Grand Terrace, California

Indicators Report

by
The National Economic Education Delegation (NEED)

April 20, 2024

Exploring the economics, demographics, and well-being of Grand Terrace and its residents through indicators.

This report was produced by the:

National Economic Education Delegation 271 Arias St. San Rafael, CA 94903 415-336-5705 www.NEEDEcon.org Contact: Jon@NEEDEcon.org

Executive Summary

Assessing the City with Indicators

About this Report

This report provides background or summary information for the city of Grand Terrace (the City) in the form of indicators.

Using this Report

Indicators are measures of various aspects of a regional economy. They help to provide an indication of the quality of life in a region and progress toward improving conditions in the local economy. This report focuses on indicators for changing demographics, incomes, housing markets, commute patterns, and employment in Grand Terrace. These indicators are compared to San Bernardino County (the County) as a whole, a broader region where one is well defined, California, and the United Sates.

This report is vital for understanding trends in the underlying economy. It does not provide forecasts, but Rob Eyler and Jon Haveman at Economic Forensics and Analytics are available to provide them if that is of interest.

Topics Covered:

- Demographics: A detailed snopshot of Grand Terrace demographics is presented. This provides
 evidence on the size, age and sex, income and poverty status, race and ethnicity, housing status,
 living arrangements, education, health, and transportation choices of the population. Beyond
 the current population level, data on trends in local population growth, in comparison with other
 broader regions is presented, in both tabular and graphical form.
- **Employment Report:** Here, we provide a brief snapshot or employment and unemployment in Grand Terrace and how the City's experience differs from broader regions.
- Income and Earnings: Vital to understanding the prosperity of a city relative to its surrounding
 area is information on income and earnings. We provide a ranking of the City's income relative to
 all cities in California as well as growth relative to local regions. Inequality and poverty status are
 also important indicators for the level of equity in the community. We provide evidence of trends
 in both, not only for all residents, but also for children separately.
- Housing: This section provides evidence on the cost and availability of housing. Both median home values and rental costs are included, along with detailed information on home ownership, by age and income, in particular. Further, evidence is provided on the housing burden in the City, again, in comparison with other broader regions. We also provide evidence on the rate at which new buildings and units are permitted along with a broader housing picture. Finally, we provide evidence on the age of the housing stock in Grand Terrace, along with information on how long the City's residents have been in place.
- Transportation: Increasingly important, in the wake of the pandemic, is an understanding of the transportation patterns and choices of local residents. We provide detailed evidence on the proprotion of residents who work from home and on the various transportation choices of those who head to the office. This information is also provided for those who work in Grand Terrace, but do not necessarily live in Grand Terrace.
- **Migration:** Population changes comes primarily through organic causes: births and deaths. Migration between regions also plays a significant role in population growth. A final section of the report provides evidence on migration into and out of the City.

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Demographics

Definition:

Data on the demographics of a city indicate the nature of the population, with a focus on age, gender, race and ethnicity, as well as household compositon.

Why is it important?

The characteristics and growth of Grand Terrace's population are fundamental indicators of the city's growth potential.

A Demographic Snapshot

Statistic	2022	2019
POPULATION		
Population Estimate (#, 5yr)	13,104.0	12,510.0
Veterans (#, 5yr)	780.0	636.0
Foreign born persons (%, 5yr)	11.6	11.8
Population age 25+ (#, 5yr)	9,279.0	8,959.0
AGE AND SEX		
Persons under 5 years (%, 5yr)	6.1	5.6
Persons under 18 years (%, 5yr)	21.4	19.6
Persons 65 years and over (%, 5yr)	15.4	15.2
Female persons (%, 5yr)	49.4	52.5
INCOME AND POVERTY		
Median household income (\$, 5yr)	89,781.0	71,788.0
Per capita income in past 12 months (\$, 5yr)	38,286.0	31,132.0
Persons in poverty (%, 5yr)	7.4	8.7
Children age less than 18 in poverty (#, 5yr)	178.0	322.0
Children age less than 18 in poverty (%, 5yr)	6.5	13.3
RACE AND ETHNICITY		
White alone (%, 5yr)	55.7	66.5
African American alone (%, 5yr)	4.5	4.0
American Indian or Alaska Native alone (%, 5yr)	0.9	0.2
Asian alone (%, 5yr)	4.3	6.7
Native Hawaiian and Other Pacific Islander alone (%, 5yr)	2.0	0.5
Two or More Races (%, 5yr)	10.9	5.3
Hispanic or Latino (%, 5yr)	51.2	49.1
White alone, not Hispanic or Latino (%, 5yr)	36.9	37.3
HOUSING		
Housing units (#, 5yr)	4,973.0	4,719.0
Owner-occupied housing units (%, 5yr)	63.7	61.1
Median value of owner-occupied housing units (\$, 5yr)	447,900.0	324,400.0
Median selected monthly owner costs-with a mortgage (\$, 5yr)	2,241.0	1,759.0
Median selected monthly owner costs-without a mortgage (\$, 5yr)	656.0	536.0
Median gross rent (\$, 5yr)	1,701.0	1,405.0
FAMILIES AND LIVING ARRANGEMENTS		
Households (#, 5yr)	4,652.0	4,358.0
Persons per household (#, 5yr)	2.8	2.8
Living in same house 1 year ago, % of persons age 1+ (5yr) EDUCATION	87.6	84.4
High school graduate or higher, % of persons age 25+ (5yr)	86.6	90.9
Bachelor's degree or higher, % of persons age 25+ (5yr)	28.8	26.8
HEALTH		
With a disability, under age 65 years (#, 5yr)	772.0	901.0
Persons without health insurance, under age 65 years (%, 5yr) LABOR FORCE	7.1	4.4
In civilian labor force, persons age 16+ (%, 5yr)	67.3	65.0
In civilian labor force, women age 16+ (%, 5yr)	62.0	58.7
Employed, persons age 16+ (%, 5yr)	59.5	58.9
Self employed (%, 5yr)	6.5	5.4
TRANSPORTATION		
Mean travel time to work, workers age 16+ (Mins., 5yr)	25.4	26.2
Drive alone in private vehicle (%, 5yr)	79.1	82.6
Using public transportation (%, 5yr)	0.8	2.4
Worked from home (%, 5yr)	7.0	3.6

Source: American Community Survey, Summary Files
Note: Data are from the 1-year files unless indicated by the notation 5yr.

Current Population

The data in these two tables and the following two graphs are from the CA Department of Finance (DOF). The DOF produces population estimates for geographies around California twice a year: January and July. As estimates for cities are only available in January, these two tables are based on the January data. The remaining figures are from the American Community Survey (ACS), provided annually by the U.S. Bureau of the Census.

Table 1. Population Change by Region

(Thousands, January to January)

	2023		% Chan	ge					
Region	Population	1 Year	3 Year	5 Year					
City									
Grand Terrace	12,814	-0.73	3.27	1.94					
Co	unty and Broa	der Regio	ns						
San Bernardino County	2, 182, 056	0.06	0.30	0.49					
Southern California	21,794,548	-0.41	-2.24	-2.84					
California	38,940,231	-0.35	-1.79	-2.01					

Source: CA DOF; Calculations by National Economic Education Delegation

Table 2. County Population Change by City

(Thousands, January to January)

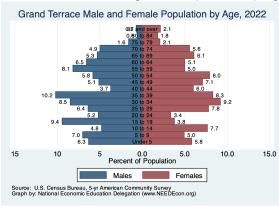
				% Change	
City	2022	2023	Local	Southern California	California
San Bernardino County	2, 180.8	2, 182.1	0.06	-0.41	-0.35
San Bernardino	220.5	223.2	1.23		
Fontana	212.6	213.9	0.58		
Ontario	178.7	180.7	1.14		
Rancho Cucamonga	174.1	173.5	-0.31		
Victorville	136.2	137.2	0.76		
Rialto	103.4	103.0	-0.41		
Hesperia	99.9	100.0	0.19		
Chino	92.3	93.1	0.87		
Upland	78.8	78.4	-0.50		
Chino Hills	77.6	77.1	-0.70		
Apple Valley	75.3	75.0	-0.37		
Redlands	72.3	72.0	-0.40		
Highland	56.3	56.0	-0.53		
Yucaipa	54.2	54.0	-0.46		
Colton	53.5	53.2	-0.67		
Montclair	37.7	37.5	-0.51		
Adelanto	36.4	36.7	0.65		
Twentynine Palms	27.6	25.9	-6.05		
Loma Linda	25.2	25.2	-0.02		
Barstow	25.1	24.9	-0.78		
Yucca Valley	21.7	21.6	-0.35		
Grand Terrace	12.9	12.8	-0.73		
Big Bear Lake	4.9	4.9	-0.43		
Needles	4.8	4.8	-0.77		

Source: CA DOF; Calculations by National Economic Education Delegation

Figure 1: Population Growth (1) 10-Percent Change from 2010 0 -10 -20 -30 1990 2000 2020 2030 Year, through 2023 Grand Terrace (6.3%) San Bernardino County (7.3%) California (4.6%) Source: CA, Department of Finance Graph by: National Economic Education Delegation (www.NEEDEcon.org)

Figure 2: Population Growth (2) (Over 1, 5 and 32 years, through 2023) Annual Growth Rate (%), to 2023 2.0 1.5 1.0 0.5 0.0 -0.5 Ave. -1.0 32 Years 1 Year 5 Years Grand Terrace San Bernardino County California Source: U.S. Bureau of Economic Analysis Graph by: National Economic Education Delegation (www.NEEDEcon.org)

Figure 3: Population by Age - Detailed Age Categories



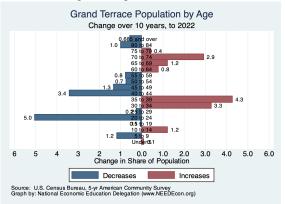
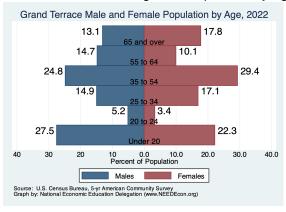


Figure 4: Population by Age - Broad Age Categories



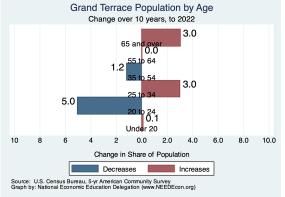


Figure 5: Population by Educational Attainment

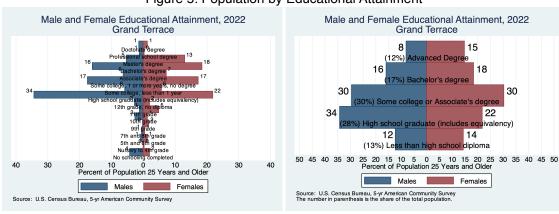


Figure 6: Population by Race/Ethnicity

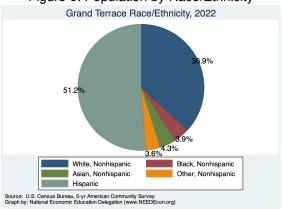
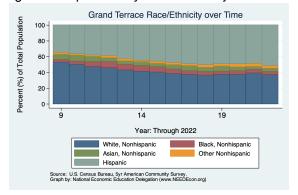


Figure 7: Population by Race/Ethnicity Over Time



Employment Report

Citywide Employment and Unemployment

Definition:

Each month, California's Employment Development Division (EDD) publishes an update on employment in California and in MSAs, counties, and cities all across the state. The report focuses primarily on non-farm employment, providing estimates of changes in em-

ployment by industry as well as unemployment in each region. Data for cities is limited to aggregate employment, labor force, and unemployment data. Those are reported below.

Why is it important?

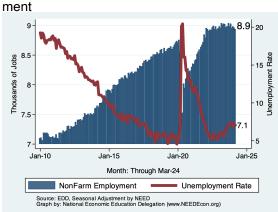
Employment growth is a fundamental indicator of the health of an economy.

Table 3. Grand Terrace Summary for March, 2024

	Change From:							
Category	Current Value	Last Month	2 Months Ago	Last Year				
Employment	8,924	-30	-53	-103				
Labor Force	9,644	9	15	96				
Number Unemployed	678	-4	21	97				
Unemployment Rate	7.0	-0.0	0.2	0.9				

Source: EDD, National Economic Education Delegation

Figure 8: Historical Employment and Unemploy- Figure 9: Employment and Unemployment - Last



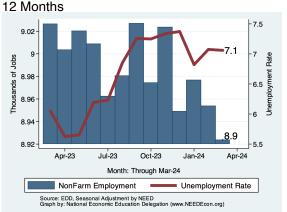
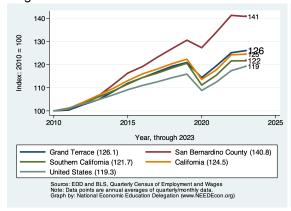
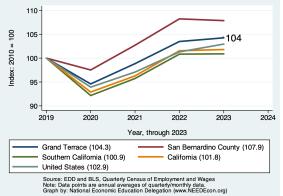


Figure 10: Relative Employment Growth Across Figure 11: Relative Employment Growth Across Regions - since 2010 Regions - since 2019





County Employment by Industry

California's Employment Development Division (EDD) does not regularly produce data on employment by industry for cities. However, we are able to report industry-level employment data for San Bernardino County. The following table provides the latest data for the County.

Table 4. Employment Growth by Industry in San Bernardino County for March, 2024

			Empl	% Growth - Annualized Rate					
Industry	Employment	Share	Growth	Month	Qtr	6mo	1yr	3yr	5yr
Total Nonfarm	869, 335	100.0	3,063.8	4.3	0.5	0.8	1.6	3.3	2.2
Goods Producing	96,898	11.1	424.2	5.4	-5.6	-0.1	1.2	1.7	0.6
Mining and Logging	1,257	0.1	0.0	0.0	0.0	0.0	14.3	13.2	11.4
Construction	43,008	4.9	529.8	16.0	-3.4	3.5	5.7	3.4	2.6
Manufacturing	51,884	6.0	-334.9	-7.4	-9.0	-4.3	-3.8	-0.2	-1.2
Durable Goods	29,974	3.4	-213.1	-8.2	-7.6	-4.2	-3.8	-1.5	-2.7
Non-Durable Goods	22,002	2.5	-90.7	-4.8	-9.8	-3.9	-3.9	2.0	1.6
Service Providing	771,773	88.8	2,749.9	4.4	1.4	1.0	1.6	3.4	2.4
Trade, Trans & Utilities	258,666	29.8	1,080.3	5.2	2.5	-1.1	-1.3	0.8	3.5
Wholesale Trade	40,792	4.7	-93.4	-2.7	-3.2	-2.3	-2.0	-0.5	-0.3
Retail Trade	88,058	10.1	203.1	2.8	-3.1	-2.4	-1.4	1.0	0.1
Information	5,150	0.6	-18.7	-4.3	-3.7	-2.7	-1.5	5.5	0.8
Financial Activities	24,262	2.8	-47.3	-2.3	-2.2	-1.3	-1.4	0.9	0.9
Finance & Insurance	12,325	1.4	-11.5	-1.1	-2.2	-2.7	-1.8	-3.0	-1.8
Real Estate & Rental & Leasing	11,947	1.4	-19.2	-1.9	-0.4	0.6	-0.9	6.2	4.7
Professional & Business Srvcs	100,448	11.6	1,065.6	13.7	0.5	3.2	-0.5	3.8	4.3
Prof, Sci, & Tech	28,728	3.3	125.3	5.4	1.8	0.5	-0.1	7.0	5.4
Educational & Health Srvcs	151,871	17.5	1,114.4	9.2	7.6	6.3	8.0	5.7	3.7
Education Srvcs	11,925	1.4	88.0	9.3	1.9	3.7	5.7	9.4	0.7
Health Care & Social Assistance	140,954	16.2	988.1	8.8	8.4	6.5	8.2	5.6	4.1
Leisure & Hospitality	77,016	8.9	-297.4	-4.5	-4.5	-4.9	-2.6	5.4	-0.3
Arts, Entertainment & Recreation	6,737	0.8	21.1	3.8	-1.9	-10.2	-3.2	11.6	-3.4
Accommodation & Food Srvcs	70,880	8.2	-328.2	-5.4	-5.1	-4.5	-2.4	5.2	0.2
Other Srvcs	26,169	3.0	91.8	4.3	-3.6	0.2	1.4	8.4	3.1
Government	128,718	14.8	434.1	4.1	4.5	5.1	4.9	5.1	-0.1
Federal	6,500	0.7	28.2	5.4	4.0	3.9	3.8	0.4	-10.6
State	12,843	1.5	-0.5	-0.0	2.5	1.2	1.9	-1.1	-0.9
Local	109,562	12.6	395.6	4.4	4.8	5.6	5.4	6.4	1.5

Source: EDD, National Economic Education Delegation (NEED)

Some Employee Detail

Employed in Grand Terrace

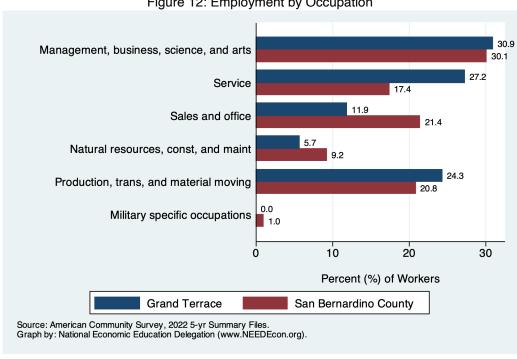
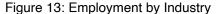


Figure 12: Employment by Occupation



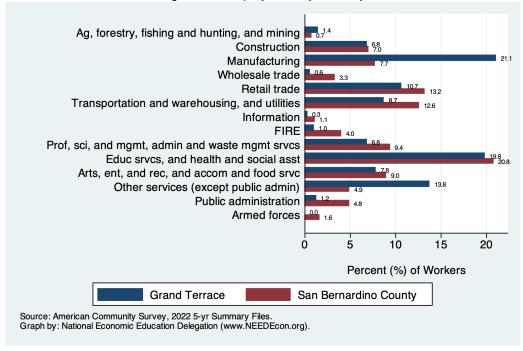


Figure 14: Language Spoken at Home Speak only English Speak Spanish (SS) 23.6 SS - English very well 25.5 SS - English less than very well 13.7 Speak other languages (SOL) 8.5 6.2 SOL - English very well 5.3 7.5 SOL - English less than very well 10 20 30 40 50 Percent (%) of Workers **Grand Terrace** San Bernardino County Source: American Community Survey, 2022 5-yr Summary Files. Graph by: National Economic Education Delegation (www.NEEDEcon.org).

Figure 15: Citizenship 78.4 Native 72.8 21.6 Foreign Born 27.2 12.9 Naturalized U.S. 14.1 Not a U.S. Citizen 13.1 20 Ó 40 60 80 Percent (%) of Workers **Grand Terrace** San Bernardino County Source: American Community Survey, 2022 5-yr Summary Files. Graph by: National Economic Education Delegation (www.NEEDEcon.org).

Employed Residents of Grand Terrace

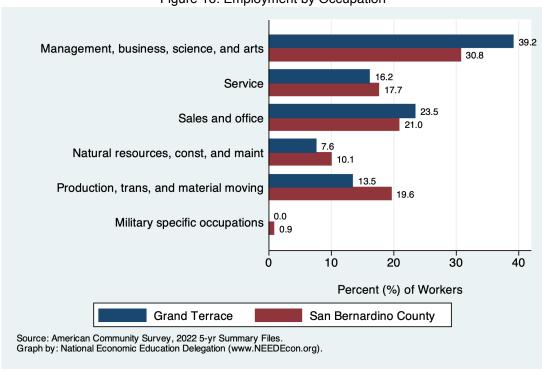
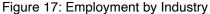
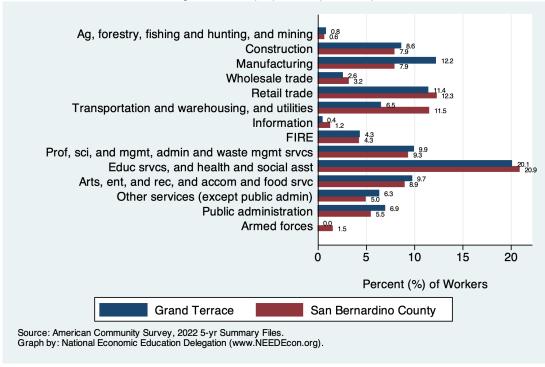


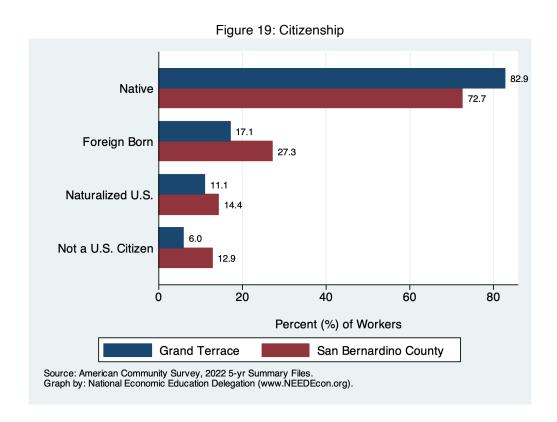
Figure 16: Employment by Occupation





66.3 Speak only English Speak Spanish (SS) 38.4 20.6 SS - English very well SS - English less than very well Speak other languages (SOL) SOL - English very well SOL - English less than very well 20 40 60 80 Percent (%) of Workers **Grand Terrace** San Bernardino County Source: American Community Survey, 2022 5-yr Summary Files. Graph by: National Economic Education Delegation (www.NEEDEcon.org).

Figure 18: Language Spoken at Home



Employed Residents vs Workers in Grand Terrace

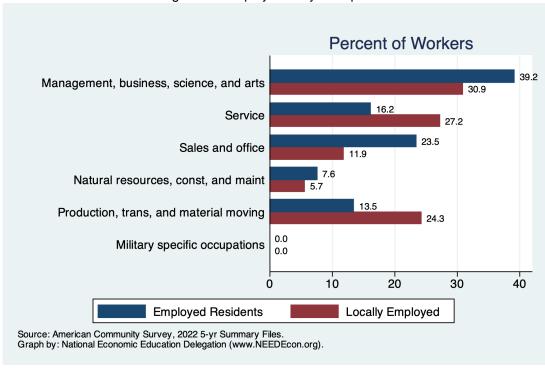
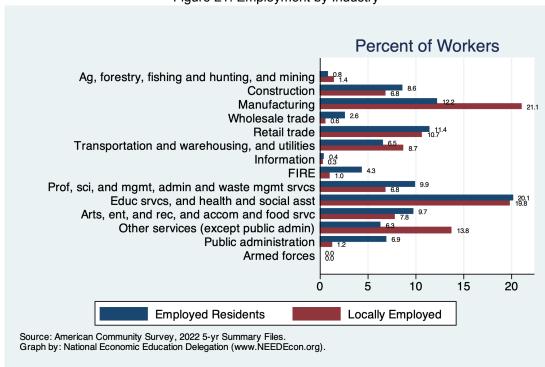


Figure 20: Employment by Occupation

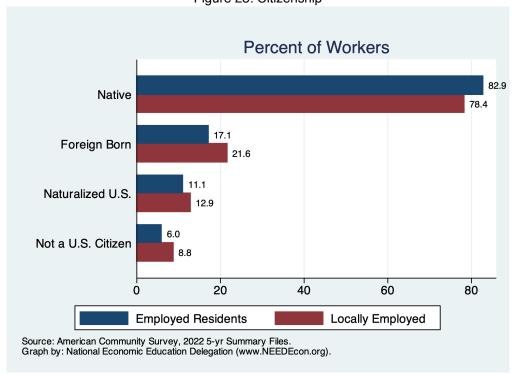




Percent of Workers 66.3 Speak only English Speak Spanish (SS) SS - English very well SS - English less than very well Speak other languages (SOL) 13.7 SOL - English very well SOL - English less than very well 20 40 60 80 **Employed Residents** Locally Employed Source: American Community Survey, 2022 5-yr Summary Files. Graph by: National Economic Education Delegation (www.NEEDEcon.org).

Figure 22: Language Spoken at Home





Income and Earnings

Per Capita Income Growth

Definition:

Per capita income is the average income per person in Grand Terrace. Personal income is the income received by, or on behalf of, all persons from all sources: from participation as laborers in production, from owning a home or unincorporated business, from the ownership of financial assets, and from government and business in the form of transfer receipts. Noncash government benefits are not included.

Why is it important?

Income is the money that is available to persons for consumption expenditures, taxes, interest payments, transfer payments to governments and the rest of the world, or for saving. As such, it is an important indicator of economic well-being in a community.

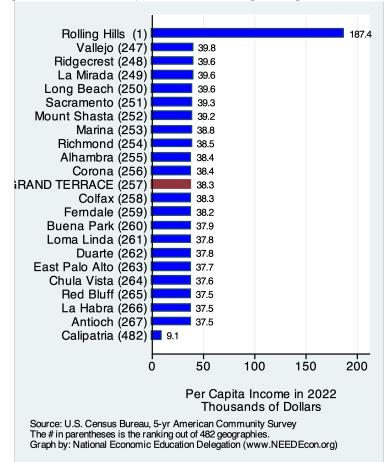
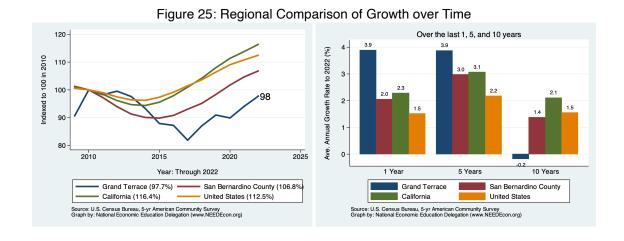
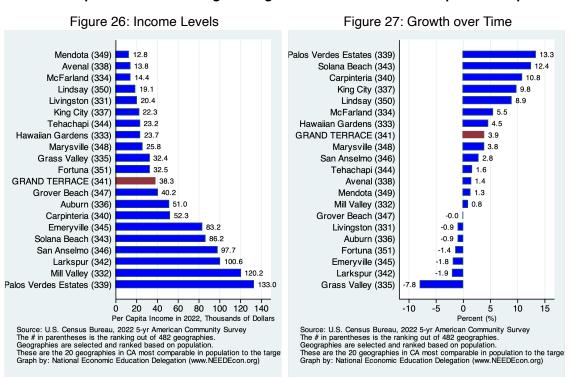


Figure 24: Real Per Capita Income Ranking Among California Cities



Real Per Capita Income Ranking Among California Cities - w/Comparable Populations

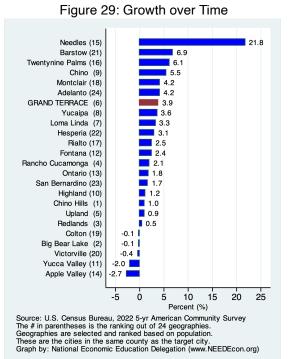


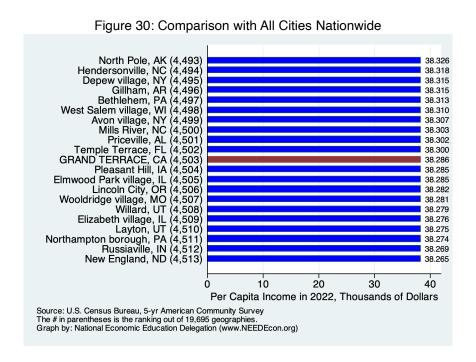
Real Per Capita Income Ranking Among Cities in San Bernardino County

Figure 28: Income Levels Adelanto (24) San Bernardino (23) 22.9 Hesperia (22) 23.9 Barstow (21) 24 8 Victorville (20) 24.8 Colton (19) 25.0 Montclair (18) 25.2 Rialto (17) 25.6 Twentynine Palms (16) Needles (15) 28.0 Apple Valley (14) 29.0 Ontario (13) 29.3 Fontana (12) 30.4 Yucca Valley (11) 32.4 Highland (10) Chino (9) Yucaipa (8) Loma Linda (7) 37.8 GRAND TERRACE (6) Upland (5) Rancho Cucamonga (4) Redlands (3) Big Bear Lake (2) 46.1 Chino Hills (1) 46.8 60 20 40

Source: U.S. Census Bureau, 2022 5-yr American Community Survey
The # in parentheses is the ranking out of 24 geographies.
Geographies are selected and ranked based on population.
These are the cities in the same county as the target city.
Graph by: National Economic Education Delegation (www.NEEDEcon.org)

Per Capita Income in 2022, Thousands of Dollars





Poverty and Inequality

Definition:

The local poverty rate provides an indication of the well-being of those at the bottom of the income distribution. The federal poverty rate measures the proportion of households in the region that are classified as living in poverty. Also included are measures of the extent to which the City's children are impoverished. Measures of the income distribution provide

further evidence on disparities in income in the region and how those disparities have changed over time.

Why is it important?

It is important to track measures of poverty and inequality to assess the extent of income disparities in the region, with an eye toward understanding how well the local economy is performing for all of its citizens.

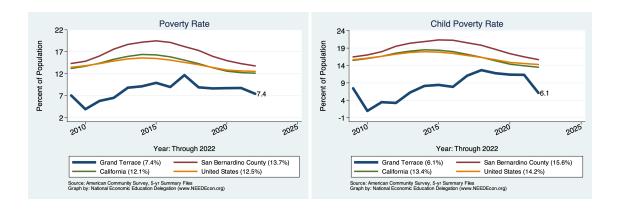
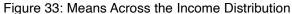
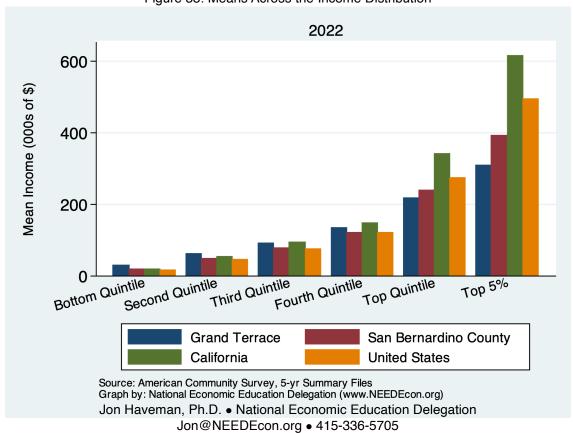


Figure 31: Inequality Inequality: Gini Coefficient 50 45 40 35.7 35 2010 2015 2025 2020 Year: Through 2022 Grand Terrace (35.7%) San Bernardino County (43.9%) California (48.9%) United States (48.2%) Source: American Community Survey, 5-yr Summary Files Graph by: National Economic Education Delegation (www.NEEDEcon.org)

2022 50 Percent of All Income 40 30 20 10 0 Second Quintile Third Quintile Fourth Quintile Bottom Quintile Top Quintile Top 5% **Grand Terrace** San Bernardino County California **United States** Source: American Community Survey, 5-yr Summary Files Graph by: National Economic Education Delegation (www.NEEDEcon.org)

Figure 32: Shares Across the Income Distribution





Housing

Housing Costs and Affordability

Definition:

Housing costs are measured in several different ways. First, we provide evidence on the evolution of median home prices, median rental price, and finally through evidence on the housing burden in the city and comparison regions. Housing burden is defined as a household needing to commit more than 30% of their household income toward housing costs. The median value is the amount in the middle. Fifty percent of units are above the median and 50 percent are below.

Why is it important?

Housing is one of three fundamental necessities, along with food and clothing. A measure of the cost of housing is an integral part of the measurement of the cost of living in a specific community. This is particularly true in cities and regions throughout the Bay Area, where housing costs are high relative to income.

Cost of Housing in Grand Terrace and Broader Regions

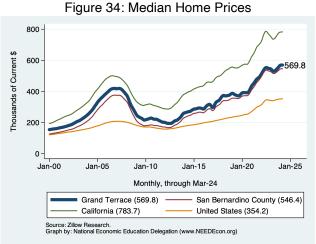


Figure 35: Median Rents 2.5 Thousands of Current \$ 2.0 Jan-22 Jan-26 Jan-14 Jan-16 Jan-18 Jan-20 Jan-24 Monthly, through Mar-24 Grand Terrace (2.1) San Bernardino County (2.4) - United States (2.0) Source: Zillow Research. Graph by: National Economic Education Delegation (www.NEEDEcon.org)

Housing Ownership in Grand Terrace and Broader Regions

Figure 36: Home Ownership Rates

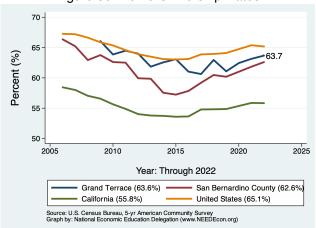


Figure 37: Home Ownership by Age

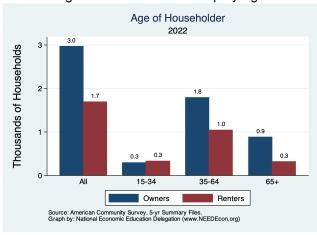


Figure 38: Income by Tenure

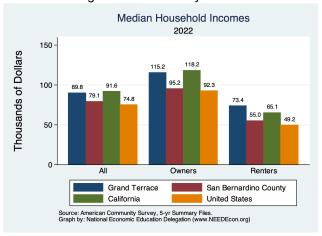


Figure 39: Income Distribution by Tenure

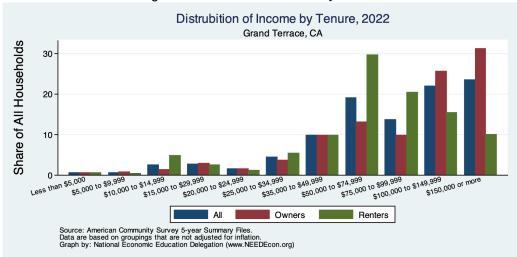


Figure 40: Income Distribution of Home Owners

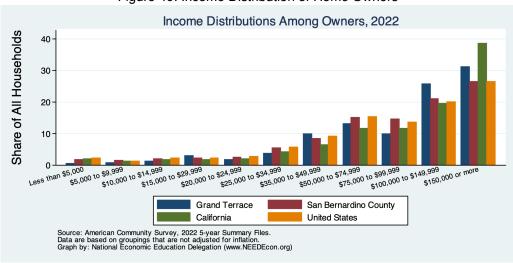
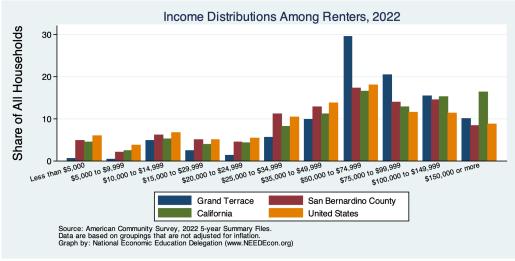


Figure 41: Income Distribution of Renters



Housing Burden in Grand Terrace and Broader Regions

Figure 42: Home Owners w/ A Mortgage

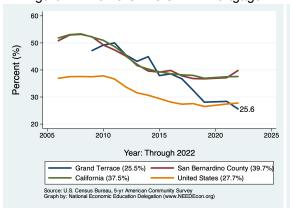


Figure 43: Home Owners w/o A Mortgage

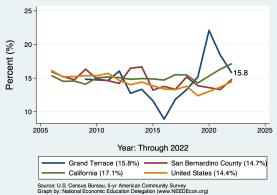


Figure 44: Renters

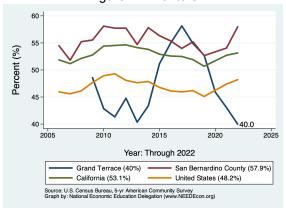
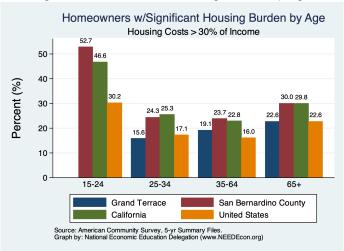


Figure 45: Homeowner Housing Burden by Age



Housing Picture

Definition:

Housing costs are measured in several different ways. First, we provide evidence on the evolution of median home prices, median rental price, and finally through evidence on the housing burden in the city and comparison regions. The median value is the amount in the middle. Fifty percent of units are above the median and 50 percent are below.

Why is it important?

In areas where the rate of population growth exceeds the rate of housing growth, this is likely to reflect a tightening housing market. A tightening housing market will also likely be reflected in lower vacancy rates and higher occupancy rates. It may also be reflected in higher numbers of people per household.

Table 5. Housing Market Indicators

				% Change from			
Indicator	2023	2019	2010	2019	2010		
Total Population	12,814.0	12,362.0	12,040.0	3.7	6.4		
Total # of Homes	4,901.0	4,705.0	4,649.0	4.2	5.4		
# Occupied Units	4,671.0	4,458.0	4,403.0	4.8	6.1		
Persons per Household	2.7	2.7	2.7	-1.1	0.3		
Vacancy Rate (%)	4.7	5.2	5.3	-10.6	-11.3		

Source: CA DOF; Calculations by the National Economic Education Delegation

Figure 46: Housing Growth

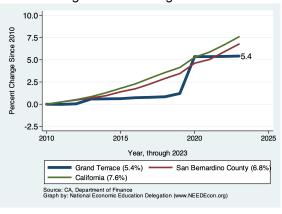


Figure 47: Persons per Household

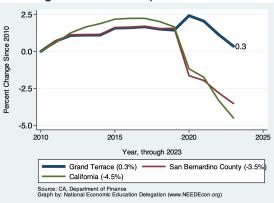


Figure 48: Vacancy Rates

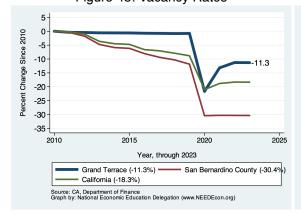
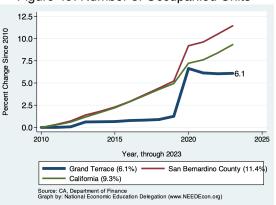


Figure 49: Number of Occupanied Units

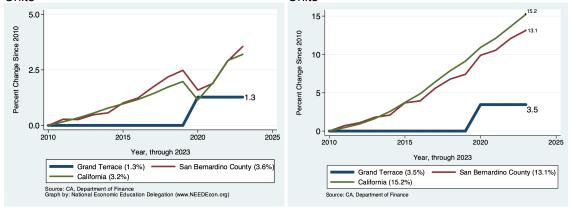


Trends in the Growth of Housing by Housing Type

Figure 50: Single Detached Homes Figure 51: Single Attached Homes 7.5-40 35 Percent Change Since 2010 Percent Change Since 2010 5.0 30 25 2.5 20 15 10 -2.5 2010 2015 2020 2025 2010 2015 2020 Year, through 2023 Year, through 2023 Grand Terrace (5.9%) San Bernardino County (6.5%) Grand Terrace (37.9%) San Bernardino County (12.9%) California (5.8%) California (9.3%) Source: CA, Department of Finance Graph by: National Economic Education Delegation (www.NEEDEcon.org) Source: CA, Department of Finance Graph by: National Economic Education Delegation (www.NEEDEcon.org)

Figure 52: Housing in Buildings with Two to Four Figure 53: Housing in Buildings with Five or More Units Units

2025

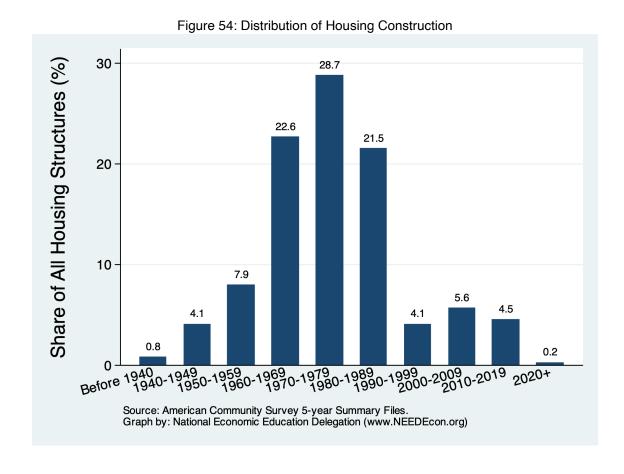


Vintage of Residential Housing

Why is it important?

This section provides evidence on the year in which residential housing in Grand Terrace was built. We break it down into owned versus rented residences and provide a comparison across San Bernardino County and broader regions. A sense of the age of housing in a region provides an indication of the urgency with which a region might pursue additional hous-

ing. As the housing stock ages, an urgency with which renovations and rebuilds are permitted might result. All things equal, more recently constructed housing will be more likely to meet current codes and standards. Remodeling of existing units will be more desirable when existing units are, on average, older.



Jon Haveman, Ph.D. • National Economic Education Delegation
Jon@NEEDEcon.org • 415-336-5705

Figure 55: Housing Vintage across Regions

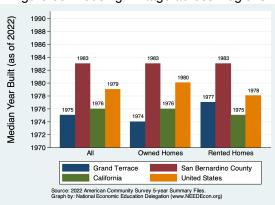


Figure 56: Housing Vintage by Tenure

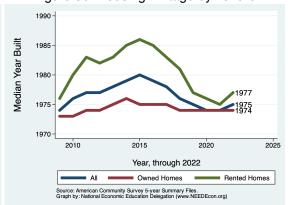


Figure 57: Vintage of Owned Residences

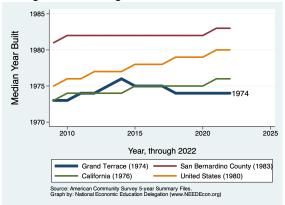


Figure 58: Vintage of Rented Residences

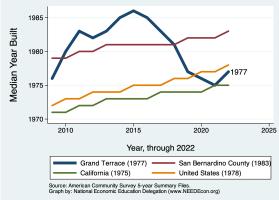
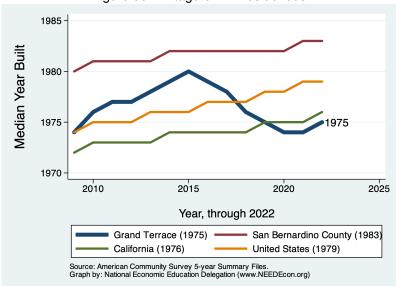


Figure 59: Vintage of All Residences



Occupation of Residential Housing

Why is it important?

The duration of residence in a city is important for developing future policies regarding growing the local population. If a region is highly mobile, evidenced by most residences having been recently occupied, a city might propose policies to reduce that mobility, or ask why the mobility happens. Policies could be put in place to either reduce or increase migration.

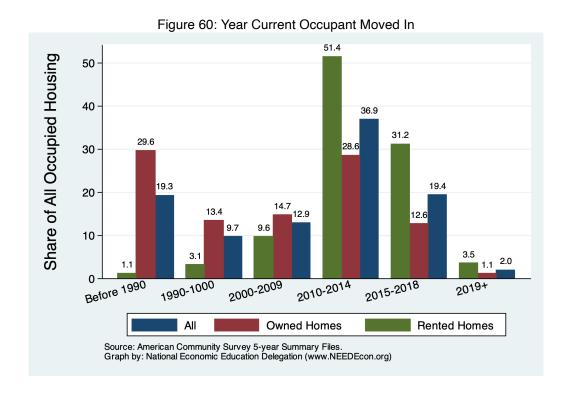


Figure 61: Year Occupied by Current Residents Figure 62: Year Occupied by Current Residents across Regions by Tenure

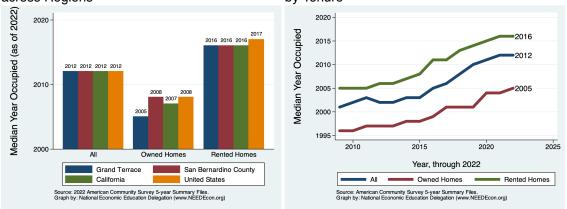


Figure 63: Year Occupied by Current Residents Figure 64: Year Occupied by Current Residents for Owned Housing for Rented Housing

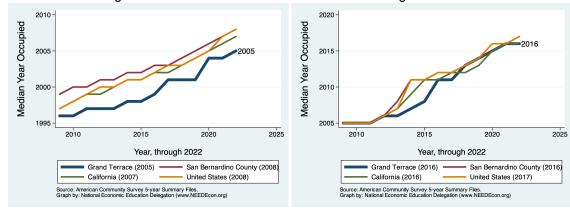


Figure 65: Year Occupied by Current Residents for All Housing 2015 -Median Year Occupied 2012 2010 2005 2000 2015 2010 2020 2025 Year, through 2022 San Bernardino County (2012) Grand Terrace (2012) United States (2012) California (2012) Source: American Community Survey 5-year Summary Files. Graph by: National Economic Education Delegation (www.NEEDEcon.org)

Residential Permitting

Definition:

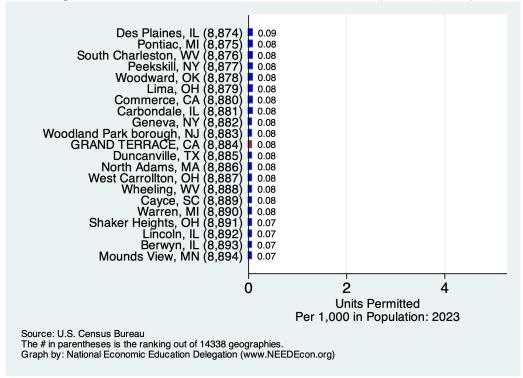
This indicator provides evidence on the number of residential buildings that are permitted for construction each year. Permit data for Grand Terrace is compared with data from San Bernardino County as a whole and broader regions. The statistic provided scales the number of permits by population. This is done to facilitate comparisons across regions.

Why is it important?

Building permits are the best indicator available of new units coming on the market. In order for a region's population to grow and flourish, new residential properties must be added to the existing stock. Building, both in the City and in the County more generally, is an indication of the extent to which new residences accommodate new residents or are affecting prices through increased supply.

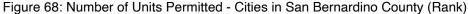
Grand Terrace - Ranking Among Comparables

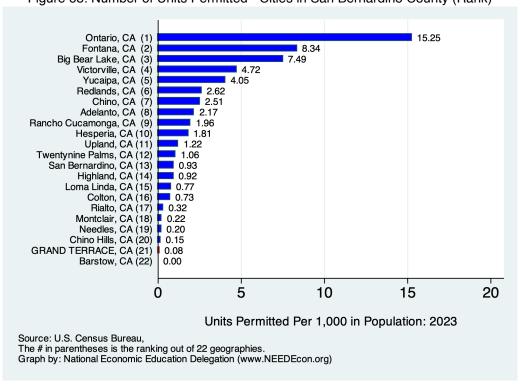




Paradise town, CA Bell, CA (4 86.39 0.12 Claremont, CA 0.11 Benicia, CA 0.11 Monterey, CA East Palo Alto, CA Sierra Madre, CA 0.11 0.10 Arvin, 0.09 Piedmont, 0.09 Commerce, 0.08 GRAND TERRACE, 0.08 Costa Mesa, 0.07 Clearlake, CA 0.07 Thousand Oaks, Pinole, 0.06 0.05 Blythe, CA Centro, CA 0.05 El Centro, 0.05 Brea, CA 0.04 Daly City, CA Trinidad, CA 0.03 0.00 Alturas, CA (515) 0.00 10 20 30 50 70 80 90 0 40 60 **Units Permitted** Per 1,000 in Population: 2023 Source: U.S. Census Bureau. The # in parentheses is the ranking out of 515 geographies. Graph by: National Economic Education Delegation (www.NEEDEcon.org)

Figure 67: Number of Units Permitted - California Comparables (Rank)





Grand Terrace - Permitting Activity

Annual Units Permitted - Per Capita in Grand Terrace

Figure 69: Units Permitted Each Year

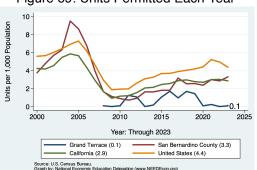
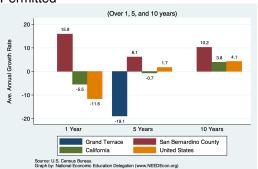


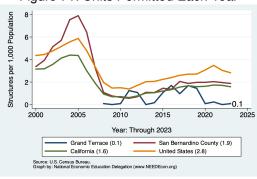
Figure 70: Average Annual Growth in Units Permitted

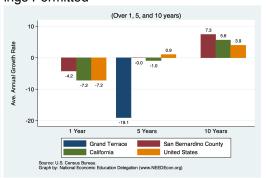


Annual Number of Buildings Permitted - Per Capita in Grand Terrace

Figure 72: Average Annual Growth in Buildings Permitted

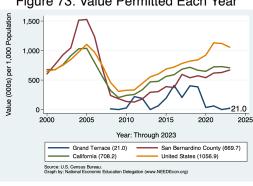
Figure 71: Units Permitted Each Year





Annual Value of Property Permitted - Per Capita in Grand Terrace

Figure 73: Value Permitted Each Year



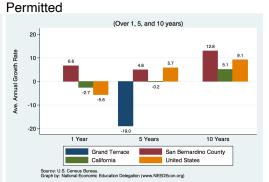


Figure 74: Average Annual Growth in Value

Commute Patterns

During the recovery from the Great Recession, the period from 2010 to 2019, the Bay Area economy, and Silicon Valley in particular, has been growing at a pace roughly double that of the state as a whole and triple that of the nation. This growth has precipitated a tight hous-

ing market and also brought about some significant changes in commute patterns, many of which have been reversed by the pandemic. Recent years have seen significant changes in both the mode of transportation and commute times.

Mode of Transportation

Figure 75: Percent of Workers Commuting by Figure 76: Percent of Workers Commuting by Car Alone Carpool

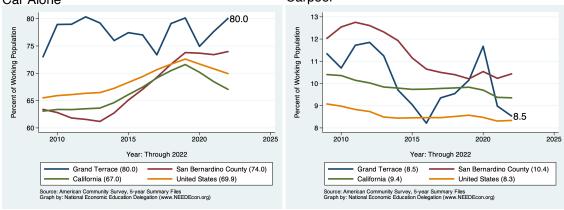
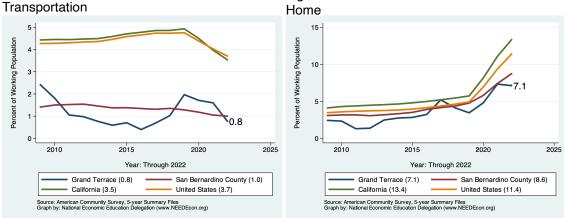


Figure 77: Percent of Workers using Public Figure 78: Percent of Workers Who Work From



The first table on this page presents data for those who LIVE in Grand Terrace. The second provides data on those who work, but do not necessarily live in Grand Terrace. The final two columns provide for a comparison of commute mode choices of people locally with those in California more broadly.

Table 6. SEX OF WORKERS BY MODE OF TRANSPORTATION TO WORK

	Male		Fen	nale	All W	orkers	All of CA
Mode of Transit	#	(%)	#	(%)	#	(%)	(%)
Car, Truck, or Van:	2,923	87.0	2,608	84.1	5,531	88.6	78.0
Drove Alone	2,662	79.2	2,336	75.3	4,998	80.0	68.4
Carpooled:	261	7.8	272	8.8	533	8.5	9.5
In 2-person carpool	132	3.9	152	4.9	284	4.5	6.9
In 3-person carpool	71	2.1	24	0.8	95	1.5	1.5
In 4-or-more-person carpool	58	1.7	96	3.1	154	2.5	1.1
Public Transportation (excl Taxi):	0	0.0	48	1.5	48	0.8	3.6
Bus or Trolley Bus	0	0.0	46	1.5	46	0.7	2.3
Streetcar or Trolley Car	0	0.0	2	0.1	2	0.0	0.8
Subway or Elevated	0	0.0	0	0.0	0	0.0	0.3
Railroad	0	0.0	0	0.0	0	0.0	0.2
Ferryboat	0	0.0	0	0.0	0	0.0	0.1
Bicycle	0	0.0	0	0.0	0	0.0	0.7
Walked	81	2.4	30	1.0	111	1.8	2.4
Taxicab, Motorcycle, or other	92	2.7	18	0.6	110	1.8	1.7
Worked at Home	263	7.8	182	5.9	445	7.1	13.6
Total:	3, 359	100.0	2,886	93.1	6,245	100.0	

Source: 2022 5-year American Community Survey, Summary File

Table 7. SEX OF WORKERS BY MODE OF TRANSPORTATION TO WORK FOR WORKPLACE GEOGRAPHY

	Male		Fem	nale	All W	All of CA	
Mode of Transit	#	(%)	#	(%)	#	(%)	(%)
Car, Truck, or Van:	1,871	85.4	1,176	68.3	3,047	84.9	78.0
Drove Alone	1,408	64.3	944	54.9	2,352	65.5	68.5
Carpooled:	463	21.1	232	13.5	695	19.4	9.5
In 2-person carpool	360	16.4	180	10.5	540	15.0	6.9
In 3-person carpool	88	4.0	40	2.3	128	3.6	1.5
In 4-or-more-person carpool	15	0.7	12	0.7	27	0.8	1.1
Public Transportation (excl Taxi):	0	0.0	2	0.1	2	0.1	3.6
Bus or Trolley Bus	0	0.0	0	0.0	0	0.0	2.3
Streetcar or Trolley Car	0	0.0	2	0.1	2	0.1	0.8
Subway or Elevated	0	0.0	0	0.0	0	0.0	0.3
Railroad	0	0.0	0	0.0	0	0.0	0.2
Ferryboat	0	0.0	0	0.0	0	0.0	0.1
Bicycle	0	0.0	0	0.0	0	0.0	0.7
Walked	56	2.6	22	1.3	78	2.2	2.4
Taxicab, Motorcycle, or other	0	0.0	18	1.0	18	0.5	1.7
Worked at Home	263	12.0	182	10.6	445	12.4	13.6
Total:	2,190	100.0	1,400	81.3	3,590	100.0	

Source: 2022 5-year American Community Survey, Summary File

The results in this table are for those who work in the region, regardless of the location of their residence.

Commute Times for Employed Residents

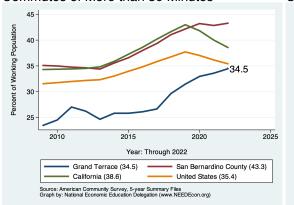
Table 8, SEX	K OF WORKERS	S BY TRAVEL	TIME TO WORK

	Ма	ıle	Fen	nale	All Wo	All of CA	
Mode of Transit	#	(%)	#	(%)	#	(%)	(%)
Less than 5 minutes	97	3.1	102	3.5	199	3.4	2.0
5 to 9 minutes	259	8.3	92	3.1	351	6.0	7.5
10 to 14 minutes	389	12.5	407	13.8	796	13.5	12.2
15 to 19 minutes	319	10.2	673	22.8	992	16.8	15.0
20 to 24 minutes	701	22.5	438	14.8	1,139	19.3	14.3
25 to 29 minutes	131	4.2	161	5.4	292	5.0	6.3
30 to 34 minutes	282	9.1	275	9.3	557	9.4	15.0
35 to 39 minutes	47	1.5	69	2.3	116	2.0	2.9
40 to 44 minutes	335	10.8	126	4.3	461	7.8	4.3
45 to 59 minutes	224	7.2	237	8.0	461	7.8	8.6
60 to 89 minutes	104	3.3	52	1.8	156	2.6	7.9
90 or more minutes	208	6.7	72	2.4	280	4.7	4.0
Total:	3,096	99.4	2,704	91.5	5,800	98.4	

Source: 2022 5-year American Community Survey, Summary File

Figure 79: Percent of Employed Population With Figure 80: Percent of Employed Population With Commutes of More than 30 Minutes

Commutes of More than 90 Minutes



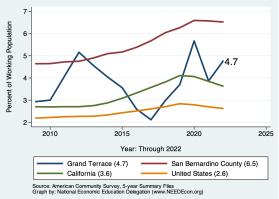
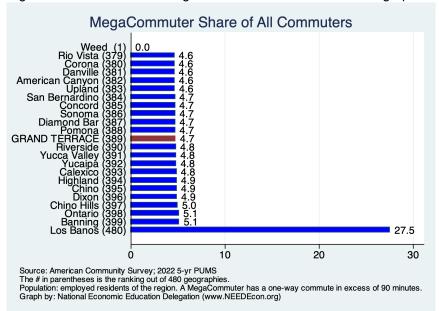


Figure 81: Rank: Share of MegaCommuters Across Similar Geographies



Commute Times for Those Employed in the City

Table 9. SEX OF WORKERS BY TRAVEL TIME TO WORK FOR WORKPLACE GEOGRAPHY

Male Female All Workers All of C											
		ale					All of CA				
Mode of Transit	#	(%)	#	(%)	#	(%)	(%)				
Less than 5 minutes	69	3.6	34	2.2	103	3.3	2.0				
5 to 9 minutes	132	6.9	84	5.5	216	6.9	7.5				
10 to 14 minutes	244	12.7	323	21.2	567	18.0	12.2				
15 to 19 minutes	279	14.5	281	18.4	560	17.8	15.0				
20 to 24 minutes	315	16.3	137	9.0	452	14.4	14.3				
25 to 29 minutes	164	8.5	64	4.2	228	7.2	6.3				
30 to 34 minutes	268	13.9	130	8.5	398	12.6	15.0				
35 to 39 minutes	44	2.3	51	3.3	95	3.0	2.9				
40 to 44 minutes	53	2.8	0	0.0	53	1.7	4.3				
45 to 59 minutes	196	10.2	76	5.0	272	8.6	8.6				
60 to 89 minutes	74	3.8	32	2.1	106	3.4	7.9				
90 or more minutes	89	4.6	6	0.4	95	3.0	4.0				
Total:	1,927	100.0	1,218	79.9	3,145	99.9					

Source: 2022 5-year American Community Survey, Summary File

The results in this table are for those who work in the region, regardless of the location of their residence.

Figure 82: Percent of Local Employees With Figure 83: Percent of Local Employees With Commutes of More than 30 Minutes

Commutes of More than 90 Minutes

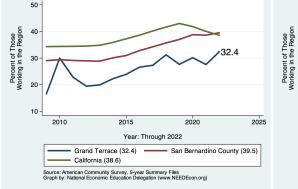
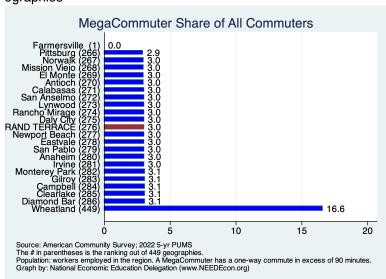




Figure 84: Rank: Share of MegaCommuters Across Similar Geographies



Place of Work

This section provides evidence on where workers living in Grand Terrace work. As evidenced in the first table, some of Grand Terrace's employed workers work in the City, but many do not. The first table and graph pair provide evidence at the county level while the second provide evidence with regard to working outside of the Grand Terrace city boundary.

Table 10. SEX OF WORKERS BY PLACE OF WORK-STATE AND COUNTY LEVEL

	Male		Female		All W	orkers	All of CA
Place of Work	#	(%)	#	(%)	#	(%)	(%)
Worked in state of residence:	3,348	99.7	2,886	93.1	6, 234	99.8	99.6
Worked in county of residence	2,300	68.5	2,207	71.2	4,507	72.2	84.1
worked outside of county of residence	1,048	31.2	679	21.9	1,727	27.7	15.4
Worked outside state of residence	11	0.3	0	0.0	11	0.2	0.4
Total:	3, 359	100.0	2,886	93.1	6, 245	100.0	

Source: 2022 5-year American Community Survey, Summary File

Figure 85: Percent of Workers Employed Outside of Their County of Residence

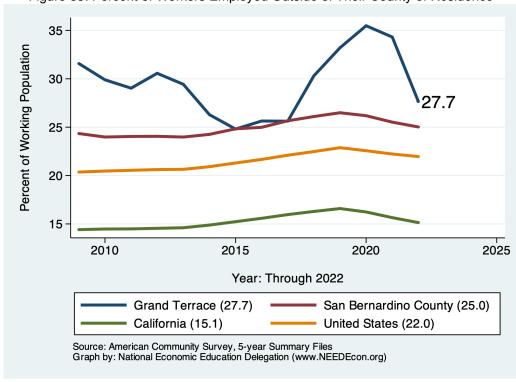
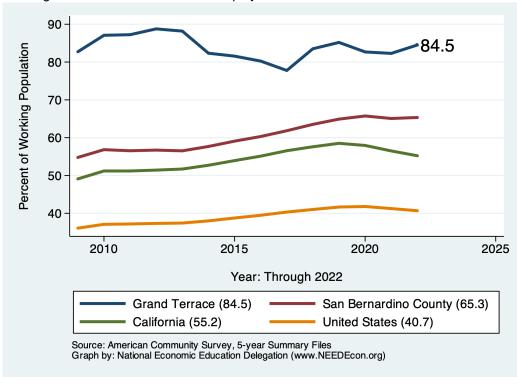


Table 11. SEX OF WORKERS BY PLACE OF WORK-PLACE LEVEL

	Male		Female		All Workers		All of CA
Place of Work	#	(%)	#	(%)	#	(%)	(%)
Living in a place:	3, 359	100.0	2,886	93.1	6, 245	100.0	95.9
Worked in place of residence	590	17.6	377	12.2	967	15.5	39.5
Worked outside place of residence	2,769	82.4	2,509	80.9	5,278	84.5	56.4
Not living in a place	0	0.0	0	0.0	0	0.0	4.1
Total:	3,359	100.0	2,886	93.1	6, 245	100.0	

Source: 2022 5-year American Community Survey, Summary File

Figure 86: Percent of Workers Employed Outside of Their Place of Residence



Commute Mode by Income

Table 12. MEDIAN EARNINGS IN THE PAST 12 MONTHS BY MEANS OF TRANSPORTATION TO WORK

	City	California		United Sta	tes
	Median	Median	Ratio	Median	Ratio
Car, truck, or van - drove alone	55, 118	48, 566	107.4	46, 171	106.8
Car, truck, or van - carpooled	31,909	36,463	82.8	34,487	82.8
Public transportation (excluding taxicab)	20,929	40,179	49.3	45,100	41.5
Walked	13,911	29,366	44.8	27,142	45.8
Taxicab, motorcycle, bicycle, or other means	34,718	40,433	81.2	36,140	85.9
Worked from home	43,352	75, 153	54.6	67,180	57.7
Total:	51, 532	48,747	105.7	46,099	111.8

Source: 2022 5-year American Community Survey, Summary File

Notes: 1) Ratio = the ratio of the regional median to either the CA or US median, relative to the Total ratio. Values above 100 imply a high local median. Values below 100 imply a low local median. For example, a value of 200 means that the local mean is 2x higher than would be expected. For "Total:", ratio is simply the ratio of the medians.

Table 13. MODE OF TRANSPORTATION TO WORK BY WORKERS' EARNINGS

	< \$25	5,000	\$25,000	-\$74,999	\$75,0	000+	Α	II	All of CA
Mode of Transit	#	(%)	#	(%)	#	(%)	#	(%)	(%)
Car, Truck, or Van: Drove Alone	674	38.2	1,931	75.8	1,656	87.9	4,998	80.0	68.4
Car, Truck, or Van: Carpooled	176	10.0	98	3.8	90	4.8	533	8.5	9.5
Public Transportation (excl Taxi)	46	2.6	0	0.0	0	0.0	48	0.8	3.6
Walked	77	4.4	25	1.0	9	0.5	111	1.8	2.4
Taxicab, Motorcycle, or other	0	0.0	25	1.0	23	1.2	110	1.8	2.4
Worked at Home	153	8.7	135	5.3	106	5.6	445	7.1	13.6
Total:	1,126	63.8	2, 214	87.0	1,884		6,245		100.0

Source: 2022 5-year American Community Survey, Summary File

Table 14. MODE OF TRANSPORTATION TO WORK BY WORKERS' EARNINGS FOR WORKPLACE GEOGRAPHY

	< \$2	5,000	\$25,00	0-\$74,999	\$75,0	000+	Α	II	All of CA
Mode of Transit	#	(%)	#	(%)	#	(%)	#	(%)	(%)
Car, Truck, or Van: Drove Alone	595	50.8	542	47.9	765	72.6	2,352	65.5	68.5
Car, Truck, or Van: Carpooled	125	10.7	199	17.6	156	14.8	695	19.4	9.5
Public Transportation (excl Taxi)	0	0.0	0	0.0	0	0.0	2	0.1	3.6
Walked	69	5.9	0	0.0	9	0.9	78	2.2	2.4
Taxicab, Motorcycle, or other	0	0.0	0	0.0	18	1.7	18	0.5	2.4
Worked at Home	153	13.1	135	11.9	106	10.1	445	12.4	13.6
Total:	942	80.4	876	77.4	1,054		3,590		

Source: 2022 5-year American Community Survey, Summary File

The results in this table are for those who work in the region, regardless of the location of their residence.

²⁾ For regions with more than one geography, the medians are averages weighted by working population.

Commute Mode by Poverty Status

Table 15. MODE OF TRANSPORTATION TO WORK BY POVERTY STATUS

	In P	overty	100-14	9% of Pov	>150%	of Pov	А	II	All of CA
Mode of Transit	#	(%)	#	(%)	#	(%)	#	(%)	(%)
Car, Truck, or Van: Drove Alone	49	20.0	161	38.5	4,788	80.6	4,998	80.0	68.7
Car, Truck, or Van: Carpooled	33	13.5	6	1.4	494	8.3	533	8.5	9.5
Public Transportation (excl Taxi)	11	4.5	35	8.4	2	0.0	48	0.8	3.6
Walked	0	0.0	0	0.0	111	1.9	111	1.8	2.1
Taxicab, Motorcycle, or other	0	0.0	0	0.0	110	1.9	110	1.8	2.4
Worked at Home	11	4.5	0	0.0	434	7.3	445	7.1	13.6
Total:	104	42.4	202	48.3	5,939		6, 245		

Source: 2022 5-year American Community Survey, Summary File

Table 16. MODE OF TRANSPORTATION TO WORK BY POVERTY STATUS FOR WORKPLACE GEOGRAPHY

	In P	overty	100-1	49% of Pov	>150%	of Pov	Α	II	All of CA
Mode of Transit	#	(%)	#	(%)	#	(%)	#	(%)	(%)
Car, Truck, or Van: Drove Alone	67	32.8	42	10.9	2,243	65.9	2,352	65.5	68.7
Car, Truck, or Van: Carpooled	57	27.9	11	2.8	627	18.4	695	19.4	9.5
Public Transportation (excl Taxi)	0	0.0	0	0.0	2	0.1	2	0.1	3.6
Walked	0	0.0	0	0.0	78	2.3	78	2.2	2.1
Taxicab, Motorcycle, or other	0	0.0	0	0.0	18	0.5	18	0.5	2.4
Worked at Home	11	5.4	0	0.0	434	12.8	445	12.4	13.6
Total:	135	66.2	53	13.7	3,402		3,590		

Source: 2022 5-year American Community Survey, Summary File

The results in this table are for those who work in the region, regardless of the location of their residence.

Migration

Overall Migration Flows

Definition:

The United States is a country with an increasingly mobile population. People move, migrate, from one place to another with increasing frequency.

Why is it important?

Having a handle on whether or not Grand Terrace is a net recipient (migration inflows) or donor (migration outflows) of population is very

important for understanding trends in the City's development. This section outlines migration patterns by age, education, income, marital status, and housing tenure. Understanding recent trends is very important for making policy, investment, and other decisions about the future. Also, understanding the extent to which the population is stable, or experiences significant turnover each year is helpful for planning purposes.

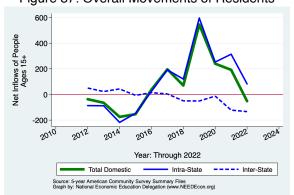


Figure 87: Overall Movements of Residents

Table 17: Migration by Income

		N	et Inflows			
				e State		-
			W/in	Between	Across	From
Category	Population	All Migration	County	Counties	States	Abroad
No income	1,465	145	110	30	-12	17
With income	9,246	-104	-128	70	-122	76
\$1 to \$9,999 or loss	930	4	-18	4	-32	50
\$10,000 to \$14,999	632	15	12	22	-19	0
\$15,000 to \$24,999	1,142	70	34	64	-28	0
\$25,000 to \$34,999	1,413	-41	-158	93	14	10
\$35,000 to \$49,999	1,093	9	71	-39	-23	0
\$50,000 to \$64,999	1,044	33	7	36	-10	0
\$65,000 to \$74,999	517	-60	-32	-8	-20	0
\$75,000 or more	2,475	-134	-44	-102	-4	16
All:	10,711	41	-18	100	-134	93

Source: 2022 5-year American Community Survey, Summary File

Note: The data in this and other tables in this section are limited in that there is no information on the City's population that has moved abroad.

The "From Abroad" column is gross movements into the City from abroad.

Figure 88: Overall Movements of Low Income Residents

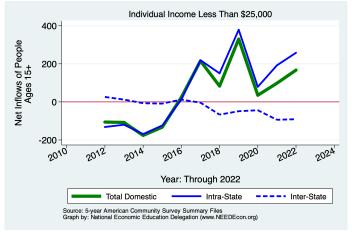
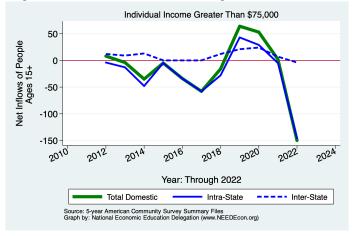


Figure 89: Overall Movements of Middle Income Residents



Figure 90: Overall Movements of High Income Residents



Demographics of Migration Flows

Table 18: Migration by Marital Status

		N	Net Inflows								
			Same State								
			W/in	Between	Across	From					
Category	Population	All Migration	County	Counties	States	Abroad					
Never married	3,860	-81	-108	-14	14	27					
Now married, except separated	4,438	27	68	66	-165	58					
Divorced	1,569	60	-3	38	17	8					
Separated	185	25	21	4	0	0					
Widowed	659	10	4	6	0	0					
Total:	10,711	41	-18	100	-134	93					

Source: 2022 5-year American Community Survey, Summary File

Table 19: Migration by Tenure

		Ne	et Inflows			
		Same State				
			W/in	Between	Across	From
Category	Population	All Migration	County	Counties	States	Abroad
Householder lived in owner-occupied housing units	8,817	87	-94	237	-141	85
Householder lived in renter-occupied housing units	4,064	234	184	-10	52	8
Total:	12,881	321	90	227	-89	93

Source: 2022 5-year American Community Survey, Summary File

Figure 91: Domestic Movements of Residents by Tenure 600

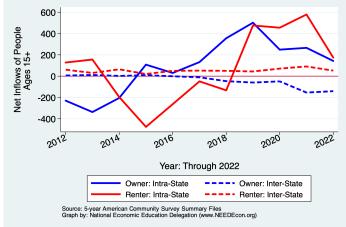


Table 20: Migration by Age

		N	et Inflows			
			Same	e State		
			W/in	Between	Across	From
Category	Population	All Migration	County	Counties	States	Abroad
1 to 4 years	768	170	57	55	58	0
5 to 17 years	2,007	97	41	69	-13	0
18 and 19 years	461	34	47	6	-19	0
20 to 24 years	561	-80	-126	49	-3	0
25 to 29 years	930	107	63	-3	37	10
30 to 34 years	1,161	31	35	-4	0	0
35 to 39 years	1,215	26	0	-14	-10	50
40 to 44 years	633	-41	-11	-31	-16	17
45 to 49 years	800	43	41	36	-34	0
50 to 54 years	898	31	-6	33	-4	8
55 to 59 years	864	87	7	28	52	0
60 to 64 years	760	-64	0	-7	-57	0
65 to 69 years	748	-35	0	0	-43	8
70 to 74 years	689	-40	-44	4	0	0
75 years and over	581	-46	-12	3	-37	0
Total Population:	13,076	320	92	224	-89	93

Source: 2022 5-year American Community Survey, Summary File

Table 21: Migration by Educational Attainment

			Sam	e State		-
			W/in	Between	Across	From
Category	Population	All Migration	County	Counties	States	Abroad
Less than high school graduate	1, 241	187	50	100	-13	50
High school graduate (includes equiv)	2,582	-56	-21	-64	-6	35
Some college or assoc. degree	2,782	-7	45	-12	-48	8
Bachelor's degree	1,603	57	35	32	-10	0
Graduate or professional degree	1,071	-82	-36	-11	-35	0
Total:	9,279	99	73	45	-112	93

Source: 2022 5-year American Community Survey, Summary File

Table 22: Median Income of Migration Flows

Flow	In-Migration	Out-Migration
Same House 1 Year Ago	46,519	46,519
Moved Within Same County	47,928	47,546
Moved to Different County, Same State	32,188	65,859
Total Population:	45,597	46,502

Source: 2022 5-year American Community Survey, Summary File

Table 23: Median Age of Migration Flows

Flow	In-Migration	Out-Migration
Same House 1 Year Ago	38.5	38.5
Moved Within Same County	32.7	39.1
Moved to Different County, Same State	23.5	26.6
Moved Between States	29.5	62.3
Moved from Abroad	38.7	
Total Population:	37.7	38.3

Source: 2022 5-year American Community Survey, Summary File

References and Sources

The majority of the data presented in this report are from the American Community Survey (ACS). For larger geographies, the 1-year Summary Files provide the data. For smaller communities, roughly those with less than 65,000 in population in 2021, the 5-year Summary Files provide the data.

The ACS data are supplemented by building permit data from the U.S. Census Bureau, population and housing data from the California Department of Finance, and home price and rental rates from Zillow.

U.S. Census Bureau. American Community Survey 1-year and 5-year Summary Files. https://www.census.gov/programs-surveys/acs/data/data-via-ftp.html. The 1-year data are released in September each year and the 5-year data are relased in January.

Zillow Research Data https://www.zillow.com/research/data/

U.S. Census Bureau. Building Permits Data, updated annually in February. https://www.census.gov/construction/bps/current.html

State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State — January 1. Sacramento, California, May. https://dof.ca.gov/forecasting/demographics/estimates/

State of California, Department of Finance, E-2. California County Population Estimates and Components of Change by Year, July 1, 2010-2021. Sacramento, California, December. https://dof.ca.gov/forecasting/demographics/

State of California, Department of Finance, E-1 Population Estimates for Cities, Counties and the State with Annual Percent Change — January 1. Sacramento, California, May. https://dof.ca.gov/forecasting/demographics/