries, labor force participation, employment rates, occupations, and commuting habits is important for anticipating and planning for needs in housing, transportation infrastructure, land use and zoning, and Town services. Having a variety of industries and occupations can mean resilience in the face of economic downturns that affect one or more industries.

Industries

Bethlehem is home to a variety of economic industries, which contribute to the Town’s tax base and provide employment opportunity for residents of Bethlehem and other communities. For example, Sabic and Owens Corning are manufacturing businesses and Albany Medical Center medical office, Delaware Avenue Health Park, St. Peters Medical offices, and Center for Eye Care Excellence are considered health care and social assistance businesses and organizations.

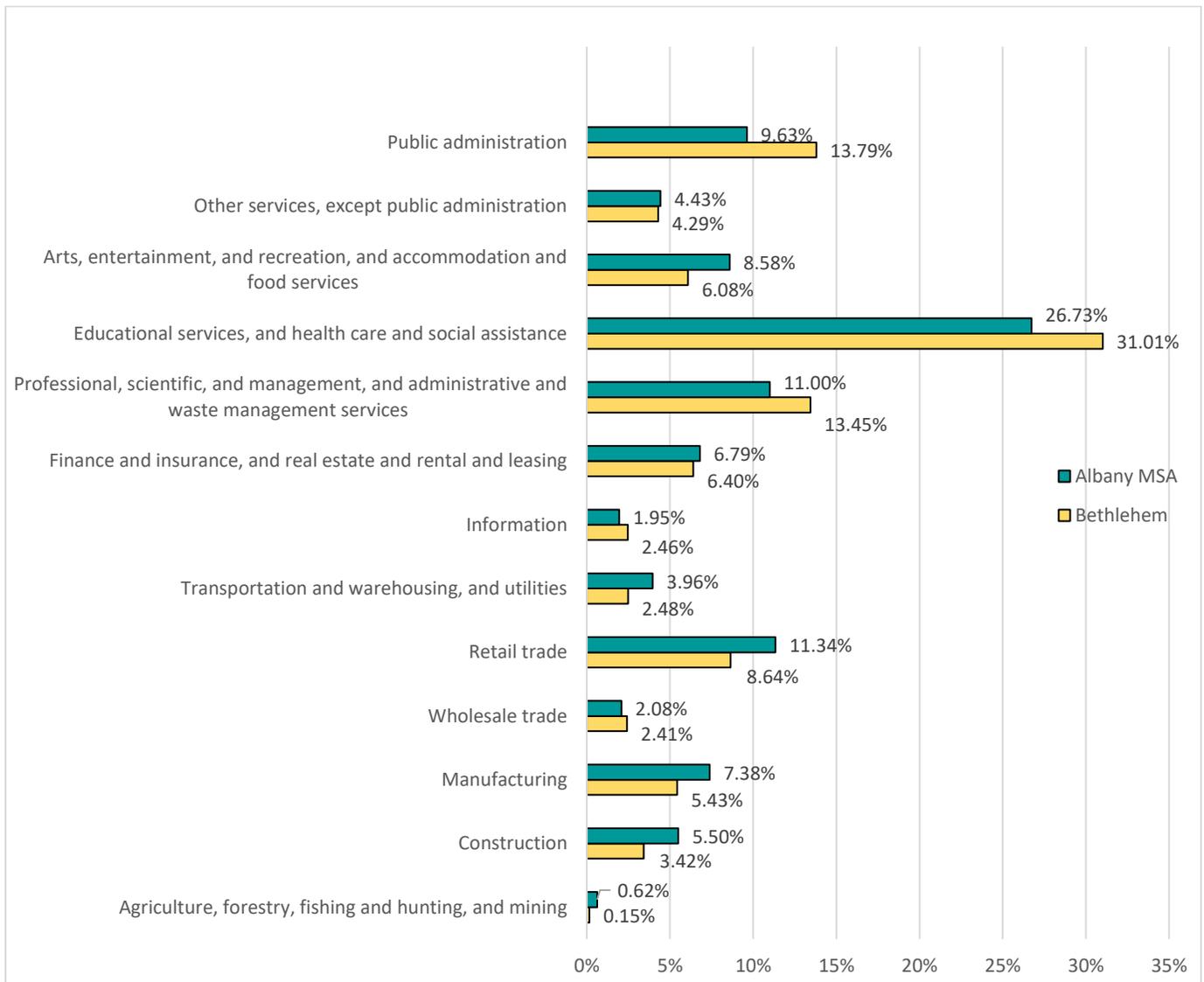
Chart 20: Number of Establishments per Sector



Source: U.S. Census Bureau Economic Census

Health care and social assistance is the sector with the most establishments in Bethlehem with 104 as of 2012. The next closest sector is retail trade with 93 establishments. No other sector in Bethlehem surpassed 80 establishments. Health care and social assistance are one of the most popular sectors across the country and that is reflected in Bethlehem. Bethlehem has a greater share of public administration organizations and professional, scientific, management, and administrative and waste management services compared to the metro area. Bethlehem has a smaller share of manufacturing; construction; and retail and arts, entertainment, recreation accommodation and food services.

Chart 21: Share of Establishments per Sector for Bethlehem and Albany MSA



Source: U.S. Census Bureau Economic Census

Table 2: Industry Breakdown

This table provides a reflection of sectors, establishments and their monetary value to the community as measured in 2000, 2007, and 2012.

2012 NAICS code	2012		2007		2000	
	Number of Establishments	Value (\$1,000)	Number of Establishments	Value (\$1000)	Number of Establishments	Value (\$1000)
Wholesale trade	19	156,422	21	106,115	31	249,054
Retail trade	93	453,148	95	422,406	92	205,734
Transportation and warehousing	18	39,666	N/A	N/A	N/A	N/A
Real estate and rental and leasing	27	46,509	31	40,446	27	29,992
Professional, scientific, and technical services	75	57,034	90	47,800	79	N/A
Administrative and support and waste management and remediation services	47	17,134	45	19,106	31	14,262
Health care and social assistance	104	141,551	94	101,676	78	65,522
Arts, entertainment, and recreation	15	10,245	14	6,067	12	N/A
Accommodation and food services	69	39,993	65	27,987	47	19,904
Other services (except public administration)	71	27,623	69	25,110	62	28,233

Note: Manufacturing data was not available

Source: U.S. Census Bureau Economic Census

Most of Bethlehem’s local establishments have grown quite steadily since 2000. The sectors with the most growth between 2000 and 2012 include service sectors, health care, educational and accommodation, and food services. The sector with the most growth over this period was health care and social assistance with 26 new establishments since 2000, followed closely by accommodation and food services with 22 new establishments in that time. While many

sectors have grown steadily in Bethlehem some sectors have seen decline such as wholesale trade with the value in sales and shipments falling from \$249,054,000 in 2000 to \$156,422,000 in 2012.

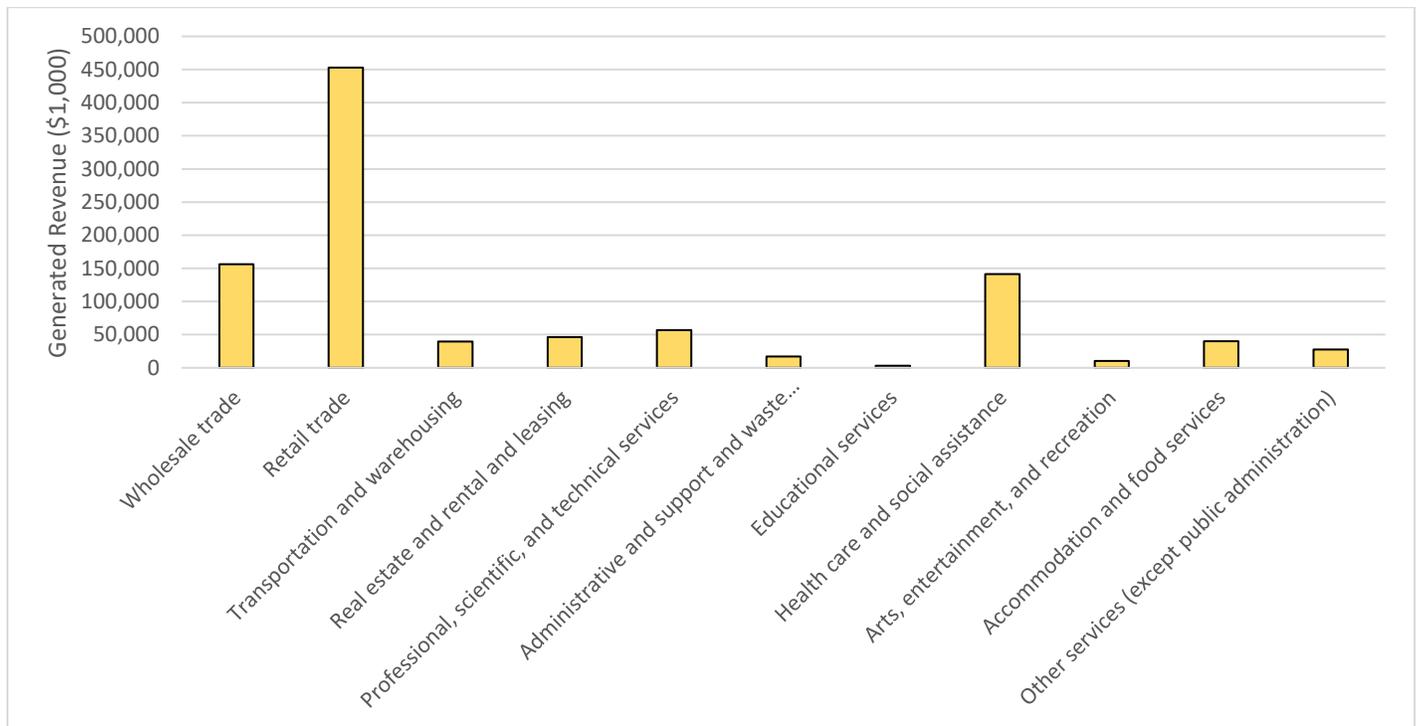
Bethlehem Planning Department Takeaways:

- *The changing nature of the Town’s industries should be considered when reviewing existing Comprehensive Plan policies and recommendations regarding land use and Town Zoning Law.*
 - *More recent data is available through the 2017 Economic Census, and the Quarterly Census of Employment and Wages that would provide a more recent picture of Bethlehem’s economic overview. This section to be updated.*
-

Revenue Generated by Sector

Information about revenue generation by sector in a community helps the evaluation of overall strengths and weaknesses of a community’s economy. Retail trade is by far the highest generator of revenue of all sectors in Bethlehem, generating approximately \$450 million a year. Wholesale and healthcare and social assistance remain as second and third high performing sectors of the economy with approximately \$150 million and \$145 million generated respectively.

Chart 22: Revenue Generated by Sector for Bethlehem Establishments



Source: U.S. Census Bureau Economic Census

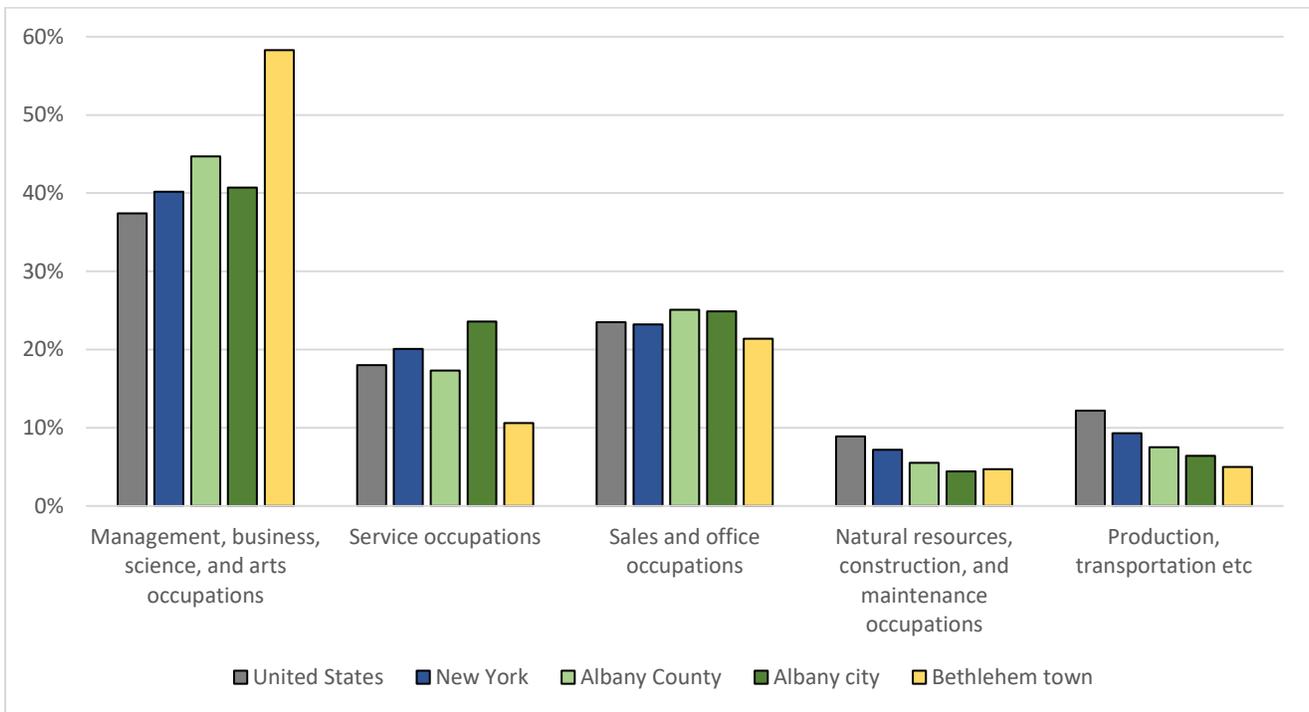
Bethlehem Planning Department Takeaway:

- *Data to be updated to reflect 2017 Economic Census.*
- *Based on 2012 data, with the increasing popularity of online retail sales, the retail trade revenue may have experienced a decrease.*
- *It is expected that online retail sales will continue to increase, thereby affecting brick and mortar retail stores in our community. Should retail stores close, what types of new tenants will occupy the existing space? What types of tenants do we wish to attract?*

Occupation

Occupation data detail the type of work an individual does on the job, that may or may not be located within Bethlehem. This data helps determine the kind of work being done by the workforce in a given area and can provide insight to incomes, transportation choices, and opportunities for workforce development or career development programs. This data refers to occupations that Bethlehem residents hold, regardless of where the job is located.

Chart 23: Occupations - Bethlehem, City of Albany, Albany County, NYS, and United States



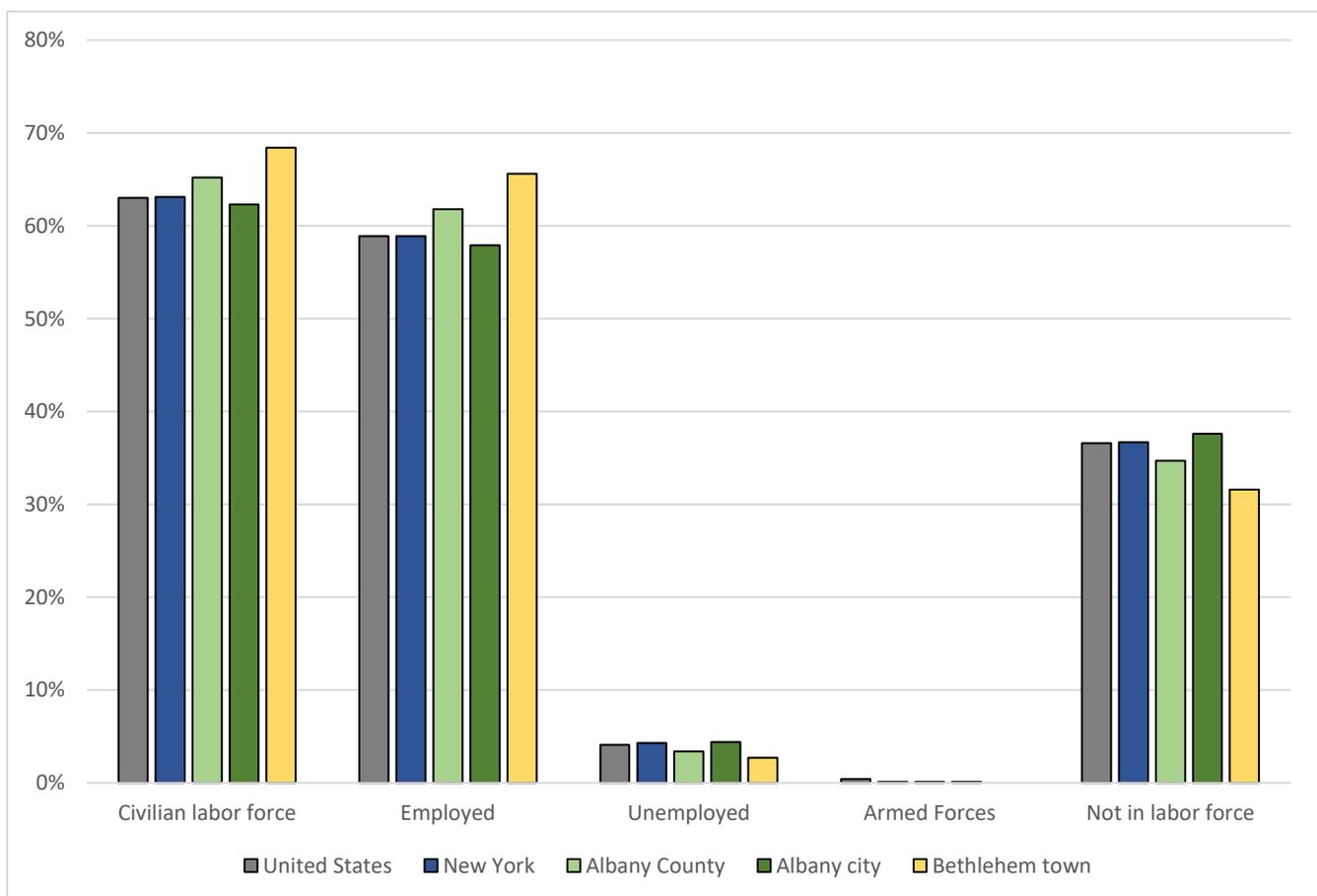
Source: 2013-2017 American Community Survey 5-Year Estimates

Bethlehem saw its highest share of occupations in the management, business, science, and arts occupations at almost 60%. This correlates with the higher median income found in the Town. For comparison, the U.S. average for these occupations is approximately 38% and 43% in New York State. It is lower in the other fields compiled by the Census Bureau for occupation data. Service occupations are the furthest from the averages of comparison municipalities, with Bethlehem’s share around 10% and the New York State average at 20%.

Employment

Employment is a major factor for any municipality across the country and it can be an indicator of the economic health of the residents and the municipality itself. Bethlehem has favorable employment figures compared to the City of Albany, Albany County, New York State and the United States. The U.S., New York State, and the City of Albany have employment rates slightly below 60%, while Bethlehem has approximately a 65% employment rate. Bethlehem also has a larger share of its residents that are in the civilian labor force.

Chart 24: Employment - Bethlehem, City of Albany, Albany County, NYS, and United States



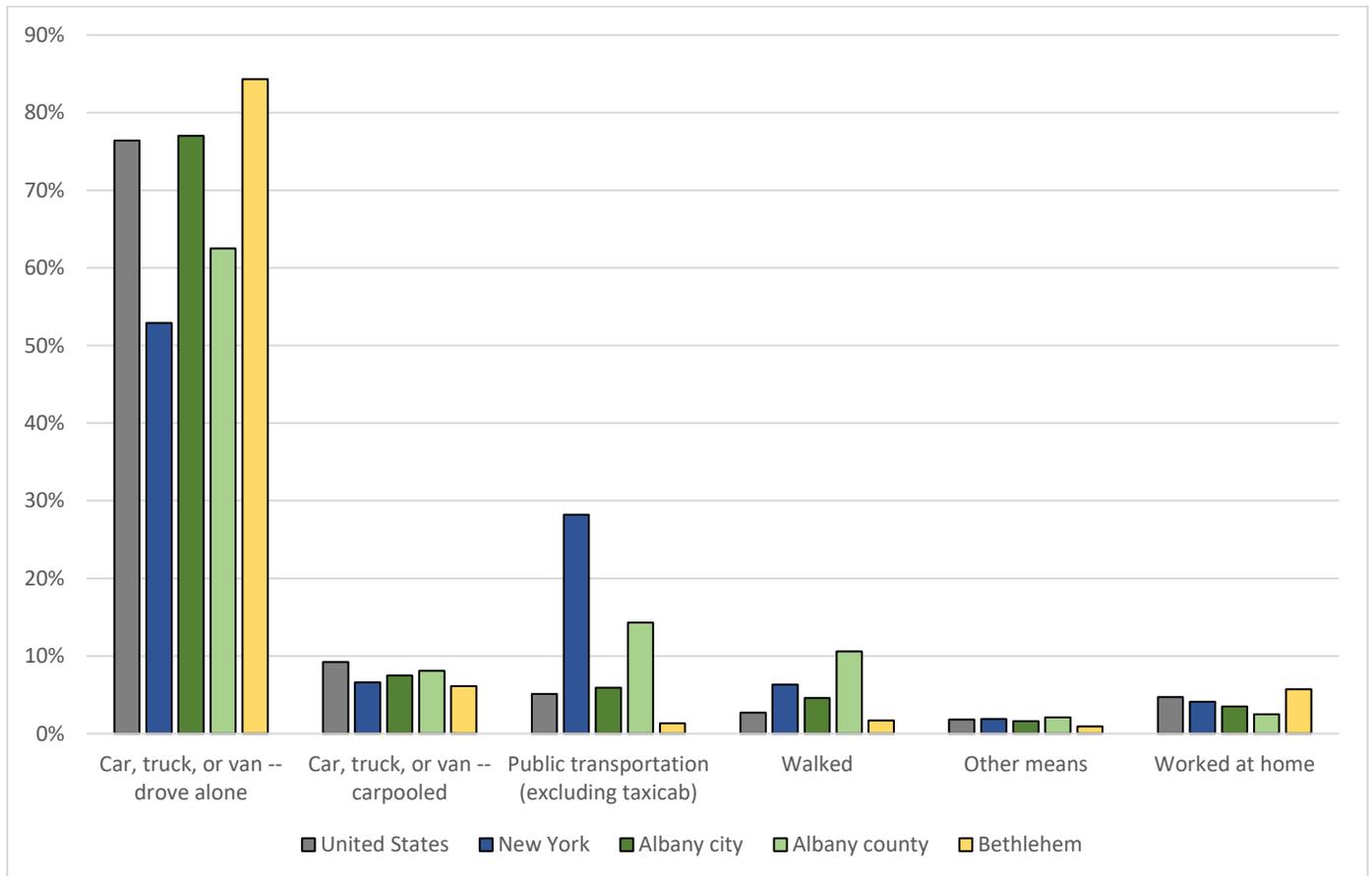
Source: 2013-2017 American Community Survey 5-Year Estimates

Bethlehem has a lower unemployment rate compared to Albany County, New York State, and the United States. As an older community, Bethlehem has many adults who are employed in professional or high skill careers. Those who are retired are no longer in the labor force.

Transportation

Understanding how people commute to work can help define traffic issues and inform policy change based on the use of public transportations and needs to expand it. It can also help in anticipating the traffic demands and issues that may accompany future development. The dominance of commuting by automobile can be related to a resident’s preference of driving, but it can also be the result of community design and the lack of viable alternatives for a resident’s trip to work.

Chart 25: Transportation Mode for Commuting to Work - Bethlehem, City of Albany, Albany County, NYS, and United States



Source: 2013-2017 American Community Survey 5-Year Estimates

In Bethlehem and across the country, people most often commute to work by driving alone. Driving alone in Bethlehem is by far the most popular method of commuting to work, with approximately 85% of workers commuting that way, higher than U.S. and New York State averages. The next most-used mode for commuting is to carpool in a car, truck, or van at approximately 5%. There is a very low share of workers who utilize public transportation to commute to work compared to the country and the state. In Albany County, approximately 14% of workers commute to work by utilizing public transportation. However, only approximately 2% of Bethlehem workers use public transportation. While the number of residents walking to work has been low, it has increased since the 2007-2012 American Community Survey. Bethlehem does have a significant portion of the population working from home, higher than U.S., New York State, and County averages.

Town of Bethlehem Takeaways:

- As development continues, driving to work alone is the dominant choice. The Town and community should continue to plan for land use and transportation needs together, but explore ways to make alternatives to driving to work alone more attractive to mitigate traffic congestion and GHG emissions over the long-term.*
 - For example, in the Community Forums, residents commented on a desire for park and ride facilities and improvements to pedestrian facilities. These improvements in the community would be located along community routes and could attract commuters to alternative modes of travel (walking, public transportation) as opposed to driving alone for the entire commute.*
 - Are there needs or opportunities that accompany the relatively large share of people who work at home? (e.g. shared working spaces). Can zoning accommodate these needs?*
 - What strategies might further increase the number of people working at home?*
-

Inflow Outflow

An inflow outflow analysis shows where people work in comparison to where they live. In this case, the analysis shows how many people live in Bethlehem also work in Bethlehem, residents who commute out to go to work, and those living outside Bethlehem that commute into the community for work.

In 2017, there were approximately 17,020 employed individuals living in Bethlehem. Of this population, 14,722 people or 86.5% were employed outside of Bethlehem and 2,298 or 13.5% both lived and worked in Bethlehem. This generally fits with Bethlehem's status as a bedroom community. With Bethlehem's proximity to large employment centers such as the city of Albany, it is reasonable that approximately 86.5 percent of people who live in Bethlehem are employed outside of the community. About 79.7% or 9,043 commute into town from outside areas. Approximately 1 in 5 people working in Bethlehem and Rotterdam live in their town, which is higher than in other communities. Colonie has a relatively large percentage of their working population, 27% also work in town. This is much higher than the rest of the peer towns, but Bethlehem is the next highest at 13% of the resident working population living in town.

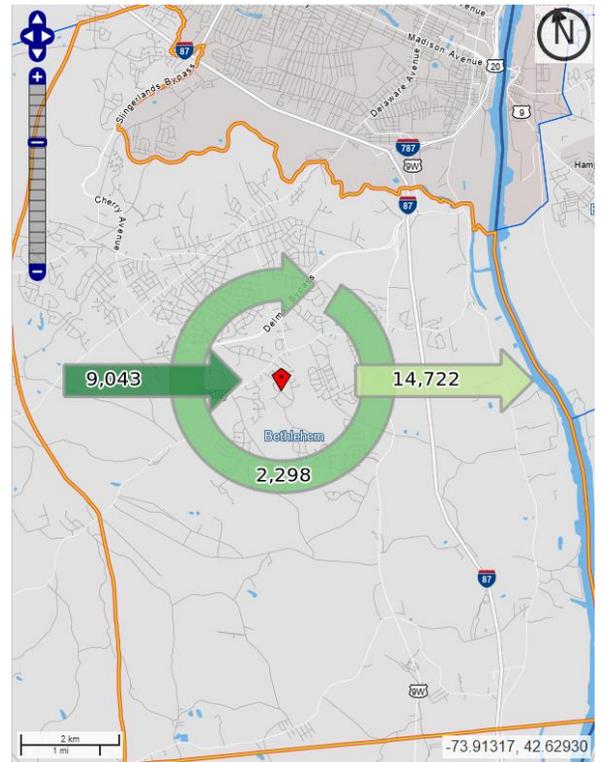
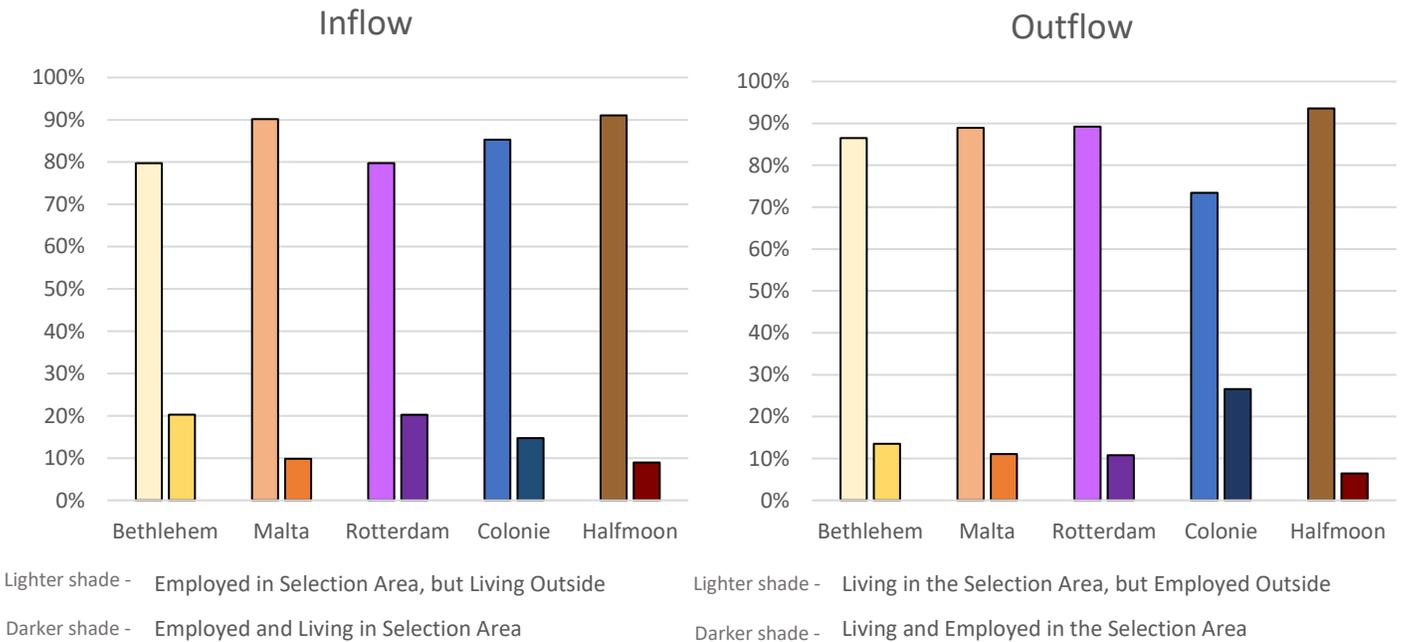


Chart 26: Employment Inflow/Outflow for Bethlehem and Peer Towns



Conclusion

Overall, Bethlehem has seen lower levels of development than in the years preceeding the 2005 Comprehensive Plan. The town is very well educated and have high employment rates and labor force participation. It is gradually becoming an older community but we may see growth in school age children in the coming years. The town may be growing less racially diverse.

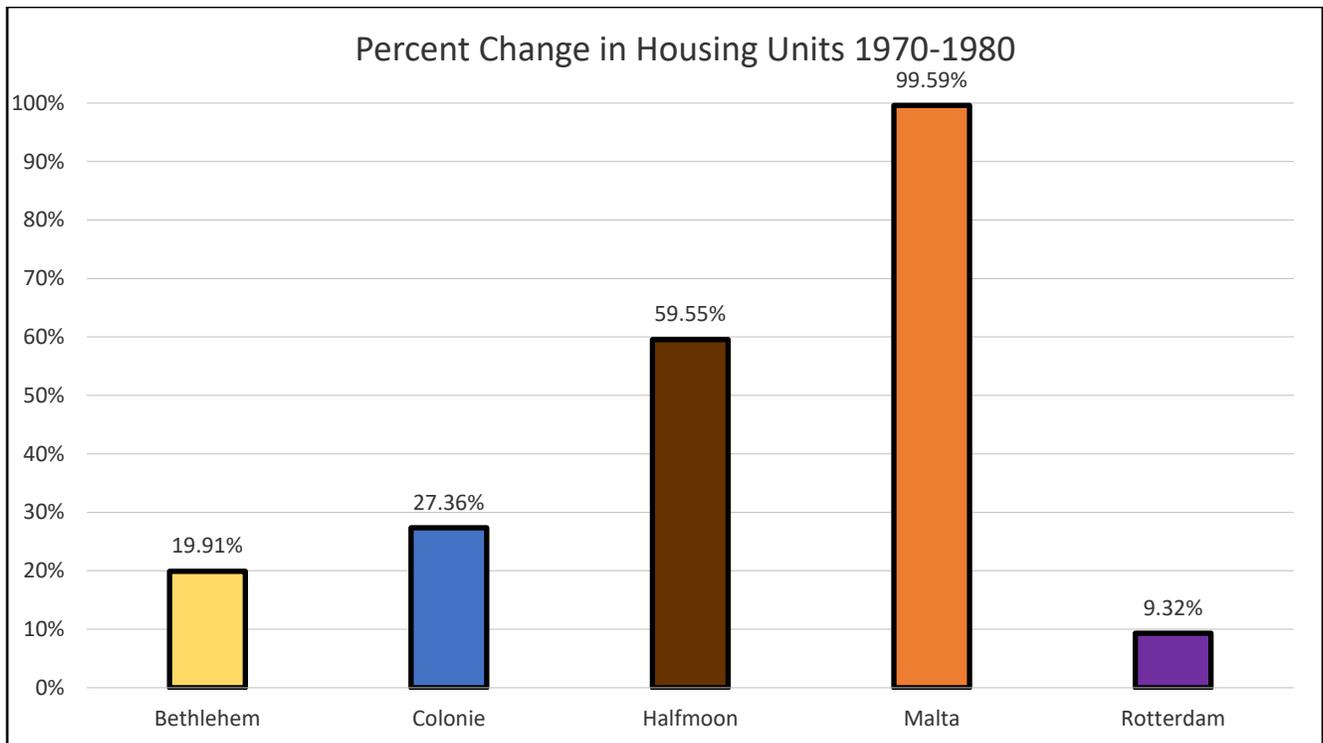
This report can be the beginning of a community discussion about past and future development and community and economic makeup that will shape future policies and programs for years to come. What do the development trends and existing demographic and economic makeup of Bethlehem mean for the Town as it begins to think about the challenges and opportunities it expects to face in the future? Is Bethlehem still on a path worth following, considering the changes over the years, the different or exacerbated challenges the town expects to face, and the aspirations of Bethlehem residents?

Appendices

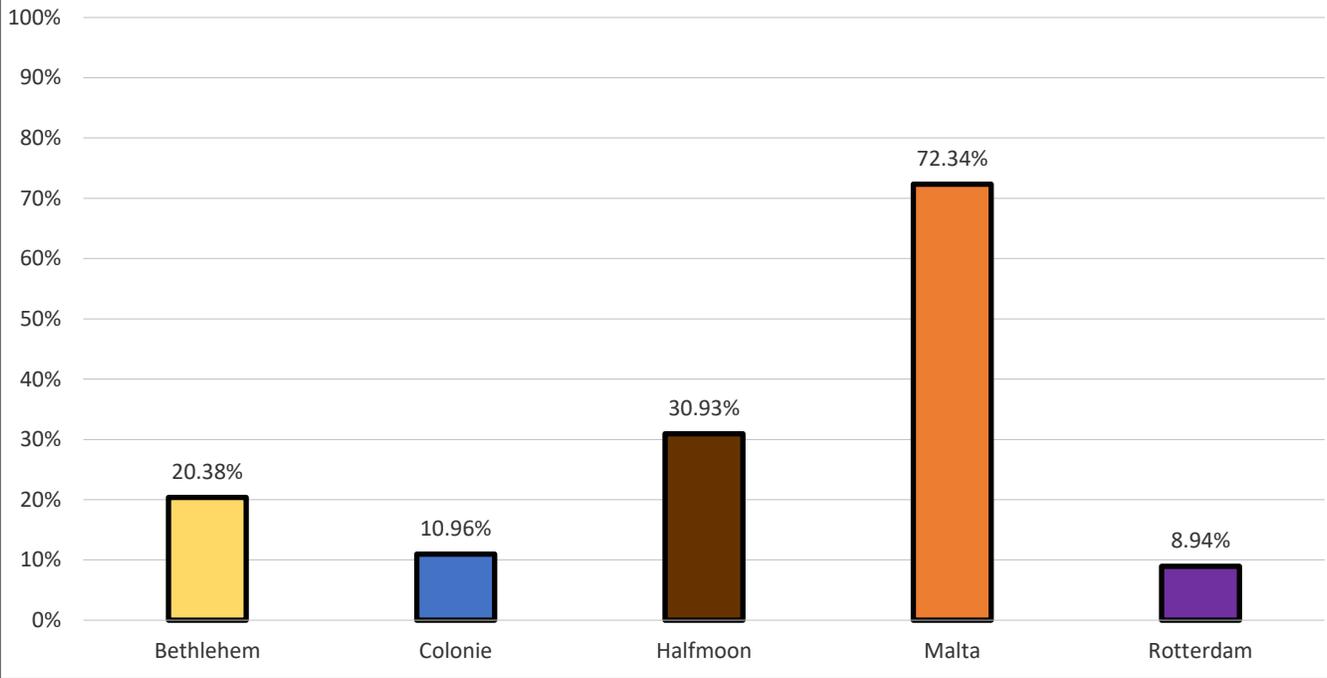
Appendix 1: Total Housing Units and Supplementary Housing Growth Data (Chart 1)

	2017	2010	2000	1990	1980	1970
Bethlehem	14,485	14,029	12,459	10,739	8,921	7,440
Colonie	34,312	34,620	32,280	29,634	26,707	20,970
Halfmoon	10,907	9,844	8,172	6,125	4,678	2,932
Malta	7,234	6,821	5,754	5,053	2,932	1,469
Rotterdam	12,319	13,003	11,990	11,361	10,429	9,540

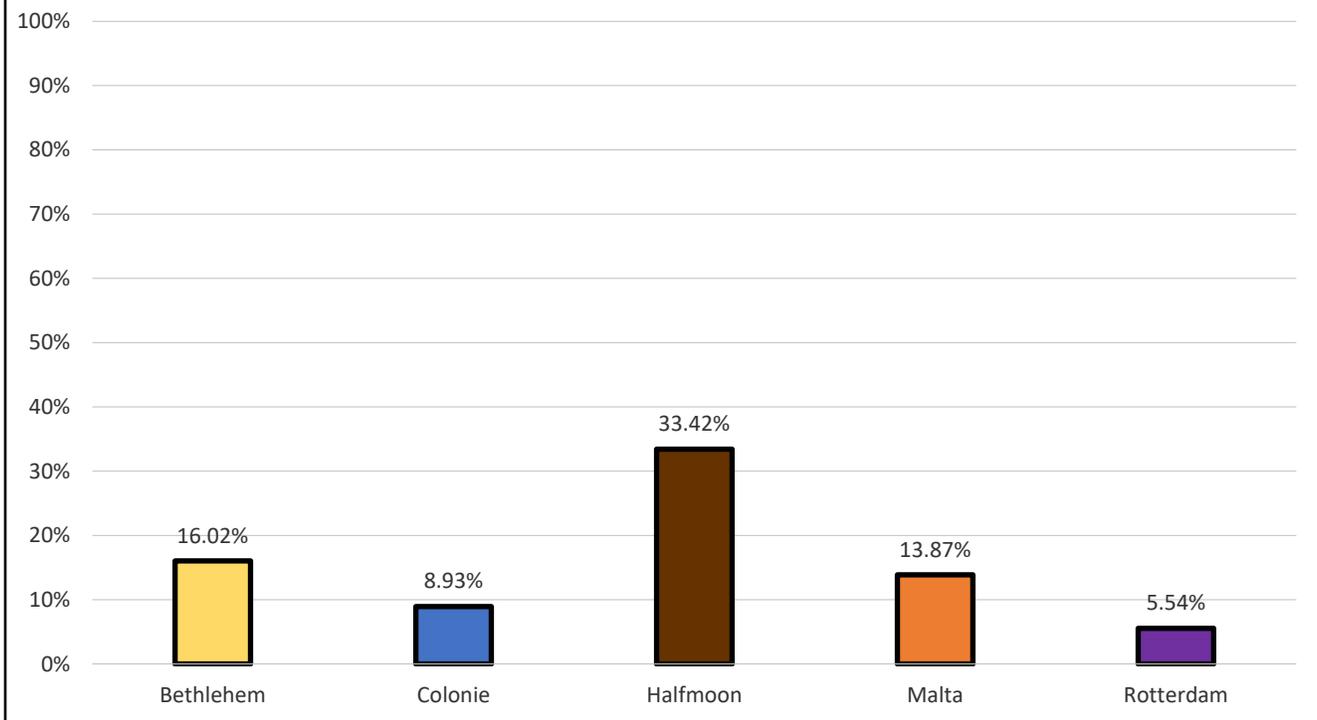
Percent Change in Housing Units by Decade

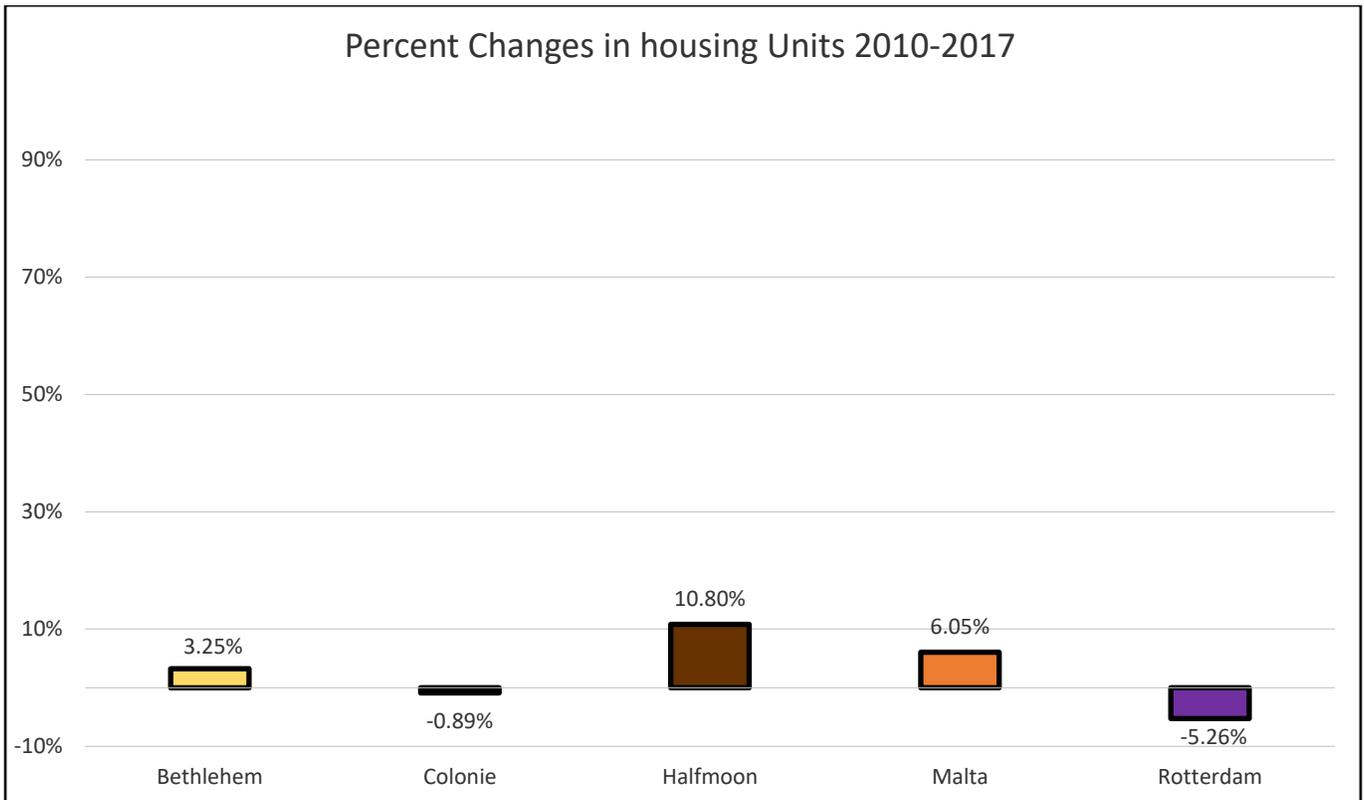
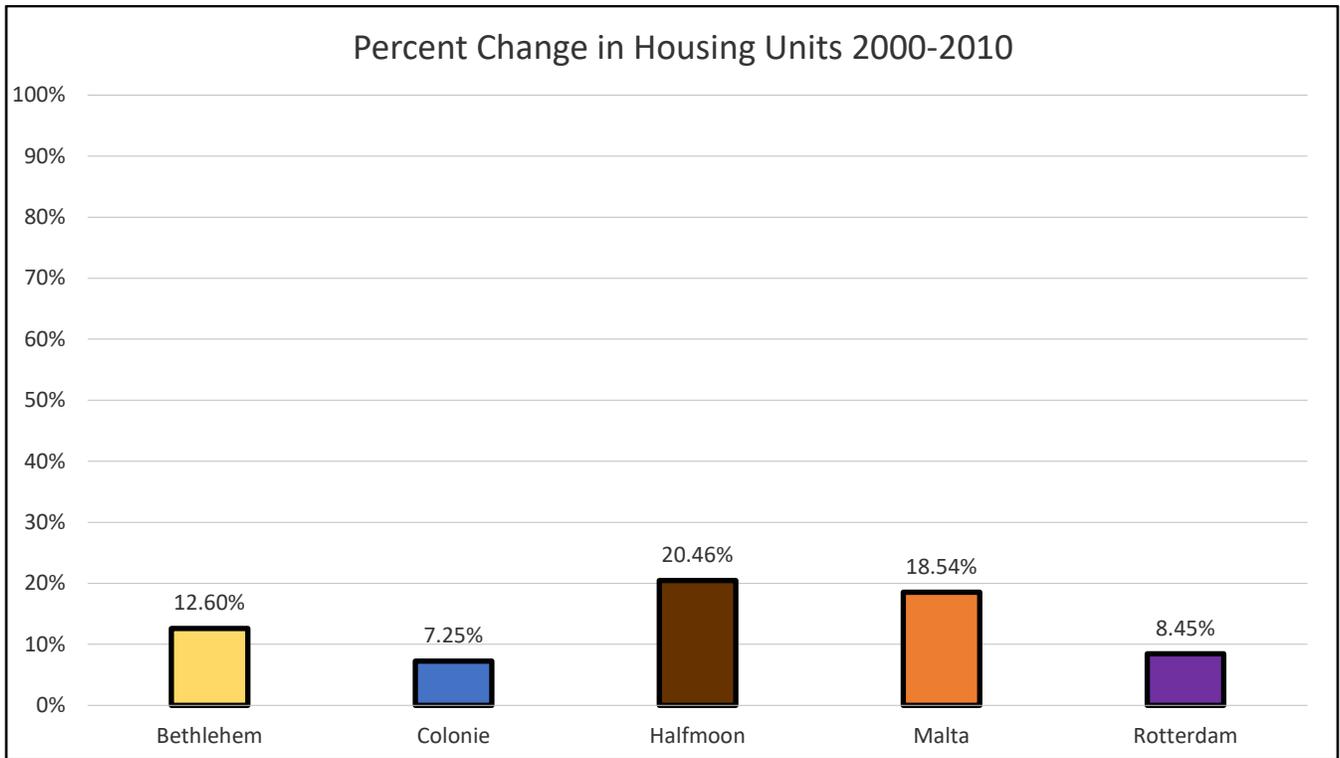


Percent Change in Housing Units 1980-1990



Percent Change in Housing Units 1990-2000





Appendix 2: Residential Building Permit (Charts 3 and 6)

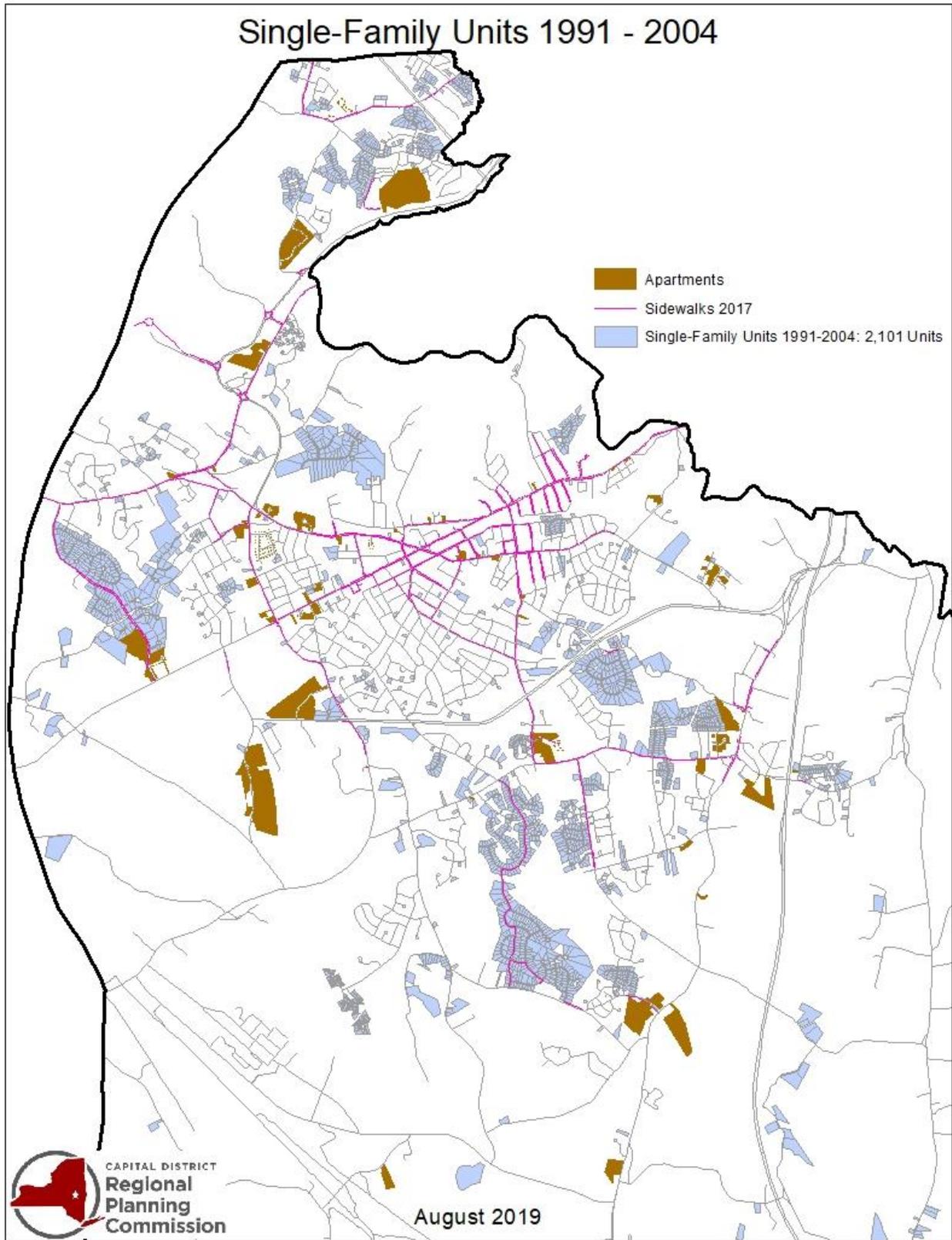
Year	Bethlehem: Single-Family	Bethlehem: Multi-Family	Total
1991	97	42	139
1992	207	109	316
1993	165	12	177
1994	150	2	152
1995	100	192	292
1996	99	26	125
1997	119	0	119
1998	165	6	171
1999	188	116	304
2000	189	0	189
2001	170	10	180
2002	168	38	206
2003	151	94	245
2004	140	6	146
2005	95	0	95
2006	71	14	85
2007	64	10	74
2008	46	0	46
2009	44	5	49
2010	32	22	54
2011	22	107	129
2012	40	86	126
2013	33	82	115
2014	58	41	99
2015	58	248	306
2016	94	46	140
2017	67	0	67
2018	67	2	69

Appendix 3: Number of Single-Family Units Built (Chart 4)

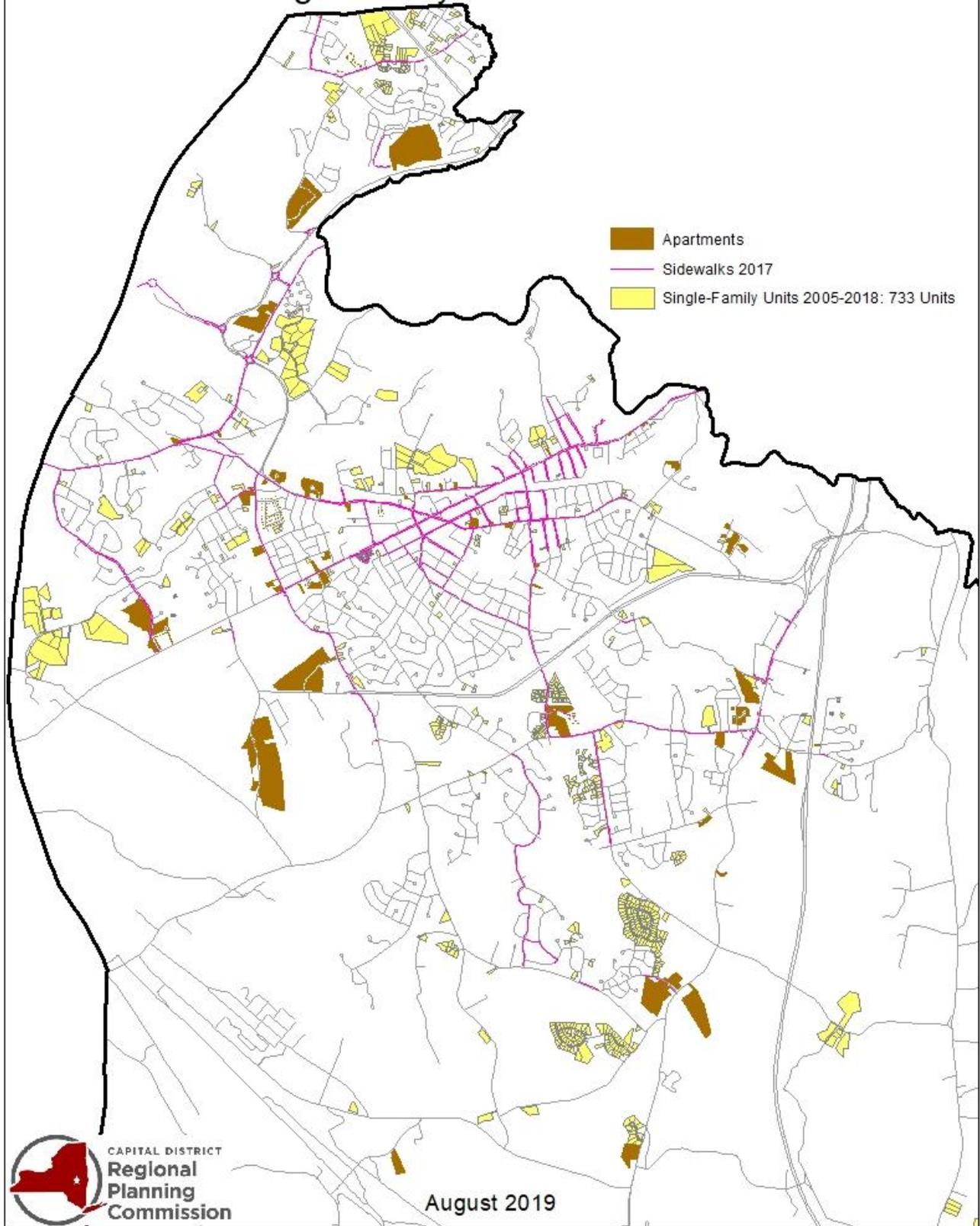
Year	Number of Single-Family Units Built
2018	11
2017	110
2016	54
2015	47
2014	30
2013	28
2012	41
2011	33
2010	32
2009	46
2008	60
2007	55
2006	98
2005	87
2004	151
2003	161
2002	176
2001	202
2000	134
1999	227
1998	137
1997	129
1996	108
1995	91
1994	109
1993	171
1992	222
1991	83

Appendix 4: Single-Family Permit Issuance (Chart 5)

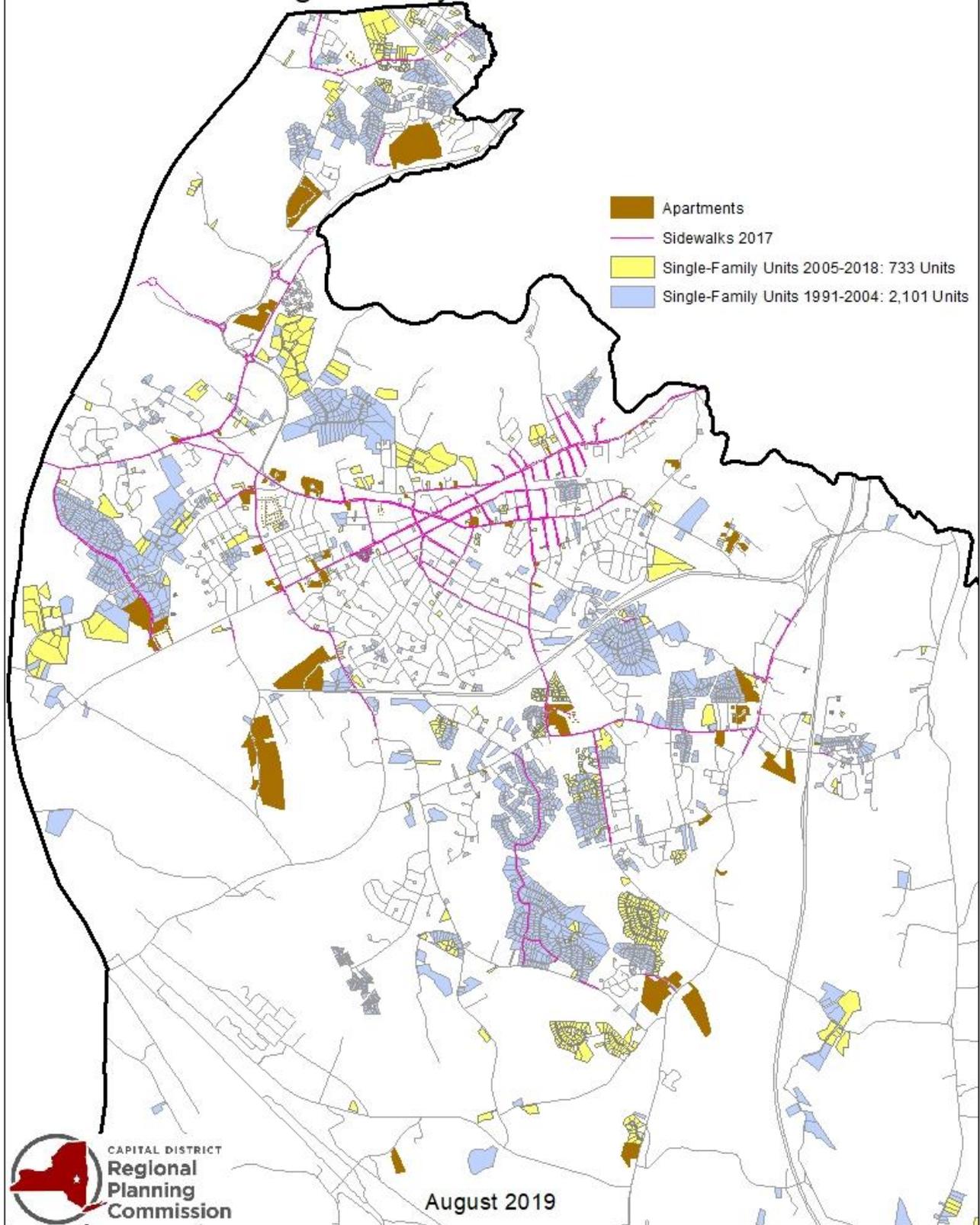
Year	Bethlehem: Single-Family	Colonie: Single	Halfmoon: Single	Malta: Single	Rotterdam: Single
1991	97	220	51	125	71
1992	207	303	69	53	68
1993	165	261	183	58	90
1994	150	216	162	43	53
1995	100	161	90	42	52
1996	99	142	69	58	44
1997	119	126	98	29	50
1998	165	207	119	33	30
1999	188	205	82	70	35
2000	189	199	86	64	50
2001	170	225	93	57	29
2002	168	234	126	87	38
2003	151	207	104	69	58
2004	140	178	174	103	50
2005	95	94	109	84	44
2006	71	80	148	77	22
2007	64	93	157	87	14
2008	46	82	124	31	6
2009	44	68	130	37	7
2010	32	114	128	39	28
2011	22	72	113	32	21
2012	40	102	175	23	20
2013	33	141	182	39	23
2014	58	151	127	50	24
2015	58	109	156	48	24
2016	94	183	145	75	16
2017	67	138	14	76	16
2018	67	108	159	77	18



Single-Family Units 2005 - 2018



Single-Family Units 1991 - 2018



Appendix 6: Multi-Family Building Permit Issuance (Chart 7)

Year	Bethlehem: Multi-Family	Colonie: Multi	Halfmoon: Multi	Malta: Multi	Rotterdam: Multi
1991	42	50	10	22	16
1992	109	0	118	2	4
1993	12	52	70	12	20
1994	2	42	128	4	2
1995	192	154	90	0	0
1996	26	2	154	0	8
1997	0	50	186	4	0
1998	6	244	40	0	0
1999	116	50	40	0	60
2000	0	0	4	0	4
2001	10	0	17	0	0
2002	38	0	4	0	158
2003	94	2	0	0	36
2004	6	192	0	2	18
2005	0	171	0	156	52
2006	14	72	12	54	58
2007	10	0	66	18	266
2008	0	24	88	0	52
2009	5	0	70	0	0
2010	22	10	49	6	0
2011	107	28	99	0	0
2012	86	74	80	5	72
2013	82	100	155	0	6
2014	41	134	47	46	108
2015	248	61	52	430	164
2016	46	158	114	28	137
2017	0	237	45	4	50
2018	2	81	2	0	104

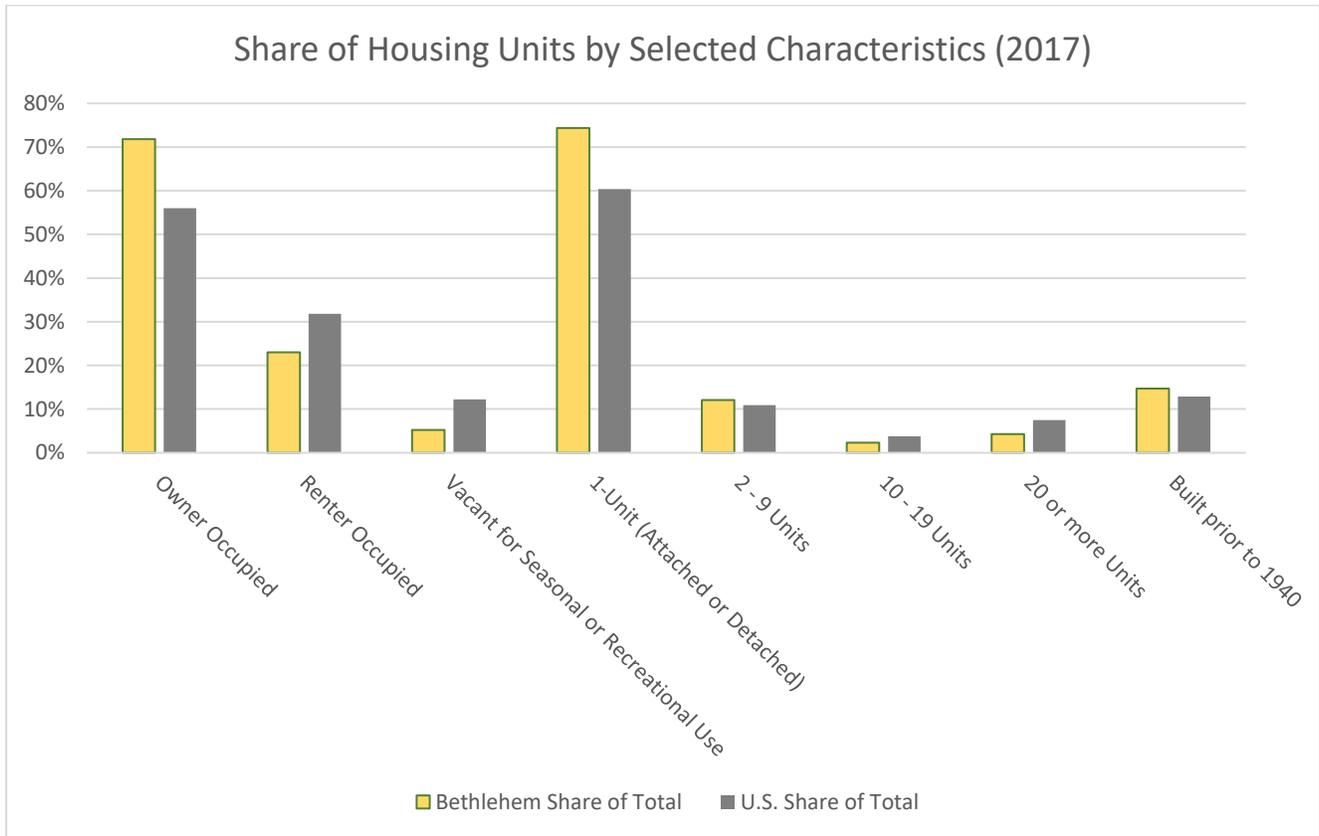
Appendix 7: Total Permit Issuance (Chart 8)

Simple Year	Bethlehem: Total	Colonie: Total	Halfmoon: Total	Malta: Total	Rotterdam: Total
1991	139	270	61	147	87
1992	316	303	187	55	72
1993	177	313	253	70	110
1994	152	258	290	47	55
1995	292	315	180	42	52
1996	125	144	223	58	52
1997	119	176	284	33	50
1998	171	451	159	33	30
1999	304	255	122	70	95
2000	189	199	90	64	54
2001	180	225	110	57	29
2002	206	234	130	87	196
2003	245	209	104	69	94
2004	146	370	174	105	68
2005	95	265	109	240	96
2006	85	152	160	131	80
2007	74	93	223	105	280
2008	46	106	212	31	58
2009	49	68	200	37	7
2010	54	124	177	45	28
2011	129	100	212	32	21
2012	126	176	255	28	92
2013	115	241	337	39	29
2014	99	285	174	96	132
2015	306	170	208	478	188
2016	140	341	259	103	153
2017	67	375	59	80	66
2018	69	189	161	77	122

Appendix 8: Housing Units Supplementary Data

Housing units, 2017	Value	Pct. of Total	U.S. Units	Pct. of Total
Total Housing Units	14,485	100%	135,393,564	100%
Owner Occupied	10,402	71.80%	75,833,135	56.00%
Renter Occupied	3,327	23.00%	42,992,786	31.80%

Vacant for Seasonal or Recreational Use	756	5.20%	16,567,643	12.20%
1-Unit (Attached or Detached)	10,784	74.40%	81,834,218	60.40%
2 - 9 Units	1,755	12.10%	14,798,920	10.90%
10 - 19 Units	328	2.30%	5,168,101	3.80%
20 or more Units	627	4.30%	10,192,648	7.50%
Built prior to 1940	2,136	14.70%	17,451,760	12.90%



Source: U.S. Census Bureau 5-Year ACS 2017-2013

	Estimate; Total:	Owner Occupied	Renter Occupied	Owner Occupied	Renter Occupied
Bethlehem	13729	10402	3327	75.8%	24.2%
Colonie	32317	22229	10088	68.8%	31.2%
Halfmoon	10319	6674	3645	64.7%	35.3%
Malta	6637	4655	1982	70.1%	29.9%
Rotterdam	10308	8090	2218	78.5%	21.5%

Appendix 9: Housing Units in Structure and Supplemental Data (Charts 9 and 10)

Housing units, 2017	Value	Pct. of Total	U.S. Units	Pct. of Total
Total Housing Units	14,485	100%	135,393,564	100%
Owner Occupied	10,402	71.80%	75,833,135	56.00%
Renter Occupied	3,327	23.00%	42,992,786	31.80%
Vacant for Seasonal or Recreational Use	756	5.20%	16,567,643	12.20%
1-Unit (Attached or Detached)	10,784	74.40%	81,834,218	60.40%
2 - 9 Units	1,755	12.10%	14,798,920	10.90%
10 - 19 Units	328	2.30%	5,168,101	3.80%
20 or more Units	627	4.30%	10,192,648	7.50%

	1-Unit (Attached or Detached)	2-9 Units	10-19 Units	20 or More Units
Bethlehem	76.80%	14.20%	3.00%	4.30%
Colonie	70.30%	14.90%	4.90%	8.30%
Halfmoon	56.60%	20.30%	7.20%	4.00%
Malta	67.60%	17.20%	1.70%	4.90%
Rotterdam	80.70%	10.70%	4.30%	4.00%

Appendix 10: Attached vs. Detached Units (Chart 11)

	Total Occupied Housing Units	Attached %	Attached	Detached %	Detached
2010	12,955	6.50	842.08	70.90	9,185.10
2015	13,344	6.80	907.39	72.20	9,634.37
2017	13,729	0.0668	917.00	0.7187	9,867.00

	Estimate; HOUSING OCCUPANCY - Total housing units	Detached %	Detached %	Estimate; UNITS IN STRUCTURE - Total housing units - 1-unit, attached	Attached %
Bethlehem	14485	10192	70.40%	938	6.50%
Colonie	34312	23377	68.10%	737	2.10%
Halfmoon	10907	5247	48.10%	930	8.50%
Malta	7234	4191	57.90%	701	9.70%
Rotterdam	12319	9691	78.70%	247	2.00%

Appendix 11: Occupancy Supplemental Data (Charts 12 and 13)

	Owner Occupied	Renter Occupied
United States	63.8%	36.2%
New York	54.0%	46.0%
Albany County	56.8%	43.2%
Albany city	37.2%	62.8%
Bethlehem town	75.8%	24.2%

	Estimate; Total:	Owner Occupied	Renter Occupied	Owner Occupied	Renter Occupied
Bethlehem	13729	10402	3327	75.8%	24.2%
Colonie	32317	22229	10088	68.8%	31.2%
Halfmoon	10319	6674	3645	64.7%	35.3%
Malta	6637	4655	1982	70.1%	29.9%
Rotterdam	10308	8090	2218	78.5%	21.5%

Appendix 12: Housing Affordability Supplemental Data (Chart 14)

GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI)	
Colonie	47.80%
Rotterdam	49.40%
Halfmoon	40.70%
Malta	49.40%
Bethlehem	44.60%

	Bethlehem		Albany MSA	
	Occupied Units Paying Rent	Housing Units with a Mortgage	Occupied Units Paying Rent	Housing Units with a Mortgage
Less than \$500	2.9%	0.4%	9.1%	0.8%
\$500 to \$999	36.9%	5.2%	46.4%	11.2%
\$1,000 to \$1,499	44.7%	14.7%	33.3%	28.2%
\$1,500 to \$1,999	8.3%	28.6%	7.8%	29.1%
\$2,000 to \$2,499	4.5%	22.3%	2.1%	15.9%
\$2,500 to \$2,999	0.4%	13.9%	0.7%	7.8%
\$3,000 or more	2.3%	14.9%	0.7%	6.9%

SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME (SMOCAPI)	
Colonie	24%
Rotterdam	31.10%
Halfmoon	22%
Malta	31.10%
Bethlehem	19.40%

Appendix 13: Age Cohorts (Chart 15)

Population by Age (2017)	Bethlehem	Share of Total	U.S.	Share of Total
Total	34,912	100%	321,004,407	100%
Preschool (0 to 4)	2,116	6.10%	19,853,515	6.20%
School Age (5 to 17)	5,830	16.70%	53,747,764	16.70%
College Age (18 to 24)	2,957	8.50%	31,131,484	9.70%
Young Adult (25 to 44)	7,565	21.70%	84,700,592	26.40%
Adult (45 to 64)	10,451	29.90%	83,838,663	26.10%
Older Adult (65 plus)	5,993	17.20%	47,732,389	14.90%

Appendix 14: Age Cohort Projections (Chart 16)

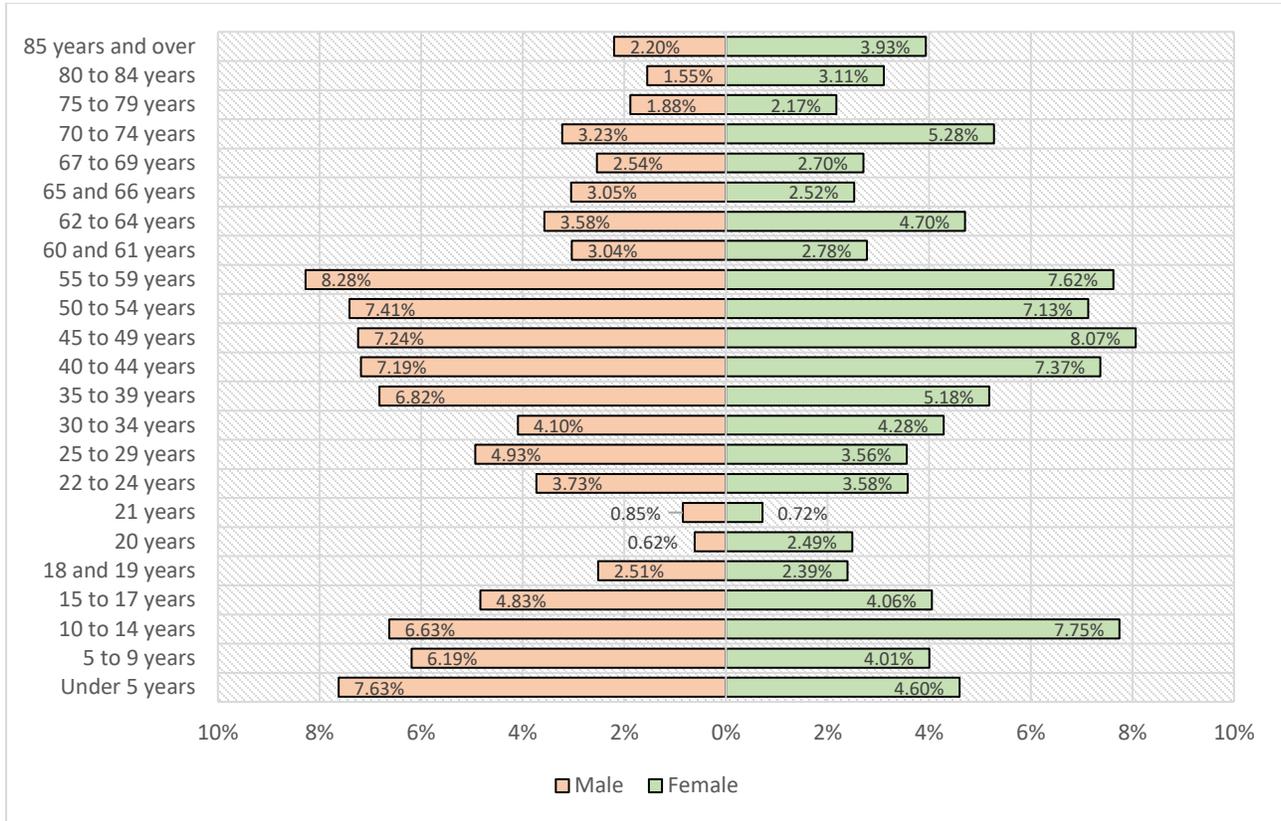
Cohort	1990	2000	2010	2020	2030	2040	2050
Under 5	1,937	2,033	1,717	1,441	1,611	1,800	1,619
5 to 14	4,003	4,952	4,844	4,533	3,907	4,220	4,430
15 to 24	3,172	3,240	3,752	3,673	3,368	3,007	3,407
25 to 34	3,780	3,134	2,783	3,529	3,484	3,149	2,844
35 to 44	5,147	5,359	4,455	4,315	5,098	4,942	4,849
45 to 54	3,072	5,348	6,003	4,722	4,639	5,800	5,884
55 to 64	2,568	2,720	5,003	5,583	4,484	4,582	5,312
65 to 74	2,231	2130	2,363	4,235	4,638	3,874	4,075
75 & Over	1,642	2379	2,736	2,830	4,859	5,361	4,479
Total	27,552	31,304	33,656	34,861	36,088	36,735	36,899

Appendix 15: Supplemental Age Cohort Data - Population Pyramid

	Male	Female
Under 5 years	-7.63%	4.60%
5 to 9 years	-6.19%	4.01%
10 to 14 years	-6.63%	7.75%
15 to 17 years	-4.83%	4.06%
18 and 19 years	-2.51%	2.39%
20 years	-0.62%	2.49%
21 years	-0.85%	0.72%

22 to 24 years	-3.73%	3.58%
25 to 29 years	-4.93%	3.56%
30 to 34 years	-4.10%	4.28%
35 to 39 years	-6.82%	5.18%
40 to 44 years	-7.19%	7.37%
45 to 49 years	-7.24%	8.07%
50 to 54 years	-7.41%	7.13%
55 to 59 years	-8.28%	7.62%
60 and 61 years	-3.04%	2.78%
62 to 64 years	-3.58%	4.70%
65 and 66 years	-3.05%	2.52%
67 to 69 years	-2.54%	2.70%
70 to 74 years	-3.23%	5.28%
75 to 79 years	-1.88%	2.17%
80 to 84 years	-1.55%	3.11%
85 years and over	-2.20%	3.93%

Chart: Bethlehem Population Pyramid



Source: U.S. Census Bureau, 2012-2017 5-Year ACS Estimates

Appendix 16: Racial Makeup (Chart 18)

Race and Hispanic origin	New York	Albany County, New York	Albany city, New York	Bethlehem town, Albany County, New York	United States
White	0.70	0.76	0.55	0.92	0.77
Black or African American	0.18	0.14	0.29	0.02	0.13
American Indian or Alaska Native	0.01	0.00	0.00	0.00	0.01
Asian alone	0.09	0.07	0.07	0.04	0.06
Native Hawaiian and other pacific islander	0.00	0.00	0.00	0.00	0.00
Two or More Races, percent	0.03	0.03	0.06	0.02	0.03
Hispanic or Latino, percent	0.19	0.06	0.10	0.02	0.18

White alone, not Hispanic or Latino	0.55	0.72	0.51	0.90	0.61
-------------------------------------	------	------	------	------	------

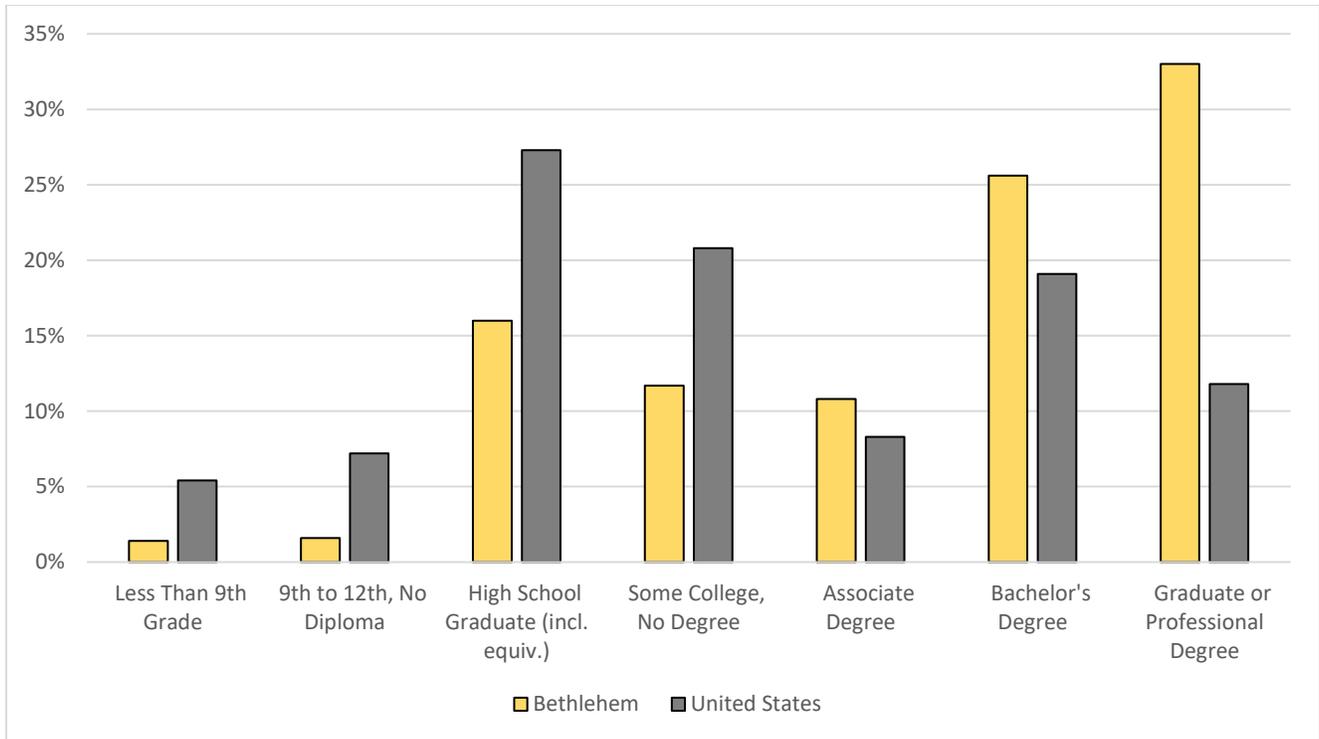
Appendix 17: Educational Attainment (Chart 19)

	Less than high school graduate	High school graduate (includes equivalency)	Some college or associate's degree	Bachelor's degree	Graduate or professional degree
Colonie	7.20%	22.70%	29.10%	22.90%	18.20%
Rotterdam	7.30%	33.40%	35.50%	15.40%	8.50%
Halfmoon	7.30%	33.40%	35.50%	15.40%	8.50%
Malta	2.80%	21.40%	31.20%	26.00%	18.50%
Bethlehem	3.00%	16.00%	22.50%	25.60%	33.00%

Appendix 18: Educational Attainment Supplemental Data

Educational Attainment, 2017	Value	U.S.	Pct. of Total
Total Population 25 and Older	24,009	216,271,644	100%
Less Than 9th Grade	339	11,759,554	5.40%
9th to 12th, No Diploma	374	15,677,560	7.20%
High School Graduate (incl. equiv.)	3,831	59,093,612	27.30%
Some College, No Degree	2,798	44,935,834	20.80%
Associate Degree	2,603	17,917,481	8.30%
Bachelor's Degree	6,141	41,377,068	19.10%
Graduate or Professional Degree	7,923	25,510,535	11.80%

Chart: Educational Attainment for Bethlehem and United States



Source: U.S. Census Bureau 5-Year ACS 2017-2013

Appendix 19: Number of Establishments per Sector (Chart 20)

Manufacturing	Total	2012	17
Wholesale trade	Merchant wholesalers, except manufacturers' sales branches and offices	2012	19
Retail trade	Total	2012	93
Transportation and warehousing	Total	2012	18
Real estate and rental and leasing	Total	2012	27
Professional, scientific, and technical services	All establishments	2012	75
Administrative and support and waste management and remediation services	Total	2012	47

Educational services	All establishments	2012	11
Health care and social assistance	All establishments	2012	104
Health care and social assistance	Establishments subject to federal income tax	2012	71
Health care and social assistance	Establishments exempt from federal income tax	2012	33
Arts, entertainment, and recreation	All establishments	2012	15
Accommodation and food services	Total	2012	69
Other services (except public administration)	All establishments	2012	71
Other services (except public administration)	Establishments subject to federal income tax	2012	61
Other services (except public administration)	Establishments exempt from federal income tax	2012	10

Appendix 20: Revenue Generated by Sector (Chart 22)

Sector	Revenue Generated (\$1,000s)
Wholesale trade	\$ 156,422.00
Retail trade	\$ 453,148.00
Transportation and warehousing	\$ 39,666.00
Real estate and rental and leasing	\$ 46,509.00
Professional, scientific, and technical services	\$ 57,034.00
Administrative and support and waste management and remediation services	\$ 17,134.00
Educational services	\$ 3,173.00
Health care and social assistance	\$ 141,551.00

Arts, entertainment, and recreation	\$ 10,245.00
Accommodation and food services	\$ 39,993.00
Other services (except public administration)	\$ 27,623.00

Appendix 21: Occupations (Chart 23)

Subject	United States	New York	Albany County	Albany City	Bethlehem Town
Civilian employed population 16 years and over	150,599,165	9,467,631	158,961	48,161	18,384
Management, business, science, and arts occupations:	56,391,480	3,803,745	71,027	19,610	10,719
Service occupations	27,064,027	1,905,936	27,430	11,343	1,957
Sales and office occupations	35,440,563	2,194,508	39,850	12,015	3,927
Natural resources, construction, and maintenance occupations:	13,371,659	682,459	8,672	2,126	863
Production, transportation, and material moving occupations:	18,331,436	880,983	11,982	3,067	918

Appendix 22: Employment (Chart 24)

	Civilian labor force	Employed	Unemployed	Armed Forces	Not in labor force
United States	63.00%	58.90%	4.10%	0.40%	36.60%
New York	63.10%	58.90%	4.30%	0.10%	36.70%
Albany County	65.20%	61.80%	3.40%	0.10%	34.70%
Albany city	62.30%	57.90%	4.40%	0.10%	37.60%
Bethlehem town	68.40%	65.60%	2.70%	0.00%	31.60%

Appendix 23: Commuting to Work (Chart 25)

	Car, truck, or van -- drove alone	Car, truck, or van -- carpooled	Public transportation (excluding taxicab)	Walked	Other means	Worked at home
United States	76.40%	9.20%	5.10%	2.70%	1.80%	4.70%
New York	52.90%	6.60%	28.20%	6.30%	1.90%	4.10%
Albany city	77.00%	7.50%	5.90%	4.60%	1.60%	3.50%
Albany county	62.50%	8.10%	14.30%	10.60%	2.10%	2.50%
Bethlehem	84.30%	6.10%	1.30%	1.70%	0.90%	5.70%

Appendix 24: Inflow/Outflow (Chart 26)

ALL JOBS (2017)	Bethlehem		Malta		Rotterdam		Colonie		Halfmoon	
	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share
Employed in Selection Area	11,341	100.0%	8707	100.0%	8502	100.0%	77565	100.0%	8343	100.0%
Employed in Selection Area, but Living Outside	9043	79.7%	7851	90.2%	6781	79.8%	66149	85.3%	7596	91.0%
Employed and Living in Selection Area	2298	20.3%	856	9.8%	1721	20.2%	11416	14.7%	747	9.0%
Living in the Selection Area	17020	100.0%	7744	100.0%	15972	100.0%	42972	100.0%	11629	100.0%
Living in the Selection Area, but Employed Outside	14722	86.5%	6888	88.9%	14251	89.2%	31556	73.4%	10882	93.6%
Living and Employed in the Selection Area	2298	13.5%	856	11.1%	1721	10.8%	11416	26.6%	747	6.4%

Appendix 25: Formulas

Age child ratio

$$\frac{P_{65+}}{P_{0-14}} * 100 = \frac{\text{population ages } 65+}{\text{population ages } 0-14} * 100$$

Dependency ratio

$$\frac{P_{65+}}{P_{15-64}} * 100 = \frac{\text{Population ages } 0-14 + \text{Population ages } 65+}{\text{Population ages } 15-64}$$

Woman child ratio

$$\text{Child-woman ratio} = \frac{\text{population ages } 0-4}{\text{female population ages } 15-49} * 1000$$

