# Forecasting Service-Enriched Senior Housing: The Case for Housing + Services Innovation in Metropolitan Boston

By

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B.A. Sociology
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Submitted to the Department of Urban Studies and Planning
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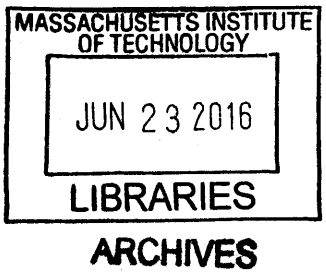




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## Abstract

According to the Urban Institute, "explosion in senior households by 2030 demands housing and community adaptations." Service-enriched housing is part of a national conversation about the looming cost burden to care for the "silver tsunami." Without a solution for long-term care, many seniors, including moderate-income seniors, will "spend down" to Medicaid income and asset eligibility and require not only Medicaid funds but also subsidized housing. Homelessness rates among seniors are expected to increase substantially. The Massachusetts state budget is particularly at risk because nursing homes (paid for by Medicaid) are an entitlement while home care is not. Service-enriched housing could unlock the tight housing market in Greater Boston that is crowding out young families. All of the additional public entitlement funds that will be channeled to seniors will crowd out national and state spending on infrastructure, education and other priorities.

This study seeks to advance the availability of service-enriched housing in Greater Boston with a particular emphasis on the expansion of subsidized service-enriched housing that integrates public Long Term Support Services (LTSS) programs. Early research demonstrates that service-enriched housing results in positive health outcomes for seniors as well as cost savings for Medicare and Medicaid. This study aligns the interests of seniors and key stakeholders in the housing sector and the Long Term Support Services (LTSS) sector in "options charts" to identify opportunities for reform. To create a baseline census of service-enriched housing from which to develop further, data on the existing and projected supply and demand for service-enriched housing is presented for specific municipalities in Metro Boston. In the 15 municipalities with complete data, there is an enormous unmet need for 22,894 units of service-enriched housing by 2030 of which there is unmet need for 10,941 units of subsidized housing. Study recommendations call for increasing the overall supply of service-enriched housing and also reforming the availability of LTSS in existing housing. In order to build more robust models for calculating these projected shortfalls, the gaps in the data, which present challenges for proper forecasting are described, and future research opportunities are suggested.

Thesis Advisor: Professor Joseph Coughlin
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**Acknowledgements**

Thank you to my advisor, Professor Joseph Coughlin, for extending your offer to be my thesis adviser last spring when I was just beginning to explore the field of senior housing. Thank you for welcoming me to the AgeLab. It has been a pleasure to get to know you, work with you and learn from you. You have a keen sense for messaging complex ideas in simple ways, identifying "what's next" and creating the roadmap to a future that has not yet been imagined.

Thank you to my readers, Professor Langley Keyes and Professor Phillip Clay. Thank you, Lang, for serving as my reader for the first half of my thesis journey, a dense and complicated matter as we dove into the financing and regulatory details of housing and long term support services (LTSS). Thank you, Phil, for helping me wrap up my thesis and serving as a counterweight to my eager prescription of service-enriched housing as the gold standard by broadening the conversation to other available options.

Thank you to Amy Schectman and Lizbeth Heyer at Jewish Community Housing for the Elderly (JCHE). Amy and Lizbeth, I consider you both to be my mentors and hold you in the highest regard. I'm so glad that you were there with me on this thesis journey from the very beginning, last July. I love working through new ideas with you and appreciate how readily you connected me to the people and materials that I needed to make this study robust and relevant. I can't wait to see what we accomplish!

Thank you to my roommate Samantha Burns and classmate Becca Heywood, you have both been my day to day support systems. You were always there for me to take a break from Cron and listen to me talk endlessly and gleefully about my work with JCHE. You kept life normal making dinner together and celebrating all of the holidays.

Thank you to my parents for all of your love, support and encouragement to take this work as far as possible and for reading the entire draft.

**My Journey**

Real estate is about people, it is not about bricks and mortar. This has always been my driving motivation and the reason why I chose to attend DUSP. At DUSP, I found a community of scholars, practitioners and classmates who brought their mind and hand (Mens et Manus) as well as heart to their work and set the bar high for our practice. I look forward to seeing what we all do in the future to put our learning into practice and contribute to our communities.

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# CHAPTER 1:
## Introduction

### Overview

"Explosion in senior households by 2030 demands housing and community adaptations."[1] This call to action from researchers at the Urban Institute is just one example of the high level of engagement in public policy, private investment and research around the coming "silver tsunami," the rise in the number of seniors, specifically the Baby Boom generation, in the United States. A number of new reports and initiatives came out from AARP, Harvard's Joint Center for Housing Studies, LeadingAge, the White House Conference on Aging launching Aging.gov, among others just within the past year. The Baby Boomers, 82.8 million people who were born between 1946 and 1964, are the largest generation in U.S history representing approximately 30% of the population.[2] In 2011, the first wave of Baby Boomers turned 65. Of the "oldest old" (defined as those aged 85 and older), their numbers are expected to swell from 5.5 million in 2010 to over 17 million in 2050 (Figure 1-1).[3] In 2050, the 65+ population will be over 20% of the population (16.4% of 65-84 years old and 4.5% of 85+ years old).

**Figure 1-1**

**Table A**

| | 2010 | 2020 | 2030 | 2040 | 2050 |
|---|---|---|---|---|---|
| **Population (000)** | | | | | |
| Total population | 308,746 | 333,896 | 358,471 | 380,016 | 399,803 |
| 65-84 | 34,775 | 49,276 | 63,828 | 65,604 | 65,761 |
| 85+ | 5,493 | 6,693 | 8,946 | 14,115 | 17,978 |
| **% of Total Population** | | | | | |
| 65-84 | 11.3% | 14.8% | 17.8% | 17.3% | 16.4% |
| 85+ | 1.8% | 2.0% | 2.5% | 3.7% | 4.5% |
| **Growth** | | | | | |
| Total population | | 0.8% | 0.7% | 0.6% | 0.5% |
| 65-84 | | 3.5% | 2.6% | 0.3% | 0.0% |
| 85+ | | 2.0% | 2.9% | 4.7% | 2.4% |

Source: U.S. Census Bureau, 2012 National Projections; Note: 2010 figures are actual.

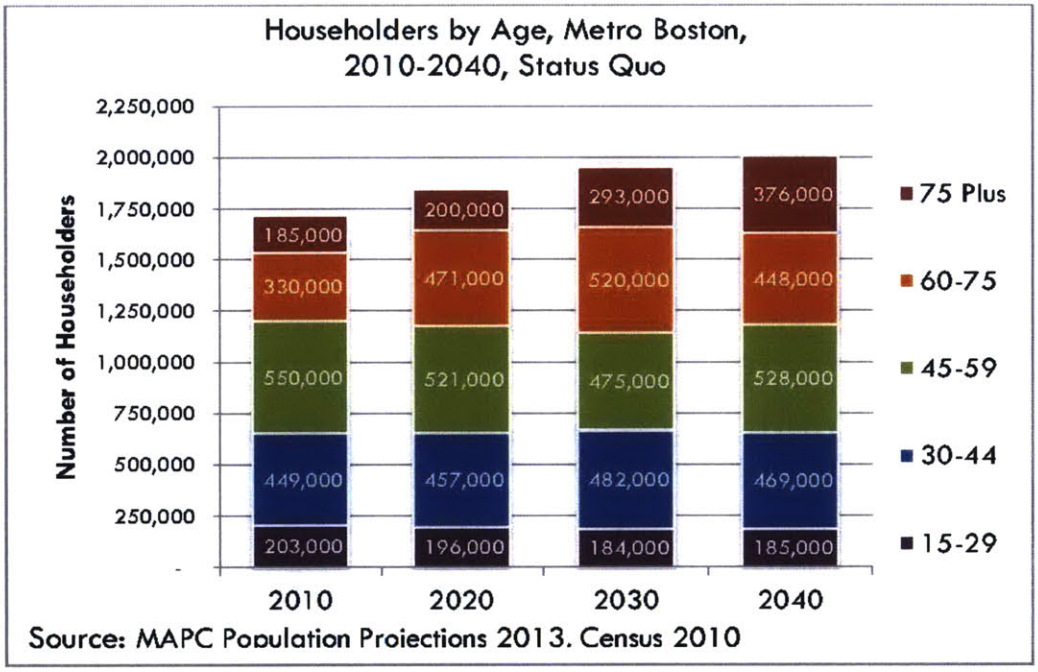


### Metro Boston Context

Greater Boston's senior demographic projections mirror national trends. Boston is a mid-sized metro area, so its demographic projections here may be comparable with other medium

to large cities (0.5-1.5 million people) such as Washington D.C. and others. According to the Metropolitan Area Planning Council (MAPC), a state-funded planning agency which studies 165 cities in eastern Massachusetts, the number of senior households over 60 years old is projected to increase significantly from 2010 to 2040 by approximately 300,000 seniors, almost a 100% increase (Figure 1-2).

**Figure 1-2**




Metro Boston is a living laboratory. Besides facing demographic challenges in line with the rest of the country, the study focuses on Metro Boston for its industry-specific assets and demonstrated political will and activism around senior issues. It has a high concentration of premier healthcare and technology industries and it was the first state to adopt health care reform. It is also a leader in housing and real estate. Boston is the home of the Harvard Joint Center for Housing Studies, a robust affordable housing ecosystem and a strong commercial real estate industry.

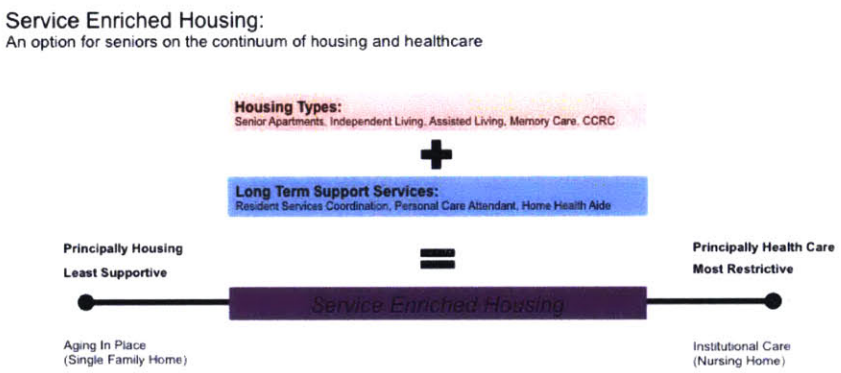
Boston is known for the Village to Village Movement started in the Beacon Hill neighborhood and is ripe to be a leader in service-enriched senior housing innovation. At the state level, Governor Charlie Baker had a career in the healthcare insurance industry before becoming a public servant. The newly appointed Secretary of Elderly Affairs, Alice Bonner has expressed a commitment to champion the need for senior housing. To that end, the Massachusetts Executive Office of Health and Human Services launched a Long Term Support Services payment models working group in September 2015. In recent years, the

Massachusetts Department of Housing and Community Development (DHCD) and the Executive Office of Elder Affairs worked together to jointly fund the Senior Supportive Housing Initiative in public housing. Within the city of Boston, Mayor Marty Walsh has a background in working with the construction labor unions. In his first year, Walsh announced that Boston will be a World Health Organization (WHO) Age-Friendly City and also produced a city-wide housing plan "Housing a Changing City: Boston 2030," with a specific chapter on Senior Housing. Boston hosted two major national forums in 2015. The White House Conference on Aging hosted a regional forum in May 2015 which marked the 50th anniversary of Medicare, Medicaid and the Older Americans Act as well as the 80th anniversary of Social Security. LeadingAge, a national non-profit senior housing trade association hosted their annual conference in November 2015 at the Boston Convention and Exhibition Center. The Metro Boston area is poised to be an innovator in service-enriched housing.

**Service Enriched Housing Defined**

With the "silver tsunami" about to crash, what housing options are available to seniors? Currently, the predominant expectations are: "I want to age-in-place" and, "I'll never live in a nursing home." Seniors who age in place often need to completely coordinate their own services and have total independence without any support, while seniors who live in a nursing home typically have little to no independence with such daily decisions as meal time under a strict schedule. Between Aging in Place and Institutional Care exists a third alternative, not commonly considered, that operates along the continuum of housing and LTSS: service-enriched housing. Service-enriched housing is defined in this study using the Pynoos et. al definition: "living arrangements that provide health and/or social services in an accessible, supportive environment."[6] Age-restricted condos or multi-family housing that provides no connection to services are not considered in this study. Dr. Joseph Coughlin, the Director of the MIT AgeLab has coined the phrase "aging in no place" to describe the situation in which many seniors find themselves isolated and cut off from services. Seniors want to live in the same types of places we all want to live, close to transportation and services, able to visit with friends and family and living in well-designed accessible housing. The concept of this housing and LTSS continuum is shown below in Figure 1-3. The graphics are chosen intentionally to illustrate the concept that housing (red) and Long Term Support Services (blue) can come together in service-enriched housing (purple). These color representations are also reflected in the logo shown at the beginning of each chapter.

**Figure 1-3**




Currently a very small percentage of the population lives in service-enriched housing due to limited public awareness, minimal supply (especially for subsidized service-enriched housing), and limited affordable housing options. The significant senior demographic shift presents an opportunity to think anew about the intersection of housing and healthcare delivery platforms in the United States. In order to pursue this path, a robust understanding of what service-enriched housing is, who builds it, finances it and regulates it is needed. In addition, research findings that demonstrate direct positive impact on health outcomes and healthcare cost savings will be a catalyst for new financial models and cost sharing. In essence, as Plato observed, necessity is the mother of invention.

The linkage between housing and health care is not a new initiative. In the early 20th century, middle-class reformers, like Florence Nightingale, started a social movement to improve public health, through the creation of social housing and model tenement buildings, among other initiatives. Nightingale believed that "the connection between the health and dwelling of the population is the most important one that exists."[7] Researchers David Fukuzawa and Fred Karnas, in revisiting the work of those social reformers argue that:

> the strong evidence of how housing quality and affordability impacts health calls for a new framework that envisions housing as a multi-layered platform for improving quality of life. This platform can be conceived as multi-layered: a service delivery portal, as a target for prevention and as an anchor for healthy neighborhoods.[8]

According to Pynoos et al., "housing that serves as a platform for long term care and prevention initiatives, will require a shift in the current regulatory and finance landscape to "create policies that better link housing with services ... and provide a range of housing options in age-friendly or "livable" communities."[9]

Today, this linkage is described using the term "social determinants of health." In 2015, Blue Cross Blue Shield released a report on the social determinants of health, which had two major findings. First, that the social determinants of health are responsible for up to 60% of individual health outcomes and second, that older adults have greater challenges in their

housing situation, both physical and mental, than the average person.[10] Social determinants of health, which encompasses social, behavioral and environmental influences have taken center stage in recent health policy discussions, particularly with the growing focus on global payment, Accountable Care Organizations (ACOs) and other initiatives to improve population health while decreasing hospitalization and long-term care (i.e. nursing home) utilization. Stable and affordable housing is part of a comprehensive strategy to arrive at better health outcomes as well as cost savings for seniors.

In order to enhance understanding between housing and LTSS, which currently operate in separate silos, as well as create opportunities for cross-sector collaboration, this study provides an overview of the specific financing, regulations and programs available to seniors in each sector in the Greater Boston study region. Understanding the landscape is necessary but not sufficient to serve the high needs among seniors. The study further examines both the existing and projected supply and demand for service-enriched housing to forecast future need among 15 municipalities in the study region with complete demand and supply data.

This study is unique for a number of reasons:

- Focuses on service-enriched housing across the income spectrum while most public policy and private sector market research studies focus either on the low-income or high-income housing and long term care offerings.
- Creates a series of service-enriched housing "options charts" for seniors, developers and policymakers in the study area to use to determine their eligibility for various programs.
- Creates a simple demand calculation tool using municipal-level Census data on senior household counts, disability rates and income distribution to quantify the current and projected demand for service-enriched housing. The income limits from the LTSS and housing programs in the study region and the census income data are used to differentiate market-rate demand and subsidized demand with various socio-economic status characteristics.
- Selects a metro area with a defined group of towns to analyze town-specific data leading to actionable recommendations for businesses, policymakers and researchers.

## Study Findings

There are three main findings from the study. First, based on the literature, the four key drivers for service-enriched housing need are: financial security and lack of affordability need for Long Term Support Services, social isolation and loneliness and inaccessible housing stock. Second, by aligning interests, especially in state government funding between LTSS and housing providers, there are opportunities to realize improved health outcomes and shared cost savings. Today, there is varied financing and regulations of housing and LTSS programs that make it difficult for seniors and these providers to navigate the combined LTSS and service-enriched housing options. Third, by 2030, there will be an enormous, 22,894 unit, projected unmet demand for service-enriched housing just in the 15 municipalities with complete data

in the study region and this is likely an underestimate, further explained in Chapter 4. Within this total amount, there is a forecasted need for 10,941 subsidized service-enriched housing units (<80% AMI). New housing construction is needed but it is not a comprehensive solution and significant reform in the provision of LTSS is needed as well. Cross-sector and cross-market advocacy and coalitions will play an important role in driving these initiatives as well as lobbying for better data availability and future research in order to build more robust models to forecast projected demand.

**Report Outline**

The study began with an overview in Chapter 1 of the current aging demographic phenomena and the Metro Boston context for senior housing innovation. In addition, Chapter 1 defined service-enriched housing and highlighted the main study outcomes, including the forecasted total unmet need for service-enriched housing in Metro Boston.

Chapter 2 describes how service-enriched housing addresses the four key challenges to aging-in-place: the need for the efficient and affordable delivery of Long Term Support Services given a projected decrease in available informal caregivers, the constraints of the old and inaccessible Boston-area housing stock, housing affordability challenges even among moderate-income seniors and the prevalence of social isolation as well as the physiological effects of isolation among seniors.

Chapter 3 provides an overview of the research studies that have shown cost savings and beneficial outcomes when LTSS is integrated in senior housing. Since integration and alignment of interests between the housing and LTSS sectors is necessary to achieve these outcomes and share cost savings, the chapter goes on to provide an overview of the LTSS and Service Enriched housing sectors so that seniors, as well as policymakers and businesses understand how it is financed, regulated, programs availability and recent reform efforts. The chapter concludes with an integrated "options" chart that places the housing and LTSS program eligibility side-by-side to identify potential future reform initiatives and partnership.

Chapter 4 describes the methodology used to identify the MetroWest study region in Greater Boston, collect the existing and projected service-enriched housing supply data, and calculate the current and projected demand for service-enriched housing. The housing and LTSS "options charts" described in Chapter 3 are used to forecast unsubsidized and subsidized housing demand in the study region through 2030.

Chapter 5 presents the data on the total existing and projected supply of, and demand for, service-enriched housing in a comparative look across municipalities as well as one-page summaries on the supply, demand, and unmet need for the 15 municipalities in the study area with complete data.

Chapter 6 proposes a series of recommendations to enhance integration between housing and LTSS programs, providers, financing and regulation with the end goal of providing seniors with more service-enriched housing options. Given the high projection for unmet demand in 2030, it is not possible to entirely solve this problem through the new development and preservation of existing units. Three primary strategies are suggested: increase the supply of

service-enriched housing, reform the provision and regulation of LTSS in housing, and resolve data gaps as well as pursue opportunities for further research. The creation of cross-market and cross-sector coalitions and lobby groups is suggested to implement these strategies.

Chapter 7 concludes with the implications of the research findings for key stakeholders including businesses, public policy and researchers. This chapter also makes the case for the moral and fiscal repercussions to society if the need for service-enriched housing is not addressed.

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[1] Goodman, L., Pendall, R., & Zhu, J. (2015, June 15). Explosion in senior households by 2030 demands housing and community adaptations. Retrieved October 1, 2015, from http://www.urban.org/urban-wire/explosion-senior-households-2030-demands-housing-and-community-adaptations

[2] Lynn, D., & Wang, T. (2008). The U.S. Senior Housing Opportunity: Investment Strategies. Real Estate Issues, 33(2), 33-51. Retrieved October 1, 2015, from www.cre.org/memberdata/pdfs/senior_housing.pdf

[3] Wu, C., & Beyer, J. (August 11, 2014). Overview of Senior Housing in the US. Harvard Business School, 9-215-005, 1-5. P. 1

[4] Ibid.

[5] Reardon, T., & Hari, M. (2014, January). Population and Housing Demand Projections for Metro Boston: Regional Projections and Provisional Municipal Forecasts [Scholarly project]. In Metropolitan Area Planning Council (MAPC). Retrieved October 1, 2015, from http://www.mapc.org/projections P. 11

[6] Pynoos, J., Feldman, P. H., & Ahrens, J. (2004). Linking Housing and Services for Older Adults: Obstacles, Options and Opportunities. Journal of Housing for the Elderly, 18(3/4). Retrieved October 1, 2015.

[7] Fukuzawa, D. D., & Karnas, F. (2015). Reconnecting Health and Housing: Philanthropy's New Opportunity. Environmental Justice, 8(3), 86-94. Retrieved December 1, 2015. P. 86

[8] Ibid.

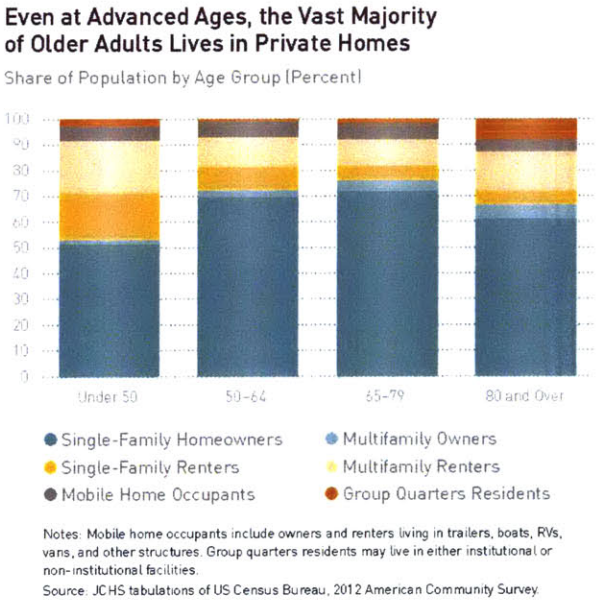
[9] Pynoos, J., Nishita, C., Cicero, C., & Caraviello, R. (2008). Aging in Place, Housing and The Law. The Elder Law Journal, 16, 77-81. Retrieved October 1, 2015.

[10] Taylor, L. A., Coyle, C. E., Ndumele, C., Rogan, E., Canavan, M., Curry, L., & Bradley, E. (June 2015). Leveraging the Social Determinants of Health: What Works? (pp. 1-45, Rep.). New Haven, CT: Yale Global Health Leadership Institute. http://bluecrossfoundation.org/sites/default/files/download/publication/Social_Equity_ExecSumm_final.pdf

# Chapter 2
## Literature Review: Key Drivers for Service Enriched Housing

The vast majority of seniors express a preference for "Aging in Place." In 2014, AARP published a report, which found that seniors age 65 and older (compared with those ages 50-64) were more likely to say they want to age in their current home and community (87% v. 71%).[1] Aging in place is defined by the Centers for Disease Control as "the ability to live in one's home and community safely, independently and comfortably- regardless of age, income, or ability level." More than ¾ of seniors over 80 years old live in their own homes.[2] Figure 2-1 illustrates the national cross section of where the senior population lives by age group.

**Figure 2-1**

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The desire to age-in-place is often presented in opposition to living in a nursing home but service-enriched housing can be a third, and more desirable option in the future. The literature shows that there are significant challenges to Aging in Place.

The need for new options is a relatively new phenomenon. Baby Boomers are commonly referred to as the "pig in the python" with a cohort profile and preferences different from previous generations. For example, the Boomers' desire to age in their current home is much lower than that of the generation above them. According to Robert Putnam in Bowling Alone, the "Baby Boomers" are different from today's cohort, the "Silent Generation", who are the seniors 80 years old and over. Putnam writes: "they were slow to marry and quick to divorce, they had a lower fertility rate and a higher divorce rate resulting in fewer caregivers as they

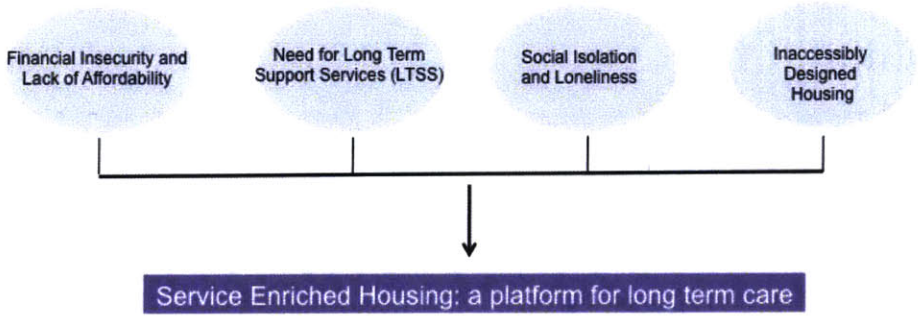
age. The Youngest Boomers report that they will consider themselves "old" at age 71 while their older counterparts say 78 is "old."[4] The Baby Boom generation is staying in the workforce longer. Since 1977, there has been a 172% increase in employment after age 75 partly due to economic necessity and partly due to ability and choice.[5]

The existing housing and LTSS infrastructure will need to adapt to the changing preferences and needs of the Boomers. The four key challenges for seniors at the intersection of housing and care are: financial security and affordability, LTSS needs, social isolation and inaccessible housing. Since no singular intervention is sufficient, service-enriched housing can be a platform for connections to:

- Financial security and affordability, particularly in subsidized housing;
- LTSS delivered efficiently in a non-institutional setting;
- Rich, social connections available on site;
- Well-designed housing that facilitates connections to other services and mitigates fall risks giving seniors peace of mind.

An operating framework to understand these key challenges is shown in Figure 2-2. With each challenge, the 75 years and older cohort is highlighted as a particularly vulnerable population.

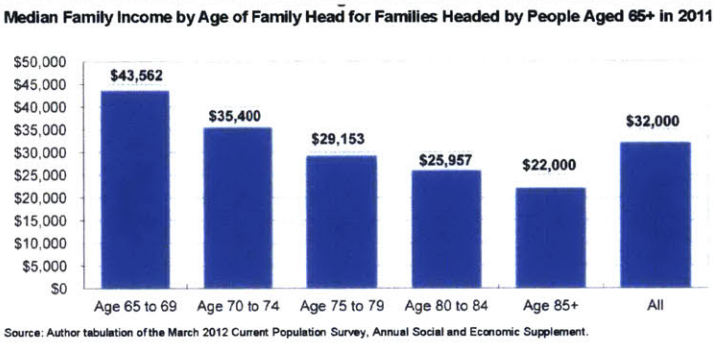
**Figure 2-2**




## Financial Insecurity and Lack of Affordability

The financial security of seniors typically becomes compromised as they age. Generally, the income of seniors over 80 years old ($22,000) is approximately half of the income of seniors between 65 and 69 ($43,562). Using a median income figure for the entire 65 and older age cohort can be misleading but is not avoidable at this time because there is limited Census data on just the 75+ or 85+ age cohorts. Figure 2-3 below shows this pattern for the entire United States in 2011.

**Figure 2-3.** Median Family Income by Age of Family. Head for Families Headed by Age 65 and Over in 2011

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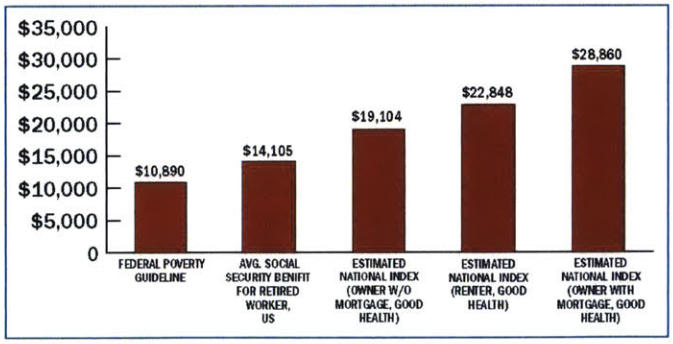
Despite such low household income projections for the "oldest old" group, most seniors don't or aren't able to plan to have enough saved for retirement and plan on Social Security. One in three employed adults aged 55 to 65 has no savings for retirement and many won't be able to get by on a Social Security check, which is the main source of income for almost two-thirds of older householders and the only source of income for one-third of these households.[7] Social Security is not enough to keep up with high property taxes as well as long term care costs. In a study conducted by Fidelity in 2012, they estimate the "average" baby boomer will need after-tax income of $4,800 per month starting at age 67, (the year after reaching the Social Security "full retirement age" of 66) and will live to be 92. Income from Social Security, pensions and withdrawals from investments is projected to make up $2,700 of this amount. That leaves an "estimated" monthly income gap of $2,100, which translates into a shortfall of 44%. Again, however, because these are after-tax numbers, the shortfall amount is actually larger on a pre-tax basis.[8] In 2012, the University of Massachusetts Gerontology Institute created the National Elder Economic Security Index which shows that the Federal Poverty Level ($10,890) and the Average Social Security Benefit for Retired Workers ($14,105), which does not include food stamps, are both insufficient for what they project to be a minimum adequate annual income for a one-person elderly homeowner without a mortgage and in good health ($19,104) Figure 2-4.[9] This $5,000 estimated gap is not filled by any government safety net program and only worsens for renters and those in poor health.

**Figure 2-4.** The National Elder Index Compared to Other Benchmarks, 2011 One Person Elder Households

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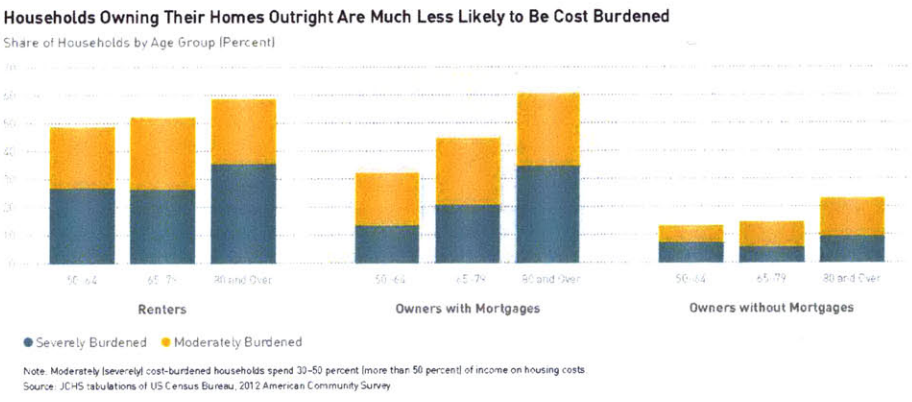
A shortfall in income and retirement savings creates severe housing cost burdens, particularly among low-income seniors. When seniors are cost-burdened, paying more than half of their income on housing, the Joint Center for Housing Studies found that these households were able to spend 70% less on health care needs and 40% less on food than those living in affordable housing.[11] There will be seniors who cannot manage these costs and become homeless. The National Alliance to End Homelessness has predicted "homelessness will more than double between 2010 and 2050, when over 95,000 elderly persons are projected to be homeless."[12] Specific to Massachusetts, a study by Wider Opportunities for Women and UMASS/Boston shows that "the elderly in Massachusetts struggle with the nation's largest shortfall between income and costs, with the age group's median income covering only about 60 percent of basic living expenses here. In Massachusetts, for example, the median income of retired residents 65 or older is just under $17,000 per year. It falls more than $10,000 short of what the study estimates it costs for basic necessities, such as food and shelter."[13] According to the 2010 U.S. Census Bureau, 3.5 million seniors currently live in poverty, and with health care costs factored in, the numbers of seniors living in poverty increases to 6.5 million.[14] Housing costs (mortgage or rent, taxes, utilities and insurance) are the greatest expense for most elder households, representing as much as half of their total expenses.[15]

It is not just low-income seniors who struggle. The Baby Boomers highly leveraged the value of their homes in the 1990s and 2000s. Immediately following the 2008 recession and real estate bust, 18% of boomers aged 55 to 64 would have owed money at closing if they had sold their home. Additionally, Younger Boomers between ages 45 and 54 had lost 45% of their median net worth, leaving them with just $80,000 in net worth, including home equity while Older Boomers between 55 and 64 had lost 38% of their net worth leaving them with $140,000.[16] Even after the recovery, in 2012 among renters and owners with mortgages, almost 60% of the 80 years and older cohort were either moderately or severely cost burdened. Owners without mortgages fared much better; just 20% were either moderately or severely burdened (Figure 2-5).[17]

**Figure 2-5**

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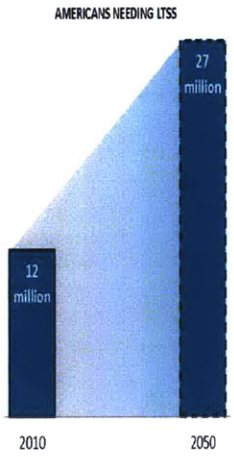
Although financially burdened seniors are a sizeable portion of the population, there are some high income seniors who do choose to age in place. While it may be possible with the right support network and significant financial resources to resolve each of these barriers individually, compounded they are very challenging to manage. The next three challenges: LTSS needs, social isolation and housing accessibility cut across the income spectrum. Service-enriched housing is a platform that can help solve these compounded barriers.

### Need for Long Term Support Services (LTSS)

Service-enriched housing provides connection to LTSS along a continuum of options depending on the setting and regulations. The scope of LTSS services includes: care coordination, homemaking services, medication management, laundry/chores, meal preparation, day habilitation, adult day health, personal care services, home health care, private duty nurse, physical therapy and skilled nursing care. In addition, one aspect of LTSS that is vital but often overlooked is Resident Service Coordination, typically available in subsidized housing. Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs) fall within the umbrella of LTSS.

Increasing the amount of housing that facilitates connection to LTSS is essential for the future. In 2013, the U.S. Senate Commission on Long-Term Care found that the number of Americans needing LTSS is expected to more than double from 12 million in 2010 to 27 million in 2050 (Figure 2-6).[19] Nearly 70% of people turning 65 will need some LTSS during their lives, with 40% of seniors needing services for more than 2 years.[20] Half of people 80 years old and over have functional limitations.[21] Specific to Massachusetts, a Disability Status Report completed by Cornell in 2013 found that on average 22.6% of all Massachusetts residents age 65-74 have one more disabilities and for those seniors over 75 years old, their rates of disability increased to 48.5%.[22]

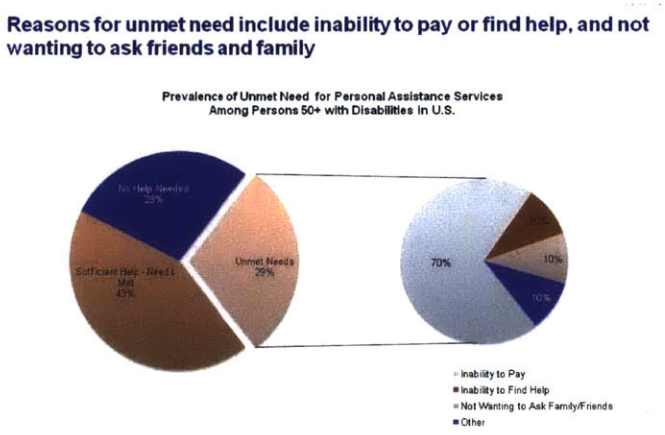
**Figure 2-6**



The challenges for seniors due to functional limitations are only one aspect of the projected increase in LTSS needs. The prevalence of memory care is increasing. One in three Americans 85 and older has Alzheimer's (and a prediction of 300% increase by 2050). The care of adults with dementia is a particularly acute and growing public issue, estimated to cost $159-$215 billion per year with 84% of those costs for LTSS. The care needs of these adults are much greater than cognitively normal adults. According to Friedman, et. al. adults with dementia received 171 hours of monthly informal care versus 89 hours for cognitively impaired adults without dementia and 66 hours for cognitively normal adults.23 This need requires a level of care that is extremely difficult for family and friends to provide in addition to their work and family commitments.

Without considering future demand, there is a significant unmet care need today across the country. According to the AARP Public Policy Institute, among the 29% of persons 50+ with disabilities who had an unmet need for personal care, 70% of them had this unmet need principally due to inability to pay (Figure 2-7). These individuals are likely to "spend down" their assets in order to qualify for Medicaid LTSS programs.

**Figure 2-7**

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The major challenge to LTSS in the future, and a key driver for service enriched housing, is the changing caregiver workforce. Just as the demand for LTSS is increasing, the shifting demographics Putnam highlighted result in far fewer available "informal" caregivers. An estimated 1.2 million Americans over the age of 65 will have no living children, siblings or spouses by 2020.[25] The supply of family caregivers is not keeping pace with demand, there are now 7 potential family caregivers for every person over 80 and this number is expected to fall to 4 by 2030.[26] LTSS is not just a policy issue; it is a deeply personal issue. Rosalynn Carter said it first and she said it best, "There are only 4 kinds of people in this world: those who have been caregivers, those who are currently caregivers, those who will be caregivers and those who will need caregivers."[27]

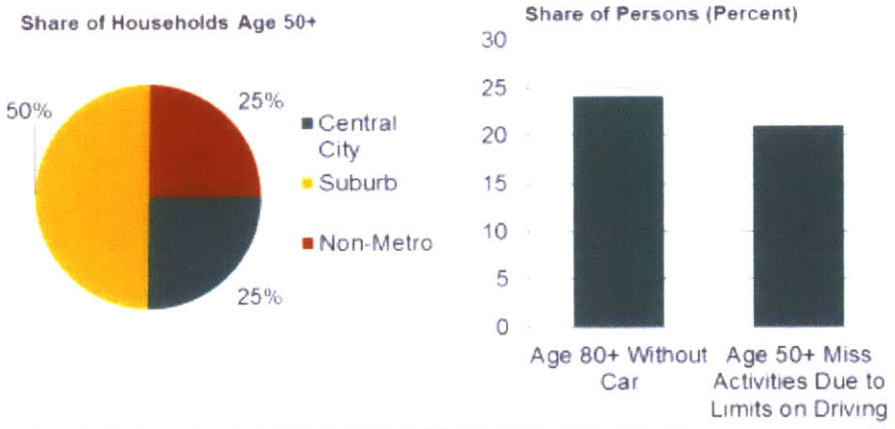
Currently, 87% of the caregiving workforce is informal and three out of five of informal caregivers are already in the labor force. [28] According to AARP, a woman who takes off work to provide care for an aging parent will lose more than $324,044 in wages and benefits over a lifetime.[29] This isn't necessarily a job that the caregivers signed up for, according to AARP's survey, half of caregivers self-reported that they had no choice in taking on their caregiving activities. Four in 10 caregivers report emotional strain and one in five caregivers report physical strain, to varying degrees, associated with providing care.[30] In addition, the survey found that about 6 in 10 caregivers report that they assist with medical/nursing tasks but 14% of those caregivers report great difficulty (4 or 5 on a 5 scale) performing those tasks.[31] Lack of proper medication administration not only harms seniors but also costs the healthcare industry in additional care needs and potential hospital readmissions.

In 2015, a RAND Health study estimated that the cost of informal care for elders was approx. $522 billion nationwide, more than the entire federal Medicaid budget and constitutes an estimated 30 billion hours every year. 32 The cost of absorbing this care into the formal LTSS (just 13% of the total caregiving workforce) as it is currently organized is prohibitively expensive and not a sustainable delivery model for the future needs of Boomers. Service-enriched housing can serve as an efficient and more affordable platform for the delivery of LTSS without becoming a medical/institutional environment.

**Social Isolation and Loneliness**

The informal and formal caregiving workforces don't reach all seniors. Even when seniors do receive care, they can remain socially isolated due to limited mobility options in many suburban and non-metro communities as well as society's changing demographics as described by Robert Putnam. Many seniors live alone. In 1950, only 10% of Americans over 65 lived alone but today 40% of all 70 and over households and 60% of all 80 and over households are single person households.[33] With high LTSS needs, especially among the 80+ age group, many seniors can't easily travel to engage with their communities. As shown in Figure 2-8, almost 75% of seniors live in the suburbs or outside of a metro area. When they can no longer drive, and there is little to no public transportation services, they are cut off from their communities. Over 20% of seniors over 50 years old report missing activities due to their limited ability to drive.[34] Living in suburban or rural areas is also more challenging for providing LTSS to seniors. Home health agencies often require seniors to purchase a minimum number of hours of care per visit (typically two hours) to account for the commuting time, which creates significant additional expenses.

Figure 2-8

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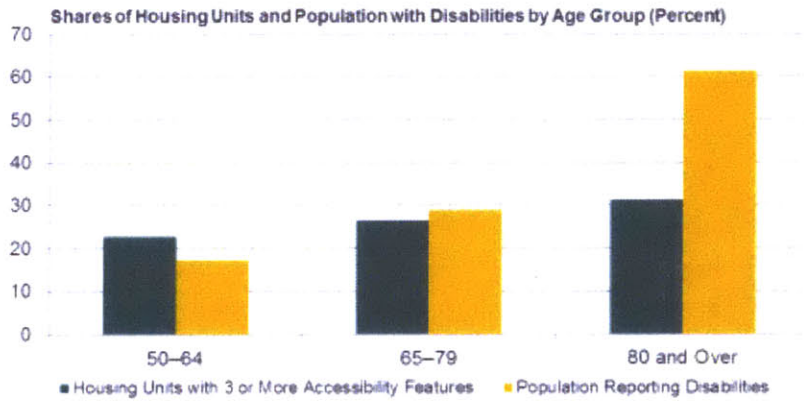
Social isolation is not just a mental health problem but can also lead to deteriorating physical health, both of which are part of the conceptual framework of the social determinants of health. According to a research study conducted by the University of California at San Francisco, the group of 60 years and older participants designated as "lonely" was 59% more at risk of declining Activities of Daily Living (ADLs). Loneliness was independently associated with an increased rate of death and functional decline.[36] One surprising finding of the study is that loneliness does not necessarily correlate with living alone. The study found 43% of participants felt lonely but only 18% lived alone.[37] A supportive environment is not just having people around but having the right people around and age-appropriate activities. Other studies have uncovered physiological effects of social isolation and loneliness. Researchers Christina Victor at Brunel University and Ann Bowling at St. George's University in the UK in their longitudinal study in 2011 found that loneliness can be twice as unhealthy as obesity. Compared with the average person in the study, those who reported being lonely had a 14% greater risk of dying. The study points out that loneliness has around twice the impact on an early death as obesity. Poverty only increased the risk of an early death by 19%.[38] Higher Activities of Daily Living (ADL) needs are more expensive which then create the double burden of social isolation and higher costs for LTSS. Low-income and moderate income seniors are often forced to sell their home to finance long term care or sacrifice their basic needs such as food and health care to maintain their housing. When intentionally developed, service-enriched housing can serve as a platform for rich social connections with caring staff, engaging activities, including regular shared meals and outings that help create communities.

### Inaccessibly Designed Housing

Further compounding LTSS needs is the lack of physically accessible housing structures. The existing housing stock in the United States, principally single-family homes, is ill-prepared

to meet the needs of the burgeoning senior population and has few accessibility features. There is an unmet demand, particularly among the 80 and over population for accessible housing. Nationally, over 60% of households headed by residents 80 and older have a member with a disability but just 30% of the units occupied by this age cohort have three or more accessibility features. The five universal design accessibility features are a no-step entry, single-floor living, extra-wide doorways, accessible electrical outlets and lever style door and faucet handles (Figure 2-9).[39] These features, to a degree, can mitigate falls, the number one cause of injury and injury-related deaths among seniors. They also come at a high price to the healthcare system, $30 Billion, according to a 2013 report from the Centers for Disease Control and Prevention.

**Figure 2-9**




Source: JCHS tabulations of US Department of Housing and Urban Development 2011 American Housing Survey and US Census Bureau 2012 American Community Survey

To a large degree, the accessibility of the housing stock depends on the region. Across the four major regions in the United States (Northeast, Midwest, South and West), the Northeast performs the poorest in the share of units with accessibility features across all five accessibility categories (Figure 2-10). In some cases, the Northeast performs poorly by a wide margin, such as with zero-step entry (31%) and single-floor living (56.8%).

**Figure 2-10**

| | Share of Units with Accessibility Feature (Percent) | | | | |
|---|---|---|---|---|---|
| | No-Step Entry | Single-Floor Living | Extra-Wide Hallways and Doors | Accessible Electrical Controls | Lever-Style Handles on Doors and Faucets |
| **Region** | | | | | |
| Northeast | 31.2 | 56.8 | 7.3 | 37 | 6.5 |
| Midwest | 32.4 | 72.5 | 8.2 | 49.2 | 8.6 |
| South | 48.5 | 84 | 7.8 | 41.8 | 6.9 |
| West | 49.5 | 80.9 | 8.3 | 48.7 | 12 |
| **Metro Area Status** | | | | | |
| Central City | 39 | 74 | 6.6 | 40.5 | 7.1 |
| Suburb | 46.2 | 72 | 8.1 | 45.8 | 9.7 |
| Non-Metro | 37.4 | 86.3 | 9.1 | 45 | 7.1 |
| **Total** | 42.1 | 76 | 7.9 | 44.1 | 8.3 |

In Aging and Disability: Implications for Housing Industry and Housing Policy in the United States, published by the Journal of the American Planning Association, researchers Smith, Rayon, and Smith estimate that there is a 60 percent probability that a newly built single-family detached unit will house at least one disabled resident during its expected lifetime.[41] Massachusetts has an old housing stock, commonly with two-floor living and other physical barriers that pose problems for people with limited mobility. The state's existing housing stock will not be equipped to handle the rise in disabled residents. To address these changing demographics, eight states have adopted visitability policies that apply to new single-family home construction. Thanks to the leadership of State Senator Pat Jahlen, Massachusetts recently created a Special Commission to study Visitability legislation and make recommendations to the State Senate (Senate Bill 1787 adopted in 2013). Universal design is another way municipalities can increase accessible housing. The state also has a generous zero-interest Home Modification Loan program for homeowners (up to 125% of Median income) and a 3% loan for landlords which loans up to $30,000 and serves only about 200 eligible households annually.[42] Despite these efforts by the state, simply correcting the physical accessibility features of the home through policy changes like "Visitability" legislation is necessary but not sufficient to address the need for a larger formal caregiving workforce and all of the physical and emotion needs of the Baby Boomers. Service-enriched housing, intentionally designed can allow for increased frequency of connections within the community as well as reduce fall risks.

With so many of America's seniors facing these challenges today and Baby Boomers seeing what lies on the horizon, what are their service-enriched housing options? Chapter 3 begins with a review of research outcomes that have demonstrated cost savings for programs that integrate LTSS services in subsidized housing which not only policymakers and businesses will find compelling but also will illustrate options for seniors seeking further confirmation that service-enriched housing is a preferred solution to both the challenges they face and the opportunities for an enriching life that may be available. It continues with an overview of a senior's options given the landscape of LTSS providers and programs as well as senior housing developers and service-enriched housing products. This overview will set the stage for understanding the categories of housing and LTSS programs referenced in the housing demand and supply methodology.

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# Chapter 3:
## Aligning the Complex Landscapes of Service-Enriched Housing and LTSS Programs in Massachusetts

Starting with the foundation from Chapter 2 that service-enriched housing can serve as a platform to address the four key challenges that seniors face and improve health outcomes as well as increase seniors' financial resources, Chapter 3 considers the interests of the key housing and LTSS stakeholders. These public and private stakeholders are interested in expanding access to service-enriched housing not only to address the challenges for seniors but also the potential for shared cost savings.

Chapter 3 begins with an overview of the relevant research outcomes that demonstrate both positive health outcomes for seniors as well as healthcare savings from service-enriched housing to make the case that grappling with the complexities of the two sectors and moving toward greater integration is worthwhile for seniors, the sustainability of these sectors and the government's overall budget and national Gross Domestic Product (GDP). The chapter continues with overviews of the Long Term Support Services (LTSS) and Service Enriched Housing landscapes in Metro Boston. It concludes with a synthesis of the current options available to seniors in service-enriched housing today. In order to simplify this complexity, three "options charts" are created for housing, LTSS as well as a third chart that combines the two sectors specific to the Metro Boston study region. These options charts inform the methodological approach to categorizing the housing supply as well as the demand for senior housing in Chapter 4 by using Housing and LTSS program income eligibility requirements.

### Aligning Interests

Alana Semuels in her article in The Atlantic poses the question, "Should Obamacare help pay for housing-based services?"[1] Semuels' article focuses on the homeless population but this question also rings true for LTSS services for seniors (who might also become homeless due to care needs or "spend down" to receive institutional care). State Medicaid programs, like MassHealth, are concerned that offering publicly financed long-term care options to more residents would lead to an increased aggregate utilization rate and a greater financial burden, even though there is a reduced per-patient cost.[2] And yet, maintaining the status quo in Medicaid services and limiting the care coordination to Medicare and Medicaid without any involvement from housing providers is not the answer given the projected growth in demand for LTSS and the state's financial exposure. According to a report from the Centers for Medicare and Medicaid Services (CMS) in 2011, 1 in 4 hospitalizations of duals (seniors who are eligible for both Medicare and Medicaid), accounting for 20% of inpatient spending, were potentially avoidable.[3]

This is not just an issue that affects low-income seniors. There is a widespread misconception among many seniors that believe Medicare will cover their LTSS needs. However, Medicare

only covers LTSS needs for up to 100 days. When those 100 days run out, seniors are left to find informal care, private pay, use long-term care insurance or spend their personal income and reduce their assets to become eligible for Medicaid. The middle class is the silent face of Medicaid. When LTSS needs arise, moderate-income seniors realize increased LTSS costs that often result in housing cost burdens with no LTSS national insurance or subsidy programs to provide relief to this cohort.

Finding a path forward to LTSS reform and cost containment strategies is challenging because the incentives for potential savings for the federal government and state government don't align. Medicare savings are not realized by the state or the housing providers, but rather exclusively by the federal government. In Massachusetts in FY 2014, 51% of Medicaid funding came from the federal government and 49% of funding came from the state.[4] The minimum federal contribution is 50% and the wealthier states receive the lowest federal contributions so the state of Massachusetts will not likely receive any additional federal funds and will seek to realize savings through their proportional contribution. According to Jung et. al neither the federal government nor the state government is fully accountable for the care needs of the dual eligibles so there are incentives between the two parties to shift costs between Medicare and Medicaid. Duals rely on both Medicare physician services and Medicaid LTSS services.[5] A reduction in the use of health care services (ER visits or hospital stays) results in a savings to Medicare (federal government) while avoidance of transfer to an institutional setting for care (i.e. nursing home) results in a savings to Medicaid (state government).[6]

Today, the housing providers, who have the platform to create the service-enriched environment are not directly involved with the provision of LTSS services nor do they have access to the resources to coordinate the availability of these services so often they do not reap the benefits from any cost savings associated with their efforts to reinvest in services or in the construction of additional housing. This chapter provides the context for these constraints, which can be reformed in the future as will be further described in Chapter 6.

## Proven Benefits of Service-Enriched Housing

There is numerous research on the general positive outcomes associated with stable and affordable housing (i.e. social determinants of health), but there is minimal empirical research that has monetized the health benefits associated with service enriched affordable housing programs and compared these savings to the cost of the programs. Among the studies that have been conducted which have demonstrated costs savings and positive outcomes, four studies are briefly described below:

> **Study #1:** A policy brief on Housing and Health Care from the National Housing Conference (NHC) cites a study comparing the cost-effectiveness for states with Home and Community Based Services (HCBS) waivers versus those states without HCBS waivers and finds that the average public expenditure savings was $43,947 per participant.[7]

Despite this promising finding, the National Housing Conference policy brief suggests two overall caveats to the results of these studies. The first is that the studies do not "address the 'woodwork' effect, that is, the effect of leading more people to use health care services by offering long-term care in home and/or community based settings. Second, most studies fail to include the costs of housing when comparing the costs of HCBS to institutional long-term care which actually leads these services to be more expensive than they appear with just program costs.[8] More research is needed on total actual "all-in" costs to validate this claim as well as factor in the risk of homelessness (and associated shelter costs, an entitlement program in Massachusetts) for low- and moderate income seniors who are forced to make the trade-off between housing, food, LTSS and other needs.

> **Study #2:** A Leading Age study in 2015 on the Support and Services at Home (SASH) program in Vermont, which provides care coordination through offering a housing-based SASH resident services coordinator and a wellness nurse found that the annual growth in Medicare expenditures was $1,756 to $2,197 lower than for the study comparison groups.[9]
>
> **Study #3**: A LeadingAge study in 2015 on resident service coordinators shows that they are linked with an 18% reduction in resident hospitalizations saving significant Medicare dollars. This study analyzed health care utilization among 8,700 older adults in 507 different subsidized properties with a median age of 80 years old and 56% of whom were dual eligible.[10]

In addition to the services of a wellness nurse, both LeadingAge studies examined the role of Resident Service Coordination, which is not commonly considered part of the LTSS continuum. This is partially due to the fact that resident service coordination is only available in subsidized housing and is paid for by the national Department of Housing and Urban Development (HUD) or the housing provider through fundraising and other sources. Resident service coordinators provide information and referrals, not "hands-on" care although this added service is increasingly raised as a future option by housing providers and researchers, particular the possibility of using nurses to teach unlicensed personnel to assist with medication administration. According to Howard Klink, the project director of a demonstration project at Cedar Sinai Park in Portland, OR, "The trending data are clear: Whether you call it a silver tsunami or just a lack of affordable housing, if you want people to age in place and have good outcomes, you have to step up the service model. That means a greater coordination function, with additional services to address high-need problems. We believe the resident service coordinators and the enhanced coordination are bending the cost curve.[11]

> **Study #4:** A "Health in Housing" study by Enterprise and CORE of 145 service-enriched properties in Oregon had the following outcomes for their seniors and people with disabilities population

(SPD) cohort:[12]

- Total Medicaid expenditures declined by 16%, outpatient primary care utilization increased by 19% the year after moving in while ED use fell by 18% and inpatient use fell by 14%.
- The availability of integrated health services to housing residents was a key driver behind lower costs and fewer emergency department visits.
- Prior to move in SPD residents averaged $525 per month in total health care expenditures; for the year after, SPD residents averaged $441 per month, a $84/ month decrease, $1,008 decrease per year or approximately 16%. Across the study group of n=431, there was a total one year savings of $434,000.
- 42% of SPD reported that their access to care improved after moving into affordable housing.
- All else being equal, clients at properties with integrated social workers and CHWs saw increased total expenditures. These were not ED costs so the data may represent that social workers and CHWs help connect residents to necessary health care services, thereby improving access.
- All else being equal, clients at properties with integrated health resources had significantly reduced ED use and expenditures after moving into affordable housing.

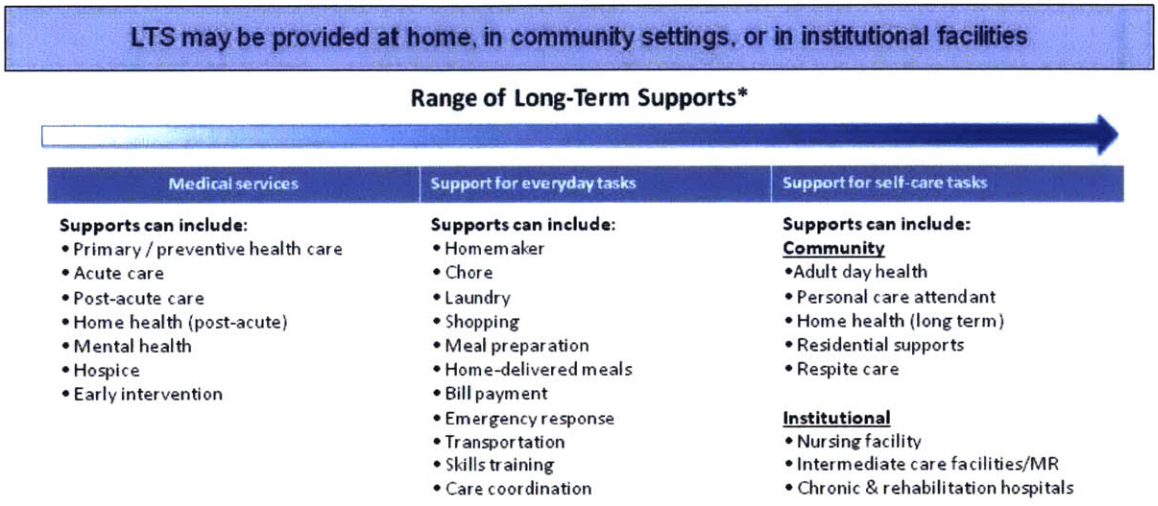
As the studies above demonstrate, when housing and LTSS providers partner in service-enriched housing, it is possible to achieve both improved health outcomes and cost savings in both Medicare and Medicaid. These promising results merit further research and documentation of the cost savings for service-enriched housing as compared to institutional care. More importantly, they suggest that efforts to understand and align interests and incentives between housing and LTSS providers will likely result in improved health outcomes and cost savings that could be tracked and distributed among all parties. The next sections turn to overviews of the LTSS and housing providers and payers in order to understand their interests and incentives in the context of their financing and regulatory environments.

**Overview of the Long Term Support Services (LTSS) Sector**

The LTSS landscape is complex, with federal, state and private business interests involved as well numerous state agencies that operate LTSS programs. This section will review the payers and funding sources, LTSS costs, LTSS reform strategies and LTSS programs.

Long Term Services and Supports (LTSS) also known as long term care, have historically been referred to by what they are not. They are not acute care nor are they primary medical care. LTSS includes a range of services that people with disabilities and chronic conditions use to meet their personal care and daily routine needs in order to promote independence as shown in Figure 3-1. LTSS is the care provided when medical or rehabilitative goals are no longer achievable.

Figure 3-1

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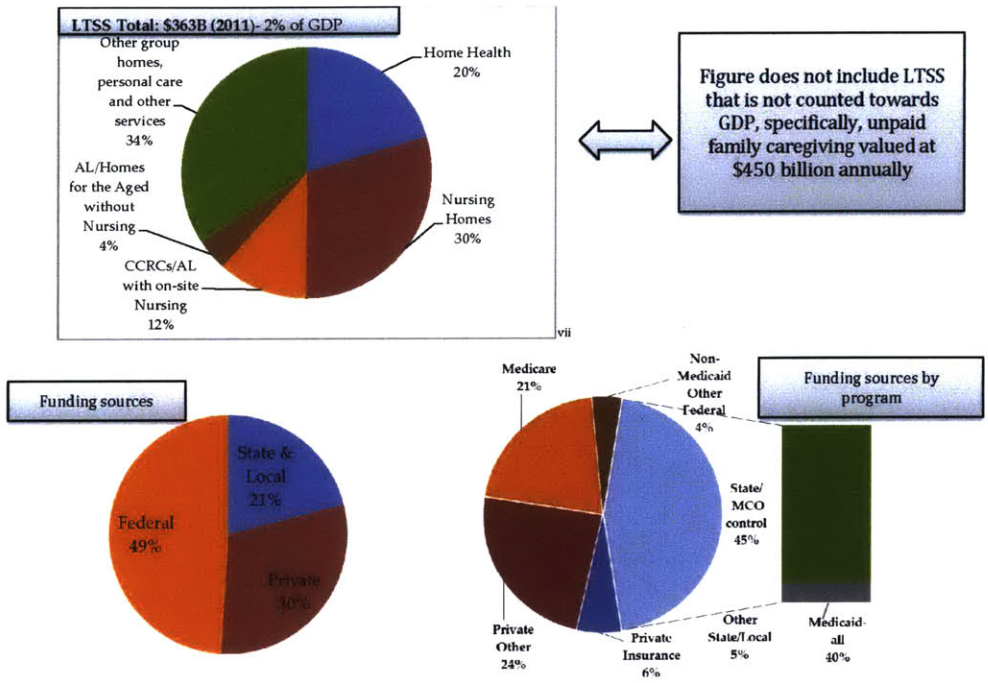
## LTSS Federal Funding and LTSS Informal Costs

According to Congressional Budget Office estimates, as the number of informal caregivers decreases, GDP spending on formal LTSS services is expected to increase from 2% to 3.2% in 2038.[14] The anticipated rise in GDP will fall squarely on the federal government, which is the principal payer of LTSS and will potentially crowd out spending on other national priorities including education and infrastructure. Today, the total cost of informal caregiving ($450 Billion) exceeded the total costs of formal caregiving ($363 Billion) in 2011. Almost half (49%) of the funding for formal caregiving LTSS comes from the federal government but it is delivered principally through state/Managed Care Organization controlled programs (45%). Private pay funds just 30% of the services. Nursing homes make up 30% of LTSS spending, with Assisted Living and Continuing Care Retirement Communities (CCRCs) making up just 16% of spending. According to the report, "with the aging of the American population, the costs of LTSS are expected to grow, doubling in little over ten years (2025) and multiplying five times by 2045."[15]

Figure 3-2

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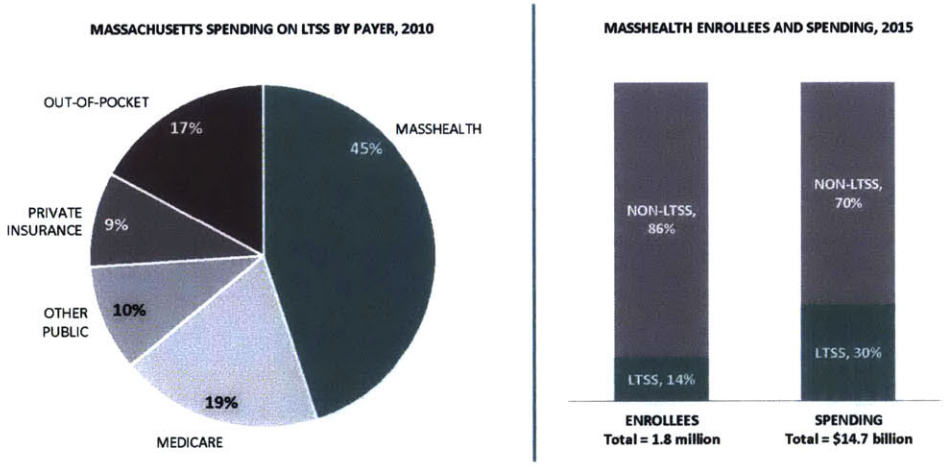
The total cost of formal caregiving to the national economy could be even higher. The annual wages for Personal Care Aides (PCAs) and Home Health Aides (HHAs) are low. According to Ai-Jen Poo, the author of The Age of Dignity, the current formal care workforce is approximately 3 million strong but will need an additional 1.8 million workers to satisfy growing demand.[17] Massachusetts, like the rest of the nation will struggle to achieve an adequate supply of formal and informal caregivers. The average wages for Personal Care Aides (PCAs) and Home Health Aides (HHAs) are less than $27,000 in Massachusetts, and yet the number of jobs that will be needed is expected to increase by 70% in the next five years. Massachusetts is taking steps to address this workforce issue through increasing hourly wages. The Massachusetts legislature voted to increase the hourly wages of PCAs and HHAs to $15 per hour by 2018 and a $0.30 increase went into effect on July 1, 2015 raising wages to $13.68 per hour.

## LTSS Spending and Funding Sources in Massachusetts

Since Medicare is a national program while Medicaid is partially funded by the state through a formula program, in Massachusetts, the state's exposure to growth in LTSS utilization is significant. In 2015, 12% of the entire state budget, or about $4.5 billion went to MassHealth

for LTSS. Among MassHealth enrollees, in 2015, 30% of spending went to LTSS even though only 14% of MassHealth enrollees required these services.18 The LTSS payer breakdown in Massachusetts is different from the national picture. In Massachusetts, 17% of LTSS users pay out-of-pocket and 9% use private insurance. The state government through Medicare (19%) and MassHealth (45%) picks up the tab for 64% of LTSS users (Figure 3-3).

**Figure 3-3**

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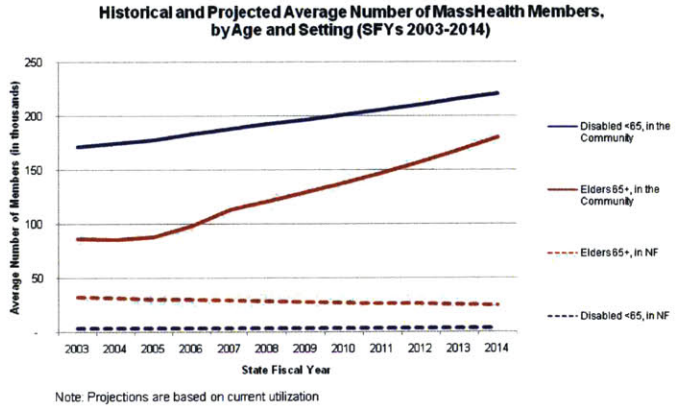
The elderly constitute roughly 45% of MassHealth LTSS users. A 2009 report from UMass Medical School depicts the growth rate of the 55+ MassHealth (Medicaid) population expected to reside in the community, which is where the MassHealth funds will be spent in the future rather than in an institutional setting (Figure 3-4). Cost containment is a major issue for the state, both in the home and community based setting as well as the institutional setting.

**Figure 3-4**




Note: Projections are based on current utilization

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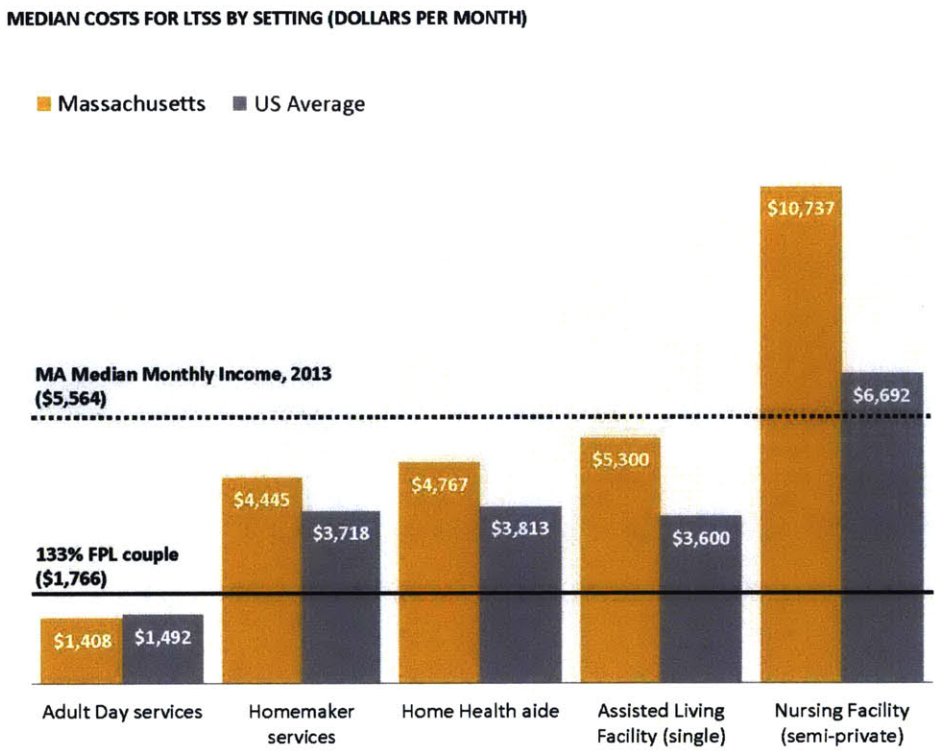
The numbers are not only daunting at the macroeconomic level but at the microeconomic level: LTSS services are very expensive for a senior's household budget. The costs for LTSS programs in Massachusetts are higher, across the care setting, than costs nationally. In Figure 3-5, the median private pay monthly costs in Massachusetts for home and community based services are Adult Day Services ($1,408), Homemaker Services ($4,445), Home Health Aides ($4,767) and Assisted Living ($5,300). All of these costs are significantly less than a semi-private room at a Nursing Facility ($10,737).

**Figure 3-5**

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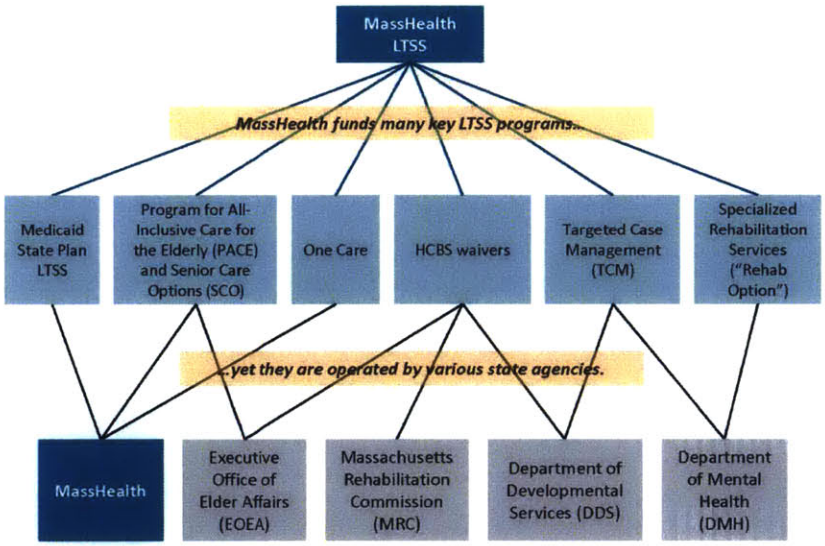
## LTSS Regulation in Massachusetts

Unfortunately, paying for LTSS is only part of the challenge. Navigating the web of eligibility requirements, agencies and programs is extremely challenging. Multiple agencies in Massachusetts operate and regulate LTSS programs including MassHealth, the Executive Office of Elder Affairs (EOEA), the Massachusetts Rehabilitation Commission (MRC), the

Department of Development Services (DDS) and the Department of Mental Health (DMH). Carol Raphael, of Manatt Health Solutions created the graphic in Figure 3-6 to outline this web of overlapping administering agencies and LTSS programs.

**Figure 3-6**

Multiple agencies in Massachusetts administer MassHealth-funded LTSS programs.




SOURCE: Massachusetts Executive Office of Health and Human Services (EOHHS).

Newly appointed Secretary of the Executive Office of Elder Affairs, Alice Bonner convened a working group in the fall of 2015 to continue to work towards comprehensive solutions for LTSS. This labyrinth is not only a challenge for the consumer but also for housing providers who are seeking to partner with LTSS payers and providers.

## LTSS Reform Strategies

With high costs and exposure for the federal government, state government and seniors' budgets, LTSS reform strategies have been undertaken with varied success. In addition, there are efforts underway for health care insurance companies to create Accountable Care Organizations (ACOs), which result in savings to Medicare through reduced hospitalizations and rehospitalizations through capitated payments and other strategies. These initiatives are beyond the scope of this study.

## Federal LTSS Reform Strategies

Federal LTSS reform was repealed almost as soon as it was passed as part of the Affordable

Care Act. Middle-income and low-income seniors are the silent face of the Medicaid population spending down to Medicaid eligibility levels just to get LTSS services.[22] The way that the LTSS system is currently structured leaves the middle class in a challenging position- too poor to private pay and too asset and income rich to qualify for public programs. Given the three limited options above, there are many seniors who make more than $27,000 but are left with an unmet need for LTSS services because they cannot afford to private pay.

Policymakers recognized that reform was needed to bolster the formal caregiving workforce as well as payment (insurance and reimbursement) structures. The Affordable Care Act attempted to reform LTSS payment through Title VIII, The Community Living Assistance Services and Support Act (CLASS Act), but it was repealed. Before 2005, the Centers for Medicare and Medicaid (CMS) only allowed state Medicaid programs to reimburse comprehensive LTSS in institutional settings such as nursing homes and only two home-based options for LTSS. The CLASS Act was meant to create a new LTSS solution for the non-Medicaid eligible population. Medicare only covers up to 100 days of care in a skilled nursing facility per episode of illness while Medicaid covers nursing facility and home health care, including LTSS, for individuals age 21+. Medicaid, overseen by the Centers for Medicare and Medicaid (CMS) is jointly funded by states and the federal government. The program varies across states with minimum thresholds in eligibility standards, type, amount, duration and scope of services and rates of payment.

The CLASS act was structured as a voluntary long-term public insurance program and it was repealed since it could not be self-sustaining due to adverse selection/moral hazard.[23] The idea was that working adults would pay into the system and after a minimum of five years they would be able to receive cash benefits of at least $50 per day, which given 2016 costs in Massachusetts would be approximately 2.0 hours of care from a Personal Care Attendant or a Home Health Aide per day (and equivalent to the minimum number of PCA care hours required by the Massachusetts state nursing home regulations24). There is still no national solution for the provision of LTSS to seniors who aren't Medicaid eligible other than long-term care insurance and private pay.

While the CLASS act focused on reforming LTSS payment structures for the *Medicare* population, reform for the dual eligible *Medicaid* population is also needed to achieve cost savings and lessen the burden on taxpayers. The dual-eligibles are the elderly and disabled whose income is below 100% of the federal poverty level. For example, the dual eligibles were only about 15% of enrollees in 2009 but used about 40% of all Medicaid dollars and 36% of Medicare dollars.[25] Only ½ of the older adult Medicaid population receives LTSS but their costs account for almost 90% of all Medicaid spending on seniors. [26]

**State LTSS Reform Strategies Strategies**

In the past, the majority of the state's seniors with long term care needs lived in long-term care facilities (i.e. nursing homes). Massachusetts shifted away from institutional care (i.e. nursing homes) for both legal and economic reasons based on the higher costs of institutional care. The state's 2008 Community First Olmstead Plan laid out a framework and policy agenda

to increase home and community-based LTSS waiver programs. Olmstead is a federal court ruling that requires states to provide services to people with disabilities in the most integrated setting appropriate to their needs. The framework to achieve this goal includes transitioning people from institutional care, expanding access to community-based LTSS and improving the quality, capacity and awareness of community-based LTSS.[27]

This shift is particularly important for Massachusetts because nursing facility care is a state entitlement program, which is made available to all seniors who meet the financial and frailty requirements, but home care is not a right.[28] Nationally, Massachusetts ranks 9th in the percent of Medicaid spending on home and community based waivers. MassHealth is moving in the right direction, from 2012 to 2015, MassHealth FFS (fee for service) community services increased 26.5% to $8,000 per person and spending on FFS institutional services dropped 2.3% to $31,000 per person.[29] Yet, the state still has a long way to go to reduce their average use of institutional care (40.6 beds per 1,000 elders) to match the national average (28.1 beds per 1,000 elders) and further develop robust home and community based services options.[30]

**LTSS Programs: Federal Programs**

Massachusetts supports the operations of the following housing-based LTSS programs: MassHealth's Group Adult Foster Care (GAFC) combined with SSI-G (a voucher for assisted living room and board), Home and Community Based Services demonstration waivers and the Program for All-Inclusive Care for the Elderly (PACE).[31] In all cases, to qualify, seniors must be nursing home eligible and make no more than 300% of the Supplemental Security Income limit, which was $26,388 in 2015. Many assisted living providers accept GAFC, MFP and PACE. Two of the Massachusetts PACE centers are co-located with supportive housing.[32] A 2003 survey by the National PACE Association found that at least 32% of the PACE providers were co-located with senior housing and nearly 45% indicated future involvement with senior housing in their plans for growth.[33] Benefits to co-location include easy access to adult day services, decreased transportation costs due to on-site services and coordinated care planning sessions with housing providers.[34] Studies that have looked at housing and PACE center partnerships have shown that it slowed decline in health status, reduced hospitalizations secondary to chronic conditions and improved quality of life.[35]

*Group Adult Foster Care (GAFC):* A program providing daily assistance with ADLs and IADLs and case management oversight by the provider in an Assisted Living Residence or some type of elderly/disabled housing complex. In MA, the EOEA provides approximately $1,200 per month for personal care services for MassHealth (Medicaid) eligible residents. If applying for GAFC in Assisted Living, the SSI-G living arrangement through the Social Security Administration may be an option.

*Supplemental Security Income Assisted Living Benefit (SSI-G):* This federal Income supplement program is designed to help disabled people with little or no income obtain a minimum standard of living. SSI-G beneficiaries use the benefit to "buy" room and board in assisted living. Individuals must live in a state certified assisted living community, be clinically eligible for and participate in Group Adult Foster Care (GAFC), have qualified countable

monthly income and have assets less than $2,000 or $3,000 for a couple.

*Programs of All Inclusive Care for the Elderly (PACE):* PACE is a jointly-funded Medicare and Medicaid program that helps people ages 55 and older meet their health care needs in the community instead of going to a nursing home or other care facility. All participants must be certified to need nursing home care to enroll in a PACE. PACE provides the entire continuum of care. The PACE center has healthcare, recreational activities and provides meals. The goal is to keep the resident in the community and prevent/delay nursing home admission. Seniors do not need to be on MassHealth to enroll in PACE but must be located in a geographic area that a particular PACE center covers. Seniors must agree to receive health services exclusively through the PACE organization. Covered services include meal delivery, transportation, adult day health, social services, prescriptions, hospitalizations and if necessary nursing facility placement. Seniors' countable income must not be greater than 300% of the federal benefit rate. Countable assets must not be greater than $2,000. If seniors qualify for Medicaid, there is no fee for PACE. Seniors can private pay for PACE. Spouse's income and assets are not counted. Note: this is NOT a waiver program. In Massachusetts, PACE programs are referred to as the Elder Service Plan. PACE Centers in MA: Elder Service Plan of Cambridge Health Alliance, Elder Service Plan of East Boston, Element Care, Fallon Health-Summit ElderCare, Elder Service Plan of Harbor Health Services, and Upham's Elder Service Plan.

**Home and Community Based Waivers (HCBS) available in Massachusetts:**

*Section 1115 Research and Demonstration Projects:* These waivers are used for demonstration projects that require greater flexibility in eligibility rules and services. They typically have a five year timeline and may receive three year extensions. The demonstration must be budget neutral. The demonstration waiver eliminates the need to provide comparable services statewide.

*Section 1915c (Home and Community Based Services Waiver):* Before 2005, Medicaid could only reimburse comprehensive long-term care in institutional settings. Today, this waiver allows states to offer medical and supportive services (such as case management, homemaker, nonmedical transportation, social day care and expansive personal care assistance) to Medicaid enrollees who require institutional-level/nursing home level care in their homes or a senior living community or location designated by the provider. The program must be budget neutral. States are allowed to limit geographies where services are available. MassHealth eligibility is determined without counting the income and assets of the other spouse. Massachusetts operates one large waiver serving adults aged 60 and over who meet a nursing facility level of care.

**Massachusetts State Programs:**

Massachusetts has been a leader in the creation of innovative public models to support the availability and evolution of LTSS for low-income seniors. The Massachusetts-specific programs are:

*Aging Service Access Points (ASAPs)* are a network of 27 private, not-for-profit home care

corporations in Massachusetts. The ASAPs are set up geographically, with each one serving a defined geographical region. The ASAP program is governed by 651 CMR 3.00. The ASAPs participate in the Home and Community Based Waiver (HCBS) program. The goal of the ASAP system is to provide frail elders with services, which will enable them to live independently with dignity and comfort in their own homes, preventing or postponing the need for institutional care. The core service of the ASAP is case management where the ASAP employee assists the seniors with enrolling in the program, identifies the vendor who will provide the care and tracks the amount of care used. The actual services to the care recipient are provided directly by the ASAP or by a contract with vendors. In order to receive services through the ASAP program, elders must meet certain clinical and income guidelines.[36]

*The Community Choices* program was jointly developed by EOEA and the Office of Medical Assistance. The goal is to save the state money by providing a cost effective service plan through case management and care coordination to assist eligible elders in remaining in the community and avoiding or postponing nursing home placement.[37]

*The Enhanced Community Options Program (ECOP)* was developed through an agreement with the Office of Elder Affairs and Office of Medicaid to provide services to frail elders that are at risk of nursing facility placement, but may not be MassHealth eligible. This program receives additional funding from both offices that is separate from the State Home Care reimbursement rate through the Office of Elder Affairs. There are a limited number of these slots. The additional funding allows the ASAPs to provide enhanced service plans to these frail elders to assist in preventing or postponing nursing facility placement. The reimbursement rate for ECOP services is adjusted annually.[38]

*Home Care:* The EOEA provides home care services to 45,000 elders each month. Participants must be 60+ and/or have a diagnosis of Alzheimer's disease and they must also be in need of respite services. MassHealth members are financially eligible, Income guidelines require Annual Gross Income less than $27,014 (single). Monthly co-payments range from $9-$130. ASAPs provide interdisciplinary case management and contract with agencies to provide the following services: homemaker, supportive day care, adult day health, supportive home care aide, laundry service, personal emergency response, adaptive housing, adaptive equipment, companion care, medication dispensing, personal care, dementia day care, home health services, home delivered meals, emergency shelter, transportation, grocery shopping, chores, wanderer locator, vision, and rehabilitation.

*Senior Care Options program (SCO)* is a CMS voluntary demonstration created in 2004 for the dual eligible population in Massachusetts. The goal of the SCO is to examine the benefit of integrated managed care (Medicare + Medicaid) under a single entity for the dual eligible population. According to Jung et al., the SCO is one of the first CMS initiatives to advance the PACE model, which also integrates Medicare and Medicaid. The SCO program uses an interdisciplinary team with primary and preventative geriatric-specific expertise. The state contracts with qualified managed care plans on a capitated basis to provide the benefits to the enrollee. SCO services are based in geographic areas and are available for community-based care and nursing home care.

*Supportive Senior Housing Program & Public Housing:* Developed jointly by DHCD and

EOEA in early 1999, it is available in 20% of Massachusetts's senior and disabled-occupied public housing stock (5,985 units).[39] The program serves seniors in 39 communities at a cost of about $140,000 per community. The program provides supportive services such as case management, 24-hour on site personal care staff, housekeeping, a daily meals program, structured social activities, medication reminders, transportation, shopping and laundry service. EOEA contracts with ASAPs for case management and the actual services are provided by agencies under contract with the ASAP. According to Tufts Health Plan data, 68% of the dual eligible population in Massachusetts lives in subsidized housing. Just 5% of the dual eligible live at home.[40] This integration of housing and health care purposefully targets the dual eligible population where they are living to provide a higher level of care at scale.

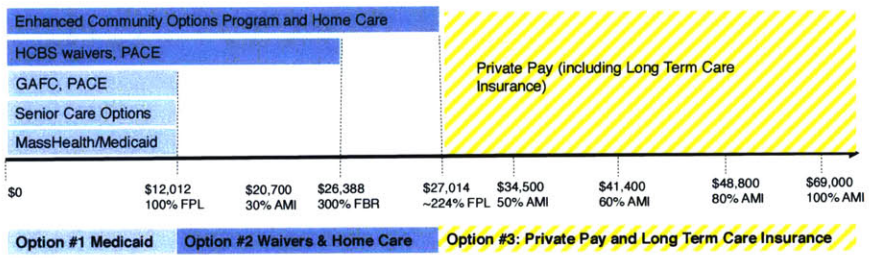
## LTSS Options in Greater Boston

With the informal caregiving workforce no longer a sustainable solution, and expensive out of pocket costs for LTSS services, what are the payment options for a senior living in service-enriched housing in the study region to receive these necessary LTSS services to improve their health outcomes and secondarily, achieve cost savings? Figure 3-7 describes the income limits for each of the three main options and their associated programs. Note that PACE is available to seniors on MassHealth, up to 300% of the Federal Benefit Rate and is also available for Private Pay but that is not shown on the chart below.

**Figure 3-7**

Long Term Support Services (LTSS) Program Options, Single Individual

Boston-Cambridge-Quincy Metropolitan Statistical Area 2015




FBR= SSI Federal Benefit Rate set by the Social Security Administration ($2,000 asset limit)
FPL= Federal Poverty Limit set by the Federal Department of Health and Human Services (HHS) ($2,000 asset limit)
AMI = Area Median Income set by the Federal Department of Housing and Urban Development (HUD)

## Option #1: Medicaid

With such high costs for LTSS, even in the home and community based setting, the incentive to "spend down" is obvious but it is a very tough compromise because the income and asset eligibility requirements for MassHealth LTSS programs are very low. In order to qualify for MassHealth, seniors must satisfy both asset and income tests as well as a frailty assessment. The asset limit for a senior who was single in 2015 was just $2,000 and $3,000

for a couple.[41] The income limit was 100% of the Federal Poverty Level. These seniors who receive both Medicaid and Medicare are known as the dual eligible population. The other funding option available to seniors who are dual eligible is to enroll in the Senior Care Options program (SCO), Group Adult Foster Care (GAFC) paired with the SSI-G living benefit or alternatively the Program for All Inclusive Care for the Elderly (PACE) program which offers a sliding scale fee. In essence, this population must become impoverished to receive the care that they need.

**Option #2: Home and Community Based Services waivers (HCBS)**

For seniors who have spent down their assets but have incomes above MassHealth, a Home and Community Services waiver, Enhanced Community Option Program (ECOP) and receiving Home Care through the Aging Services Access Points (ASAP) are other options. The income limit to qualify for a HCBS waiver is no more than 300% of the SSI Federal Benefit Rate $26,388 annually in 2015 or $27,015 for the Home Care program. These seniors are still subject to the same asset limits of $2,000 for a single person or $3,000 for a couple as well as a frailty assessment.

**Option #3: Private Pay and Long Term Care Insurance**

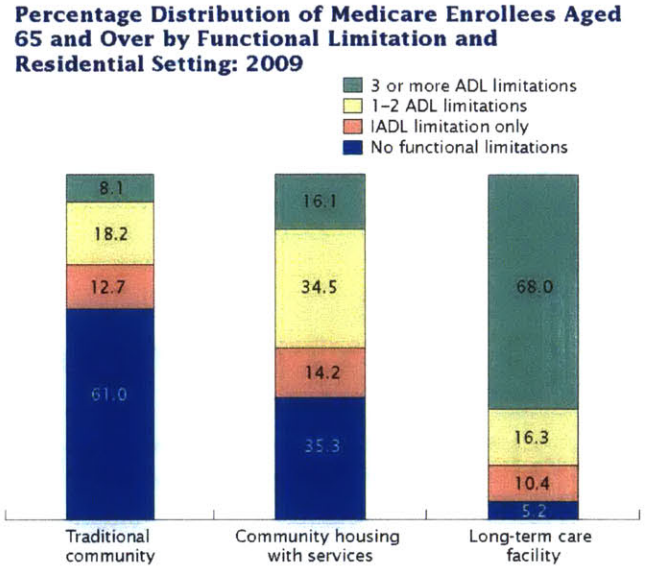
For those seniors that make above $27,014 per year, there are only two options: to private pay for LTSS care or to purchase long-term care insurance. The adoption rate of long-term care insurance is a bit higher in Massachusetts than it is nationally. According to a poll conducted by the Harvard T.H. Chan School of Public Health and the BCBS Foundation in July 2015, 15% of all Massachusetts residents age 65 or older report having long-term care insurance although 73% have heard of long term care insurance. Of the individuals that purchased long term care insurance, 18% of this group is higher income seniors (≥ $50,000/year) and 4% are lower-income seniors (≤ $25,000/year). Among those who have heard of long term care insurance, 57% cite cost as the main barrier to purchasing a plan while 35% do not believe it is needed.[42] If cost is an issue today, it will be exacerbated in the future as seniors are expected to need more care, with fewer informal caregiving resources and constrained income and retirement savings.

Given the following challenges described in this section including:

- Federal and State government facing growing LTSS costs
- Fewer projected informal caregivers
- Limited alternatives to "spending down" for MassHealth eligibility, low Long Term Care Insurance usage and no national LTSS insurance or payment program
- A spider web of state agencies and regulations
- Spending on LTSS services projected to occur in home and community based settings

...the roadmap to a sustainable, affordable and innovative LTSS services, is in service-enriched housing which can accommodate, but not require, a range of frailty needs. There is a precedent for accommodating this frailty range in service-enriched housing. In 2012, a study by the Federal Interagency Forum on Aging-Related Statistics identified the distribution of Medicare enrollees with functional limitation across residential settings and found that the "Community housing with services" setting (Figure 3-8) is already serving the most complex mix of frail and non-frail elders.

**Figure 3-8**

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With a basic understanding of the LTSS landscape and stakeholder interests, the next section introduces the landscape of housing typologies, housing developers, financing, regulations and options available to seniors across the LTSS spectrum of needs and affordability.

## Types of Service-Enriched Senior Housing

The service-enriched housing typologies in the chart above vary greatly due to financing, affordability, services available and regulations. Charles Wu and Joseph Beyer, of Harvard Business School, created a matrix of the senior housing options. Figure 3-10 is adapted from their case study to include a greater emphasis on LTSS and the State regulatory agencies. The chart is organized from the left *Independencwe* ("Lifestyle Drivers" and Elastic Demand) to the right *Acuity Level* ("Needs Based" and Inelastic Demand).[1] Detailed definitions of each of the Senior Housing Types follow.

Figure 3-10

**Comparison of Senior Housing Types[2]**

| | Seniors Apartments | Independent Living | Assisted Living | Memory Care | Skilled Nursing |
|---|---|---|---|---|---|
| **Decision to Move** | Lifestyle Driven | Lifestyle Driven | Needs Driven | Needs Driven | Needs Driven |
| **Target Market** | Active 55-65 years old | Active 65-80 years old | Targets age 75 but average move-in age is mid 80s | Decision based on care need | Decision based on care need |
| **Meals** | No | Depends- Often one meal | Three meals | Three Meals | Three meals |
| **LTSS services available** | No, Only Resident Service Coordination in subsidized properties, Third party agencies available. | No, Only Resident Service Coordination in subsidized properties, Third party agencies available. | Yes, assistance with Activities of Daily Living and Self-Administered Medication | Yes, assistance with Activities of Daily Living and Self-Administered Medication | All healthcare services available |
| **Housing subsidies available?** | Yes, Section 202, LIHTC or vouchers | Yes, Section 202, LIHTC or vouchers | Yes, SSI-G | Yes, SSI-G | Private Pay or Medicaid |
| **LTSS subsidy available?** | No | No | Yes, Home and Community Based waviers (HCBS) or Group Adult Foster Care (GAFC) | Yes, Home and Community Based waviers (HCBS) or Group Adult Foster Care (GAFC) | Yes, Medicaid |
| **Regulating Agencies** | Principally DHCD | Principally DHCD | EOEA, MassHealth, MRC, DMH, DDS | EOEA, MassHealth, MRC, DMH, DDS | EOEA, MassHealth, MRC, DMH, DDS |

*Independence ("Lifestyle")*
*Elastic Demand*

*Acuity Level ("Needs Based")*
*Inelastic Demand*

*Senior Apartments:* This is age-restricted multi-family housing units which are different from Independent Living because they are not amenity-rich (meals, housekeeping, activities). Both types of housing do not provide any personal care and are regulated and operated as conventional housing. Many of these senior apartments are available with subsidies through the Section 202 program, described later. Most subsidized properties, but not all, include a Resident Services Coordinator on staff. The Resident Services Coordinator is typically paid for through a HUD grant. Senior apartments are regulated as traditional multi-family housing principally by the Massachusetts Department of Housing and Community Development (DHCD).

*Independent living (IL):* Commonly provide apartments, but sometimes cottages, condos or townhomes. The residents are seniors who do not require assistance with daily activities of 24/7 skilled nursing but may benefit from convenient services, senior-friendly surroundings and increased social opportunities. Many communities offer dining services, basic housekeeping and laundry services, transportation, emergency alert systems, live-in managers and amenities like pools, spas and onsite beauty salons. They do not provide assistance with ADLs or health care. Residents are permitted to use third-party home health care services to meet additional needs. Independent Living apartments are regulated as traditional multi-family housing principally by the Massachusetts Department of Housing and Community Development (DHCD).

*Assisted living (AL):* Assisted Living facilities usually offer private apartments in larger, corporately owned facilities with different fee options depending on the level of care needed. Assisted Living is not a medical model so these properties have more restrictions on administration of medications. For example, under the Self-Administered Medication Management regulations, personal care staff may only assist residents with taking medication using reminders or helping to open bottles or other containers. Some AL facilities offer "Limited Medication Administration" which permits a nurse to administer eye drops, apply medicated cream, place pills in a resident's mouth. The Massachusetts Executive Office of Elder Affairs (EOEA) regulates assisted living facilities along with other agencies including MassHealth, the Massachusetts Rehabilitation Commission (MRC), The Department of Developmental Services (DDS) and the Department of Mental Health (DMH).

Similar Publicly Funded Model to Assisted Living:

*Congregate Housing Program:* Created by the US Department of Housing and Urban Development (HUD), it is a shared living environment designed to integrate housing and supportive service needs of frail elders and younger disabled individuals. It is neither a nursing home nor a medical care facility. It does not offer 24 hour care. Assistance with ADLs are made available in a supportive, not custodial environment. Each resident has a private bedroom but shared kitchen, dining and/or bathing facilities. A resident service coordinator (RSC) is employed and spends time on-site. The Massachusetts Executive Office of Elder Affairs (EOEA) regulates congregate housing.

*Memory Care/Special Care Units (SCUs):* A distinct form of long-term skilled nursing that specifically caters to patients with Alzheimer's disease, dementia, etc. Usually provide

care within a separate wing or floor of a residential facility. Higher level of state licensing by special care unit disclosure laws requiring care providers to disclose the special services they offer. The Massachusetts Executive Office of Elder Affairs (EOEA) regulates memory care, often found within Assisted Living projects along with other agencies including MassHealth, the Massachusetts Rehabilitation Commission (MRC), The Department of Developmental Services (DDS) and the Department of Mental Health (DMH).

*Continuing Care Retirement Community (CCRC) recently renamed Life Plan Communities in 2015:* Housing, personal services and health care all provided at one location. They typically have a variety of housing on one campus from independent townhouses to skilled nursing which is why CCRCs do not have their own category on the matrix above. Amenities available include: nursing, meals, housekeeping, emergency assistance, personal care assistance, social activities, 24-hour security and building maintenance. Most CCRCs require a sizable declining-refundable entrance fee and a monthly fee.

*Nursing home/Long term care facility/Skilled nursing:* Provides 24 hour nursing care in addition to providing personal care, recreational activities, physical and occupational therapy, and all meals. Many nursing facilities also provide short-term rehabilitation. Some residents or their families pay out of pocket or with long-term care insurance. Others, with limited finances or who "spend-down" their finances become eligible for Medicaid. Medicare and some private insurance covers some nursing care for short-term stays. Nursing Homes and Long Term Care facilities are regulated by a variety of agencies including MassHealth, the Department of Public Health, the Department of Mental Health, etc.

**Senior Housing Developers**

There are three overarching age-restricted (senior) housing development sectors nationally and in Massachusetts: private, unsubsidized which is mainly comprised of for-profit firms, private, subsidized which is mainly comprised of not-for-profit organizations and public housing. All of these development sectors build a variety of senior service-enriched housing typologies although Assisted Living and CCRC is more prevalent among the private, unsubsidized developers. A key challenge to the expansion of service-enriched housing is the limited new supply of private, subsidized and public housing units compared to the strong growth in the private, unsubsidized sector which is seeing positive investment returns and widely available capital. This section provides a comparative look at the funding of each of the sectors and their presence in the housing market.

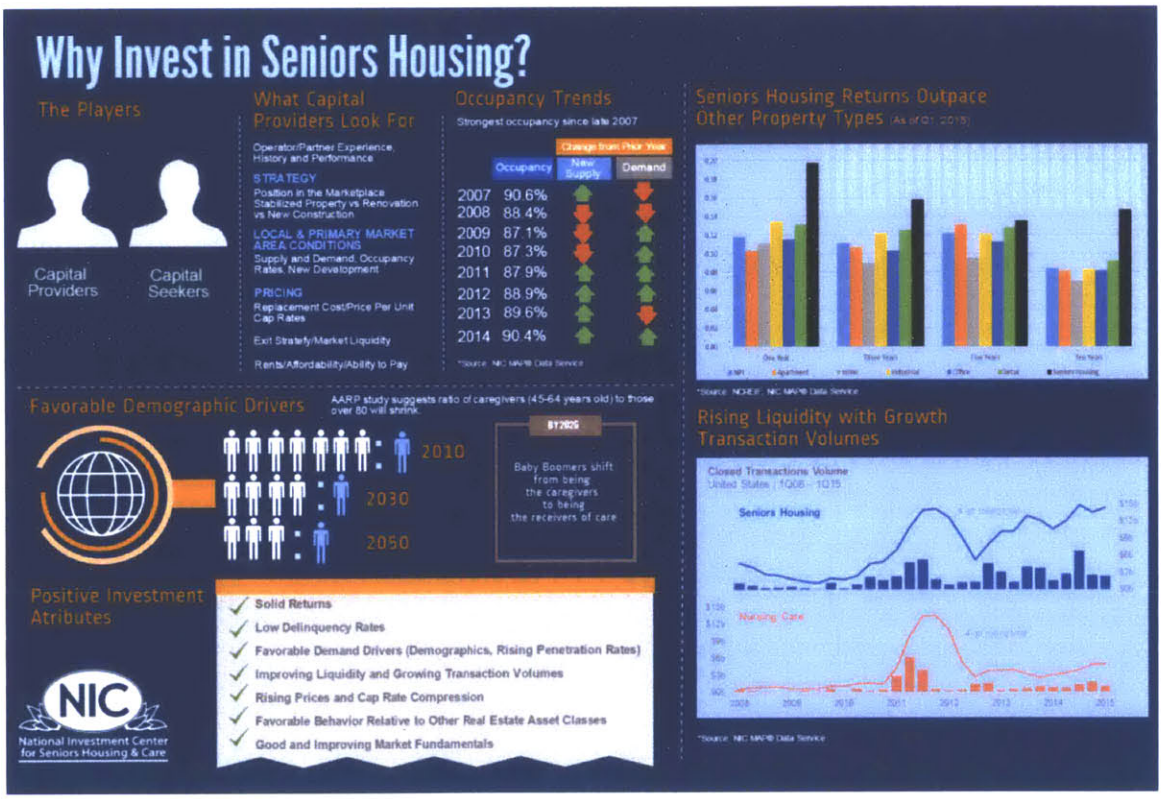
**Private, Unsubsidized (Market Rate) Housing**

The private, market-rate seniors housing industry has grown significantly over the past 30 years or so from its beginning focusing on housing and hospitality to quickly becoming part of the healthcare continuum. The size of the for-profit seniors housing market in Massachusetts (6.7%) is about the same size as it is nationally (6-7%).[3] Although the private market for senior housing is currently small, it is expected to grow substantially in the coming years due to

favorable investment returns. "Seniors housing", is the term used by the private, unsubsidized industry. The first publicly traded assisted living company in the United States was created in 1996. By 1998, there were 16 companies and assisted living properties grew by 97% in the 1990s.[4] According to the 2015 annual report produced by the American Senior Housing Association, just the top 50 seniors housing operators nationally manage 494,548 units.

Given the maturation of the sector over the past two decades, seniors housing is becoming a core asset. An August 2015 article from the National Real Estate Investor reports that "seniors housing is increasingly viewed by investors as a true investment grade asset class and a number of new funds have launched in the just the last 18 to 24 months that are devoted solely to seniors housing properties."[5] Investors include private equity, pension funds and foreign entities, not just Real Estate Investment Trusts (REITs), although REITS play an essential role in this ecosystem. As of May 2015, there are 15 healthcare REITS in the U.S. public market. Senior housing currently accounts for about ½ of the Net Operating Income (NOI) of the three largest health care REITS.[6] The National Investment Center for Seniors Housing & Care (NIC) created an infographic (Figure 3-11) which shows that senior housing returns outpace other property types (as of Q1, 2015), occupancy levels are the strongest they have ever been since 2007 and there are numerous positive investment attributes.

**Figure 3-11**



The private unsubsidized sector has strong trade unions and lobbying organizations. Two of the most prominent are the American Senior Housing Association[8] (ASHA) and the Assisted Living Federation of America (ALFA), renamed Argentum in 2015[9]. According to the ASHA 2015 report, just the top 50 seniors housing operators manage 494,548 units. The median portfolio size is 5,217 among operators and the mean portfolio size is 11,709 units among owners. According to a recent Argentum marketing planner released in 2015, revenues are projected to increase from $56 billion in 2014 to $80 billion in 2025.[10] Since Assisted Living is regulated at the state level, Argentum has state-level chapters to ensure that state rules and regulations are in line with the goals of Argentum's members. Growth in the Assisted Living product has played a role in shifting the delivery of private-pay LTSS from the institutional setting to the home and community based setting. Grabowski, et al found in their study on the supply of assisted living and nursing homes in 13 states from 1993-2007 that a 10 percent increase in assisted living capacity led to a 1.4% decline in private-pay nursing home occupancy and a 0.2-0.6% increase in patient acuity.[11]

The steady growth in the private, unsubsidized sector over a 20-year period, from 1995-2015 is shown in the charts below:

**Figure 3-12 Senior housing units owned**


**Figure 3-13 Senior housing units operated**

The private, unsubsidized national portfolio *dwarfs* the private, subsidized portfolio. Just the largest 10 seniors housing owners have more units in their portfolio (~400,000) than the entire Section 202 portfolio, a federal program (~263,000 units), which makes up a sizeable part of the private, subsidized housing portfolio.[12] There are recent reports from the National Investment Center and Integra Realty that raise the possibility of an oversupply of market-rate senior housing, with the caveat that opportunity remains in the independent living sector which is where Baby Boomers will move first in this next wave.[13] These investment reports largely represent short term development deals because as the literature describes, the income of seniors over 85 is approximately 50% lower than the income of seniors in the 65-69 age cohort. In the backdrop is the question of what will happen to all of this new housing stock that will soon be unaffordable to the "oldest-old" senior over 85 years old.

There are large-scale for-profit developers and operators in Massachusetts. According to ASHA's 2015 annual report, Massachusetts has 3 of the top 50 owners by national portfolio size including Senior Housing Properties Trust (297 properties; 34,772 units) Boston Capital (486 properties; 29,741 units); and Five Star Senior Living (31 properties; 3,064 units). Massachusetts has 2 on the list of top 50 operators including Five Star Senior Living (272 properties; 31,267 units) and Benchmark Senior Living (51 properties; 4,884 units).[14] In the private, unsubsidized sector, according to MassALFA, as of September 2015, there were a total of 12,155 assisted living units and 3,858 memory care units.[15] While this is not a comprehensive number of all assisted living units in the state, the vast majority of assisted living properties are members of the MassALFA trade association. This number also does not include the independent, market-rate units in the communities. Chapter 5 will review the total number of private, unsubsidized units in the study region.

**Private, Subsidized Housing**

Private, subsidized senior housing is typically owned and operated by secular and faith-based not for profit organizations with limited involvement from the for-profit sector, primarily through the Low Income Housing Tax Credit program. This not for profit sector mainly develops and operates Continuum of Care Retirement communities (CCRCs) and senior, independent apartments. Until recently, these entities received the majority of their capital and operating funding through the federal Department of Housing and Urban Development's Section 202 program, which was established in 1959 and conceived as rental housing whose incomes exceeded public housing income limits. Following those early Section 202 properties, all future Section 202 housing has income limits that are 80% AMI or lower. These entities serve a vulnerable senior population. Residents must pass income eligibility requirements based on area median income (AMI) set by the US Department of Housing and Urban Development (HUD) and typically pay no more than 30% of their income in rent.[16]

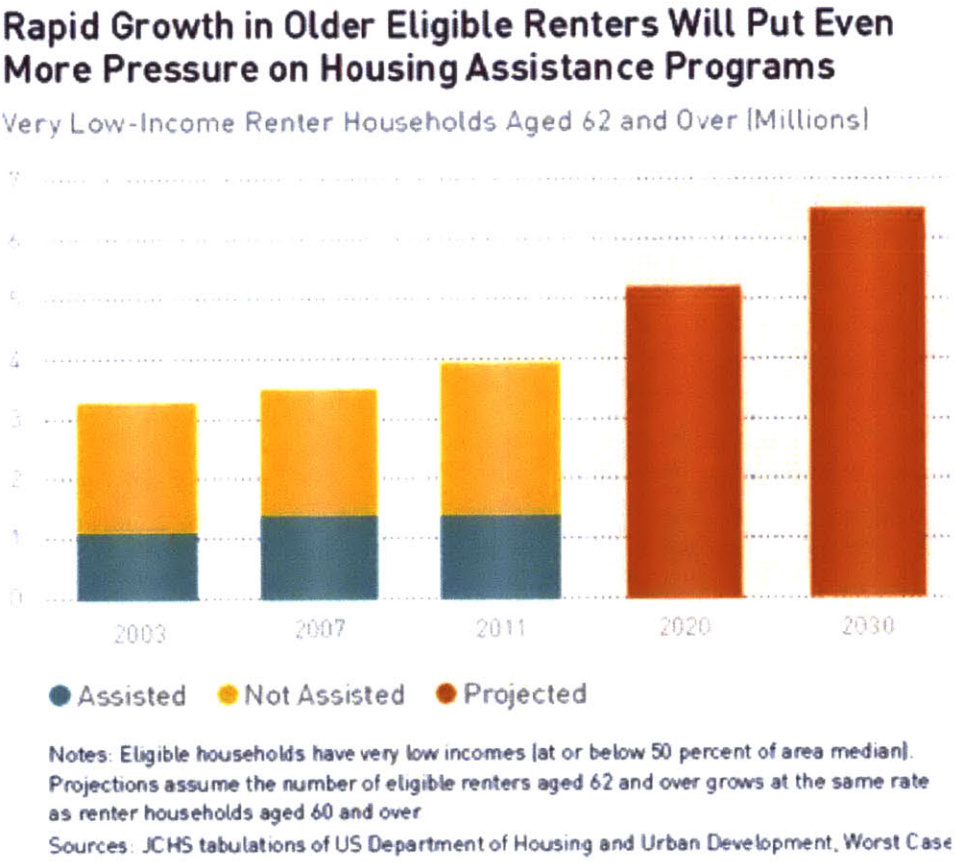
Nationally, the profile of residents living in Section 202 properties as of 2005 was[17]:

- Median Income: $10,000 (Based on a Public Use Microdata Sample from early 2016; the mean income of Section 202 households specifically in Massachusetts is $16,012);
- Median Age: 76 Years Old (up from 74 in 1988); 20-30% of residents are over 80;
- Disability: 38% of residents have one or more disabilities;
- Gender: 2/3rd of residents are women;
- Race: 61.2% White; 19.4% Black and non-Hispanic; 12.9% Hispanic; 6.6% Other.

In 2010, the Section 202 program stopped providing capital (development) subsidies. In Boston, the average capital subsidy amounted to $131,000 per unit.[18] Some not for profit developers are turning to the Low Income Housing Tax Credit program (LIHTC) for capital dollars to construct senior housing however, the LIHTC program is very competitive and historically those funds are prioritized for family housing in the state Qualified Allocation Plans (QAP). The LIHTC program can be structured in two main ways: either 20% of the units are priced at rents affordable to individuals that make 50% of the Area Median Income (AMI) or less; or alternatively, 40% of the units are priced at rents affordable to individuals that make 60% of the Area Median Income (AMI) or less. In 2015, 50% of AMI was $34,500 and 60% of AMI was $41,400. The LIHTC program is much more limited than the Section 202 program in the services that it will fund and comes with program development size constraints due to a credit allocation cap which limits the number of units that can be built hindering the developer from operating at a sufficient scale to deliver services efficiently.

Some subsidized housing developments have project-based vouchers affordable to extremely low-income individuals (ELI) who make 30% of the Area Median Income (AMI) or less which was $20,700 in 2015. Few housing voucher programs include the cost of providing resident service coordination. Nationally, the operating subsidy contracts on an estimated 41,900 Section 202 units will expire by 2024.[19] This is a significant concern because already not all older eligible renters receive housing assistance and this number is projected to grow significantly in 2020 and 2030 (Figure 3-14). Jennifer Molinsky at the Harvard Joint Center for Housing studies reports that today only 36% of very-low income (50% AMI or less) senior households receive rental assistance. Just to keep the share receiving federal rental assistance at its current level, the number of older renters receiving assistance would have to rise by 900,000 by 2030 – which would still leave 3-4 million income-eligible renters without assistance and on their own to find housing in the private market.[20]

Figure 3-14

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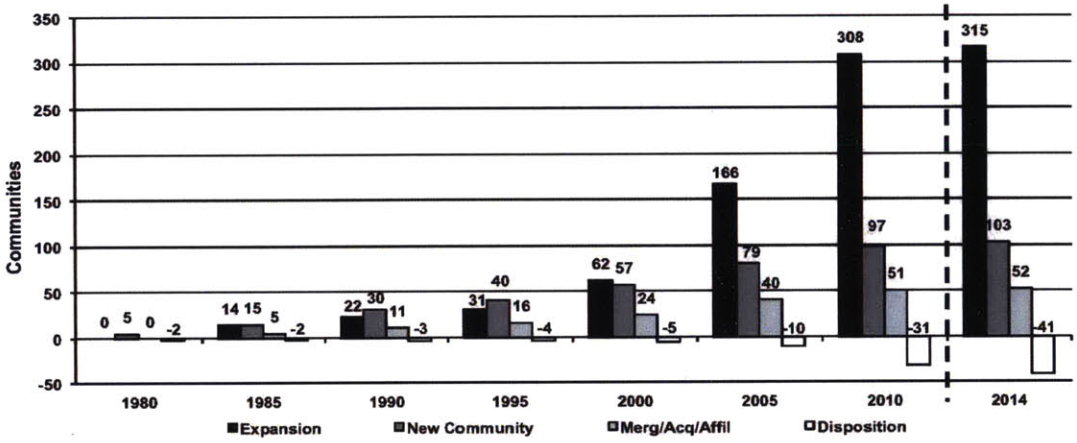
Similar to the private, unsubsidized sector, the majority of the LeadingAge non-profit member organizations grew through the 1990s and 2000s, with that growth principally tied to expansion of existing communities which is often more efficient for operators, less expensive and less risky than acquiring and developing new communities. The breakdown of type of growth among the various communities over time is shown below in Figure 3-15. Among the largest 150 organizations, the total number of communities in 2013 was 1,561.[22]

**Figure 3-15**

Growth: Type of Growth by Communities
5-9a CUMULATIVE GROWTH OF LARGEST 10 SYSTEMS

*Cumulative totals are as of 1/1 of that year




**Expansion:** The addition of new units to an existing community.
Note: If a new community is added to an existing campus this is also considered an expansion.

**New Community:** Growth by the addition of units through construction of a new location.

**Merger/Acquisition/Affiliation:** Growth of a multi-site organization by the addition of units through merger, acquisition or affiliation.

**Disposition:** The sale or closure of a community.

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The private, subsidized sector is facing mounting capital and program funding challenges to serve their targeted, low-income population. With such low annual incomes, the population served by the private, subsidized sector cannot pay sufficiently high rents to produce investment returns at the rate that the seniors housing industry expects in the private equity market. At the Leading Age national conference in 2015, the loss of the Section 202 program came up frequently as a major barrier to the ability of these non-profit developers to build sufficient housing and recapitalize existing housing to help this sector address the anticipated spike in demand coming from a higher number of low-income Baby Boomers. The promising healthcare cost savings merit a new conversation on public equity sources for the development of service-enriched housing.

In the Private, Subsidized sector, there are approximately 12,000 Section 202 units in Massachusetts.[24] According to Bill Brauner at CEDAC, in Massachusetts, there is no record of any Section 202 housing being lost through foreclosure, obsolescence or conversion to market-rate housing.[25] Massachusetts uses the Subsidized Housing Inventory to track compliance with a state statute Chapter 40B that mandates a municipality provide at least 10% of all housing or land area to subsidized housing affordable to individuals that make 80% of Area Median Income (AMI) or lower which was $48,800 in 2015. In Massachusetts, the largest developers according to the LeadingAge Ziegler report include Hebrew Senior Life, Jewish Community Housing for the Elderly, Rogerson Communities, The Loomis Communities, and Deaconess Abundant Life Communities. Hebrew Senior Life ranked #36 nationally on the LeadingAge Ziegler 2015 report by total senior living units.

## Public Housing

Senior public housing properties are operated by local housing authorities and can be federally or state funded. According to HUD data, 1.1 million senior renters lived in either public housing or privately owned developments with vouchers which includes 263,000 Section 202 units.[26] Seniors seeking public housing assistance must apply for housing in the community in which they are interested in living. Each local housing authority issues its own application. Income and age determine eligibility and tenants who live in elderly public housing pay 30% of their income for rent, the same rent structure applies to the Section 202 residents.

The public housing sector is the largest owner of age-restricted housing. DHCD has over 30,240 units of housing for seniors and adults with disabilities across the state.

With the loss of the Section 202 capital program and a stagnant public housing budget, as compared to the tremendous growth and investment in the private, unsubsidized senior housing sector, the difference in available senior housing supply among different income levels will become very stark. Conversations with HUD and not-for-profit housing providers reveal that waiting lists are at least 2-3 years long and in some cases the waiting lists are closed. Only time will tell what will happen to the private, unsubsidized service-enriched housing stock as the Baby Boomers join the oldest old cohort and their incomes are reduced.

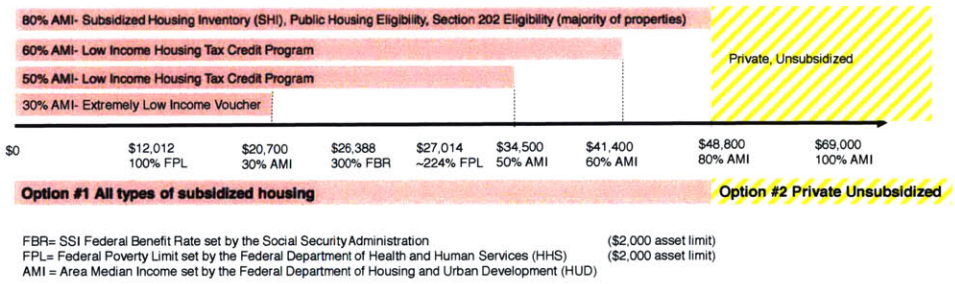
Service Enriched Housing Options

Despite all of the complexity in housing typologies and providers, there are just two overarching service-enriched housing options available to Massachusetts seniors: Option #1: Subsidized housing (up to 80% AMI or $48,800) and Option #2: Private, Unsubsidized Housing (over 80% AMI).[27]

**Figure 3-16**

Service-Enriched Housing Options, Single Individual

Boston-Cambridge-Quincy Metropolitan Statistical Area 2015




FBR= SSI Federal Benefit Rate set by the Social Security Administration ($2,000 asset limit)
FPL= Federal Poverty Limit set by the Federal Department of Health and Human Services (HHS) ($2,000 asset limit)
AMI = Area Median Income set by the Federal Department of Housing and Urban Development (HUD)

Option #1: The subsidized housing sector is comprised of both private, subsidized housing (within which there are two key programs, Section 202 and Low Income Housing Tax Credits) and Public Housing. For the purposes of conveying both overall consumer options and for public policy, these development sectors are combined in Figure 3-16 and in the study's demand methodology in Chapter 4 to be the higher of all of the income eligibility limits, 80% of the Area Median Income (AMI), a definition that is published annually for Metropolitan

Statistical Areas by the Department of Housing and Urban Development (HUD). This income limit (80% AMI) is chosen also because it is the maximum income limit allowed for projects that are included in the Massachusetts Subsidized Housing Inventory (SHI) which tracks a municipality's stock of low or moderate income housing for the purposes of compliance with the Massachusetts General Law Comprehensive Permit Act Chapter 40B.

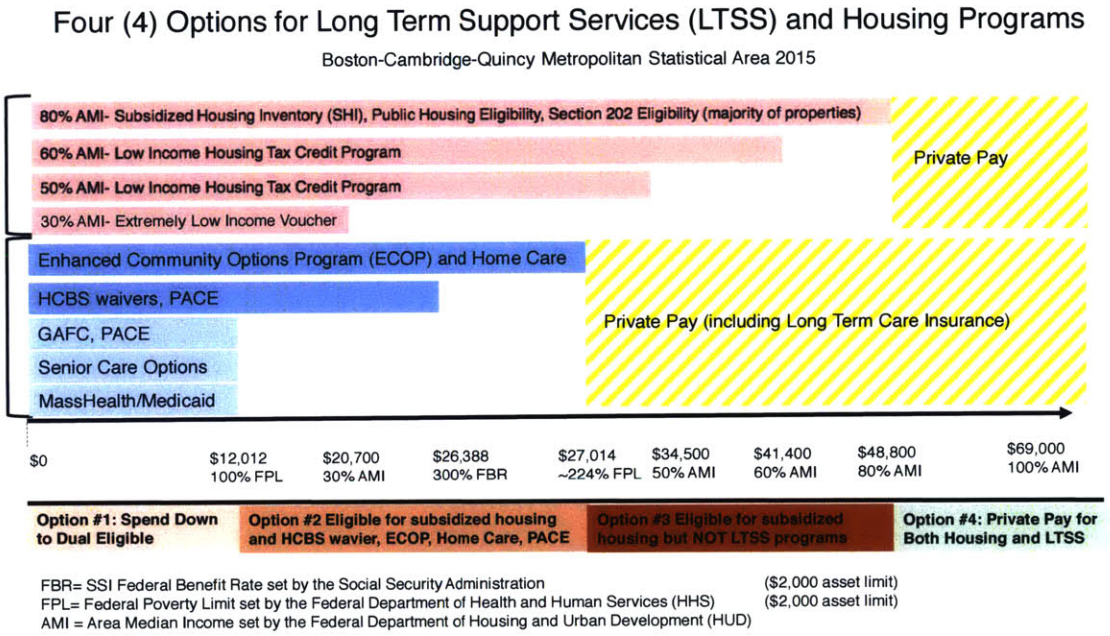
Option #2: Private, unsubsidized housing, which is available in all housing typologies is generally priced to be affordable to the high-income senior, often far over 100% of Area Median Income which was $69,000 in 2015. In many cases, seniors need at least $100,000 of disposable income to afford the private pay housing options. High-income seniors are at less risk of spending down to Medicaid eligibility so these housing providers are seeking to improve health outcomes to reduce turnover as well as realize cost savings on the Medicare side exclusively, much of which will come from reduced hospitalization and rehospitalization. Another look at the CLASS Act reform as well as future coordination with Accountable Care Organizations (ACOs) will be key to measuring these outcomes and sustainable collaboration between the sectors. Since housing markets vary according to geography, the pricing for service-enriched housing in the study area is described in Chapter 5 in further detail.

### Navigating the Service-Enriched Housing and LTSS Options

The two sections above described the landscape of LTSS and housing programs in Massachusetts with a particular focus on the options available for seniors, the LTSS providers, housing developers, financing and regulation. This section combines the two "options charts" created above to serve as a roadmap for seniors and other key stakeholders as well as the methodological foundation for this study's data, described in more detail in Chapter 4. Some of the service-enriched housing typologies, such as Assisted Living permit the delivery of LTSS services by the housing provider whereas other housing typologies such as seniors apartments and independent living are not regulated by the Executive Office of Elder Affairs so the LTSS providers must engage as separate third party provider which keeps the housing providers at a distance from both the operations of the service and their potential share in the cost savings.

Figure 3-17 combines the two charts for housing and LTSS to provide a holistic picture of the integration of services available to frail elders and for coordination among housing and LTSS providers.

Figure 3-17




*Option #1 Spend Down to Dual Eligible status:*

Extremely low income seniors who meet both the asset limit ($2,000 for a single individual) and 100% of the Federal Poverty Level income limit have "spent-down." Among the options for these seniors are likely living in a nursing home, participating in the Senior Care Options program, PACE or Assisted Living (in the limited communities that accept SSI-G and Group Adult Foster Care) paid for by Medicaid. The population in this section presents the greatest opportunity for the state to achieve cost-savings because they are eligible for both LTSS and housing subsidies so the state is likely already incurring costs for their housing and LTSS care which could be reduced.

*Option #2 Eligible for subsidized housing and HCBS waiver, ECOP and Home Care:*

These seniors are covered by both subsidized LTSS and service-enriched housing programs if they can successfully use the ASAP services to navigate their LTSS options and get off of the waiting list for a subsidized housing unit. This is an arena where both sectors could be doing more to serve seniors and reduce the complexity of choices. In addition, these is an arena where cost-savings can be tracked through public LTSS databases and linked with service-enriched housing addresses to measure the benefits of housing as a platform for long-term care. This population is ripe for further research as will be discussed in Chapter 6.

*Option #3 Eligible for Subsidized Housing but not LTSS programs:*

This is a population that is at risk of a gap in services. This population is eligible for housing up to 80% AMI and within this group, there are some seniors in Option 3 who are eligible for subsidized housing in Low Income Housing Tax Credit properties at 50% AMI and 60% AMI.

All of these seniors make too much to quality for LTSS subsidy programs (at 300% of the SSI Federal Benefit Rate or Home Care which is approximately 224% of the Federal Poverty Level) and must private pay for their LTSS care. It is this moderate-income population that is the silent face of Medicaid. Opportunities to reform state LTSS programs to better align with this subsidized housing population are discussed further in Chapter 6.

*Option #4 Private Pay for both Housing and LTSS:*

These are still moderate-income seniors but they make more than $48,800 and will need to private pay for both housing and LTSS services. Given the LTSS costs reviewed in this chapter, the likelihood of spending down for this population is still high. The degree to which private-pay for housing is challenging for these seniors, especially given current market rents for independent living and assisted living will be discussed in Chapter 5. This population would have benefitted most from the proposed CLASS act reform.

## Conclusion

Chapter 3 described the positive research outcomes of service-enriched housing and then provided overviews of the stakeholders involved in the LTSS and housing sectors to identify their interests and incentives to collaborate with a particular focus on the subsidized population as well as the independent living and senior apartment typologies. The integration chart, Figure 3-17, places these two sectors and their programs side by side to put forth the scenarios that seniors as well as housing and LTSS stakeholders face today as they navigate their options. It illustrates the need to incentivize the LTSS and housing providers at all levels of affordability and all housing typologies to work together to improve outcomes, achieve cost savings and further scale service-enriched housing as a viable option for more than just 20% of the Massachusetts senior population.

The next chapter will draw on Figure 3-17 as the basis for the methodology used to create categories to measure the expected demand for service-enriched senior housing and will also describe the methodology used to gather data on the supply & pricing of the various senior housing options in the 24-town study area in Greater Boston.

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42 Blendon, R., Benson, J., McMurtry, C., & Sayde, J. (Sept. 2015). *Health Care Cost Concerns Among Older Residents of Massachusetts* (pp. 1-10, Rep.). Boston, MA: Blue Cross Blue Shield; Harvard T.H. Chan School of Public Health. doi:http://bluecrossmafoundation.org/sites/default/files/download/publication/Elder_Poll_chart_report_FINAL.pdf Interviews were conducted with 502 randomly selected Massachusetts residents, age 65 and over, via cell phones and landline telephones by SSRS. The interviews were conducted in English and Spanish. The margin of error is +_ 5.6 percentage points at the 95% confidence level.

43 West, L. A., Cole, S., Goodkind, D., & W. (2014). *65 in the United States: 2010* (Rep. No. P23-212). Washington D.C.: U.S. Census Bureau Library. doi:https://www.census.gov/library/publications/2014/demo/p23-212.html P. 137.
44 Tufts Health Plan. (2015). *Seniors in Massachusetts by Type of Housing: Senior Housing Market Sizing* [Handout]. Boston, MA.
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46 Wu, C., & Beyer, J. (August 11, 2014). Overview of Senior Housing in the US. *Harvard Business School, 9-215-005*, 1-5. P.5
47 Adapted from Wu, C., & Beyer, J. (August 11, 2014). Overview of Senior Housing in the US. *Harvard Business School, 9-215-005*, 1-5. P. 5
48 *The 2015 ASHA 50* (pp. 1-64, Rep.). (2015). Washington D.C.: American Seniors Housing Association. doi:www.seniorshousing.org
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51 Tang, T. (2015). *Senior housing development* (Master's thesis, Massachusetts Institute of Technology, 2015). Cambridge: MIT.
52 National Investment Center for Seniors Housing & Care. "Why Invest in Seniors Housing?" doi:http://www.nic.org/analytics/financial_investor_briefings/
53 ASHA was created in 1991 for lobbying purposes and currently has over 400 members who are executives involved in the operation, development and finance of the entire spectrum of seniors housing. ASHA produces an annual report on the 50 Largest U.S. Senior Housing Owners and Operators.
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57 Fernald, M. (Ed.). (2014). *Housing America's Older Adults: Meeting the Needs of an Aging Population* (pp. 1-44, Rep.). Cambridge, MA: Joint Center for Housing Studies of Harvard University. doi:http://www.jchs.harvard.edu/research/housing_americas_older_adults P. 17
58 Baxter, A. (2016, January 26). Senior Housing Oversupply Fears Gain Sharper Focus. *Senior Housing News*. Retrieved February 1, 2016, from http://seniorhousingnews.com/2016/01/26/senior-housing-oversupply-fears-gain-sharper-focus/
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63 *Housing A Changing City: Boston 2030* (Rep.). (2015). Boston, MA: City of Boston. doi:http://www.cityofboston.gov/dnd/pdfs/boston2030/Housing_A_Changing_City-Boston_2030_full_plan.pdf P. 66
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65 Molinsky, J. (2015, April 3). Challenges Ahead in Housing America's Very Low-Income Older

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67 *2015 Leading Age 150 Ziegler* (pp. 1-212, Rep.). (2015). Washington D.C.: LeadingAge. doi:https://www.leadingage.org/uploadedFiles/Content/Members/Member_Services/LZ_100/LZ150_2015_Ziegler_FINAL.pdf

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69 Brauner, B. (2016, March 15). *A First Look at Supported Housing for the Elderly (Section 202) Housing in Massachusetts* [White Paper]. CEDAC, Boston, MA.

70 Brauner, B. (2016, March 15). *A First Look at Supported Housing for the Elderly (Section 202) Housing in Massachusetts* [White Paper]. CEDAC, Boston, MA.

71 Fernald, M. (Ed.). (2014). *Housing America's Older Adults: Meeting the Needs of an Aging Population* (pp. 1-44, Rep.). Cambridge, MA: Joint Center for Housing Studies of Harvard University. P. 17

72 Institutional care (i.e. nursing homes and Long Term Care facilities are not considered here given the state's incentive due to the Olmstead Act to move away from institutional care).

# Chapter 4:
## Methodology to Forecast Supply and Demand

Chapter 4 builds on the theoretical framework for service-enriched housing drivers in Chapter 2 and the detailed program descriptions, including the "options charts" in Chapter 3 to develop a methodology to assess existing and projected demand for service-enriched housing. In order to demonstrate whether service-enriched housing is truly an option for Metro Boston seniors, the existing and projected supply and demand are compared within each municipality in the study region. Chapter 4 begins with a description of the study region and goes on to explain the data sources and calculations for demand and unmet need. For a technical description of the methodology, see the appendix.

### Study Region

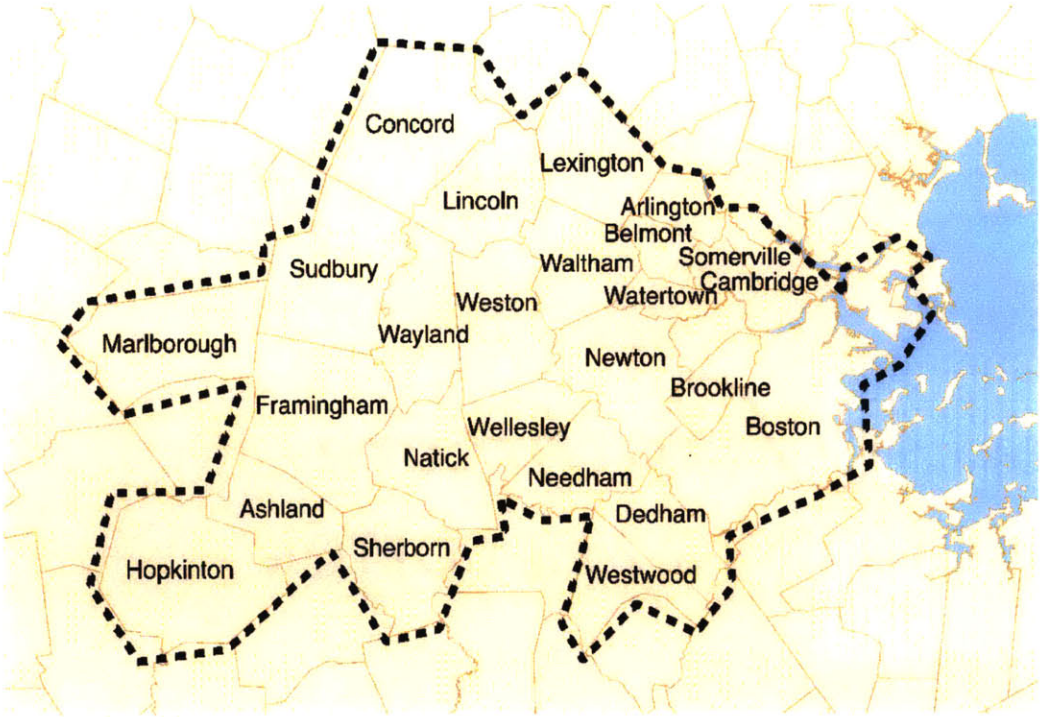
One of the unique characteristics of this study is that it examines service-enriched housing supply, demand and affordability in a specific geographic region. The market research literature varies on the distance that seniors are willing to move for housing. The 2009 Overview of Assisted Living produced by a collaborative of senior housing stakeholders[1] found that 60% of their residents come from within 10 miles and 80% from within 25 miles,[2] while anecdotally developers say that a 15-mile radius is a good rule of thumb.[3] A recent report by the Health and Retirement Study sponsored by the NIA found that half of all adult Americans live about 18 miles from their mother.[4] This NIA report also cites a class divide with wealthier adults living further from their parents than low-income adults.

The 24-town geographic study area in Greater Boston was chosen in coordination with Jewish Community Housing for the Elderly (JCHE), a not-for-profit and non-sectarian organization where the author interned for the 2015-2016 academic year. A map of the study region is depicted in Figure 4-1. JCHE develops and operates private, subsidized independent senior housing. JCHE's properties are located in Boston (Brighton neighborhood), Newton and Framingham. JCHE's target market is a senior living in the greater MetroWest, which in this study is defined more broadly than the official MAPC list of MetroWest towns. The MetroWest could also be considered a psychological boundary; a term often used in market research to denote geographical lines that are physical, cultural or social that prospective residents will not cross to receive services.[5] The study region selected is relatively high-income compared to the rest of the state of Massachusetts. Additionally, it has a small population of people of color. Chapter 6 considers opportunities for future research that would broaden and diversify the study populations.

Given that the greatest East-West distance in the study region is approximately 31 miles (Boston to Marlborough/Hopkinton) and the greatest North-South distance is approximately 22 miles (Concord to Westwood), the study is sufficiently large to capture the various distance limitations outlined in the literature. For the purpose of this study, demand and supply are

considered within each municipality with the goal that each municipality contributes to the provision of service-enriched housing for its own residents. The 24 towns included in the study are: Arlington, Ashland, Boston, Brookline, Cambridge, Concord, Dedham, Framingham, Hopkinton, Lexington, Lincoln, Marlborough, Natick, Needham, Newton, Sherborn, Somerville, Sudbury, Waltham, Watertown, Wayland, Wellesley, Weston and Westwood.

**Figure 4-1**




## Housing Supply Data Sources

The service enriched senior housing supply and housing price data come from a number of sources and provide a comprehensive census of all age-restricted, service-enriched housing in the study area in each of the housing sectors: private, unsubsidized; private, subsidized; and public housing. Service-enriched housing is defined in this study as age-restricted housing that directly provides or directly connects seniors with services, which, at a minimum, includes a Resident Services Coordinator (RSC). This housing supply data does not include properties such as age-restricted condominiums without any services.

The supply for senior housing was gathered from the sources listed below. A complete description of these sources is available in the Appendix.

- Community Economic Development Assistance Corporation (CEDAC), which provided a list of Section 202 properties;
- Department of Housing and Community Development (DHCD), which provided

a list of the total number of state-financed elderly and disabled units;
- Department of Housing and Urban Development- Massachusetts State Office (HUD), which provided a list of all federally financed public housing;
- The Jewish Community Housing for the Elderly (JCHE) Referral Database, which provided information on the services available in the housing as well as pricing information;
- MassALFA which provided a list of all of their member's properties and unit counts;
- MAPC's Development Database, which provided a list of age-restricted projects that are planned or permitted;
- Real Capital Analytics (RCA), which provided lists of properties that have been recently sold or redeveloped.

Some limitations to this data are:

- All of the public housing unit counts include units available and occupied by the young disabled so there is an over count of the available units for seniors;
- There may be some properties that were double counted because DHCD could not give the property-specific information due to privacy concerns and were only able to give the total unit count by town;
- There may be some cases where the MAPC Development Database had projects that were deactivated. Whenever possible, the projects were researched online to verify their status.

**Housing Supply Methodology**

Step 1: Data on the service-enriched properties and their unit counts were collected from August 2015 to January 2016. The data was compiled using an Excel spreadsheet and sorted by municipality. Within each municipality, the properties are sorted into two categories, existing units and planned units (status as of January 2016) and thereafter into three categories: Unsubsidized, Subsidized and Public Housing. The characteristics of properties that fall in each of the three categories are explained in Chapter 3.

- Note: The subsidized units are principally Section 202 properties but also include some tax credit properties which, for the purpose of this study, are together under the same umbrella of private, subsidized housing;

Step 2: In order to analyze the range (or lack thereof) of housing options according to affordability in each municipality, the percentage of each category of existing housing was calculated by dividing the count in each category by the total count. In Table 4-1 below, 190 unsubsidized units are 27% of the town's service-enriched housing inventory (190/710=27%)

Throughout this chapter, data on Arlington will be used to illustrate the methodology. The entire set of tables by town is available in the appendix.

Table 4-1

| **ARLINGTON** | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Brightview of Arlington | 90 | | | | | | |
| Sunrise of Arlington | 100 | | | | | | |
| DHCD- Public Housing Elderly/ Disabled | | | 520 | | | | |
| **Totals (Step 1)** | **190** | **0** | **520** | **710** | **0** | **0** | **0** |
| *Percentage of total service-enriched housing* **(Step 2)** | *27%* | *0%* | *73%* | *100%* | | | |

**Housing Demand Drivers included in the Forecasting Model:**

Chapter 2 outlined the key drivers for service-enriched housing: Financial Security and Affordability, LTSS needs, Social Isolation and Loneliness and Inaccessible Housing Stock. The methodology for assessing housing demand in this study incorporates two of these factors: Financial Security and Affordability and LTSS needs. The other two drivers, Social Isolation and Inaccessible Housing stock are not incorporated in the model for a number of reasons outlined below.

**Demand Drivers not included in model:**

Social Isolation: MAPC publishes data on the percentage of households headed by seniors (65 years and over) living alone in single-family homes using American Community Survey 2006-2010 5-Yr Estimates. However, this data is not used because the literature, specifically the study conducted by the University of California at San Francisco finds that living alone does not correlate with loneliness. Second, it is not possible to interact the data on households with disabilities with the data on seniors living alone due to conditional probability rules.

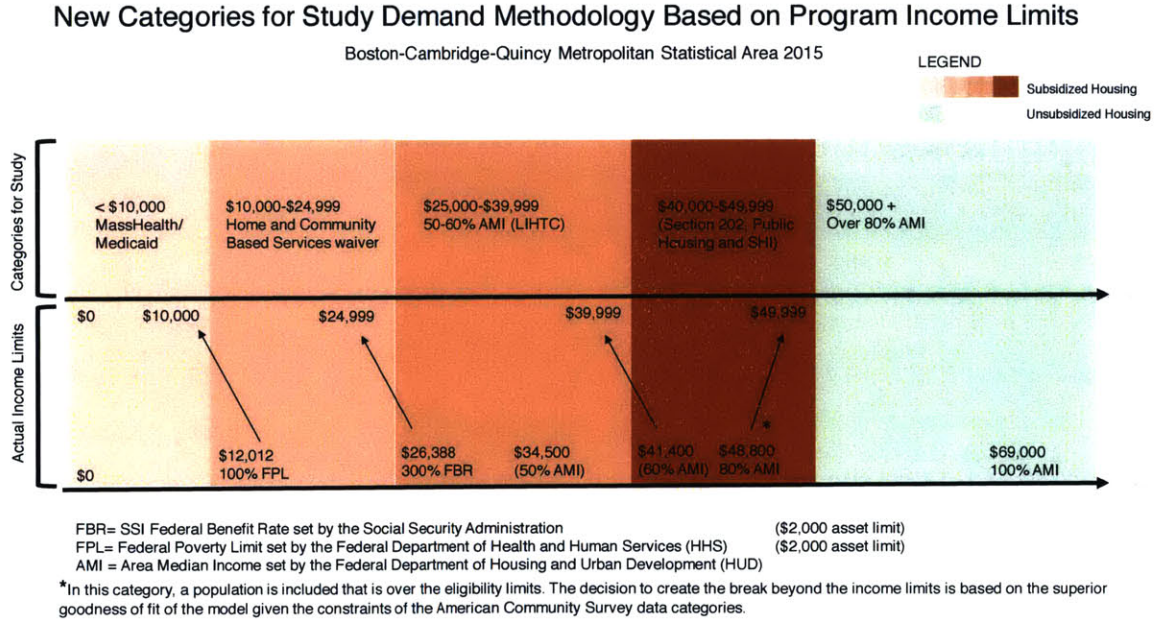
Inaccessible Housing: There is literature on the percentage of homes nationally, or in specific regions (i.e. the South), which have a certain number of accessibility features. However, there is no comprehensive data on accessibility specific to the study region. The Census provides data on the age of the home, which can be a proxy for the accessibility of the unit however it doesn't differentiate by the age of homes occupied by the 65 and over population.

## Housing Demand Sources and Methodology:

In order to calculate demand for service-enriched housing, three primary data sources were used:

- MAPC's *Population and Housing Demand Projections for Metro Boston* 65+ household projections for the towns in the study region using both the Status Quo and Stronger Region scenarios for 2020 and 2030. The Status Quo scenario projects the lowest household counts so it is used as the basis for data analysis and recommendations.
- The American Community Survey 5Yr 2014 Table C18130 "Age By Disability Status by Municipality"
- The American Community Survey 5Yr 2014 Table B19037 "Age of Householder by Household Income in the Past 12 Months" for the 65+ population. This income distribution data was combined with the income limits for housing and LTSS programs to create new categories for the subsidized housing demand and unsubsidized housing demand. The categories are shown in Figure 4-2 and explained in the Appendix.

**Figure 4-2**




There are some limitations to this data:

- Service-enriched housing demand is modeled for 15 of the 24 towns because 5-Year (2011-2015) American Community Survey (ACS) data was not available for the nine other towns. These towns include: Arlington, Boston, Brookline,

Cambridge, Dedham, Framingham, Hopkinton, Lexington, Marlborough, Needham, Newton, Somerville, Waltham, Watertown and Wellesley.

- The income categories are approximate and an undercount with the exception of one category, 80% AMI as shown in Figure 4-2 above with the arrows pointing to the right.
- In general, one significant limitation to the data is not the data itself but the fact that the entire 65+ cohort must be considered because there is no 75+ or 85+ specific data. The 65+ data are weighted averages so technically their rates of disability and lower incomes are incorporated, but they are hidden.

Table 4-2 shows the final picture of how demand was derived so that the reader can follow along through the explanation of the methodology in the appendix. The inputs used in each step (#1-3) are in the color blue. The acronym definitions from MAPC are SQ= Status Quo and SR= Stronger Region. The "subsidized" income range is in orange and the "unsubsidized" income range is in green. The creation of these categories is explained in Step 3.

**Table 4-2**

| ARLINGTON | | Est 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|---|
| Total HH 65+ | | 4,594 | 5,434 | 6,742 | 5,481 | 6,832 |
| Percentage with disability | | 26.8% | 26.8% | 26.8% | 26.8% | 26.8% |
| Demand for service-enriched housing | | 1,233 | 1,459 | 1,810 | 1,472 | 1,834 |
| <$10,000 (Medicaid) | 6.6% | 81 | 96 | 119 | 97 | 121 |
| <$25,000 (HCBS) | 26.0% | 321 | 379 | 471 | 383 | 477 |
| <$40,000 (60% AMI) | 17.3% | 214 | 253 | 314 | 255 | 318 |
| <$50,000 (80% AMI) | 7.1% | 87 | 103 | 128 | 104 | 130 |
| $50,000+ (80% AMI+) | 43.0% | 531 | 628 | 779 | 633 | 789 |
| TOTAL | | **1,233** | **1,459** | **1,810** | **1,472** | **1,834** |

## Aligning Demand and Supply

Summing the total demand and supply for both unsubsidized and subsidized housing yields three data points: unmet unsubsidized need, unmet subsidized need and total unmet need. Pipeline Supply when applicable is included in the 2020 and 2030 projections, not in the 2010 data.

Unmet need = Demand – (Existing Supply + Pipeline Supply)

For example, in 2010 in Arlington there was unmet need for 341 unsubsidized units and 183 subsidized units, in total 523 units.[6] The percentage of total (unsubsidized + subsidized)

unmet need is calculated as follows:

In 2010: Total unmet need (523)/ Total Demand (1,233-see **Table 4-3**) = 42%

This can also be interpreted as 2 in 5 seniors with LTSS needs had an unmet need for a service-enriched housing unit in 2010.

**Table 4-3**

| ARLINGTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 190 | 190 | 190 | 190 | 190 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 531 | 628 | 779 | 633 | 789 |
| Unmet Unsubsidized Need | 341 | 438 | 589 | 443 | 599 |
| | | | | | |
| Subsidized+PH Supply | 520 | 520 | 520 | 520 | 520 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 703 | 831 | 1031 | 838 | 1045 |
| Unmet Subsidized Need | 183 | 311 | 511 | 318 | 525 |
| | | | | | |
| **Total Unmet Need** | **523** | **749** | **1100** | **762** | **1124** |
| **Total Demand** | 1,233 | 1,459 | 1,810 | 1,472 | 1,834 |
| **Percentage of Unmet Need** | 42% | 51% | 61% | 52% | 61% |

The final results for the total unmet need and the percentage of unmet need are analyzed in Chapter 5 across municipalities. The subcategories of unsubsidized and subsidized are not highlighted because it is likely that the way demand for subsidized units is calculated with the available Census data is a severe underestimate due to the fact that it was not possible to only look at the 75+ or 85+ age cohorts, which have much lower incomes than the 65-75 age cohort. These subcategories are available in the tables in the appendix.

## Conclusion

The supply data and methodology data, given the constraints of the data available are robust. In general, the supply data is an over count of all available data because the public housing units are not all available for seniors. In contrast, the demand data is likely an undercount because it only considers two of the four key drivers for service-enriched housing, financial security and affordability and LTSS needs. In turning to the data in Chapter 5, recall that these unmet need unit counts are very likely lower than would be projected if more data was available on the senior populations.

1 AAHSA, ASHA, ALFA, NCAL & NIC

2 AAHSA, ASHA, ALFA, NCAL, & NIC. (2009). *2009 Overview of Assisted Living* **(pp. 1-68, Rep.).** doi:https://www.ahcancal.org/ncal/resources/Documents/09 2009 Overview of Assisted Living FINAL.pdf

3 Nusgart, R. (1997, November 23). Senior rental market surging Aging population will increase demand for apartment living. *Baltimore Sun*. Retrieved January 1, 2016, from http://articles.baltimoresun.com/1997-11-23/business/1997327028_1_herzberger-baltimore-county-rental-market

4 Bui, Q., & Miller, C. C. (2015, December 23). The Typical American Lives Only 18 Miles From Mom. *The New York Times*. Retrieved February 1, 2016, from **http://www.nytimes.com/interactive/2015/12/24/upshot/24up-family.html?_r=1**

5 *Senior Housing Feasibility Study Phase I: Needs and Market Analysis* (Rep. No. PV10.0459). (march 2011). Suisun City, CA: Principle Valuation LLC. doi:http://www.suisun.com/wp-content/files/Suisun_City_Senior_Housing_Feasibility_Study_2011.pdf

6 Note: The unit counts are rounded so they do not add up to the final counts consistently.

# Chapter 5:
## Supply & Demand Data and Analysis

The study region (MetroWest) has a moderate to high-income population, relatively low disability rates, the supply of units is likely an over count and the demand is likely an undercount. All of these factors might suggest that service-enriched housing, in particular subsidized housing, is widely available for those who need it. However, the data shows that with few exceptions there is a very high unmet need today and through the 2020 and 2030 scenarios (Status Quo and Stronger Region) across all income groups. Among the 15 municipalities modeled, there will be an unmet need for 22,894 units of service-enriched housing in 2030 in the Status Quo scenario of which there is an unmet need for 10,940 units of subsidized and public housing. If the data for this study region doesn't paint a rosy picture, how about other areas in Massachusetts where the population is less well-off or the housing market isn't as strong? There are many stakeholders involved addressing this gap for housing. What does this mean for seniors as they conduct their housing search today and in 2030? What does this mean for developers seeking to build service-enriched housing and develop partnerships with LTSS providers? What housing is coming down the pipeline? What does this mean for elected official seeking to serve their constituents? How about the current pressures on the housing market and millennials seeking larger units to start their families?

The overall outlook for service-enriched housing unmet need across all municipalities in the study region from 2010 through 2030 in conveyed in the following ways:

- Existing and pipeline service-enriched housing units,
- The pricing and affordability of those units
- The total unmet need for those units by scenario (Status Quo and Stronger Region)
- The percentage of total demand for service-enriched housing that is and will be unmet.

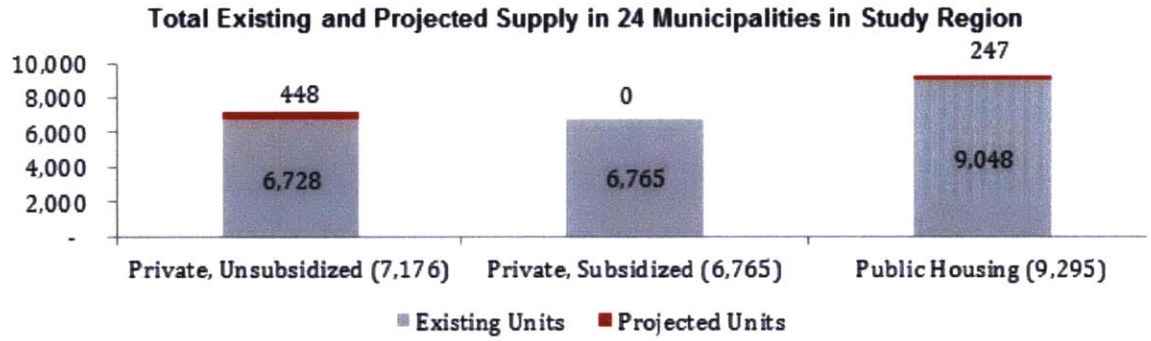
The chapter concludes with a one-page summary for each of the 15 municipalities on the outlook for demand and supply through 2030. There is a summary page for 15 of the 24 towns where complete Census data was available.

The following complete data tables are available in the appendix:
Table A-6: Total supply in study region (raw unit counts at properties when applicable)
Table A-7: Raw household counts by age cohort (65-69, 70-74, etc.) by scenario (Status Quo and Stronger Region) by municipality
Table A-8: Household income distribution by municipality
Table A-9: Demand calculation tables with each scenario by municipality
Table A-10: Unmet demand tables by scenario by municipality

## Total Supply of Service Enriched Units

In order to convey the overall availability of service-enriched housing by affordability in the study region, Figure 5-1 shows both the total count and the percentage of existing units available in each category. Across the entire 24 municipality study region, there are 22,541 existing units and 695 units in the pipeline. Each municipality has a different story to tell. Public housing units overall (9,048 units; 40%) out number both unsubsidized (6,728 units; 30%) and subsidized (6,765 units; 30%). The totals for private, unsubsidized and private, subsidized units are almost identical but their presence throughout the study region is not equal since Boston has 80% of all private, subsidized units while many of the surrounding towns only have unsubsidized units and public housing units. Figure 5-3 shows the municipal-specific unit counts.

**Figure 5-1**




Additionally, the supply of service-enriched housing for 15 of the 24 municipalities in the study region with complete data is shown in the chart below and draws from the data in Figure 5-3. This data is aggregated in the "unsubsidized" and "subsidized + public housing" categories. In total, there are 5,184 units of unsubsidized housing and 15,245 units of subsidized and public housing in the 15 municipalities.

**Figure 5-2**

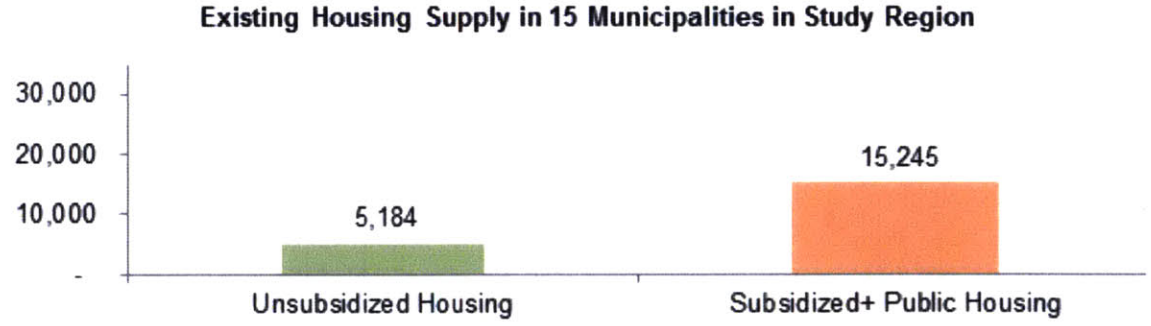


Figure 5-3

| Existing Units | Unsubsidized Units | % of Total | Private, Subsidized Units | % of Total | Public Housing Units | % of Total | Total |
|---|---|---|---|---|---|---|---|
| Arlington | 190 | 27% | - | 0% | 520 | 73% | 710 |
| Ashland | 291 | 88% | - | 0% | 40 | 12% | 331 |
| Boston | 996 | 10% | 5,366 | 54% | 3,592 | 36% | 9,954 |
| Brookline | 169 | 19% | 491 | 56% | 223 | 25% | 883 |
| Cambridge | 286 | 29% | 94 | 10% | 603 | 61% | 983 |
| Concord | 183 | 68% | - | 0% | 88 | 32% | 271 |
| Dedham | 556 | 73% | - | 0% | 205 | 27% | 761 |
| Framingham | 392 | 35% | 203 | 18% | 536 | 47% | 1,131 |
| Hopkinton | 108 | 52% | - | 0% | 98 | 48% | 206 |
| Lexington | 309 | 68% | - | 0% | 148 | 32% | 457 |
| Lincoln | 130 | 100% | - | 0% | - | 0% | 130 |
| Marlborough | 245 | 52% | - | 0% | 227 | 48% | 472 |
| Natick | 39 | 11% | - | 0% | 325 | 89% | 364 |
| Needham | 598 | 80% | - | 0% | 152 | 20% | 750 |
| Newton | 575 | 44% | 381 | 29% | 358 | 27% | 1,314 |
| Sherborn | - | 0% | - | 0% | 24 | 100% | 24 |
| Somerville | 347 | 28% | 39 | 3% | 849 | 69% | 1,235 |
| Sudbury | 109 | 55% | - | 0% | 91 | 46% | 200 |
| Waltham | 89 | 15% | - | 0% | 510 | 85% | 599 |
| Watertown | 190 | 27% | 191 | 27% | 326 | 46% | 707 |
| Wayland | 221 | 100% | - | 0% | - | 0% | 221 |
| Wellesley | 134 | 50% | - | 0% | 133 | 50% | 267 |
| Weston | 143 | 100% | - | 0% | - | 0% | 143 |
| Westwood | **428** | **100%** | - | **0%** | - | **0%** | **428** |
| **TOTALS** | **6,728** | **30%** | **6,765** | **30%** | **9,048** | **40%** | **22,541** |

There are four municipalities, Lincoln, Wayland, Weston and Westwood that only have unsubsidized housing available while there are a number of municipalities where public housing makes up at least half of the units. These are Wellesley (50%), Watertown (49%), Cambridge (61%), Somerville (69%), Arlington (73%), Waltham (85%), Natick (89%) and Sherborn (100%). In terms of private, subsidized housing, there are just seven municipalities with these properties: Boston (5,366), Brookline (491), Cambridge (94), Framingham (203), Newton (381), Somerville (39) and Watertown (191).

Figure 5-4 shows the total count (695) of pipeline units as of December 2015, which are proposed or planned as defined by MAPC's Development Database and DHCD's funding pipeline. With the exception of Boston, each of the units designated by municipality represent just one project and the majority (18) of the municipalities have no service-enriched projects underway at all. Only two municipalities, Boston and Somerville have subsidized units in the pipeline. Boston's pipeline units will be developed by both the Boston Housing Authority

and by the private, subsidized non-profit developers. The Somerville public housing authority will develop Somerville's 25 units. There are many municipalities in the study area that have detached home age-restricted condo/co-op projects underway but these projects are not service enriched as defined by this study so they are not included in the count.

**Figure 5-4**

| PIPELINE UNITS | Unsubsidized Units | Subsidized Units | Total |
|---|---|---|---|
| Arlington | - | - | - |
| Ashland | - | - | - |
| Boston | 92 | 222 | 314 |
| Brookline | 54 | - | 54 |
| Cambridge | - | - | - |
| Concord | 83 | - | 83 |
| Dedham | - | - | - |
| Framingham | - | - | - |
| Hopkinton | 127 | - | 127 |
| Lexington | - | - | - |
| Lincoln | - | - | - |
| Marlborough | - | - | - |
| Natick | - | - | - |
| Needham | 92 | - | 92 |
| Newton | - | - | - |
| Sherborn | - | - | - |
| Somerville | - | 25 | 25 |
| Sudbury | - | - | - |
| Waltham | - | - | - |
| Watertown | - | - | - |
| Wayland | - | - | - |
| Wellesley | - | - | - |
| Weston | - | - | - |
| Westwood | - | - | - |
| **TOTALS** | **448** | **247** | **695** |

## Pricing of Existing Service-Enriched Housing in Greater Boston

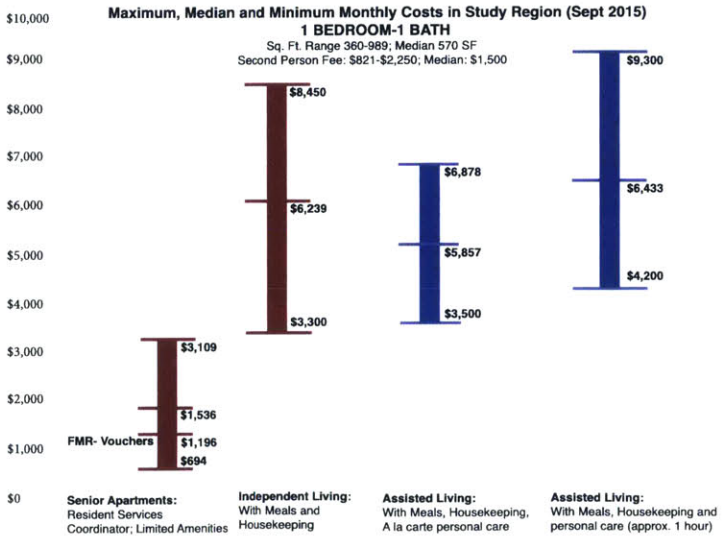
In addition to providing a total unit count, the supply data also generated maximum, median and minimum monthly pricing information for a 1 bedroom, 1 bathroom apartment in the region as shown in Figure 5-5. The pricing information below is principally compiled from the JCHE referral database that the author created in the Summer and Fall of 2015. The degree to which properties offer studios and two-bedroom units varies so a 1 bedroom unit is

used to convey the pricing information. According to the National Elder Economic Security Standard Index[1] produced by UMass-Boston Gerontology Institute, seniors are expected to pay no more than 62% of their income on housing, food and transportation. Some for-profit companies, and those properties that include personal care in their monthly fee can expect to capture approximately 80% of a senior's monthly household budget.

The Senior Apartments category is characterized by subsidized housing developed by not for profit developers (see Chapter 3). All of these apartments have at least a Resident Services Coordinator or a comparable link to services, if not additional services coordinated through partnerships established by the not for profit operator. The financing for these apartments comes from a hybrid public-private arrangement where the senior pays no more than 30% of his or her income towards the Fair Market Rent (FMR) maximum and a mobile or project-based voucher provided by a federal or state agency makes up the revenue gap. According to DHCD, the Fair Market Rent (FMR) in 2015 was $1,196 and is typically what the private, subsidiszed housing provider receives monthly.[2]

The Independent Living, Assisted Living (a la carte personal care) and Assisted Living (with 45 minutes to 1 hour of personal care included) properties charge a median rent range from $5,857 to $6,239 per month and can be as high as $9,300 per month. For a senior to spend no more than 60% of their household income, and approximately $6,000 per month (based on these fees), s/he would need pay $72,000 per year to that property and generate annual income of at least $120,000 (60% of income) or $90,000 (80% of income). The unsubsidized rental properties on the market in the study region are out of reach to all but the very wealthy and certainly above 80% AMI (housing subsidy income limit) for the region ($48,800). Furthermore, there are "second person fees" charged in addition to the monthly rent which cover the costs for services, meals and personal care (when applicable). These second person fees further compromise the affordability of these units.

Figure 5-5



There is another financial option other than renting called the "Entry-Fee" or "Buy-In" model, which is typically used by a Continuing Care Retirement Community (CCRC) described in more detail in Chapter 3. The entry-fee monthly fees (Median: $3,318 Figure 5-6) are often significantly lower than rental property fees but they require a larger up-front fee, which often comes from the sale of the senior's home. Data on the pricing for Entry-Fee properties is in Table 5-3 and is compiled from the 10 properties in the study region. Typically 90% of the entry-fee is refundable upon moving out.

**Figure 5-6: 1 Bedroom, 1 Bathroom (2015)**

| ENTRY-FEE | Entry-Fee | Monthly Fee |
|---|---|---|
| Average | $389,381 | $3,337 |
| Median | $366,000 | $3,318 |
| Minimum | $194,250 | $969 |
| Maximum | $620,000 | $5,520 |

While some of the Assisted Living rental properties include at least 45 minutes of personal care in their pricing, the entry-fee properties typically do not include personal care and charge for it separately (a la carte). The costs for personal care range widely from $16 per hour (when purchasing many hours) to $37-$40 per hour (evenings and holidays) with the majority falling in the $26-$32 per hour price range.

Personal care is very expensive in the Greater Boston region. In compiling the property level data in the JCHE referral database, many marketing directors of Independent Living and Seniors Apartment communities shared anecdotally that their residents purchase personal care/LTSS services from providers that are not licensed with a home care agency and are often paid under the table at lower hourly rates. Many of these providers are immigrants and women of color who are already at risk of economic exploitation. Chapter 6 will further explore recommendations to control these LTSS costs while simultaneously providing living wage jobs.

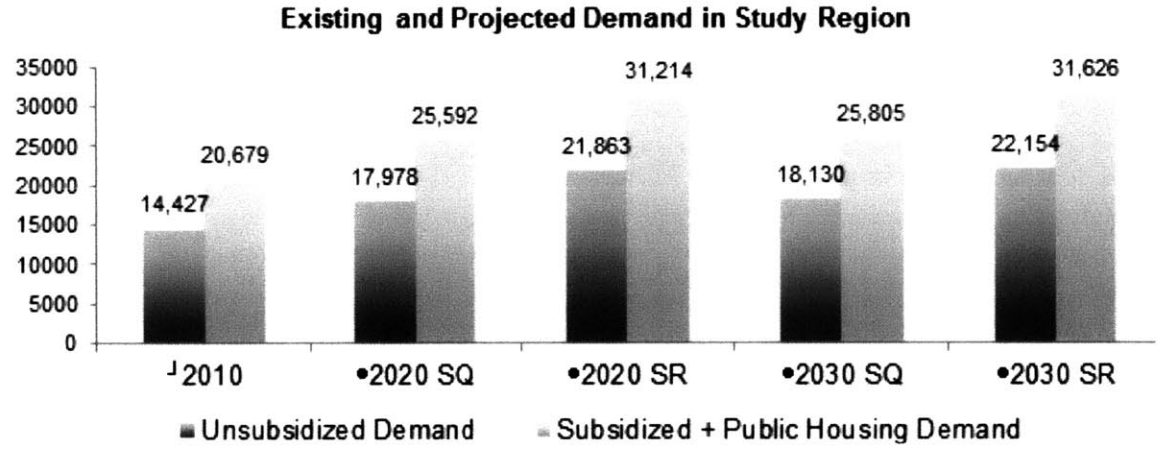
## Total Demand for Service-Enriched Units

The demand for the existing units and pipeline units is calculated for 15 of the 24 towns due to limited American Community Survey (ACS) data. These towns include: Arlington, Boston, Brookline, Cambridge, Dedham, Framingham, Hopkinton, Lexington, Marlborough, Needham, Newton, Somerville, Waltham, Watertown and Wellesley.

There is an increase in household demand from the Status Quo to the Stronger Region scenarios within each decade (i.e. SQ_2030 Households < SR 2030 Households) in every case because the MAPC stronger region formula assumes lower rates of net migration. The total demand for each scenario, aggregated across the municipalities, is shown below. The combined demand for subsidized and public housing (<80% AMI) is greater than the demand for

unsubsidized housing, likely due to the proportionate impact of the demand in Boston.

Table 5-7




**Unmet Need for Service Enriched Housing Units**

With data on both Supply (Unsubsidized, Subsidized and Public Housing) as well as data on Demand (Unsubsidized: >80% AMI; Subsidized: Medicaid-80% AMI), the unmet need for service enriched housing can be calculated by municipality and by affordability. These calculations for each of the 15 municipalities are shown in the one-page summary for each municipality below and aggregated below.

Before reviewing the outlook for each individual municipality, a broad overview of what is happening in the entire study region is shown below. There are two approaches to communicating the data and outlook. The first method is to compare the total number of projected households with unmet need across municipalities. The year 2030 is chosen because it is possible for municipalities to begin planning now in order to make adequate progress by 2030 through issuing permits and funding for new housing and services. It is recommended that municipalities aim to at least strive to satisfy demand in the *2030 Status Quo scenario, the scenario that yields a lower count of unmet need,* the Stronger Region scenario is included in Figures 5-8 and 5-9 to serve as a point of comparison. In this scenario, the municipality that will need to serve the highest number of additional household units is Boston at 11,722 units and the municipality that will need to serve the fewest is Hopkinton at 36 units. There will be an unmet demand for 22,894 units of service-enriched housing in 2030 unless these 15 municipalities take action. Of this total unmet need in the 2030 Status Quo scenario, there are 10,941 units of unmet need specifically for subsidized housing as shown in Table 5-6. This unmet need count for subsidized housing is lower than one might expect because the high household incomes of the study region in general, and specifically of the 65-69 age cohort skew the data to unsubsidized demand.

**Table 5-8**

| Total Unmet Need by Municipality in 2030 | 2030-Status Quo (SQ) (Minimum Goal) | 2030-Stronger Region (SR) (Ideal Goal) |
|---|---|---|
| Arlington | 762 | 1,124 |
| Boston | 11,722 | 16,813 |
| Brookline | 879 | 1,088 |
| Cambridge | 1,655 | 1,833 |
| Dedham | 529 | 927 |
| Framingham | 950 | 1,458 |
| Hopkinton | 36 | 303 |
| Lexington | 632 | 905 |
| Marlborough | 705 | 1,166 |
| Needham | 179 | 470 |
| Newton | 1,882 | 2,541 |
| Somerville | 819 | 1,131 |
| Waltham | 1,279 | 1,660 |
| Watertown | 375 | 663 |
| Wellesley | 490 | 659 |
| Total | 22,894 | 32,740 |

**Table 5-9**

| Total Unmet Subsidized Need by Municipality in 2030 | 2030-Status Quo (SQ) (Minimum Goal) | 2030-Stronger Region (SR) (Ideal Goal) |
|---|---|---|
| Arlington | 318 | 525 |
| Boston | 5,663 | 9,099 |
| Brookline | 83 | 174 |
| Cambridge | 629 | 718 |
| Dedham | 461 | 667 |
| Framingham | 357 | 624 |
| Hopkinton | 133 | 300 |
| Lexington | 632 | 905 |
| Marlborough | 705 | 1,166 |
| Needham | 179 | 470 |
| Newton | 613 | 891 |
| Somerville | 464 | 670 |
| Waltham | 620 | 849 |
| Watertown | -28 | 102 |
| Wellesley | 114 | 169 |
| Total | 10,941 | 17,329 |

The second method is to communicate the percentage (%) of unmet need across municipalities in order for this data to resonate with policy makers. In order to do so, three categories were created: Severe Unmet Need (>50%) in Red, Moderate Unmet Need (25%-49.9%) in Yellow and Low Unmet Need (<25%) in Green. These can also be communicated in the following way:

- Severe: More than 1 in 2 seniors with LTSS needs (in Waltham as high as 3 in 4 seniors)
- Moderate: Between 1 in 3 and 1 in 2 senior with LTSS needs
- Low: Fewer than 1 in 4 seniors with LTSS needs

**Figure 5-10**

| Percentage of Total Service Enriched Housing Unmet Need | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Hopkinton | -6% | 9% | 47% | 10% | 48% |
| Needham | 8% | 17% | 35% | 18% | 36% |
| Watertown | 23% | 34% | 48% | 35% | 48% |
| Dedham | 25% | 40% | 54% | 41% | 55% |
| Framingham | 33% | 45% | 56% | 46% | 56% |
| Somerville | 34% | 39% | 47% | 39% | 47% |
| Brookline | 36% | 48% | 53% | 48% | 54% |
| Arlington | 42% | 51% | 61% | 52% | 61% |
| Boston | 44% | 53% | 62% | 53% | 62% |
| Newton | 44% | 59% | 65% | 59% | 66% |
| Marlborough | 46% | 60% | 71% | 60% | 71% |
| Lexington | 47% | 58% | 66% | 58% | 66% |
| Cambridge | 53% | 62% | 65% | 63% | 65% |
| Wellesley | 57% | 64% | 71% | 65% | 71% |
| Waltham | 62% | 68% | 73% | 68% | 73% |

| Legend | |
|---|---|
| Severe Unmet Need | >50% |
| Moderate Unmet Need | 25%-49% |
| Low Unmet Need | <25% |

The number of municipalities in the "Severe" category is highest in the Stronger Region scenarios because the total initial households count is higher. Additionally, there are four municipalities that have a low unmet need in 2010, Hopkinton, Needham, Watertown and Dedham. Needham and Dedham both have large 300+ CCRC properties: North Hill and New Bridge on the Charles. Hopkinton's negative unmet demand is a result of having more unsubsidized supply than corresponding demand due to the Golden Pond property (see

Table A-1 in the appendix). These properties do not only serve residents originally from these municipalities. In most cases properties are serving residents coming from the surrounding area so it is very likely that there are residents in these municipalities who still have an unmet need. Nonetheless, these municipalities can be said to be doing more than their fair share to serve the service-enriched housing needs in the study region. Even though these four municipalities (Hopkinton, Needham, Watertown and Dedham) have a low unmet need in 2010, they too will need to increase their service-enriched housing production in case the Stronger Region scenario occurs where they will increase to a moderate unmet need.

**Conclusion**

The unmet need for service-enriched housing affects all municipalities. Despite the variations in rates of disability and income distribution, no clear pattern emerges on the municipalities that are more or less exposed to high rates of unmet need other than those four outlined above. For example, the severity of need between two vastly different municipalities, Wellesley and Waltham, in the Status Quo 2030 scenario is relatively equal (65% and 68% respectively). Furthermore, in all but two municipalities, the unmet unsubsidized need is greater than the subsidized need because the income of the younger cohort (65-69) and their larger relative population masks the very real need for subsidized housing in these towns among the 75+ and 85+ cohorts. Municipalities and developers should approach these developments with a long-term perspective with financing that will be affordable to seniors (with or without public subsidy) beyond their 80s and into their 90s, the "oldest-old".

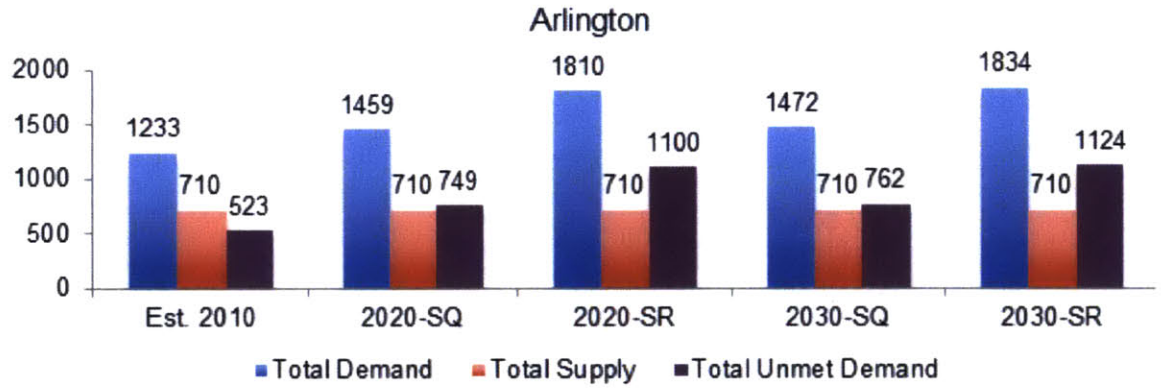
Projected at an unmet need for 22,894 units across all 15 municipalities by 2030 (Status Quo) and an unmet need specifically for 10,941 subsidized units, it is clear that it is not feasible for these municipalities to only rely on building their way out of the problem. Other measures, such as LTSS financing and regulation reform must also be explored. The existing pipeline for service-enriched housing, a total of 695 units, is very small and is not promising given the large unmet need that already exists today. Within this pipeline, the number of unsubsidized units is double the number of subsidized units. This trend will accelerate given the favorable investment conditions among REITs and for-profit developers unless the non-profit and public housing sectors can receive sufficient capital and operating funds to develop more subsidized housing. Today, the service-enriched housing available is really only an option for the wealthiest seniors in the study region. It is financially out of reach for moderate-income seniors and low-income seniors linger on the waiting lists for subsidized housing.

All stakeholders, seniors, elected officials, developers, LTSS providers, state officials and researchers will need more robust data than was available in this limited study to take action on this issue.

Chapter 6 will explore recommendations on how to close the gap in unmet demand in three broad areas: Increasing the supply of service-enriched housing, Reforming LTSS financing and regulation and addressing data gaps in order to develop more robust models.

## Arlington

Arlington currently has 190 units in unsubsidized supply and 520 units in subsidized supply (private, subsidized + public housing). Unsubsidized demand is projected to increase from 341 units in 2010 to 599 units in the 2030 Stronger Region scenario. Subsidized demand is projected to increase from 703 units in 2010 to 1,045 units in the 2030 Stronger Region scenario. The unmet unsubsidized need is greater than the unmet subsidized need in every scenario. Since the Status Quo (SQ) scenario is more conservative, Arlington should consider unmet need for service-enriched housing to be **at least 762 units by 2030**. If Arlington does not do anything before 2030, 52% of service-enriched housing demand will be unmet, or approximately 1 in 2 seniors with LTSS needs over age 65.

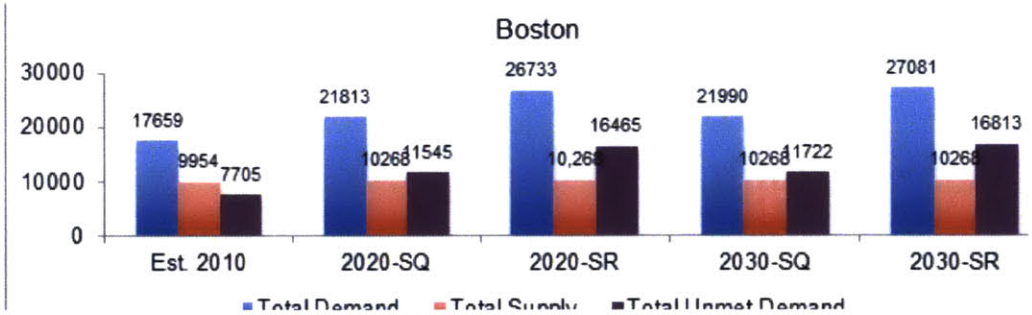



| ARLINGTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 190 | 190 | 190 | 190 | 190 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 531 | 628 | 779 | 633 | 789 |
| Unmet Unsubsidized Demand | 341 | 438 | 589 | 443 | 599 |
| | | | | | |
| Subsidized+PH Supply | 520 | 520 | 520 | 520 | 520 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 703 | 831 | 1031 | 838 | 1045 |
| Unmet Subsidized Demand | 183 | 311 | 511 | 318 | 525 |

| ARLINGTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 1233 | 1459 | 1810 | 1472 | 1834 |
| Total Supply | 710 | 710 | 710 | 710 | 710 |
| Total Unmet Demand | **523** | **749** | **1100** | **762** | **1124** |
| Percentage of SEH Demand Unmet | 42% | 51% | 61% | 52% | 61% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |

## Boston

Boston currently has 996 existing units and 92 pipeline units in unsubsidized supply and 8,958 existing units and 222 pipeline units in subsidized supply (private, subsidized + public housing). Unsubsidized demand is projected to increase from 5,740 units in 2010 to 8,802 units in the 2030 Stronger Region scenario. Subsidized demand is projected to increase from 11,920 units in 2010 to 18,279 units in the 2030 Stronger Region scenario. Boston has the highest disability rate in the study region and the highest population that qualifies for housing subsidies. The unmet unsubsidized need is greater than the unmet subsidized need in the Status Quo scenarios but not in the Stronger Region scenario. Since the Status Quo (SQ) scenario is more conservative, Boston should consider total unmet need for service-enriched housing to be **at least 11,722 units by 2030**. If Boston does not do anything before 2030-SQ, 53% of service-enriched housing needs will be unmet, or approximately 1 in 2 seniors with LTSS needs.

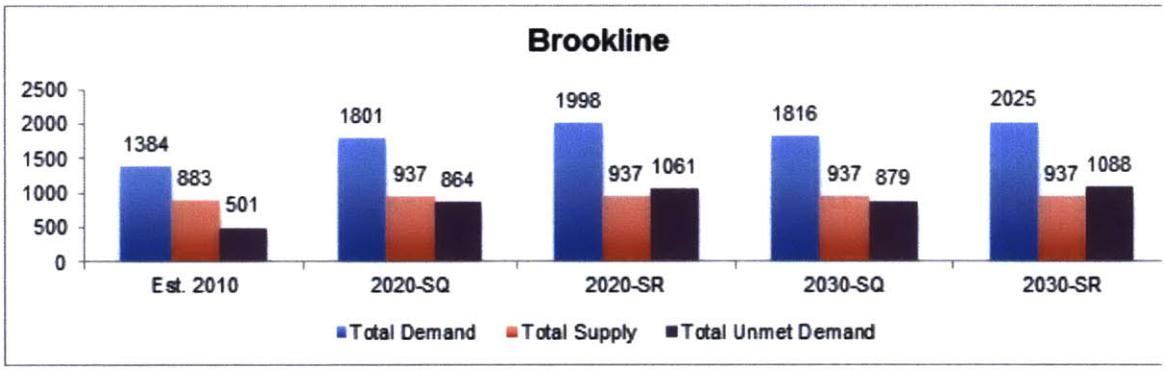



| BOSTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 996 | 996 | 996 | 996 | 996 |
| Unsubsizied-Pipeline | 0 | 92 | 92 | 92 | 92 |
| Unsubsidized Demand | 5740 | 7090 | 8689 | 7147 | 8802 |
| Unmet Unsubsidized Demand | 4744 | 6002 | 7601 | 6059 | 7714 |
| | | | | | |
| Subsidized+PH Supply | 8958 | 8958 | 8958 | 8958 | 8958 |
| Subsidized-Pipeline | 0 | 222 | 222 | 222 | 222 |
| Subsidized+PH Demand | 11920 | 14723 | 18044 | 14843 | 18279 |
| Unmet Subsidized Demand | 2962 | 5543 | 8864 | 5663 | 9099 |

| BOSTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 17659 | 21813 | 26733 | 21990 | 27081 |
| Total Supply | 9954 | 10268 | 10,268 | 10268 | 10268 |
| Total Unmet Demand | **7705** | **11545** | **16465** | **11722** | **16813** |
| Percentage of SEH Demand Unmet | 44% | 53% | 62% | 53% | 62% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | No | Yes | No |

## Brookline

Brookline currently has 169 existing units and 54 pipeline units in unsubsidized supply and 714 existing units in subsidized supply (private, subsidized + public housing). Unsubsidized demand is projected to increase from 777 units in 2010 to 1,137 units in the 2030 Stronger Region scenario. Subsidized demand is projected to increase from 607 units in 2010 to 888 units in the 2030 Stronger Region scenario. The unmet unsubsidized need is greater than the unmet subsidized need in every scenario. The is partially attributable to the high number of subsidized units provided in both public housing and developed by Hebrew Senior Life (HSL), a private, not for profit developer. Since the Status Quo (SQ) scenario is more conservative, Brookline should consider total unmet need for service-enriched housing to be **at least 879 units by 2030**. If Brookline does not do anything before 2030-SQ, 48% of service-enriched housing needs will be unmet, or approximately 1 in 2 seniors with LTSS needs over age 65.

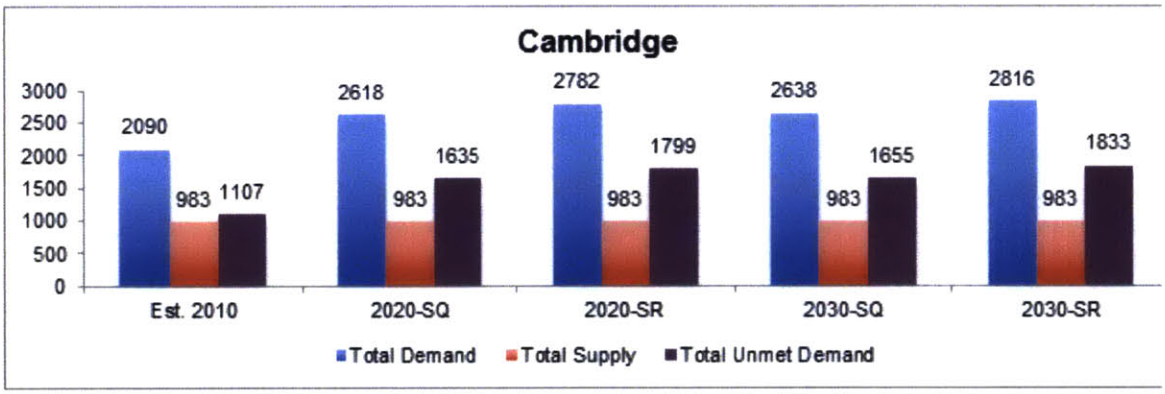



| BROOKLINE | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 169 | 169 | 169 | 169 | 169 |
| Unsubsizied-Pipeline | 0 | 54 | 54 | 54 | 54 |
| Unsubsidized Demand | 777 | 1011 | 1122 | 1019 | 1137 |
| Unmet Unsubsidized Demand | 608 | 788 | 899 | 796 | 914 |
| | | | | | |
| Subsidized+PH Supply | 714 | 714 | 714 | 714 | 714 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 607 | 790 | 877 | 797 | 888 |
| Unmet Subsidized Demand | -107 | 76 | 163 | 83 | 174 |

| BROOKLINE | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 1384 | 1801 | 1998 | 1816 | 2025 |
| Total Supply | 883 | 937 | 937 | 937 | 937 |
| Total Unmet Demand | **501** | **864** | **1061** | **879** | **1088** |
| Percentage of SEH Demand Unmet | 36% | 48% | 53% | 48% | 54% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |

## Cambridge

Cambridge currently has 286 units in unsubsidized supply and 697 units in subsidized supply (private, subsidized + public housing). Unsubsidized demand is projected to increase from 1,040 units in 2010 to 1,401 units in the 2030 Stronger Region scenario. Subsidized demand is projected to increase from 1,050 units in 2010 to 1,415 units in the 2030 Stronger Region scenario. The unmet unsubsidized need is greater than the unmet subsidized need in every scenario. Since the Status Quo (SQ) scenario is more conservative, Cambridge should consider total unmet need for service-enriched housing to be **at least 1,655 units by 2030**. If Cambridge does not do anything before 2030-SQ, 63% of service-enriched housing needs will be unmet, or approximately 2 in 3 seniors with LTSS needs over age 65.

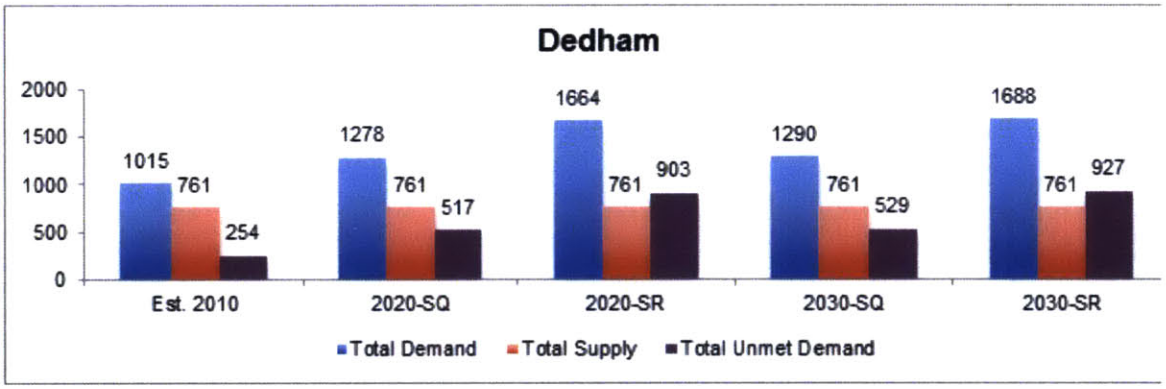



| CAMBRIDGE | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 286 | 286 | 286 | 286 | 286 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 1040 | 1302 | 1384 | 1313 | 1401 |
| Unmet Unsubsidized Demand | 754 | 1016 | 1098 | 1027 | 1115 |
| | | | | | |
| Subsidized+PH Supply | 697 | 697 | 697 | 697 | 697 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 1050 | 1316 | 1398 | 1326 | 1415 |
| Unmet Subsidized Demand | 353 | 619 | 701 | 629 | 718 |

| CAMBRIDGE | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 2090 | 2618 | 2782 | 2638 | 2816 |
| Total Supply | 983 | 983 | 983 | 983 | 983 |
| Total Unmet Demand | **1107** | **1635** | **1799** | **1655** | **1833** |
| Percentage of SEH Demand Unmet | 53% | 62% | 65% | 63% | 65% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |

## Dedham

Dedham currently has 556 units in unsubsidized supply and 205 units in subsidized supply (private, subsidized + public housing). Unsubsidized demand is projected to increase from 491 units in 2010 to 816 units in the 2030 Stronger Region scenario. Subsidized demand is projected to increase from 524 units in 2010 to 872 units in the 2030 Stronger Region scenario. The unmet unsubsidized need is less than the unmet subsidized need in every scenario because NewBridge on the Charles, a 300+ unit unsubsidized property is located in Dedham. This also accounts for the negative unsubsidized unmet need because NewBridge is serving seniors who moved from the surrounding area. Since the Status Quo (SQ) scenario is more conservative, Dedham should consider total unmet need for service-enriched housing to be **at least 529 units by 2030**. If Dedham does not do anything before 2030-SQ, 41% of service-enriched housing needs will be unmet, or approximately 2 in 5 seniors with LTSS needs.

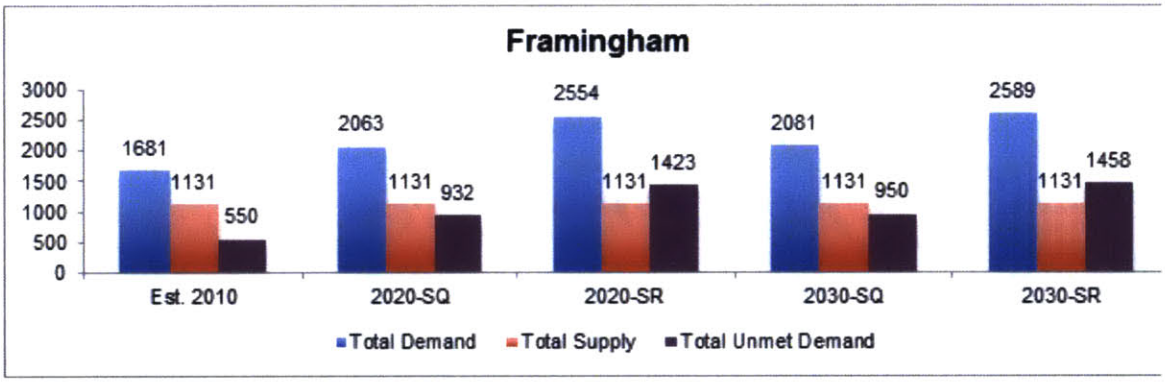



| DEDHAM | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 556 | 556 | 556 | 556 | 556 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 491 | 618 | 805 | 624 | 816 |
| Unmet Unsubsidized Demand | -65 | 62 | 249 | 68 | 260 |
| | | | | | |
| Subsidized+PH Supply | 205 | 205 | 205 | 205 | 205 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 524 | 660 | 860 | 666 | 872 |
| Unmet Subsidized Demand | 319 | 455 | 655 | 461 | 667 |

| DEDHAM | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 1015 | 1278 | 1664 | 1290 | 1688 |
| Total Supply | 761 | 761 | 761 | 761 | 761 |
| Total Unmet Demand | **254** | **517** | **903** | **529** | **927** |
| Percentage of SEH Demand Unmet | 25% | 40% | 54% | 41% | 55% |
| Unmet Unsubsidized>Unmet Subsidized? | No | No | No | No | No |

## Framingham

Framingham currently has 392 units in unsubsidized supply and 739 units in subsidized supply (private, subsidized + public housing). Unsubsidized demand is projected to increase from 796 units in 2010 to 1,226 units in the 2030 Stronger Region scenario. Subsidized demand is projected to increase from 885 units in 2010 to 1,363 units in the 2030 Stronger Region scenario. The unmet unsubsidized need is greater than the unmet subsidized need in every scenario. Since the Status Quo (SQ) scenario is more conservative, Framingham should consider total unmet need for service-enriched housing to be **at least 950 units by 2030**. If Framingham does not do anything before 2030-SQ, 46% of service-enriched housing needs will be unmet, or approximately 1 in 2 seniors with LTSS needs over age 65.

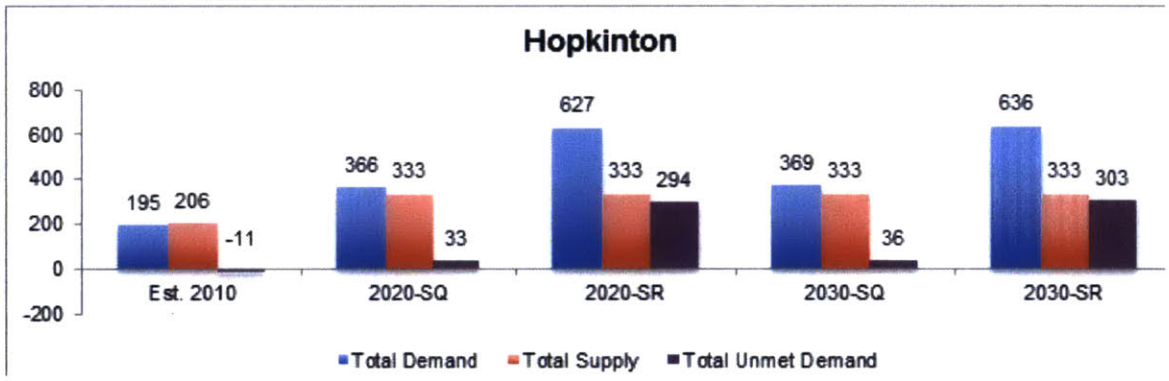



| FRAMINGHAM | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 392 | 392 | 392 | 392 | 392 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 796 | 977 | 1209 | 985 | 1226 |
| Unmet Unsubsidized Demand | 404 | 585 | 817 | 593 | 834 |
| | | | | | |
| Subsidized+PH Supply | 739 | 739 | 739 | 739 | 739 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 885 | 1086 | 1344 | 1096 | 1363 |
| Unmet Subsidized Demand | 146 | 347 | 605 | 357 | 624 |

| FRAMINGHAM | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 1681 | 2063 | 2554 | 2081 | 2589 |
| Total Supply | 1131 | 1131 | 1131 | 1131 | 1131 |
| Total Unmet Demand | **550** | **932** | **1423** | **950** | **1458** |
| Percentage of SEH Demand Unmet | 33% | 45% | 56% | 46% | 56% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |

## Hopkinton

Hopkinton currently has 108 existing units and 127 pipeline units in unsubsidized supply along with 98 units in subsidized supply (private, subsidized + public housing). Unsubsidized demand is projected to increase from 73 units in 2010 to 238 units in the 2030 Stronger Region scenario. Subsidized demand is projected to increase from 122 units in 2010 to 398 units in the 2030 Stronger Region scenario. The unmet unsubsidized need is less than the unmet subsidized need in every scenario and unmet need is negative in 2010 and 2020-SQ due to the high existing and pipeline unsubsidized count for a relatively small population. Since the Status Quo (SQ) scenario is more conservative, Hopkinton should consider total unmet need for service-enriched housing to be **at least 36 units by 2030**. If Hopkinton does not do anything before 2030-SQ, just 10% of service-enriched housing needs will be unmet, or approximately 1 in 10 seniors with LTSS needs over age 65.

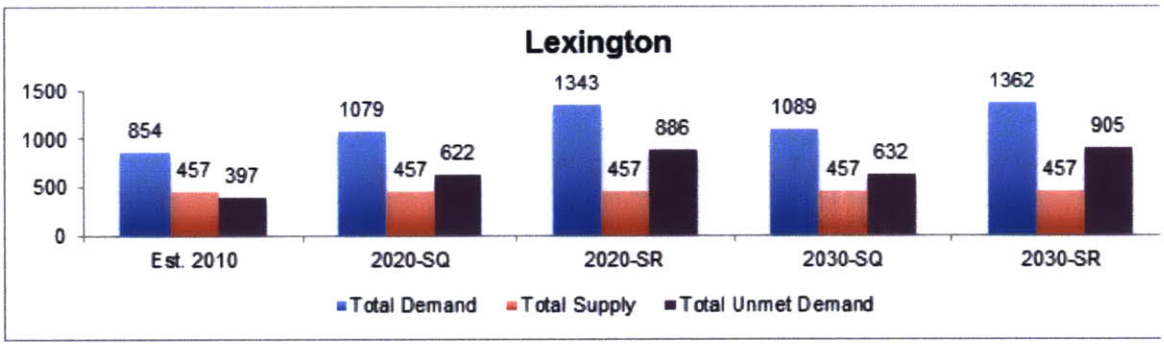



| HOPKINTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 108 | 108 | 108 | 108 | 108 |
| Unsubsizied-Pipeline | 0 | 127 | 127 | 127 | 127 |
| Unsubsidized Demand | 73 | 137 | 235 | 138 | 238 |
| Unmet Unsubsidized Demand | -35 | -98 | 0 | -97 | 3 |
| | | | | | |
| Subsidized+PH Supply | 98 | 98 | 98 | 98 | 98 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 122 | 229 | 392 | 231 | 398 |
| Unmet Subsidized Demand | 24 | 131 | 294 | 133 | 300 |

| HOPKINTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 195 | 366 | 627 | 369 | 636 |
| Total Supply | 206 | 333 | 333 | 333 | 333 |
| Total Unmet Demand | **-11** | **33** | **294** | **36** | **303** |
| Percentage of SEH Demand Unmet | -6% | 9% | 47% | 10% | 48% |
| Unmet Unsubsidized>Unmet Subsidized? | No | No | No | No | No |

## Lexington

Lexington currently has 309 existing units in unsubsidized supply along with 148 units in subsidized supply (private, subsidized + public housing). Unsubsidized demand is projected to increase from 556 units in 2010 to 887 units in the 2030 Stronger Region scenario. Subsidized demand is projected to increase from 298 units in 2010 to 475 units in the 2030 Stronger Region scenario. The unmet unsubsidized need is greater than the unmet subsidized need in every scenario. Since the Status Quo (SQ) scenario is more conservative, Lexington should consider total unmet need for service-enriched housing to be **at least 632 units by 2030**. If Lexington does not do anything before 2030-SQ, 58% of service-enriched housing needs will be unmet, or approximately 3 in 5 seniors with LTSS needs over age 65.

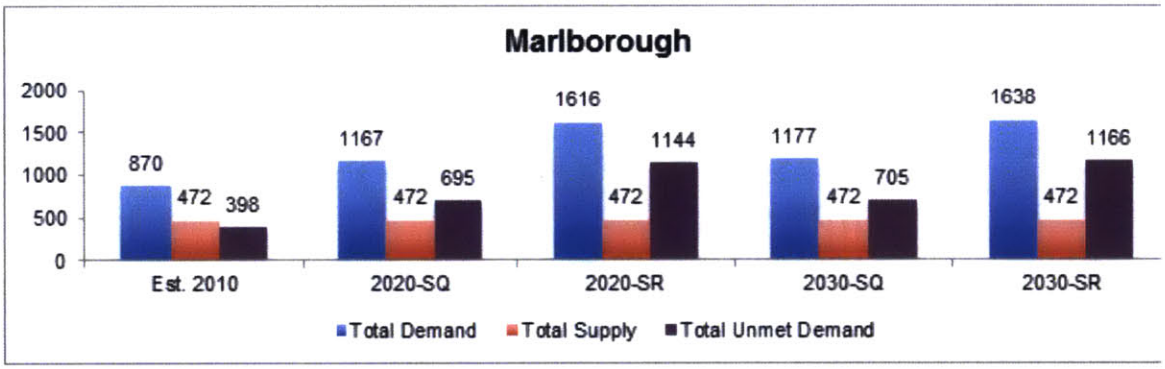



| LEXINGTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 309 | 309 | 309 | 309 | 309 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 556 | 703 | 874 | 709 | 887 |
| Unmet Unsubsidized Demand | 247 | 394 | 565 | 400 | 578 |
| | | | | | |
| Subsidized+PH Supply | 148 | 148 | 148 | 148 | 148 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 298 | 377 | 469 | 380 | 475 |
| Unmet Subsidized Demand | 150 | 229 | 321 | 232 | 327 |

| LEXINGTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 854 | 1079 | 1343 | 1089 | 1362 |
| Total Supply | 457 | 457 | 457 | 457 | 457 |
| Total Unmet Demand | **397** | **622** | **886** | **632** | **905** |
| Percentage of SEH Demand Unmet | 47% | 58% | 66% | 58% | 66% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |

## Marlborough

Marlborough currently has 245 existing units in unsubsidized supply along with 227 units in subsidized supply (private, subsidized + public housing). Unsubsidized demand is projected to increase from 398 units in 2010 to 748 units in the 2030 Stronger Region scenario. Subsidized demand is projected to increase from 473 units in 2010 to 890 units in the 2030 Stronger Region scenario. The unmet unsubsidized need is less than the unmet subsidized need in every scenario. Since the Status Quo (SQ) scenario is more conservative, Marlborough should consider total unmet need for service-enriched housing to be **at least 705 units by 2030**. If Marlborough does not do anything before 2030-SQ, 60% of service-enriched housing needs will be unmet, or approximately 3 in 5 seniors with LTSS needs over age 65.

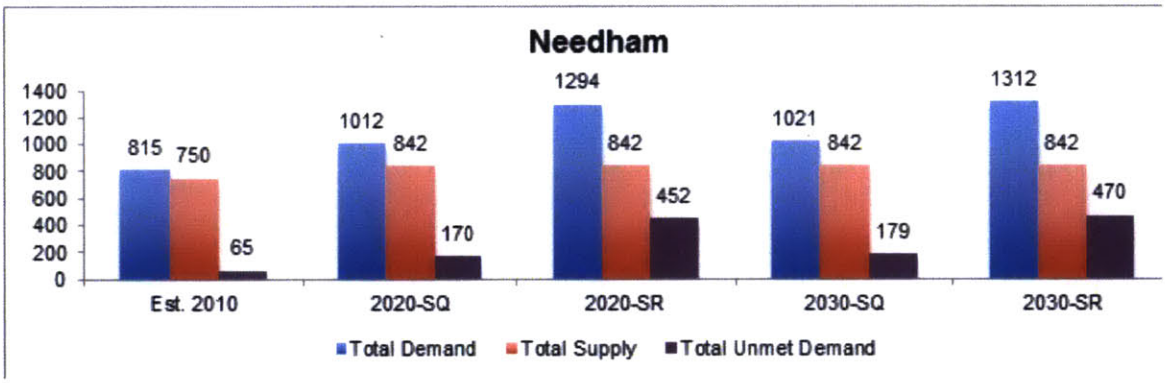



| MARLBOROUGH | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 245 | 245 | 245 | 245 | 245 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 398 | 533 | 738 | 538 | 748 |
| Unmet Unsubsidized Demand | 153 | 288 | 493 | 293 | 503 |
| | | | | | |
| Subsidized+PH Supply | 227 | 227 | 227 | 227 | 227 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 473 | 634 | 878 | 640 | 890 |
| Unmet Subsidized Demand | 246 | 407 | 651 | 413 | 663 |

| MARLBOROUGH | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 870 | 1167 | 1616 | 1177 | 1638 |
| Total Supply | 472 | 472 | 472 | 472 | 472 |
| Total Unmet Demand | **398** | **695** | **1144** | **705** | **1166** |
| Percentage of SEH Demand Unmet | 46% | 60% | 71% | 60% | 71% |
| Unmet Unsubsidized>Unmet Subsidized? | No | No | No | No | No |

## Needham

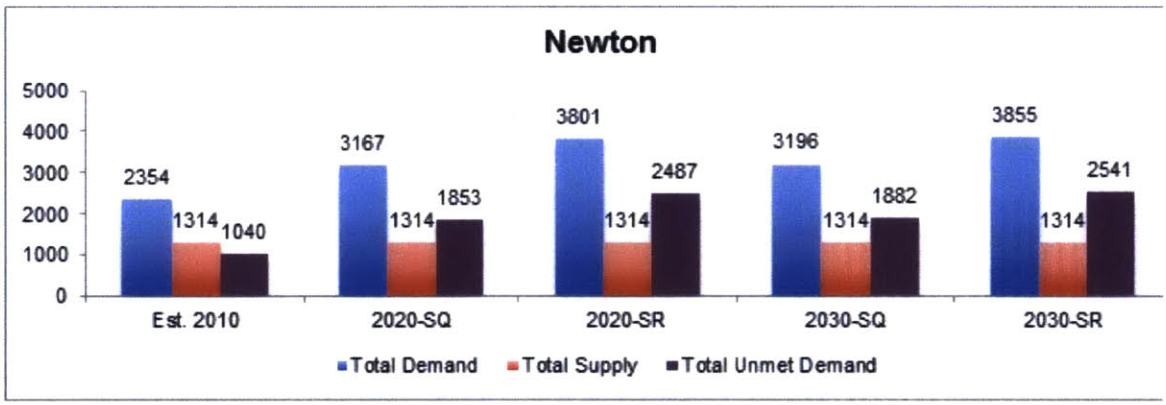
Needham currently has 598 existing units and 92 pipeline units in unsubsidized supply along with 152 units in subsidized supply (private, subsidized + public housing). Unsubsidized demand is projected to increase from 500 units in 2010 to 804 units in the 2030 Stronger Region scenario. Subsidized demand is projected to increase from 316 units in 2010 to 508 units in the 2030 Stronger Region scenario. The unmet unsubsidized need is less than the unmet subsidized need in every scenario because North Hill, a 300+ unit unsubsidized property is located in Needham. This also accounts for the negative unsubsidized unmet need in 2010 and 2020-SQ. Since the Status Quo (SQ) scenario is more conservative, Needham should consider total unmet need for service-enriched housing to be **at least 179 units by 2030**. Note, this figure hides the substantial unmet subsidized need. If Needham does not do anything before 2030-SQ, 18% of service-enriched housing needs will be unmet, or approximately 1 in 5 seniors with LTSS needs over age 65.




| NEEDHAM | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 598 | 598 | 598 | 598 | 598 |
| Unsubsizied-Pipeline | 0 | 92 | 92 | 92 | 92 |
| Unsubsidized Demand | 500 | 620 | 793 | 625 | 804 |
| Unmet Unsubsidized Demand | -98 | -70 | 103 | -65 | 114 |
| | | | | | |
| Subsidized+PH Supply | 152 | 152 | 152 | 152 | 152 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 316 | 392 | 501 | 395 | 508 |
| Unmet Subsidized Demand | 164 | 240 | 349 | 243 | 356 |
| **NEEDHAM** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
| Total Demand | 815 | 1012 | 1294 | 1021 | 1312 |
| Total Supply | 750 | 842 | 842 | 842 | 842 |
| Total Unmet Demand | **65** | **170** | **452** | **179** | **470** |
| Percentage of SEH Demand Unmet | 8% | 17% | 35% | 18% | 36% |
| Unmet Unsubsidized>Unmet Subsidized? | No | No | No | No | No |

## Newton

Newton currently has 575 existing units in unsubsidized supply along with 739 units in subsidized supply (private, subsidized + public housing). Unsubsidized demand is projected to increase from 1,358 units in 2010 to 2,224 units in the 2030 Stronger Region scenario. Subsidized demand is projected to increase from 995 units in 2010 to 1,630 units in the 2030 Stronger Region scenario. The unmet unsubsidized need is greater than the unmet subsidized need in every scenario. Since the Status Quo (SQ) scenario is more conservative, Newton should consider total unmet need for service-enriched housing to be **at least 1,882 units by 2030**. If Newton does not do anything before 2030-SQ, 59% of service-enriched housing needs will be unmet, or approximately 3 in 5 seniors with LTSS needs over age 65.

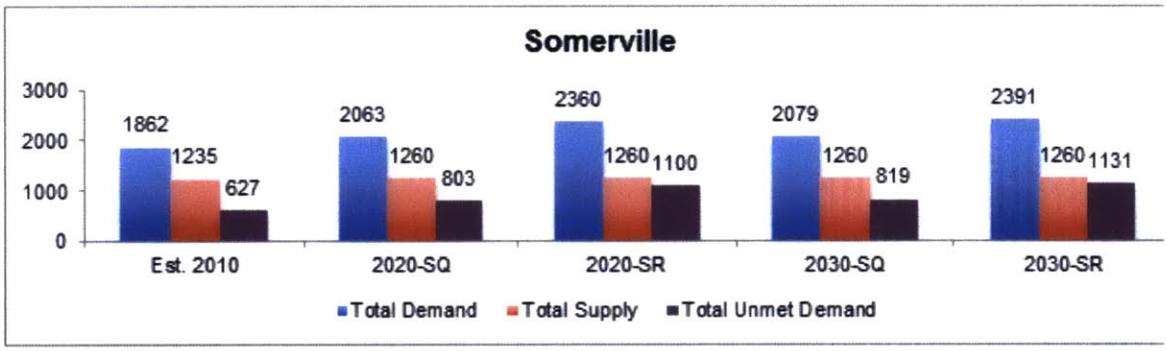



| NEWTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 575 | 575 | 575 | 575 | 575 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 1358 | 1828 | 2194 | 1844 | 2224 |
| Unmet Unsubsidized Demand | 783 | 1253 | 1619 | 1269 | 1649 |
| | | | | | |
| Subsidized+PH Supply | 739 | 739 | 739 | 739 | 739 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 995 | 1339 | 1608 | 1352 | 1630 |
| Unmet Subsidized Demand | 256 | 600 | 869 | 613 | 891 |

| NEWTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 2354 | 3167 | 3801 | 3196 | 3855 |
| Total Supply | 1314 | 1314 | 1314 | 1314 | 1314 |
| Total Unmet Demand | **1040** | **1853** | **2487** | **1882** | **2541** |
| Percentage of SEH Demand Unmet | 44% | 59% | 65% | 59% | 66% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |

## Somerville

Somerville currently has 347 existing units in unsubsidized supply along with 888 existing units and 25 pipeline units in subsidized supply (private, subsidized + public housing). Unsubsidized demand is projected to increase from 629 units in 2010 to 808 units in the 2030 Stronger Region scenario. Subsidized demand is projected to increase from 1,233 units in 2010 to 1,583 units in the 2030 Stronger Region scenario. The unmet unsubsidized need is less than the unmet subsidized need in every scenario largely due to the large low and moderate income population. Since the Status Quo (SQ) scenario is more conservative, Somerville should consider total unmet need for service-enriched housing to be **at least 819 units by 2030**. If Somerville does not do anything before 2030-SQ, 39% of service-enriched housing needs will be unmet, or approximately 2 in 5 seniors with LTSS needs over age 65.

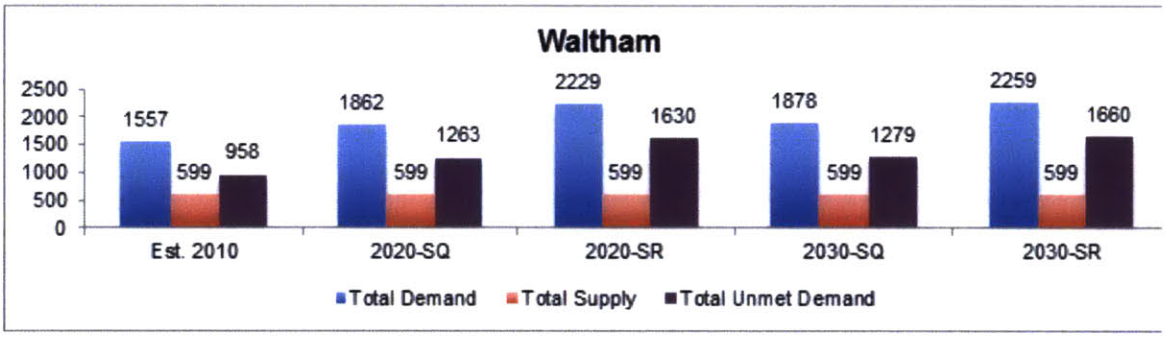



| SOMERVILLE | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 347 | 347 | 347 | 347 | 347 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 629 | 697 | 798 | 703 | 808 |
| Unmet Unsubsidized Demand | 282 | 350 | 451 | 356 | 461 |
| | | | | | |
| Subsidized+PH Supply | 888 | 888 | 888 | 888 | 888 |
| Subsidized-Pipeline | 0 | 25 | 25 | 25 | 25 |
| Subsidized+PH Demand | 1233 | 1366 | 1563 | 1377 | 1583 |
| Unmet Subsidized Demand | 345 | 453 | 650 | 464 | 670 |

| SOMERVILLE | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 1862 | 2063 | 2360 | 2079 | 2391 |
| Total Supply | 1235 | 1260 | 1260 | 1260 | 1260 |
| Total Unmet Demand | **627** | **803** | **1100** | **819** | **1131** |
| Percentage of SEH Demand Unmet | 34% | 39% | 47% | 39% | 47% |
| Unmet Unsubsidized>Unmet Subsidized? | No | No | No | No | No |

## Waltham

Waltham currently has 89 existing units in unsubsidized supply along with 510 existing units in subsidized supply (private, subsidized + public housing). Unsubsidized demand is projected to increase from 620 units in 2010 to 900 units in the 2030 Stronger Region scenario. Subsidized demand is projected to increase from 936 units in 2010 to 1,359 units in the 2030 Stronger Region scenario. The unmet unsubsidized need is less than the unmet subsidized need in the Stronger Region scenario. Since the Status Quo (SQ) scenario is more conservative, Waltham should consider total unmet need for service-enriched housing to be **at least 1,279 units by 2030**. If Waltham does not do anything before 2030-SQ, 68% of service-enriched housing need will be unmet, or approximately 2 in 3 seniors with LTSS needs over age 65. In the 2030-Stronger Region scenario, Waltham has the highest unmet need (73%) among the 15 municipalities in the study

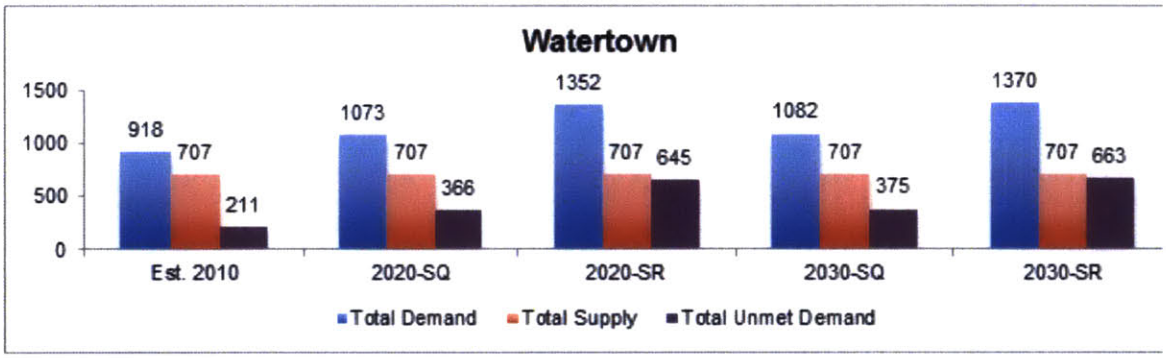



| WALTHAM | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 89 | 89 | 89 | 89 | 89 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 620 | 742 | 888 | 748 | 900 |
| Unmet Unsubsidized Demand | 531 | 653 | 799 | 659 | 811 |
| | | | | | |
| Subsidized+PH Supply | 510 | 510 | 510 | 510 | 510 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 936 | 1120 | 1341 | 1130 | 1359 |
| Unmet Subsidized Demand | 426 | 610 | 831 | 620 | 849 |

| WALTHAM | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 1557 | 1862 | 2229 | 1878 | 2259 |
| Total Supply | 599 | 599 | 599 | 599 | 599 |
| Total Unmet Demand | **958** | **1263** | **1630** | **1279** | **1660** |
| Percentage of SEH Demand Unmet | 62% | 68% | 73% | 68% | 73% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | No | Yes | No |

## Watertown

Watertown currently has 190 existing units in unsubsidized supply along with 517 existing units in subsidized supply (private, subsidized + public housing). Unsubsidized demand is projected to increase from 503 units in 2010 to 751 units in the 2030 Stronger Region scenario. Subsidized demand is projected to increase from 414 units in 2010 to 619 units in the 2030 Stronger Region scenario. The unmet unsubsidized need is greater than the unmet subsidized need in the Stronger Region scenario but not in the Status Quo scenario. This large unmet unsubsidized need is likely due to the fact that Watertown has a large number of subsidized housing options relative to the calculated demand. Since the Status Quo (SQ) scenario is more conservative, Watertown should consider total unmet need for service-enriched housing to be **at least 375 units by 2030**. If Watertown does not do anything before 2030-SQ, 35% of service-enriched housing needs will be unmet, or approximately 1 in 3 seniors with LTSS needs over age 65.

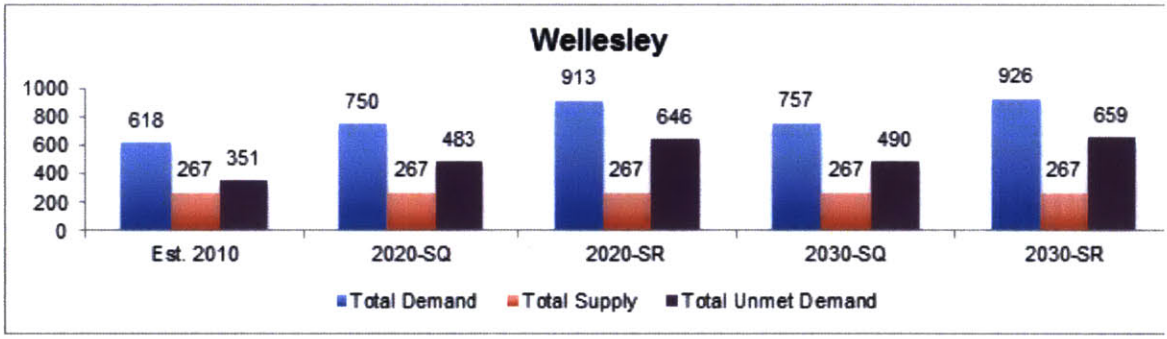



| WATERTOWN | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 190 | 190 | 190 | 190 | 190 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 503 | 588 | 742 | 593 | 751 |
| Unmet Unsubsidized Demand | 313 | 398 | 552 | 403 | 561 |
| Subsidized+PH Supply | 517 | 517 | 517 | 517 | 517 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 414 | 485 | 611 | 489 | 619 |
| Unmet Subsidized Demand | -103 | -32 | 94 | -28 | 102 |

| WATERTOWN | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 918 | 1073 | 1352 | 1082 | 1370 |
| Total Supply | 707 | 707 | 707 | 707 | 707 |
| Total Unmet Demand | **211** | **366** | **645** | **375** | **663** |
| Percentage of SEH Demand Unmet | 23% | 34% | 48% | 35% | 48% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |

## Wellesley

Wellesley currently has 134 existing units in unsubsidized supply along with 133 existing units in subsidized supply (private, subsidized + public housing). Unsubsidized demand is projected to increase from 417 units in 2010 to 624 units in the 2030 Stronger Region scenario. Subsidized demand is projected to increase from 202 units in 2010 to 302 units in the 2030 Stronger Region scenario. The unmet unsubsidized need is greater than the unmet subsidized need in the Stronger Region scenario. Since the Status Quo (SQ) scenario is more conservative, Wellesley should consider total unmet need for service-enriched housing to be **at least 490 units by 2030**. If Wellesley does not do anything before 2030-SQ, 65% of service-enriched housing needs will be unmet, or approximately 2 in 3 seniors with LTSS needs over age 65.




| WELLESLEY | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 134 | 134 | 134 | 134 | 134 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 417 | 506 | 615 | 510 | 624 |
| Unmet Unsubsidized Demand | 283 | 372 | 481 | 376 | 490 |
| | | | | | |
| Subsidized+PH Supply | 133 | 133 | 133 | 133 | 133 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 202 | 245 | 298 | 247 | 302 |
| Unmet Subsidized Demand | 69 | 112 | 165 | 114 | 169 |

| WELLESLEY | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 618 | 750 | 913 | 757 | 926 |
| Total Supply | 267 | 267 | 267 | 267 | 267 |
| Total Unmet Demand | **351** | **483** | **646** | **490** | **659** |
| Percentage of SEH Demand Unmet | 57% | 64% | 71% | 65% | 71% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |

1 *The National Elder Economic Security Standard Index* **(Paper 75, pp. 1-14, Rep.).** (2012). Boston, MA: Gerontology Institute, University of Massachusetts Boston. doi:http://scholarworks.umb.edu/gerontologyinstitute_pubs/75

2 E-mail correspondence with Cate Mingoya, the Director of Policy and Program at the Massachusetts Department of Housing and Community Development (DHCD). October 21, 2015.

3 Data compiled by the author in the JCHE Referral database during the summer and fall of 2015.

# Chapter 6:
## Recommendations

The availability of service-enriched housing is not promising for today's seniors unless a significant initiative is undertaken in the immediate future. The unmet need for service-enriched housing is large in all but four of the municipalities in the study region and is projected to grow by 2030. Service-enriched housing is ripe for expansion in housing stock and the scope of LTSS services available. If service-enriched housing can be a widely available third option, a robust *platform* for long term care, what is the roadmap to that new normal? This study represents just the very beginning of an opportunity for a paradigm shift in the way that seniors live, where they live and the quality of their housing and services as they age with dignity. There is ample room for innovation in this sector and populations that have different characteristics from the MetroWest study region will demand different solutions.

A multi-faceted approach is needed to meet seniors where they are and offer a platform for connection to the services that they need, when they need them. With significant stakeholder involvement and political will, it is both aspirational and feasible to develop service-enriched housing that satisfies all four demand drivers.

Any change in this arena requires coordination of both housing and LTSS financing and regulation. Given that housing and LTSS currently operate in separate silos, the study recommendations are organized in three main categories: increasing the service-enriched housing stock, reforming the provision and regulation of LTSS, and research gaps and opportunities to develop more robust models to assess unmet demand. This is particularly important because this study examined a relatively homogenous population with higher than average incomes, lower than average rates of disability and lower populations of people of color.

Deep-rooted change requires buy-in among a variety of stakeholders across business, policymakers and researchers. The state government, especially state agencies such as EOEA, DHCD and DPH wield tremendous influence to enact these recommendations. The creation of new coalitions that are cross sector (LTSS & Housing) as well as cross-market (low-income and high-income seniors) can put forward robust advocacy campaigns that will advance the implementation of these recommendations. One example of a strong coalition for the low-income senior population is the Supportive Housing Network of New York (SHNNY). There are already strong lobbying groups to draw on for partnerships. The private, unsubsidized sector has a state-wide lobbying organization, MassALFA. The private, subsidized sector has a state-wide lobbying group, LeadingAge. In addition, Jewish Community Housing for the Elderly recently created an Aging in Community (AIC) collaborative among non-profits, which seeks to expand the supply of senior housing.

Among the initiatives that a broad advocacy coalition could champion include:

- Develop a campaign to educate seniors and elected officials about the current crisis of unmet demand and the affordability of existing housing and LTSS

options.

- Develop a state-wide Senior Housing Assistance Network, similar to the one recently created in Boston to assist seniors with their housing search, application assistance, court advocacy, housing education, reverse mortgage information, hoarding services, etc.
- Create a state-wide Senior Housing Innovation Demonstration project (similar to the Boston initiative)

The Metro Boston region is somewhat similar in size and composition to other metropolitan areas in the United States. While a coalition may start as state-specific and many of these recommendations below are specific to the Metro Boston region, they should be considered for other regions and could grow into national campaigns.

**Increasing the housing stock**

There are two main ways to increase the supply of service-enriched housing: new construction and rehabilitation/reuse/repurposing. In order to achieve this outcome, new forms of financing, a stronger funding commitment from the public sector and streamlined regulations are needed. The City of Boston has already responded in a proactive manner by creating a separate chapter on senior housing in their *Housing a Changing City: Boston 2030* housing plan which makes a commitment to constructing 1,500 units of low-income, 2,500 units of moderate income and 1,000 units of high-income senior housing. Other municipalities can follow Boston's example when they create their housing plans.

**New Construction**

- Land availability
  - Designate surplus municipal land to subsidized senior housing prioritizing land that is close to services and transportation.
  - Create incentives or simplify land assemblage and permitting to allow existing communities to expand on their land or adjacent land to reduce development land costs and operating expenses. This is particularly important for subsidized housing properties which already have a long waiting list and are most cost constrained.
  - Use land use exactions on developers for the benefit of building additional service-enriched housing for services that may benefit all parties and reduce the burden on municipalities (i.e. subsidize the cost of a robust regional shuttle system or additional emergency response staff).
  - Allow homeowners to build accessory dwelling units on their property, to at least address, to a degree, housing accessibility, social isolation, and financial security and affordability. Note that this zoning change has been implemented in Portland, Oregon and Vancouver, Canada with low rates of uptake among homeowners. In Vancouver 3.0% of eligible properties have been developed while in Portland only

1.5% have been developed.[1]

- Provide a density bonus and reduced parking ratios to reduce the total development costs, especially for subsidized housing.
- Adopt Senate Bill S.601, "Visitability" legislation for all new construction (not just age-restricted) and include universal design in the State QAP
- Adopt House Bill H.534 a "Small Home" program for four unrelated individuals

**Rehabilitate/Reuse/Repurpose/Preserve**

- Enhance the state's Home Modification Loan Program (administered by the Massachusetts Rehabilitation Commission), which is currently significantly underused (~200 homes per year) through increasing the total amount that can be borrowed (currently $30,000), charging an interest rate above the Treasury prime at a sliding scale and expanding advertising efforts. A technical assistance program for this loan program may also be required.
- Identify recent or upcoming nursing home & hospital closures for potential repurposing. These buildings are well-designed for accessibility and typically in central locations.
- Identify or plan for strategic school closures in order to repurpose them for housing. According to MAPC, the school population is projected to decrease in many MetroWest towns.
- Fund the recapitalization and preservation of existing Section 202 properties and expiring use properties. The Section 202 properties, 100% owned by non-profits, are permanently affordable housing; no unit has been lost in Massachusetts. These non-profit owners can also explore the availability of Affordable Care Act funds to finance these rehabilitation projects.
- Fund the capital needs of public housing for the elderly and young disabled, the largest service-enriched housing stock in the majority of the municipalities.
- Encourage landlords of multi-family buildings (20+ units) that have become Naturally Occurring Retirement Communities (NORCs) to seek funding and conversion to service-enriched housing (allow those existing tenants that don't meet the age requirements to be grandfathered in).
- Identify the suburban version of a Naturally Occurring Retirement Community (NORC), i.e. suburban subdivisions where a platform for connections to services can be delivered to the residents in an efficient and cost-effective manner similar to the Village to Village model

**Financing**

- Create a new statewide public equity fund for housing development similar to the old Section 202 program so that these new and preserved units remain permanently affordable and avoid Year 15 recapitalization issues which become a time and cost burden on the non-profit developer to find a new investor.
- Identify partnerships with public pension fund investors whose employees may directly

engage with the senior housing and services sector. One potential partnership is with home care workers who are part of the 1199SEIU labor union. The more successful these properties are, the more these employees will benefit both in their retirement funds and in their personal salaries and job security.

- Create new standardized underwriting guidelines for service-enriched housing that will require funds for resident services and care coordination, transportation, a meals program, etc.
- Consolidate, to the greatest extent possible, all service-enriched funding programs under one agency, the state Executive Office of Elder Affairs (EOEA) in order to expedite the creation of new housing and the preservation of existing housing.
- Implement mandatory inclusionary housing requirements in service-enriched housing with a similar framework that allows market-rate developers to build the unit on-site or contribute to a fund.

**Regulation**

- To the greatest extent possible, regulate all service-enriched senior housing under one parent agency: the state Executive Office of Elder Affairs (EOEA).
- Allow entry-fee properties to be counted toward the Subsidized Housing Inventory (SHI). These properties are not currently permitted in the SHI because the entry-fee is higher than what would otherwise be considered affordable to a low or moderate income individual. However, seniors are unique in that they are house-rich and cash poor so the funds for the entry-fee come from the sale of the home.
- Streamline the Area Median Income (AMI) and the SSI Federal Benefit Rate (FBR) income limit definitions to make housing and LTSS program eligibility more efficient and easier for stakeholders to navigate.

**Reforming the provision and regulation of LTSS to benefit seniors and caregivers**

How can reform of the provision and regulation of LTSS work for everyone? As Rosalynn Carter pointed out, there are four constituencies in the caregiving and LTSS sector, "those who have been caregivers, those who are currently caregivers, those who will be caregivers, and those who will need caregivers." More and more, seniors who need caregivers want only the amount of care that they need at any given time and want to avoid "spending down" to Medicaid income and asset eligibility levels. In Massachusetts, there are many seniors that make slightly too much to receive Home and Community Based Services waivers or Home Care but cannot afford to private pay for LTSS. Today, these seniors often rely on informal caregivers, many of whom are not only burdened with their duties but also have full time jobs. Without informal care or the ability to private pay, many seniors go without care. In the future, seniors will need to rely on formal caregiving but these caregivers are barely paid living wages and senior housing communities are challenged by high staff turnover rates and a projected shortfall of workers. How can LTSS reform make this career more attractive to the young adults who will be formal

caregivers in the future? This section focuses on the two key constituencies, seniors and their caregivers.

**Caregivers**

- Provide state funds or Affordable Care Act community benefit funds for resident service coordinators (RSC) at all subsidized age-restricted properties.
- Reform Self-Administered Medication Management (SAMM) regulations to increase the number of available providers.
- Allow independent senior housing to identify a preferred home care agency to their residents. Currently, independent housing cannot restrict choice for LTSS services among their residents. By identifying a preferred provider, these communities may negotiate for a lower cost of care through bulk purchasing and more efficient scheduling without taking away choice from seniors who may wish to select other LTSS providers. This could allow for the creation of a "Ladder of Care"2, where the senior can purchase small (30 minute) increments of care a la carte rather than two hour minimums.
- Permit the creation of a deliberate mix of frailty in independent housing similar to the community housing with service type described in Chapter 3. This change would affect waiting lists and enhance a community's ability to staff appropriately. HUD has already set a precedent for this policy at Sanborn Place in Reading, Massachusetts. Sanborn Place was highlighted in Atul Gawande's book Being Mortal.
- Create small business lending programs and start-up opportunities for home-care agencies and LTSS technology firms in order to increase the number of variety of personal care attendant and home health aide jobs as well as potentially increasing wages. Far too often, personal care attendants and home health aides are paid under the table without benefits.
- Encourage the business community to increase the availability of paid leave to care for elderly parents.
- Adopt House Bill H.70 to allow spouses to be paid as caregivers by Medicaid.
- Simplify the labyrinth of LTSS administering agencies.
- Regulate the LTSS services, not the building as done in Connecticut to cut down on insurance liability and building costs as well as permit a greater diversity of caregiver regulation and licensing in any given setting.

**Help Seniors Avoid Spending-Down to Medicaid income and asset eligibility**

- Require universal, catastrophic long-term care insurance, which would better differentiate the Medicare and Medicaid markets and reduce the occurrence of the "spend-down decision.
- Implement a new, mandatory version of the CLASS act so that seniors in Massachusetts would receive at least a minimum stipend for personal care. The CLASS Act would require all Massachusetts residents to participate in a public insurance program for long-term care.
- Adopt Senate Bill S.361 to raise the income eligibility for home care from $27,000 to

$35,000 (approximately 50% AMI) or revise the bill to allow for higher income eligibility on a sliding scale.

- Create a statewide Accountable Care Organization (ACO)/Senior Care Options (SCO) database that would allow these insurers to identify the number of clients that they have in any given senior housing community and fund the LTSS infrastructure costs (i.e. care coordination and wellness nurse) according to their proportional share of the resident population or at a capitated rate.
- Expand the PACE program to be offered in at least every county in Massachusetts and purposely place PACE offices at senior living communities. PACE offers a sliding scale cost program so seniors can use as much or as little of the services available.
- Adopt House Bill H.1022 to end age discrimination in the Medicaid program by making the income and asset rules for seniors the same as more generous rules for young disabled.
- The state should aim to reduce the rate of institutional care from 40 beds to 28 beds (national average) by increasing Home and Community Based Services waivers through drawing on the state's 2008 Community First Olmstead Act that requires the state to provide services to people with disabilities in the most integrated setting possible.
- Reform care/needs-based eviction procedures. As LTSS regulations change, senior housing communities and the courts will need to reexamine their residency agreements.

**Research Gaps and Opportunities**

Seniors, like everyone else, have been treated like consumers throughout their lives. Consumer research is not yet as common or robust for the senior population as might be expected. There is very little quality data on seniors and their projected housing and LTSS needs, especially at the municipal and county-level scales. More robust studies that explore the benefits of LTSS services in housing are needed to further the integration of funding and regulation between these two sectors.

- Request that the American Community Survey disaggregate all data for the 65+ population into 5 or 10 year intervals (i.e. 65-75; 75-85, 85+) despite concerns about a high Margin of Error.
- Add new questions to the American Community Survey and 10 year Census to find out more information about social isolation/senior mobility patterns, housing accessibility, and new multigenerational household trends. For example, one question that could be added is, "Do you have a primary relative (parent or child) that lives within 20 miles and that you see in person at least monthly?"
- Gather data on racial, ethnic and LGBTQ differences in the use and quality of Residential Care versus Assisted Living.
- Track the number of age-restricted properties in the Subsidized Housing Inventory (SHI) and require municipalities to plan separately for the housing needs of the senior population in their Town Housing Plans.
- Fund additional studies to measure the medical expenditure savings and quality of life

outcomes based on the availability of LTSS services in housing. This will contribute to the literature on the social determinants of health.

- Use data from falls prevention studies to create a new design standard for age-restricted service-enriched housing (i.e. the equivalent of the Enterprise Green Communities standard). A particular focus on memory care design will be useful.
- Incentivize service-enriched housing communities to invest in electronic medical record (EMR) technology to track personal care use, staffing needs and identify cost savings measures through reimbursement or seed funding.
- Identify towns where the zoning code was relaxed (density bonuses and accessory dwelling units) and analyze the outcomes of those interventions (i.e. New York City's recent Zoning for Quality and Affordability amendment which gave density bonuses and reduced parking rations for age-restricted housing).
- Fund new experimental programs to address social isolation and loneliness. For example, Self-Help, a non-profit in New York City created a free Virtual Senior Center that operates on the Google Hangouts platform.
- Fund new experiments to explore opportunities made available by the Internet of Things (IoT) and robotics. For example, currently Assisted Living communities do not accommodate two person transfers. With the evolution of robotics, this may change in the future.

These recommendations are just a few among the many possibilities to shift the paradigm in senior housing. A multi-faceted and complex issue, the growth of service-enriched housing as a widely available third option will require champions across the business, policy and research sectors. Through advocacy and coalition building that bridges housing and LTSS, these two sectors will begin to learn each other's language (truly an alphabet soup of acronyms) and spread the message of service-enriched housing as a preferred platform for connections to key services.

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1 Barth, B. (2016, April). Granny Flats Gaining Ground. *The Magazine of the American Planning Association*, 16-17.

2 The term "Ladder of Care" was coined by Lizbeth Heyer at Jewish Community Housing for the Elderly in January 2016.

# Chapter 7:
## Conclusion

This study strived to answer a number of different questions: What drives demand for service-enriched housing? What senior housing and Long Term Support Services programs are available to seniors in the Greater Boston area? To what degree are these programs integrated and coordinated to best serve seniors and facilitate collaboration among housing and LTSS providers? What is the existing and projected supply and demand for service-enriched housing in the Greater Boston study region? Is there a mismatch between demand and supply? How large is the unmet need? Can regulatory changes and new financing initiatives increase the supply of service-enriched housing stock to meet projected demand by 2030?

A rigorous study of service-enriched housing and the health outcomes as well as potential cost savings will have repercussions at the national, state and municipal levels. Service-enriched housing is part of a national conversation about the looming cost burden to care for the "silver tsunami" which is expected to use an increasing proportion of the national GDP and state budgets (for Medicaid expenditures). Without a solution for long-term care, many seniors, including moderate-income seniors, will "spend down" to Medicaid income and asset eligibility and require not only Medicaid funds but also subsidized housing. Homelessness rates among seniors are expected to increase substantially. The Massachusetts state budget is particularly at risk because nursing homes (paid for by Medicaid) are an entitlement while home care is not. Meanwhile there is a tight housing market in Greater Boston crowding out young families despite many seniors living in housing that is inappropriate given their small household size, higher service needs and the housing's inaccessible design. All of the additional public funds that will be channeled to seniors will crowd out national and state spending on infrastructure, education and other high needs compromising the state's young population. There is also a moral case for service-enriched housing. The way a society treats their elders is a reflection on that society's values. Seniors have contributed to the economic and social vibrancy of the United States and should expect to age with dignity. The caregivers who provide Long Term Support Services (LTSS) should be treated with equal respect and their work should be compensated appropriately not only because it is valuable but also to increase the number of individuals that choose this profession to meet the projected need for caregivers.

Metro Boston and the state of Massachusetts is well prepared to take the exemplar and undertake LTSS reform, increase the funds for housing and thereby increase the availability of service-enriched housing. Massachusetts is well-known for its leadership in healthcare and affordable housing innovation. Major public policy initiatives are often challenged by political cycles. However, both Governor Charlie Baker, with a background in healthcare and City of Boston Mayor Marty Walsh, with a background in labor unions, are at the beginning of their first terms. There is relevant legislation already under consideration in both the House and the Senate. These are the seeds that have been planted and can grow with the development of advocacy campaigns to increase service-enriched housing supported by robust cross-sector

(housing and LTSS) and cross-market (unsubsidized, subsidized and public housing) coalitions.

The overall case for a robust increase and enhancement of service-enriched housing in the Greater Boston area is described in the summaries and key findings from each section of the study.

**Study Overview**

Chapter 1 made the case for selecting the MetroWest area within Greater Boston as the study area. Today in Greater Boston and around the state of Massachusetts there is significant political engagement around senior housing and services reform. Nationally, there is broad engagement around the social determinants of health and the intersection of housing and healthcare.

Chapter 2 drew on the literature on senior housing and service to create a theoretical framework for service-enriched housing as a platform for connections to services that mitigate the four key drivers: Financial Security and Affordability, Long Term Support Services (LTSS), Social Isolation and Loneliness, and Inaccessible Housing stock. Service-Enriched Housing can provide affordable housing, rich social connections and quality, accessible housing with connections to or on-site delivery of Long Term Support Services.

Chapter 3 described the positive research outcomes of service-enriched housing and then provided overviews of the stakeholders involved in the LTSS and housing sectors to identify their interests and incentives to collaborate with a particular focus on the subsidized population as well as the independent living and senior apartment typologies. The integrated "options" chart placed these two sectors and their programs side by side to put forth the scenarios that seniors as well as housing and LTSS stakeholders face today as they navigate their options. The chart illustrates the need to incentivize the LTSS and housing providers at all levels of affordability and all housing typologies to work together to improve outcomes, achieve cost savings and further scale service-enriched housing as a viable option for more than just 20% of the Massachusetts senior population. The three "Options Charts" for housing, LTSS and combined, could be replicated for other regions and states as tools for both consumer education and policymakers.

Chapter 4 described the methodology used to identify the study region, collect the existing and projected service-enriched housing supply data and calculate the current and projected demand for service-enriched housing. New categories to calculate unsubsidized housing and subsidized housing demand were created using the income limits of the various housing and LTSS programs. There were two principal constraints in the methodology: (1) there is an *over count* of age-restricted public housing units available because it was not possible to differentiate units available to seniors and units available to the young disabled and (2) only two of the four demand drivers, financial security and affordability, and demand for Long Term Support Services were considered in the demand calculation likely resulting in an *underestimate* of true demand. There was one main constraint with the data that affected the analysis. Municipal-specific American Community Survey data on disability rates and income distribution were only available for 15 of the 24 municipalities so there are nine municipalities where demand,

and thus unmet need could not be calculated for service-enriched housing.

Chapter 5 presented the data on the total existing and projected supply of and demand for service-enriched housing at the municipal level and in a comparative look across municipalities. The difference between available supply and demand is presented as unmet need. The chapter concludes with a one-page summary on the supply, demand and unmet need for the 15 municipalities in the study area with complete data. The key findings are:

1) There are a total of 22,541 existing service-enriched housing units and 695 planned/pipeline units in the 24 municipality study region. Public housing has the highest number of service-enriched units at 9,048 (40%) followed by private, subsidized units at 6,765 units (30%) and private, unsubsidized (market-rate) units at 6,728 units (30%).
2) Today, there are just four municipalities: Hopkinton, Needham, Watertown and Dedham, which to a degree, are doing their fair share in terms of the supply. In these four municipalities today fewer than 1 in 4 seniors have unmet demand for service-enriched housing although this is projected to grow by 2030.
3) By 2030, according to a Status Quo scenario there will be unmet demand for 22,894 units of service-enriched housing of which there is unmet demand for 10,941 subsidized and public housing units in the 15 of the 24 towns in the study area with complete data.
4) The severity of unmet need increases over time. By 2030 in the Status Quo scenario, 1 in 2 seniors in 8 of the 15 municipalities will have unmet demand, 1 in 3 seniors in 5 of the municipalities will have unmet demand and just two municipalities will have 1 in 5 and 1 in 10 seniors with unmet demand.

The demographics of the study region are characteried by higher household incomes, lower disability rates and lower populations of people of color, which may mean that the unmet need data presented is likely even more severe in other parts of the state of Massachusetts.

Chapter 6 proposed a series of recommendations to enhance integration between housing and LTSS programs, providers, financing and regulation. Given the high projection for unmet demand in 2030, it is not possible to entirely solve this problem through the development of new units and preservation of existing units. Three primary strategies are suggested: 1) increase the supply of service-enriched housing, 2) reform the provision and regulation of LTSS in housing, and 3) resolve data gaps as well as pursue opportunities for further research. Strategies to increase the supply of housing include new construction with a specific focus on the availability of land, rehabilitation/reuse/repurpose existing buildings, and new forms of financing and streamlined regulations. Strategies to reform the provision of Long Term Support Services focus on two main constituencies: caregivers (formal and informal) and seniors who seek to avoid spending down to Medicaid eligibility levels. There are opportunities for new coalitions to be created based on advocacy platforms that intersect housing and LTSS that will drive the proposed reforms.

Finally, there are significant data gaps and future research opportunities in this field. The

data gaps, especially on the 75+ and 85+ populations compromise the ability to develop robust models to measure demand for service-enriched housing. Strategies to collect this data as well as data in other areas such as racial, ethnic and LGBT service-enriched housing demand are suggested. Areas for future research, such as the effect of LTSS services in housing on medical expenditures and health outcomes, new experimental programs for zoning reform, technological adaptations for social isolation and big data analysis for leveraging new funding from Accountable Care Organizations and Senior Care Options insurance programs are suggested.

**Next Steps**

With such a broad range of recommendations that cross multiple sectors, there is both an opportunity to leverage expertise and political will in a variety of areas but also a risk that without a clear and ongoing emphasis on the interrelated nature of service-enriched housing that new initiatives could undermine existing programs, and compete, rather than collaborate for funding and attention from businesses, policymakers and researchers. Strategic collaboration in this arena is best suited for implementation at the state level among the agency secretaries so that there is coordinated budgeting and municipalities aren't competing with one another. The state has the most exposure to budget challenges if it doesn't innovate away from institutional care toward home and community based LTSS services. The state also has access to secure data on healthcare programs and usages as well as housing properties to further inform appropriate initiatives.

The greatest demand for service-enriched housing and the height of the "silver tsunami" is expected in 2030. If nothing changes, in the majority of municipalities in the study area, at least 1 in 3 and in some cases, more than 1 in 2 seniors, who are parents, grandparents, spouses and friends, will be left with unmet need for service-enriched housing. If new financing and regulatory reform can be in place by the end of Baker and Walsh's first terms, a robust and accelerated building boom can occur from 2018-2030 to serve Massachusetts "Baby Boomer" seniors.

# Methodology Appendix

## Housing Supply Sources

*Community Economic Development Assistance Corporation (CEDAC)*

The Department of Housing Preservation and Policy at CEDAC, a quasi-state agency in Massachusetts provided a list of all of the Section 202 properties in the study area, including property names, addresses, number of units as well as the Fair Market Value (FMV) monthly rents as of April 2015 paid to housing providers through voucher programs including PRAC and Section 8.

*Department of Housing and Community Development (DHCD)*

DHCD provided the total number of state-financed elderly and young disabled units by town (not by property due to privacy laws) as well as a list of those properties that specifically offer the Supportive Senior Housing Program described in the Chapter 3. The data is current as of January 2016. DHCD also provided the names of the private, subsidized projects that have been built or are in the pipeline since the beginning of 2013 (the end of Section 202 funding). The data is current as of January 2016. There were only two of these projects in the pipeline according to the data that DHCD collects in the Subsidized Housing Inventory (SHI) from the municipalities. There may be properties that were not captured due to non-reporting. The two properties are:

Putnam Square Apartments, Cambridge; 94 units (2013 funding round-completed)

Mystic Waterworks, Somerville; 25 units (2015 funding round)

*Department of Housing and Urban Development- Massachusetts State Office (HUD)*

The HUD Office of Multifamily Housing provided a list of federally financed elderly and young disabled public housing including Development name, the name of the Public Housing Authority (PHA) and the number of units at the development. The data is current as of January 2016.

*JCHE Referral Database*

JCHE created a referral database to be better equipped to field requests for housing from two populations that they do not typically serve: seniors who are over the income-limits for their subsidized housing and/or seniors who seek LTSS integrated in their housing on-site. The referral database was created using three publicly accessible state housing registry sites and the LeadingAge Consumer Guide. Only those properties that offered some level of LTSS services, a minimum of the resident services coordinator function, were included in the database. In addition to these third party print and online sources, hundreds of phone calls directly to the property manager and marketing director yielded additional data on the level of services available as well as housing and LTSS pricing information. The private, unsubsidized housing supply and pricing information is compiled in this database. The database is current as

of September 2015 and requests for access to this database should be directed to JCHE.

*MassALFA*

The Director of Marketing at MassALFA provided a list of all certified Assisted Living and Memory Care/Special Care Unit properties, addresses and number of units in each category. The data is current as of September 2015.

*Metropolitan Area Planning Council (MAPC)*

The Metropolitan Area Planning Council (MAPC) maintains a Development Database (http://dd.mapc.org/) with information about residential, commercial and mixed-use development projects recently completed, in construction or planning. According to the website, the municipal planning staff submits the majority of the data. A database search was conducted using the following filters: age-restricted (YES), project status (Construction, Planning and Projected), year of completion and town. Many condo and townhouse properties came up which do not offer any LTSS services. Those properties are not included in the projected supply data. The data is current as of January 2016.

*Real Capital Analytics (RCA)*

The Real Capital Analytics (RCA) database was used to identify private, unsubsidized projects that had recently been developed as well as properties that had recently been sold for redevelopment and repositioning. RCA is the largest searchable database of loans, properties, borrowers and lenders in commercial property investment. The data sort was conducted based on geography within the Seniors Housing & Care investment product. The data is current as of December 2015.

**Housing Demand Methodology**

**Step 1:** Aggregate Existing and Projected Households 65 years old and over by municipality

In January 2014, the Metropolitan Area Planning Council (MAPC) produced a report, *Population and Housing Demand Projections for Metro Boston.* This report includes household projections by specific age cohort (65-69; 70-74; 75-79; 80-84; 85+) from 1990 to 2030. MAPC created population projections for 2020 and 2030 using two different scenarios: the *Status Quo* scenario and the *Stronger Region* scenario. MAPC projected birth and death rates as well as interregional and international migration rates based on these two scenarios. The *Status Quo (SQ)* scenario assumes that domestic migration rates continue at the average of the past five to seven years. The *Stronger Region (SR)* scenario anticipates that net outmigration from the region continues to slowly decline by 1% per year as a result of stronger economic growth relative to the rest of the nation. The Stronger Region scenario yields slightly higher population totals so the Status Quo scenario will present a more conservative housing demand estimate. The population and household demand projections calculated by MAPC use a cohort survival methodology with age and race-specific fertility and mortality rates. Household demand is

derived from age-specific headship rates (yielding higher 65+ household counts due to the frequency of single person households). The following data inputs are incorporated in MAPC's household calculations: Base population and group quarters share of the population, Fertility and Mortality, Net Migration (in/out of region)[1] and Housing Units (including type, tenure, income by age of householder).[2]

MAPC calculated the smaller age-specific cohort data (i.e. migration rates for the 75-79 group). This study aggregates these cohorts into one 65+-year-old cohort because the Census data on disability rates and income distribution is only available for the entire 65+ cohort (weighted average)[3]. It would be ideal to have data specific to each age cohort because the literature shows that there are large differences in income and frailty between age 65 and age 85. Household counts, rather than population counts were used in order to match up the anticipated demand for household units with the existing and projected supply. The total household counts in Figure A-1 are used as inputs in the demand calculation.

MAPC's Household Projections are:
Household Population, 2010 Estimate
Household Population, 2020 Status Quo Scenario,
Household Population, 2020 Stronger Region Scenario,
Household Population, 2030 Status Quo Scenario and
Household Population, 2030 Stronger Region Scenario.

**Figure A-1.** MAPC's Raw Household Data by Age Cohort and Scenario

| **ARLINGTON** | | | | | |
|---|---|---|---|---|---|
| AGE | HHEst_10 | HH_20_SQ_ | HH_30_SQ_ | HH_20_SR | HH_30_SR |
| 65_69 | 1,107 | 1,657 | 1,852 | 1,670 | 1,879 |
| 70_74 | 894 | 1,392 | 1,647 | 1,402 | 1,668 |
| 75_79 | 922 | 971 | 1,469 | 978 | 1,486 |
| 80_84 | 850 | 655 | 1,028 | 660 | 1,039 |
| 85+ | 821 | 760 | 747 | 771 | 761 |
| **TOTALS** | **4,594** | **5,434** | **6,742** | **5,481** | **6,832** |

**Step 2:** Filter total household demand that remains in the municipality by rate of disability

The rate of disability is used as a proxy for LTSS needs. The American Community Survey (ACS) Table C18130 provides five-year estimate data on "Age by Disability Status by Poverty Status." The information used from the table is calculated by taking the total count of the 65+ population with a disability and dividing it by the total count of seniors 65 years and over. The poverty status sub-category is not considered. This percentage is applied to all age and income cohorts. Given that the disability count is for individuals while the data used from MAPC is for households, it is possible that the number of seniors with disabilities is being over counted, however, this is not a significant concern because many senior households end up living apart

in two separate units for health reasons, especially related to dementia and memory care. These numbers yield the total household demand for service-enriched housing. The calculation is: Total 65+ population with a disability/ Total 65+ population = Percentage 65+ W/Disability

There is a large range in rates of disabilities among the municipalities with a low of 24.7% in Lexington and a high of 42% in Boston. The average disability rate is 30%. The literature shows that the disability rates among the 75+ and 85+ specific-cohorts are often higher than 40%; these numbers are weighted for the entire 65+ population.

**Table A-2.** Age By Disability for the 65 and Over Population

| **Age By Disability** Status **by Municipality (ACS14_5YR C18130)** | **Total 65+** | **Total 65+ with a Disability** | **65+ Percentage with a disability** |
|---|---|---|---|
| Arlington | 6,544 | 1,757 | 26.8% |
| Boston | 63,648 | 26,751 | 42.0% |
| Brookline | 8,520 | 2,334 | 27.4% |
| Cambridge | 11,203 | 3,271 | 29.2% |
| Dedham | 4,455 | 1,627 | 36.5% |
| Framingham | 8,933 | 2,684 | 30.0% |
| Hopkinton | 366 | 101 | 27.6% |
| Lexington | 5,542 | 1,367 | 24.7% |
| Marlborough | 4,758 | 1,403 | 29.5% |
| Needham | 4,728 | 1,328 | 28.1% |
| Newton | 13,301 | 3,773 | 28.4% |
| Somerville | 7,082 | 2,699 | 38.1% |
| Waltham | 7,691 | 2,515 | 32.7% |
| Watertown | 4,848 | 1,344 | 27.7% |
| Wellesley | 3,787 | 969 | 25.6% |

**Step 3:** Sort the Service-Enriched Housing demand according to the housing and LTSS program income eligibility limits.

Although Step 2 yields aggregate household demand by municipality for service-enriched housing, Step 3 takes the analysis a step further to match the anticipated demand among moderate-income and low-income households to the subsidized units (<80% AMI) and the anticipated demand among high-income seniors to the unsubsidized units (>80% AMI). The income limits for the LTSS programs and subsidized senior housing are key factors in the decision to seek service-enriched housing and have a choice among the different offerings. These income limits are applied to the income categories in ACS Table B19037 (Figure A-3) to simplify the calculation and improve data analysis. The alignment of Table B19037 to the program income limits is not exact but it is a very close approximation. Whenever possible, the

lower income bracket was used to underestimate the demand for subsidized housing with the exception of the 80% AMI group which uses the $45,000 to $49,999 income range and the 80%AMI-100% AMI income group as shown in Figure A-3. The income groups are shown in the table below and in Figure A-4.

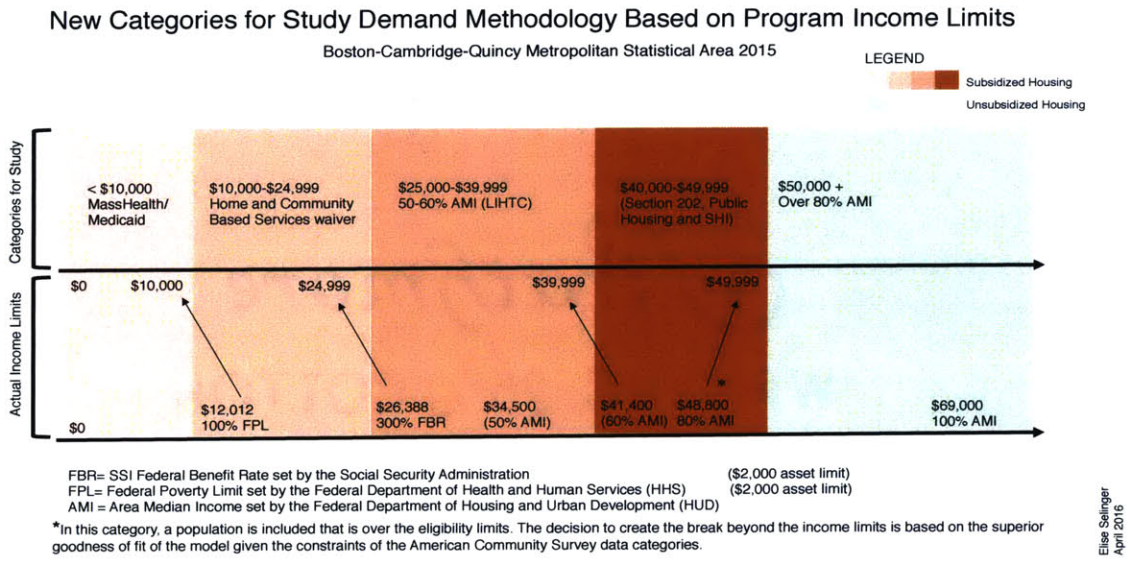
**Figure A-3**

| **Age of Householder 65+by Household Income in the Past 12 Months ACS14 Table B19037** | **Categories created based on program income limits** |
|---|---|
| SEEKING SUBSIDIZED HOUSING | |
| Less than $10,000 | Medicaid/MassHealth |
| $10,000 to $14,999 | HCBS Waiver |
| $15,000 to $19,999 | HCBS Waiver |
| $20,000 to $24,999 | HCBS Waiver |
| $25,000 to $29,999 | <60% AMI |
| $30,000 to $34,999 | <60% AMI |
| $35,000 to $39,999 | <60% AMI |
| $40,000 to $44,999 | ~80% AMI |
| $45,000 To $49,999 | ~80% AMI |
| SEEKING UNSUBSIDIZED HOUSING | |
| $50,000 To $59,999 | Over 80% AMI |
| $60,000 To $74,999 | Over 80% AMI |
| $75,000 To $99,999 | Over 80% AMI |
| $100,000 To $124,999 | Over 80% AMI |
| $125,000 To $149,999 | Over 80% AMI |
| $150,000 To $199,999 | Over 80% AMI |
| $200,000 or More | Over 80% AMI |

These income categories are summarized in the chart below.

| Income Limit Proxy | Program |
|---|---|
| <$10,000 | Medicaid/MassHealth $8,796) |
| $10,000- $24,999 | HCBS Waivers ($26,388) |
| $25,000- $39,999 | ~50-60% AMI ($34,500-$41,400) |
| $40,000- $49,999 | ~80% AMI ($48,800) |
| $50,000+ | Over 80% AMI |

**Figure A-4**




In order to apply these income distributions to the demand calculation, the percentage of residents in each cohort is calculated by dividing the total count of households in each income bracket by all total households. This is a less than ideal representation because the literature shows that the income of the 85 and older population is approximately half of the income of the 65-69 years old cohort (see Chapter 2) however, this is the best data available at this time because income distribution within age cohorts in the 65 and older population (i.e. 75+, 85+) is not available. Throughout orange identifies the subsidized (<80% AMI) category and green identifies the unsubsidized category. The income distribution varies widely among municipalities. The highest combined percentage for unsubsidized (>80% AMI) is 67.4% in Wellesley while the lowest is in Boston at 32.5%.

**Figure A-5**

| ARLINGTON | Raw Count | Category Totals | Percent of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 4,474 | | |
| Less Than $10,000 | 295 | 295 | 6.6% |
| $10,000 To $14,999 | 427 | | |
| $15,000 To $19,999 | 318 | | |
| $20,000 To $24,999 | 418 | 1,163 | 26.0% |
| $25,000 To $29,999 | 263 | | |
| $30,000 To $34,999 | 252 | | |
| $35,000 To $39,999 | 260 | 775 | 17.3% |

| | | | |
|---|---|---|---|
| $40,000 To $44,999 | 192 | | |
| $45,000 To $49,999 | 124 | 316 | 7.1% |
| $50,000 To $59,999 | 296 | | |
| $60,000 To $74,999 | 401 | | |
| $75,000 To $99,999 | 512 | | |
| $100,000 To $124,999 | 178 | | |
| $125,000 To $149,999 | 125 | | |
| $150,000 To $199,999 | 166 | | |
| $200,000 or More | 247 | 1,925 | 43.0% |

The final demand count is displayed again.

| ARLINGTON | | | Est 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|---|---|
| Total House-holds 65+ | (Step 1) | | 4,594 | 5,434 | 6,742 | 5,481 | 6,832 |
| Percentage with disability | (Step 2) | | 26.8% | 26.8% | 26.8% | 26.8% | 26.8% |
| Demand for housing | | | 1,233 | 1,459 | 1,810 | 1,472 | 1,834 |
| Income distribu-tion | (Step 3) | | | | | | |
| | <$10,000 (Medicaid) | 6.6% | 81 | 96 | 119 | 97 | 121 |
| | <$25,000 (HCBS) | 26.0% | 321 | 379 | 471 | 383 | 477 |
| | <$40,000 (60% AMI) | 17.3% | 214 | 253 | 314 | 255 | 318 |
| | <$50,000 (80% AMI) | 7.1% | 87 | 103 | 128 | 104 | 130 |
| | $50,000+ (80% AMI+) | 43.0% | 531 | 628 | 779 | 633 | 789 |
| | TOTAL | | 1,233 | 1,459 | 1,810 | 1,472 | 1,834 |

For example, in Arlington, based on the 2010 household estimates, there is demand for 703 (81+321+214+87) subsidized units and 531 unsubsidized units (Note: the data is rounded up to whole units). The table can also be read in the following ways: In 2010, there was a combined demand for 1,233 service-enriched units; in 2010, there was demand for 81 units among the <$10,000 household income group (Medicaid).

1 Migration is an important data input given the number of seniors who move for a variety of reasons, often seeking a warmer climate. In order to replicate these household projections in other regions without MAPC's ready-made data, net migration will need to be incorporated into the model separately

2 Reardon, T., & Hari, M. (2014, January). *Population and Housing Demand Projections for Metro Boston: Regional Projections and Provisional Municipal Forecasts Appendix B* [Rep]. In *Metropolitan Area Planning Council (MAPC)*. Retrieved October 1, 2015, from http://www.mapc.org/projections P. 2.

3 The group that may seek housing between the ages of 55 and 65 (some housing is available to the 55+ population) was not considered in this analysis because it was not possible to use the other relevant demographic variables in this study, income and disability status, which are only produced in aggregate for the 65 and over cohort. This results in a likely underestimate of demand (consistent with the intention of the study) among the low-income senior population, which seeks service-enriched housing based on need rather than preference. In general, the share of community dwelling adults who are going into public housing at this age for the first time is assumed to be very small or there is a high likelihood that they are already living there.

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# Table A-6

## APPENDIX: TOTAL SERVICE-ENRICHED HOUSING SUPPLY IN STUDY AREA as of January 2016

| ARLINGTON | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline- Unsubsidized | Pipeline- Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Brightview of Arlington | 90 | | | | | | |
| Sunrise of Arlington | 100 | | | | | | |
| DHCD- Public Housing Elderly/Disabled | | | 520 | | | | |
| Totals | 190 | 0 | 520 | **710** | 0 | 0 | **0** |
| Pecentage of Total Housing | 27% | 0% | 73% | 100% | | | |

| ASHLAND | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline- Unsubsidized | Pipeline- Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Chestnut Place | 207 | | | | | | |
| The Residence at Valley Farms DHCD- Public Housing Elderly/Disabled | 84 | | 40 | | | | |
| Totals | 291 | 0 | 40 | **331** | 0 | 0 | **0** |
| Pecentage of Total Housing | 88% | 0% | 12% | 100% | | | |

| BOSTON | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline- Unsubsidized | Pipeline- Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| 132 Chestnut Hill Ave | | | | | | | 61 |
| Angela Westover House | | 11 | | | | | |
| Back of the Hill Apartments | | 125 | | | | | |
| Barnes School Elderly Housing | | 55 | | | | | |
| Bay Cove Group Homes | | 35 | | | | | |
| Bay Cove Group Homes (W 3rd) | | 12 | | | | | |
| Bay Cover Group Homes II | | 8 | | | | | |
| Beacon House | | 107 | | | | | |
| Beaverbrook Step | | 14 | | | | | |
| Bernard Talbot Senior Housing | | 30 | | | | | |
| Blackstone Apartments | | 145 | | | | | |
| Blue Ledge Cooperative | | 80 | | | | | |
| Cardinal Medeiros Manor | | 55 | | | | | |
| Casa Maria Apartments | | 85 | | | | | |
| Castle Cove Cooperative | | 65 | | | | | |
| Central Boston Elder Services | | 57 | | | | | |
| Charlestown Elderly | | 42 | | | | | |
| Chauncy House | | 88 | | | | | |
| Cheriton Grove Apartments | | 60 | | | | | |
| Cheriton Heights Apartments | | 70 | | | | | |
| Chestnut Park at Cleveland Circle | 90 | | | | | | |
| City Square Elderly Housing | | 120 | | | | | |
| Cleveland Circle Cinema | | | | | 92 | | |
| Compass on the Bay | | 39 | | | | | |
| Council Tower | | 145 | | | | | |
| Covenant House | | 150 | | | | | |
| Covenant House (II) | | 50 | | | | | |
| Deutsches Altenheim Addition | 62 | | | | | | |
| DHCD- Public Housing Elderly/Disabled | | | 177 | | | | |
| Domicilia (I & II) | | 10 | | | | | |
| Edelweiss Village | 62 | | | | | | |
| Farnsworth House | | 76 | | | | | |
| Franklin Park Villa Cooperative | | 61 | | | | | |
| Franklin Square | | 193 | | | | | |
| Geneva Elderly Housing | | 45 | | | | | |
| Hale House | | 56 | | | | | |
| Harvard Place | | 21 | | | | | |
| Hong Lok Housing | | 74 | | | | | |
| HUD 24-30 Rockland Street | | | 40 | | | | |
| HUD Federal Elderly/Disabled-Amory Street | | | 215 | | | | |
| HUD Federal Elderly/Disabled-Annapolis Street HUD | | | 56 | | | | |
| Federal Elderly/Disabled-Ashmont Street | | | 54 | | | | |
| HUD Federal Elderly/Disabled-Ausonia Homes HUD | | | 100 | | | | |
| Federal Elderly/Disabled-Bellflower Street HUD Federal | | | 114 | | | | |
| Elderly/Disabled-Codman Apartments HUD Federal | | | 102 | | | | |
| Elderly/Disabled-Davison Apartments HUD Federal | | | 47 | | | | |
| Elderly/Disabled-Eva White Apartments HUD Federal | | | 102 | | | | |
| Elderly/Disabled-Fidelis Way | | | 116 | | | | |
| HUD Federal Elderly/Disabled-Foley Apartments HUD | | | 96 | | | | |
| Federal Elderly/Disabled-Fredrick Douglas HUD Federal | | | 78 | | | | |
| Elderly/Disabled-General Warren HUD Federal Elderly/ Disabled-Groveland | | | 96 | | | | |
| | | | 48 | | | | |
| HUD Federal Elderly/Disabled-Hampton House HUD | | | 78 | | | | |
| Federal Elderly/Disabled-Hassan Apartments HUD | | | 100 | | | | |
| Federal Elderly/Disabled-Heritage | | | 31 | | | | |
| HUD Federal Elderly/Disabled-Holgate Apartments | | | 81 | | | | |
| HUD Federal Elderly/Disabled-J.J. Carrol Apartments | | | 64 | | | | |
| HUD Federal Elderly/Disabled-JJ Meade Apartments | | | 40 | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| HUD Federal Elderly/Disabled-Lower Mills | | | 19 | | | | |
| HUD Federal Elderly/Disabled-Malone Apartments | | | 102 | | | | |
| HUD Federal Elderly/Disabled-MLK Tower | | | 104 | | | | |
| HUD Federal Elderly/Disabled-Pasciucco | | | 92 | | | | |
| HUD Federal Elderly/Disabled-Patricia White Apartments HUD | | | 225 | | | | |
| Federal Elderly/Disabled-Peabody Square | | | 103 | | | | |
| HUD Federal Elderly/Disabled-Pond Street | | | 44 | | | | |
| HUD Federal Elderly/Disabled-Rockland Towers | | | 69 | | | | |
| HUD Federal Elderly/Disabled-Roslyn Apartments | | | 119 | | | | |
| HUD Federal Elderly/Disabled-Spring Street | | | 104 | | | | |
| HUD Federal Elderly/Disabled-St. Botolph Street | | | 132 | | | | |
| HUD Federal Elderly/Disabled-Torre Unidad | | | 199 | | | | |
| HUD Federal Elderly/Disabled-Walnut Park | | | 165 | | | | |
| HUD Federal Elderly/Disabled-Washington Beech Phase 1B | | | 37 | | | | |
| HUD Federal Elderly/Disabled-Washington Manor | | | 77 | | | | |
| HUD Federal Elderly/Disabled-Washington Street | | | 82 | | | | |
| HUD Federal Elderly/Disabled-West Ninth Street | | | 84 | | | | |
| Humboldt Elderly Apartments | | | | | | 20 | |
| John Boyle O'Reilly School | | 32 | | | | | |
| Joy Street Residence | | 20 | | | | | |
| Julia Martin House | | 55 | | | | | |
| Kenmore Abbey | | 200 | | | | | |
| Landmark at Longwood | 100 | | | | | | |
| Longfellow House | | 44 | | | | | |
| Lyman School Apartments | | 45 | | | | | |
| Maria Sanchez House | | 40 | | | | | |
| Mary Colbert Apartments | | 30 | | | | | |
| Mason Place | | 127 | | | | | |
| MHP II | | 12 | | | | | |
| MHP III | | 12 | | | | | |
| MHPI Community Apartments | | 6 | | | | | |
| MHPI IV | | 32 | | | | | |
| MHPI IV (Dorchester) | | 15 | | | | | |
| MHPI V | | 16 | | | | | |
| MHPI VI | | 18 | | | | | |
| MHPI VII | | 15 | | | | | |
| Milton Residences for the Elderly | | 18 | | | | | |
| Mishawum Assisted Living | | 66 | | | | | |
| Morville House | | 176 | | | | | |
| Mount Pleasant Home | 60 | | | | | | |
| Neponset Field | | 30 | | | | 95 | |
| Noble House | | 18 | | | | | |
| Nonantum Village Place | | 34 | | | | | |
| O'Connor Way | | | | | | 46 | |
| On Luck Housing | | 74 | | | | | |
| Pine Street Inn | | 10 | | | | | |
| Providence House at Corey Park | 102 | | | | | | |
| Quincy Towers | | 162 | | | | | |
| Riley House | | 40 | | | | | |
| Rockland Street Elderly | | 40 | | | | | |
| Rogerson House | | 66 | | | | | |
| Roslindale School | | 84 | | | | | |
| Ruggles Affordable Assisted Living | | 43 | | | | | |
| Smith House | | 132 | | | | | |
| Sophia Snow House | 36 | | | | | | |
| South Boston Elderly Housing | | 50 | | | | | |
| Spencer House | | 46 | | | | | |
| Springhouse Senior Living | 135 | | | | | | |
| St. Cecilias House | | 123 | | | | | |
| St. Helena's House | | 73 | | | | | |
| Standish Village at Lower Mills | 85 | | | | | | |
| Sterns Apartments | | 140 | | | | | |
| Susan Bailis Assisted Living | 82 | | | | | | |
| Symphony Plaza East/West | | 139 | | | | | |
| The Foley Senior Residences | 116 | | | | | | |
| Ulin House; Leventhal; Genesis | | 705 | | | | | |
| Villa Michelangelo | | 71 | | | | | |
| West Fenway Apartments | | 48 | | | | | |
| Woodbourne Apartments | | 75 | | | | | |
| Zelma Lacey House | 66 | | | | | | |
| Totals | 996 | 5366 | 3592 | **9,954** | 92 | 222 | **314** |
| Pecentage of Total Housing | 10% | 54% | 36% | 100% | 29% | 71% | 100% |

| BROOKLINE | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Center Communities of Brookline- 112 Centre Street | | 104 | | | | | |
| Center Communities of Brookline- 100 Centre Street | | 212 | | | | | |
| Center Communities of Brookline- 1550 Beacon Street | | 175 | | | | | |
| DHCD- Public Housing Elderly/Disabled | | | 223 | | | | |
| Goddard House | 169 | | | | | | |
| Goddard House Expansion | | | | | | 54 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Totals | 169 | 491 | 223 | **883** | 54 | 0 | **54** |
| Pecentage of Total Housing | 19% | 56% | 25% | 100% | 100% | 0% | |

| CAMBRIDGE | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Cadbury Commons | 74 | | | | | | |
| DHCD- Public Housing Elderly/Disabled | | | 301 | | | | |
| HUD Federal Elderly/Disabled-Washington Elms | | | 302 | | | | |
| Neville Place | 73 | | | | | | |
| Putnam Square | | 94 | | | | | |
| The Cambridge Homes | 44 | | | | | | |
| Youville House Assisted Living | 95 | | | | | | |
| Totals | 286 | 94 | 603 | **983** | 0 | 0 | **0** |
| Pecentage of Total Housing | 29% | 10% | 61% | 100% | | | |

| CONCORD | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Junction Village | | | | | 83 | | |
| Concord Park | 86 | | | | | | |
| DHCD- Public Housing Elderly/Disabled | | | 88 | | | | |
| Newbury Court | 97 | | | | | | |
| Totals | 183 | 0 | 88 | **271** | 83 | 0 | **83** |
| Pecentage of Total Housing | 68% | 0% | 32% | 100% | 100% | | |

| DEDHAM | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Brookdale Dedham | 113 | | | | | | |
| DHCD- Public Housing Elderly/Disabled | | | 205 | | | | |
| NewBridge | 347 | | | | | | |
| Traditions of Dedham | 96 | | | | | | |
| Totals | 556 | 0 | 205 | **761** | 0 | 0 | **0** |
| Pecentage of Total Housing | 73% | 0% | 27% | 100% | | | |

| FRAMINGHAM | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Brookdale Cushing Park | 225 | | | | | | |
| Carmel Terrace Senior Living | 69 | | | | | | |
| DHCD- Public Housing Elderly/Disabled | | | 536 | | | | |
| Heritage at Framingham | 98 | | | | | | |
| Shillman House | | 150 | | | | | |
| Tribune Apartments | | 53 | | | | | |
| Totals | 392 | 203 | 536 | **1,131** | 0 | 0 | **0** |
| Pecentage of Total Housing | 35% | 18% | 47% | 100% | | | |

| HOPKINTON | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Golden Pond Assisted Living | 108 | | | | | | |
| DHCD- Public Housing Elderly/Disabled | | | 98 | | | | |
| Hopkinton Retirement Residence | | | | | 127 | | |
| Totals | 108 | 0 | 98 | **206** | 127 | 0 | **127** |
| Pecentage of Total Housing | 52% | 0% | 48% | 100% | | | |

| LEXINGTON | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Brookhaven at Lexington | 238 | | | | | | |
| DHCD- Public Housing Elderly/Disabled | | | 148 | | | | |
| Youville Place | 71 | | | | 0 | | |
| Totals | 309 | 0 | 148 | **457** | 0 | 0 | **0** |
| Pecentage of Total Housing | 68% | 0% | 32% | 100% | | | |

| LINCOLN | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| The Commons in Lincoln | 130 | | | | | | |
| Totals | 130 | 0 | 0 | **130** | 0 | 0 | **0** |
| Pecentage of Total Housing | 100% | 0% | 0% | 100% | | | |

| MARLBOROUGH | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Christopher Heights of Marlborough | 83 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DHCD- Public Housing Elderly/Disabled | | | 227 | | | | |
| New Horizons at Marlborough | 162 | | | | | | |
| Totals | 245 | 0 | 227 | **472** | 0 | 0 | **0** |
| Pecentage of Total Housing | 52% | 0% | 48% | 100% | | | |

| NATICK | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline- Unsubsidized | Pipeline- Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| DHCD- Public Housing Elderly/Disabled | | | 325 | | | | |
| Whitney Place at Natick | 39 | | | | | | |
| Totals | 39 | 0 | 325 | **364** | 0 | 0 | **0** |
| Pecentage of Total Housing | 11% | 0% | 89% | 100% | | | |

| NEEDHAM | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline- Unsubsidized | Pipeline- Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Avery Crossing | 60 | | | | | | |
| Avita of Needham | 62 | | | | | | |
| DHCD- Public Housing Elderly/Disabled-Chambers Street 667-3 | | | 80 | | | | |
| DHCD- Public Housing Elderly/Disabled-Linden St 667-1 DHCD- | | | 32 | | | | |
| Public Housing Elderly/Disabled-Linden St 667-2 | | | 40 | | | | |
| North Hill CCRC | 375 | | | | | | |
| The Residences at Wingate | 101 | | | | | | |
| Wingate Expansion | | | | | 92 | | |
| Totals | 598 | 0 | 152 | **750** | 92 | 0 | **92** |
| Pecentage of Total Housing | 80% | 0% | 20% | 100% | | | |

| NEWTON | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline- Unsubsidized | Pipeline- Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Alternative Home | | 8 | | | | | |
| Boylston Place at Chestnut Hill | 48 | | | | | | |
| Cabot Park Village | 100 | | | | | | |
| Campus House (I) Coleman House | | 146 | | | | | |
| DHCD- Public Housing Elderly/Disabled | | | 60 | | | | |
| Evans Park at Newton Corner | 115 | | | | | | |
| Golda Meir House (I) | | 124 | | | | | |
| Golda Meir House (II) | | 26 | | | | | |
| HUD Federal Elderly/Disabled-Echo Ridge | | | 36 | | | | |
| HUD Federal Elderly/Disabled-Horace Mann Apartments | | | 226 | | | | |
| HUD Federal Elderly/Disabled-Nonantum Village | | | 36 | | | | |
| Lasell Village at Lasell College | 182 | | | | | | |
| Pierce House | | 34 | | | | | |
| Scandinavia Living Center | 40 | | | | | | |
| Sumner Street Housing for the Elderly | | 43 | | | | | |
| The Falls at Cordingly Dam | 90 | | | | | | |
| Totals | 575 | 381 | 358 | **1,314** | 0 | 0 | **0** |
| Pecentage of Total Housing | 44% | 29% | 27% | 100% | | | |

| SHERBORN | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline- Unsubsidized | Pipeline- Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Woodhaven Senior Housing Complex | | | 24 | | | | |
| Totals | 0 | 0 | 24 | **24** | 0 | 0 | **0** |
| Pecentage of Total Housing | 0% | 0% | 100% | 100% | | | |

| SOMERVILLE | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline- Unsubsidized | Pipeline- Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Center House | | 9 | | | | | |
| DHCD Properzi Manor (HUD) | | | 110 | | | | |
| DHCD- Public Housing Elderly/Disabled | | | 275 | | | | |
| HUD Federal Elderly/Disabled-Brady Towers Jeanne | | | 369 | | | | |
| Jugan Residence | 27 | | | | | | |
| Mount Pleasant Apartments | 65 | | | | | | |
| Somerville Home | 59 | | | | 0 | | |
| VNA Assisted Living Community- Lowell St | 97 | | | | | | |
| VNA Senior Living Community- Alewife Brook Pkwy | 99 | | | | | | |
| Walnut Street Center | | 30 | | | | | |
| SHA Capen Court | | | 95 | | | | |
| SHA Mystic Waterworks | | | | | | 25 | |
| Totals | 347 | 39 | 849 | **1,235** | 0 | 25 | **25** |
| Pecentage of Total Housing | 28% | 3% | 69% | 100% | | 100% | |

| SUDBURY | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline- Unsubsidized | Pipeline- Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| DHCD- Public Housing Elderly/Disabled - Musketahquid Village | | | 64 | | | | |
| Orchard Hill at Sudbury | 45 | | 27 | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| The Coolidge at Sudbury | 64 | | | | | | |
| Totals | 109 | 0 | 91 | **200** | 0 | 0 | **0** |
| Pecentage of Total Housing | 55% | 0% | 46% | 100% | | | |

| WALTHAM | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| DHCD- Public Housing Elderly/Disabled | | | 226 | | | | |
| HUD Federal Elderly/Disabled-Charles A Lawless Apt | | | 265 | | | | |
| South Street Congregate Housing | | | 19 | | | | |
| Waltham Crossing | 89 | | | | | | |
| Totals | 89 | 0 | 510 | **599** | 0 | 0 | **0** |
| Pecentage of Total Housing | 15% | 0% | 85% | 100% | | | |

| WATERTOWN | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Apartments at Coolidge School | 38 | | | | | | |
| Arsenal Apartments | | 156 | | | | | |
| Brigham House | 62 | | | | | | |
| DHCD- Public Housing Elderly/Disabled HUD | | | 276 | | | | |
| Federal Elderly/Disabled-Watertown HA | | | 50 | | | | |
| Marshall Place | | 10 | | | | | |
| St. Joseph's Hall | | 25 | | | | | |
| The Residence at Watertown Square | 90 | | | | | | |
| Totals | 190 | 191 | 326 | **707** | 0 | 0 | **0** |
| Pecentage of Total Housing | 27% | 27% | 46% | 100% | | | |

| WAYLAND | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| Carriage House at Lee's Farm | 62 | | | | | | |
| Sunrise of Wayland Traditions of Wayland | 59 | | | | | | |
| | 100 | | | | | | |
| Totals | 221 | 0 | 0 | **221** | 0 | 0 | **0** |
| Pecentage of Total Housing | 100% | 0% | 0% | 100% | | | |

| WELLESLEY | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| DHCD- Public Housing Elderly/Disabled | | | 133 | | | | |
| Waterstone at Wellesley | 134 | | | | | | |
| Totals | 134 | 0 | 133 | **267** | 0 | 0 | **0** |
| Pecentage of Total Housing | 50% | 0% | 50% | 100% | | | |

| WESTON | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| EPOCH Weston Memory Care Assisted Living | 21 | | | | | | |
| Maplewood at Weston | 93 | | | | | | |
| Sunrise of Weston | 29 | | | | | | |
| Totals | 143 | 0 | 0 | **143** | 0 | 0 | **0** |
| Pecentage of Total Housing | 100% | 0% | 0% | 100% | | | |

| WESTWOOD | Unsubsidized Units | Subsidized Units | Public Housing Units | Existing Units Total | Pipeline-Unsubsidized | Pipeline-Subsidized | Total Pipeline as of 2016 |
|---|---|---|---|---|---|---|---|
| White Oak Cottages | 24 | | | | | | |
| Bridges by EPOCH | 64 | | | | | | |
| Fox Hill | 340 | | | | | | |
| Totals | 428 | 0 | 0 | **428** | 0 | 0 | **0** |
| Pecentage of Total Housing | 100% | 0% | 0% | 100% | | | |

# Table A-7

MAPC Projections Age by Household Projections 2010-2030
Status Quo and Stronger Region Scenarios

| ARLINGTON AGE | HHEst_10 | HH_20_SQ | HH_30_SQ | HH_20_SR | HH_30_SR |
|---|---|---|---|---|---|
| 65_69 | 1,107 | 1,657 | 1,852 | 1,670 | 1,879 |
| 70_74 | 894 | 1,392 | 1,647 | 1,402 | 1,668 |
| 75_79 | 922 | 971 | 1,469 | 978 | 1,486 |
| 80_84 | 850 | 655 | 1,028 | 660 | 1,039 |
| 85+ | 821 | 760 | 747 | 771 | 761 |
| TOTALS | 4,594 | 5,434 | 6,742 | 5,481 | 6,832 |

| BOSTON AGE | HHEst_10 | HH_20_SQ | HH_30_SQ | HH_20_SR | HH_30_SR |
|---|---|---|---|---|---|
| 65_69 | 12,600 | 17,510 | 19,054 | 17,646 | 19,322 |
| 70_74 | 9,536 | 14,049 | 16,732 | 14,144 | 16,939 |
| 75_79 | 7,933 | 9,649 | 13,843 | 9,716 | 14,003 |
| 80_84 | 6,299 | 5,727 | 8,699 | 5,777 | 8,793 |
| 85+ | 5,648 | 4,963 | 5,278 | 5,036 | 5,376 |
| TOTALS | 42,016 | 51,899 | 63,606 | 52,319 | 64,434 |

| BROOKLINE AGE | HHEst_10 | HH_20_SQ | HH_30_SQ | HH_20_SR | HH_30_SR |
|---|---|---|---|---|---|
| 65_69 | 1,474 | 1,871 | 1,681 | 1,886 | 1,705 |
| 70_74 | 1,023 | 1,854 | 1,604 | 1,867 | 1,624 |
| 75_79 | 909 | 1,243 | 1,603 | 1,251 | 1,621 |
| 80_84 | 782 | 779 | 1,419 | 785 | 1,434 |
| 85+ | 864 | 828 | 988 | 840 | 1,006 |
| TOTALS | 5,053 | 6,574 | 7,295 | 6,629 | 7,390 |

| CAMBRIDGE AGE | HHEst_10 | HH_20_SQ | HH_30_SQ | HH_20_SR | HH_30_SR |
|---|---|---|---|---|---|
| 65_69 | 2,336 | 2,865 | 2,413 | 2,887 | 2,445 |
| 70_74 | 1,513 | 2,475 | 2,275 | 2,491 | 2,303 |
| 75_79 | 1,323 | 1,843 | 2,320 | 1,856 | 2,346 |
| 80_84 | 1,004 | 944 | 1,585 | 952 | 1,602 |
| 85+ | 983 | 840 | 933 | 851 | 949 |
| TOTALS | 7,159 | 8,966 | 9,527 | 9,036 | 9,645 |

DEDHAM

| AGE | HHEst_10 | HH_20_SQ | HH_30_SQ | HH_20_SR | HH_30_SR |
|---|---|---|---|---|---|
| 65_69 | 627 | 916 | 1,107 | 924 | 1,123 |
| 70_74 | 528 | 756 | 1,001 | 762 | 1,014 |
| 75_79 | 571 | 674 | 964 | 679 | 975 |
| 80_84 | 528 | 469 | 659 | 474 | 666 |
| 85+ | 523 | 683 | 827 | 693 | 842 |
| TOTALS | 2,778 | 3,499 | 4,557 | 3,531 | 4,621 |

FRAMINGHAM

| AGE | HHEst_10 | HH_20_SQ | HH_30_SQ | HH_20_SR | HH_30_SR |
|---|---|---|---|---|---|
| 65_69 | 1,563 | 2,104 | 2,434 | 2,121 | 2,471 |
| 70_74 | 1,108 | 1,722 | 1,967 | 1,734 | 1,993 |
| 75_79 | 1,078 | 1,275 | 1,735 | 1,284 | 1,756 |
| 80_84 | 963 | 820 | 1,291 | 827 | 1,305 |
| 85+ | 882 | 945 | 1,071 | 960 | 1,091 |
| TOTALS | 5,594 | 6,865 | 8,499 | 6,926 | 8,616 |

HOPKINTON

| AGE | HHEst_10 | HH_20_SQ | HH_30_SQ | HH_20_SR | HH_30_SR |
|---|---|---|---|---|---|
| 65_69 | 256 | 518 | 760 | 522 | 771 |
| 70_74 | 159 | 412 | 668 | 415 | 676 |
| 75_79 | 122 | 220 | 453 | 221 | 459 |
| 80_84 | 91 | 114 | 301 | 115 | 305 |
| 85+ | 77 | 63 | 92 | 64 | 94 |
| TOTALS | 705 | 1,326 | 2,274 | 1,337 | 2,304 |

LEXINGTON

| AGE | HHEst_10 | HH_20_SQ | HH_30_SQ | HH_20_SR | HH_30_SR |
|---|---|---|---|---|---|
| 65_69 | 834 | 1,304 | 1,384 | 1,315 | 1,406 |
| 70_74 | 679 | 1,045 | 1,231 | 1,053 | 1,248 |
| 75_79 | 715 | 827 | 1,271 | 833 | 1,286 |
| 80_84 | 618 | 545 | 827 | 550 | 837 |
| 85+ | 618 | 656 | 731 | 666 | 746 |
| TOTALS | 3,464 | 4,376 | 5,444 | 4,417 | 5,522 |

MARLBOROUGH

| AGE | HHEst_10 | HH_20_SQ | HH_30_SQ | HH_20_SR | HH_30_SR |
|---|---|---|---|---|---|
| 65_69 | 846 | 1,233 | 1,662 | 1,243 | 1,687 |
| 70_74 | 616 | 984 | 1,353 | 992 | 1,371 |
| 75_79 | 605 | 735 | 1,087 | 740 | 1,099 |
| 80_84 | 421 | 474 | 737 | 479 | 745 |
| 85+ | 463 | 531 | 640 | 539 | 651 |

| NEEDHAM | | | | | |
|---|---|---|---|---|---|
| AGE | HHEst_10 | HH_20_SQ | HH_30_SQ | HH_20_SR | HH_30_SR |
| 65_69 | 706 | 1,101 | 1,236 | 1,111 | 1,255 |
| 70_74 | 515 | 895 | 1,104 | 901 | 1,119 |
| 75_79 | 580 | 621 | 964 | 625 | 975 |
| 80_84 | 508 | 411 | 708 | 415 | 716 |
| 85+ | 594 | 573 | 595 | 582 | 605 |
| TOTALS | 2,903 | 3,602 | 4,607 | 3,634 | 4,670 |

| NEWTON | | | | | |
|---|---|---|---|---|---|
| AGE | HHEst_10 | HH_20_SQ | HH_30_SQ | HH_20_SR | HH_30_SR |
| 65_69 | 2,141 | 3,276 | 3,250 | 3,304 | 3,300 |
| 70_74 | 1,527 | 2,914 | 2,834 | 2,936 | 2,872 |
| 75_79 | 1,511 | 1,951 | 2,978 | 1,965 | 3,013 |
| 80_84 | 1,486 | 1,266 | 2,369 | 1,277 | 2,395 |
| 85+ | 1,633 | 1,758 | 1,970 | 1,784 | 2,009 |
| TOTALS | 8,298 | 11,165 | 13,401 | 11,266 | 13,589 |

| SOMERVILLE | | | | | |
|---|---|---|---|---|---|
| AGE | HHEst_10 | HH_20_SQ | HH_30_SQ | HH_20_SR | HH_30_SR |
| 65_69 | 1,315 | 1,777 | 1,882 | 1,791 | 1,909 |
| 70_74 | 1,075 | 1,522 | 1,648 | 1,532 | 1,669 |
| 75_79 | 962 | 957 | 1,317 | 963 | 1,332 |
| 80_84 | 764 | 594 | 849 | 599 | 857 |
| 85+ | 771 | 563 | 498 | 571 | 506 |
| TOTALS | 4,887 | 5,412 | 6,194 | 5,456 | 6,273 |

| WALTHAM | | | | | |
|---|---|---|---|---|---|
| AGE | HHEst_10 | HH_20_SQ | HH_30_SQ | HH_20_SR | HH_30_SR |
| 65_69 | 1,329 | 1,821 | 1,911 | 1,837 | 1,940 |
| 70_74 | 959 | 1,420 | 1,645 | 1,431 | 1,666 |
| 75_79 | 949 | 1,061 | 1,473 | 1,068 | 1,490 |
| 80_84 | 805 | 649 | 974 | 655 | 985 |
| 85+ | 718 | 742 | 812 | 753 | 828 |
| TOTALS | 4,760 | 5,693 | 6,815 | 5,743 | 6,910 |

| WATERTOWN | | | | | |
|---|---|---|---|---|---|
| AGE | HHEst_10 | HH_20_SQ | HH_30_SQ | HH_20_SR | HH_30_SR |
| 65_69 | 811 | 1,229 | 1,299 | 1,239 | 1,318 |
| 70_74 | 631 | 1,082 | 1,308 | 1,090 | 1,325 |
| 75_79 | 714 | 769 | 1,179 | 774 | 1,193 |
| 80_84 | 612 | 467 | 803 | 471 | 812 |
| 85+ | 543 | 323 | 289 | 328 | 293 |
| TOTALS | 3,310 | 3,871 | 4,878 | 3,903 | 4,941 |

| WELLESLEY | TOTALS | 2,952 | 3,958 | 5,479 | 3,993 | 5,554 |
|---|---|---|---|---|---|---|
| AGE | | HHEst_10 | HH_20_SQ | HH_30_SQ | HH_20_SR | HH_30_SR |
| | 65_69 | 688 | 885 | 1,060 | 892 | 1,076 |
| | 70_74 | 495 | 778 | 837 | 784 | 849 |
| | 75_79 | 467 | 591 | 768 | 595 | 778 |
| | 80_84 | 401 | 364 | 575 | 367 | 581 |
| | 85+ | 367 | 316 | 329 | 320 | 335 |
| | TOTALS | 2,417 | 2,932 | 3,569 | 2,958 | 3,619 |

# Table A-8

Age of Householder By Household Income In the Past 12 Months
(In 2014 Inflation-Adjusted Dollars ACS 5Yr 2015 Table B19037)

| ARLINGTON | Raw Count | Category Totals | Perct. of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 4,474 | | |
| Less Than $10,000 | 295 | 295 | 6.6% |
| $10,000 To $14,999 | 427 | | |
| $15,000 To $19,999 | 318 | | |
| $20,000 To $24,999 | 418 | 1,163 | 26.0% |
| $25,000 To $29,999 | 263 | | |
| $30,000 To $34,999 | 252 | | |
| $35,000 To $39,999 | 260 | 775 | 17.3% |
| $40,000 To $44,999 | 192 | | |
| $45,000 To $49,999 | 124 | 316 | 7.1% |
| $50,000 To $59,999 | 296 | | |
| $60,000 To $74,999 | 401 | | |
| $75,000 To $99,999 | 512 | | |
| $100,000 To $124,999 | 178 | | |
| $125,000 To $149,999 | 125 | | |
| $150,000 To $199,999 | 166 | | |
| $200,000 or More | 247 | 1,925 | 43.0% |

| BOSTON | Raw Count | Category Totals | Perct. of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 43,619 | | |
| Less Than $10,000 | 5,910 | 5,910 | 13.5% |
| $10,000 To $14,999 | 7,713 | | |
| $15,000 To $19,999 | 4,326 | | |
| $20,000 To $24,999 | 2,913 | 14,952 | 34.3% |
| $25,000 To $29,999 | 1,947 | | |
| $30,000 To $34,999 | 1,985 | | |
| $35,000 To $39,999 | 1,585 | 5,517 | 12.6% |
| $40,000 To $44,999 | 1,522 | | |
| $45,000 To $49,999 | 1,541 | 3,063 | 7.0% |
| $50,000 To $59,999 | 2,348 | | |

| | | | |
|---|---|---|---|
| $60,000 To $74,999 | 2,650 | | |
| $75,000 To $99,999 | 2,928 | | |
| $100,000 To $124,999 | 1,749 | | |
| $125,000 To $149,999 | 1,003 | | |
| $150,000 To $199,999 | 1,469 | | |
| $200,000 or More | 2,030 | 14,177 | 32.5% |

| BROOKLINE | Raw Count | Category Totals | Perct. of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 5,736 | | |
| Less Than $10,000 | 433 | 433 | 7.5% |
| $10,000 To $14,999 | 432 | | |
| $15,000 To $19,999 | 324 | | |
| $20,000 To $24,999 | 249 | 1,005 | 17.5% |
| $25,000 To $29,999 | 227 | | |
| $30,000 To $34,999 | 218 | | |
| $35,000 To $39,999 | 104 | 549 | 9.6% |
| $40,000 To $44,999 | 258 | | |
| $45,000 To $49,999 | 271 | 529 | 9.2% |
| $50,000 To $59,999 | 472 | | |
| $60,000 To $74,999 | 310 | | |
| $75,000 To $99,999 | 565 | | |
| $100,000 To $124,999 | 344 | | |
| $125,000 To $149,999 | 287 | | |
| $150,000 To $199,999 | 407 | | |
| $200,000 or More | 835 | 3,220 | 56.1% |

| CAMBRIDGE | Raw Count | Category Totals | Perct. of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 7,976 | | |
| Less Than $10,000 | 592 | 592 | 7.4% |
| $10,000 To $14,999 | 851 | | |
| $15,000 To $19,999 | 726 | | |
| $20,000 To $24,999 | 443 | 2,020 | 25.3% |
| $25,000 To $29,999 | 402 | | |
| $30,000 To $34,999 | 279 | | |

| | | | |
|---|---|---|---|
| $35,000 To $39,999 | 289 | 970 | 12.2% |
| $40,000 To $44,999 | 223 | | |
| $45,000 To $49,999 | 203 | 426 | 5.3% |
| $50,000 To $59,999 | 580 | | |
| $60,000 To $74,999 | 574 | | |
| $75,000 To $99,999 | 716 | | |
| $100,000 To $124,999 | 393 | | |
| $125,000 To $149,999 | 353 | | |
| $150,000 To $199,999 | 425 | | |
| $200,000 or More | 927 | 3,968 | 49.7% |

| DEDHAM | Raw Count | Category Totals | Perct. of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 2,875 | | |
| Less Than $10,000 | 115 | 115 | 4.0% |
| $10,000 To $14,999 | 222 | | |
| $15,000 To $19,999 | 277 | | |
| $20,000 To $24,999 | 116 | 615 | 21.4% |
| $25,000 To $29,999 | 160 | | |
| $30,000 To $34,999 | 109 | | |
| $35,000 To $39,999 | 119 | 388 | 13.5% |
| $40,000 To $44,999 | 184 | | |
| $45,000 To $49,999 | 183 | 367 | 12.8% |
| $50,000 To $59,999 | 109 | | |
| $60,000 To $74,999 | 268 | | |
| $75,000 To $99,999 | 324 | | |
| $100,000 To $124,999 | 212 | | |
| $125,000 To $149,999 | 121 | | |
| $150,000 To $199,999 | 181 | | |
| $200,000 or More | 175 | 1,390 | 48.3% |

| FRAMINGHAM | Raw Count | Category Totals | Perct. of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 5,928 | | |
| Less Than $10,000 | 336 | 336 | 5.7% |
| $10,000 To $14,999 | 625 | | |

| | | | |
|---|---|---|---|
| $15,000 To $19,999 | 434 | | |
| $20,000 To $24,999 | 451 | 1,510 | 25.5% |
| $25,000 To $29,999 | 276 | | |
| $30,000 To $34,999 | 199 | | |
| $35,000 To $39,999 | 360 | 835 | 14.1% |
| $40,000 To $44,999 | 283 | | |
| $45,000 To $49,999 | 157 | 440 | 7.4% |
| $50,000 To $59,999 | 473 | | |
| $60,000 To $74,999 | 382 | | |
| $75,000 To $99,999 | 592 | | |
| $100,000 To $124,999 | 600 | | |
| $125,000 To $149,999 | 257 | | |
| $150,000 To $199,999 | 244 | | |
| $200,000 or More | 259 | 2,807 | 47.4% |

| HOPKINTON | Raw Count | Category Totals | Perct. of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 259 | | |
| Less Than $10,000 | 10 | 10 | 3.9% |
| $10,000 To $14,999 | 0 | | |
| $15,000 To $19,999 | 24 | | |
| $20,000 To $24,999 | 41 | 65 | 25.1% |
| $25,000 To $29,999 | 40 | | |
| $30,000 To $34,999 | 25 | | |
| $35,000 To $39,999 | 10 | 75 | 29.0% |
| $40,000 To $44,999 | 12 | | |
| $45,000 To $49,999 | 0 | 12 | 4.6% |
| $50,000 To $59,999 | 17 | | |
| $60,000 To $74,999 | 38 | | |
| $75,000 To $99,999 | 25 | | |
| $100,000 To $124,999 | 17 | | |
| $125,000 To $149,999 | 0 | | |
| $150,000 To $199,999 | 0 | | |
| $200,000 or More | 0 | 97 | 37.5% |

| LEXINGTON | Raw Count | Category Totals | Perct. of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 3,249 | | |
| Less Than $10,000 | 138 | 138 | 4.2% |
| $10,000 To $14,999 | 131 | | |
| $15,000 To $19,999 | 170 | | |
| $20,000 To $24,999 | 116 | 417 | 12.8% |
| $25,000 To $29,999 | 108 | | |
| $30,000 To $34,999 | 135 | | |
| $35,000 To $39,999 | 162 | 405 | 12.5% |
| $40,000 To $44,999 | 108 | | |
| $45,000 To $49,999 | 66 | 174 | 5.4% |
| $50,000 To $59,999 | 213 | | |
| $60,000 To $74,999 | 213 | | |
| $75,000 To $99,999 | 422 | | |
| $100,000 To $124,999 | 367 | | |
| $125,000 To $149,999 | 139 | | |
| $150,000 To $199,999 | 286 | | |
| $200,000 or More | 475 | 2,115 | 65.1% |

| MARLBOROUGH | Raw Count | Category Totals | Perct. of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 3,153 | | |
| Less Than $10,000 | 140 | 140 | 4.4% |
| $10,000 To $14,999 | 125 | | |
| $15,000 To $19,999 | 186 | | |
| $20,000 To $24,999 | 380 | 691 | 21.9% |
| $25,000 To $29,999 | 256 | | |
| $30,000 To $34,999 | 183 | | |
| $35,000 To $39,999 | 125 | 564 | 17.9% |
| $40,000 To $44,999 | 183 | | |
| $45,000 To $49,999 | 135 | 318 | 10.1% |
| $50,000 To $59,999 | 343 | | |
| $60,000 To $74,999 | 348 | | |
| $75,000 To $99,999 | 406 | | |
| $100,000 To $124,999 | 121 | | |
| $125,000 To $149,999 | 89 | | |

| | | | |
|---|---|---|---|
| $150,000 To $199,999 | 113 | | |
| $200,000 or More | 20 | 1,440 | 45.7% |

| NEEDHAM | Raw Count | Category Totals | Perct. of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 2,961 | | |
| Less Than $10,000 | 212 | 212 | 7.2% |
| $10,000 To $14,999 | 192 | | |
| $15,000 To $19,999 | 137 | | |
| $20,000 To $24,999 | 73 | 402 | 13.6% |
| $25,000 To $29,999 | 60 | | |
| $30,000 To $34,999 | 93 | | |
| $35,000 To $39,999 | 109 | 262 | 8.8% |
| $40,000 To $44,999 | 132 | | |
| $45,000 To $49,999 | 139 | 271 | 9.2% |
| $50,000 To $59,999 | 217 | | |
| $60,000 To $74,999 | 302 | | |
| $75,000 To $99,999 | 387 | | |
| $100,000 To $124,999 | 168 | | |
| $125,000 To $149,999 | 161 | | |
| $150,000 To $199,999 | 220 | | |
| $200,000 or More | 359 | 1,814 | 61.3% |

| NEWTON | Raw Count | Category Totals | Perct. of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 8,491 | | |
| Less Than $10,000 | 382 | 382 | 4.5% |
| $10,000 To $14,999 | 561 | | |
| $15,000 To $19,999 | 487 | | |
| $20,000 To $24,999 | 440 | 1,488 | 17.5% |
| $25,000 To $29,999 | 538 | | |
| $30,000 To $34,999 | 413 | | |
| $35,000 To $39,999 | 343 | 1,294 | 15.2% |
| $40,000 To $44,999 | 181 | | |
| $45,000 To $49,999 | 246 | 427 | 5.0% |
| $50,000 To $59,999 | 473 | | |

| | | | |
|---|---|---|---|
| $60,000 To $74,999 | 592 | | |
| $75,000 To $99,999 | 822 | | |
| $100,000 To $124,999 | 599 | | |
| $125,000 To $149,999 | 418 | | |
| $150,000 To $199,999 | 671 | | |
| $200,000 or More | 1,325 | 4,900 | 57.7% |

| SOMERVILLE | Raw Count | Category Totals | Perct. of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 4,956 | | |
| Less Than $10,000 | 445 | 445 | 9.0% |
| $10,000 To $14,999 | 648 | | |
| $15,000 To $19,999 | 596 | | |
| $20,000 To $24,999 | 361 | 1,605 | 32.4% |
| $25,000 To $29,999 | 249 | | |
| $30,000 To $34,999 | 316 | | |
| $35,000 To $39,999 | 235 | 800 | 16.1% |
| $40,000 To $44,999 | 212 | | |
| $45,000 To $49,999 | 219 | 431 | 8.7% |
| $50,000 To $59,999 | 327 | | |
| $60,000 To $74,999 | 380 | | |
| $75,000 To $99,999 | 325 | | |
| $100,000 To $124,999 | 270 | | |
| $125,000 To $149,999 | 105 | | |
| $150,000 To $199,999 | 169 | | |
| $200,000 or More | 99 | 1,675 | 33.8% |

| WALTHAM | Raw Count | Category Totals | Perct. of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 4,973 | | |
| Less Than $10,000 | 304 | 304 | 6.1% |
| $10,000 To $14,999 | 347 | | |
| $15,000 To $19,999 | 607 | | |
| $20,000 To $24,999 | 394 | 1,348 | 27.1% |
| $25,000 To $29,999 | 302 | | |
| $30,000 To $34,999 | 334 | | |

| | | | |
|---|---|---|---|
| $35,000 To $39,999 | 165 | 801 | 16.1% |
| $40,000 To $44,999 | 209 | | |
| $45,000 To $49,999 | 330 | 539 | 10.8% |
| $50,000 To $59,999 | 418 | | |
| $60,000 To $74,999 | 378 | | |
| $75,000 To $99,999 | 441 | | |
| $100,000 To $124,999 | 263 | | |
| $125,000 To $149,999 | 108 | | |
| $150,000 To $199,999 | 153 | | |
| $200,000 or More | 220 | 1,981 | 39.8% |

| WATERTOWN | Raw Count | Category Totals | Perct. of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 3,188 | | |
| Less Than $10,000 | 250 | 250 | 7.8% |
| $10,000 To $14,999 | 302 | | |
| $15,000 To $19,999 | 266 | | |
| $20,000 To $24,999 | 162 | 730 | 22.9% |
| $25,000 To $29,999 | 132 | | |
| $30,000 To $34,999 | 97 | | |
| $35,000 To $39,999 | 77 | 306 | 9.6% |
| $40,000 To $44,999 | 75 | | |
| $45,000 To $49,999 | 79 | 154 | 4.8% |
| $50,000 To $59,999 | 281 | | |
| $60,000 To $74,999 | 358 | | |
| $75,000 To $99,999 | 399 | | |
| $100,000 To $124,999 | 279 | | |
| $125,000 To $149,999 | 156 | | |
| $150,000 To $199,999 | 122 | | |
| $200,000 or More | 153 | 1,748 | 54.8% |

| WELLESLEY | Raw Count | Category Totals | Perct. of Pop |
|---|---|---|---|
| Householder 65 Years and Over | 2,369 | | |
| Less Than $10,000 | 44 | 44 | 1.9% |
| $10,000 To $14,999 | 64 | | |

| | | | |
|---|---|---|---|
| $15,000 To $19,999 | 150 | | |
| $20,000 To $24,999 | 151 | 365 | 15.4% |
| $25,000 To $29,999 | 86 | | |
| $30,000 To $34,999 | 48 | | |
| $35,000 To $39,999 | 63 | 197 | 8.3% |
| $40,000 To $44,999 | 95 | | |
| $45,000 To $49,999 | 72 | 167 | 7.0% |
| $50,000 To $59,999 | 153 | | |
| $60,000 To $74,999 | 243 | | |
| $75,000 To $99,999 | 201 | | |
| $100,000 To $124,999 | 182 | | |
| $125,000 To $149,999 | 112 | | |
| $150,000 To $199,999 | 295 | | |
| $200,000 or More | 410 | 1,596 | 67.4% |

# Table A-9

## SERVICE-ENRICHED HOUSING UNITS DEMAND BY MUNICIPALITY AND SCENARIO

**ACS 2010-2014 5 YR Estimates**
**Table B19037**

| | | Est | 2020- | 2020- | | |
|---|---|---|---|---|---|---|
| **ARLINGTON** | | **2010** | **SQ** | **SR** | **2030-SQ** | **2030-SR** |
| Total HH 65+ | | 4,594 | 5,434 | 6,742 | 5,481 | 6,832 |
| Percentage with disability | | 26.8% | 26.8% | 26.8% | 26.8% | 26.8% |
| Demand for service-enriched housing | | 1,233 | 1,459 | 1,810 | 1,472 | 1,834 |
| <$10,000 (Medicaid) | 6.6% | 81 | 96 | 119 | 97 | 121 |
| <$25,000 (HCBS) | 26.0% | 321 | 379 | 471 | 383 | 477 |
| <$40,000 (60% AMI) | 17.3% | 214 | 253 | 314 | 255 | 318 |
| <$50,000 (80% AMI) | 7.1% | 87 | 103 | 128 | 104 | 130 |
| $50,000+ (over 80% AMI) | 43.0% | 531 | 628 | 779 | 633 | 789 |
| TOTAL | | **1,233** | **1,459** | **1,810** | **1,472** | **1,834** |

| | | Est | 2020- | 2020- | | |
|---|---|---|---|---|---|---|
| **BOSTON** | | **2010** | **SQ** | **SR** | **2030-SQ** | **2030-SR** |
| Total HH 65+ | | 42,016 | 51,899 | 63,606 | 52,319 | 64,434 |
| Percentage with disability | 42.0% | 42.0% | 42.0% | 42.0% | 42.0% | 26.8% |
| Demand for service-enriched housing | | 21,813 | 26,733 | 21,990 | 27,081 | 1,834 |
| <$10,000 (Medicaid) | 13.5% | 2,393 | 2,955 | 3,622 | 2,979 | 3,669 |
| <$25,000 (HCBS) | 34.3% | 6,053 | 7,477 | 9,164 | 7,538 | 9,283 |
| <$40,000 (60% AMI) | 12.6% | 2,234 | 2,759 | 3,381 | 2,781 | 3,425 |
| <$50,000 (80% AMI) | 7.0% | 1,240 | 1,532 | 1,877 | 1,544 | 1,902 |
| $50,000+ (over 80% AMI) | 32.5% | 5,740 | 7,090 | 8,689 | 7,147 | 8,802 |
| TOTAL | | **17,659** | **21,813** | **26,733** | **21,990** | **27,081** |

| | | Est | 2020- | 2020- | | |
|---|---|---|---|---|---|---|
| **BROOKLINE** | | **2010** | **SQ** | **SR** | **2030-SQ** | **2030-SR** |
| Total HH 65+ | | 5,053 | 6,574 | 7,295 | 6,629 | 7,390 |
| Percentage with disability | 27.4% | 27.4% | 27.4% | 27.4% | 27.4% | 26.8% |
| Demand for service-enriched housing | 1,384 | 1,801 | 1,998 | 1,816 | 2,025 | 1,834 |

| | | | | | | |
|---|---|---|---|---|---|---|
| <$10,000 (Medicaid) | 7.5% | 104 | 136 | 151 | 137 | 153 |
| <$25,000 (HCBS) | 17.5% | 243 | 316 | 350 | 318 | 355 |
| <$40,000 (60% AMI) | 9.6% | 132 | 172 | 191 | 174 | 194 |
| <$50,000 (80% AMI) | 9.2% | 128 | 166 | 184 | 167 | 187 |
| $50,000+ (over 80% AMI) | 56.1% | 777 | 1,011 | 1,122 | 1,019 | 1,137 |
| TOTAL | | **1,384** | **1,801** | **1,998** | **1,816** | **2,025** |

| **CAMBRIDGE** | | **Est 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|---|
| Total HH 65+ | | 7,159 | 8,966 | 9,527 | 9,036 | 9,645 |
| Percentage with disability | 29.2% | 29.2% | 29.2% | 29.2% | 29.2% | 26.8% |
| Demand for service-enriched housing | 2,090 | 2,618 | 2,782 | 2,638 | 2,816 | 1,834 |
| <$10,000 (Medicaid) | 7.4% | 155 | 194 | 206 | 196 | 209 |
| <$25,000 (HCBS) | 25.3% | 529 | 663 | 704 | 668 | 713 |
| <$40,000 (60% AMI) | 12.2% | 254 | 318 | 338 | 321 | 342 |
| <$50,000 (80% AMI) | 5.3% | 112 | 140 | 149 | 141 | 150 |
| $50,000+ (over 80% AMI) | 49.7% | 1,040 | 1,302 | 1,384 | 1,313 | 1,401 |
| TOTAL | | **2,090** | **2,618** | **2,782** | **2,638** | **2,816** |

| **DEDHAM** | | **Est 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|---|
| Total HH 65+ | | 2,778 | 3,499 | 4,557 | 3,531 | 4,621 |
| Percentage with disability | 36.5% | 36.5% | 36.5% | 36.5% | 36.5% | 26.8% |
| Demand for service-enriched housing | 1,015 | 1,278 | 1,664 | 1,290 | 1,688 | 1,834 |
| <$10,000 (Medicaid) | 4.0% | 41 | 51 | 67 | 52 | 68 |
| <$25,000 (HCBS) | 21.4% | 217 | 273 | 356 | 276 | 361 |
| <$40,000 (60% AMI) | 13.5% | 137 | 172 | 225 | 174 | 228 |
| <$50,000 (80% AMI) | 12.8% | 130 | 163 | 212 | 165 | 215 |
| $50,000+ (over 80% AMI) | 48.3% | 491 | 618 | 805 | 624 | 816 |
| TOTAL | | **1,015** | **1,278** | **1,664** | **1,290** | **1,688** |

| **FRAMINGHAM** | | **Est 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|---|
| Total HH 65+ | | 5,594 | 6,865 | 8,499 | 6,926 | 8,616 |
| Percentage with disability | 30.0% | 30.0% | 30.0% | 30.0% | 30.0% | 26.8% |
| Demand for service-enriched housing | 1,681 | 2,063 | 2,554 | 2,081 | 2,589 | 1,834 |
| <$10,000 (Medicaid) | 5.7% | 95 | 117 | 145 | 118 | 147 |

| | | | | | | |
|---|---|---|---|---|---|---|
| <$25,000 (HCBS) | 25.5% | 428 | 525 | 650 | 530 | 659 |
| <$40,000 (60% AMI) | 14.1% | 237 | 291 | 360 | 293 | 365 |
| <$50,000 (80% AMI) | 7.4% | 125 | 153 | 190 | 154 | 192 |
| $50,000+ (over 80% AMI) | 47.4% | 796 | 977 | 1,209 | 985 | 1,226 |
| TOTAL | | **1,681** | **2,063** | **2,554** | **2,081** | **2,589** |

| **HOPKINTON** | | **Est 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|---|
| Total HH 65+ | | 705 | 1,326 | 2,274 | 1,337 | 2,304 |
| Percentage with disability | 27.6% | 27.6% | 27.6% | 27.6% | 27.6% | 26.8% |
| Demand for service-enriched housing | 195 | 366 | 627 | 369 | 636 | 1,834 |
| <$10,000 (Medicaid) | 3.9% | 8 | 14 | 24 | 14 | 25 |
| <$25,000 (HCBS) | 25.1% | 49 | 92 | 157 | 93 | 160 |
| <$40,000 (60% AMI) | 29.0% | 56 | 106 | 182 | 107 | 184 |
| <$50,000 (80% AMI) | 4.6% | 9 | 17 | 29 | 17 | 29 |
| $50,000+ (over 80% AMI) | 37.5% | 73 | 137 | 235 | 138 | 238 |
| TOTAL | | **195** | **366** | **627** | **369** | **636** |

| **LEXINGTON** | | **Est 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|---|
| Total HH 65+ | | 3,464 | 4,376 | 5,444 | 4,417 | 5,522 |
| Percentage with disability | 24.7% | 24.7% | 24.7% | 24.7% | 24.7% | 26.8% |
| Demand for service-enriched housing | 854 | 1,079 | 1,343 | 1,089 | 1,362 | 1,834 |
| <$10,000 (Medicaid) | 4.2% | 36 | 46 | 57 | 46 | 58 |
| <$25,000 (HCBS) | 12.8% | 110 | 139 | 172 | 140 | 175 |
| <$40,000 (60% AMI) | 12.5% | 107 | 135 | 167 | 136 | 170 |
| <$50,000 (80% AMI) | 5.4% | 46 | 58 | 72 | 58 | 73 |
| $50,000+ (over 80% AMI) | 65.1% | 556 | 703 | 874 | 709 | 887 |
| TOTAL | | **854** | **1,079** | **1,343** | **1,089** | **1,362** |

| **MARLBOR-OUGH** | | **Est 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|---|
| Total HH 65+ | | 2,952 | 3,958 | 5,479 | 3,993 | 5,554 |
| Percentage with disability | 29.5% | 29.5% | 29.5% | 29.5% | 29.5% | 26.8% |
| Demand for service-enriched housing | 870 | 1,167 | 1,616 | 1,177 | 1,638 | 1,834 |
| <$10,000 (Medicaid) | 4.4% | 39 | 52 | 72 | 52 | 73 |
| <$25,000 (HCBS) | 21.9% | 191 | 256 | 354 | 258 | 359 |
| <$40,000 (60% AMI) | 17.9% | 156 | 209 | 289 | 211 | 293 |

| | | | | | | |
|---|---|---|---|---|---|---|
| <$50,000 (80% AMI) | 10.1% | 88 | 118 | 163 | 119 | 165 |
| $50,000+ (over 80% AMI) | 45.7% | 398 | 533 | 738 | 538 | 748 |
| TOTAL | | **870** | **1,167** | **1,616** | **1,177** | **1,638** |

| **NEEDHAM** | | **Est 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|---|
| Total HH 65+ | | 2,903 | 3,602 | 4,607 | 3,634 | 4,670 |
| Percentage with disability | 28.1% | 28.1% | 28.1% | 28.1% | 28.1% | 26.8% |
| Demand for service-enriched housing | 815 | 1,012 | 1,294 | 1,021 | 1,312 | 1,834 |
| <$10,000 (Medicaid) | 7.2% | 58 | 72 | 93 | 73 | 94 |
| <$25,000 (HCBS) | 13.6% | 111 | 137 | 176 | 139 | 178 |
| <$40,000 (60% AMI) | 8.8% | 72 | 90 | 114 | 90 | 116 |
| <$50,000 (80% AMI) | 9.2% | 75 | 93 | 118 | 93 | 120 |
| $50,000+ (over 80% AMI) | 61.3% | 500 | 620 | 793 | 625 | 804 |
| TOTAL | | **815** | **1,012** | **1,294** | **1,021** | **1,312** |

| **NEWTON** | | **Est 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|---|
| Total HH 65+ | | 8,298 | 11,165 | 13,401 | 11,266 | 13,589 |
| Percentage with disability | 28.4% | 28.4% | 28.4% | 28.4% | 28.4% | 26.8% |
| Demand for service-enriched housing | 2,354 | 3,167 | 3,801 | 3,196 | 3,855 | 1,834 |
| <$10,000 (Medicaid) | 4.5% | 106 | 142 | 171 | 144 | 173 |
| <$25,000 (HCBS) | 17.5% | 412 | 555 | 666 | 560 | 676 |
| <$40,000 (60% AMI) | 15.2% | 359 | 483 | 579 | 487 | 587 |
| <$50,000 (80% AMI) | 5.0% | 118 | 159 | 191 | 161 | 194 |
| $50,000+ (over 80% AMI) | 57.7% | 1,358 | 1,828 | 2,194 | 1,844 | 2,224 |
| TOTAL | | **2,354** | **3,167** | **3,801** | **3,196** | **3,855** |

| **SOMERVILLE** | | **Est 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|---|
| Total HH 65+ | | 4,887 | 5,412 | 6,194 | 5,456 | 6,273 |
| Percentage with disability | 38.1% | 38.1% | 38.1% | 38.1% | 38.1% | 26.8% |
| Demand for service-enriched housing | 1,862 | 2,063 | 2,360 | 2,079 | 2,391 | 1,834 |
| <$10,000 (Medicaid) | 9.0% | 167 | 185 | 212 | 187 | 215 |
| <$25,000 (HCBS) | 32.4% | 603 | 668 | 764 | 673 | 774 |
| <$40,000 (60% AMI) | 16.1% | 301 | 333 | 381 | 336 | 386 |
| <$50,000 (80% AMI) | 8.7% | 162 | 179 | 205 | 181 | 208 |
| $50,000+ (over 80% AMI) | 33.8% | 629 | 697 | 798 | 703 | 808 |

| | | | | | | |
|---|---|---|---|---|---|---|
| TOTAL | | **1,862** | **2,063** | **2,360** | **2,079** | **2,391** |

| **WALTHAM** | | **Est 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|---|
| Total HH 65+ | | 4,760 | 5,693 | 6,815 | 5,743 | 6,910 |
| Percentage with disability | 32.7% | 32.7% | 32.7% | 32.7% | 32.7% | 26.8% |
| Demand for service-enriched housing | 1,557 | 1,862 | 2,229 | 1,878 | 2,259 | 1,834 |
| <$10,000 (Medicaid) | 6.1% | 95 | 114 | 136 | 115 | 138 |
| <$25,000 (HCBS) | 27.1% | 422 | 505 | 604 | 509 | 612 |
| <$40,000 (60% AMI) | 16.1% | 251 | 300 | 359 | 303 | 364 |
| <$50,000 (80% AMI) | 10.8% | 169 | 202 | 242 | 204 | 245 |
| $50,000+ (over 80% AMI) | 39.8% | 620 | 742 | 888 | 748 | 900 |
| TOTAL | | **1,557** | **1,862** | **2,229** | **1,878** | **2,259** |

| **WATERTOWN** | | **Est 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|---|
| Total HH 65+ | | 3,310 | 3,871 | 4,878 | 3,903 | 4,941 |
| Percentage with disability | 27.7% | 27.7% | 27.7% | 27.7% | 27.7% | 26.8% |
| Demand for service-enriched housing | 918 | 1,073 | 1,352 | 1,082 | 1,370 | 1,834 |
| <$10,000 (Medicaid) | 7.8% | 72 | 84 | 106 | 85 | 107 |
| <$25,000 (HCBS) | 22.9% | 210 | 246 | 310 | 248 | 314 |
| <$40,000 (60% AMI) | 9.6% | 88 | 103 | 130 | 104 | 131 |
| <$50,000 (80% AMI) | 4.8% | 44 | 52 | 65 | 52 | 66 |
| $50,000+ (over 80% AMI) | 54.8% | 503 | 588 | 742 | 593 | 751 |
| TOTAL | | **918** | **1,073** | **1,352** | **1,082** | **1,370** |

| **WELLESLEY** | | **Est 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|---|
| Total HH 65+ | | 2,417 | 2,932 | 3,569 | 2,958 | 3,619 |
| Percentage with disability | 25.6% | 25.6% | 25.6% | 25.6% | 25.6% | 26.8% |
| Demand for service-enriched housing | 618 | 750 | 913 | 757 | 926 | 1,834 |
| <$10,000 (Medicaid) | 1.9% | 11 | 14 | 17 | 14 | 17 |
| <$25,000 (HCBS) | 15.4% | 95 | 116 | 141 | 117 | 143 |
| <$40,000 (60% AMI) | 8.3% | 51 | 62 | 76 | 63 | 77 |
| <$50,000 (80% AMI) | 7.0% | 44 | 53 | 64 | 53 | 65 |
| $50,000+ (over 80% AMI) | 67.4% | 417 | 506 | 615 | 510 | 624 |
| TOTAL | | **618** | **750** | **913** | **757** | **926** |

# Table A-10

Service Enriched Housing Unmet Demand by Municipality by Decade and Scenario

| ARLINGTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 190 | 190 | 190 | 190 | 190 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 531 | 628 | 779 | 633 | 789 |
| Unmet Unsubsidized Demand | 341 | 438 | 589 | 443 | 599 |
| | | | | | |
| Subsidized+PH Supply | 520 | 520 | 520 | 520 | 520 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 703 | 831 | 1031 | 838 | 1045 |
| Unmet Subsidized Demand | 183 | 311 | 511 | 318 | 525 |

| ARLINGTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 1233 | 1459 | 1810 | 1472 | 1834 |
| Total Supply | 710 | 710 | 710 | 710 | 710 |
| Total Unmet Demand | **523** | **749** | **1100** | **762** | **1124** |
| Percentage of SEH Demand Unmet | 42% | 51% | 61% | 52% | 61% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |

| BOSTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 996 | 996 | 996 | 996 | 996 |
| Unsubsizied-Pipeline | 0 | 92 | 92 | 92 | 92 |
| Unsubsidized Demand | 5740 | 7090 | 8689 | 7147 | 8802 |
| Unmet Unsubsidized Demand | 4744 | 6002 | 7601 | 6059 | 7714 |
| | | | | | |
| Subsidized+PH Supply | 8958 | 8958 | 8958 | 8958 | 8958 |
| Subsidized-Pipeline | 0 | 222 | 222 | 222 | 222 |
| Subsidized+PH Demand | 11920 | 14723 | 18044 | 14843 | 18279 |
| Unmet Subsidized Demand | 2962 | 5543 | 8864 | 5663 | 9099 |

| BOSTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 17659 | 21813 | 26733 | 21990 | 27081 |
| Total Supply | 9954 | 10268 | 10,268 | 10268 | 10268 |
| Total Unmet Demand | **7705** | **11545** | **16465** | **11722** | **16813** |
| Percentage of SEH Demand Unmet | 44% | 53% | 62% | 53% | 62% |

| | | | | | |
|---|---|---|---|---|---|
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | No | Yes | No |

| **BROOKLINE** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Unsubsidized Supply | 169 | 169 | 169 | 169 | 169 |
| Unsubsizied-Pipeline | 0 | 54 | 54 | 54 | 54 |
| Unsubsidized Demand | 777 | 1011 | 1122 | 1019 | 1137 |
| Unmet Unsubsidized Demand | 608 | 788 | 899 | 796 | 914 |
| | | | | | |
| Subsidized+PH Supply | 714 | 714 | 714 | 714 | 714 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 607 | 790 | 877 | 797 | 888 |
| Unmet Subsidized Demand | -107 | 76 | 163 | 83 | 174 |

| **BROOKLINE** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Total Demand | 1384 | 1801 | 1998 | 1816 | 2025 |
| Total Supply | 883 | 937 | 937 | 937 | 937 |
| Total Unmet Demand | **501** | **864** | **1061** | **879** | **1088** |
| Percentage of SEH Demand Unmet | 36% | 48% | 53% | 48% | 54% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |

| **CAMBRIDGE** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Unsubsidized Supply | 286 | 286 | 286 | 286 | 286 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 1040 | 1302 | 1384 | 1313 | 1401 |
| Unmet Unsubsidized Demand | 754 | 1016 | 1098 | 1027 | 1115 |
| | | | | | |
| Subsidized+PH Supply | 697 | 697 | 697 | 697 | 697 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 1050 | 1316 | 1398 | 1326 | 1415 |
| Unmet Subsidized Demand | 353 | 619 | 701 | 629 | 718 |

| **CAMBRIDGE** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Total Demand | 2090 | 2618 | 2782 | 2638 | 2816 |
| Total Supply | 983 | 983 | 983 | 983 | 983 |
| Total Unmet Demand | **1107** | **1635** | **1799** | **1655** | **1833** |
| Percentage of SEH Demand Unmet | 53% | 62% | 65% | 63% | 65% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |

| DEDHAM | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 556 | 556 | 556 | 556 | 556 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 491 | 618 | 805 | 624 | 816 |
| Unmet Unsubsidized Demand | -65 | 62 | 249 | 68 | 260 |
| | | | | | |
| Subsidized+PH Supply | 205 | 205 | 205 | 205 | 205 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 524 | 660 | 860 | 666 | 872 |
| Unmet Subsidized Demand | 319 | 455 | 655 | 461 | 667 |

| DEDHAM | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 1015 | 1278 | 1664 | 1290 | 1688 |
| Total Supply | 761 | 761 | 761 | 761 | 761 |
| Total Unmet Demand | **254** | **517** | **903** | **529** | **927** |
| Percentage of SEH Demand Unmet | 25% | 40% | 54% | 41% | 55% |
| Unmet Unsubsidized>Unmet Subsidized? | No | No | No | No | No |

| FRAMINGHAM | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 392 | 392 | 392 | 392 | 392 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 796 | 977 | 1209 | 985 | 1226 |
| Unmet Unsubsidized Demand | 404 | 585 | 817 | 593 | 834 |
| | | | | | |
| Subsidized+PH Supply | 739 | 739 | 739 | 739 | 739 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 885 | 1086 | 1344 | 1096 | 1363 |
| Unmet Subsidized Demand | 146 | 347 | 605 | 357 | 624 |

| FRAMINGHAM | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Total Demand | 1681 | 2063 | 2554 | 2081 | 2589 |
| Total Supply | 1131 | 1131 | 1131 | 1131 | 1131 |
| Total Unmet Demand | **550** | **932** | **1423** | **950** | **1458** |
| Percentage of SEH Demand Unmet | 33% | 45% | 56% | 46% | 56% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |

| HOPKINTON | Est. 2010 | 2020-SQ | 2020-SR | 2030-SQ | 2030-SR |
|---|---|---|---|---|---|
| Unsubsidized Supply | 108 | 108 | 108 | 108 | 108 |
| Unsubsizied-Pipeline | 0 | 127 | 127 | 127 | 127 |

| | | | | | |
|---|---|---|---|---|---|
| Unsubsidized Demand | 73 | 137 | 235 | 138 | 238 |
| Unmet Unsubsidized Demand | -35 | -98 | 0 | -97 | 3 |
| | | | | | |
| Subsidized+PH Supply | 98 | 98 | 98 | 98 | 98 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 122 | 229 | 392 | 231 | 398 |
| Unmet Subsidized Demand | 24 | 131 | 294 | 133 | 300 |

| **HOPKINTON** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Total Demand | 195 | 366 | 627 | 369 | 636 |
| Total Supply | 206 | 333 | 333 | 333 | 333 |
| Total Unmet Demand | **-11** | **33** | **294** | **36** | **303** |
| Percentage of SEH Demand Unmet | -6% | 9% | 47% | 10% | 48% |
| Unmet Unsubsidized>Unmet Subsidized? | No | No | No | No | No |

| **LEXINGTON** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Unsubsidized Supply | 309 | 309 | 309 | 309 | 309 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 556 | 703 | 874 | 709 | 887 |
| Unmet Unsubsidized Demand | 247 | 394 | 565 | 400 | 578 |
| | | | | | |
| Subsidized+PH Supply | 148 | 148 | 148 | 148 | 148 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 298 | 377 | 469 | 380 | 475 |
| Unmet Subsidized Demand | 150 | 229 | 321 | 232 | 327 |

| **LEXINGTON** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Total Demand | 854 | 1079 | 1343 | 1089 | 1362 |
| Total Supply | 457 | 457 | 457 | 457 | 457 |
| Total Unmet Demand | **397** | **622** | **886** | **632** | **905** |
| Percentage of SEH Demand Unmet | 47% | 58% | 66% | 58% | 66% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |

| **MARLBOROUGH** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Unsubsidized Supply | 245 | 245 | 245 | 245 | 245 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 398 | 533 | 738 | 538 | 748 |
| Unmet Unsubsidized Demand | 153 | 288 | 493 | 293 | 503 |

| | | | | | |
|---|---|---|---|---|---|
| Subsidized+PH Supply | 227 | 227 | 227 | 227 | 227 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 473 | 634 | 878 | 640 | 890 |
| Unmet Subsidized Demand | 246 | 407 | 651 | 413 | 663 |

| **MARLBOROUGH** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Total Demand | 870 | 1167 | 1616 | 1177 | 1638 |
| Total Supply | 472 | 472 | 472 | 472 | 472 |
| Total Unmet Demand | **398** | **695** | **1144** | **705** | **1166** |
| Percentage of SEH Demand Unmet | 46% | 60% | 71% | 60% | 71% |
| Unmet Unsubsidized>Unmet Subsidized? | No | No | No | No | No |

| **NEEDHAM** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Unsubsidized Supply | 598 | 598 | 598 | 598 | 598 |
| Unsubsizied-Pipeline | 0 | 92 | 92 | 92 | 92 |
| Unsubsidized Demand | 500 | 620 | 793 | 625 | 804 |
| Unmet Unsubsidized Demand | -98 | -70 | 103 | -65 | 114 |
| | | | | | |
| Subsidized+PH Supply | 152 | 152 | 152 | 152 | 152 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 316 | 392 | 501 | 395 | 508 |
| Unmet Subsidized Demand | 164 | 240 | 349 | 243 | 356 |

| **NEEDHAM** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Total Demand | 815 | 1012 | 1294 | 1021 | 1312 |
| Total Supply | 750 | 842 | 842 | 842 | 842 |
| Total Unmet Demand | **65** | **170** | **452** | **179** | **470** |
| Percentage of SEH Demand Unmet | 8% | 17% | 35% | 18% | 36% |
| Unmet Unsubsidized>Unmet Subsidized? | No | No | No | No | No |

| **NEWTON** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Unsubsidized Supply | 575 | 575 | 575 | 575 | 575 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 1358 | 1828 | 2194 | 1844 | 2224 |
| Unmet Unsubsidized Demand | 783 | 1253 | 1619 | 1269 | 1649 |
| | | | | | |
| Subsidized+PH Supply | 739 | 739 | 739 | 739 | 739 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 995 | 1339 | 1608 | 1352 | 1630 |

| | | | | | |
|---|---|---|---|---|---|
| Unmet Subsidized Demand | 256 | 600 | 869 | 613 | 891 |

| **NEWTON** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Total Demand | 2354 | 3167 | 3801 | 3196 | 3855 |
| Total Supply | 1314 | 1314 | 1314 | 1314 | 1314 |
| Total Unmet Demand | **1040** | **1853** | **2487** | **1882** | **2541** |
| Percentage of SEH Demand Unmet | 44% | 59% | 65% | 59% | 66% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |

| **SOMERVILLE** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Unsubsidized Supply | 347 | 347 | 347 | 347 | 347 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 629 | 697 | 798 | 703 | 808 |
| Unmet Unsubsidized Demand | 282 | 350 | 451 | 356 | 461 |
| | | | | | |
| Subsidized+PH Supply | 888 | 888 | 888 | 888 | 888 |
| Subsidized-Pipeline | 0 | 25 | 25 | 25 | 25 |
| Subsidized+PH Demand | 1233 | 1366 | 1563 | 1377 | 1583 |
| Unmet Subsidized Demand | 345 | 453 | 650 | 464 | 670 |

| **SOMERVILLE** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Total Demand | 1862 | 2063 | 2360 | 2079 | 2391 |
| Total Supply | 1235 | 1260 | 1260 | 1260 | 1260 |
| Total Unmet Demand | **627** | **803** | **1100** | **819** | **1131** |
| Percentage of SEH Demand Unmet | 34% | 39% | 47% | 39% | 47% |
| Unmet Unsubsidized>Unmet Subsidized? | No | No | No | No | No |

| **WALTHAM** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Unsubsidized Supply | 89 | 89 | 89 | 89 | 89 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 620 | 742 | 888 | 748 | 900 |
| Unmet Unsubsidized Demand | 531 | 653 | 799 | 659 | 811 |
| | | | | | |
| Subsidized+PH Supply | 510 | 510 | 510 | 510 | 510 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 936 | 1120 | 1341 | 1130 | 1359 |
| Unmet Subsidized Demand | 426 | 610 | 831 | 620 | 849 |

| **WALTHAM** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Total Demand | 1557 | 1862 | 2229 | 1878 | 2259 |
| Total Supply | 599 | 599 | 599 | 599 | 599 |
| Total Unmet Demand | **958** | **1263** | **1630** | **1279** | **1660** |
| Percentage of SEH Demand Unmet | 62% | 68% | 73% | 68% | 73% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | No | Yes | No |

| **WATERTOWN** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Unsubsidized Supply | 190 | 190 | 190 | 190 | 190 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 503 | 588 | 742 | 593 | 751 |
| Unmet Unsubsidized Demand | 313 | 398 | 552 | 403 | 561 |
| | | | | | |
| Subsidized+PH Supply | 517 | 517 | 517 | 517 | 517 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 414 | 485 | 611 | 489 | 619 |
| Unmet Subsidized Demand | -103 | -32 | 94 | -28 | 102 |

| **WATERTOWN** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Total Demand | 918 | 1073 | 1352 | 1082 | 1370 |
| Total Supply | 707 | 707 | 707 | 707 | 707 |
| Total Unmet Demand | **211** | **366** | **645** | **375** | **663** |
| Percentage of SEH Demand Unmet | 23% | 34% | 48% | 35% | 48% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |

| **WELLESLEY** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Unsubsidized Supply | 134 | 134 | 134 | 134 | 134 |
| Unsubsizied-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Unsubsidized Demand | 417 | 506 | 615 | 510 | 624 |
| Unmet Unsubsidized Demand | 283 | 372 | 481 | 376 | 490 |
| | | | | | |
| Subsidized+PH Supply | 133 | 133 | 133 | 133 | 133 |
| Subsidized-Pipeline | 0 | 0 | 0 | 0 | 0 |
| Subsidized+PH Demand | 202 | 245 | 298 | 247 | 302 |
| Unmet Subsidized Demand | 69 | 112 | 165 | 114 | 169 |

| **WELLESLEY** | **Est. 2010** | **2020-SQ** | **2020-SR** | **2030-SQ** | **2030-SR** |
|---|---|---|---|---|---|
| Total Demand | 618 | 750 | 913 | 757 | 926 |
| Total Supply | 267 | 267 | 267 | 267 | 267 |
| Total Unmet Demand | **351** | **483** | **646** | **490** | **659** |

| | | | | | |
|---|---|---|---|---|---|
| Percentage of SEH Demand Unmet | 57% | 64% | 71% | 65% | 71% |
| Unmet Unsubsidized>Unmet Subsidized? | Yes | Yes | Yes | Yes | Yes |