bae urban economics

WARM SPRINGS INNOVATION CENTER
MARKET ANALYSIS

TECHNICAL REPORT

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City of Fremont

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December 2017

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INTRODUCTION

The City of Fremont has retained TEAM LACI to complete the Warm Springs Innovation Center Feasibility Study. This study considers the development potential for a half-acre City-owned site immediately adjacent to the new Warm Springs/South Fremont BART Station. The City wishes to develop this parcel in uses complementary to innovation industries active in the vicinity. The analysis considers the feasibility of potential uses including incubator/accelerator/co-working, maker space, meetings and events, education and workforce training, office, retail, and hotel.

This Technical Report provides BAE's analysis of Fremont's population and households, real estate conditions, and key industries, as well as findings regarding these potential uses for an Innovation Center at the City-owned site.

The subject parcel is within the City's Warm Springs Innovation District, as outlined in black in Figure 1. Based on current development proposals and plans, at buildout the Innovation District will have approximately 13.9 million square feet of commercial development and 4,000 new housing units. As the City plans for the future development of the Innovation District, its goals for the District include the following:

- Focused Intensity
- Diversity of Uses
- Well-Loved Public Places
- Health and Recreation
- Ease of Movement
- Visually Interesting Urban Fabric
- Ecological Health and Sustainability

For the proposed Innovation Center, the City seeks projects that meet one or more of the following goals:

- Promote collaboration & information sharing
- Develop flexible meeting space
- Provide education & training opportunities
- Encourage networking
- Create a gathering place
- Activate the plaza
- Highlight innovations of Fremont firms

The proposed uses align with and generally promote the goals set by the City for the Innovation Center.

DEMAND DRIVERS FOR PROPOSED USES

The analysis presented in this technical report is framed around estimating the degree to which demographic and economic conditions and trends in Fremont would support the proposed uses for the Innovation Center. Each use has specific demand drivers that materially impact the demand for a use and the quantity of space in a space category. This section of the report presents an overview of these demand drivers and the key metrics required to evaluate and assess demand and required capacity.

Incubator/Accelerator Space
Co-Working/Maker Space

These four Innovation Center use concepts are treated together since there is a considerable amount of overlap between what they do and they share many of the same demand drivers.

Incubators
First appearing in the 1950s, incubators have traditionally focused on assisting entrepreneurs who have an innovative business concept that they wish to build out by establishing a company. Incubators are owned and sponsored by public agencies, universities and colleges, venture capital firms, major corporations, or sometimes other private parties. Often, incubators are focused on specific industry segments such as, for example, bioscience or software. The focus of an incubator depends on the goals of the sponsoring party and may or may not include an application or screening process. State and local agencies have often sponsored and subsidized incubators as part of an economic development strategic plan. Incubators provide facilities and services focused on start-ups, including shared work spaces, access to equipment, month-to-month space leases, business plan mentoring, and technical assistance. After three to five years of incubation, startups are expected to find conventional facilities and stand-alone without an ongoing need for financial or technical support.

Accelerators
Accelerators, in contrast to incubators, focus on helping an existing business scale-up its operations and achieve rapid growth. Accelerators typically screen applicants and have program cohorts and a set timetable for program participation. Selected businesses receive a seed investment in return for a portion of firm equity and then participate over several weeks or months working with one or more experienced industry mentors associated with the accelerator. Accelerator programs often end with a demonstration or 'pitch' day when participants have the opportunity to present their business to investors (most often venture capital firms or major corporate sponsors) to secure capital for product development, production, and/or expansion. After the end of the program accelerator participants are left to secure their own space (if they have not already prior to entering the program).

Co-working Space
Co-working spaces offer turn-key office space and meeting rooms to facilities for start-ups, freelancers, professionals, and other self-employed individuals seeking a community workplace environment with opportunities to network, share ideas, and collaborate. Co-working facilities differ from executive suites by offering a greater proportion of office space in open seating plans and fewer

private offices. Co-working space is typically offered on a pay-as-you-go basis with the need for a lease. Users can pay for hourly, daily, or monthly use and utilities and Internet service is usually included. Co-working spaces also typically offer networking events and other social programming to foster a sense of community and encourage interactions and potential collaborations. Co-working space is commonly provided in both incubators and accelerators.

Maker Space

A makerspace, or 'hackspace,' is a facility that provides open and collaborative work spaces with access to a variety of both high-tech and non high-tech equipment to start-ups or individuals who otherwise would not find it economically feasible to own and operate such equipment. Typical equipment offered at maker spaces includes 3D printers, laser cutters, CNC machines[1]), soldering irons and die-tooling machines, and even sewing machines and wood working tools. Maker space sponsors frequently offer classes and programs to teach participants how to use equipment. Maker spaces are operated by both for-profit and non-profit entities and are increasingly being established at schools and libraries. Makerspaces can target different market segments such as the hobbyist and artists, small businesses and industry, and businesses seeking showroom and support services. Makerspaces are often associated with incubators and accelerators and permit program participants to rapidly prototype or digitally fabricate their product ideas.

Demand Drivers

The key drivers for incubators, accelerators, co-working, and makerspaces include a highly educated population, universities and colleges with strong science, technology, engineering, and math (STEM) programs, an affluent population, large base of self-employed residents with STEM orientation, a pool of hobbyists and artists (for makerspaces), large base of innovation activity (measured by patents and venture capital investments), large base of start-ups and small businesses.

Meetings and Special Events

Demand for meetings and events in small to medium sized venues is primarily driven by general population and employment growth. The number and size of individuals and social and community organizations seeking meeting and event venues grows with population while corporate demand for meeting and event space tracks growth in employment, particularly in the financial, insurance, real estate, professional business services, technology, and wholesale trade sectors. Traditionally, event planners made venue decisions based primarily upon factors of cost, quality, availability of accommodations, access, and venue attractiveness. Now, quality of experience that is offered at the venue and surrounding area along with technology connectivity are also important venue-selection factors.

Education and Workforce Training

Demand for education and workforce training and their supporting facilities is driven by the educational attainment, skill sets, and age structure of the local labor force as well as by the industry sectors represented locally and their need for a well-trained labor pool. Smaller firms in particular

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[1] Computer numeric control (CNC) machines are electro-mechanical devices that manipulate machine shop tools using computer programming inputs.

can benefit from education and workforce training programs that have programs to train students on specialized machines and equipment since smaller firms typically do not have the scale of operation to support in-house training programs. The demand for facilities to accommodate new or expanded education and training programs depends on the long-range plans of local educational institutions, such as community colleges and nonprofit training academies as well as colleges and universities in the local area.

Office

Office space demand is driven primarily by two factors: employment growth in industry sectors that require office space to house its workers and per square foot per employment office facility planning standards. Office-intensive sectors include financial, insurance, real estate, professional and business services, computer systems design, Internet service providers, software publishing, and management, scientific, and technology consulting.

Traditionally, there has been a distinction in the real estate market between office and R&D space, with R&D space typically in single-story rectangular or square-shaped structures with modest exterior features and detailing. However, over the past two business cycles there has been an increasing convergence of these real estate product types across the Bay Area as production facilities have moved elsewhere, often to other countries, and research and product development activities that once required large or specialized lab space are more often completed using computer simulations. Owing to these shifts, growth in technology employment has become a key indicator of office space demand in the Bay Area.

Office workers, particularly workers in the high-tech industries that dominate the market in Silicon Valley, are increasingly demonstrating a preference for workplace locations that offer the amenities typically found in more urban environments, including proximity to public transportation, bicycle and pedestrian access, attractive retail offerings, and entertainment options. In response to this shift in preferences among workers, companies are more often seeking office locations that offer more urban-style amenities instead of opting for traditional suburban office parks. The preference for more urban amenities, particularly access to public transportation, is reflected in the preferences of companies looking for space in Silicon Valley.

Since the recovery from the Great Recession, office end users and technology tenants have begun to seek office space with open floor plans to both encourage interaction among employees as well as accommodate more employees in their office space to reduce real estate costs. This trend has also led to increased employment densities with the gross square feet of office per employees falling from 275 or 250 square feet per employee to 200 to 250 per employee. In some cases, this ratio has reached 175 square feet per employee. As a result, less office space generally is required than before to accommodate growth in office-using sectors.

Retail

Retail demand is generated by growth in population, employment, and income. Population and local employment growth means an in increase in the aggregate disposable income available in the community for spending on retail goods and services. Retailers target specific populations with

specific demographic characteristics, usually a combination of median household income, educational attainment, and known spending patterns. For any specific location, its suitability depends on how it meets the site criteria of retail developers and their tenant retailers. Key criteria are accessibility, visibility, traffic (both vehicles and pedestrians), signage, and location of competing retail centers and/or nodes,

The world of retail has evolved significantly in the wake of retailer consolidation and the evolution of e-commerce and multi-channel retailers[2]. Today, retail essentially organizes itself as either commodity retail (where goods and services are purchased with price and convenience as the primary decision points) or specialty retail (where spending discretionary income during free time primarily informs buying decisions, and the consumer has an emotional connection with the decision made). In addition, in today's world of homogenous retail districts and shopping centers, a push for "local" has come to the forefront. While some local initiatives may have a significant maker/independent entrepreneur element, more often than not, "local" is nothing more than a marketing effort geared to push retail traffic to established retailers. Hence, creating a sense of authenticity is important to attract consumers.

Hotel

Hotel demand has three primary segments: commercial, meetings and groups, and leisure. Each of these segments has unique demand characteristics that shape the seasonal aspects of demand, average length of stay, rates of double occupancy, facility requirements, price sensitivity, and future growth. Population and employment growth are key demand drivers for hotel development. Business travel and meetings fill rooms during weekdays and leisure travel and special events on the weekends. Key location criteria are visibility, access, nearby amenities, and proximity to attractions and/or major employers.

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[2] This discussion of retail trends is partially drawn from the 2014 *Irvington District Land Use Study* prepared by Greensfelder Commercial Real Estate for the City of Fremont and other work jointly prepared by both BAE and Greenfelder Commercial Real Estate.

Figure 1: Project Site and Vicinity

Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community. Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
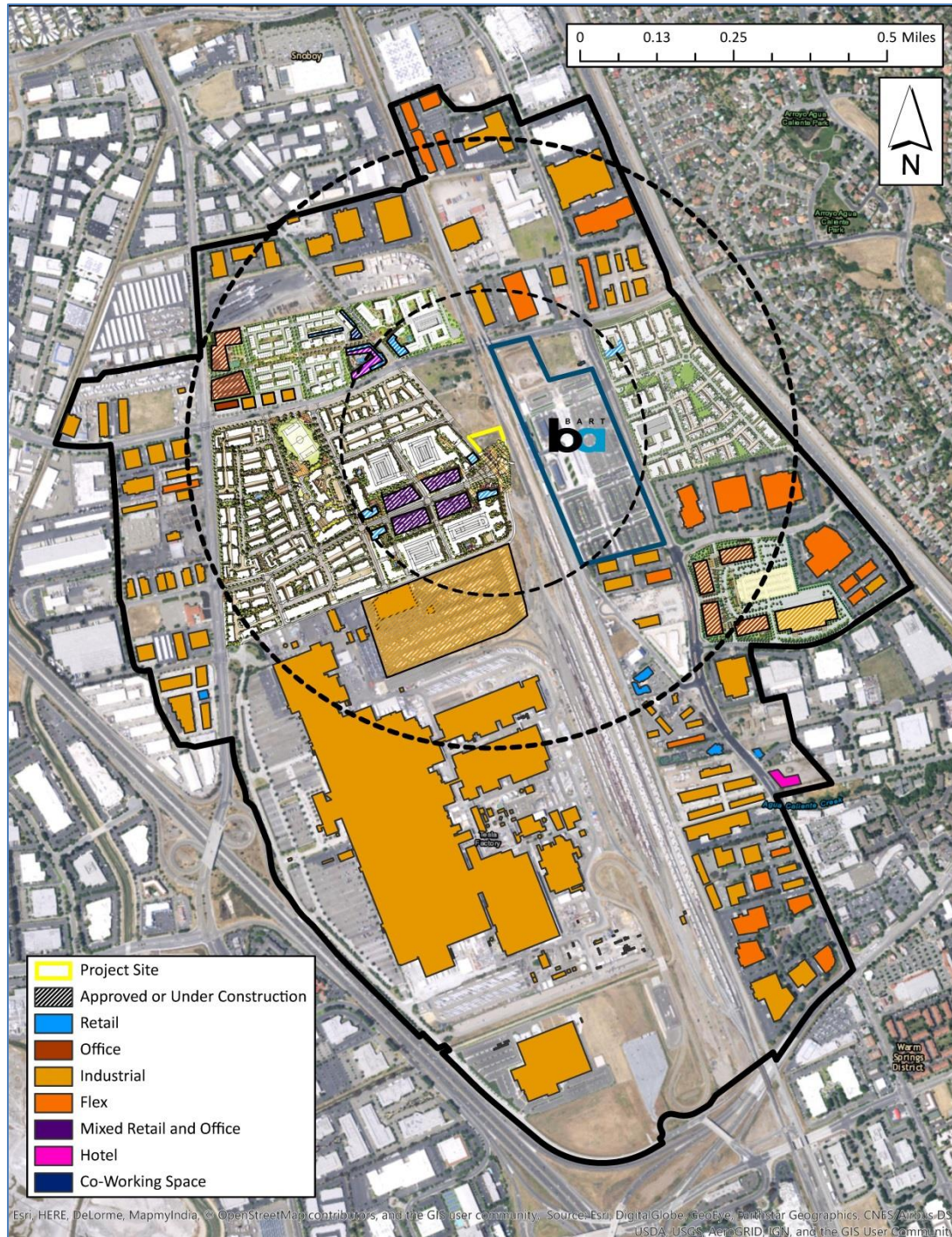
DEMOGRAPHIC OVERVIEW

This section presents background information on current and projected demographic conditions in the City of Fremont and around the project site. This demographic profile will assist in assessing key demand factors for potential uses for the Warm Springs Innovation Center. Data sources for this demographic overview include the U.S. Census Bureau, the Association of Bay Area Governments

(ABAG), the City of Fremont, and Esri, a private vendor providing estimates of current and future demographic conditions. For key population, household, and employment variables, data are presented for the City of Fremont, with comparative data for Alameda County and the nine-county ABAG region[3] provided for context.

Population and Households

Fremont continues to show population and household growth. As of 2017, there are estimated to be approximately 231,800 residents and 76,300 households (see Table 1). This represents a population increase from 2010 of over eight percent and an increase in the number of households of over seven percent. Growth rates are similar to those for Alameda County and the Bay Area.

Table 1: Population and Household Trends, 2010 to 2017

City of Fremont	2010	2017	# Change 2010-2017	% Change 2010-2017
Population	214,089	231,808	17,719	8.3%
Households	71,004	76,322	5,318	7.5%
Alameda County				
Population	1,510,271	1,647,386	137,115	9.1%
Households	545,138	590,526	45,388	8.3%
9-County Bay Area				
Population	7,150,739	7,729,515	578,776	8.1%
Households	2,608,023	2,796,838	188,815	7.2%

Sources: Esri; BAE, 2017.

By 2030, ABAG (the Association of Bay Area Governments) projects that Fremont will gain an additional 21,000 residents and 6,700 households, as shown in Table 3. Beyond that date, population and household growth is forecasted to continue. This anticipated growth will lead to additional demand for many of the contemplated uses at the Innovation Center, including maker spaces, educational and training facilities, special events, and retail.

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[3] The nine-county ABAG region consists of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties.

Table 2: Population and Household Projections, 2017 to 2040

City of Fremont	2017	2030	# Change 2017-2030	2040	# Change 2017-2040
Population	231,808	252,800	20,992	275,500	43,692
Households	76,322	83,050	6,728	89,090	12,768
Alameda County					
Population	1,647,386	1,810,300	162,914	1,987,900	340,514
Households	590,526	651,720	61,194	705,330	114,804
9-County Bay Area					
Population	7,729,515	8,496,800	767,285	9,299,100	1,569,585
Households	2,796,838	3,072,920	276,082	3,308,090	511,252

Sources: Esri, for 2017; Association of Bay Area Governments, 2013, for 2030 & 2040; BAE, 2017.

Household Size and Type

In comparison with Alameda County and the region, Fremont households are large, with a high proportion of families (see Table 3). Average household size is estimated at 3.02 persons in Fremont but only 2.73 persons countywide and 2.71 persons for the region. Seventy-eight percent of households are families in Fremont, in contrast to only 65 percent for Alameda County and 60 percent for the ABAG region. According to data from the U.S. Census American Community Survey, in 2016 46 percent of Fremont households had at least one person under 18 living with them. Overall, Fremont is a community of families and programming at the Innovation Center should consider family-oriented programming.

Table 3: Household Size and Type, 2017

City of Fremont	Number	Percent
Family Households	59,648	78%
Nonfamily Households	16,674	22%
Total Households	**76,322**	**100%**
Average Household Size	3.02	
Alameda County		
Family Households	381,626	65%
Nonfamily Households	208,900	35%
Total Households	**590,526**	**100%**
Average Household Size	2.73	
9-County Bay Area		
Family Households	1,685,972	60%
Nonfamily Households	1,110,866	40%
Total Households	2,796,838	**100%**
Average Household Size	2.71	

Sources: Esri; BAE, 2017.

Race/Ethnicity

Fremont's population is ethnically diverse, with a growing Asian population now in the majority. Non-Hispanic Whites account for 23 percent of the City's residents. Changing racial and ethnic profile of Fremont impacts the mix of retail in the City with more ethnic restaurants and specialized retailers that target different groups.

Table 4: Race and Ethnicity, 2010-2017

City of Fremont	2010		2017		# Change 2010-2017
	Number	Percent	Number	Percent	
Hispanic/Latino (a)	**31,698**	**14.8%**	**33,219**	**14.3%**	**1,521**
Not Hispanic/Latino	**182,391**	**85.2%**	**198,589**	**85.7%**	**16,198**
White	56,766	26.5%	53,404	23.0%	-3,362
Black/African American	6,743	3.1%	5,783	2.5%	-960
Native American	458	0.2%	458	0.2%	0
Asian	107,679	50.3%	127,019	54.8%	19,340
Native Hawaiian/Pacific Islander	1,064	0.5%	1,119	0.5%	55
Other	388	0.2%	386	0.2%	-2
Two or More Races	9,293	4.3%	10,420	4.5%	1,127
Total	**214,089**	**100.0%**	**231,808**	**100.0%**	**17,719**

Note:
(a) Includes all races for those of Hispanic/Latino background.

Sources: Esri; BAE, 2017.

Income

Fremont is a relatively high-income area, with a median annual household income at $114,291, well above the Alameda County and Bay Area medians of $87,384 and $96,086, respectively. Per capita income, however, is on par with the region due to the higher average household size reported for Fremont. Overall, higher levels of household and per capita income translates into higher levels of discretionary spending on retail goods and services.

Table 5: Household Income, 2017

Income Category	City of Fremont		Alameda County		9-County Bay Area	
	Number	Percent	Number	Percent	Number	Percent
Less than $15,000	3,566	4.7%	55,659	9.4%	221,254	7.9%
$15,000-$24,999	3,273	4.3%	44,236	7.5%	183,911	6.6%
$25,000-$34,999	3,751	4.9%	40,571	6.9%	176,078	6.3%
$35,000-$49,999	5,020	6.6%	57,246	9.7%	253,530	9.1%
$50,000-$74,999	9,937	13.0%	87,790	14.9%	404,495	14.5%
$75,000-$99,999	9,240	12.1%	70,181	11.9%	342,225	12.2%
$100,000-$149,999	17,016	22.3%	100,525	17.0%	493,262	17.6%
$150,000-$199,999	11,140	14.6%	58,614	9.9%	289,881	10.4%
$200,000 or more	13,379	17.5%	75,683	12.8%	432,170	15.5%
Total	**76,322**	**100.0%**	**590,505**	**100.0%**	**2,796,806**	**100.0%**
Median HH Income	**$114,291**		**$87,384**		**$96,086**	
Per Capita Income	**$50,218**		**$45,234**		**$50,144**	

Note: All figures in 2017 dollars.

Sources: Esri; BAE, 2017.

Employment

Fremont is slated for strong job growth in the future. Based on ABAG estimates, there are currently approximately 100,000 jobs in Fremont, and the City will add an additional 10,600 jobs by 2030. As the City adds jobs, the demand increases for office, retail, and hotel uses which would favor these uses at the Innovation Center site.

Table 6: Job Projections, 2017 to 2040

			Number of Jobs		
			Change		Change
	2017 (a)	**2030**	**2017-2030**	**2040**	**2017-2040**
City of Fremont	101,238	111,820	10,582	120,000	18,762
Alameda County	784,186	875,390	91,204	947,650	163,464
9-County Bay Area	3,793,709	4,196,580	402,871	4,505,230	711,521

(a) ABAG projections available for 2015 and 2020. 2017 figure here assumes
constant rate of growth over the five-year period.

Sources: Association of Bay Area Governments, 2013; BAE, 2017.

Fremont's Self Employed

Self-employed workers are often associated with small start-up businesses involved in innovative ventures, driving demand for rental office, R & D, and industrial space. Approximately eight percent of Fremont's employed residents are self-employed, with a high proportion of these in financial activities and professional and business services as well as other service industries (see Table 7). Professional and business services associated with innovation include architecture, engineering, general design, computer systems design, scientific and technical consulting, and research and development. The large base of self-employed residents indicates a base of support for the incubator, accelerator, co-working, and maker space uses contemplated for the Innovation Center.

Table 7: Self Employed Residents by Industry, 2016

City of Fremont	Self-Employed Total	Total Employed Residents Age 16+
Professional and Business Services	2,448	33,610
Educational Services, Health Care & Social Assistance	1,822	19,337
Other Services (Except Public Administration)	1,322	4,508
Financial Activities	1,035	7,565
Retail Trade	982	10,052
Construction	859	3,490
Leisure and Hospitality	417	7,103
Manufacturing	370	15,981
Information	191	4,146
Transportation, Warehousing, and Utilities	156	5,238
Wholesale Trade	99	2,847
Agriculture, Forestry, Fishing, and Mining	-	161
Public Administration	-	2,504
Total Employed Workers	**9,701**	**116,542**
Percent of Total Employed Residents	**8.3%**	

Sources: American Community Survey, 2016; BAE, 2017.

Educational Attainment

Fremont's adult population is highly educated. Over 90 percent of the population age 25 and older has a high school education, and 55 percent have a bachelor's degree or higher; in comparison, only 44 percent of county residents and 45 percent of Bay Area residents have attained that level of education.

Table 8: Educational Attainment Among Population Age 25+, 2017

	Fremont		Alameda County		Bay Area	
Educational Attainment	**#**	**%**	**#**	**%**	**#**	**%**
Less than 9th Grade	5,393	3.4%	78,800	7.0%	360,642	6.7%
9th to 12th Grade, No Diploma	5,836	3.7%	62,636	5.6%	285,229	5.3%
High School Graduate (incl. Equivalency)	28,937	18.2%	207,590	18.4%	913,907	16.9%
Some College, No Degree	22,236	14.0%	205,061	18.2%	1,014,572	18.8%
Associate Degree	9,579	6.0%	73,096	6.5%	382,311	7.1%
Bachelor's Degree	45,425	28.6%	288,328	25.6%	1,437,735	26.6%
Graduate/Professional Degree	41,162	26.0%	212,486	18.8%	1,016,061	18.8%
Total	**158,568**	**100.0%**	**1,127,997**	**100.0%**	**5,410,457**	**100.0%**
Population 25+ High School Graduate (incl. Equivalency) or Higher (%)	**92.9%**		**87.5%**		**88.1%**	
Population 25+ with Bachelor's Degree or Higher (%)	**54.6%**		**44.4%**		**45.4%**	

Sources: Esri Business Analyst; BAE, 2017.

Site Population and Employment

Based on estimates derived from approved development plans and potential future development per current zoning, Fremont properties within one-quarter mile of the site (as shown above in Figure 1) will house between 2,100 and 3,400 additional new residents and provide 7,500 to 8,400 jobs at buildout. Most of the projected employment will be office-related. The level of growth around the Innovation Center site 'moves the needle' toward supporting the uses contemplated for the Innovation Center, particularly convenience retail, meetings and special event venues, co-working spaces, and hotel uses.

Table 9: Projected Residents and Employment within 1/4 Mile of Site

| | 1/4 Mile Residents and Employment Generated by: | | | | | |
| | Approved Projects | | Potential Future Development (a) | | Total | |
Category	Low	High	Low	High	Low	High
Residents (b)	2,064	3,440	0	0	2,064	3,440
Retail Employment (c)	120	120	96	96	216	216
Office Employment (d)	2,665	2,962	4,241	4,712	6,906	7,674
Industrial Employment (e)	302	453	67	100	368	553
Total (f)	**5,151**	**6,974**	**4,403**	**4,908**	**9,554**	**11,882**

Notes:
(a) BAE used the zoning code to identify the allowable uses for each developable site within a 1/4-mile radius of the City site. BAE then predicted the most likely use(s) for each site. Using the minimum floor-area ratios stipulated by the zoning code, BAE projected the minimum square footage per use on each site and applied employment density estimates for each use.
(b) Residential density is estimated at 1.5 residents per unit at the lowest density and 2.5 residents at the highest density.
(c) Retail employment density is estimated at 1 employee per 500 square feet.
(d) Office employment density is estimated at 1 employee per 250 square feet at the lowest density and 1 employee per 225 square feet at the highest density.
(e) Industrial employment density is estimated 1 employee per 750 square feet at the lowest density and 1 employee per 500 square feet at the highest density.
(f) Figures may not round to totals due to independent rounding.

Sources: Tesla, *Tesla Master Plan*, 2016; Lennar, *Area 4 Master Plan*, 2015; Valley Oak Partners, *Old Warm Springs Boulevard South Master Plan*, 2016; The Sobrato Organization, *Warm Springs Technology Center Master Plan*, 2016; Toll Brothers, *Warm Springs TOD Village Master Plan*, 2015; City of Fremont; BAE, 2017.

GENERATIONAL ANALYSIS

Workplace facility planning is influenced by the preferences of younger workers, especially in the Millennial cohort; in addition, an event center's programming and events can be targeted to the different age segments of Fremont's population. In addition, workforce training needs can be identified, in part, by reviewing existing employment and occupation patterns by generation (e.g., identify industries and occupations being vacated by retiring older workers). Finally, retailers wish to understand their existing and future base of consumers as part of their business planning. To provide a better understanding of the generational differences among the City's resident workers, BAE has undertaken a detailed analysis of employed residents by generational category.

For the purposes of the analysis, the generations are defined according to year of birth as follows:

Generation Z:	Born after 1995
Millennials:	Born 1980 to 1995
Generation X:	Born 1965 to 1979
Baby Boomers:	Born 1946 to 1964
Silent Generation:	Born before 1946

Methodology

Since there is not published information at the City level providing the level of detail by age cohort required, this analysis relies on the U.S. Census Public Use Microdata Sample for the American Community Survey. The American Community Survey (ACS) is an ongoing survey providing detailed demographic data for the United States and subareas down to the Census Block Group level. The Public Use Microdata Sample (PUMS) is a sample of actual individual responses to the ACS that have been processed to preserve respondent confidentiality. The data samples are available for specially defined areas of 100,000 or more population called Public Use Microdata Areas (PUMAs). For the analysis here, the PUMAs data is the most recent available at the time of analysis, consisting of responses from 2011 through 2015.

Fremont is contained within two PUMAs; one PUMA covering eastern Fremont (as shown below in Figure 2) contains approximately 90 percent of the City's population, while the other includes the remainder of Fremont but also includes all of Newark and most of Union City. For the purposes of this analysis, the first PUMA has been used for this generational analysis as it represents most of Fremont's population and excludes large populations from outside the City. This PUMA is henceforth referred to as the "Generational Analysis Area" or simply, the "Analysis Area."

Figure 2: Public Use Microdata Area Used for Generational Analysis
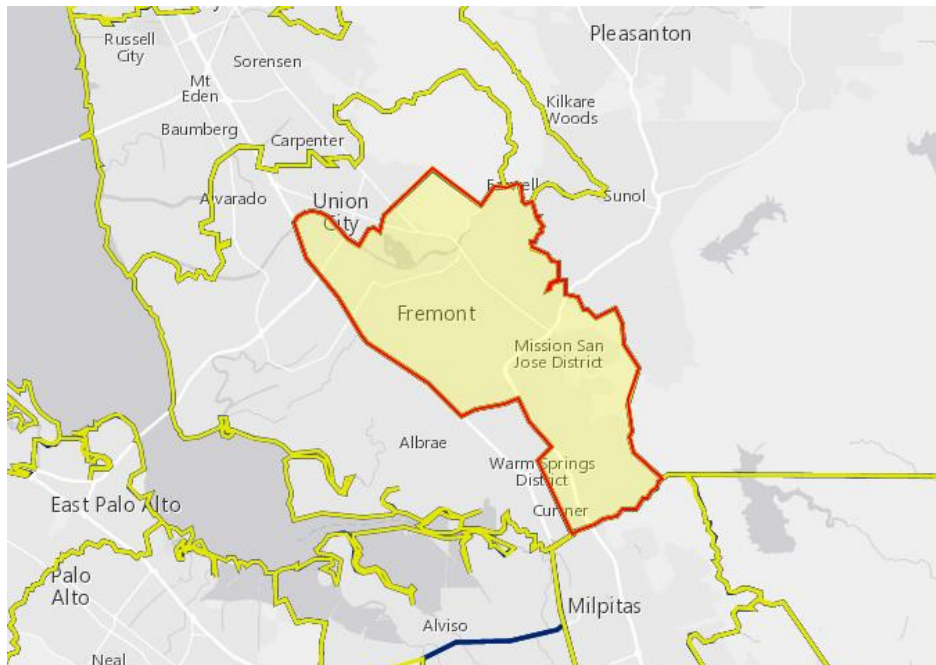
Population by Generation

Table 10 below shows the distribution of residents of the Generational Analysis Area. With the exception of the oldest cohort, each of the four generational groups makes up between 20 and 25 percent of the total population; the elderly Silent Generation constituting the remaining 9.1 percent.

Table 10: Population Distribution by Generation

	Estimated Distribution	
Generation	**Number**	**Percent**
Generation Z	45,705	23.0%
Millennials	41,796	21.0%
Generation X	46,177	23.2%
Baby Boomers	46,941	23.6%
Silent Generation	18,005	9.1%
Total	**198,624**	**100.0%**

Note:
Universe consists of population in the Fremont (East) PUMA shown in Figure 2.

Sources: American Community Survey Public Use Microdata Sample (PUMS) 2011-2015; BAE, 2017.

Workers by Generation

The distribution of workers age 16 or older is shown in the next table. However, for Generation Z, the youngest cohort, most of the population is still not of working age, and most of the surviving Silent Generation is retired (as are some older Baby Boomers). Less than three percent of Generation Z has entered the labor force, and only 17 percent of those in the Silent Generation are still working. For the middle generations, over three quarters of each cohort is in the work force.

Generation Z workers make up only slightly more than one percent of the work force, and the silent generation accounts for less than three percent.

Table 11: Worker Distribution by Generation

| | Estimated Distribution | | As % of Generation's |
Generation	Number	Percent	Population
Generation Z	1,234	1.1%	2.7%
Millennials	32,418	28.2%	77.6%
Generation X	40,519	35.2%	87.7%
Baby Boomers	37,913	32.9%	80.8%
Silent Generation	2,985	2.6%	16.6%
Total	**115,069**	**100.0%**	**57.9%**

Note:
Universe consists of workers 16 or older in the Fremont (East) PUMA shown in Figure 2.

Sources: American Community Survey Public Use Microdata Sample (PUMS) 2011-2015; BAE, 2017.

Generations by Race and Ethnicity

As noted above, Fremont is an ethnically diverse city. The analysis shows how the mix is shifting over time as the generational groups age (see Figure 3). The proportion of non-Hispanic whites is much smaller in the younger generations, and the proportions of the other race/ethnic groups are larger, indicating that the population will shift toward those groups in the future.

Figure 3: Race and Ethnicity
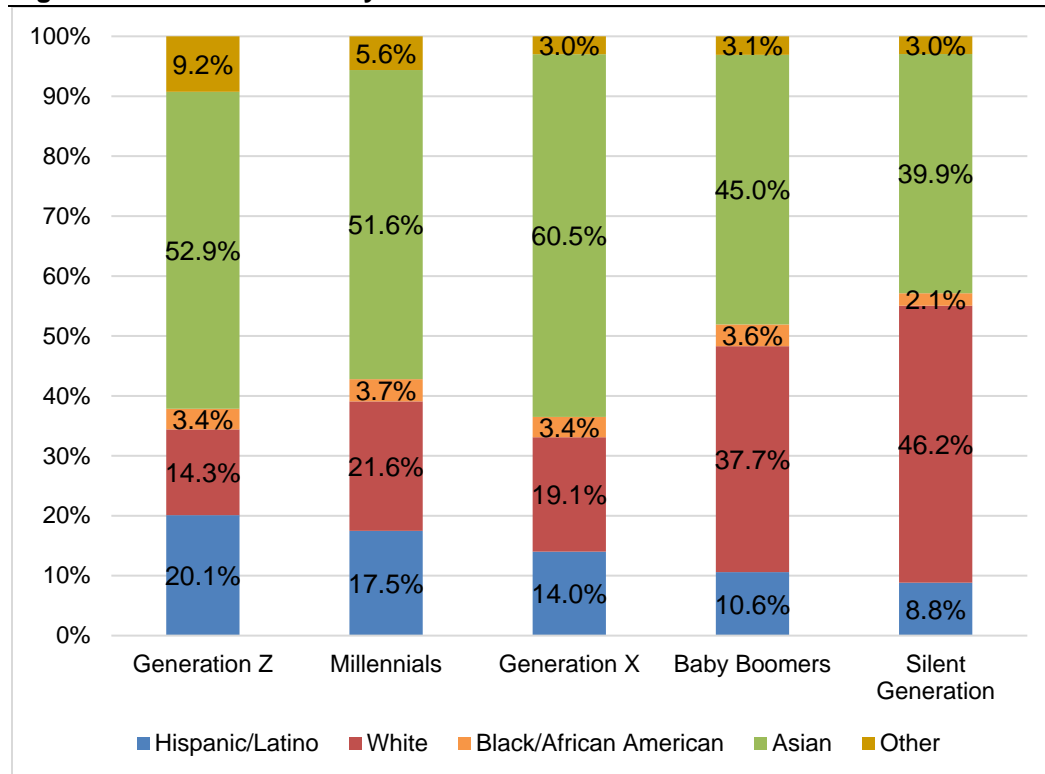
Note: Hispanic/Latino includes all persons of Hispanic/Latino descent regardless of race. Based on entire population, not just workers.

Sources: American Community Survey Public Use Microdata Sample (PUMS) 2011-2015; BAE, 2017.

Educational Attainment

As shown in Figure 4, adult Millennials and Generation X tend to have higher educational attainment than Baby Boomers or the Silent Generation,[4] with over 60 percent of each of these cohorts having bachelor's degrees or higher. These two cohorts also have a higher proportion of advanced degrees than the older cohorts; the proportion of Millennials is likely lower than Generation X as some younger Millennials are still in the process of obtaining graduate degrees.

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[4] Based on population 25 or older; none of Generation Z have reached that age. Not limited to workers.

Figure 4: Educational Attainment

■ Share of Population 25+ with Bachelor's Degree or Higher

61.5%   60.7%

45.4%

28.5%

Millennials   Generation X   Baby Boomers   Silent Generation

■ Share of Population 25+ with a Graduate Degree

31.2%

26.6%

19.5%

14.0%

Millennials   Generation X   Baby Boomers   Silent Generation
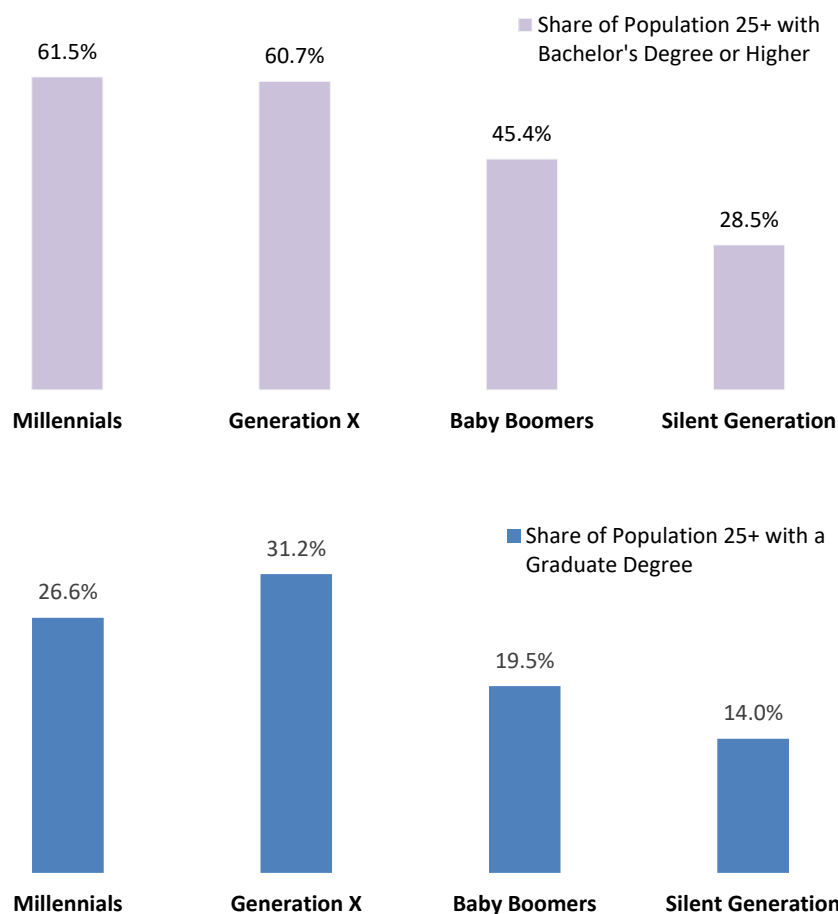
Note: Based on entire population 25 and older, including non-workers.

Sources: American Community Survey Public Use Microdata Sample (PUMS) 2011-2015; BAE, 2017.

Industry

Fremont residents in Generation X and Baby Boomer cohorts are more likely to be employed in manufacturing than the younger Millennials and Generation Z (see Figure 5).[5] Millennials and Generation X have higher proportions in professional and business service industries than the Baby Boomers. In tandem, these findings may suggest a generational manufacturing gap: e.g., a need to train workers for careers in manufacturing to ensure that adequate labor pool to replace retiring manufacturing employees. Younger resident workers are more concentrated in the service-oriented retail, leisure, and hospitality sectors, and the education and health care sector has similar proportions of resident workers across all the generations, with the exception of a high proportion of the remaining Silent Generation residents still working.

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[5] The number of employed residents in Generation Z is much smaller than for the other age cohorts, such that even a high proportion does not indicate a large number of workers in that sector. The number of working residents in the Silent Generation is also relatively small.

Figure 5: Generational Employment by Industry

■ Share employed in Manufacturing

		20.1%	20.2%	
	11.3%			14.4%
6.7%				
Generation Z	Millennials	Generation X	Baby Boomers	Silent Generation

■ Share employed in Professional & Business Services

	21.5%	24.0%		
			14.9%	11.2%
1.9%				
Generation Z	Millennials	Generation X	Baby Boomers	Silent Generation

51.7%

■ Share employed in Retail, Leisure and Hospitality

| 51.7% | 23.4% | 12.6% | 12.5% | 17.4% |
| Generation Z | Millennials | Generation X | Baby Boomers | Silent Generation |

■ Share employed in Education & Health Care

				31.6%
	17.3%	18.5%	20.7%	
14.0%				
Generation Z	Millennials	Generation X	Baby Boomers	Silent Generation

Sources: American Community Survey Public Use Microdata Sample (PUMS) 2011-2015; BAE, 2017.

Key Occupations by Industry Sector

Fremont's higher household income levels are reflected in the high proportion of management, professional, and related occupations in Fremont. Workers in these occupations make up over half of the workers of in the Generational Analysis Area (see Table 12). The proportion is highest for Generation X, where 62 percent of workers are in these higher-income occupations. Very few of the limited number of workers in the young Generation Z have attained management, professional, and related occupation status.

Two industry sectors, professional and business services and manufacturing, account for over half of these jobs in the Analysis Area. For the Millennials and Generation X, professional and business services are the largest sector; for Baby Boomers, the professional occupations are more likely to be manufacturing, and for the small remaining work force of the Silent Generation, the professional jobs are spread across a broader range of industries.

The breakdown of management, professional, and related occupations by industry indicates that many in this occupation are actually serving the manufacturing sector, further indicating the importance of manufacturing in Fremont and underscoring the need to find trained labor for retiring Baby Boomer in manufacturing.

Table 12: Management, Professional, & Related Occupations by Industry and Generation

Industry	Workers Age 16+	Generation				
		Generation Z	Millennials	Generation X	Baby Boomers	Silent Generation
Professional & Business Services	29.3%	-	36.6%	32.4%	20.6%	14.6%
Manufacturing	22.5%	-	14.2%	24.5%	27.1%	19.7%
Health Care and Social Assistance	12.2%	6.0%	11.7%	12.4%	11.9%	17.3%
Educational Services	10.7%	48.7%	11.1%	8.4%	12.3%	20.6%
Financial Activities	7.1%	-	9.1%	6.7%	6.0%	6.3%
Other Industries	18.2%	45.3%	17.4%	15.5%	21.9%	21.6%
Total (%)	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Total Population (Age 16+) in Management, Professional & Related Occupations	**61,792**	**150**	**15,811**	**24,981**	**19,347**	**1,503**
Percent of All Workers 16+ in Management, Professional & Related Occupations	**53.7%**	**12.2%**	**48.8%**	**61.7%**	**51.0%**	**50.4%**

Note: Universe consists of population age 16+ in management, professional, and related occupations.

Sources: American Community Survey Public-Use Microdata Sample (PUMS) 2011-2015; BAE, 2017.

PSYCHOGRAPHICS

Psychographics provides a way to go beyond basic demographics in describing the residents of an area and market segmentation. Using psychographics, one can categorize people and households based on attitudes, interests, habits, spending patterns, and values, thus providing a fuller profile of the population.

Psychographic data rely on consumer research and surveys, social media analytics and other data sources. Using these sources, data vendors can categorize different geographies into a number of market segments. The analysis here utilizes Esri's Tapestry system, which classifies U.S. neighborhoods into 67 unique segments, based on a combination of demographic characteristics and data mining of consumer databases and surveys. This combination can provide a richer picture of the population of an area being analyzed than just basic demographic data. By identifying Fremont's Tapestry segments, we can make further insights into what uses would be supportable at the Innovation Center.

Using the Tapestry system, over half of Fremont's households are categorized as either "Enterprising Professionals" or "Pacific Heights" (see Table 13). These segments are characterized by higher incomes, professional occupations, orientation to STEM education and professions, and high ethnic diversity, and tend to purchase and use the latest technology. Fremont has higher proportions of these segments and other similar segments than the Bay Area overall or the United States. These segments suggest that special events and retail that is focused on technology and STEM education activities may be attractive to a majority of Fremont residents.

Table 13: Fremont's Tapestry Segments

Tapestry Segment	Fremont	Bay Area	United States
Enterprising Professionals	**29.2%**	**6.9%**	**1.4%**
Pacific Heights	**28.8%**	**8.2%**	**0.7%**
Professional Pride	9.4%	1.8%	1.6%
Top Tier	8.2%	6.6%	1.7%
Urban Villages	6.9%	4.1%	1.1%
Pleasantville	4.2%	5.5%	2.2%
City Lights	3.3%	7.2%	1.5%
Savvy Suburbanites	2.5%	2.4%	3.0%
Boomburbs	2.3%	1.4%	1.6%
International Marketplace	2.0%	4.7%	1.2%
Downtown Melting Pot	1.5%	2.1%	0.7%
Retirement Communities	0.8%	0.6%	1.2%
Exurbanites	0.6%	3.6%	1.9%
Senior Escapes	0.4%	0.4%	0.9%
Total	**100.0%**	**55.5%**	**20.7%**

Sources: Esri Business Analyst, 2017; BAE, 2017.

More complete descriptions for these and the other relevant Tapestry segments can be found in Appendix A.[6]

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[6] For a complete description of the Tapestry Segmentation Methodology, see
http://downloads.esri.com/esri_content_doc/dbl/us/J9941_Tapestry_Segmentation_%20Methodology_2017.pdf.

ADVANCED INDUSTRIES IN FREMONT

BAE used individual establishment-[7]level data compiled by Hoovers/Dun & Bradstreet to take a "deep dive" into Fremont's advanced industries. Using this data source, one can build generate a list of firms based on various criteria, including location, NAICS code(s), number of employees, and year of establishment. Knowing the characteristics of advanced industries in Fremont can help inform programming for the Innovation Center.

The output available for each establishment typically includes the following variables:
- Number of employees
- Annual revenue
- Women or minority ownership
- Year of establishment

Advanced industries are defined by the Brookings Institution as those sectors in the economy in which spending on research and development per worker is in the 80th percentile and in which the share of workers whose occupations require a high degree of STEM knowledge exceeds 21 percent. Sectors must meet both of these criteria to qualify as advanced.

Overview of Establishments and Employment in Advanced Industries

Per the definition above, the following table summarizes advanced industries found in Fremont per the Hoovers/Dun & Bradstreet database. As shown, these industries account for approximately half of total employment in Fremont (see Table 6 for estimate of total jobs). Much of the employment is in industries strongly linked to the overall economy of Silicon Valley, e.g., semiconductors, computers and peripheral equipment, computer system design, and data processing and hosting). Over half of the advanced industry employment is in the manufacturing sector, with most of the remainder being service businesses.

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[7] An establishment is an individual location for a firm. A firm may include one or more establishments.

Table 14: Advanced Industries in Fremont, Sorted by Employment, 2017

NAICS Code	Industry Name	Employment Number	Employment Percent	Establishments Number	Establishments Percent
Energy Industries					
2211	Electric Power Generation, Trans., and Distribution	225	100.0%	18	100.0%
Energy Subtotal		**225**	**100.0%**	**18**	**100.0%**
Manufacturing Industries					
3344	Semiconductors and Other Electronic Components	6,713	24.9%	119	22.2%
3361	Motor Vehicles	6,215	23.1%	2	0.4%
3341	Computers and Peripheral Equipment	2,792	10.4%	79	14.8%
3345	Navigation, Measurement, and Control Instruments	1,993	7.4%	38	7.1%
3391	Medical Equipment and Supplies	1,848	6.9%	38	7.1%
3359	Other Electrical Equipment and Components	1,560	5.8%	28	5.2%
3254	Pharmaceuticals and Medicine	1,500	5.6%	26	4.9%
3342	Communications Equipment	990	3.7%	29	5.4%
3332	Industrial Machinery	707	2.6%	29	5.4%
3339	Other General Purpose Machinery	379	1.4%	19	3.6%
3311	Iron, Steel, and Ferroalloys	311	1.2%	2	0.4%
3353	Electrical Equipment	270	1.0%	11	2.1%
3364	Aerospace Products and Parts	256	1.0%	2	0.4%
3399	Other Miscellaneous	256	1.0%	55	10.3%
3251	Basic Chemicals	254	0.9%	9	1.7%
3333	Commercial and Service Industry Machinery	227	0.8%	9	1.7%
3346	Magnetic and Optical Media	203	0.8%	7	1.3%
3351	Electric Lighting Equipment	124	0.5%	8	1.5%
3259	Other Chemical Products	83	0.3%	5	0.9%
3331	Agr., Construction, and Mining Machinery	66	0.2%	5	0.9%
3241	Petroleum and Coal Products	65	0.2%	1	0.2%
3252	Resins and Synthetic Rubbers, Fibers, and Filaments	41	0.2%	3	0.6%
3369	Other Transportation Equipment	30	0.1%	1	0.2%
3271	Clay Products	23	0.1%	3	0.6%
3363	Motor Vehicle Parts	13	0.0%	3	0.6%
3313	Aluminum Production and Processing	13	0.0%	2	0.4%
3279	Other Nonmetallic Mineral Products	8	0.0%	1	0.2%
3343	Audio and Video Equipment	1	0.0%	1	0.2%
Manufacturing Subtotal		**26,941**	**100.0%**	**535**	**100.0%**
Service Industries					
5415	Computer Systems Design	6,673	34.5%	576	39.1%
5182	Data Processing and Hosting	6,385	33.0%	32	2.2%
5416	Mgmt., Scientific, and Technical Consulting	2,098	10.8%	472	32.0%
5413	Architecture and Engineering	1,862	9.6%	170	11.5%
5417	Scientific Research and Development	1,191	6.2%	83	5.6%
5179	Other Telecommunications	447	2.3%	35	2.4%
5112	Software Publishers	388	2.0%	61	4.1%
6215	Medical and Diagnostic Laboratories	162	0.8%	20	1.4%
5191	Other Information	145	0.7%	23	1.6%
5152	Cable and Other Subscription Programming	6	0.0%	2	0.1%
Services Subtotal		**19,357**	**100.0%**	**1,474**	**100.0%**
Total		**46,523**		**2,027**	

Notes:
This table summarizes establishment-level data that is updated on a rolling basis. Therefore, it does not reflect a single point-in-time. Data were exported and are believed to be current as of October 2017.

Advanced industries are defined by the Brookings Institution as those sectors in the economy in which spending on research and development per worker is in the 80th percentile and in which the share of workers whose occupations require a high degree of STEM knowledge exceeds 21 percent. Sectors must meet both of these criteria to qualify as advanced. The industries shown represent the top 50 advanced industries (at the 4-digit NAICS level) as selected by Brookings. See Brookings Institution, *America's Advanced Industries: What They Are, Where They Area, and Why They Matter*, February 2015, page 2.

Sources: Dun & Bradstreet via Hoovers, 2017; BAE, 2017.

Advanced Industry Establishments by Size

The advanced industries in Fremont include a large number of smaller business establishments. These businesses might be potential users of proposed concepts in the innovation center, including incubator/accelerator/co-working space, maker space, and meeting or event space.

Table 15: Fremont's Advanced Establishments by Size

Number of Employees	Establishments	
	Number	Percent
1	496	24.6%
2 to 4	766	38.0%
5 to 9	239	11.9%
10 to 19	185	9.2%
20 to 29	81	4.0%
30 to 39	37	1.8%
40 to 49	36	1.8%
50 to 74	62	3.1%
75 to 99	32	1.6%
100 to 149	32	1.6%
150 to 199	13	0.6%
200 to 299	20	1.0%
300 to 399	7	0.3%
400 to 499	2	0.1%
500 to 999	5	0.2%
1000 or Greater	3	0.1%
Total	**2,016**	**100.0%**

Sources: Dun & Bradstreet via Hoovers, 2017; BAE, 2017.

Advanced Industry Establishments by Age

As shown in Table 16, nearly half of all advanced industry establishments began operation in Fremont in 2010 or later. This indicates a strong startup business ecosystem in the City, with businesses that may be attracted to the Innovation Center by some of the proposed uses.

Table 16: Advanced Industry Establishments in Fremont by Year Founded

Years	Establishments		Employment	
	Number	Percent	Number	Percent
2016-2017	206	10.9%	543	1.6%
2010-2015	682	36.2%	9,339	27.0%
2005-2009	347	18.4%	4,954	14.3%
2000-2004	220	11.7%	5,151	14.9%
1995-1999	182	9.7%	5,234	15.1%
1990-1994	88	4.7%	3,067	8.9%
1990 or Earlier	137	7.3%	6,295	18.2%
Year Unknown	21	1.1%	68	0.2%
Total	**1,883**	**100.0%**	**34,651**	**100.0%**

ority and Women-Owned Fremont Businesses in Advanced Industries

Approximately 20 percent of advanced industry business establishments based in Fremont are owned by minorities and/or women; these businesses also represent about one-fifth of employment in advanced industries in Fremont. As with the advanced industries overall, the top two employers are computer systems design and manufacturing of semiconductors and other electronic components.

Table 17: Fremont's Minority and Women-Owner Establishments in Advanced Industries

Minority-Owned		
Top 10 Industrial Sectors	**Jobs**	**Firms**
Computer Systems Design	2,276	91
Semiconductors and Other Electronic Components	1,288	23
Mgmt., Scientific, and Technical Consulting	551	46
Computers and Peripheral Equipment	524	19
Iron, Steel, and Ferroalloys	300	1
Other Electrical Equipment and Components	291	7
Architecture and Engineering	204	20
Magnetic and Optical Media	173	4
Scientific Research and Development	142	16
Medical Equipment and Supplies	130	4
Software Publishers	129	10
Total (All Sectors)	**6,442**	**276**

Woman-Owned		
Top 10 Industrial Sectors	**Jobs**	**Firms**
Computer Systems Design	948	87
Semiconductors and Other Electronic Components	610	12
Mgmt., Scientific, and Technical Consulting	307	52
Iron, Steel, and Ferroalloys	300	1
Computers and Peripheral Equipment	275	8
Medical Equipment and Supplies	193	5
Architecture and Engineering	160	14
Other Electrical Equipment and Components	146	4
Communications Equipment	128	4
Magnetic and Optical Media	117	3
Total (All Sectors)	**3,458**	**225**

Minority and Woman-Owned		
Top 10 Industrial Sectors	**Jobs**	**Firms**
Computer Systems Design	694	42
Semiconductors and Other Electronic Components	487	9
Iron, Steel, and Ferroalloys	300	1
Computers and Peripheral Equipment	275	8
Mgmt., Scientific, and Technical Consulting	262	25
Architecture and Engineering	134	6
Medical Equipment and Supplies	120	2
Other Electrical Equipment and Components	111	3
Magnetic and Optical Media	95	1
Scientific Research and Development	40	7
Total (All Sectors)	**2,628**	**116**

Note: Totals include smaller sectors not shown.

Sources: Dun & Bradstreet via Hoovers, 2017; BAE, 2017.

COMMERCIAL REAL ESTATE MARKET

In this section of the report, BAE presents a brief overview of real estate conditions in the vicinity of the proposed Innovation Center. Given the small size of the Innovation Center site, what develops around it will have a large impact on the market support for and feasibility of proposed uses.

Existing Commercial Inventory

As of mid-2017, there are approximately 6.9 million estimated square feet of commercial space in the Innovation District (see Table 18). Over 80 percent of this space is industrial space, with another 16 percent in flex uses. Industrial space appears to be in high demand, with a vacancy rate below one percent; flex space vacancy rates also indicate a solid market. The current office inventory is extremely limited, with no vacancies. Retail space shows a higher vacancy rate, at over 12 percent for the 79,000 square feet total. Convenience retail space, however, appears to be limited but in high demand, with no vacancies.

Table 18: Existing Commercial Uses in Warm Springs Innovation District, Q2 2017

Existing Retail	Convenience	All
Inventory (s.f.)	11,131	79,077
Vacancy Rate	0.0%	12.2%
Asking NNN Rent (s.f./mo.)	(a)	$1.60

Existing Office	Multi-Tenant	All
Inventory (s.f.)	11,900	11,900
Vacancy Rate	0.0%	0.0%
Asking NNN Rent (s.f./mo.)	(a)	(a)

Existing Industrial	All
Inventory (s.f.)	5,661,720
Vacancy Rate	0.7%
Asking NNN Rent (s.f./mo.)	$0.84

Existing Flex	All
Inventory (s.f.)	1,133,653
Vacancy Rate	6.3%
Asking NNN Rent (s.f./mo.)	$1.25

Note:
(a) Asking rent data were unavailable due to the lack of available spaces.

Sources: CoStar; BAE, 2017.

Projected Future Commercial Development

The Innovation District is projected to show substantial additional development, with the square footage of commercial space estimated to more than double at buildout. Based on projects currently proposed along with future development as per various development planning documents, at buildout commercial development will increase by 7.1 million square feet, to a total of 13.9 million square feet. Most of this space, both currently and in the future, will be industrial and flex space, totaling 12.1 million square feet. Office space, currently only at 11,900 square feet, will increase substantially to 1.5 million square feet, to make up the second largest commercial land use component at buildout. There will be more limited retail development, and the area is slated for two hotels, where today there are none.

Overall, the addition of new office, industrial, and flex space will benefit the Innovation Center site since it expands the pool of potential users of the site, potentially supporting retail, business-serving office, meetings and special event venues, and hotel use.

Table 19: Summary of Projected Commercial Uses in Warm Springs Innovation District

| | Projected Uses (s.f.) | | | | Total |
Development	Retail and Entertainment	Office	Industrial and Flex	Hotel	Comm. (s.f.)
Tesla Master Plan	0	0	4,600,600	0	4,600,600
Lennar Master Plan (a)	18,600	685,070	686,070	0	1,389,740
Sobrato - Warm Springs Tech Center	0	584,217	108,560	0	692,777
Valley Oak - Warm Springs Area 3	33,000	250,000	0	50,000	333,000
Hilton Baywood Hotel	0	0	0	90,000	90,000
Lennar Innovation Multi-Family	13,100	0	0	0	13,100
Innovia	7,900	0	0	0	7,900
Toll Brothers	5,000	0	0	0	5,000
Net New Subtotal	*77,600*	*1,519,287*	*5,395,230*	*140,000*	*7,132,117*
Existing Subtotal (b)	*79,077*	*11,900*	*6,718,388*	*0*	*6,809,365*
Total	**156,677**	**1,531,187**	**12,113,618**	**140,000**	**13,941,482**

Notes:
(a) Lennar's plan does not provide disaggregated estimates for retail/entertainment and office uses. These values are from the Warm Springs/South Fremont Community Plan development standards and guidelines. The retail/entertainment figure omits the retail square footage in the planned Innovia complex, reflected separately below.
(b) These values exclude existing inventory that will be replaced by new inventory.

Sources: Tesla, *Tesla Master Plan*, 2016; Lennar, *Area 4 Master Plan*, 2015; Valley Oak Partners, *Old Warm Springs Boulevard South Master Plan*, 2016; The Sobrato Organization, *Warm Springs Technology Center Master Plan*, 2016; Toll Brothers, *Warm Springs TOD Village Master Plan*, 2015; City of Fremont; BAE, 2017.

Class A Office Market in Fremont and Milpitas

Fremont and its nearby communities have a limited Class A office market.[8] In the third quarter of 2017, the Fremont and Milpitas submarket, as tracked by Colliers International, had among the smallest Class A office inventories in Silicon Valley, with a combined 884,342 square feet (see Table 20). This inventory recorded an 11.7 percent vacancy rate, significantly higher than that of Silicon Valley overall. Its average full service weighted asking rent of $2.35 per square foot per month was among the lowest of all Silicon Valley submarkets. Many Silicon Valley submarkets commanded higher average asking rents for even their Class B and C product. While the average asking Class A rent in Silicon Valley grew 5.6 percent between the third quarters of 2016 and 2017, Fremont and Milpitas experienced a small decline.

These figures indicate that, despite dynamism in the regional Class A office market, Fremont and Milpitas are struggling to fill available space and command premium rents. Fremont and Milpitas' current asking rents will not be sufficient to support new speculative office construction in the short term. Brokers active in Fremont estimate that the breakeven rent for new Class A construction with surface parking in Fremont is $3.50 per square foot.

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[8] Colliers, a leading international commercial real estate brokerage firm, defines Class A office as those buildings with "location considered premier with high market perception standards...(commanding) higher rent with excellent building finishes, multiple building amenities and high efficiencies."

Table 20: Class A Office Summary, Fremont and Milpitas Submarket and Silicon Valley, 2016-2017

Class A Office	Fremont/ Milpitas	Silicon Valley
Inventory, Q3 2017 (sf)	884,342	52,458,203
Occupied Stock (sf)	780,572	48,664,267
Vacant Stock (sf)	103,770	3,793,936
Vacancy Rate	11.7%	7.2%
Full Service Weighted Asking Rents, 2016-2017		
Average Asking Rent (psf), Q3 2016	$2.38	$4.32
Average Asking Rent (psf), Q3 2017	$2.35	$4.56
% Change Q3 2016 - Q3 2017	-1.3%	5.6%
Net Absoprtion, 2017		
Net Absorption, Q2 to Q3 2017	5,092	1,685,193
Net Absorption, Q1 to Q3 2017	54,011	4,651,350

Sources: Colliers, 2017; BAE, 2018.

This weak position in the marketplace will likely improve in the mid- to long-term. Facebook, Inc. announced a lease of 190,000 square feet of office space in Fremont's Ardenwood district at the eastern end of the Dumbarton Bridge. Similarly, Tesla has also leased 229,000 square feet in this same area. These moves signal a willingness for large technology companies to consider locations on the east side of Silicon Valley as they seek to expand in the Valley. In both Facebook's case, its headquarters and main campus are at the western end of the Dumbarton Bridge. Tesla's leased offices in Ardenwood are a short drive to Tesla's manufacturing facility and about a half hour from its Palo Alto headquarters.

BAE interviewed several brokers with experience in the Fremont office market, and all expressed confidence that Fremont is on its way to becoming a desirable location for Silicon Valley firms. One broker reported that the soaring prices for office space in the South Bay and Peninsula have prospective tenants actively considering the east side of the Bay. That broker also praised the City's efforts to market itself as a strong location for innovative industries. An experienced office broker and developer opined that Fremont's limited and aging inventory of office properties hinders the city from capturing demand for office space. He noted that Fremont's growing resident population of highly-educated small business entrepreneurs would likely seek office space in the city if higher-quality product with ample parking and good freeway access were available.

Corporate Event Spaces in Fremont and Milpitas

Despite its large and growing base of firms, Fremont does not have a robust inventory of venues in which to host corporate events, such as trainings, retreats, fundraisers, and holiday parties. Corporate event planners typically seek dynamic spaces with adaptable rooms for varying event sizes, high-quality catering, and state-of-the-art audio-visual equipment. While hotels and convention centers have traditionally dominated the corporate event market, event planners are increasingly seeking meeting spaces in unique venues that allow for greater flexibility and creativity. According to American Express' 2018 Global Meetings and Events Forecast, growth in demand for "non-traditional" event venues is expected to outpace all other types.

Fremont and its surrounding communities have few suitable locations for corporate events. Only two of the 15 event venues BAE identified in Fremont and Milpitas have total capacities greater than

1,000 people (see Table 21). Both venues are hotels that offer the amenities traditionally sought by corporate events. The area's modest inventory of medium-sized venues (serving between 300 and 1,000 people) consists of casual community centers, party ballrooms, and wedding-oriented spaces. These venues generally lack the high-end finishes, flexibility of layouts, and audio-visual equipment sought by corporate users. Smaller venues include simple banquet rooms in mid-scale hotels and on-demand meeting rooms suitable for board meetings and small classes.

BAE interviewed the Fremont Chamber of Commerce Director of Membership Services who indicated that Chamber members frequently express frustration at the limited inventory of event spaces sufficient for larger corporate events, such as conferences and product launches. Fremont has several advantages as an event center including proximity to three major airports and accessibility via several freeways and BART. Although many Fremont-based businesses would prefer to host their events in Fremont, Kaneshiro said, the city's lack of suitable spaces pushes event planners to Oakland and San Jose. Venue features frequently requested from Chamber members include a capacity of greater than 500 people, an adaptable layout with exposition space, an on-site café and restaurant, ample parking, and high-quality event management.

Table 21: Meeting and Event Spaces in Fremont and Milpitas

Name	Address	Distance from Warm Springs Site	Total rentable SF	# of meeting rooms	Total capacity (# of people)	Theater capacity (# people)	Reception capacity (# people)	Banquet capacity (# people)	In-house A/V	On-site catering	Corporate rate
Fremont Marriott Silicon Valley	46100 Landing Pkwy, Fremont	1.8 miles	14,435	10	1,200	1,070	1,200	810	Yes	No	Yes
Hyatt Place Fremont/Silicon Valley	3101 W Warren Ave, Fremont	1.8 miles	860	2	60	N/A	N/A	N/A	Yes	No	Yes
La Quinta Inn Fremont/Silicon Valley	46200 Landing Pkwy, Fremont	1.8 miles	745	1	50	50	40	30	Yes	No	No
Warm Springs Community Center	47300 Fernald St, Fremont	2.0 miles	6,000	1	413	413	413	150	No	No	No
Courtyard Marriott Silicon Valley	47000 Lakeview Blvd, Fremont	2.0 miles	4,016	4	334	344	300	260	Yes	No	Yes
Royal Palace Banquet Hall	6058 Stevenson Blvd, Fremont	3.9 miles	(a)	3	950	(a)	(a)	(a)	Yes	Yes	No
DoubleTree by Hilton	39900 Balentine Dr, Newark	4.6 miles	20,000	14	1,635	1,470	1,610	1,300	Yes	Yes	Yes
DaVinci Meeting Rooms	7100 Stevenson Blvd, Fremont	4.8 miles	500	2	22	N/A	N/A	N/A	Yes	No	No
Macau Cultural Center	37695 Niles Blvd, Fremont	7.1 miles	2,160	2	130	120	N/A	120	Yes	No	No
Paradise Ballrooms	4100 Peralta Blvd, Fremont	7.4 miles	(a)	2	950	950	N/A	500	Yes	Yes	Yes
Meeting Rooms on Demand	4510 Peralta Blvd #4, Fremont	7.4 miles	(a)	1	50	50	N/A	N/A	Yes	No	Yes
Newark Pavilion	6430 Thornton Ave, Newark	7.6 miles	10,800	2	850	N/A	N/A	850	Yes	No	No
McCarthy Business Center	1525 McCarthy Blvd #1000, Milpitas	8.2 miles	(a)	7	83	N/A	N/A	N/A	Yes	No	No
Century House and Gardens	37447 Fremont Blvd, Fremont	8.4 miles	(a)	2	650	(a)	(a)	650	Yes	Yes	No
Ardenwood Historic Farm	34600 Ardenwood Blvd, Fremont	8.9 miles	(a)	1	950	(a)	(a)	950	Yes	No	No

Note:
(a) Data unavailable.
Sources: Venue websites and interviews with venue staff; BAE, 2018.

KEY FINDINGS

Based on BAE's analysis in this technical memorandum, along with information collected by the broader Team LACI as part of its eco-system scan, the following factors are key in considering the potential for each of the following uses under consideration for the Warm Springs Innovation Center:

Incubator/Accelerator/Co-working Space

There is likely overall market support for an incubator/accelerator/co-working space concept based upon the following Fremont characteristics:

- Affluent and well-educated community
- Large Millennial and Generation X potential user base
- STEM-oriented psychographics
- Large number of self-employed residents
- Large base of advanced industry firms
- Large base of managerial, professional, technical, and scientific workers
- Potential focus areas: manufacturing, energy, and biomedical equipment
- Needs to have distinctive 'cool' factor

Maker Space

A maker space targeting both businesses and residents could also be supported based on the following considerations:

- Affluent and well-educated community
- Large Millennial, Generation X, and Baby Boomer population
- STEM-oriented psychographics
- Large number of self-employed residents
- Large number of small and new advanced manufacturing firms that may require support services
- Patenting activity indicates potential support
- Needs to have 'cutting edge' highly advanced equipment and facilities
- Need to promote 'cool' factor in maker space

Meetings and Special Events

The Innovation Center could be a location for small to medium-sized conferences and meetings as well as special events based upon the following:

- Large number of small and medium-sized firms to support corporate use
- Forecast of significant increase in nearby employment
- Forecast of significant increase in population nearby and citywide
- Affluent, STEM-oriented community to support special events
- Superior location adjacent to BART

- Competitive venues dominated by hotels
- Interviewees indicate need for additional space to accommodate 50 to 100 event participants –up to 200 maximum
- Need for affordable event space

Educational/Workforce Training

Educational and/or workforce training facilities may be a supportable use given the characteristics of the workforce and the Fremont community's strong STEM orientation, as seen in the following:

- Need for manufacturing workforce training to replace retiring Baby Boomers
- Need to engage Fremont youth in K-12 STEM education and promote STEM careers
- Demographics and psychographics support concept of youth-oriented maker space & STEM programming
- Large number of interviewees indicate that Fremont needs to connect with educational institutions
- Cal State East Bay is interested in site

Office

Office space is likely not supportable at current rent levels without an anchor tenant willing to pay the cost of new construction. Key findings:

- Site is constrained with limited capacity for large-floor plate office with adequate onsite parking
- Nearby approved projects offer office sites with more flexibility
- Rents do not support new speculative or multitenant office construction
- End user/anchor tenant needed to achieve feasibility
- Location adjacent to BART is a competitive advantage

Retail

Retail is a potential use that would be supportable considering the following factors:

- Site size and location suggest convenience retail supportable –restaurant, coffee shops
- Large new population within ¼ mile coming in the near term
- Retail can complement other uses
- Site can serve as Warm Springs 'commons' in conjunction with Lennar project
- Potential to integrate innovative retail concepts and showcase local products
- Can contribute to 'cool' factor

Lodging/Hospitality

Lodging is also a supportable use but the site may constrain its feasibility. Key considerations:

- Interviewees indicated demand for extended stay rooms for corporate guests and academic project teams
- Extended stay is a highly profitable lodging segment
- Site not at freeway interchange but adjacent to BART and Tesla
- ½-acre site is smaller than typical suburban development pad –2 to 3 acres
- High-cost, structured and/or underground parking required
- Two hotels already planned in area (one under construction)

APPENDICES

Appendix A: Esri Tapestry Segments

See following pages. For more detail see the following:

Enterprising Professionals:
http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment9.pdf

Pacific Heights: http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment8.pdf

Professional Pride: http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment2.pdf

Top Tier: http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment1.pdf

Urban Villages: http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment28.pdf

Pleasantville: http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment7.pdf

City Lights: http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment33.pdf

Savvy Suburbanites: http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment4.pdf

Boomburbs: http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment3.pdf

International Marketplace:
http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment60.pdf

Downtown Melting Pot:
http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment36.pdf

Retirement Communities:
http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment44.pdf

Exurbanites: http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment5.pdf

Senior Escapes: http://downloads.esri.com/esri_content_doc/dbl/us/tapestry/segment43.pdf

Enterprising Professionals

2D

Households: 1,627,000

Average Household Size: 2.46

Median Age: 34.8

Median Household Income: $77,000

WHO ARE WE?

Enterprising Professionals residents are well educated and climbing the ladder in STEM (science, technology, engineering, and mathematics) occupations. They change jobs often and therefore choose to live in condos, town homes, or apartments; many still rent their homes. The market is fast-growing, located in lower density neighborhoods of large metro areas. *Enterprising Professionals* residents are diverse, with Asians making up over one-fifth of the population. This young market makes over one and a half times more income than the US median, supplementing their income with high-risk investments. At home, they enjoy the Internet and TV on high-speed connections with premier channels and services.

OUR NEIGHBORHOOD

- Almost half of households are married couples, and 30% are single person households.
- Housing is a mixture of suburban single-family homes, row homes, and larger multiunit structures.
- Close to three quarters of the homes were built after 1980; 22% are newer, built after 2000.
- Renters make up nearly half of all households.

SOCIOECONOMIC TRAITS

- Median household income one and a half times that of the US.
- Over half hold a bachelor's degree or higher.
- Early adopters of new technology in hopes of impressing peers with new gadgets.
- Enjoy talking about and giving advice on technology.
- Half have smartphones and use them for news, accessing search engines, and maps.
- Work long hours in front of a computer.
- Strive to stay youthful and healthy, eat organic and natural foods, run and do yoga.
- Buy name brands and trendy clothes online.

TAPESTRY SEGMENTATION
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Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100. Consumer preferences are estimated from data by GfK MRI.
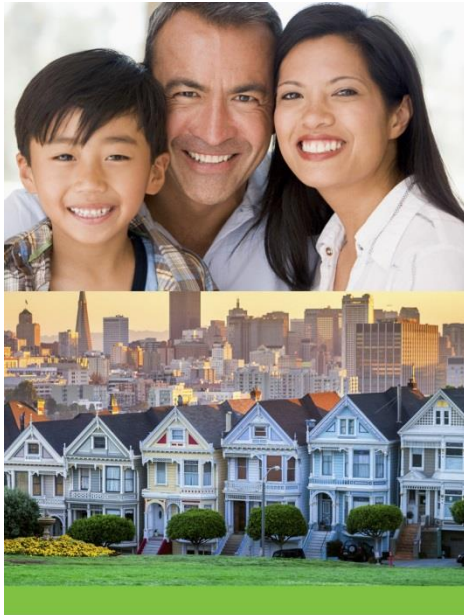
Pacific Heights

2C

Households: 870,000

Average Household Size: 3.13

Median Age: 41.8

Median Household Income: $84,000

WHO ARE WE?

Pacific Heights is one of the smaller markets (with less than 1 percent of households), composed of upscale neighborhoods in the urban periphery of metropolitan areas, along the Pacific Coast in California, in Hawaii, and in the Northeast. This market includes the highest percentage of Asian and multiracial populations; many of them born outside the US. This is a family market, distinguished by married-couple families, with and without children, some in multigenerational households. They own their homes, mainly high-priced single-family homes, with a higher proportion of town houses. Workers are generally employed in white collar occupations such as business, computer, architecture, and engineering roles. Median household income and net worth are much higher than the US. These trendy residents buy nice food and clothing, as well as the latest gadgets. They keep up with family overseas with frequent phone calls and foreign travel.

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OUR NEIGHBORHOOD

- These are diverse, densely populated neighborhoods in the urban periphery of metropolitan areas.

- Homes are primarily owner occupied and older, most built 1950–1979 (58%).

- Two-thirds of homes are single family; 14% are townhouses (Index 242).

- About 45% of owned homes are valued at over $500,000 (Index 510).

- Percentage of vacant housing units at 4.6% is one of the lowest (Index 41).

- About 61% of households are composed of married couple families, with or without children under 18 years, with a higher ratio of adult children living at home (Index 157).

- Two-thirds of households own 1 or 2 vehicles, but 28% own 3 or more (Index 140).

SOCIOECONOMIC TRAITS

- Education completed: Almost 65% of residents have some college education; 38% have a bachelor's degree or higher (Index 134).

- Labor force participation rate is average at 62%; unemployment rate is lower at 7.2%.

- Salaries account for most of the household income among these professionals, but investment income adds to their affluence.

- Financially conservative, these consumers tend to opt for low-risk investments.

- They keep up-to-date with the latest styles and trends, as well as the latest technology.

Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100. Consumer preferences are estimated from data by GfK MRI.

Professional Pride

1B

Households: 1,878,000

Average Household Size: 3.11

Median Age: 40.5

Median Household Income: $127,000

WHO ARE WE?

Professional Pride consumers are well-educated career professionals that have prospered through the Great Recession. To maintain their upscale suburban lifestyles, these goal oriented couples work, often commuting far and working long hours. However, their schedules are fine-tuned to meet the needs of their school age children. They are financially savvy; they invest wisely and benefit from interest and dividend income. So far, these established families have accumulated an average of 1.5 million dollars in net worth, and their annual household income runs at more than twice the US level. They take pride in their newer homes and spend valuable time and energy upgrading. Their homes are furnished with the latest in home trends, including finished basements equipped with home gyms and in-home theaters.

TAPESTRY SEGMENTATION
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OUR NEIGHBORHOOD

- Typically owner occupied (Index 173), single-family homes are in newer neighborhoods: 59% of units were built in the last 20 years.

- Neighborhoods are primarily located in the suburban periphery of large metropolitan areas.

- Most households own two or three vehicles; long commutes are the norm.

- Homes are valued at more than twice the US median home value, although three out of four homeowners have mortgages to pay off.

- Families are mostly married couples (almost 80% of households), and more than half of these families have kids. Their average household size, 3.11, reflects the presence of children.

SOCIOECONOMIC TRAITS

- *Professional Pride* consumers are highly qualified in the science, technology, law, or finance fields; they've worked hard to build their professional reputation or their start-up businesses.

- These consumers are willing to risk their accumulated wealth in the stock market.

- They have a preferred financial institution, regularly read financial news, and use the Internet for banking transactions.

- These residents are goal oriented and strive for lifelong earning and learning.

- Life here is well organized; routine is a key ingredient to daily life.

Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100. Consumer preferences are estimated from data by GfK MRI.

Top Tier

Households: 2,052,000

Average Household Size: 2.82

Median Age: 46.2

Median Household Income: $157,000

WHO ARE WE?

The residents of the wealthiest Tapestry market, *Top Tier*, earn more than three times the US household income. They have the purchasing power to indulge any choice, but what do their hearts' desire? Aside from the obvious expense for the upkeep of their lavish homes, consumers select upscale salons, spas, and fitness centers for their personal well-being and shop at high-end retailers for their personal effects. Whether short or long, domestic or foreign, their frequent vacations spare no expense. Residents fill their weekends and evenings with opera, classical music concerts, charity dinners, and shopping. These highly educated professionals have reached their corporate career goals. With an accumulated average net worth of over 1.5 million dollars and income from a strong investment portfolio, many of these older residents have moved into consulting roles or operate their own businesses.

OUR NEIGHBORHOOD

- Married couples without children or married couples with older children dominate this market.

- Housing units are owner occupied with the highest home values—and above average use of mortgages.

- Neighborhoods are older and located in the suburban periphery of the largest metropolitan areas, especially along the coasts.

SOCIOECONOMIC TRAITS

- *Top Tier* is a highly educated, successful consumer market: more than one in three residents has a postgraduate degree.

- Annually, they earn more than three times the US median household income, primarily from wages and salary, but also self-employment income (Index 177) and investments (Index 242).

- These are the nation's wealthiest consumers. They hire financial advisers to manage their diverse investment portfolios but stay abreast of current financial trends and products.

- Socially responsible consumers who aim for a balanced lifestyle, they are goal oriented and hardworking but make time for their kids or grandkids and maintain a close-knit group of friends.

- These busy consumers seek variety in life. They take an interest in the fine arts; read to expand their knowledge; and consider the Internet, radio, and newspapers as key media sources.

- They regularly cook their meals at home, attentive to good nutrition and fresh organic foods.

Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100.
Consumer preferences are estimated from data by GfK MRI.

TAPESTRY SEGMENTATION
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LifeMode Group: Ethnic Enclaves

Urban Villages

7B

Households: 1,293,000

Average Household Size: 3.75

Median Age: 33.3

Median Household Income: $58,000

WHO ARE WE?

Urban Villages residents are multicultural, multigenerational, and multilingual. Trendy and fashion conscious, they are risk takers. However, these consumers focus on their children and maintain gardens. They are well connected with their smartphones, but more likely to shop in person or via the Home Shopping Network. Their favorite stores are as diverse as they are, Costco or Whole Foods, Target or Nordstrom.

OUR NEIGHBORHOOD

- Older homes (most built before 1970) are found in the urban periphery of large metropolitan markets.

- Married couples with children, and grandparents; many households are multigenerational (Index 322). Average household size is 3.75.

- Homes are older, primarily single family, with a higher median value of $228,000 (Index 128) and a lower vacancy rate of 5.2%.

SOCIOECONOMIC TRAITS

- Multicultural market including recent immigrants (Index 271) and some language barriers (Index 303).

- Education: more than half the population aged 25 or older have a high school diploma or some college.

- Labor force participation rate higher than the US, but so is the unemployment rate at 10.5%.

- Brand conscious but not necessarily brand loyal; open to trying new things.

- Status-conscious consumers; choices reflect their youth—attention to style and pursuit of trends.

- Comfortable with technology and interested in the latest innovations.

TAPESTRY SEGMENTATION
esri.com/tapestry
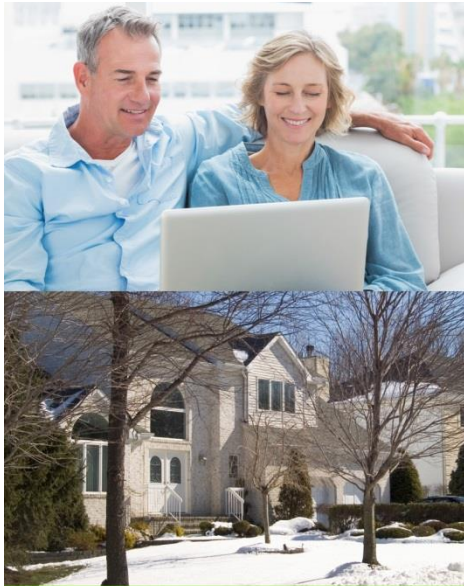
Pleasantville

2B

Households: 2,674,000

Average Household Size: 2.86

Median Age: 41.9

Median Household Income: $85,000

WHO ARE WE?

Prosperous domesticity best describes the settled denizens of *Pleasantville*. Situated principally in older housing in suburban areas in the Northeast (especially in New York and New Jersey) and secondarily in the West (especially in California), these slightly older couples move less than any other market. Many couples have already transitioned to empty nesters; many are still home to adult children. Families own older, single-family homes and maintain their standard of living with dual incomes. These consumers have higher incomes and home values and much higher net worth (Index 400). Older homes require upkeep; home improvement and remodeling projects are a priority—preferably done by contractors. Residents spend their spare time participating in a variety of sports or watching movies. They shop online and in a variety of stores, from upscale to discount, and use the Internet largely for financial purposes.

TAPESTRY SEGMENTATION
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OUR NEIGHBORHOOD

- Suburban periphery of large metropolitan areas, primarily in Middle Atlantic or Pacific states.

- Most homes owned (and mortgaged) (Index 141).

- Households composed of older married-couple families, more without children under 18, but many with children over 18 years (Index 141).

- Older, single-family homes: two-thirds built before 1970, close to half from 1950 to 1969.

- One of the lowest percentages of vacant housing units at 4.7% (Index 42).

- Suburban households with 1 or 2 vehicles and a longer travel time to work (Index 119).

SOCIOECONOMIC TRAITS

- Education: 64% college educated, 34% with a bachelor's degree or higher.

- Low unemployment at 7.8%; higher labor force participation rate at 67% (Index 107); higher proportion of HHs with 2 or more workers (Index 116).

- Many professionals in finance, information/technology, or management.

- Median household income denotes affluence, with income primarily from salaries, but also from investments (Index 131) or Social Security (Index 108) and retirement income (Index 124).

- Not cost-conscious, these consumers willing to spend more for quality and brands they like.

- Prefer fashion that is classic and timeless as opposed to trendy.

- Use all types of media equally (newspapers, magazines, radio, Internet, TV).

Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100. Consumer preferences are estimated from data by GfK MRI.

City Lights

8A

Households: 1,759,000

Average Household Size: 2.56

Median Age: 38.8

Median Household Income: $60,000

WHO ARE WE?

City Lights, a densely populated urban market, is the epitome of equality. The wide-ranging demographic characteristics of residents mirror their passion for social welfare and equal opportunity. Household types range from single person to married-couple families, with and without children. A blend of owners and renters, single-family homes and town homes, midrise and high-rise apartments, these neighborhoods are both racially and ethnically diverse. Many residents have completed some college or a degree, and they earn a good income in professional and service occupations. Willing to commute to their jobs, they work hard and budget well to support their urban lifestyles, laying the foundation for stable financial futures.

TAPESTRY SEGMENTATION
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OUR NEIGHBORHOOD

- Half of the homes are single-family residences or townhomes.

- Tenure is 50-50: half of households are owned and half are rented. Median home value (Index 182) and average gross rent (Index 129) exceed US values.

- Households include families, both married couples and single parents, as well as singles. The distribution is similar to the US, with slightly more single-person households (Index 109).

- Housing is older in this market: 2 out of 3 homes were built before 1970.

- Most households own one vehicle, but public transportation is still a necessity for daily commutes.

SOCIOECONOMIC TRAITS

- *City Lights* residents earn above average incomes, but lag the nation in net worth.

- Labor force participation exceeds the US average (Index 105). Residents work hard in professional and service occupations but also seek to enjoy life.

- These consumers save for the future, often to achieve their dream of home ownership. They often engage in discussion about financial products and services among their peers. They earn dividend incomes from their portfolios but steer away from risky investments.

- These consumers are price savvy but will pay for quality brands they trust.

- Reflecting the diversity of their neighborhoods, residents stand by their belief in equal opportunity.

- Attuned to nature and the environment, and when they can, purchase natural products.

Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100.
Consumer preferences are estimated from data by GfK MRI.

Savvy Suburbanites

1D

Households: 3,543,000

Average Household Size: 2.83

Median Age: 44.1

Median Household Income: $104,000

WHO ARE WE?

Savvy Suburbanites residents are well educated, well read, and well capitalized. Families include empty nesters and empty nester wannabes, who still have adult children at home. Located in older neighborhoods outside the urban core, their suburban lifestyle includes home remodeling and gardening plus the active pursuit of sports and exercise. They enjoy good food and wine, plus the amenities of the city's cultural events.

OUR NEIGHBORHOOD

- Established neighborhoods (most built between 1970 and 1990) found in the suburban periphery of large metropolitan markets.

- Married couples with no children or older children; average household size is 2.83.

- 91% owner occupied; 71% mortgaged (Index 156).

- Primarily single-family homes, with a median value of $311,000 (Index 175).

- Low vacancy rate at 4.5%.

SOCIOECONOMIC TRAITS

- Education: 48.1% college graduates; 76.1% with some college education.

- Low unemployment at 5.8% (Index 67); higher labor force participation rate at 68.5% (Index 109) with proportionately more 2-worker households at 65.4%, (Index 122).

- Well-connected consumers that appreciate technology and make liberal use of it for everything from shopping and banking to staying current and communicating.

- Informed shoppers that do their research prior to purchasing and focus on quality.

TAPESTRY SEGMENTATION
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Boomburbs

1C

Households: 1,695,000

Average Household Size: 3.22

Median Age: 33.6

Median Household Income: $105,000

WHO ARE WE?

This is the new growth market, with a profile similar to the original: young professionals with families that have opted to trade up to the newest housing in the suburbs. The original *Boomburbs* neighborhoods began growing in the 1990s and continued through the peak of the housing boom. Most of those neighborhoods are fully developed now. This is an affluent market but with a higher proportion of mortgages. Rapid growth still distinguishes the *Boomburbs* neighborhoods, although the boom is more subdued now than it was 10 years ago. So is the housing market. Residents are well-educated professionals with a running start on prosperity.

OUR NEIGHBORHOOD

- Growth markets are in the suburban periphery of large metropolitan areas.

- Young families are married with children (Index 221); average household size is 3.22.

- Home ownership is 84% (Index 133), with the highest rate of mortgages, 78% (Index 173).

- Primarily single-family homes, in new neighborhoods, 72% built since 2000 (Index 521).

- Median home value is $293,000 (Index 165).

- Lower housing vacancy rate at 5.3%.

- The cost of affordable new housing comes at the expense of one of the longest commutes to work, over 30 minutes average, including a disproportionate number (34.5%) commuting across county lines (Index 146).

SOCIOECONOMIC TRAITS

- Well educated young professionals, 52% are college graduates (Index 185).

- Unemployment is low at 5.2% (Index 60); high labor force participation at 72% (Index 115); most households have more than two workers (Index 123).

- Longer commute times from the suburban growth corridors (Index 121) have created more home workers (Index 154).

- They are well connected: own the latest devices and understand how to use them efficiently; biggest complaints—too many devices and too many intrusions on personal time.

- Financial planning is well under way for these professionals.

TAPESTRY SEGMENTATION
esri.com/tapestry

International Marketplace

13A

Households: 1,469,000

Average Household Size: 3.04

Median Age: 32.3

Median Household Income: $41,000

WHO ARE WE?

International Marketplace neighborhoods are a rich blend of cultures, found in densely populated urban and suburban areas, almost entirely in the Middle Atlantic (especially in New York and New Jersey) or in California. Almost 40% of residents are foreign-born; 1 in 4 households are linguistically isolated. Young, Hispanic families renting apartments in older buildings dominate this market; about two-fifths of households have children. Over one-fifth of households have no vehicle, typically those living in the city. Workers are mainly employed in white collar and service occupations (especially food service and building maintenance). One-fifth of workers commute using public transportation and more walk or bike to work than expected. Median household income is lower, but home values are higher, reflecting the metropolitan areas in which they live. Consumers are attentive to personal style; purchases reflect their youth and their children. True to their culture, residents visit Spanish language websites, watch programs on Spanish TV networks, and listen to Hispanic music.

OUR NEIGHBORHOOD

- Densely settled urban periphery of large metropolitan areas, East and West Coasts.

- Young, diverse family market: 41% families with children (married couple or single parent), plus married couples without children and a notable proportion of multigenerational households (Index 174).

- Approximately 72% of householders in multiunit apartment buildings, 30% in 2–4 unit structures (Index 375).

- Majority of apartments built before 1970 (68%), 30% built before 1940 (Index 223).

- 1 or 2 vehicles for two-thirds of households; 22% have no vehicle (Index 246).

SOCIOECONOMIC TRAITS

- Almost 40% of the population were born abroad; almost 1 in 4 households have residents who do not speak English.

- 29% have no high school diploma (Index 201); 29% have a high school diploma only (Index 101).

- Labor force participation rate is 68% and higher than the US average; unemployment is also higher, at 10.9%.

- These are hard-working consumers, striving to get ahead; style matters to them.

- Preserving the environment and being in tune with nature are very important.

- Media used most often is the Internet.

TAPESTRY SEGMENTATION
esri.com/tapestry

Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100. Consumer preferences are estimated from data by GfK MRI.

Downtown Melting Pot

8D

Households: 785,000

Average Household Size: 2.89

Median Age: 37.0

Median Household Income: $44,000

WHO ARE WE?

Downtown Melting Pot is a smaller, diverse, settled market, composed of much older neighborhoods located in cities in the Middle Atlantic division (mainly New York) or on the Pacific Coast. A mix of races and ethnicities, with strong concentrations of Asians, particularly Chinese (highest concentration of any segment) reside here. Close to half of the residents are foreign born, and 30% of households have members who do not speak English. These neighborhoods are dominated by married-couple families who live in rented apartments. Residents are employed in professional, service (especially food and personal service), sales, and administrative occupations; many work outside the county where they live. Unemployment is higher; median household income and net worth are below average, although the home values in these neighborhoods are high.

OUR NEIGHBORHOOD

- This is the most densely populated market, located in older neighborhoods of metropolitan cities, primarily in the Middle Atlantic division.

- There are older apartment buildings; almost half of households built before 1950.

- Over three-fourths of homes are in multiunit structures: 2–4 unit (Index 411), 5–19 unit (Index 159), or 20+ unit buildings (Index 373).

- About 68% of households are rented—in neighborhoods where many of the owner-occupied units are valued at $500,000+ (Index 566).

- Vacancy rate is low at 7.6%.

- Families are the dominant household type: married-couple families with children (24%) and without (24%); above average shares of multigenerational households and adult children.

- Households are as likely to own 1 vehicle (39%) as no vehicle (Index 431).

SOCIOECONOMIC TRAITS

- 47% with some college (Index 68) or a bachelor's degree or higher (Index 98).

- Unemployment rate at 10.1%, higher than the US rate.

- Labor force participation rate at 59.3%, slightly lower than the US.

- Wage and salary income for 75% of households; another notable source is Supplemental Security Income for 8% (Index 180).

- Busy consumers, often feeling overwhelmed, with longer work commutes.

- Careful shoppers, who use coupons, demonstrating little brand loyalty.

- Get news and information from various forms of media (newspapers, TV, and Internet).

TAPESTRY SEGMENTATION
esri.com/tapestry

Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100. Consumer preferences are estimated from data by GfK MRI.

Retirement Communities

9E

Households: 1,451,000

Average Household Size: 1.86

Median Age: 52.0

Median Household Income: $35,000

WHO ARE WE?

Retirement Communities neighborhoods are evenly distributed across the country. They combine single-family homes and independent living with apartments, assisted living, and continuous care nursing facilities. Over half of the housing units are in multiunit structures, and the majority of residents have a lease. This group enjoys watching cable TV and stays up-to-date with newspapers and magazines. Residents take pride in fiscal responsibility and keep a close eye on their finances. Although income and net worth are well below national averages, residents enjoy going to the theater, golfing, and taking vacations. While some residents enjoy cooking, many have paid their dues in the kitchen and would rather dine out.

OUR NEIGHBORHOOD

- Much of the housing was built in the 1970s and 1980s—a mix of single-family homes and large multiunit structures that function at various levels of senior care.
- Small household size; many residents have outlived their partners and live alone.
- Over half of the homes are renter occupied.
- Average rent is slightly below the US average.
- One in five households has no vehicle.

SOCIOECONOMIC TRAITS

- Brand loyal, this segment will spend a little more for their favorite brands, but most likely they will have a coupon.
- Frugal, they pay close attention to finances.
- They prefer reading magazines over interacting with computers.
- They are health conscious and prefer name brand drugs.

TAPESTRY SEGMENTATION
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Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100.
Consumer preferences are estimated from data by GfK MRI.

LifeMode Group: Affluent Estates

Exurbanites

1E

Households: 2,320,000

Average Household Size: 2.48

Median Age: 49.6

Median Household Income: $98,000

WHO ARE WE?

Ten years later, *Exurbanites* residents are now approaching retirement but showing few signs of slowing down. They are active in their communities, generous in their donations, and seasoned travelers. They take advantage of their proximity to large metropolitan centers to support the arts, but prefer a more expansive home style in less crowded neighborhoods. They have cultivated a lifestyle that is both affluent and urbane.

OUR NEIGHBORHOOD

- Established neighborhoods (most built between 1970 and 1990) found in the suburban periphery of large metropolitan markets.

- A larger market of empty nesters, married couples with no children; average household size is 2.48.

- Primarily single-family homes with a high median value of $346,000 (Index 195), most still carrying mortgages.

- Higher vacancy rate at 9%.

SOCIOECONOMIC TRAITS

- Residents are college educated; more than half have a bachelor's degree or higher; almost 80% have some college education.

- This labor force is beginning to retire. 1 in 3 households currently receive Social Security or retirement income. Labor force participation has declined to less than 60% (Index 94).

- Unemployment remains low at 5.5% (Index 64); more of the residents prefer self-employment (Index 184) or working from home (Index 181).

- Consumers are more interested in quality than cost. They take pride in their homes and foster a sense of personal style.

- *Exurbanites* residents are well connected, using the Internet for everything from shopping to managing their finances.

- Sociable and hardworking, they still find time to stay physically fit.

TAPESTRY SEGMENTATION
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Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100.
Consumer preferences are estimated from data by GfK MRI.

Senior Escapes

9D

Households: 1,088,000

Average Household Size: 2.19

Median Age: 52.6

Median Household Income: $35,000

WHO ARE WE?

Senior Escapes neighborhoods are heavily concentrated in the warmer states of Florida, California, and Arizona. These areas are highly seasonal, yet owner occupied. Many homes began as seasonal getaways and now serve as primary residences. Forty percent are mobile homes; half are single-family dwellings. About half are in unincorporated and more rural areas. Over a quarter of the population are 65–74 years old. Most are white and fairly conservative in their political and religious views. Residents enjoy watching TV, going on cruises, playing Bingo, golfing, boating, and fishing. They are very conscious of their health and buy specialty foods and dietary supplements.

OUR NEIGHBORHOOD

- Neighborhoods include primary and second homes in rural or semirural settings.
- One quarter of all housing units are vacant; many are for seasonal use only.
- One-third of the households are married couples without children; a third are single-person households.
- Half the homes are single family; another 40% are mobile homes.
- Three-quarters of all homes are owner occupied, and the majority own their homes free and clear.
- Still actively driving, most households have one or two vehicles.

SOCIOECONOMIC TRAITS

- Labor force participation is low, but more than half the households are drawing Social Security income.
- They have conservative political views.
- They spend majority of their time with spouse/significant other or alone.
- They are limited by medical conditions but still enjoy gardening and working on their vehicles.
- They take good care of vehicles, but haven't bought a new one in over five years.
- They only spend within their means, do their banking in person, and do not carry a balance on their credit card.

TAPESTRY SEGMENTATION
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Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100.
Consumer preferences are estimated from data by GfK MRI.