



APARTMENT **M**ARKET**D**ATA, LLC

*P*lano *H*ousing *S*tudy

Plano, Texas

Client:

**Mr. David Young
Plano Public Facility Corporation
1740 G Avenue
Plano, Texas 75074**



APARTMENT MARKETDATA REPORT

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APARTMENT MARKET DATA, LLC

CONSULTANTS, ECONOMISTS, ANALYSTS

August 16, 2023

Mr. David Young
Plano Public Facility Corporation
1740 G Avenue
Plano, Texas 75074

Re: Plano Housing Study
Plano, Texas

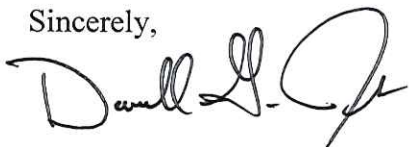
Dear Mr. Young

Per your request, we have prepared the following housing analysis for the city limits of Plano, Texas. The following data comes from the U.S. Census Bureau, U.S. Dept. of Housing and Urban Development (HUD), Data-Axle, Precisely and Ribbon Demographics companies.

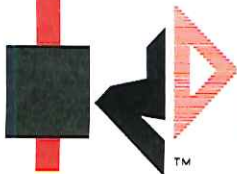
The analysis of the data and the forecast methodologies were conducted through the use of methods and techniques that are generally accepted in the industry.

We appreciate the opportunity to work with you on this assignment. Should you have any questions, please feel free to contact me directly.

Sincerely,



Darrell G Jack
President
Market Analyst



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**PLANO PFC
HOUSING STUDY
JULY 2023**

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CHAPTER 1

CONCLUSIVE STATEMENTS AND SUMMARY OF FINDINGS

1.1 - PURPOSE OF THE STUDY

The purpose of this study was to perform a housing analysis for the Plano Public Facilities Corporation. The following study takes into consideration the current housing supply, both single and multi-family, forecast growth of the local demographics, and data supplied by local employers and officials.

1.2 – ASSUMPTIONS, CONTINGENCY & LIMITING CONDITIONS

The analysis of the data and the conclusions determined from such an analysis require a number of assumptions and the conclusions drawn are limited by a number of conditions. The reader is strongly encouraged to read these assumptions and limiting conditions.

These conditions are a part of the report. They are preface to any certification, definition, fact, or analysis, and are intended to establish as a matter of record that Apartment MarketData's function is to provide and present a housing analysis for the Plano Public Facilities Corporation.

Furthermore, numerous specific minor assumptions required for analysis of data can be found throughout this report. These assumptions and limiting conditions are critical to the study and should be clearly understood by the reader. Therefore, a user of this housing analysis is strongly encouraged to read this report in its entirety in order to fully understand the conclusions reached. All persons and firms reviewing, using or relying on this report in any manner bind themselves to accept these assumptions and limiting conditions.¹

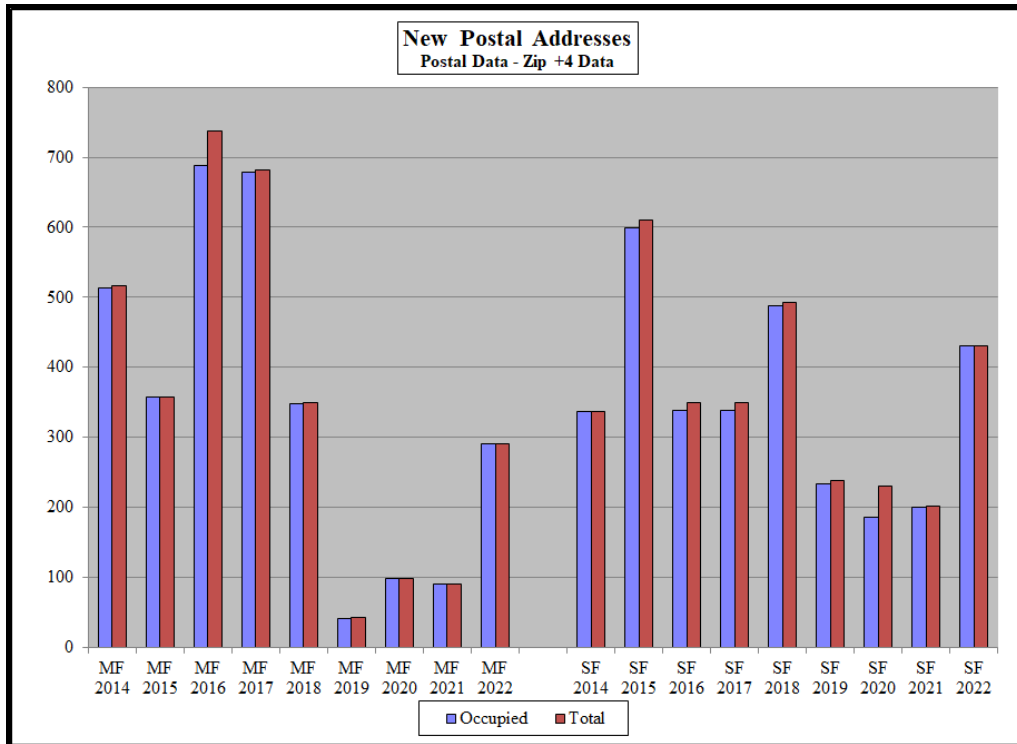
¹ The Appraisal Institute, Chicago, IL.

1.3 – SOURCES OF DEMOGRAPHIC DATA

Unless otherwise noted, all demographic data contained within this report were obtained and/or derived from the U.S Census Bureau, Precisely Software Corporation (www.precisely.com), Data-Axle (www.data-axle.com) and Ribbon Demographics (www.ribbondata.com - HISTA data).

1.4 – HOUSING DEMAND

Since 2014, the annual average rates of absorption for both new single and multi-family units have been nearly identical. The U.S. Postal Service reports an annual average of 350 new single family and 345 new multi-family units being absorbed (2014-2022). From the chart below, we see a drop in the number units delivered through the COVID pandemic years (2019-2021). The number of new units delivered rebounded in 2022. In 2022, the average value of a newly constructed single family home in Collin County was \$318,600. This was up 10.1% from 2021.



The Employment Growth Methodology forecasts the number of new households moving to an area based on the anticipated growth of the area’s employment. With Plano being the headquarters of numerous companies, Plano is expected to see a significant increase in the number of people working within the city. However, Plano is landlocked. With no room to grow, the city is limited to infill development. This will force many of the households drawn to the area for employment to live outside the Plano city limits.

Based on the Employment Growth Methodology, the model suggests the demand for new single family homes could reach as high as 2,032 annually (2023-2027). At the same time, the model forecasts 1,502 new rental units will be needed annually to satisfy the anticipated renter demand.

**AVERAGE FORECAST
HOUSEHOLD GROWTH
2023-2027**

Owners/Renters	2023		2024		2025		2026		2027	
Employment	2,032	1,502	2,032	1,502	2,032	1,502	2,032	1,502	2,032	1,502
Precisely Demos.	492	470	492	470	492	470	492	470	492	470
HISTA Data	522	596	522	596	522	596	522	596	522	596

Demographic forecasts provided by Precisely and Ribbon Demographics also show increasing demand for both single and multi-family housing (see table above). These forecasts differ from the Employment Growth Methodology in that they use historical growth to forecast future demand.

In 2020, the U.S. Census Bureau reported 208,000 primary jobs with the city limits of Plano. From this data, we see that 86.8% of the people that work in Plano did not live within the city. While many of these employees may have chosen to live outside the city, 24% of these commuters traveled more than 25 miles to work in the city.

Given what we know, it is reasonable to expect that some portion of the population that commute to Plano for employment would choose to live within the city if housing was available within their price range. However, with the information available, it is impossible to quantify the exact number of people that would make this choice.

1.5 – SINGLE FAMILY HOUSING STOCK AND HOME PRICE POINTS

The information compiled concerning home ownership, forecast household numbers, area wages, and historical single family home sales is indicative of a growing disparity related to the cost of home ownership. Despite Plano having one of the highest median incomes in the state (\$123,175 – 2022), the average price of a home of \$584,189 is out of reach for 66% of the city’s residents. Less expensive homes available for purchase are currently in short supply, as Zillow shows only 5 homes at or below \$318,600; and only 52 homes below a sales price of \$400,000 within the city limits of Plano.

TYPICAL ANNUAL SALARIES² COLLIN COUNTY, TEXAS

Occupational Area	Annual	Hourly
Management	\$ 110,099	\$ 52.93
Computer & Mathematical	\$ 99,096	\$ 47.64
Legal	\$ 89,140	\$ 42.86
Architecture & Engineering	\$ 88,368	\$ 42.48
Business & Financial Operations	\$ 83,197	\$ 40.00
Healthcare Practitioners & Technical	\$ 76,516	\$ 36.79
Life, Physical, & Social Science	\$ 71,025	\$ 34.15
Education, Training, & Library	\$ 65,998	\$ 31.73
Arts, Design, Entertainment, Sports, & Media	\$ 53,054	\$ 25.51
Community & Social Service	\$ 52,426	\$ 25.20
Installation, Maintenance, & Repair	\$ 52,018	\$ 25.01
Protective Service	\$ 51,367	\$ 24.70
Construction & Extraction	\$ 49,868	\$ 23.98
Production	\$ 41,058	\$ 19.74
Office & Administrative Support	\$ 41,036	\$ 19.73
Transportation & Material Moving	\$ 40,044	\$ 19.25
Sales & Related	\$ 32,569	\$ 15.66
Farming, Fishing, & Forestry	\$ 32,337	\$ 15.55
Building & Grounds Cleaning & Maintenance	\$ 31,213	\$ 15.01
Healthcare Support	\$ 28,291	\$ 13.60
Personal Care & Service	\$ 28,291	\$ 13.60
Food Preparation & Serving Related	\$ 25,336	\$ 12.18

	Not qualified for \$318,600 home – single income household
	Not qualified for \$318,600 home – dual income household

² <https://livingwage.mit.edu/counties/48085>

The shading in the table above shows that many of the everyday professions employed within Collin County would not be able to qualify for a mortgage for a \$318,600 home without a second income. Take the average sales price of a home in Plano (\$584,189) and a household would need to earn \$74.63 per hour or \$155,000 annually.

At the same time, the demographic data shows a significant decline in the number of households earning less than \$125,000 (2023-2028). The demographics suggest that as many as 12,000 households earning less than \$125,000 could be displaced (2023-2028) in part by the growing cost of housing. This would be indicative of “Gentrification” whereby the character of the area is changing by wealthier people moving into an area, typically displacing current inhabitants in the process.

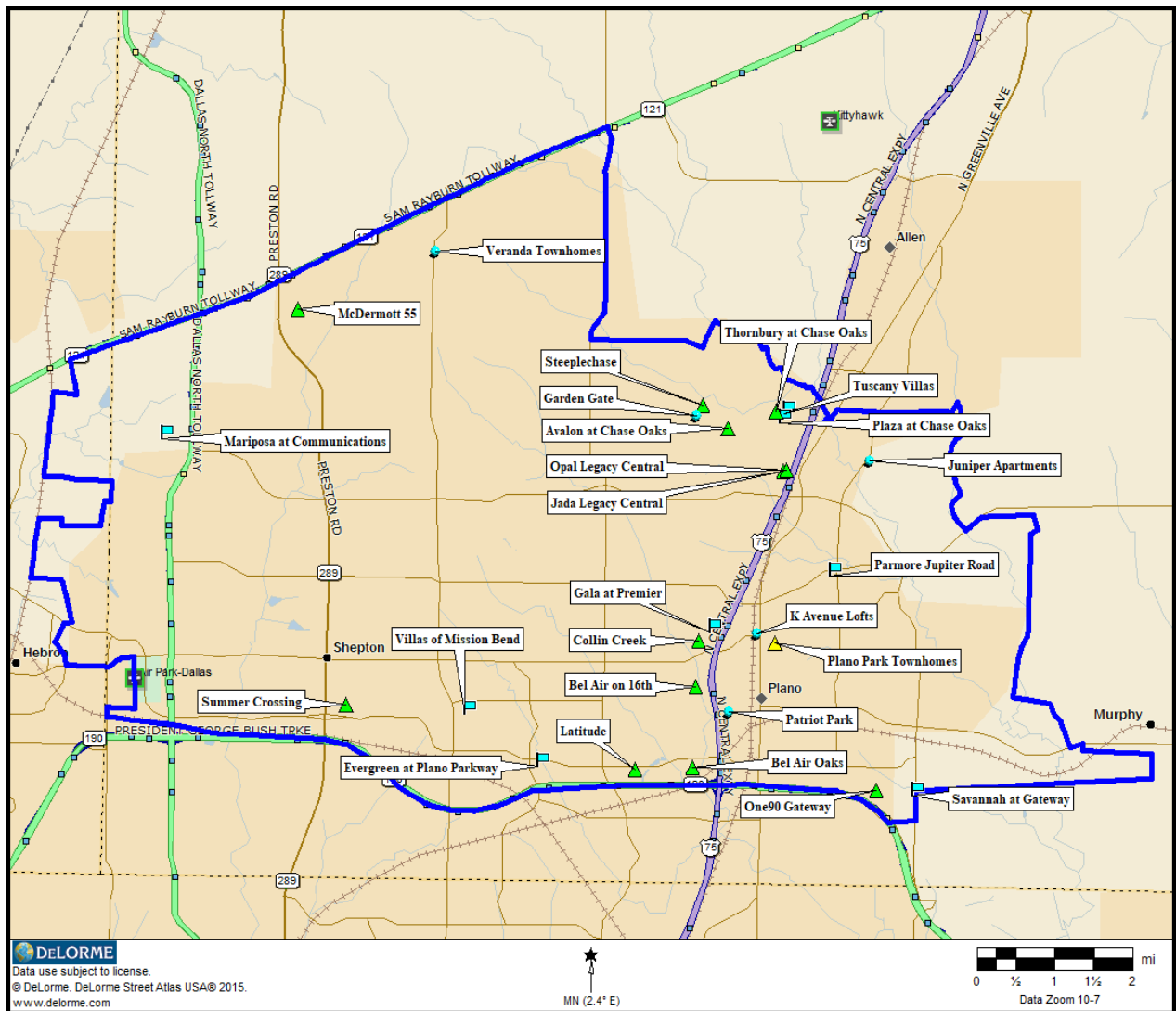
**PLANO, TEXAS
HOUSEHOLD CHANGE BY INCOME**

TOTAL HOUSEHOLDS 2023-2028	Precisely	HISTA - Owners	HISTA - Renters
< \$ 10,000	-406	-125	-78
\$ 10,000 - \$ 19,999	-226	-62	-14
\$ 20,000 - \$ 29,999	-1,514	-241	-300
\$ 30,000 - \$ 39,999	-1,158	-271	-336
\$ 40,000 - \$ 49,999	-1,025	-397	-677
\$ 50,000 - \$ 59,999	-4,074	-44	309
\$ 60,000 - \$ 74,999	-199	-266	47
\$ 75,000 - \$ 99,999	-2,009	-619	200
\$ 100,000 - \$ 124,999	-1,439	-474	603
\$ 125,000+	16,862	5,106	3,225

1.6 - RENTAL HOUSING STOCK, PRICE POINTS, AND AFFORDABILITY

Our estimate is that 35,000 renter households currently living within the city limits of Plano would be considered low income. Of these, 63% could benefit from affordable housing programs using LIHTC, Private Activity Bonds (Bond) and PFC financing structures. The current supply of 4,169 “affordable” rental units addresses approximately 12% of the need for affordable rental units. This leaves 18,000+ income qualified renter households that are overburdened and pay a significantly higher percentage of their monthly income for rent and utilities.

The current supply of “affordable” rental housing in Plano is far less than demand. The supply within the city consists of five family projects (614 affordable units) and eight senior projects (1,179 affordable units). Of these, two of the senior projects and two of the family projects are presently under construction.



Additionally, there is one TSAHC project with 140 units and twelve PFC projects. In total, we have accounted for 4,169 + income restricted units located within the city limits of Plano. Far less than those identified above.

TDHCA	Name of Project	Population	Total	Affordable	Occupancy
93041	Garden Gate Apartments	General	240	240	98%
98101	Villas of Mission Bend	Elderly	135	101	100%
04409	Evergreen at Plano Parkway	Elderly	250	250	100%
05614	The Plaza at Chase Oaks	Elderly	240	240	99%
09116	Tuscany Villas	Elderly	90	90	100%
14414	Savannah at Gateway	Elderly	292	233	95%
18096	Patriot Park Family	General	139	111	100%
18708	Veranda Townhomes	General	40	20	100%
20155	Gala at Premier	Elderly	97	77	99%
21145	Mariposa Apartment Homes at Communications Parkway	Elderly	180	108	U/C
21208	Parmore Jupiter Road	Elderly	100	80	U/C
21454	K Avenue Lofts	General	226	179	U/C
22250	Juniper Apartments	General	80	64	U/C
TSAHC	Plano Park Townhomes	General	140	140	99%
PFC - 2023	One90 Gateway	General	350	179	76%
PFC - 2019	Jada Legacy Central	General	385	203	89%
PFC - 2021	Opal Legacy Central	General	310	161	90%
PFC - 1984	Steeplechase	General	368	318	93%
PFC - 2012/2018	McDermott 55/ Park	Elderly/ General	267	154	97%
PFC - 1972	Bel Air on 16	General	152	104	99%
PFC - 1983	Bel Air Oaks	General	474	295	99%
PFC - 2021	Latitude	General	304	154	93%
PFC - 1988	Collin Creek	General	314	160+	N/A
PFC - 1995	Thornbury at Chase Oaks	General	376	191	99%
PFC - 1993	Avalon at Chase Oaks	General	326	166	89%
PFC - 1986	Summer Crossing	General	294	151	96%
	TOTAL LIHTC/PAB UNITS			1,793	
	TOTAL TSAHC UNITS			140	
	TOTAL PFC UNITS			2,236+	

1.7 - CONCLUSIONS

Plano continues to be a highly desirable place to live. All indications are that the city will continue to support new job growth resulting in a growing demand for additional housing. However, Plano is landlocked. With no room to grow, the city is limited to infill development. This will force many of the households drawn to the area for employment opportunities to live outside the Plano city limits.

Based on our analysis, we forecast that the city of Plano will continue to grow at a rapid rate. The forecast demand for housing within the city of Plano will exceed the historical supply of new single family (350) and multi-family (345) units. Already, 86.8% of the people working in Plano do not live within its city limits.

In spite of Plano having one of the highest median incomes in the state (\$123,175 – 2022), the average price of a home of \$584,189 is out of reach for 66% of the city’s residents. Less expensive homes available for purchase are currently in short supply, as Zillow shows only 5 homes at or below \$318,600; and only 52 homes below a sales price of \$400,000 within the city limits of Plano.

At the same time, the demographic data shows a significant decline in the number of households earning less than \$125,000 (2023-2028). The demographics suggest that as many as 12,000 households earning less than \$125,000 could be displaced (2023-2028) in part by the growing cost of housing. This would be indicative of “Gentrification” whereby the character of the area is changing by wealthier people moving into an area, typically displacing current inhabitants in the process.

With the forecast demand for additional housing units exceeding the historical absorption of both single family and multi-family units, there will be continued upward pressure on both rents and home prices. As a result, “affordable” housing options will become increasingly more important to residents and businesses in the area.

Our estimate is that 35,000 renter households currently living within the city limits of Plano would be considered low income. Of these, 63% could benefit from affordable housing programs using LIHTC, Private Activity Bonds (Bond) and PFC financing structures. The current supply of 4,169 “affordable” rental units addresses approximately 12% of the need for affordable rental units. This leaves 18,000+ income qualified renter households that are overburdened and pay a significantly higher percentage of their monthly income for rent and utilities.

CHAPTER 2

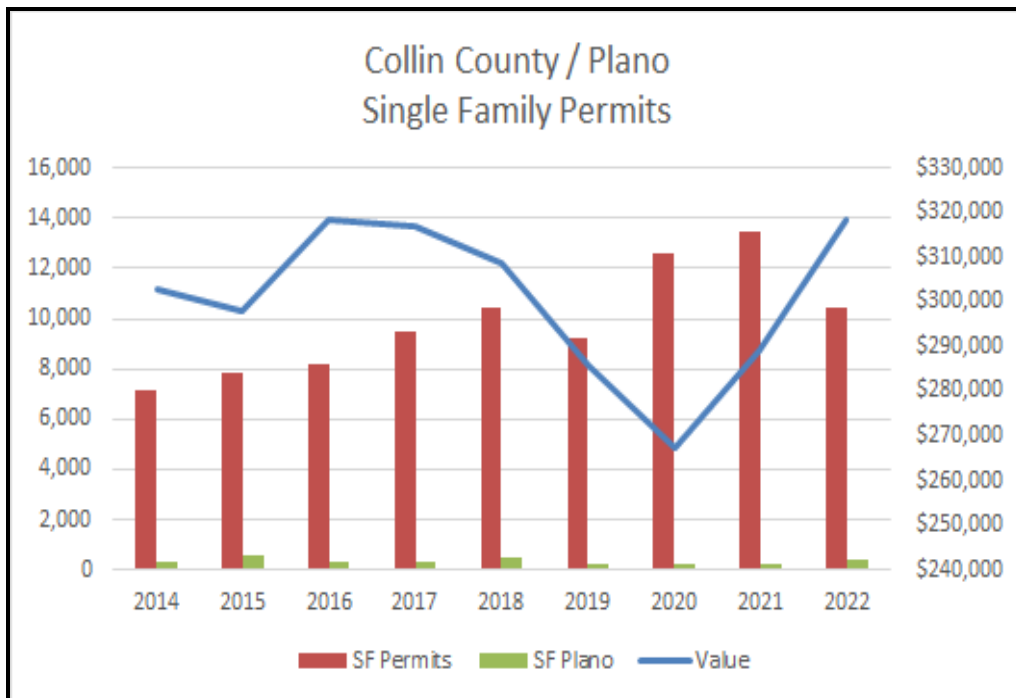
SINGLE FAMILY HOUSING STOCK AND HOME PRICE POINTS

2.1 – HOME OWNERSHIP AND AREA WAGES

The greatest contributing factor to home ownership is household earnings. Building permit data for Collin County³ show that 10,415 single family homes were permitted in 2022. Of these new homes, the average value was \$318,600. In Plano, the average price for a home sold was \$584,189 (2022).

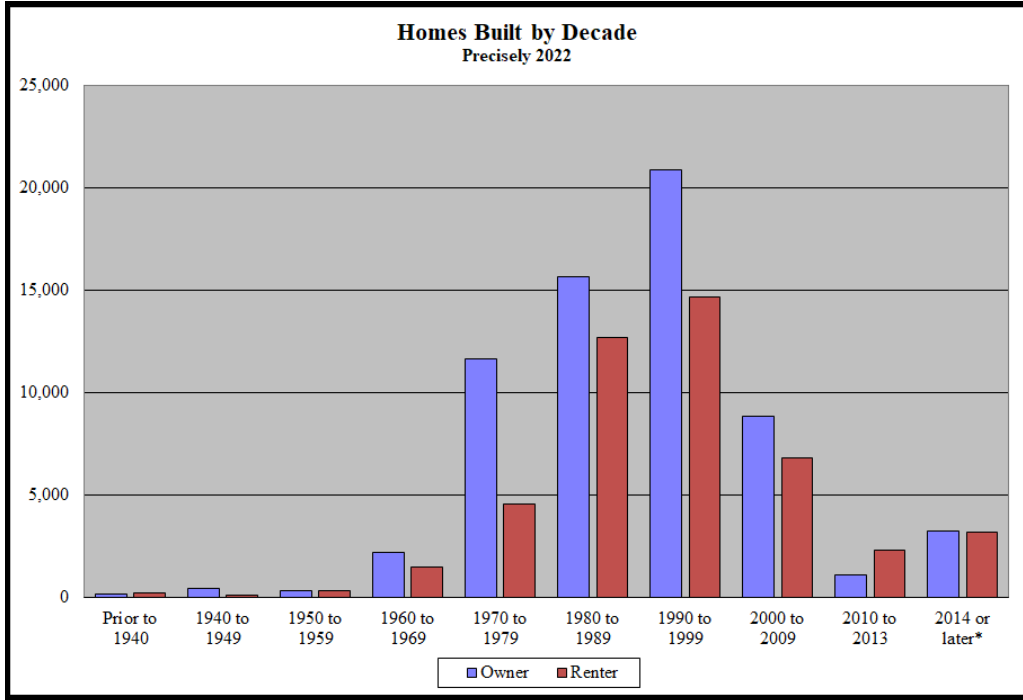
At the time of this report, Zillow showed 5 homes at or below \$318,600; and only 52 homes below a sales price of \$400,000 within the city limits of Plano.

NEW SINGLE FAMILY CONSTRUCTION – CONSTRUCTION VALUES



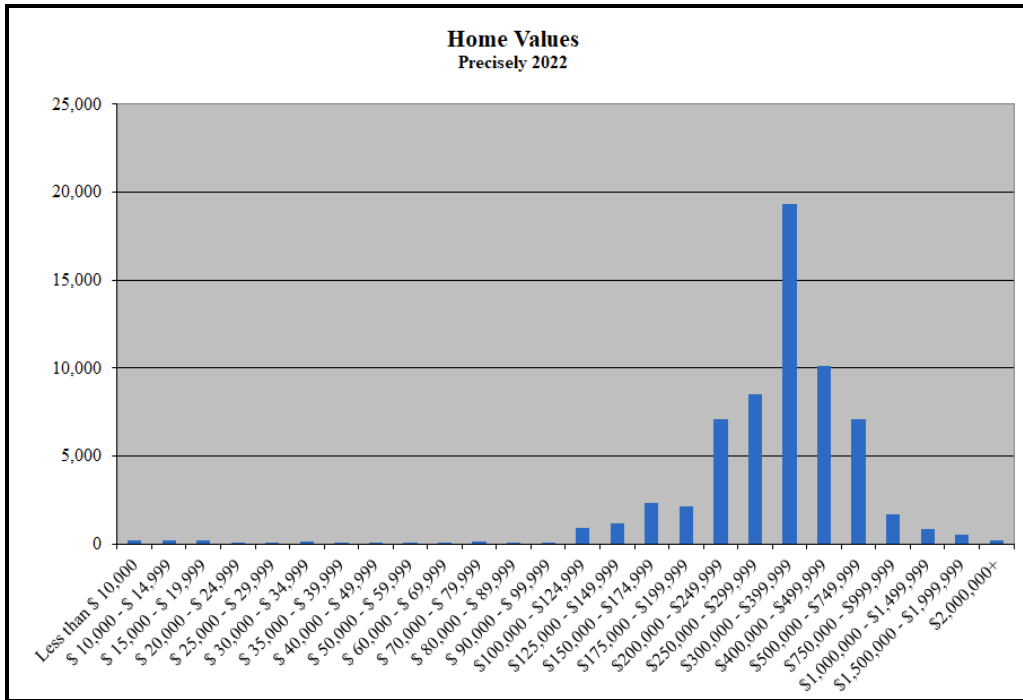
³ Texas Real Estate Center

HOMES BUILT BY DECADE PLANO, TEXAS



*Indicates USPS New Construction Data (2014-2022)

REPORTED HOME VALUES PLANO, TEXAS



Mortgage companies apply a percentage of the annual household income to qualify a household for a home mortgage. This is called the “Mortgage to Income Ratio” (M/I). Depending on a client’s credit score and the lending program, the M/I can vary from 20% to 35%. What this ratio represents is the percentage of a household’s annual income that will be used to pay its mortgage.

A monthly mortgage payment consists of four parts – Principal, Interest, Property Taxes & Insurance (PITI). For the purpose of the following discussion and tables below, the following assumptions have been made.

Interest Rate: 7.5%
 Period or Term: 30 Years
 Down Payment: 5%
 Insurance: 1% of value
 Taxes: 1.911 mil rate

If one knows the prevailing wages of an area, they can then begin calculating an assumed monthly mortgage payment based on the M/I ratio. The following table calculates the monthly mortgage payment based on an hourly wage and applying a variety of M/I ratios. For example, a household earning an hourly wage of \$20.00 per hour could qualify for a monthly mortgage payment (PITI) of \$1,040, applying a M/I ratio of 30%.

**MONTHLY (PITI) MORTGAGE PAYMENT
 BASED ON HOURLY WAGE**

Annual	Monthly	Hourly	20%	25%	30%	35%
\$31,200	\$2,600	\$15.00	\$520	\$650	\$780	\$910
\$36,400	\$3,033	\$17.50	\$607	\$758	\$910	\$1,062
\$41,600	\$3,467	\$20.00	\$693	\$867	\$1,040	\$1,213
\$46,800	\$3,900	\$22.50	\$780	\$975	\$1,170	\$1,365
\$52,000	\$4,333	\$25.00	\$867	\$1,083	\$1,300	\$1,517
\$62,400	\$5,200	\$30.00	\$1,040	\$1,300	\$1,560	\$1,820
\$83,200	\$6,933	\$40.00	\$1,387	\$1,733	\$2,080	\$2,427
\$104,000	\$8,667	\$50.00	\$1,733	\$2,167	\$2,600	\$3,033
\$124,800	\$10,400	\$60.00	\$2,080	\$2,600	\$3,120	\$3,640

With the information above, we can then convert a monthly mortgage payment into the present value of a mortgage. The following table calculates the mortgage amount based on an hourly wage and applying a M/I ratio. In the same example, a household earning an hourly wage of \$20.00 per hour would be able to qualify for a mortgage in the amount of \$148,738 applying a M/I ratio of 30%.

**HOME VALUE
BASED ON HOURLY WAGE**

Annual	Monthly	Hourly	20%	25%	30%	35%
\$31,200	\$2,600	\$15.00	\$74,369	\$92,961	\$111,554	\$130,146
\$36,400	\$3,033	\$17.50	\$86,764	\$108,455	\$130,146	\$151,837
\$41,600	\$3,467	\$20.00	\$99,159	\$123,949	\$148,738	\$173,528
\$46,800	\$3,900	\$22.50	\$111,554	\$139,442	\$167,331	\$195,219
\$52,000	\$4,333	\$25.00	\$123,949	\$154,936	\$185,923	\$216,910
\$62,400	\$5,200	\$30.00	\$148,738	\$185,923	\$223,107	\$260,292
\$83,200	\$6,933	\$40.00	\$198,318	\$247,897	\$297,477	\$347,056
\$104,000	\$8,667	\$50.00	\$247,897	\$309,872	\$371,846	\$433,820
\$124,800	\$10,400	\$60.00	\$297,477	\$371,846	\$446,215	\$520,584

Because of land, construction, and other costs, it is nearly impossible to develop a conventional home at this price point. Market conditions dictate that there would have to be a second wage earner in the scenario described above.

In 2022, the average cost of a newly constructed single family home in Collin County was \$318,600⁴. To qualify for this mortgage, a household would need to earn \$84,650 annually (\$40.70/hour) to not pay more than 30% of their income for PITI. Only 60% of Plano households would earn enough to qualify for this mortgage.

Knowing this information can help with forecasting the demand for housing at different price points. By way of example, the table below shows various pay rates for industries in the Plano area.

⁴ Texas Real Estate Center

TYPICAL ANNUAL SALARIES⁵
COLLIN COUNTY, TEXAS

Occupational Area	Annual	Hourly
Management	\$ 110,099	\$ 52.93
Computer & Mathematical	\$ 99,096	\$ 47.64
Legal	\$ 89,140	\$ 42.86
Architecture & Engineering	\$ 88,368	\$ 42.48
Business & Financial Operations	\$ 83,197	\$ 40.00
Healthcare Practitioners & Technical	\$ 76,516	\$ 36.79
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Food Preparation & Serving Related	\$ 25,336	\$ 12.18

	Not qualified for \$318,600 home – single income household
	Not qualified for \$318,600 home – dual income household

The shading in the table above shows that many of the everyday professions employed within Collin County would not be able to qualify for a mortgage for a \$318,600 home without a second income. Take the average sales price of a home in Plano (\$584,189) and a household would need to earn \$74.63 per hour or \$155,000 annually.

⁵ <https://livingwage.mit.edu/counties/48085>

2.2 –HOUSEHOLD GROWTH FORECAST BY INCOME

Using the 2020 Census as a base line, the demographic data provided by both Precisely and Ribbon Demographics (HISTA Data) show a significant decline in the number of households earning less than \$125,000 (2023-2028). This is indicative of “Gentrification” whereby the character of the area is changing by wealthier people moving into an area, typically displacing current inhabitants in the process.

PLANO, TEXAS HOUSEHOLD CHANGE BY INCOME

TOTAL HOUSEHOLDS 2023-2028	Precisely	HISTA - Owners	HISTA - Renters
< \$ 10,000	-406	-125	-78
\$ 10,000 - \$ 19,999	-226	-62	-14
\$ 20,000 - \$ 29,999	-1,514	-241	-300
\$ 30,000 - \$ 39,999	-1,158	-271	-336
\$ 40,000 - \$ 49,999	-1,025	-397	-677
\$ 50,000 - \$ 59,999	-4,074	-44	309
\$ 60,000 - \$ 74,999	-199	-266	47
\$ 75,000 - \$ 99,999	-2,009	-619	200
\$ 100,000 - \$ 124,999	-1,439	-474	603
\$ 125,000+	16,862	5,106	3,225

2.2.1 – Forecast Owner Household Demand

In section 3.4 of this report, the forecast number of owner households is calculated and detailed by age and income. This forecast depicted in the table below predicts significantly fewer households earning less than \$125,000 at ages less than 62. Fewer households are also forecast for households ages 62 and up that earn less than \$50,000. Forecast growth of homeowners is greatest in all age ranges earning over \$125,000 annually.

**HISTA DATA
OWNER HOUSEHOLD GROWTH – 2023 to 2028**

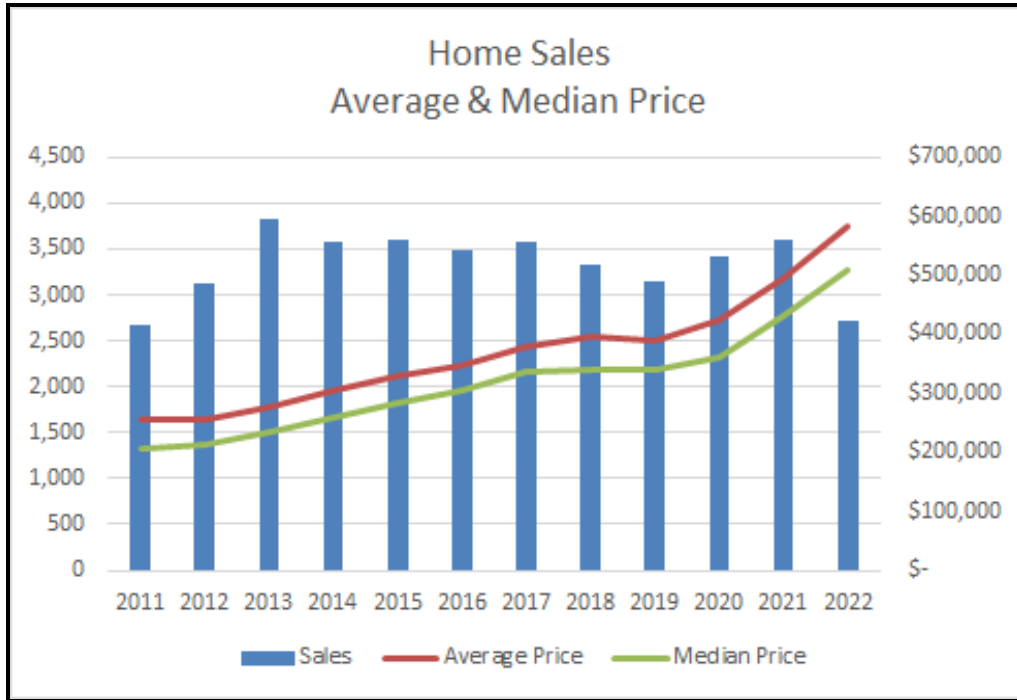
OWNER HH 2023 - 2028	TOTAL			TOTAL
	Age <55	Age 55-61	Age 62+	
< \$ 10,000	-77	-26	-22	-125
\$ 10,000 - \$ 19,999	-60	-24	22	-62
\$ 20,000 - \$ 29,999	-142	-60	-39	-241
\$ 30,000 - \$ 39,999	-133	-46	-92	-271
\$ 40,000 - \$ 49,999	-240	-80	-76	-397
\$ 50,000 - \$ 59,999	-191	-22	169	-44
\$ 60,000 - \$ 74,999	-348	-55	137	-266
\$ 75,000 - \$ 99,999	-745	-109	234	-619
\$ 100,000 - \$ 124,999	-700	-45	271	-474
\$ 125,000+	1,273	1,460	2,373	5,106
TOTAL	-1,363	993	2,977	2,608

The table above suggests several things. First, for ages <55, many households are forecast to increase their earnings to be more than \$125,000 by 2028, move into an older age bracket, or simply leave the city of Plano. The forecast suggests more households will leave the area than will achieve this level of income. Similar trends exist for ages 55-61 as well. Most growth is expected to occur in households earning over \$125,000, which will likely come at the cost of lower income households leaving the city.

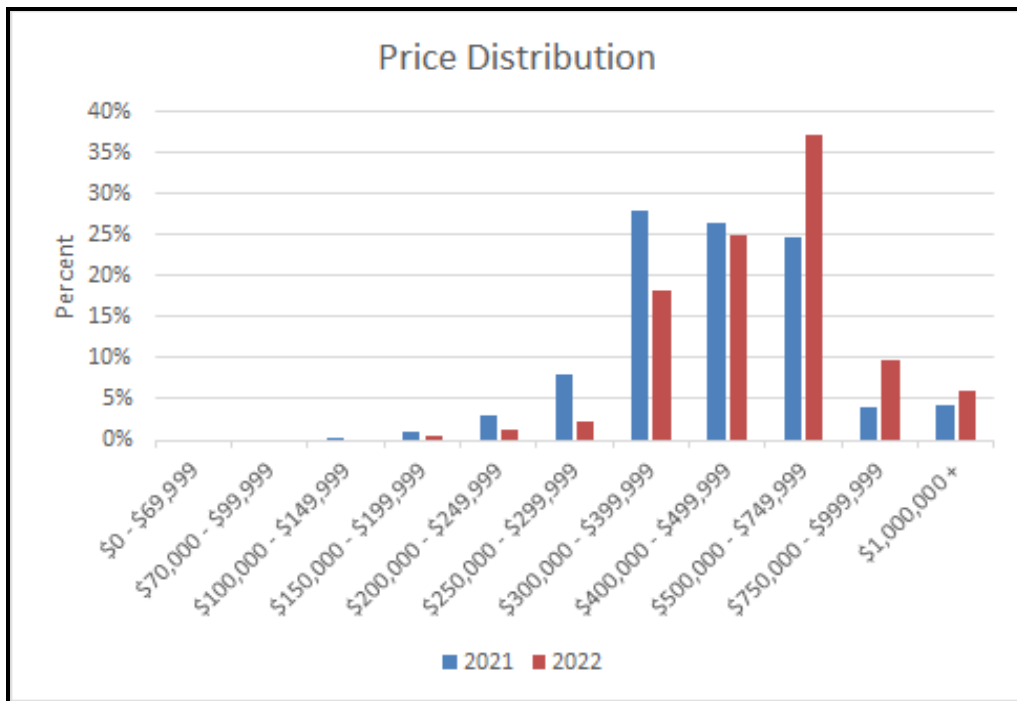
2.3 - HOME SALE INFORMATION - PLANO

The Texas Real Estate Center tracks information concerning the sale of single family homes. The data for the city of Plano shows a steady increase in both the median and average price of a home (2011-2022). Sales price increases continued even as the number of home sales dropped in 2022.

HOME SALES AND AVERAGE / MEDIAN PRICE PLANO, TEXAS



PRICE DISTRIBUTION PLANO, TEXAS



The charts above show graphically the effects job growth has had on the home ownership market, with increasing home sales and increasing sales prices. These factors are typically seen in a market that is under supplied.

2.4 – SUMMARY

The information compiled concerning home ownership, forecast household numbers, area wages, and historical single family home sales is indicative of a growing disparity related to the cost of home ownership. In spite of Plano having one of the highest median incomes in the state (\$123,175 – 2022), the average price of a home of \$584,189 is out of reach for 66% of the city’s residents. Less expensive homes available for purchase are currently in short supply, as Zillow shows only 5 homes at or below \$318,600; and only 52 homes below a sales price of \$400,000 within the city limits of Plano.

At the same time, the demographic data shows a significant decline in the number of households earning less than \$125,000 (2023-2028). The demographics suggest that as many as 12,000 households earning less than \$125,000 could be displaced (2023-2028) in part by the growing cost of housing. This would be indicative of “Gentrification” whereby the character of the area is changing by wealthier people moving into an area, typically displacing current inhabitants in the process.

CHAPTER 3

RENTAL HOUSING STOCK, PRICE POINTS, AND AFFORDABILITY

3.1 - LIVING WAGE – COLLIN COUNTY, TX

The Department of Urban Studies and Planning at the Massachusetts Institute of Technology⁶ produces a Living Wage Calculator based on the specific characteristics of an area. The Living Wage Calculator estimates the local wage rate that a full-time worker requires to cover the costs of their family’s basic needs where they live.

The living wage shown below is the hourly rate in Collin County that an individual in a household must earn to support his or herself and their family. The assumption is the sole provider is working full-time (2,080 hours per year). The tool provides information for individuals and households with one or two working adults and zero to three children. In the case of households with two working adults, all values are per working adult, single or in a family unless otherwise noted.

	1 ADULT			
	0 Children	1 Child	2 Children	3 Children
Living Wage	\$ 18.24	\$ 35.87	\$ 45.42	\$ 59.21
Poverty Wage	\$ 6.53	\$ 8.80	\$ 11.07	\$ 13.34
Minimum Wage	\$ 7.25	\$ 7.25	\$ 7.25	\$ 7.25

	2 ADULTS (1 Working)			
	0 Children	1 Child	2 Children	3 Children
Living Wage	\$ 28.20	\$ 34.54	\$ 39.31	\$ 43.65
Poverty Wage	\$ 8.80	\$ 11.07	\$ 13.34	\$ 15.61
Minimum Wage	\$ 7.25	\$ 7.25	\$ 7.25	\$ 7.25

⁶ <https://livingwage.mit.edu/resources/Living-Wage-Users-Guide-Technical-Documentation-2023-02-01.pdf>

	2 ADULTS (Both Working)			
	0 Children	1 Child	2 Children	3 Children
Living Wage	\$ 14.10	\$ 19.85	\$ 24.82	\$ 29.58
Poverty Wage	\$ 4.40	\$ 5.54	\$ 6.67	\$ 7.81
Minimum Wage	\$ 7.25	\$ 7.25	\$ 7.25	\$ 7.25

3.2 – LOW INCOME DEFINITION

For the purpose of this discussion, it is important to first define the annual household income that HUD considers to be low income. With an Area Median Income (AMI) of \$105,600 for the Dallas MSA, HUD considers a low income household as any household earning less than \$82,480, or 80% of the AMI for a household of four persons. From there, HUD further divides low income households into AMI groupings and household size. The following table is published by HUD to establish these income limits.

HUD INCOME LIMITS BY HOUSEHOLD SIZE (2023)

AMI	30%	40%	50%	60%	70%	80%
1 Person	\$ 21,660	\$ 28,880	\$ 36,100	\$ 43,320	\$ 50,540	\$ 57,760
2 Person	\$ 24,750	\$ 33,000	\$ 41,250	\$ 49,500	\$ 57,750	\$ 66,000
3 Person	\$ 27,840	\$ 37,120	\$ 46,400	\$ 55,680	\$ 64,960	\$ 74,240
4 Person	\$ 30,930	\$ 41,240	\$ 51,550	\$ 61,860	\$ 72,170	\$ 82,480
5 Person	\$ 33,420	\$ 44,560	\$ 55,700	\$ 66,840	\$ 77,980	\$ 89,120
6 Person	\$ 35,880	\$ 47,840	\$ 59,800	\$ 71,760	\$ 83,720	\$ 95,680
7 Person	\$ 38,370	\$ 51,160	\$ 63,950	\$ 76,740	\$ 89,530	\$ 102,320
8 Person	\$ 40,830	\$ 54,440	\$ 68,050	\$ 81,660	\$ 95,270	\$ 108,880
9 Person	\$ 43,320	\$ 57,760	\$ 72,200	\$ 86,640	\$ 101,080	\$ 115,520
10 Person	\$ 45,780	\$ 61,040	\$ 76,300	\$ 91,560	\$ 106,820	\$ 122,080
11 Person	\$ 48,270	\$ 64,360	\$ 80,450	\$ 96,540	\$ 112,630	\$ 128,720
12 Person	\$ 50,730	\$ 67,640	\$ 84,550	\$ 101,460	\$ 118,370	\$ 135,280

When participating in “affordable” housing programs, HUD further establishes rent limits that housing providers can charge renters based on the income limitations from the table above. The general idea is that a low income household should not have to pay more than 30% of their income for rent and utilities. The following table establishes the maximum “Gross Rent” based on the annual household income and size of the unit. The “Gross Rent” includes both rent and utilities.

“GROSS RENT” LIMITATIONS - MONTHLY

Bedrooms	30%	40%	50%	60%	70%	80%
Efficiency	\$541	\$722	\$902	\$1,083	\$1,263	\$1,444
1 Bedroom	\$580	\$773	\$966	\$1,160	\$1,353	\$1,547
2 Bedrooms	\$696	\$928	\$1,160	\$1,392	\$1,624	\$1,856
3 Bedrooms	\$804	\$1,072	\$1,340	\$1,608	\$1,876	\$2,145
4 Bedrooms	\$897	\$1,196	\$1,495	\$1,794	\$2,093	\$2,392
5 Bedrooms	\$990	\$1,320	\$1,650	\$1,980	\$2,310	\$2,640

Now that the income and rent limitations are established, we can begin an analysis to understand the number of low income households living within the city limits of Plano. Ribbon Demographics provides demographic data by households, income, size, tenure, and age (HISTA Data). In total, the HISTA Data accounts for 115,464 households living within the city limits of Plano (2023). Of these households, 43% rent rather than own.

Owner HH	TOTALS			
2023	Age <55	Age 55-61	Age 62+	TOTAL
< \$ 10,000	342	183	805	1,330
\$ 10,000 - \$ 19,999	288	102	554	945
\$ 20,000 - \$ 29,999	502	219	945	1,666
\$ 30,000 - \$ 39,999	617	238	1,253	2,109
\$ 40,000 - \$ 49,999	953	426	1,298	2,677
\$ 50,000 - \$ 59,999	910	340	1,412	2,662
\$ 60,000 - \$ 74,999	1,815	660	1,740	4,215
\$ 75,000 - \$ 99,999	3,271	1,195	2,866	7,332
\$ 100,000 - \$ 124,999	4,007	1,227	1,977	7,211
\$ 125,000+	21,425	7,311	7,506	36,242
TOTAL	34,130	11,901	20,356	66,387

Renter HH	TOTALS			
2023	Age <55	Age 55-61	Age 62+	TOTAL
< \$ 10,000	1,231	155	1,097	2,484
\$ 10,000 - \$ 19,999	1,104	174	883	2,161
\$ 20,000 - \$ 29,999	1,953	200	959	3,112
\$ 30,000 - \$ 39,999	2,473	228	793	3,494
\$ 40,000 - \$ 49,999	3,099	263	912	4,274
\$ 50,000 - \$ 59,999	2,895	286	879	4,060
\$ 60,000 - \$ 74,999	4,190	403	1,080	5,673
\$ 75,000 - \$ 99,999	6,110	561	1,314	7,985
\$ 100,000 - \$ 124,999	4,791	500	738	6,029
\$ 125,000+	6,249	1,160	2,397	9,806
TOTAL	34,095	3,930	11,052	49,077

The HISTA data tables also provide the number of households by income and household size. The table below represents renter households only.

RENTER HOUSEHOLDS BY INCOME BY HOUSEHOLD SIZE

Renter Tenure – All Household Sizes						
2023	1 Person	2 Person	3 Person	4 Person	5-6 Person	1-6 Person
< \$10K	1,620	471	186	126	71	2,475
\$10K-20K	1,246	513	220	80	92	2,150
\$20K-30K	1,569	819	322	178	201	3,088
\$30K-40K	1,665	855	341	275	321	3,456
\$40K-50K	2,069	826	513	493	333	4,234
\$50K-60K	2,465	740	416	302	122	4,045
\$60K-75K	2,450	1,900	730	392	180	5,652
\$75K-100K	2,878	2,276	1,696	748	345	7,943
\$100K-125K	1,923	2,109	889	794	280	5,995
\$125K+	2,984	3,258	2,023	1,004	481	9,749
TOTAL	20,869	13,766	7,335	4,392	2,426	48,788

With a typical rental project having 1-3 bedroom units, the number of persons living in a unit could go as high as 6 persons. This would allow a household to have an annual income as high as \$95,680 (80% AMI). Based on the table below, the 31,861 low income rental households represent 65% of the 1-6 person renter households or 28% of all 1-6 person households throughout Plano.

Renter HH	Min. Income	Income Limit*	Households	Percent
30% AMI	\$0	\$35,880	9,811	31%
40% AMI	\$35,881	\$47,840	4,790	15%
50% AMI	\$47,841	\$59,800	4,901	15%
60% AMI	\$59,801	\$71,760	4,529	14%
70% AMI	\$71,761	\$83,720	4,010	13%
80% AMI	\$83,721	\$95,680	3,820	12%
TOTAL			31,861	100%

***6 Person Household Income Limits**

With 4 bedroom units allowing up to 8 persons and the maximum qualifying income increasing to \$108,880, the number of renter households would then increase by 3,523; totaling 35,384 income qualified renter households. In total, 31% of Plano's households could be considered low income renter households.

3.3 - DEMAND BY UNIT TYPE

Above we have identified 35,384 households that could be identified as low income renters. At the same time, based on household size they could still be over-qualified to benefit from an affordable housing program. For example, a one person household earning \$16.30 per hour (\$33,900 annually) would be over-qualified for a one-bedroom unit (30% AMI). However, they could still qualify for a 50% AMI unit having an income limited to \$36,100.

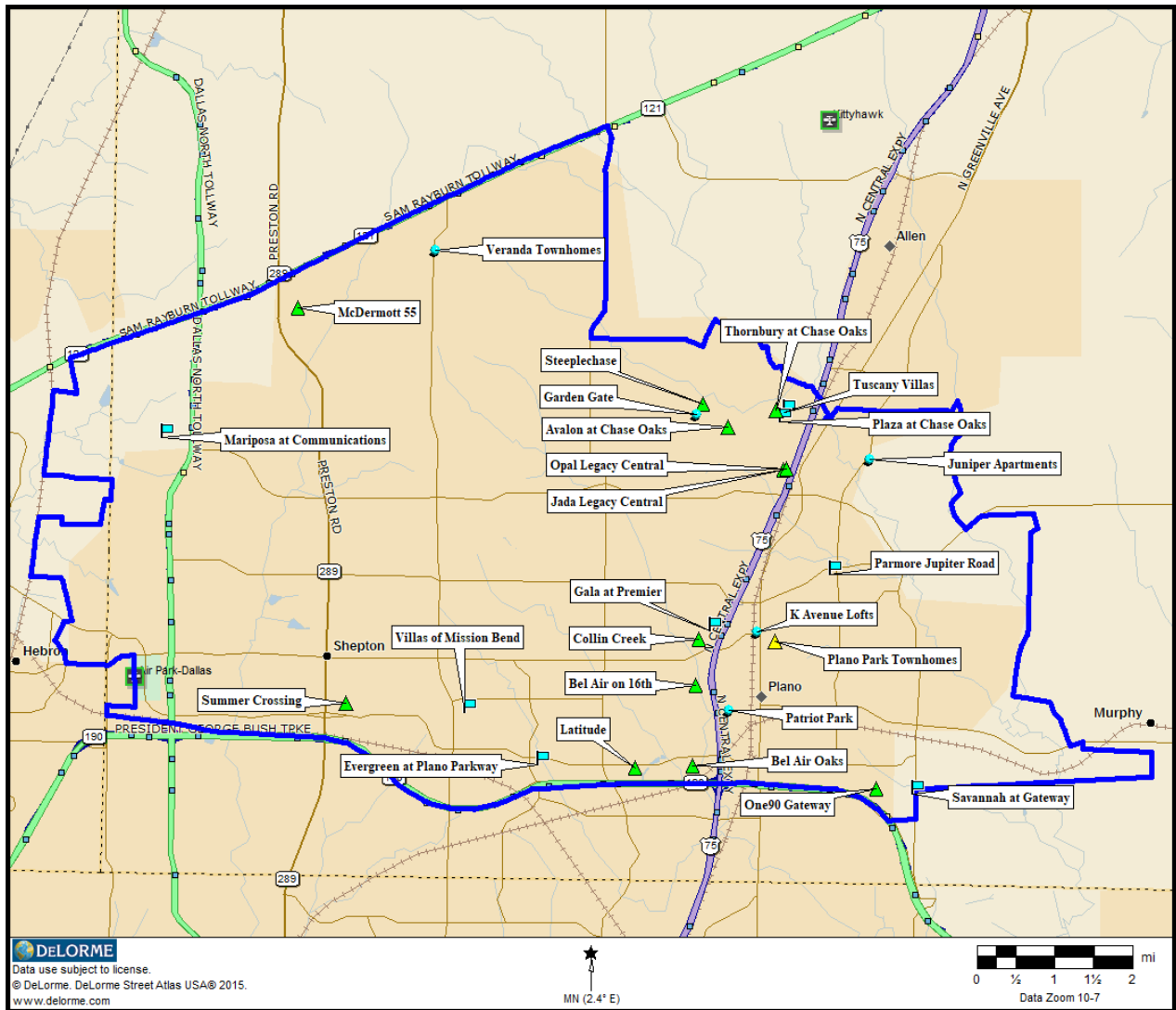
For this reason, households need to be segmented into the unit types for which they qualify. This is called “Demand by Unit Type”. By applying this methodology, we eliminate the households that would be over-qualified based on income and household size.

INCOME QUALIFIED HOUSEHOLDS BY UNIT TYPE

	Households
<30% AMI	4,110
30% AMI	1,618
40% AMI	2,924
50% AMI	2,053
60% AMI	4,677
70% AMI	2,859
80% AMI	3,707
TOTAL	21,950
4 Bdrms	229
TOTAL	22,177

3.4 - INVENTORY OF EXISTING LIHTC, BOND & PFC PROPERTIES

The current supply of “affordable” housing in Plano is far less than demand. The supply within the city consists of five family projects (614 affordable units) and eight senior projects (1,179 affordable units). Of these, two of the senior projects and two of the family projects are presently under construction.



Additionally, there is one TSAHC project with 140 units and twelve PFC projects. In total, we have accounted for 4,169 + income restricted units located within the city limits of Plano. Far less than those identified above.

TDHCA	Name of Project	Population	Total	Affordable	Occupancy
93041	Garden Gate Apartments	General	240	240	98%
98101	Villas of Mission Bend	Elderly	135	101	100%
04409	Evergreen at Plano Parkway	Elderly	250	250	100%
05614	The Plaza at Chase Oaks	Elderly	240	240	99%
09116	Tuscany Villas	Elderly	90	90	100%
14414	Savannah at Gateway	Elderly	292	233	95%
18096	Patriot Park Family	General	139	111	100%
18708	Veranda Townhomes	General	40	20	100%
20155	Gala at Premier	Elderly	97	77	99%
21145	Mariposa Apartment Homes at Communications Parkway	Elderly	180	108	U/C
21208	Parmore Jupiter Road	Elderly	100	80	U/C
21454	K Avenue Lofts	General	226	179	U/C
22250	Juniper Apartments	General	80	64	U/C
TSAHC	Plano Park Townhomes	General	140	140	99%
PFC - 2023	One90 Gateway	General	350	179	76%
PFC - 2019	Jada Legacy Central	General	385	203	89%
PFC - 2021	Opal Legacy Central	General	310	161	90%
PFC - 1984	Steeplechase	General	368	318	93%
PFC - 2012/2018	McDermott 55/ Park	Elderly/ General	267	154	97%
PFC - 1972	Bel Air on 16	General	152	104	99%
PFC - 1983	Bel Air Oaks	General	474	295	99%
PFC - 2021	Latitude	General	304	154	93%
PFC - 1988	Collin Creek	General	314	160+	N/A
PFC - 1995	Thornbury at Chase Oaks	General	376	191	99%
PFC - 1993	Avalon at Chase Oaks	General	326	166	89%
PFC - 1986	Summer Crossing	General	294	151	96%
	TOTAL LIHTC/PAB UNITS			1,793	
	TOTAL TSAHC UNITS			140	
	TOTAL PFC UNITS			2,236+	

3.5 - SUMMARY

Our estimate is that 35,000 renter households currently living within the city limits of Plano would be considered low income. Of these, 63% could benefit from affordable housing programs using LIHTC, Private Activity Bonds (Bond) and PFC financing structures. The current supply of 4,169 “affordable” rental units addresses approximately 12% of the need for affordable rental units. This leaves 18,000+ income qualified renter households that are overburdened and pay a significantly higher percentage of their monthly income for rent and utilities.

People often assume that older market rate apartments serve the lower income strata. Generally speaking, this is not true. Additionally, affordable housing programs have different abilities to deep target the lower incomes. The following table generalizes what we typically see in the 100+ market studies we prepare annually.

	Affordable Program
30% AMI	LIHTC
40% AMI	Not Served
50% AMI	LIHTC/Bond
60% AMI	LIHTC/Bond
70% AMI	Bond/PFC
80% AMI	PFC/Market Rate
100% AMI	Market Rate
100+ AMI	Market Rate

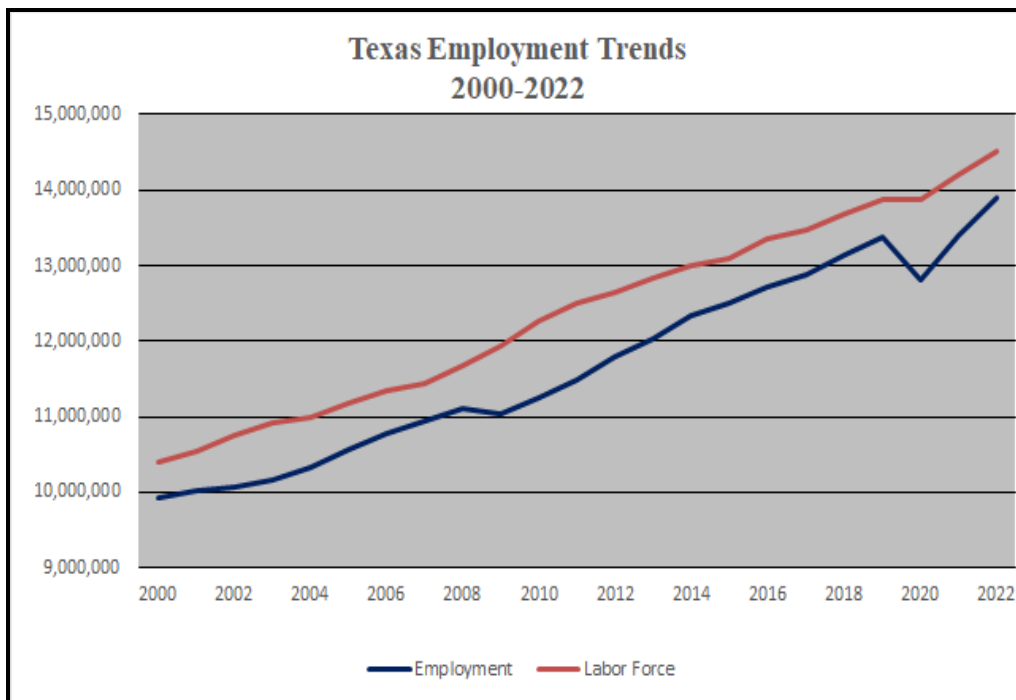
CHAPTER 4

HOUSEHOLD GROWTH BASED DEMAND

4.1 – INTERSTATE MIGRATION PATTERNS

U.S. Census data shows the population growth in Texas between July 1, 2019, and July 1, 2020, was higher than any other state. Ranked as the second “Most Populous State” behind California, Texas has an estimated population of 29.1 million people. This number is up substantially from the 2010 estimate of 25.1 million. The state’s 2020 growth rate of 1.3%, a rate consistent with the past few years, ranks the state 1st in the country. In 2021, Texas ranked second behind Florida.

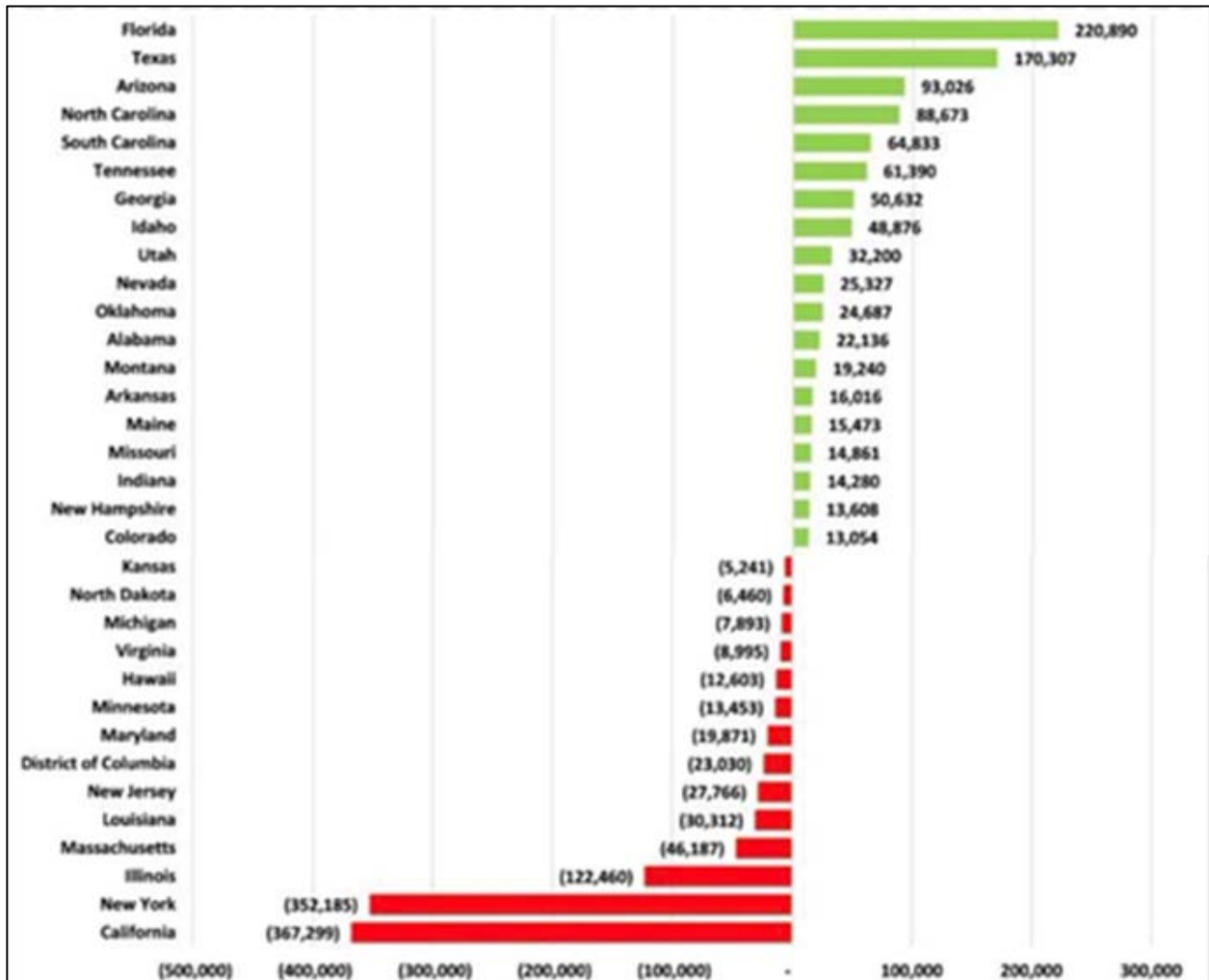
For more than a decade, Texas has seen a positive net migration. This is due largely to the employment growth the state has enjoyed for eighteen out of the last twenty-two years. Even when most of the country reported massive job losses, factory closures and high foreclosure rates (2008), Texas’ diverse economic base allowed it to weather economic downturns better than other regions. As a result of this employment growth, low cost of living, and no state income tax, Texas is a destination for many looking for jobs and opportunity.



The most recent data from the U.S. Census Bureau reports a major migration occurring across the nation with Florida and Texas being the top two destinations. From the 2010 to 2020 census, Texas saw its population grow by 1,096 people per day (average).

MSA Population	2010	2020	2010-2020 Change	Per Day
Austin	1,377,000	2,283,371	906,371	248.3
Dallas-Ft. Worth	6,392,097	7,424,256	1,032,159	282.8
Houston	5,920,416	7,122,240	1,201,824	329.3
San Antonio	2,153,821	2,550,960	397,139	108.8
Texas	25,145,561	29,145,505	3,999,944	1,095.9
Texas - Urban	21,298,039	26,130,686	4,832,647	1,324.0
Texas - Rural	3,847,522	3,014,819	-832,703	-228.1

2020-2021 POPULATION SHIFT



4.2 – AREA POPULATION & DEMOGRAPHICS

The U.S. Census has the population of Plano growing by 10.5% (2000 to 2010). At the same time, the number of households increased by 11.4%. The population is projected to continue to increase through the year 2027. At that time, the population is expected to be 306,418. This represents an overall increase of 6,911 people, or 1,925 households (2022-2027).

For our first demand analysis, we will use population and household formation to project future housing demand. This is based on the fact, that in estimating housing, the unit of demand is households. The U.S. Census defines a household as a person or group of persons who occupy a dwelling unit and constitute a single economic unit for the purposes of meeting household expenses. The household may or may not consist of a family. Households are distinguished from groups or individuals who occupy group quarters such as hospitals, military bases, retirement homes, prisons, and dormitories, where individuals are not directly involved in economic decisions for the dwelling unit. Each household, by definition, occupies or needs one housing unit, the basic unit of supply. Therefore, if we know the number of households, we have a measure of aggregate demand for all housing types.

In analyzing housing supply, demand will rarely if ever exceed total supply. When the rate at which the new supply is added slows down or stops, as was the case in Texas for most of the early 1990's, there is a chance to add and absorb new supply. If the "pipeline" for adding residential income properties to a market is twelve months or more, and the demand will consume the supply in a six to twelve month period, a window of time opens to exploit the opportunity of the demand. This is known as a "Gap" in supply and demand.

4.3 – POPULATION & HOUSEHOLD GROWTH – Precisely

The Household Growth demand analysis predicts future growth using a statistical analysis from previous census surveys. To determine the future demand for rental housing, we use the following calculations:

$$\frac{\text{Forecast Population}}{\text{Forecast average household size}} = \text{Forecast Number of Households} = \text{Forecast Units of Demand}$$

$$\frac{\text{Forecast Units of Demand}}{\text{x Percentage of Tenure Owner}} = \text{Single Family Housing}$$

$$\begin{aligned} &\text{Forecast Units of Demand} \\ &\times \text{Percentage of Tenure Renter} \\ &= \text{Multiple Unit Housing} \end{aligned}$$

4.3.1 - Estimate of Population and Household Growth

The following table represents the population growth and projections from 2000 through the year 2027.

PRECISELY FORECAST POPULATION CHANGE 2010-2027

YEAR	POPULATION	% Chg.	Annual
2027 Projection	306,418	2.3%	1.2%
2025 Estimate	299,507	3.6%	1.2%
2022 Estimate	289,141	1.0%	0.5%
2020 Census	286,273	10.5%	1.1%
2010 Census	259,026		

4.3.2 - Forecasting Owner and Renter Household Demand

The preceding tables delineate the makeup of the households within the City of Plano. By juxtaposing the information with the changes in the forecast population, we can forecast the overall household demand, and finally, the demand that is expected to indicate both owner and renter households. On the household table below, it can be seen that the housing in the sub-market has experienced a growth commensurate with the population. By dividing by the population by the average household size, we derive the number of future households.

The table below shows that as the population has increased, there has been a corresponding increase in demand for housing. This results in further demand for new housing within this sub-market. The household growth analysis is consistent with the information derived from the employment base analysis performed in the following chapter of this report. Thus, by analyzing the trends gleaned from the population and data, we can project the need for additional housing.

**“HOUSEHOLD FORMATION”
2010 to 2027**

YEAR	HOUSEHOLDS	% Chg.	Annual	Avg. Size
2027 Projection	115,556	1.7%	0.8%	2.65
2025 Estimate	113,631	2.6%	0.9%	2.64
2022 Estimate	110,744	0.7%	0.4%	2.61
2020 Census	109,935	11.4%	1.1%	2.60
2010 Census	98,716			2.62

**OWNER VS. RENTER OCCUPIED HOUSEHOLDS
2010 to 2027**

	2010	2020	2022	2027
Owner	62,005	63,217	63,402	65,863
Renter	36,711	46,718	47,342	49,693
Total	98,716	109,935	110,744	115,556
Change in HH		11,219	809	4,812

**FORECAST HOUSEHOLD DEMAND CHANGES
WITHIN THE PRIMARY MARKET AREA**

	2010-2019	2020-2022	2023-2027
# Owner Change	1,212	185	2,461
% Change	2.0%	0.3%	3.9%
# Renter Change	10,007	624	2,351
% Change	27.3%	1.3%	5.0%

Based on straight-line delineation of the household growth alone between the years of 2023 to 2027, it can be assessed that Plano will need an additional 4,812 housing units.

Thus, our estimate of the growth of the households per year for the city of Plano, based on the Precisely straight-line forecast delineation and our assessment of the new households in the area, is as follows:

FORECAST HOUSEHOLD DEMAND TABLE

YEAR	2023	2024	2025	2026	2027
OWNERS	492	492	492	492	492
RENTERS	470	470	470	470	470

4.4 – POPULATION & HOUSEHOLD GROWTH – HISTA Data

HISTA demographics provide another source for comparison. The difference between the Precisely and HISTA demographics comes from the end user’s application. The data provided by Precisely includes a variety of general demographic datasets. HISTA data is different in that it was created to prove an additional level of detail not found in the U.S. Census data.

HISTA data comes from a custom four-way cross tabulation of household data designed specifically for housing analysts. It contains actual Census cross tabulations – not extrapolations of SF3 data. The key to this data is that it gives us the number of households by household size by income by age grouping (i.e. <55, 55-62, and 62+ years of age). This breakout is very useful in arriving at a demand by age and income.

4.4.1 – Owner Demand Tables

The following tables represent the current number of owner households with the city of Plano, the forecast growth (2028), and finally the difference between the two.

HISTA DATA OWNER HOUSEHOLDS - 2023

OWNER HH 2023	TOTAL			TOTAL
	Age <55	Age 55-61	Age 62+	
< \$ 10,000	342	183	805	1,330
\$ 10,000 - \$ 19,999	288	102	554	945
\$ 20,000 - \$ 29,999	502	219	945	1,666
\$ 30,000 - \$ 39,999	617	238	1,253	2,109
\$ 40,000 - \$ 49,999	953	426	1,298	2,677
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\$ 75,000 - \$ 99,999	3,271	1,195	2,866	7,332
\$ 100,000 - \$ 124,999	4,007	1,227	1,977	7,211
\$ 125,000+	21,425	7,311	7,506	36,242
TOTAL	34,130	11,901	20,356	66,387

HISTA DATA OWNER HOUSEHOLDS - 2028

OWNER HH 2028	TOTAL			TOTAL
	Age <55	Age 55-61	Age 62+	
< \$ 10,000	265	157	783	1,205
\$ 10,000 - \$ 19,999	228	78	576	882
\$ 20,000 - \$ 29,999	360	159	906	1,425
\$ 30,000 - \$ 39,999	484	192	1,161	1,838
\$ 40,000 - \$ 49,999	713	346	1,221	2,280
\$ 50,000 - \$ 59,999	720	317	1,581	2,618
\$ 60,000 - \$ 74,999	1,466	605	1,878	3,948
\$ 75,000 - \$ 99,999	2,527	1,086	3,100	6,713
\$ 100,000 - \$ 124,999	3,307	1,182	2,248	6,737
\$ 125,000+	22,698	8,771	9,878	41,348
TOTAL	32,768	12,894	23,333	68,995

OWNER HOUSEHOLD GROWTH – 2023 to 2028

OWNER HH	TOTAL			
	2023 - 2028	Age <55	Age 55-61	Age 62+
< \$ 10,000	-77	-26	-22	-125
\$ 10,000 - \$ 19,999	-60	-24	22	-62
\$ 20,000 - \$ 29,999	-142	-60	-39	-241
\$ 30,000 - \$ 39,999	-133	-46	-92	-271
\$ 40,000 - \$ 49,999	-240	-80	-76	-397
\$ 50,000 - \$ 59,999	-191	-22	169	-44
\$ 60,000 - \$ 74,999	-348	-55	137	-266
\$ 75,000 - \$ 99,999	-745	-109	234	-619
\$ 100,000 - \$ 124,999	-700	-45	271	-474
\$ 125,000+	1,273	1,460	2,373	5,106
TOTAL	-1,363	993	2,977	2,608

The forecast above predicts a decline in the number of owner households earning less than \$50,000 at all age levels. This decline continues for households earning less than \$125,000 for households under 55 years of age. The forecast growth is limited to households earning \$125,000+ at all age levels, and seniors (62+) earning over \$50,000 annually.

4.4.2 – Renter Demand Tables

The following tables represent the current number of renter households with the city of Plano, the forecast growth (2028), and finally the difference between the two. The shaded income bands are indicative of the renter households that earn from \$19,475 to \$108,880. As discussed in Section 2.5.1, these renter households would be considered to be income qualified to live at an “affordable” rental community with income and rent restrictions.

HISTA DATA RENTER HOUSEHOLDS - 2023

RENTER HH	TOTAL			
2023	Age <55	Age 55-61	Age 62+	TOTAL
< \$ 10,000	1,231	155	1,097	2,484
\$ 10,000 - \$ 19,999	1,104	174	883	2,161
\$ 20,000 - \$ 29,999	1,953	200	959	3,112
\$ 30,000 - \$ 39,999	2,473	228	793	3,494
\$ 40,000 - \$ 49,999	3,099	263	912	4,274
\$ 50,000 - \$ 59,999	2,895	286	879	4,060
\$ 60,000 - \$ 74,999	4,190	403	1,080	5,673
\$ 75,000 - \$ 99,999	6,110	561	1,314	7,985
\$ 100,000 - \$ 124,999	4,791	500	738	6,029
\$ 125,000+	6,249	1,160	2,397	9,806
TOTAL	34,095	3,930	11,052	49,077

**HISTA DATA
RENTER HOUSEHOLDS - 2028**

RENTER HH	TOTAL			
	2028	Age <55	Age 55-61	Age 62+
< \$ 10,000	1,093	145	1,167	2,405
\$ 10,000 - \$ 19,999	994	175	978	2,147
\$ 20,000 - \$ 29,999	1,653	191	967	2,812
\$ 30,000 - \$ 39,999	2,024	208	927	3,158
\$ 40,000 - \$ 49,999	2,465	219	913	3,597
\$ 50,000 - \$ 59,999	2,863	333	1,172	4,368
\$ 60,000 - \$ 74,999	4,048	428	1,244	5,720
\$ 75,000 - \$ 99,999	5,950	659	1,576	8,185
\$ 100,000 - \$ 124,999	5,073	606	953	6,632
\$ 125,000+	8,005	1,531	3,494	13,031
TOTAL	966	198	486	1,650

RENTER HOUSEHOLD GROWTH – 2023 to 2028

RENTER HH	TOTAL			
	2023 - 2028	Age <55	Age 55-61	Age 62+
< \$ 10,000	-138	-10	70	-78
\$ 10,000 - \$ 19,999	-110	1	95	-14
\$ 20,000 - \$ 29,999	-300	-8	8	-300
\$ 30,000 - \$ 39,999	-449	-21	134	-336
\$ 40,000 - \$ 49,999	-634	-44	1	-677
\$ 50,000 - \$ 59,999	-32	47	294	309
\$ 60,000 - \$ 74,999	-142	25	164	47
\$ 75,000 - \$ 99,999	-160	98	262	200
\$ 100,000 - \$ 124,999	282	105	216	603
\$ 125,000+	1,756	372	1,097	3,225
TOTAL	73	564	2,341	2,978

The forecast above predicts a loss of renter households earning less than \$100,000 for ages under 55 years of age. Modest growth is expected in households earning more than \$50,000 annually (ages 55-61), with the majority of the renter household growth occurring with senior households (62+) at all income levels.

4.4.3 - HISTA Demand Summary

The preceding tables give the current number of owners and renters, forecast of the same to 2028, including a detail by age and income. Based on straight-line delineation of these forecasts, the HISTA data estimates the number of households will grow by 1,117.

Thus, our estimate of the growth of the households per year for the city of Plano, based on the HISTA data straight-line forecast delineation and our assessment of the new households in the area, is as follows:

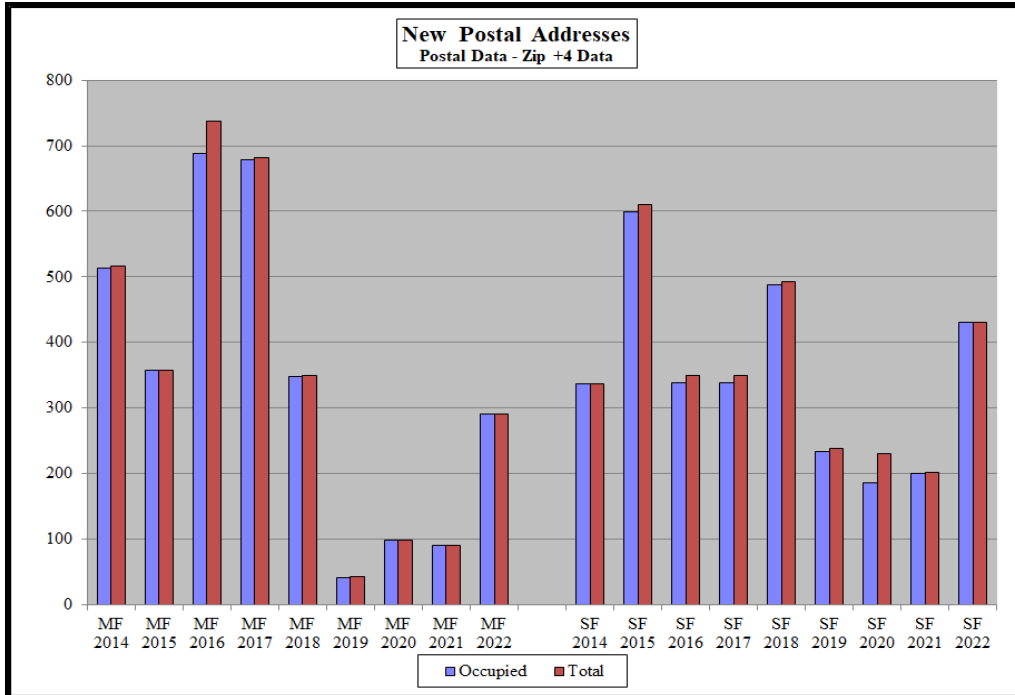
FORECAST HOUSEHOLD DEMAND TABLE

YEAR	2024	2025	2026	2027	2028
OWNERS	522	522	522	522	522
RENTERS	596	596	596	596	596

4.5 – HISTORICAL ABSORPTION - U.S. POSTAL DATA

The U.S. Post Office is another source for new construction data. As each new unit is constructed and assigned a mailing address, the Postal Service reports the address as either a single or multi-unit address; and as occupied or vacant. As a snapshot in time, the information is useful in understanding the new construction velocity and absorption within the PMA.

	Multi-Unit Occupied	Multi-Unit Total	Single-Unit Occupied	Single-Unit Total
2014	514	516	336	337
2015	357	358	599	610
2016	688	737	338	349
2017	679	682	338	349
2018	348	349	488	493
2019	41	42	234	238
2020	99	99	186	231
2021	91	91	200	201
2022	291	291	431	431
TOTAL	3,108	3,165	3,150	3,239



Since 2014, the annual average rates of absorption for both new single and multi-family units have been nearly identical. The U.S. Postal Service reports an annual average of 350 new single family and 345 new multi-family units being absorbed (2014-2022). From the chart above, we see a drop in the number units delivered through the COVID pandemic years (2019-2021). The number of new units delivered rebounded in 2022.

4.6 - SUMMARY

Plano continues to be a highly desirable place to live. All indications are that the city will continue to support new job growth resulting in a growing demand for additional housing. Historically, new single and multi-family units are absorbed nearly as fast as they are available for occupancy.

Based on this information, we opine the demographic forecasting models accurately reflect the growing demand for additional housing. The greatest factor limiting the anticipated growth will be the limited number of developable sites within the city of Plano. This will force many of the households drawn to the area for employment opportunities to live outside the Plano city limits.

CHAPTER 5

EMPLOYMENT GROWTH BASED DEMAND

5.1 - PLANO ECONOMY

The city of Plano has a robust economy for a city with a population of 289,000 (2022). With Plano being the headquarters of numerous corporations, the U.S. Census Bureau reported a total of 231,600 jobs (2020) and a median income of \$123,175 (2022). Some of the more common names with headquarters or major regional offices in Plano include Toyota Motor North America, Bank of America, FedEx Office, Capital One, Hewlett Packard, Intuit, NTT Data, PepsiCo, Pizza Hut, J.C. Penny, Frito-Lay, Cinemark, and many others.

“These large employers have cultivated a large talent pool of skilled workers. Younger workers flock to the expanding base of companies for lucrative employment opportunities with Plano’s world-renowned companies. New companies are also attracted to the talent creating a cycle of growth.”⁷

Today, the current unemployment rate for Collin County is 3.6%. This is slightly lower than the state average of 4.1%, and slightly higher than the national unemployment of 3.4%.⁸

⁷ Plano Economic Development

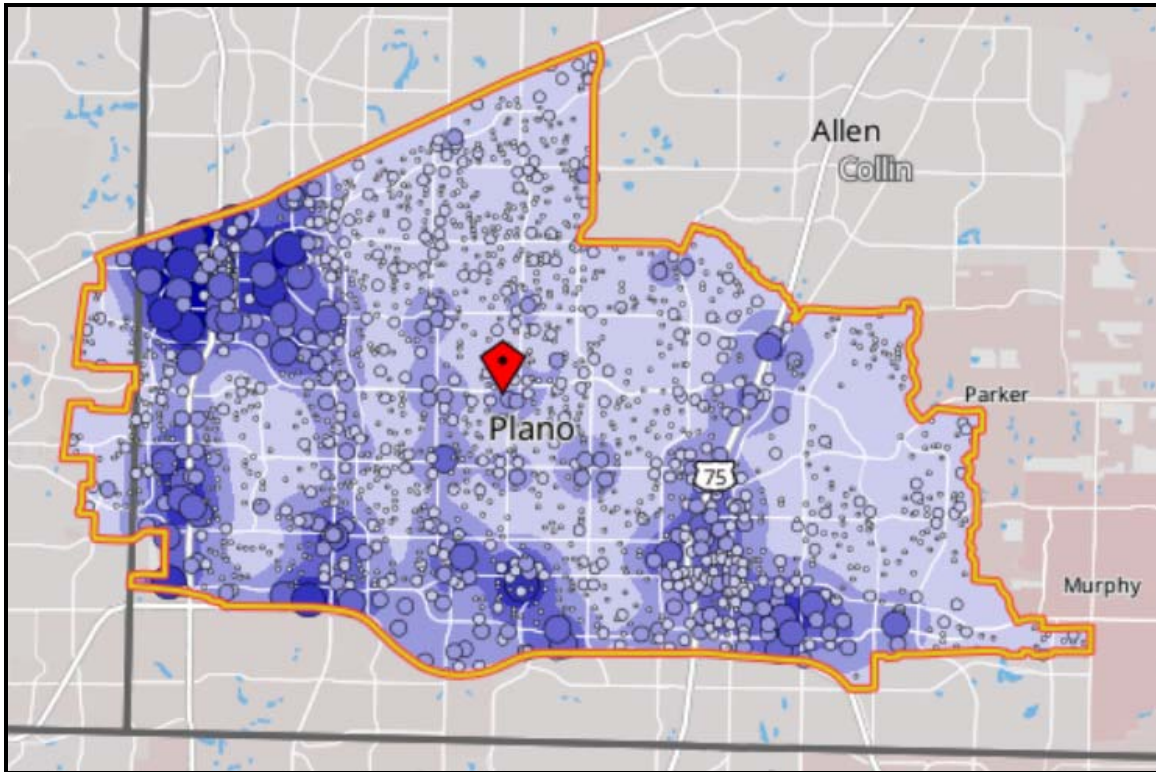
⁸ U.S. Department of Labor (May 2023)

5.1.1 - Major Employers

According to the Data-Axle Business Listing database of Plano employers, companies based in Plano employ more than 1.2 million people. And while most of these jobs are not located in Plano, Plano is a critical hub for these companies. Some of the largest companies are listed below.

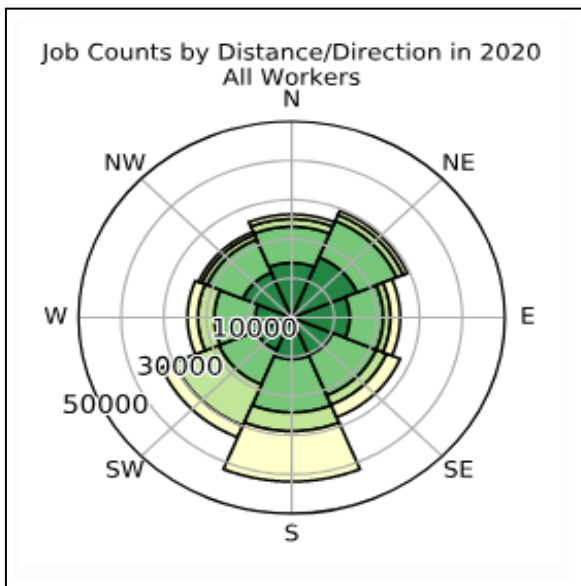
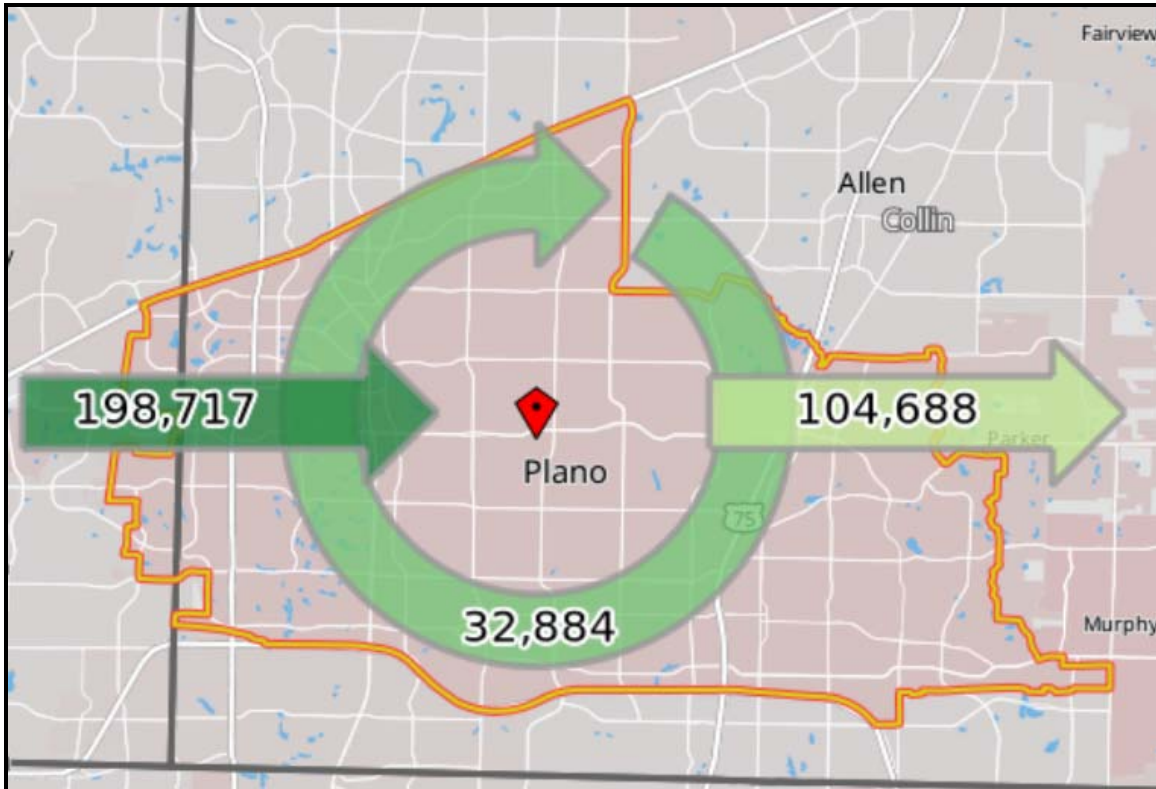
Company	# Employees
Yum China Holdings Inc.	400,000
Pizza Hut LLC	300,000
Toyota Motor North America Inc.	176,000
Penney Opco LLC	50,000
Frito-Lay North America Inc.	41,000
Cinemark Holdings Inc.	26,100
FedEx Office & Print Svc Inc.	15,000
Upbound Group Inc.	12,690
DXC Technology Co	10,000
Integer Holdings Corp	10,000
Reliant Rehabilitation Holdings	9,000
Diodes Inc.	8,877
At Home Stores LLC	7,600
Tyler Technologies Inc.	7,200
Ericsson Inc.	7,000
Siemens PLM Software	4,700
Safety-Kleen Systems Inc.	4,300
Corrohealth Inc.	4,000
Hilti Inc.	3,800
Velocity Freight Transport Inc.	3,500
Fogo De Chao Inc.	3,491
Ribbon Communications Inc.	3,394
Service Experts Heating & Air Cond	3,000
Active Network LLC	2,800
Finance of America Co Inc.	2,324
GE Energy	2,300
Texas Health Presbyterian Hospital	2,100
Foxworth-Galbraith Lumber Co	2,001
Medical City Plano	2,000
Atlantic Aviation	1,961
Collin County Community College	1,894
Palm Harbor Homes Inc.	1,700
Bank of America Mortgage	1,300
Ebby Halliday Realtors Inc.	1,100

**U.S. CENSUS
ON THE MAP - 2020**



5.2 - AREA COMMUTERS

Data from the U.S. Census Bureau shows nearly 200,000 people commute daily to Plano for employment. At the same time, over 100,000 people leave Plano every day for employment in the surrounding Metroplex. Only 32,884 people live and work in Plano. This indicates significant pent-up demand.⁹



Jobs by Distance - Work Census Block to Home Census Block
2020

	Count	Share
Total All Jobs	231,601	100.0%
Less than 10 miles	95,293	41.1%
10 to 24 miles	79,944	34.5%
25 to 50 miles	29,133	12.6%
Greater than 50 miles	27,231	11.8%

⁹ U.S. Census Bureau

5.3 - FORECAST OF FUTURE DEMAND

For our second demand analysis, we delineate a community's commercial employment sectors into two categories – “basic” and “non-basic” employment. Basic activities are those that sell (export) a large portion of their products and services to non-local customers, thereby bringing new dollars into the local economy. Non-basic firms sell primarily to local customers and the money generated is kept within the local economy. The non-basic sector re-circulates dollars which are already within the community.

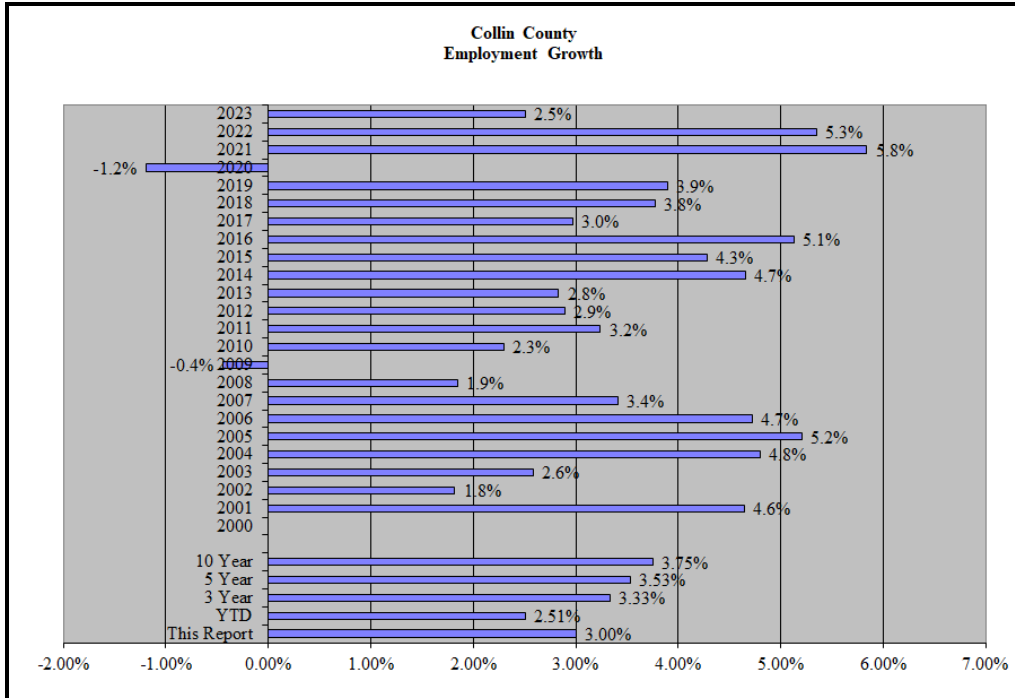
The theory we use within our analysis holds that increases in demand for the products and services of the basic sector cause the basic industries to employ more people. When this happens, the non-basic sector must expand to meet the needs of the expanded labor force in the basic industries. Thus occurs an increase in demand for housing units, retail, and office space, resulting from the increase in the number of employed persons. The result is an increase of the general population, employment, and economic wealth of the macro-market area. Therefore, local buying power increases.

Here we will use the economic base analysis methodology to determine population growth and therefore demand for rental housing. The objectives of the economic base analysis are:

- To identify businesses that bring new dollars into the local economy and measure employment in these businesses.
- To forecast growth of employment in the basic industries.
- To forecast growth of total employment (and income).
- To forecast growth of the population in the local market area.

Our methodology utilized to identify the economic base of the market area is to use an indirect analysis of identifying base employment through calculating the location quotient. This is a quick method for judging which industries are basic locally when compared to the state economy. The quotient represents the ratio of local employment percentage in certain industries to the state percentage in the same industries. If the local percentage is greater than the state percentage, that portion of the industry's employment that exceeds the state percentage is likely to be basic in the local economy. A basic employment industry in a community will create population growth which will then create a need for housing units.

For the purposes of the following employment-based forecast, we have used a conservative annual growth rate of 3.00%. This represents approximately 5,000 new jobs annually. We feel that this rate is appropriate, without being exceedingly optimistic.



Historical employment growth is a leading indicator of population and household growth, and housing demand increases. This indicator is more reliable than others in areas that are experiencing significant growth. This is because other projections typically utilize straight-line estimates, based on prior historical data, rather than current employment information.

The formulation used to determine the demand for housing using the basic employment forecast technique is as follows:

(A)

$$\frac{\text{Forecast of Basic Employment}}{1} \times \frac{\text{Total Employment}}{\text{Basic Employment}} \times \frac{\text{Total Population}}{\text{Total Employment}} = \text{Forecast Pop.}$$

(B)

$$\frac{\text{Forecast Population}}{\text{Forecast Household Size}} = \text{Forecast Households}$$

(C)

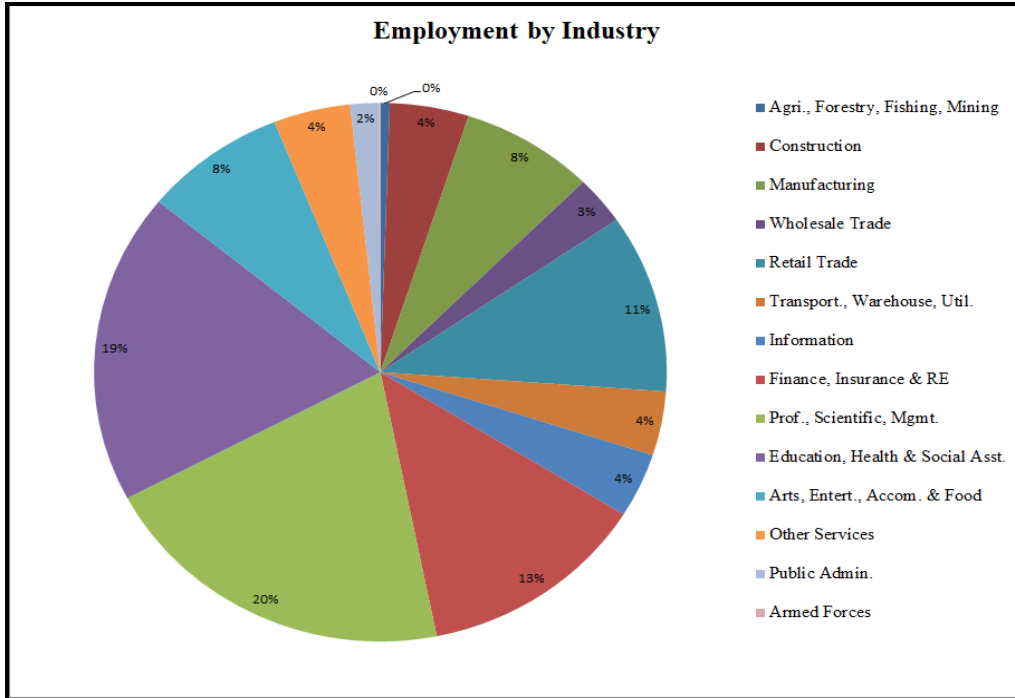
$$\text{Forecast Household} \times \text{Forecast Percent Tenure Renter} = \text{Forecast Rental Unit Demand}$$

5.3.1 - Determining the Location Quotient

The following represents the employment base of the sub-market by category, and is used to analyze the non-basic and basic employment of the sub-market in comparison to the Texas averages. It represents the profile in relation to the type of employment. The table identifies the employment industries that represent basic employment to the primary market area. Further analysis of the relative concentration in each industry will in turn help identify future growth and the requirements for additional housing.

Employment By Industry 2022	Primary Market		Texas		Location Quotient
	# of Employees	Percent	# of Employees	Percent	
Agri., Forestry, Fishing, Mining	823	0.5%	402,036	2.8%	0.19
Construction	6,965	4.5%	1,210,065	8.5%	0.53
Manufacturing	11,764	7.5%	1,203,736	8.4%	0.89
Wholesale Trade	4,543	2.9%	399,744	2.8%	1.04
Retail Trade	16,711	10.7%	1,580,116	11.1%	0.97
Transport., Warehouse, Util.	6,011	3.9%	843,639	5.9%	0.65
Information	6,029	3.9%	241,213	1.7%	2.29
Finance, Insurance & RE	20,279	13.0%	978,383	6.8%	1.90
Prof., Scientific, Mgmt.	31,853	20.4%	1,679,317	11.8%	1.74
Education, Health & Social Asst.	29,128	18.7%	3,101,913	21.7%	0.86
Arts, Entert., Accom. & Food	12,576	8.1%	1,253,565	8.8%	0.92
Other Services	6,784	4.3%	713,281	5.0%	0.87
Public Admin.	2,513	1.6%	580,830	4.1%	0.40
Armed Forces	120	0.1%	103,208	0.7%	0.11

The industries which are basic to the economy are those that have a location quotient greater than 1.0. If the location quotient of the industry is 1.0 or less, it is assumed that 1) the production of goods or services from that industry is sufficient to meet the needs of the area, and 2) the number of employees that are employed is also adequate to meet the demand for the goods and services. These are, by definition, non-basic employees and employers. In that the location quotient helps identify the basic industries in the local economy, the above table reflects the following in regard to basic employment within the sub-market area:



There is a positive “Location Quotient” in **Wholesale Trade, Information, Finance/Insurance/Real Estate and Professional/Scientific/Management** jobs. All of these categories have a location quotient greater than 1.0, indicating these industries are basic to this sub-market, and that these industries, and their size, relative to state averages, will drive the population growth of the primary market area.

5.3.2 - Determining the Number of Basic Employees

The portion of the location quotient that exceeds 1.0 represents the proportion of employees who are engaged in producing that excess. These are considered the basic employees; the employees that serve as a base for future tenancy to the proposed project. The following formula calculates the number of basic employees:

$$\frac{\text{Location Quotient} - 1.0}{\text{Location Quotient}} = \text{Percent of Basic Employees In Industry}$$

$$\frac{\text{Total Employees in Industry} \times \text{Percent of Basic Employees}}{1} = \text{Number of Basic Employees}$$

Utilizing the above formula, we can calculate the total number of basic employees in the area.

Basic Industries	# of Basic Employees
Wholesale Trade	177
Information	3,394
Finance, Insurance & Real Estate	9,592
Professional, Scientific, Management	13,510
Total Basic Employment	26,673

5.3.3 - Determining the Economic Base Multiplier

It is estimated that an increase in basic employment will cause an increase in total employment, with attending growth in population and disposable income. Therefore, we can forecast growth in basic employment to forecast the changes in population and the changes in household demand using a technique known as the economic base multiplier. The “Economic Base Multiplier” is the ratio of total employment to “basic employment”. Thus, we calculate the Economic Base Multiplier to forecast future employment growth and the resulting demand for housing.

Economic Base Multiplier	
Total Population in the Market Area	289,141
Total Employment in the Market Area	156,099
Total Basic Employment	26,673
5 Year Adjusted Forecast of Basic Employment	30,922
The EB Multiplier	5.852

5.3.4 - Forecasting Total Employment

Utilizing the economic base multiplier, we are able to calculate the total future employment for the target market area.

Forecast of Basic Employment x EB multiplier = Forecast of Total Employment

$$30,922 \quad \times \quad 5.852 \quad = \quad 180,962$$

5.3.5 - Forecasting Total Population

Because we have an estimation of the total employment for this area, we can proceed to develop a forecast for the total population based on employment growth. This can then be used to extract household formation estimation as an indication of additional demand for housing.

The population/employment ratio (PE) is used to determine the ratio of total population to total employment in the market area.

$$\text{PE Ratio} = \frac{\text{Total Population}}{\text{Total Employment}} = \frac{289,141}{156,099} = 1.852$$

We utilize this PE ratio to obtain a forecast of the total population as follows:

Forecast Total Employment x PE ratio = Forecast Population

$$180,962 \quad \times \quad 1.852 \quad = \quad 335,194$$

5.4 - SUMMARY

Based on our analysis, we forecast that the city of Plano will continue to grow at a rapid rate. The forecast demand for housing within the city of Plano will exceed the historical supply of new single family (350) and multi-family (345) units. Already, 86.8% of the people working in Plano do not live within its city limits.

Given the historical rate of employment growth exceeds 3.0%, the Employment Growth Methodology is conservative in the number of additional households expected to be generated by this growth. Plano alone will not be able to satisfy this additional demand for housing.

Plano, Texas

Legend

- ★ Site
- Custom Boundary
- ▲ New Construction - M/F 5+ - 2022
- ▲ New Construction - M/F 5+ - 2021
- ▲ New Construction - M/F 5+ - 2020
- ▲ New Construction - M/F 5+ - 2019
- ▲ New Construction - M/F 5+ - 2018
- ▲ New Construction - M/F 5+ - 2018-2022
- New Construction - S/F - 2022
- New Construction - S/F - 2021
- New Construction - S/F - 2020
- New Construction - S/F - 2019
- New Construction - S/F - 2018
- Highways
- 2020 Census Tracts - Texas
- County Boundaries
- State Boundaries

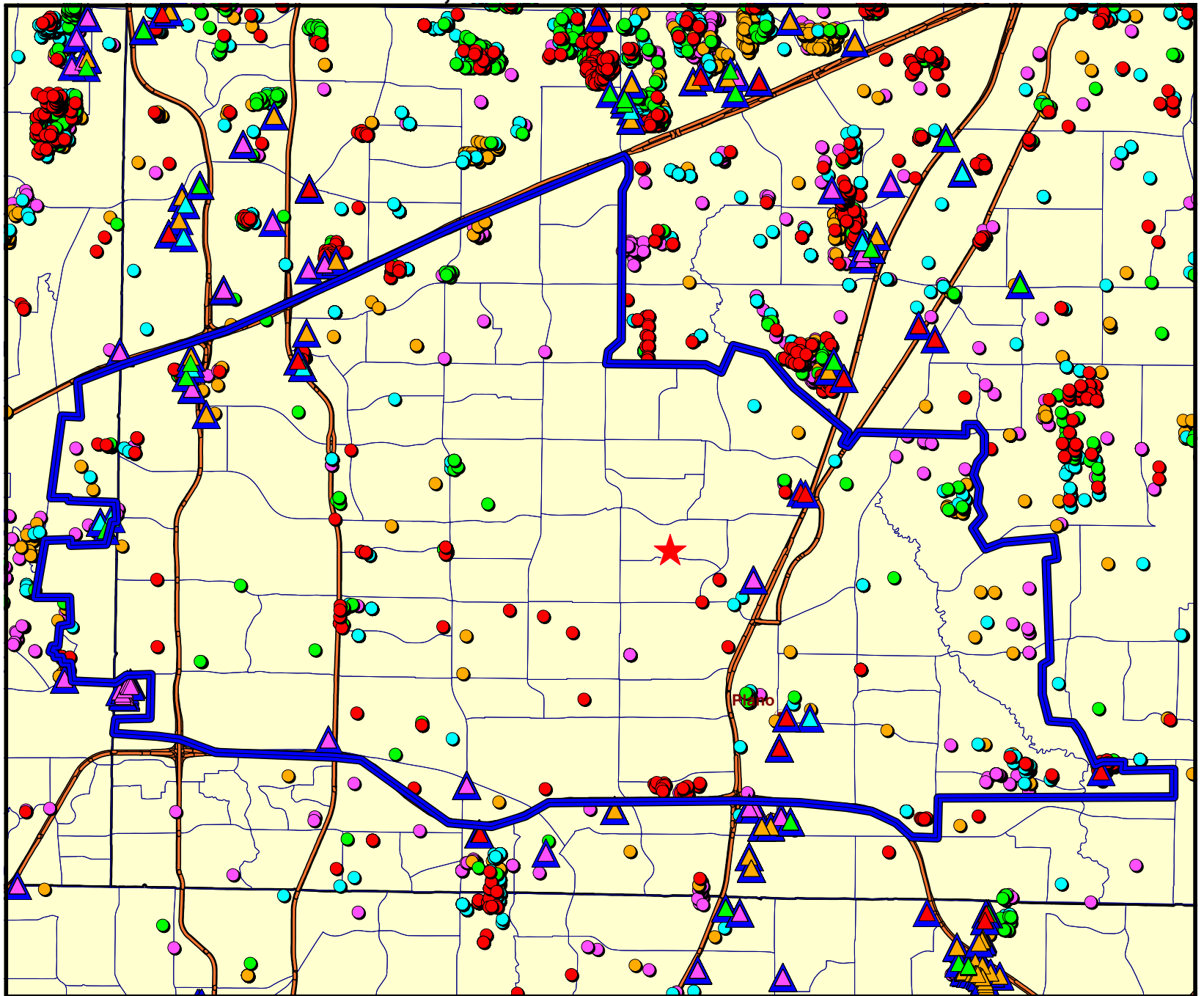
Site Coordinates

Longitude/X: -96.722560
 Latitude/Y: 33.050480



1.5

Miles



Plano, Texas

Legend

- ★ Site
- ▣ Custom Boundary
- AH - Family - Dec 2022
- AH - Seniors - Dec 2022
- Highways
- ▭ County Boundaries
- ▭ State Boundaries

Site Coordinates
 Longitude/X: -96.722560
 Latitude/Y: 33.050480



Plano, Texas

Legend

- ★ Site
- ▣ Custom Boundary
- Highways
- 2020 Census Tracts - Texas
- ▭ County Boundaries
- ▭ State Boundaries

Renter Households - 2022

- 3,000+
- 2,000 to 3,000
- 1,000 to 2,000
- 750 to 1,000
- 500 to 750
- 400 to 500
- 300 to 400
- 200 to 300
- 100 to 200
- 50 to 100
- 0 to 50

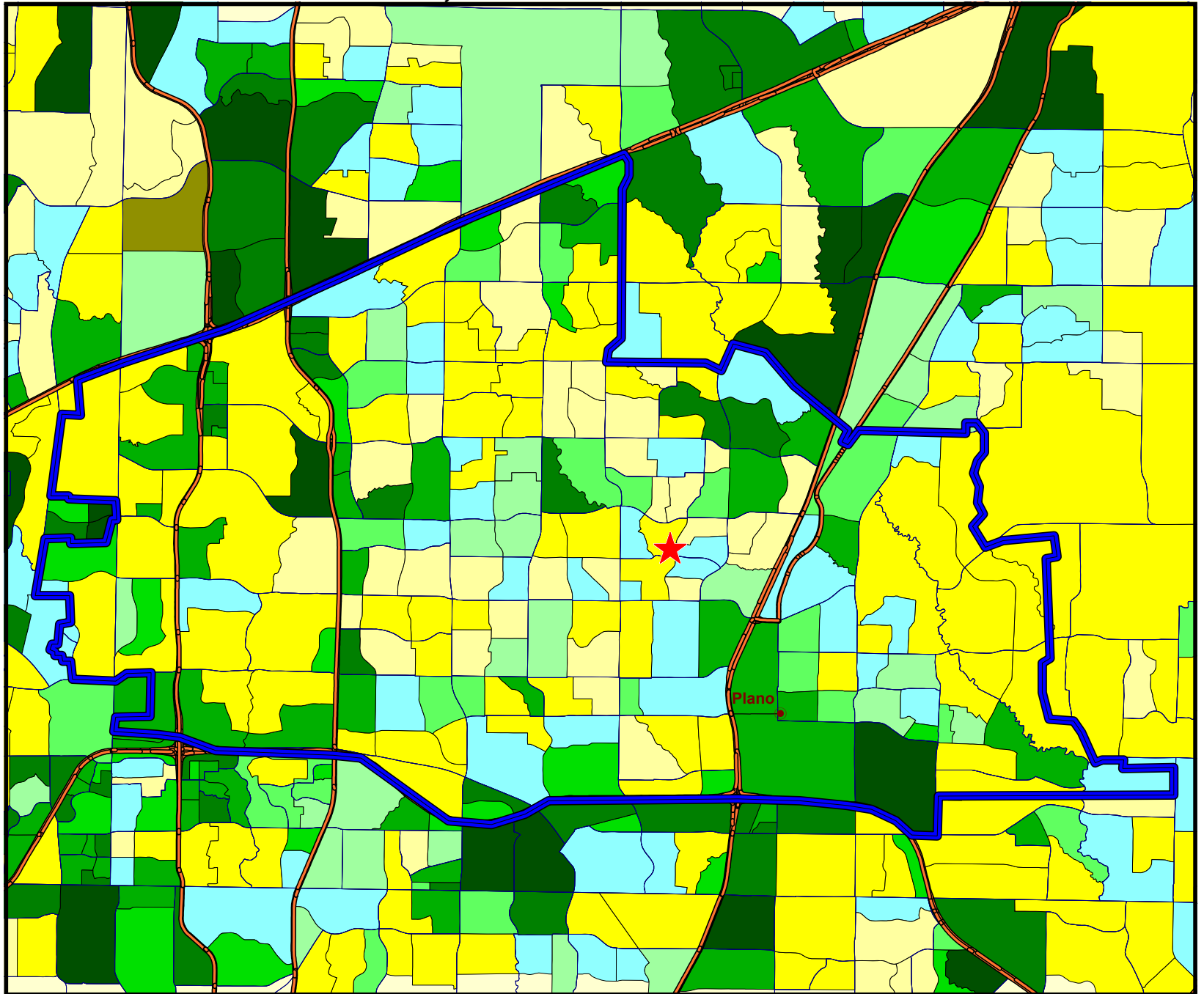
Site Coordinates

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Latitude/Y: 33.050480



1.5

Miles



Plano, Texas

Legend

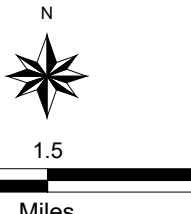
- ★ Site
- ▣ Custom Boundary
- Highways
- ▭ 2020 Census Tracts - Texas
- ▭ County Boundaries
- ▭ State Boundaries

Age Median 2022

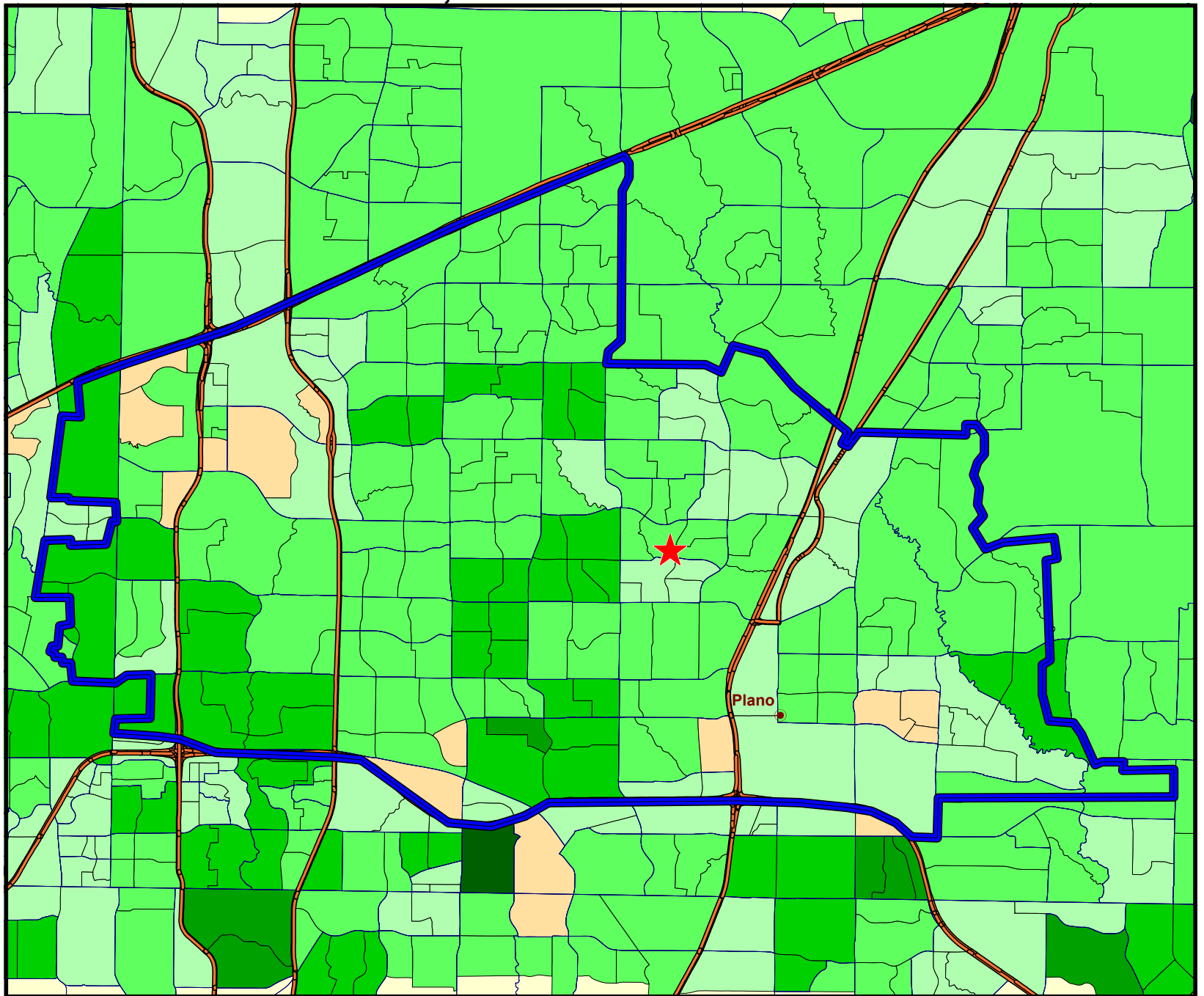
- 62+
- 55 To 62
- 45 To 55
- 35 To 45
- 25 To 35
- 0 To 25

Site Coordinates

Longitude/X: -96.722560
Latitude/Y: 33.050480



Miles



Plano, Texas

Legend

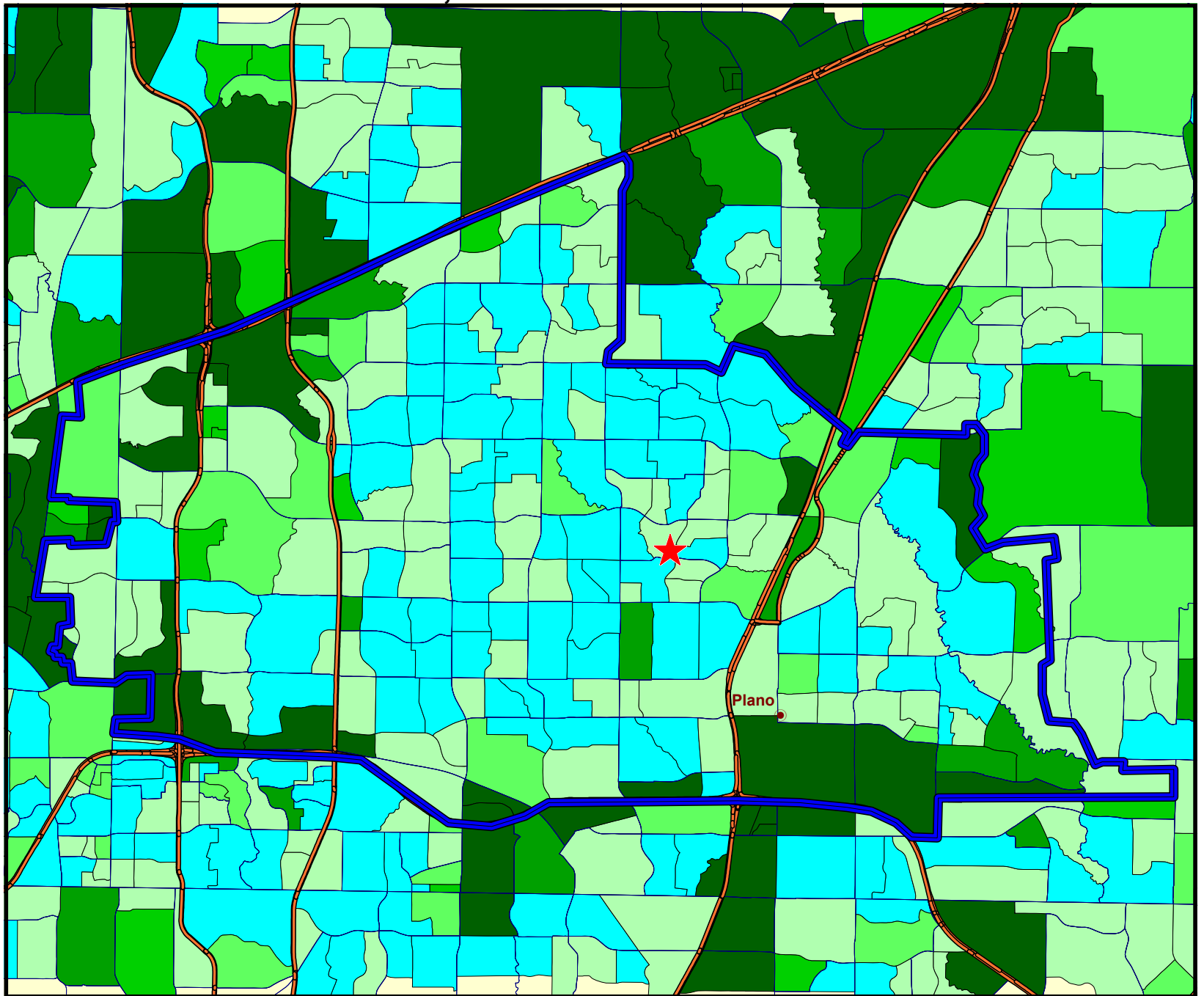
- ★ Site
- ▣ Custom Boundary
- Highways
- ▭ 2020 Census Tracts - Texas
- ▭ County Boundaries
- ▭ State Boundaries

Households Change % 2022 - 2027

- 20%+
- 15% to 20%
- 10% to 15%
- 5% to 10%
- 0% to 5%
- Losing Population

Site Coordinates
Longitude/X: -96.722560
Latitude/Y: 33.050480

Miles



Plano, Texas

Legend

- ★ Site
- ▣ Custom Boundary
- Highways
- ▭ 2020 Census Tracts - Texas
- ▭ County Boundaries
- ▭ State Boundaries

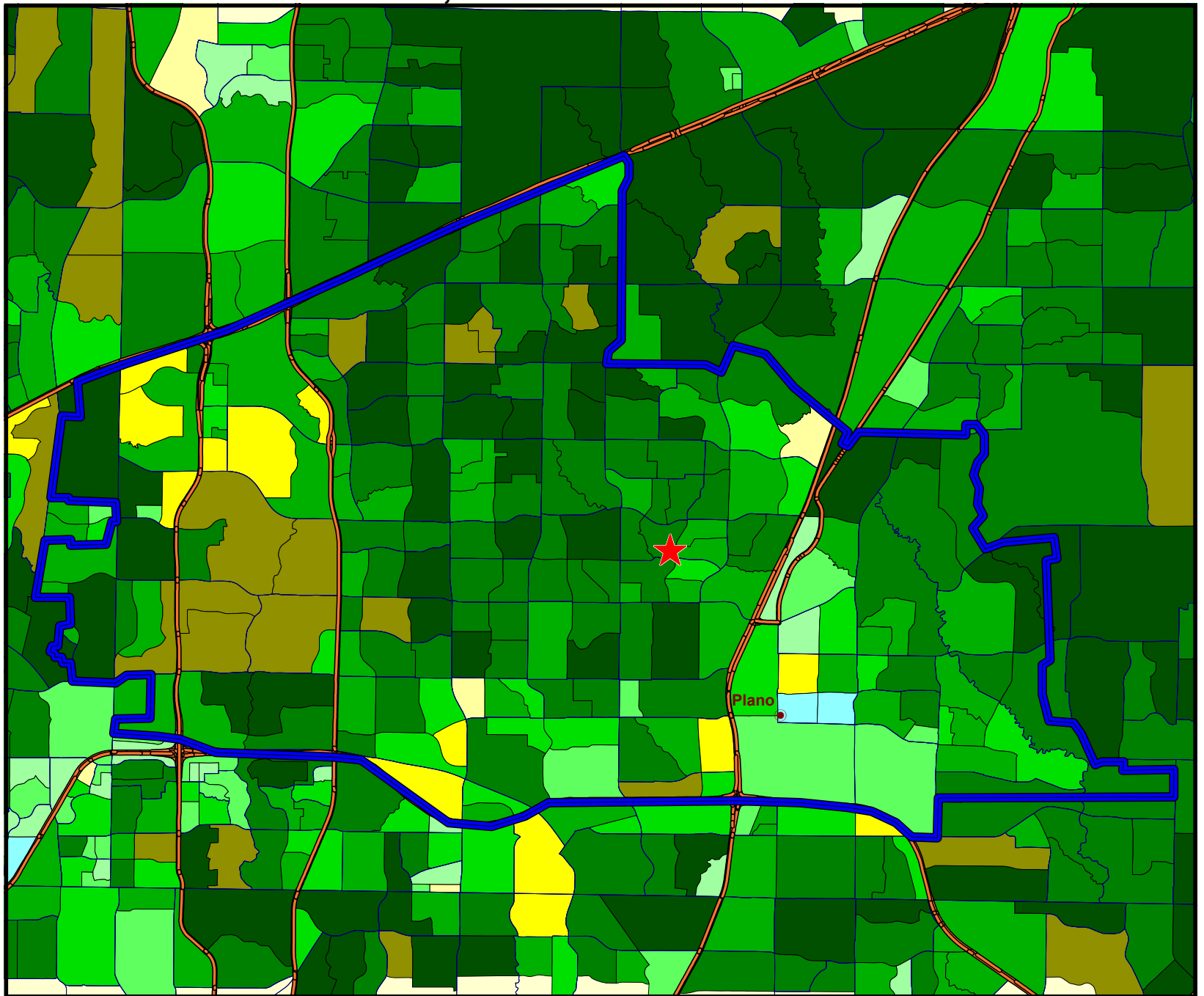
Income Household Median 2022

- \$500,000+
- \$250,000 to \$500,000
- \$150,000 to \$250,000
- \$100,000 to \$150,000
- \$75,000 to \$100,000
- \$60,000 to \$75,000
- \$50,000 to \$60,000
- \$40,000 to \$50,000
- \$30,000 to \$40,000
- \$20,000 to \$30,000
- \$0 to \$20,000

Site Coordinates

Longitude/X: -96.722560
Latitude/Y: 33.050480

Miles



Plano, Texas

Legend

- ★ Site
- ▣ Custom Boundary
- Highways
- 2020 Census Tracts - Texas
- ▭ County Boundaries
- ▭ State Boundaries

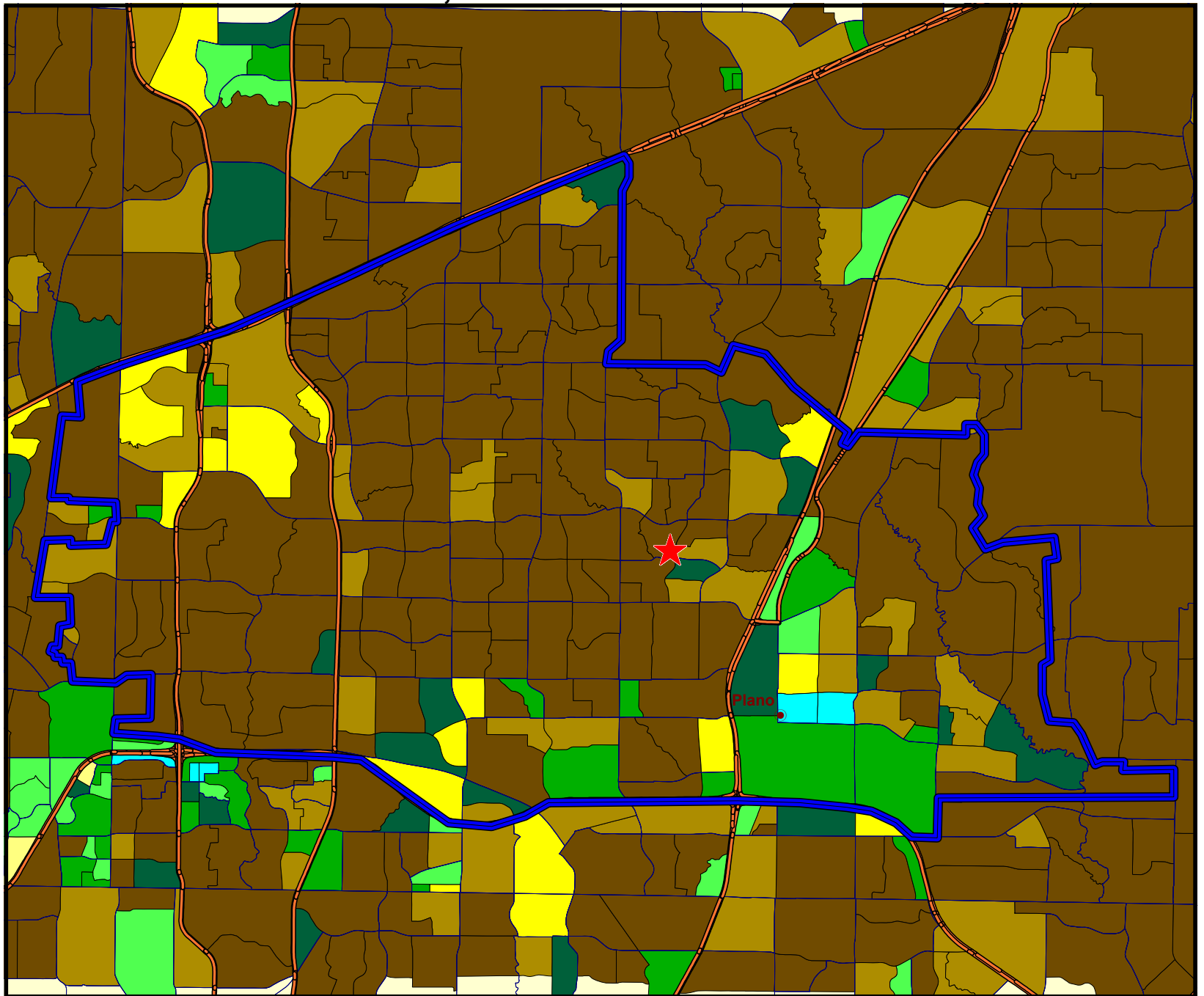
DAL by AMI - Income Household Median 2022

- 100%+ AMI
- 100% AMI
- 80% AMI
- 70% AMI
- 60% AMI
- 50% AMI
- 40% AMI
- 30% AMI

Site Coordinates

Longitude/X: -96.722560
Latitude/Y: 33.050480

Miles



Plano, Texas

Legend

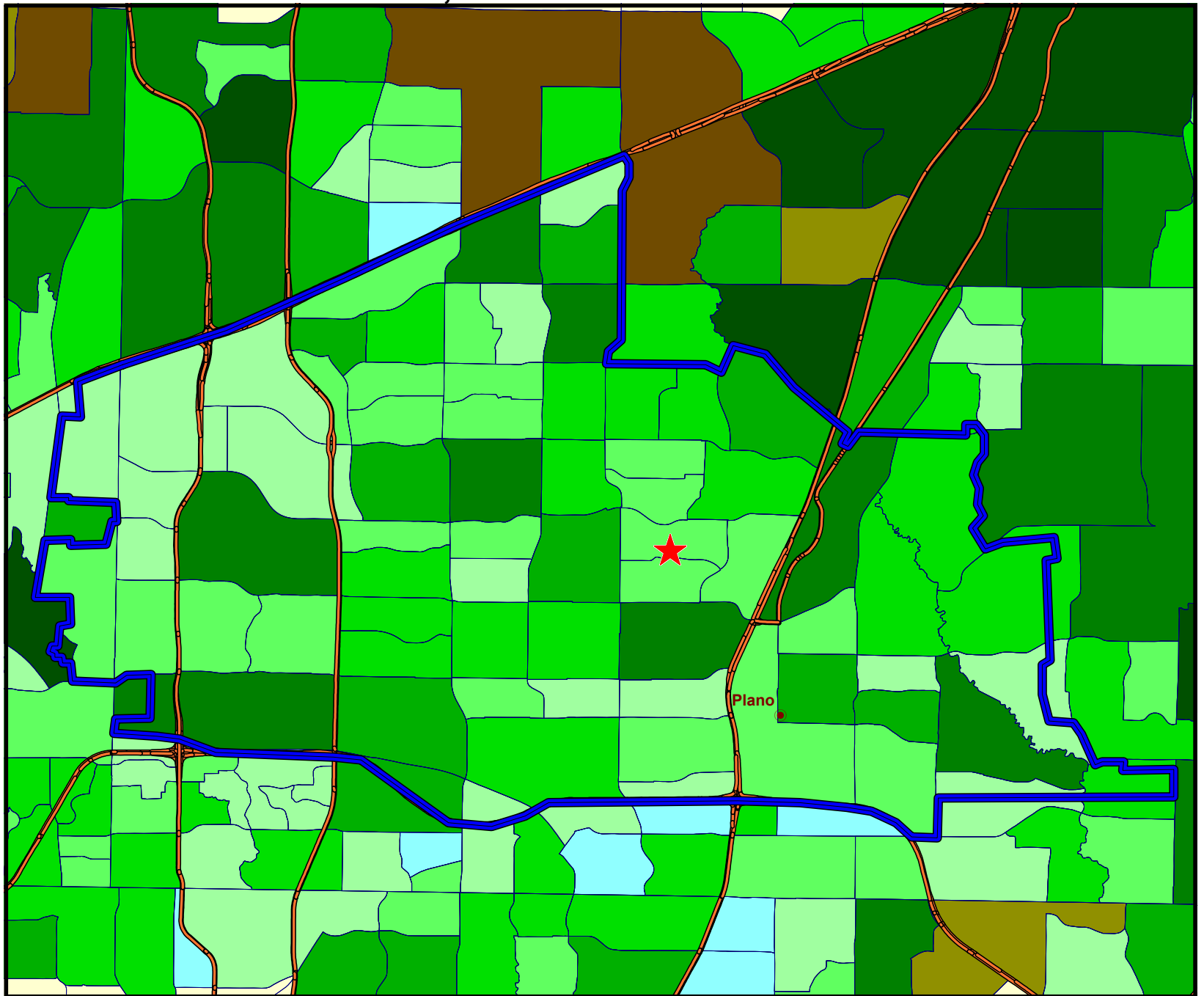
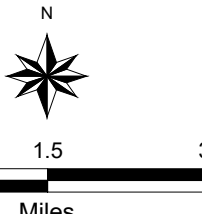
- ★ Site
- ▣ Custom Boundary
- Highways
- ▭ 2020 Census Tracts - Texas
- ▭ County Boundaries
- ▭ State Boundaries

Population Density 2022

- 9,000+
- 8,000 to 9,000
- 7,000 to 8,000
- 6,000 to 7,000
- 5,000 to 6,000
- 4,000 to 5,000
- 3,000 to 4,000
- 2,000 to 3,000
- 1,000 to 2,000
- 500 to 1,000
- 0 to 500

Site Coordinates

Longitude/X: -96.722560
Latitude/Y: 33.050480



Plano, Texas

Legend

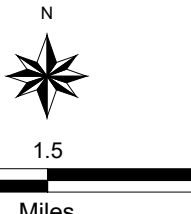
- ★ Site
- ▣ Custom Boundary
- Highways
- Employees >49 (2023)
- ▭ County Boundaries
- ▭ State Boundaries

Population Daytime 2022

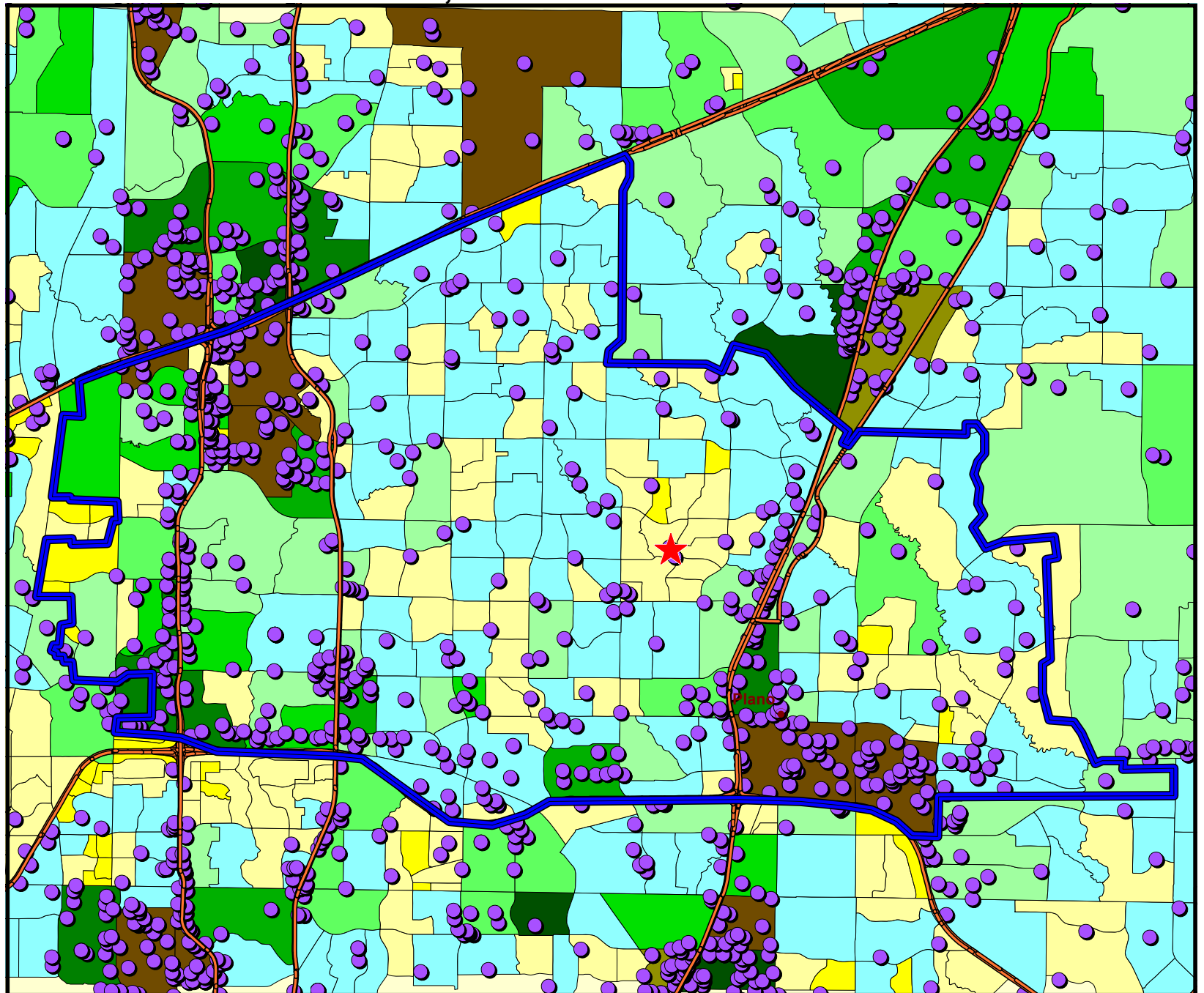
- 9,000+
- 8,000 to 9,000
- 7,000 to 8,000
- 6,000 to 7,000
- 5,000 to 6,000
- 4,000 to 5,000
- 3,000 to 4,000
- 2,000 to 3,000
- 1,000 to 2,000
- 500 to 1,000
- 0 to 500

Site Coordinates

Longitude/X: -96.722560
Latitude/Y: 33.050480



Miles



Plano, Texas

Legend

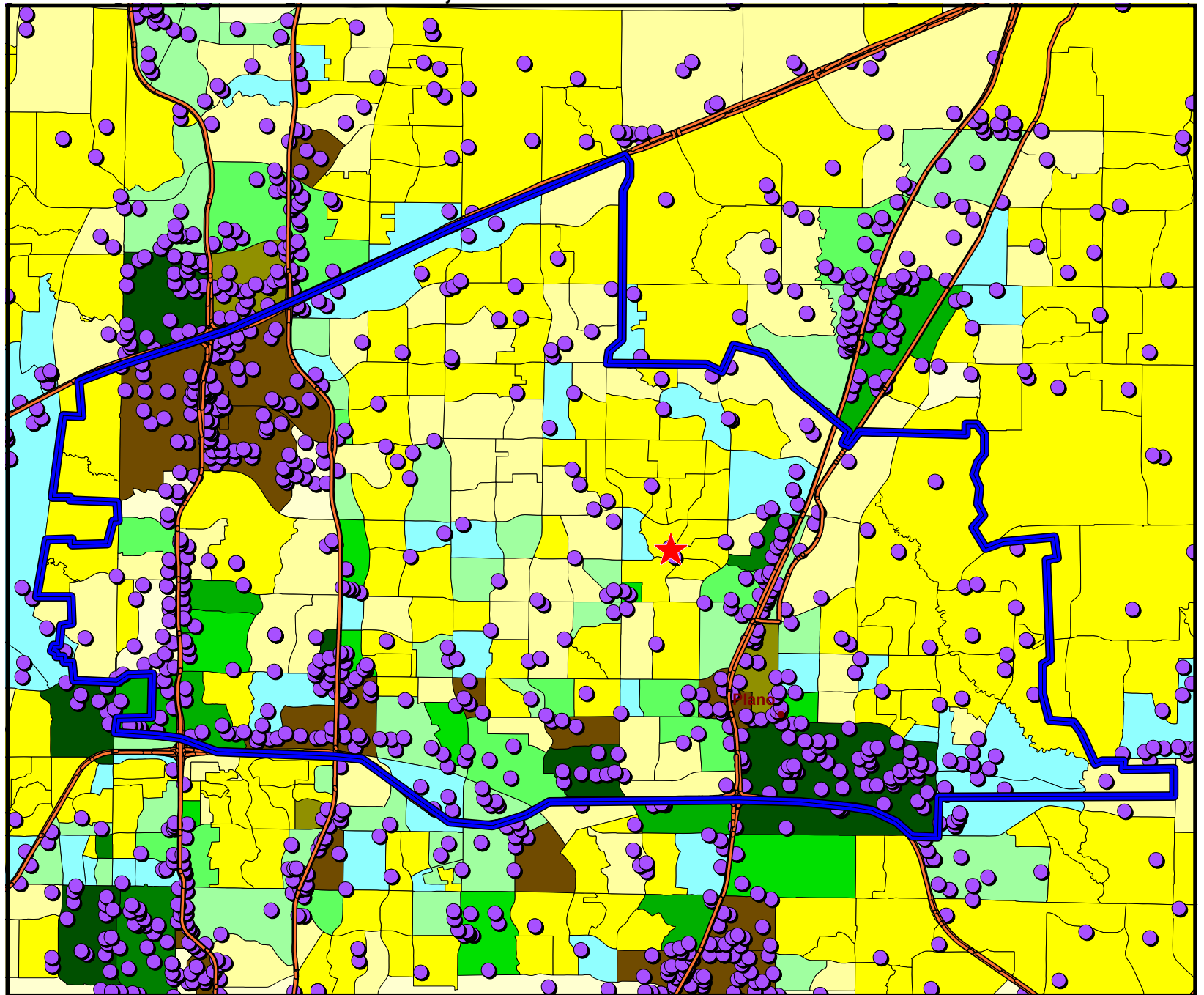
- ★ Site
- ▣ Custom Boundary
- Highways
- Employees >49 (2023)
- ▭ County Boundaries
- ▭ State Boundaries

OnTheMap - Jobs per Sq. Mile - 2018

10,000+
8,000 To 9,000
7,000 To 8,000
6,000 To 7,000
5,000 To 6,000
4,000 To 5,000
3,000 To 4,000
2,000 To 3,000
1,000 To 2,000
500 To 1,000
0 To 500

Site Coordinates
Longitude/X: -96.722560
Latitude/Y: 33.050480

Miles



Demographics

Subject Site:

**Plano PFC - Housing Report
Plano, Texas**

POPULATION AND HOUSEHOLDS

2027 Total Population	306,418
2022 Total Population	289,141
2020 Total population	286,273
2010 Total population	259,026

Annual Avg. % Growth 2010-2020	1.1%
Annual Avg. % Growth 2020-2022	0.5%

2027 Households	115,556
2022 Households	110,744
2020 Households	109,935
2010 Households	98,716

Annual Avg. % Growth 2010-2020	1.1%
Annual Avg. % Growth 2020-2022	0.4%

	Overall	Owner	Renter
2027 Average household size	2.65		
2022 Average household size	2.61	2.84	2.30
2020 Average household size	2.60	2.83	2.29
2010 Average household size	2.62		

HOUSING UNITS

TENURE

2027 Owner occupied housing units	65,863	57.0%
2027 Renter occupied housing units*	49,693	43.0%
2022 Owner occupied housing units	63,402	57.3%
2022 Renter occupied housing units	47,342	42.7%
2020 Housing units	115,415	
2020 Owner occupied housing units	63,217	57.5%
2020 Renter occupied housing units	46,718	42.5%
2020 Vacant housing units	5,480	
2010 Housing units	102,780	
2010 Owner occupied housing units	62,005	62.8%
2010 Renter occupied housing units	36,711	37.2%
2010 Vacant housing units	4,064	

* HISTA Renter Tenure (% - 2027)

**Apartment MarketData
Demographic Summary Report**

Subject Site:

Plano PFC - Housing Report

RENTS	Median	Average	
2022 Rent	\$1,329	\$1,394	
2020 Rent	\$1,323	\$1,391	
2010 Rent	\$938	\$997	

UNITS IN STRUCTURE - Owners	2010	2020	Change
Occupied 1 Detached	58,929	59,985	1,056
Occupied 1 Attached	2,235	2,019	-216
Occupied 2	46	46	0
Occupied 3-4	133	261	128
Occupied 5-9	144	219	75
Occupied 10-19	31	35	4
Occupied 20-49	33	38	5
Occupied 50+	69	46	-23
Occupied Mobile Home	378	568	190
Occupied Boat/RV/Van/etc	7	0	-7

UNITS IN STRUCTURE - Renters	2010	2020	Change
Occupied 1 Detached	5,565	9,317	3,752
Occupied 1 Attached	1,268	1,525	257
Occupied 2	468	631	163
Occupied 3-4	2,124	2,563	439
Occupied 5-9	6,358	6,295	-63
Occupied 10-19	10,632	9,395	-1,237
Occupied 20-49	3,101	5,011	1,910
Occupied 50+	7,022	11,727	4,705
Occupied Mobile Home	173	211	38
Occupied Boat/RV/Van/etc	0	43	43

HOUSEHOLD SIZE	2010	2020	2022
1 Person	24,047	26,318	26,614
2 Person	31,379	35,875	35,372
3 Person	17,405	20,937	20,629
4 Person	16,233	16,967	17,894
5 Person	6,187	6,975	7,297
6 Person	2,224	1,784	1,847
7+ Person	1,241	1,079	1,091
Average Household Size	2.62	2.60	2.61

**Apartment MarketData
Demographic Summary Report**

Subject Site: Plano PFC - Housing Report

SEX	2010	2020	2022	2027
Total Population	259,026	286,273	289,141	306,418
Male	126,686	141,399	142,799	151,373
Female	132,340	144,874	146,342	155,045

RACE BY POPULATION	2010	2020	2022	2027
White alone	150,872	145,047	145,252	152,996
Hispanic	38,188	43,360	43,950	46,744
Black or African American alone	19,166	24,705	25,279	27,162
American Indian and Alaska Native alone	820	785	790	825
Asian alone	43,674	63,436	64,801	69,095
Native Hawaiian and OPI alone	121	341	353	392
Some Other Race alone	447	729	757	787
Two or More Races alone	5,738	7,870	7,959	8,417

RACE BY HOUSEHOLDER	2010	2020	2022
White alone	71,142	72,926	73,320
Black or African American alone	7,807	9,602	9,733
American Indian and Alaska Native alone	397	357	372
Asian alone	13,807	21,126	21,391
Native Hawaiian and OPI alone	53	193	201
Some Other Race alone	3,424	1,619	1,612
Two or More Races alone	2,086	4,112	4,115

RACE BY HOUSEHOLDER - Owners	2010	2020	2022
White alone	47,513	45,255	45,288
Black or African American alone	2,616	2,490	2,497
American Indian and Alaska Native alone	217	147	158
Asian alone	9,371	12,298	12,438
Native Hawaiian and OPI alone	23	75	77
Some Other Race alone	1,186	730	726
Two or More Races alone	1,079	2,222	2,218

RACE BY HOUSEHOLDER - Renter	2010	2020	2022
White alone	23,629	27,671	28,032
Black or African American alone	5,191	7,112	7,236
American Indian and Alaska Native alone	180	210	214
Asian alone	4,436	8,828	8,953
Native Hawaiian and OPI alone	30	118	124
Some Other Race alone	2,238	889	886
Two or More Races alone	1,007	1,890	1,897

**Apartment MarketData
Demographic Summary Report**

Subject Site:

Plano PFC - Housing Report

TENURE BY AGE	2010	2020	2022**	2027**
Owner Occupied Hhldr Age 15-24	302	238	459	596
Owner Occupied Hhldr Age 25-34	5,012	5,039	5,298	5,444
Owner Occupied Hhldr Age 35-44	13,829	11,473	10,981	10,099
Owner Occupied Hhldr Age 45-54	19,233	15,605	16,971	16,291
Owner Occupied Hhldr Age 55-59	7,636	8,651	16,004	16,970
Owner Occupied Hhldr Age 60-64	6,368	7,226	N/R	N/R
Owner Occupied Hhldr Age 65-74	6,753	10,340	11,122	12,941
Owner Occupied Hhldr Age 75-84	2,336	3,880	4,649	5,566
Owner Occupied Hhldr Age 85+	536	765	903	1,089
Renter Occupied Hhldr Age 15-24	3,414	3,169	3,946	3,973
Renter Occupied Hhldr Age 25-34	11,564	13,442	10,434	10,184
Renter Occupied Hhldr Age 35-44	8,477	12,030	11,171	10,528
Renter Occupied Hhldr Age 45-54	6,127	7,388	8,966	9,823
Renter Occupied Hhldr Age 55-59	1,892	2,813	N/R	N/R
Renter Occupied Hhldr Age 60-64	1,505	2,070	5,912	6,954
Renter Occupied Hhldr Age 65-74	1,605	3,106	3,903	4,814
Renter Occupied Hhldr Age 75-84	1,246	1,751	3,007	3,814
Renter Occupied Hhldr Age 85+	881	949	1,739	1,966

** Reported by Neilson Demographics (via HISTA)

AGE DISTRIBUTION- Population	2010	2020	2022	2027
Age 0-4	16,301	16,074	16,135	16,803
Age 5-9	18,833	16,545	16,541	17,802
Age 10-14	20,061	19,028	19,294	19,342
Age 15-19	17,570	18,595	18,558	18,601
Age 20-24	13,647	17,044	17,454	17,500
Age 25-29	17,396	18,003	18,459	19,176
Age 30-34	17,715	21,931	22,163	22,449
Age 35-39	20,105	20,515	20,626	24,410
Age 40-44	20,828	22,775	22,895	24,277
Age 45-49	23,580	20,212	20,317	23,292
Age 50-54	20,444	20,456	20,615	19,429
Age 55-59	16,510	21,090	21,376	21,002
Age 60-64	13,456	16,642	16,943	17,033
Age 65-69	8,672	13,841	14,088	15,742
Age 70-74	5,492	10,067	10,085	12,240
Age 75-79	3,537	5,883	5,920	7,902
Age 80-84	2,435	3,923	3,972	4,999
Age 85+	2,444	3,649	3,700	4,419
Total Population	259,026	286,273	289,141	306,418
Median Age	38.1	39.8	39.8	40.4

**Apartment MarketData
Demographic Summary Report**

Subject Site:

Plano PFC - Housing Report

HOUSEHOLD INCOME	2010	2020	2022	2027
Household Income < \$10,000	3,458	4,147	3,919	3,513
Household Income \$10,000-\$14,999	1,954	1,636	1,596	1,120
Household Income \$15,000-\$19,999	2,692	1,434	1,084	1,334
Household Income \$20,000-\$24,999	2,752	2,577	1,913	975
Household Income \$25,000-\$29,999	3,738	2,638	2,097	1,521
Household Income \$30,000-\$34,999	3,549	3,288	2,310	1,454
Household Income \$35,000-\$39,999	3,716	1,949	2,068	1,766
Household Income \$40,000-\$44,999	3,716	3,501	2,109	1,860
Household Income \$45,000-\$49,999	2,926	4,008	2,868	2,092
Household Income \$50,000-\$59,999	7,153	6,480	7,563	3,489
Household Income \$60,000-\$74,999	9,281	10,369	9,173	8,974
Household Income \$75,000-\$99,999	12,593	15,360	14,046	12,037
Household Income \$100,000-\$124,999	11,769	12,380	12,979	11,540
Household Income \$125,000-\$149,999	7,902	9,351	9,720	10,056
Household Income \$150,000-\$199,999	9,856	13,469	14,214	17,289
Household Income > \$200,000	11,661	17,348	23,085	36,536
Average Household Income	\$112,886	\$129,382	\$145,974	\$179,615
Median Household Income	\$92,243	\$107,739	\$123,175	\$155,574
Income per Capita	\$43,021	\$49,686	\$55,909	\$67,736

HOUSEHOLD INCOME BY AGE	2010	2020	2022	2027
Householder 15-24 < \$10,000	497	420	379	508
Householder 15-24 \$10,000-\$14,999	277	104	97	145
Householder 15-24 \$15,000-\$19,999	227	9	10	187
Householder 15-24 \$20,000-\$24,999	231	162	140	25
Householder 15-24 \$25,000-\$29,999	378	202	222	235
Householder 15-24 \$30,000-\$34,999	387	288	155	83
Householder 15-24 \$35,000-\$39,999	233	108	185	165
Householder 15-24 \$40,000-\$44,999	355	278	94	126
Householder 15-24 \$45,000-\$49,999	152	284	386	306
Householder 15-24 \$50,000-\$59,999	242	365	461	185
Householder 15-24 \$60,000-\$74,999	278	437	501	703
Householder 15-24 \$75,000-\$99,999	238	376	400	876
Householder 15-24 \$100,000-\$124,999	198	173	209	382
Householder 15-24 \$125,000-\$149,999	15	81	118	159
Householder 15-24 \$150,000-\$199,999	8	104	78	129
Householder 15-24 \$200,000+	0	16	17	110
TOTAL	3,716	3,407	3,452	4,324

**Apartment MarketData
Demographic Summary Report**

Subject Site:

Plano PFC - Housing Report

HOUSEHOLD INCOME BY AGE	2010	2020	2022	2027
Householder 25-34 < \$10,000	488	442	396	254
Householder 25-34 \$10,000-\$14,999	235	283	221	120
Householder 25-34 \$15,000-\$19,999	570	229	150	164
Householder 25-34 \$20,000-\$24,999	558	458	287	77
Householder 25-34 \$25,000-\$29,999	822	382	287	154
Householder 25-34 \$30,000-\$34,999	771	607	342	292
Householder 25-34 \$35,000-\$39,999	883	269	494	133
Householder 25-34 \$40,000-\$44,999	710	678	240	362
Householder 25-34 \$45,000-\$49,999	766	671	586	437
Householder 25-34 \$50,000-\$59,999	1,762	1,346	1,447	501
Householder 25-34 \$60,000-\$74,999	2,113	2,112	1,591	1,759
Householder 25-34 \$75,000-\$99,999	2,463	3,344	3,618	2,088
Householder 25-34 \$100,000-\$124,999	1,931	2,697	3,262	2,848
Householder 25-34 \$125,000-\$149,999	894	1,516	2,053	2,312
Householder 25-34 \$150,000-\$199,999	1,019	1,713	1,894	3,348
Householder 25-34 \$200,000+	591	1,734	2,046	3,558
TOTAL	16,576	18,481	18,914	18,407

Householder 35-44 < \$10,000	432	552	429	390
Householder 35-44 \$10,000-\$14,999	219	305	307	135
Householder 35-44 \$15,000-\$19,999	497	192	163	249
Householder 35-44 \$20,000-\$24,999	410	503	388	200
Householder 35-44 \$25,000-\$29,999	697	359	402	296
Householder 35-44 \$30,000-\$34,999	620	650	367	211
Householder 35-44 \$35,000-\$39,999	758	283	328	434
Householder 35-44 \$40,000-\$44,999	656	755	370	276
Householder 35-44 \$45,000-\$49,999	575	839	509	357
Householder 35-44 \$50,000-\$59,999	1,438	1,254	1,516	606
Householder 35-44 \$60,000-\$74,999	2,141	2,305	1,825	1,775
Householder 35-44 \$75,000-\$99,999	3,114	3,665	2,825	2,411
Householder 35-44 \$100,000-\$124,999	3,032	3,466	3,343	2,588
Householder 35-44 \$125,000-\$149,999	2,190	2,533	2,525	2,652
Householder 35-44 \$150,000-\$199,999	2,613	2,721	3,639	4,872
Householder 35-44 \$200,000+	2,914	3,121	4,701	8,461
TOTAL	22,306	23,503	23,637	25,913

**Apartment MarketData
Demographic Summary Report**

Subject Site:

Plano PFC - Housing Report

HOUSEHOLD INCOME BY AGE	2010	2020	2022	2027
Householder 45-54 < \$10,000	564	648	534	454
Householder 45-54 \$10,000-\$14,999	307	215	107	79
Householder 45-54 \$15,000-\$19,999	374	222	123	82
Householder 45-54 \$20,000-\$24,999	517	325	180	114
Householder 45-54 \$25,000-\$29,999	473	462	209	166
Householder 45-54 \$30,000-\$34,999	540	347	333	16
Householder 45-54 \$35,000-\$39,999	565	255	290	277
Householder 45-54 \$40,000-\$44,999	904	560	236	281
Householder 45-54 \$45,000-\$49,999	647	660	245	185
Householder 45-54 \$50,000-\$59,999	1,431	967	1,194	448
Householder 45-54 \$60,000-\$74,999	1,877	1,787	1,737	1,100
Householder 45-54 \$75,000-\$99,999	3,126	2,967	2,429	2,321
Householder 45-54 \$100,000-\$124,999	3,341	2,287	2,454	1,756
Householder 45-54 \$125,000-\$149,999	2,669	2,082	2,113	1,969
Householder 45-54 \$150,000-\$199,999	3,440	3,807	3,552	3,653
Householder 45-54 \$200,000+	4,585	5,402	7,279	10,848
TOTAL	25,360	22,993	23,015	23,749

Householder 55-64 < \$10,000	540	569	607	494
Householder 55-64 \$10,000-\$14,999	345	224	255	60
Householder 55-64 \$15,000-\$19,999	322	213	302	275
Householder 55-64 \$20,000-\$24,999	414	358	278	254
Householder 55-64 \$25,000-\$29,999	379	345	312	146
Householder 55-64 \$30,000-\$34,999	439	441	309	259
Householder 55-64 \$35,000-\$39,999	564	228	182	141
Householder 55-64 \$40,000-\$44,999	624	446	445	274
Householder 55-64 \$45,000-\$49,999	356	664	478	246
Householder 55-64 \$50,000-\$59,999	999	882	1,442	582
Householder 55-64 \$60,000-\$74,999	1,433	1,525	1,220	1,540
Householder 55-64 \$75,000-\$99,999	2,209	2,500	2,503	1,520
Householder 55-64 \$100,000-\$124,999	2,208	2,251	1,848	2,109
Householder 55-64 \$125,000-\$149,999	1,610	1,691	1,681	1,301
Householder 55-64 \$150,000-\$199,999	2,129	3,453	3,198	2,566
Householder 55-64 \$200,000+	2,830	4,970	5,867	8,439
TOTAL	17,401	20,760	20,927	20,206

**Apartment MarketData
Demographic Summary Report**

Subject Site:

Plano PFC - Housing Report

HOUSEHOLD INCOME BY AGE	2010	2010	2022	2027
Householder 65-74 < \$10,000	382	837	704	599
Householder 65-74 \$10,000-\$14,999	257	256	191	177
Householder 65-74 \$15,000-\$19,999	304	306	199	196
Householder 65-74 \$20,000-\$24,999	321	403	248	157
Householder 65-74 \$25,000-\$29,999	534	545	351	233
Householder 65-74 \$30,000-\$34,999	448	605	471	218
Householder 65-74 \$35,000-\$39,999	426	546	384	391
Householder 65-74 \$40,000-\$44,999	284	484	460	399
Householder 65-74 \$45,000-\$49,999	264	595	452	341
Householder 65-74 \$50,000-\$59,999	860	1,093	912	753
Householder 65-74 \$60,000-\$74,999	965	1,492	1,473	1,379
Householder 65-74 \$75,000-\$99,999	1,032	1,657	1,527	1,696
Householder 65-74 \$100,000-\$124,999	786	1,014	1,287	1,356
Householder 65-74 \$125,000-\$149,999	399	1,014	903	1,059
Householder 65-74 \$150,000-\$199,999	484	1,136	1,467	2,045
Householder 65-74 \$200,000+	612	1,463	2,392	3,890
TOTAL	8,358	13,446	13,421	14,889
Householder 75+ < \$10,000	555	679	870	814
Householder 75+ \$10,000-\$14,999	314	249	418	404
Householder 75+ \$15,000-\$19,999	398	263	137	181
Householder 75+ \$20,000-\$24,999	301	368	392	148
Householder 75+ \$25,000-\$29,999	455	343	314	291
Householder 75+ \$30,000-\$34,999	344	350	333	375
Householder 75+ \$35,000-\$39,999	287	260	205	225
Householder 75+ \$40,000-\$44,999	183	300	264	142
Householder 75+ \$45,000-\$49,999	166	295	212	220
Householder 75+ \$50,000-\$59,999	421	573	591	414
Householder 75+ \$60,000-\$74,999	474	711	826	718
Householder 75+ \$75,000-\$99,999	411	851	744	1,125
Householder 75+ \$100,000-\$124,999	273	492	576	501
Householder 75+ \$125,000-\$149,999	125	434	327	604
Householder 75+ \$150,000-\$199,999	163	535	386	676
Householder 75+ \$200,000+	129	642	783	1,230
TOTAL	4,999	7,345	7,378	8,068

**Apartment MarketData
Demographic Summary Report**

Subject Site: Plano PFC - Housing Report

MEDIAN / AVERAGE INCOME BY AGE	2010	2020	2022	2027
Householder Under 25 - Median Income	\$36,182	\$53,300	\$57,643	\$68,801
Householder 25-34 - Median Income	\$69,488	\$95,556	\$105,318	\$139,937
Householder 35-44 - Median Income	\$104,723	\$110,531	\$132,066	\$171,645
Householder 45-54 - Median Income	\$117,983	\$136,024	\$161,085	\$206,637
Householder 55-64 - Median Income	\$108,617	\$136,024	\$143,488	\$186,445
Householder 65-74 - Median Income	\$75,172	\$85,857	\$113,289	\$150,862
Householder 75+ - Median Income	\$45,123	\$70,676	\$73,009	\$96,295
Householder Under 25 - Average Income	\$39,767	\$55,282	\$58,040	\$70,216
Householder 25-34 - Average Income	\$81,783	\$110,860	\$121,062	\$155,415
Householder 35-44 - Average Income	\$123,789	\$127,081	\$150,271	\$189,338
Householder 45-54 - Average Income	\$140,941	\$158,297	\$182,083	\$221,054
Householder 55-64 - Average Income	\$131,547	\$158,960	\$168,091	\$205,019
Householder 65-74 - Average Income	\$87,631	\$103,817	\$129,754	\$159,441
Householder 75+ - Average Income	\$56,660	\$90,406	\$91,346	\$113,859

EDUCATIONAL ACHIEVEMENT - Age 25+

	2022
Population - Age 25+	201,159
Less than 9th Grade	7,517
9th - 12th Grade - No Diploma	5,963
HS Graduate (Incl Equivalency)	25,319
Some College - No Diploma	33,806
Associate Degree	13,087
Bachelor Degree	71,736
Graduate or Prof School Degree	43,731

SCHOOL ENROLLMENT

	2022
Population 3 Years & Over	280,136
Enrolled in Nursery School, Preschool	4,308
Enrolled in Kindergarten	3,171
Enrolled in Grade 1 thru 4	13,376
Enrolled in Grade 5 thru 8	14,934
Enrolled in Grade 9 thru 12	16,191
College - Undergraduate Years	14,515
Graduate or Professional School	3,706
Not Enrolled in School	209,935

**Apartment MarketData
Demographic Summary Report**

Subject Site: HOME VALUES	Plano PFC - Housing Report		
	2010	2020	2022
Home Value < \$10,000	80	212	210
Home Value \$10,000-\$14,999	77	177	177
Home Value \$15,000-\$19,999	242	178	181
Home Value \$20,000-\$24,999	64	76	76
Home Value \$25,000-\$29,999	107	74	74
Home Value \$30,000-\$34,999	26	134	134
Home Value \$35,000-\$39,999	8	40	39
Home Value \$40,000-\$49,999	132	29	28
Home Value \$50,000-\$59,999	271	19	19
Home Value \$60,000-\$69,999	244	90	92
Home Value \$70,000-\$79,999	400	133	131
Home Value \$80,000-\$89,999	583	93	105
Home Value \$90,000-\$99,999	774	107	107
Home Value \$100,000-\$124,999	3,204	897	894
Home Value \$125,000-\$149,999	6,103	1,183	1,171
Home Value \$150,000-\$174,999	7,963	2,333	2,355
Home Value \$175,000-\$199,999	6,857	2,181	2,168
Home Value \$200,000-\$249,999	11,683	7,129	7,114
Home Value \$250,000-\$299,999	7,848	8,502	8,481
Home Value \$300,000-\$399,999	8,006	19,234	19,335
Home Value \$400,000-\$499,999	3,181	10,117	10,143
Home Value \$500,000-\$749,999	2,518	7,043	7,091
Home Value \$750,000-\$999,999	915	1,649	1,664
Home Value \$1,000,000+	719		
Home Value \$1,000,000 - \$1,499,999*		844	847
Home Value \$1,500,000-\$1,999,999*		517	527
Home Value \$2,000,000+*		226	239
Median Home Value	\$249,118	\$338,203	\$375,992
Average Home Value	\$271,156	\$392,505	\$393,590

* Data after 2010 contains more detailed breakdown for "Home Values" over \$1,000,000

**Apartment MarketData
Demographic Summary Report**

Subject Site:

Plano PFC - Housing Report

CONTRACT RENT	2010	2020	2022
Rent < \$100	185	88	86
Rent \$100-\$149	138	136	134
Rent \$150-\$199	89	88	88
Rent \$200-\$249	69	97	96
Rent \$250-\$299	68	84	82
Rent \$300-\$349	68	270	268
Rent \$350-\$399	210	52	50
Rent \$400-\$449	131	151	149
Rent \$450-\$499	209	195	195
Rent \$500-\$549	462	60	60
Rent \$550-\$599	490	228	227
Rent \$600-\$649	1,927	598	591
Rent \$650-\$699	2,400	177	175
Rent \$700-\$749	3,551	118	125
Rent \$750-\$799	3,086	562	545
Rent \$800-\$899	6,201	2,003	2,170
Rent \$900-\$999	4,224	3,867	3,779
Rent \$1,000-\$1,249	6,285	12,857	12,941
Rent \$1,250-\$1,499	3,381	9,197	9,261
Rent \$1,500-\$1,999	1,919	11,503	11,897
Rent \$2,000+	989		
Rent \$2,000-\$2,499*		1,903	1,944
Rent \$2,500-\$2,999*		878	873
Rent \$3,000-\$3,499*		279	283
Rent \$3,500+*		392	391
No Cash Rent	629	935	932
Median Rent	\$938	\$1,323	\$1,329
Average Rent	\$997	\$1,391	\$1,394

* Data after 2010 contains more detailed breakdown for "Rent" over \$2,000

EMPLOYMENT DATA	2022
Agri., Forestry, Fishing, Mining	823
Construction	6,965
Manufacturing	11,764
Wholesale Trade	4,543
Retail Trade	16,711
Transport., Warehouse, Util.	6,011
Information	6,029
Finance, Insurance & RE	20,279
Prof., Scientific, Mgmt.	31,853
Education, Health & Social Asst.	29,128
Arts, Entert., Accom. & Food	12,576
Other Services	6,784
Public Admin.	2,513
Armed Forces	120

**Apartment MarketData
Demographic Summary Report**

Subject Site:

Plano PFC - Housing Report

DAYTIME POPULATION DATA	2022	Percentage
Total Daytime Population	376,312	
Total Employees	222,064	59.0%
Total Daytime at Home Population	154,248	41.0%

HOUSING DATA	2022	Percentage
Households: Built 2014 or later	6,392	5.8%
Households: Built 2010 to 2013	3,399	3.1%
Households: Built 2000 to 2009	15,635	14.1%
Households: Built 1990 to 1999	35,554	32.1%
Households: Built 1980 to 1989	28,336	25.6%
Households: Built 1970 to 1979	16,196	14.6%
Households: Built 1960 to 1969	3,671	3.3%
Households: Built 1950 to 1959	677	0.6%
Households: Built 1940 to 1949	504	0.5%
Households: Built 1939 or earlier	380	0.3%

TENURE BY YEAR BUILT	2022	Percentage
Owner occupied: Built 1939 or earlier	169	0.3%
Owner occupied: Built 1940 to 1949	420	0.7%
Owner occupied: Built 1950 to 1959	327	0.5%
Owner occupied: Built 1960 to 1969	2,189	3.5%
Owner occupied: Built 1970 to 1979	11,645	18.4%
Owner occupied: Built 1980 to 1989	15,664	24.7%
Owner occupied: Built 1990 to 1999	20,863	32.9%
Owner occupied: Built 2000 to 2009	8,844	13.9%
Owner occupied: Built 2010 to 2013	1,102	1.7%
Owner occupied: Built 2014 or later	2,179	3.4%
Renter occupied: Built 1939 or earlier	211	0.5%
Renter occupied: Built 1940 to 1949	84	0.2%
Renter occupied: Built 1950 to 1959	350	0.8%
Renter occupied: Built 1960 to 1969	1,482	3.5%
Renter occupied: Built 1970 to 1979	4,551	10.6%
Renter occupied: Built 1980 to 1989	12,672	29.6%
Renter occupied: Built 1990 to 1999	14,691	34.3%
Renter occupied: Built 2000 to 2009	2,297	5.4%
Renter occupied: Built 2010 to 2013	2,297	5.4%
Renter occupied: Built 2014 or later	4,213	9.8%

**Apartment MarketData
Postal Zip+4 Data**

Subject Site:

Plano PFC - Housing Report

NEW CONSTRUCTION

Multi-Family Single Family

2014 - Total	516	337
2015 - Total	358	610
2016 - Total	737	349
2017 - Total	682	349
2018 - Total	349	493
2019 - Total	42	238
2020 - Total	99	231
2021 - Total	91	201
2022 - Total	291	431
2014 - Occupied	514	336
2015 - Occupied	357	599
2016 - Occupied	688	338
2017 - Occupied	679	338
2018 - Occupied	348	488
2019 - Occupied	41	234
2020 - Occupied	99	186
2021 - Occupied	91	200
2022 - Occupied	291	431
2014 - Vacant	2	1
2015 - Vacant	1	11
2016 - Vacant	49	11
2017 - Vacant	3	11
2018 - Vacant	1	5
2019 - Vacant	1	4
2020 - Vacant	0	45
2021 - Vacant	0	1
2022 - Vacant	0	0
2014 - Seasonal	0	0
2015 - Seasonal	0	0
2016 - Seasonal	0	0
2017 - Seasonal	0	0
2018 - Seasonal	0	0
2019 - Seasonal	0	0
2020 - Seasonal	0	0
2021 - Seasonal	0	0
2022 - Seasonal	0	0

**Subject Site:
Postal Zip+4 Data**

Subject Site:

Jan-00

NEW CONSTRUCTION

Multi-Family Single Family

2014 - Educational	0	0
2015 - Educational	0	0
2016 - Educational	0	0
2017 - Educational	0	0
2018 - Educational	0	0
2019 - Educational	0	0
2020 - Educational	0	0
2021 - Educational	0	0
2022 - Educational	0	0

2022 POSTAL DATA - Occupied/Vacant

Multi-Family Single Family

Total Addresses - Occupied	41,607	75,178
Drop Addresses - Occupied	0	0
Seasonal - Occupied	0	0
Educational - Occupied	129	0
Total Addresses - Vacant	3,095	1,081
Drop Addresses - Vacant	0	0
Seasonal - Vacant	0	0
Educational - Vacant	0	0

Apartment MarketData
HISTA Data Report - Ribbon Demographics

Subject Site: **Plano PFC - Housing Report**

HISTA Data - TOTALS	2023	2028	2023	2028
Renter Households	35,419	38,151	43.1%	43.3%
Owner Households	46,741	50,000	56.9%	56.7%

HISTA Data - Tenure by Income by **2023** **2028**

Renter - HH Age <55, HH Inc <\$10K, 1 Persc	693	633
Renter - HH Age <55, HH Inc \$10K - <\$20K,	483	435
Renter - HH Age <55, HH Inc \$20K - <\$30K,	811	687
Renter - HH Age <55, HH Inc \$30K - <\$40K,	1,071	876
Renter - HH Age <55, HH Inc \$40K - <\$50K,	1,350	999
Renter - HH Age <55, HH Inc \$50K - <\$60K,	1,749	1,810
Renter - HH Age <55, HH Inc \$60K+, 1 Persc	2,642	3,193
Renter - HH Age 55-61, HH Inc <\$10K, 1 Per	108	101
Renter - HH Age 55-61, HH Inc \$10K - <\$20K,	64	64
Renter - HH Age 55-61, HH Inc \$20K - <\$30K,	121	119
Renter - HH Age 55-61, HH Inc \$30K - <\$40K,	112	97
Renter - HH Age 55-61, HH Inc \$40K - <\$50K,	204	164
Renter - HH Age 55-61, HH Inc \$50K - <\$60K,	183	217
Renter - HH Age 55-61, HH Inc \$60K+, 1 Per	642	844
Renter - HH Age 62+, HH Inc <\$10K, 1 Persc	820	843
Renter - HH Age 62+, HH Inc \$10K - <\$20K,	699	769
Renter - HH Age 62+, HH Inc \$20K - <\$30K,	637	622
Renter - HH Age 62+, HH Inc \$30K - <\$40K,	482	587
Renter - HH Age 62+, HH Inc \$40K - <\$50K,	515	515
Renter - HH Age 62+, HH Inc \$50K - <\$60K,	532	726
Renter - HH Age 62+, HH Inc \$60K+, 1 Persc	1,623	2,345
Renter - HH Age <55, HH Inc <\$10K, 2 Persc	245	204
Renter - HH Age <55, HH Inc \$10K - <\$20K,	313	261
Renter - HH Age <55, HH Inc \$20K - <\$30K,	567	450
Renter - HH Age <55, HH Inc \$30K - <\$40K,	586	466
Renter - HH Age <55, HH Inc \$40K - <\$50K,	638	491
Renter - HH Age <55, HH Inc \$50K - <\$60K,	448	383
Renter - HH Age <55, HH Inc \$60K+, 2 Persc	3,818	4,359
Renter - HH Age 55-61, HH Inc <\$10K, 2 Per	16	20
Renter - HH Age 55-61, HH Inc \$10K - <\$20K,	90	90
Renter - HH Age 55-61, HH Inc \$20K - <\$30K,	26	19
Renter - HH Age 55-61, HH Inc \$30K - <\$40K,	55	51
Renter - HH Age 55-61, HH Inc \$40K - <\$50K,	26	23
Renter - HH Age 55-61, HH Inc \$50K - <\$60K,	31	31
Renter - HH Age 55-61, HH Inc \$60K+, 2 Per	516	638

Apartment MarketData
HISTA Data Report - Ribbon Demographics

Subject Site: **Plano PFC - Housing Report**

HISTA Data - Tenure by Income by	2023	2028
Renter - HH Age 62+, HH Inc <\$10K, 2 Persc	210	227
Renter - HH Age 62+, HH Inc \$10K - <\$20K,	110	127
Renter - HH Age 62+, HH Inc \$20K - <\$30K,	226	242
Renter - HH Age 62+, HH Inc \$30K - <\$40K,	215	236
Renter - HH Age 62+, HH Inc \$40K - <\$50K,	162	162
Renter - HH Age 62+, HH Inc \$50K - <\$60K,	261	310
Renter - HH Age 62+, HH Inc \$60K+, 2 Persc	1,032	1,434
Renter - HH Age <55, HH Inc <\$10K, 3 Persc	145	123
Renter - HH Age <55, HH Inc \$10K - <\$20K,	170	143
Renter - HH Age <55, HH Inc \$20K - <\$30K,	255	212
Renter - HH Age <55, HH Inc \$30K - <\$40K,	261	222
Renter - HH Age <55, HH Inc \$40K - <\$50K,	323	264
Renter - HH Age <55, HH Inc \$50K - <\$60K,	353	308
Renter - HH Age <55, HH Inc \$60K+, 3 Persc	2,331	2,814
Renter - HH Age 55-61, HH Inc <\$10K, 3 Per	14	14
Renter - HH Age 55-61, HH Inc \$10K - <\$20	10	10
Renter - HH Age 55-61, HH Inc \$20K - <\$30	17	21
Renter - HH Age 55-61, HH Inc \$30K - <\$40	37	32
Renter - HH Age 55-61, HH Inc \$40K - <\$50	23	20
Renter - HH Age 55-61, HH Inc \$50K - <\$60	20	22
Renter - HH Age 55-61, HH Inc \$60K+, 3 Per	327	421
Renter - HH Age 62+, HH Inc <\$10K, 3 Persc	28	47
Renter - HH Age 62+, HH Inc \$10K - <\$20K,	40	49
Renter - HH Age 62+, HH Inc \$20K - <\$30K,	49	42
Renter - HH Age 62+, HH Inc \$30K - <\$40K,	43	45
Renter - HH Age 62+, HH Inc \$40K - <\$50K,	167	158
Renter - HH Age 62+, HH Inc \$50K - <\$60K,	43	67
Renter - HH Age 62+, HH Inc \$60K+, 3 Persc	254	352
Renter - HH Age <55, HH Inc <\$10K, 4 Persc	85	82
Renter - HH Age <55, HH Inc \$10K - <\$20K,	55	68
Renter - HH Age <55, HH Inc \$20K - <\$30K,	124	121
Renter - HH Age <55, HH Inc \$30K - <\$40K,	220	187
Renter - HH Age <55, HH Inc \$40K - <\$50K,	450	411
Renter - HH Age <55, HH Inc \$50K - <\$60K,	241	247
Renter - HH Age <55, HH Inc \$60K+, 4 Persc	1,549	1,867

Apartment MarketData
HISTA Data Report - Ribbon Demographics

Subject Site: **Plano PFC - Housing Report**

HISTA Data - Tenure by Income by	2023	2028
Renter - HH Age 55-61, HH Inc <\$10K, 4 Per	12	8
Renter - HH Age 55-61, HH Inc \$10K - <\$20K,	1	3
Renter - HH Age 55-61, HH Inc \$20K - <\$30K,	28	28
Renter - HH Age 55-61, HH Inc \$30K - <\$40K,	23	23
Renter - HH Age 55-61, HH Inc \$40K - <\$50K,	9	7
Renter - HH Age 55-61, HH Inc \$50K - <\$60K,	40	46
Renter - HH Age 55-61, HH Inc \$60K+, 4 Per	140	179
Renter - HH Age 62+, HH Inc <\$10K, 4 Perso	29	36
Renter - HH Age 62+, HH Inc \$10K - <\$20K,	23	24
Renter - HH Age 62+, HH Inc \$20K - <\$30K,	26	32
Renter - HH Age 62+, HH Inc \$30K - <\$40K,	31	37
Renter - HH Age 62+, HH Inc \$40K - <\$50K,	34	43
Renter - HH Age 62+, HH Inc \$50K - <\$60K,	22	40
Renter - HH Age 62+, HH Inc \$60K+, 4 Perso	109	164
Renter - HH Age <55, HH Inc <\$10K, 5+ Per	64	51
Renter - HH Age <55, HH Inc \$10K - <\$20K,	83	86
Renter - HH Age <55, HH Inc \$20K - <\$30K,	196	184
Renter - HH Age <55, HH Inc \$30K - <\$40K,	335	275
Renter - HH Age <55, HH Inc \$40K - <\$50K,	338	299
Renter - HH Age <55, HH Inc \$50K - <\$60K,	103	115
Renter - HH Age <55, HH Inc \$60K+, 5+ Per	700	845
Renter - HH Age 55-61, HH Inc <\$10K, 5+ P	6	3
Renter - HH Age 55-61, HH Inc \$10K - <\$20K,	9	9
Renter - HH Age 55-61, HH Inc \$20K - <\$30K,	8	4
Renter - HH Age 55-61, HH Inc \$30K - <\$40K,	2	4
Renter - HH Age 55-61, HH Inc \$40K - <\$50K,	1	4
Renter - HH Age 55-61, HH Inc \$50K - <\$60K,	13	17
Renter - HH Age 55-61, HH Inc \$60K+, 5+ P	35	54
Renter - HH Age 62+, HH Inc <\$10K, 5+ Per	11	15
Renter - HH Age 62+, HH Inc \$10K - <\$20K,	10	10
Renter - HH Age 62+, HH Inc \$20K - <\$30K,	21	29
Renter - HH Age 62+, HH Inc \$30K - <\$40K,	22	22
Renter - HH Age 62+, HH Inc \$40K - <\$50K,	34	35
Renter - HH Age 62+, HH Inc \$50K - <\$60K,	20	30
Renter - HH Age 62+, HH Inc \$60K+, 5+ Per	117	152

Apartment MarketData
HISTA Data Report - Ribbon Demographics

Subject Site: **Plano PFC - Housing Report**

HISTA Data - Tenure by Income by	2023	2028
Owner - HH Age <55, HH Inc <\$10K, 1 Person	88	81
Owner - HH Age <55, HH Inc \$10K - <\$20K	57	54
Owner - HH Age <55, HH Inc \$20K - <\$30K	151	91
Owner - HH Age <55, HH Inc \$30K - <\$40K	137	123
Owner - HH Age <55, HH Inc \$40K - <\$50K	194	149
Owner - HH Age <55, HH Inc \$50K - <\$60K	182	134
Owner - HH Age <55, HH Inc \$60K+, 1 Person	1,703	1,835
Owner - HH Age 55-61, HH Inc <\$10K, 1 Person	74	70
Owner - HH Age 55-61, HH Inc \$10K - <\$20K	36	28
Owner - HH Age 55-61, HH Inc \$20K - <\$30K	67	51
Owner - HH Age 55-61, HH Inc \$30K - <\$40K	75	70
Owner - HH Age 55-61, HH Inc \$40K - <\$50K	115	99
Owner - HH Age 55-61, HH Inc \$50K - <\$60K	61	63
Owner - HH Age 55-61, HH Inc \$60K+, 1 Person	579	724
Owner - HH Age 62+, HH Inc <\$10K, 1 Person	364	372
Owner - HH Age 62+, HH Inc \$10K - <\$20K	206	209
Owner - HH Age 62+, HH Inc \$20K - <\$30K	480	460
Owner - HH Age 62+, HH Inc \$30K - <\$40K	538	514
Owner - HH Age 62+, HH Inc \$40K - <\$50K	348	347
Owner - HH Age 62+, HH Inc \$50K - <\$60K	315	373
Owner - HH Age 62+, HH Inc \$60K+, 1 Person	1,105	1,532
Owner - HH Age <55, HH Inc <\$10K, 2 Persons	78	50
Owner - HH Age <55, HH Inc \$10K - <\$20K	57	35
Owner - HH Age <55, HH Inc \$20K - <\$30K	66	47
Owner - HH Age <55, HH Inc \$30K - <\$40K	42	30
Owner - HH Age <55, HH Inc \$40K - <\$50K	115	78
Owner - HH Age <55, HH Inc \$50K - <\$60K	145	111
Owner - HH Age <55, HH Inc \$60K+, 2 Persons	4,728	4,535
Owner - HH Age 55-61, HH Inc <\$10K, 2 Persons	54	41
Owner - HH Age 55-61, HH Inc \$10K - <\$20K	40	27
Owner - HH Age 55-61, HH Inc \$20K - <\$30K	85	58
Owner - HH Age 55-61, HH Inc \$30K - <\$40K	73	53
Owner - HH Age 55-61, HH Inc \$40K - <\$50K	166	128
Owner - HH Age 55-61, HH Inc \$50K - <\$60K	185	165
Owner - HH Age 55-61, HH Inc \$60K+, 2 Persons	4,395	4,984

Apartment MarketData
HISTA Data Report - Ribbon Demographics

Subject Site: **Plano PFC - Housing Report**

HISTA Data - Tenure by Income by	2023	2028
Owner - HH Age 62+, HH Inc <\$10K, 2 Perso	302	277
Owner - HH Age 62+, HH Inc \$10K - <\$20K.	250	261
Owner - HH Age 62+, HH Inc \$20K - <\$30K.	313	280
Owner - HH Age 62+, HH Inc \$30K - <\$40K.	519	458
Owner - HH Age 62+, HH Inc \$40K - <\$50K.	718	634
Owner - HH Age 62+, HH Inc \$50K - <\$60K.	872	954
Owner - HH Age 62+, HH Inc \$60K+, 2 Perso	5,791	7,274
Owner - HH Age <55, HH Inc <\$10K, 3 Perso	106	70
Owner - HH Age <55, HH Inc \$10K - <\$20K.	61	46
Owner - HH Age <55, HH Inc \$20K - <\$30K.	121	89
Owner - HH Age <55, HH Inc \$30K - <\$40K.	94	55
Owner - HH Age <55, HH Inc \$40K - <\$50K.	209	152
Owner - HH Age <55, HH Inc \$50K - <\$60K.	146	106
Owner - HH Age <55, HH Inc \$60K+, 3 Perso	6,773	6,937
Owner - HH Age 55-61, HH Inc <\$10K, 3 Per	31	29
Owner - HH Age 55-61, HH Inc \$10K - <\$20	9	10
Owner - HH Age 55-61, HH Inc \$20K - <\$30	46	29
Owner - HH Age 55-61, HH Inc \$30K - <\$40	40	34
Owner - HH Age 55-61, HH Inc \$40K - <\$50	97	69
Owner - HH Age 55-61, HH Inc \$50K - <\$60	36	39
Owner - HH Age 55-61, HH Inc \$60K+, 3 Per	1,656	1,991
Owner - HH Age 62+, HH Inc <\$10K, 3 Perso	60	56
Owner - HH Age 62+, HH Inc \$10K - <\$20K.	64	61
Owner - HH Age 62+, HH Inc \$20K - <\$30K.	70	68
Owner - HH Age 62+, HH Inc \$30K - <\$40K.	147	128
Owner - HH Age 62+, HH Inc \$40K - <\$50K.	99	101
Owner - HH Age 62+, HH Inc \$50K - <\$60K.	134	152
Owner - HH Age 62+, HH Inc \$60K+, 3 Perso	1,833	2,327
Owner - HH Age <55, HH Inc <\$10K, 4 Perso	19	14
Owner - HH Age <55, HH Inc \$10K - <\$20K.	44	36
Owner - HH Age <55, HH Inc \$20K - <\$30K.	39	43
Owner - HH Age <55, HH Inc \$30K - <\$40K.	192	160
Owner - HH Age <55, HH Inc \$40K - <\$50K.	247	189
Owner - HH Age <55, HH Inc \$50K - <\$60K.	204	166
Owner - HH Age <55, HH Inc \$60K+, 4 Perso	8,100	8,334

Apartment MarketData
HISTA Data Report - Ribbon Demographics

Subject Site: **Plano PFC - Housing Report**

HISTA Data - Tenure by Income by	2023	2028
Owner - HH Age 55-61, HH Inc <\$10K, 4 Per	13	11
Owner - HH Age 55-61, HH Inc \$10K - <\$20	10	6
Owner - HH Age 55-61, HH Inc \$20K - <\$30	9	12
Owner - HH Age 55-61, HH Inc \$30K - <\$40	25	19
Owner - HH Age 55-61, HH Inc \$40K - <\$50	22	19
Owner - HH Age 55-61, HH Inc \$50K - <\$60	32	29
Owner - HH Age 55-61, HH Inc \$60K+, 4 Per	1,415	1,671
Owner - HH Age 62+, HH Inc <\$10K, 4 Perso	51	50
Owner - HH Age 62+, HH Inc \$10K - <\$20K	18	21
Owner - HH Age 62+, HH Inc \$20K - <\$30K	60	69
Owner - HH Age 62+, HH Inc \$30K - <\$40K	29	27
Owner - HH Age 62+, HH Inc \$40K - <\$50K	88	96
Owner - HH Age 62+, HH Inc \$50K - <\$60K	64	67
Owner - HH Age 62+, HH Inc \$60K+, 4 Perso	485	610
Owner - HH Age <55, HH Inc <\$10K, 5+ Per	51	50
Owner - HH Age <55, HH Inc \$10K - <\$20K	70	57
Owner - HH Age <55, HH Inc \$20K - <\$30K	125	90
Owner - HH Age <55, HH Inc \$30K - <\$40K	153	116
Owner - HH Age <55, HH Inc \$40K - <\$50K	189	146
Owner - HH Age <55, HH Inc \$50K - <\$60K	234	203
Owner - HH Age <55, HH Inc \$60K+, 5+ Per	4,127	4,363
Owner - HH Age 55-61, HH Inc <\$10K, 5+ P	12	6
Owner - HH Age 55-61, HH Inc \$10K - <\$20	7	6
Owner - HH Age 55-61, HH Inc \$20K - <\$30	13	9
Owner - HH Age 55-61, HH Inc \$30K - <\$40	26	17
Owner - HH Age 55-61, HH Inc \$40K - <\$50	26	31
Owner - HH Age 55-61, HH Inc \$50K - <\$60	26	21
Owner - HH Age 55-61, HH Inc \$60K+, 5+ P	493	583
Owner - HH Age 62+, HH Inc <\$10K, 5+ Per	27	29
Owner - HH Age 62+, HH Inc \$10K - <\$20K	16	24
Owner - HH Age 62+, HH Inc \$20K - <\$30K	22	29
Owner - HH Age 62+, HH Inc \$30K - <\$40K	20	34
Owner - HH Age 62+, HH Inc \$40K - <\$50K	44	43
Owner - HH Age 62+, HH Inc \$50K - <\$60K	27	34
Owner - HH Age 62+, HH Inc \$60K+, 5+ Per	270	384