

Analysis of Births to Women Aged 15-24 Years



El Paso County | Colorado

May 2019

Prepared by Tri-County Health Department for Caring for Colorado Foundation

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Introduction

Marked declines in birth to teens aged 15-19 years and young women aged 20-24 years have been observed in Colorado since 2009, when the Colorado Family Planning Initiative began. The Caring for Colorado Foundation sought to describe the demographic characteristics of births to women aged 15-24 years in El Paso County, Colorado to inform efforts to reduce unintended pregnancy, with a focus on teen births.

Methods

The Caring for Colorado Foundation partnered with Tri-County Health Department to conduct the analysis. Data on live births as recorded on the Colorado birth certificate were obtained from the Vital Statistics Unit at the Colorado Department of Public Health and Environment. A descriptive epidemiologic analysis was completed as well as a focused geographic analysis of teen births using ArcGIS (Environmental Systems Research Institute, Release 10.6, 2019). Teen births are defined as live births to women aged 15-19 years; the other comparison group in this analysis was live births to young women aged 20-24 years. Birth rates are defined as the number of live births per 1,000 women per year.

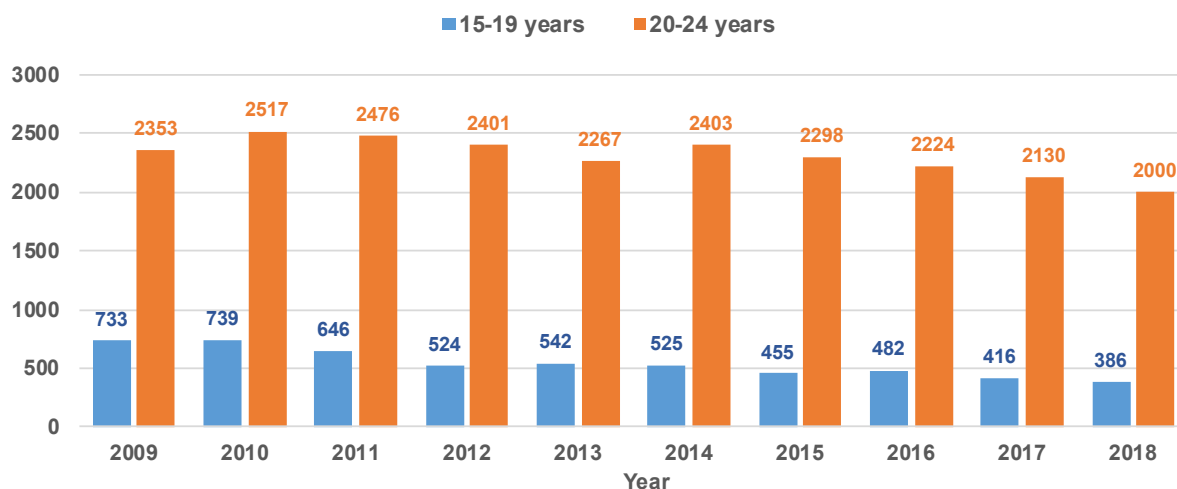
Results

Section 1:

Trends in births to teens aged 15-19 years and young women aged 20-24 years in El Paso County, Colorado

During 2009-2018, the total number of births per year have declined across both age groups, as evidenced by a 47% decrease for teens 15-19 years and a 15% decrease for women aged 20-24 years (Figure 1).

**Figure 1. Number of births per year by age group
El Paso County, 2009-2018**



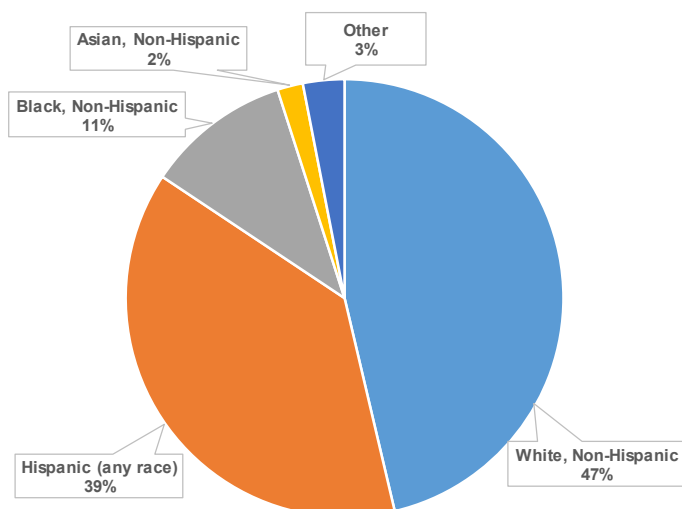
However, substantial disparities in births by race and ethnicity are evident over the ten-year analysis period. For teens, 47% of mothers were white (non-Hispanic), compared with 39% of mothers being Hispanic (of any race) and 11% being black (non-Hispanic). Among young adult women aged 20-24 years, 59% were white, 27% Hispanic, and 10% black (Figure 2 and Table 1). Comparing data from 2009 and 2018, the percentage of births occurring to white teen mothers decreased from 48% (2009) to 44% (2018). In contrast, births occurring to Hispanic teen mothers increased from 39% (2009) to 43% (2018); for births to black teen mothers, the percentages remained stable at about 10%.

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Figure 2. Percentage of all births by age group and race/ethnicity
El Paso County, 2009-2018

All Births to Teens



All Births to Women Aged 20-24 Years

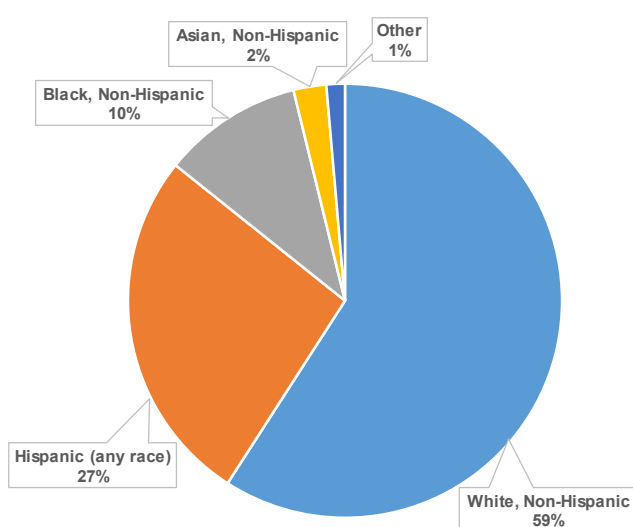
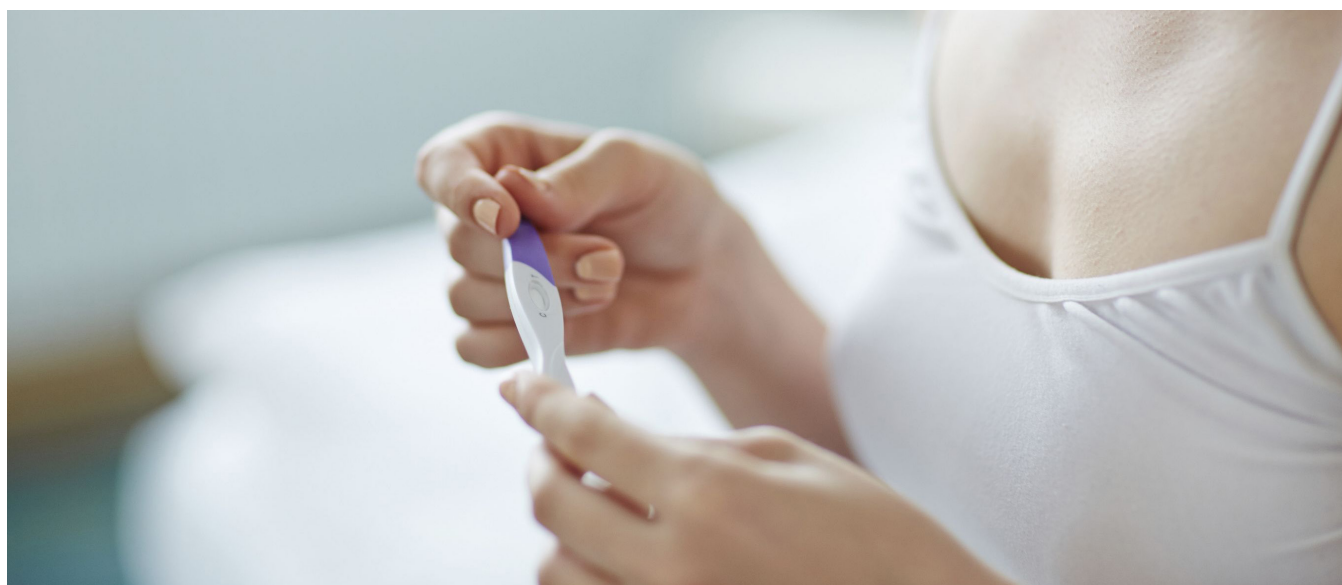


Table 1. Number of births per year by race/ethnicity and age group
El Paso County, 2009-2018

Race/Ethnicity	Age group (years)	Year										
		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Hispanic (all races)	15-19	285	277	236	188	210	208	179	194	170	165	2112
	20-24	581	619	606	566	590	646	644	646	659	588	6145
White	15-19	353	365	323	258	249	245	218	210	181	170	2572
	20-24	1424	1543	1560	1522	1367	1417	1326	1258	1137	1080	13634
Black	15-19	75	71	68	67	59	54	46	65	54	35	594
	20-24	233	249	231	249	232	242	234	238	248	253	2409
Asian	15-19	9	14	10	9	17	14	10	9	6	7	105
	20-24	65	65	44	48	50	63	65	52	58	53	563



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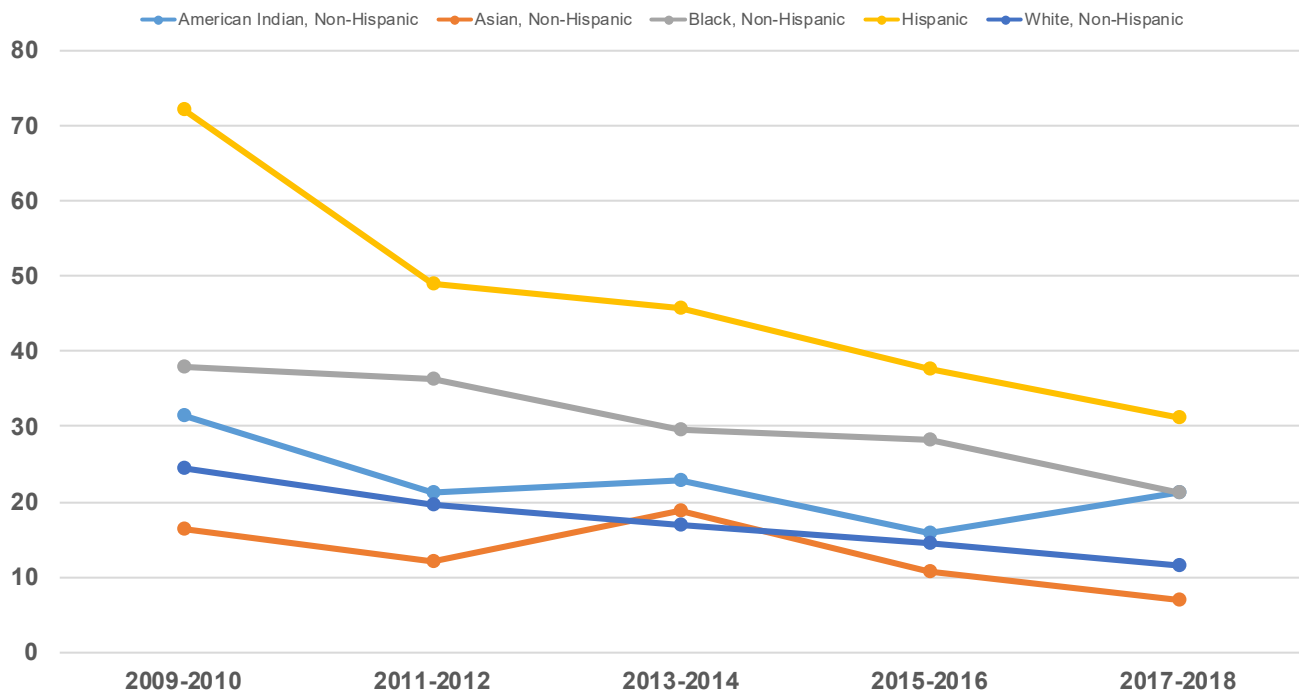
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When adjusted for population size, annual birth rates are higher for women aged 20-24 years compared with teens (Table 2). Across both age groups, birth rates have significantly decreased since 2009, dropping 50% for teens and 21% for women aged 20-24 years. Birth rates for Hispanic women are higher than any other race. Focusing on teen births, although trends showed the sharpest decline in rates for Hispanic teens (57%), in 2017-18 rates were 2.7 times higher than white teens and 1.5 times higher than black teens (Figure 3).

**Table 2. Births rates per year by race/ethnicity and age group
El Paso County, 2009-2018**

Race/Ethnicity	Age group (years)	Year				
		2009-2010	2011-2012	2013-2014	2015-2016	2017-2018
Hispanic (all races)	15-19	72.0	48.9	45.7	37.5	31.2
	20-24	158.9	133.7	134.2	130.1	119.5
White	15-19	24.5	19.7	16.9	14.6	11.6
	20-24	95.5	98.0	89.5	83.6	72.0
Black	15-19	38.0	36.3	29.6	28.2	21.4
	20-24	137.4	125.0	116.6	110.0	113.6
Asian	15-19	16.5	12.1	18.7	10.8	6.9
	20-24	87.7	60.7	69.8	68.7	61.4
All races/ethnicities	15-19	33.7	26.6	24.1	20.7	16.9
	20-24	109.1	106.0	100.4	95.6	86.2

**Figure 3. Teen birth rates by race/ethnicity
El Paso County, 2009-2018**



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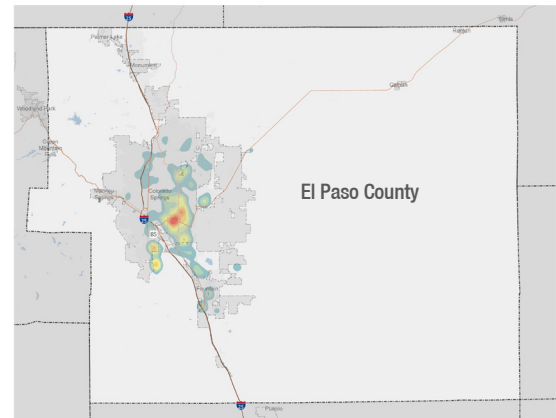
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Results

Section 2:

Geographic analysis of teen births in El Paso County

Presented are a series of maps defining the relative density of teen births based on maternal address recorded on the birth certificate. Maps are organized for three years of comparison: 2009 (Maps 1, 2); 2013 (Maps 3, 4); and 2017 (Maps 5, 6). For each year, the first map depicts where there was a relatively higher density of maternal addresses countywide. The density coloring is based on the number of births rather than fertility rates. The second yearly map zooms into the areas with highest density for better clarity and shows the locations of nearby Planned Parenthood clinics, school-based health centers, and Title X clinics (note: not all clinics offering sexual health services are represented on the map).



Overview of El Paso County Maps

The density maps for all three years show most of the maternal addresses for births to teens in El Paso County concentrating in southeast and southwest Colorado Springs (Maps 1, 3, 5). The highest density area included southeast Colorado Springs (Maps 2, 4, 6). Approximately 40% of El Paso County teen births occurred to teens residing inside the high density area (Table 3). Hispanic teen births inside the high density area accounted for 1 out of 5 of all county births per year; about half of high density area teen births were to Hispanic mothers and one-third to white mothers. In 2017, the high density teen birth area comprised approximately 14.4 square miles, which is only 0.7% of the El Paso County total square mileage, although 17.6% of county teen females resided in this region according to U.S. Census data.

**Table 3. Teen births in high density area by year
El Paso County, 2009/2013/2017**

	Number (%) Births by Year*		
	2009	2013	2017
Total county teen births	733	542	416
Teen births inside county high density area	301 (41%)	270 (50%)	166 (40%)
Births to Hispanic (any race) teens	150 (20%)	121 (22%)	73 (18%)
Births to white teens	102 (14%)	97 (18%)	59 (14%)
Teen births outside county high density area	432 (59%)	272 (50%)	250 (60%)
Births to Hispanic (any race) teens	135 (18%)	89 (16%)	97 (23%)
Births to white teens	251 (34%)	152 (28%)	122 (29%)

* Percentage of all teen births per year

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Not only does the high density area account for a substantial burden of the total number of teen births, teen birth rates are also higher. In 2017, the teen birth rate inside the high density area was 40.1 births per 1,000 women, which was 2.3 times higher than the overall county teen birth rate (17.7) and 2.9 times higher than the birth rate (14.0) outside the high density area (Table 4). Notably, the birth rate inside the high density area for Hispanic teens (50.5) and white teens (31.0) also exceeded the overall county rate (17.7) and the rate outside the high density area (14.0), suggesting there are social, economic, or environmental conditions within the high density area leading to higher birth rates overall.

**Table 4. Teen birth rate in high density area
El Paso County, 2017**

	Birth rate per 1,000 women	Estimated population size* (Total, Hispanic, White)
Total county		
Teen birth rate, overall	17.7	23,507
Hispanic (any race) teen birth rate	31.9	5,333
White teen birth rate	12.1	14,977
Teen births <i>inside</i> county high density area		
Teen birth rate, overall	40.1	4,142
Hispanic (any race) teen birth rate	50.5	1,445
White teen birth rate	31.0	1,905
Teen births <i>outside</i> county high density area		
Teen birth rate, overall	14.0	17,881
Hispanic (any race) teen birth rate	29.3	3,309
White teen birth rate	10.4	11,780

*Data source: Colorado Department of Local Affairs, State Demography Office

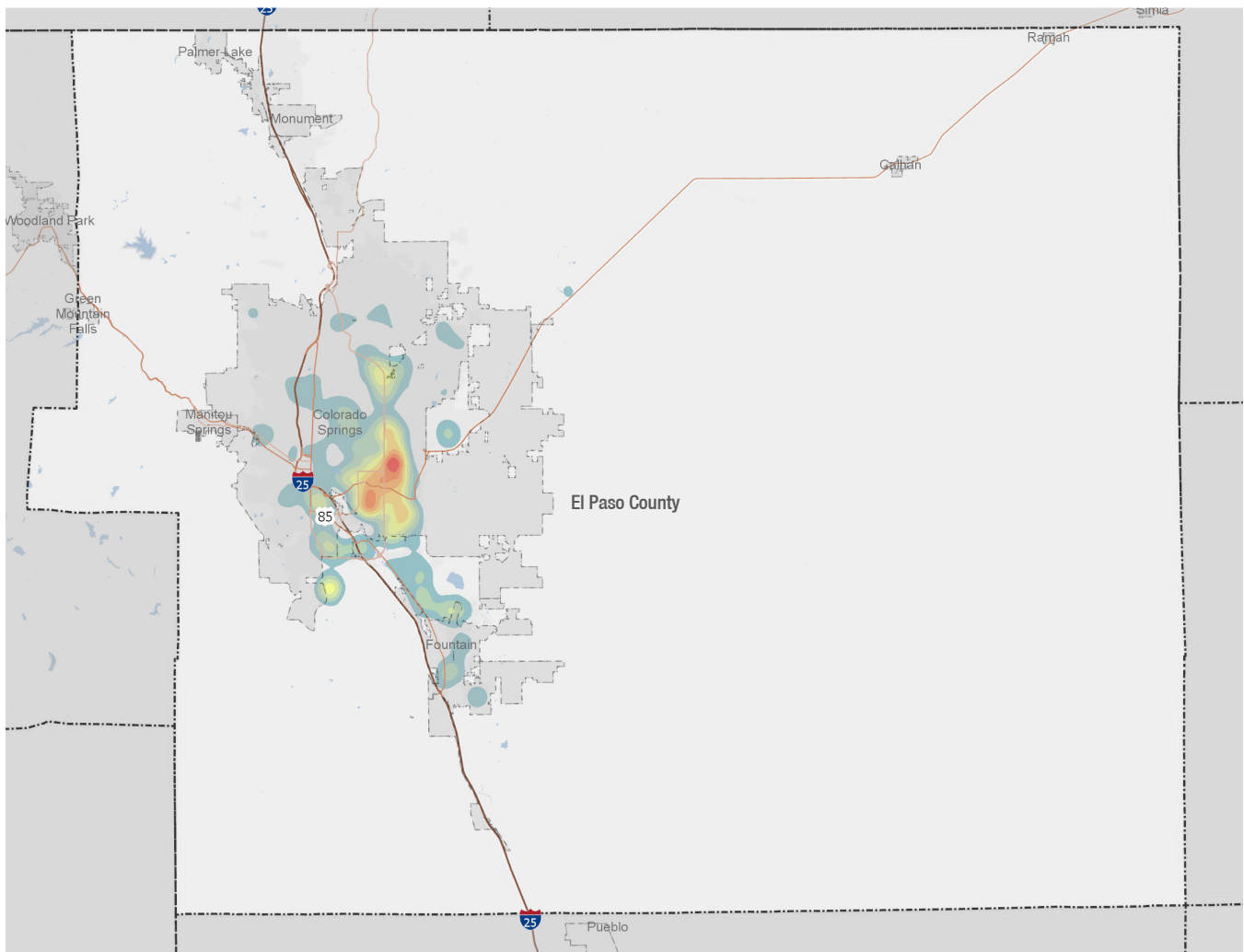


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Section 2: Analysis Maps

Map 1: Geographic Density of Teen (ages 15-19 years) Births
El Paso County, 2009



Legend

Density of Teen Births



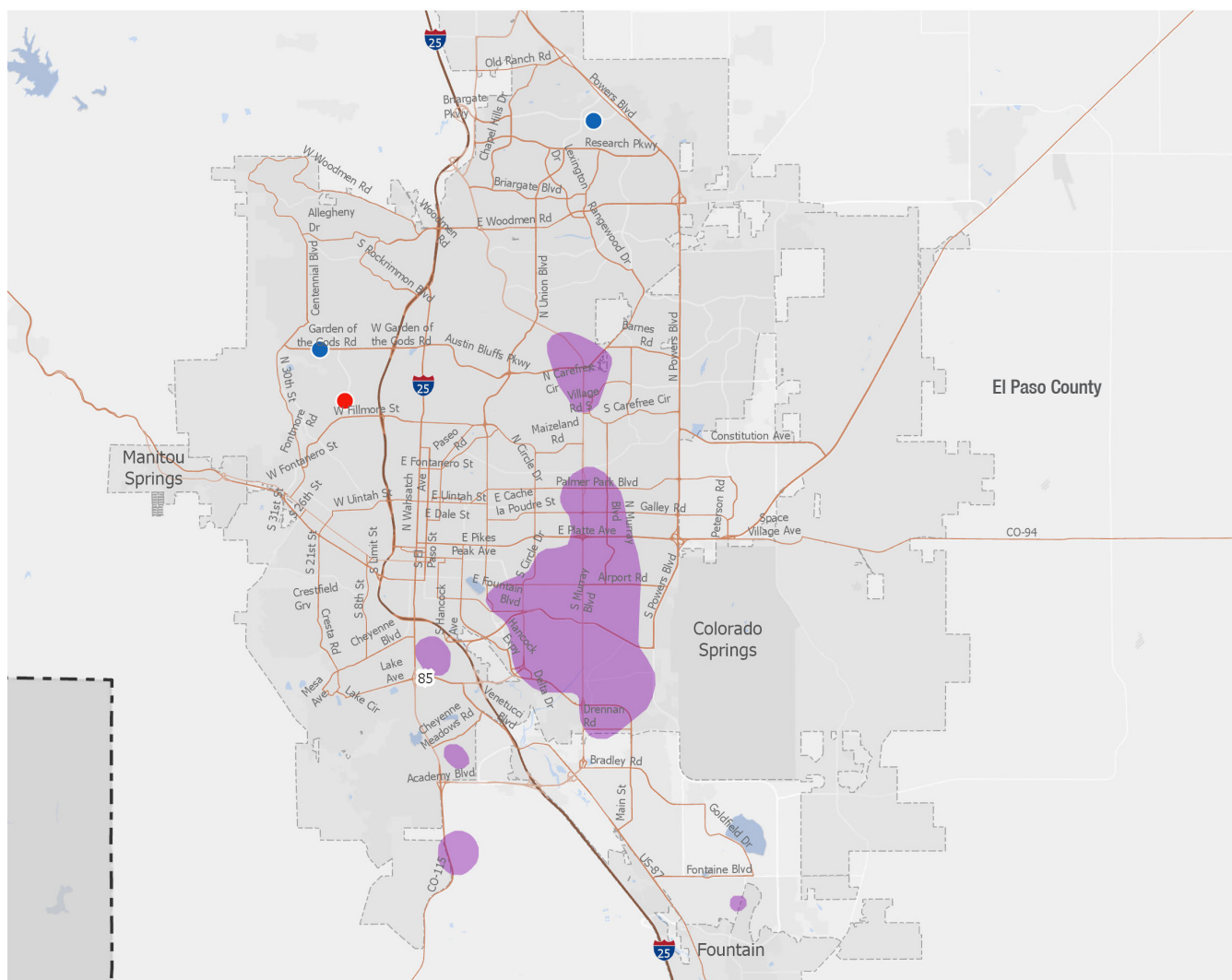
■ Municipal Boundaries
--- County Boundaries

Number of El Paso County Teen Births in 2009: 733

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**Map 2: High Density Areas of Teen (ages 15-19 years) Births
El Paso County, 2009**



Legend

Density of Teen Births

- High Density Areas
- Planned Parenthood Clinics
- School Based Health Centers
- Title X Clinics
- Municipal Boundaries

Number of El Paso County Teen Births in High Density Area in 2009: 301

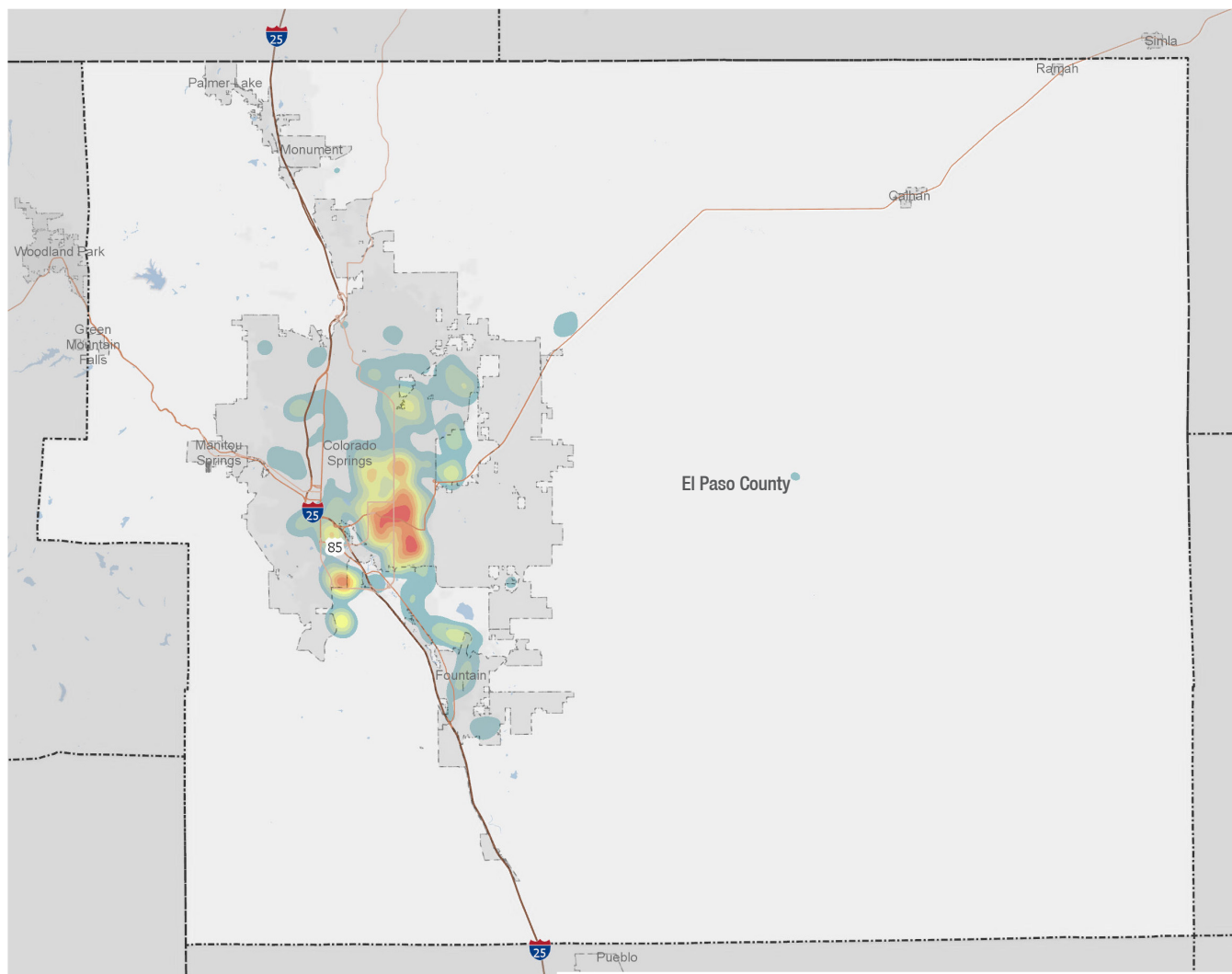
	Number (%) Births by Year*
	2009
Total county teen births	733
Teen births inside county high density area	301 (41%)
Births to Hispanic (any race) teens	150 (20%)
Births to white teens	102 (14%)
Teen births outside county high density area	432 (59%)
Births to Hispanic (any race) teens	135 (18%)
Births to white teens	251 (34%)

* Percentage of all teen births

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Map 3: Geographic Density of Teen (ages 15-19 years) Births
El Paso County, 2013



Legend

Density of Teen Births

Low

High

Municipal Boundaries

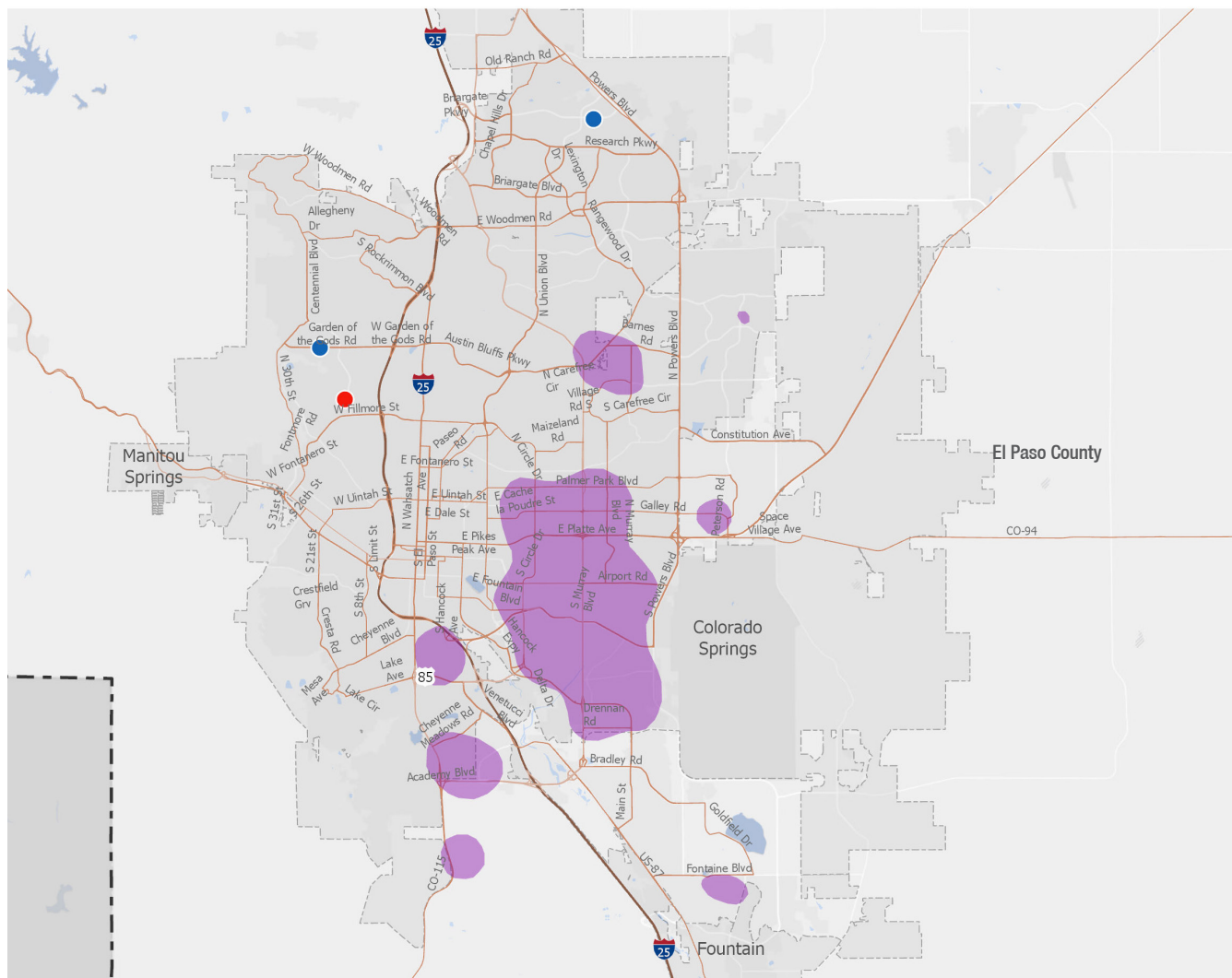
County Boundaries

Number of El Paso County Teen Births in 2013: 542

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**Map 4: High Density Areas of Teen (ages 15-19 years) Births
El Paso County, 2013**



Legend

Density of Teen Births

- High Density Areas
- Planned Parenthood Clinics
- School Based Health Centers
- Title X Clinics
- Municipal Boundaries

Number of El Paso County Teen Births in
High Density Area in 2013: 270

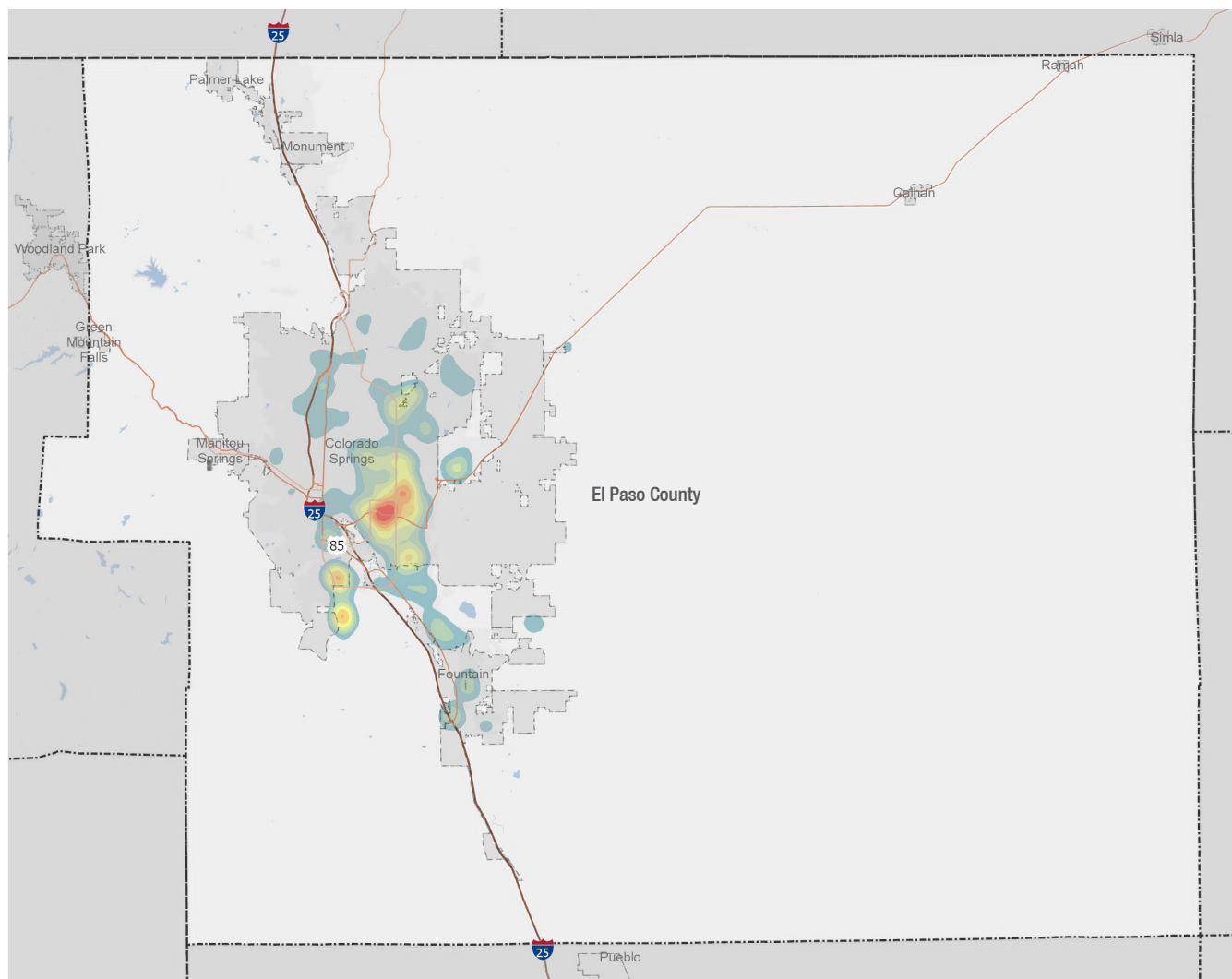
	Number (%) Births by Year*
	2013
Total county teen births	542
Teen births inside county high density area	270 (50%)
Births to Hispanic (any race) teens	121 (22%)
Births to white teens	97 (18%)
Teen births outside county high density area	272 (50%)
Births to Hispanic (any race) teens	89 (16%)
Births to white teens	152 (28%)

* Percentage of all teen births

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Map 5: Geographic Density of Teen (ages 15-19 years) Births
El Paso County, 2017



Legend

Density of Teen Births



Municipal Boundaries

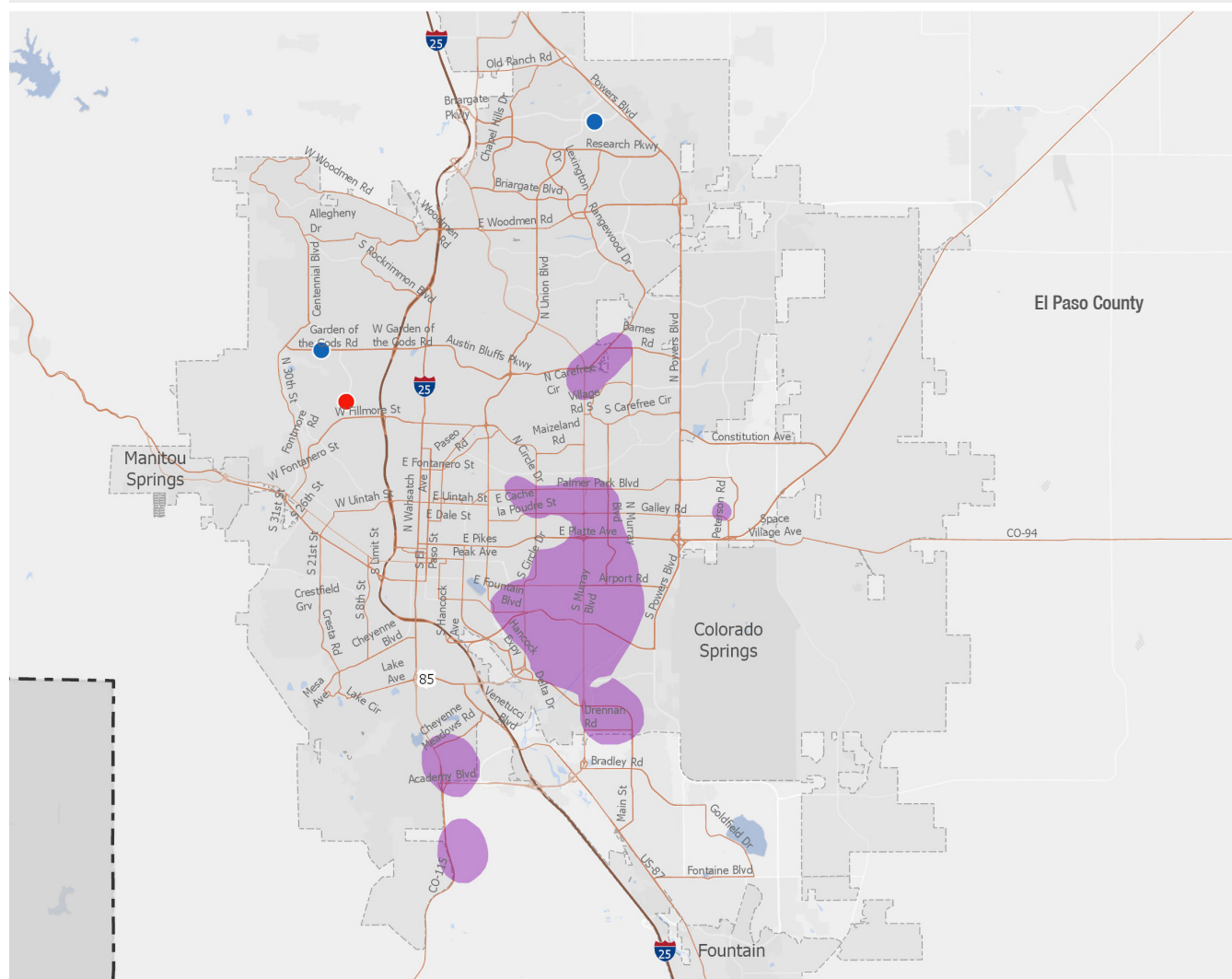
County Boundaries

Number of El Paso County Teen Births in 2017: 416

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**Map 6: High Density Areas of Teen (ages 15-19 years) Births
El Paso County, 2017**



Legend

Density of Teen Births

- High Density Areas
- Planned Parenthood Clinics
- School Based Health Centers
- Title X Clinics
- Municipal Boundaries

Number of El Paso County Teen Births in High Density Area in 2017: 166

	Number (%) Births by Year*
	2017
Total county teen births	416
Teen births inside county high density area	166 (40%)
Births to Hispanic (any race) teens	73 (18%)
Births to white teens	59 (14%)
Teen births outside county high density area	250 (60%)
Births to Hispanic (any race) teens	97 (23%)
Births to white teens	122 (29%)

* Percentage of all teen births