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Naugatuck Valley Council of Governments

Demographics – Housing – School District Enrollments

June 17, 2024

Presented by Donald Poland, PhD, AICP
Goman+York Property Advisors

Introduction

Demographics, Housing, and School District Enrollments

Presentation Overview

The aim of this presentation is to explore Connecticut school district enrollments in the context demographics and housing.

IDEA
PLAN
ACTION

Dr. Poland is an urban geographer, planner, and community strategist whose work focuses on assisting communities to compete for wealth and investment (socio-economic prosperity) through strategic interventions that build community confidence, foster pride in place, create predictability in market, and grow demand.

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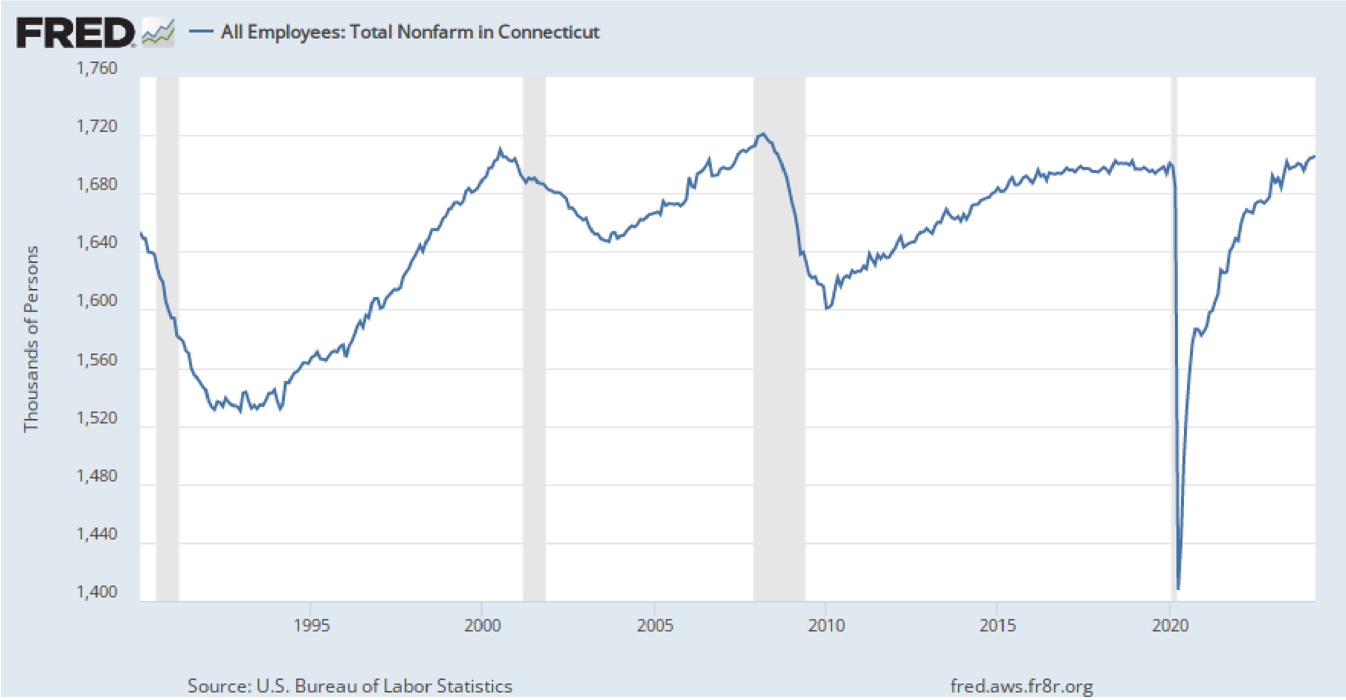
Demographics, Housing, and School District Enrollments

The symbiotic relationship of economics and demographics:

- When jobs stagnate, population stagnates, and the population ages.
- When a population ages, population growth slows.
- When population growth slows, household formations (typically) slow—housing demand slows.
- Jobs, population, and household formations are the primary demand drivers for real property markets.

Job Growth: the primary demand driver, has been mostly stagnant in Connecticut since 1990.

- From 1985 to 1990 (5 years) nonfarm employment increased by **103,400**.
- From 1990 to 2020 (30 years) nonfarm employment increased by **44,800**. **Stagnation!**



Source: U.S. Bureau of Labor Statistics

fred.aws.fr8r.org

NONFARM EMPLOYMENT (Seasonally Adjusted)								
	1985	1990	1995	2000	2005	2010	2015	2020
CT	**1,549,800**	1,653,200	1,567,300	1,689,800	1,666,600	1,601,000	1,683,900	**1,698,000**
Connecticut Department of Labor - Office of Research								

Demographics, Housing, and School District Enrollments

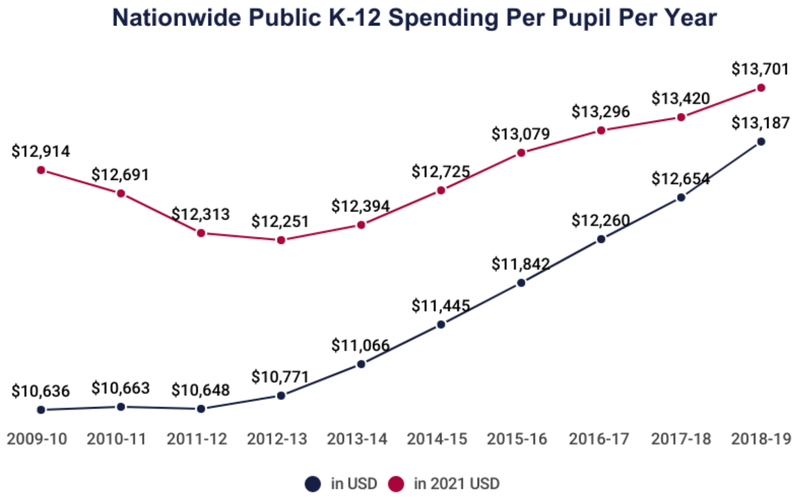
Housing and School District Enrollments

Some common assumptions:

- New housing development is the primary driver of school district enrollments.
- New housing unit produce 2 or more new school district enrollments—the assumed driver education costs increase. A fiscal burden.
- Each new enrollment costs *$20,000+-* (the total BoE budget / by total enrollment).

When in fact:

- Demographics, especially *the changing household structure*, are the primary driver of school district enrollments.
- Housing vs Enrollments: Connecticut has 1,433,635 occupied housing units (total households) and 512,652 school enrollments or **0.357 enrollments/**unit.
- Total per pupil expenditures overestimate the actual cost of new enrollments.
  - Between 40% and 50% of education budgets are not impacted by changes in enrollment.
  - Actual cost of new enrollments average $8,000/pupil.
    - For example, fixed expenditure on utilities, maintenance, administration, etc. are typically not impacted by enrollments.



Source: National Center for Education Statistics

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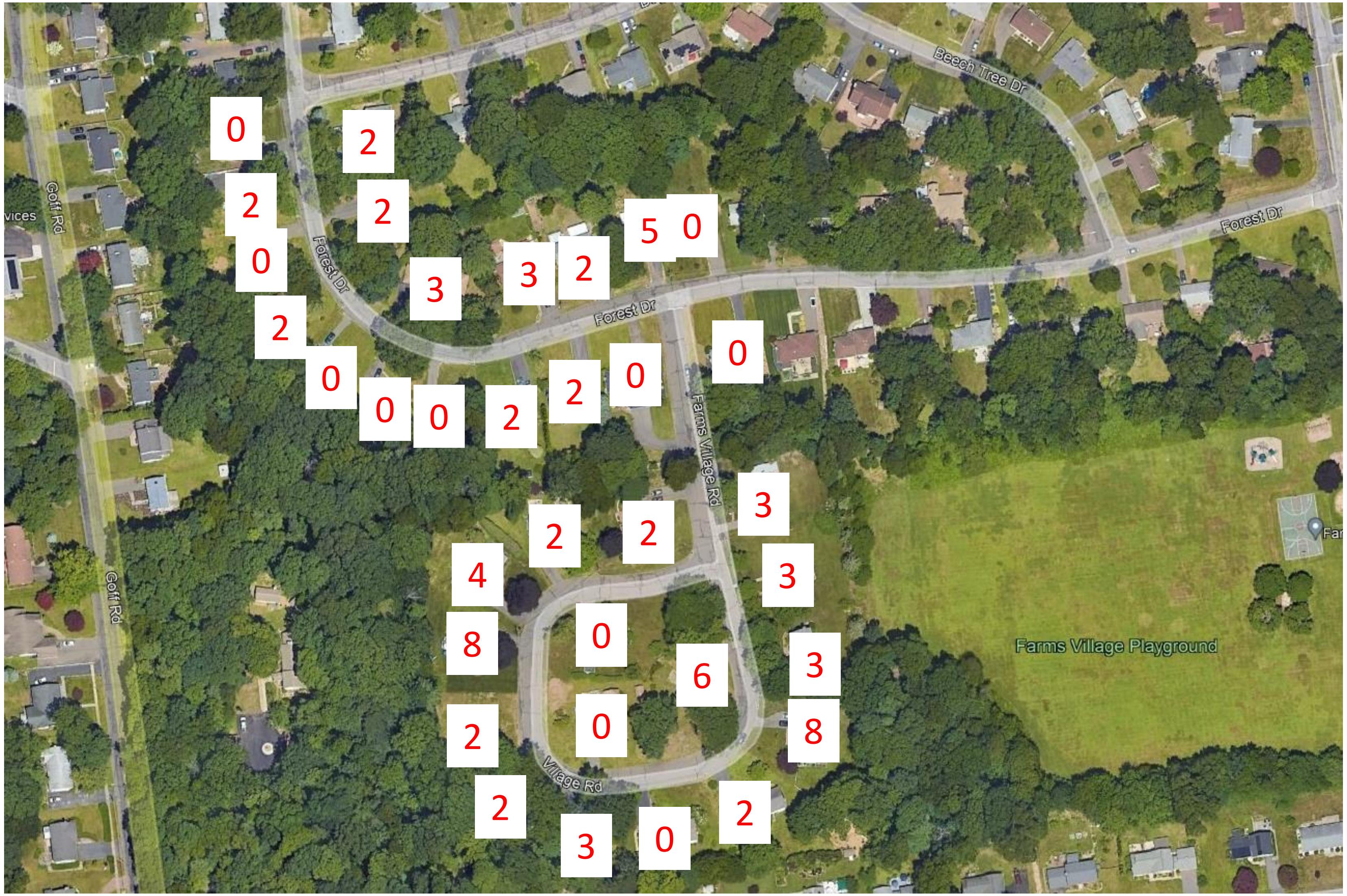
Conceptualizing Demographic Change and School District Enrollments

Demographics, Housing, and School District Enrollments

1976 – School District Enrollment Per Household



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Forest Dr
Goff Rd
Goff Rd
Farms Village Rd
Village Rd
Farms Village Playground

My Childhood Neighborhood

- 34 Housing Units (Households)

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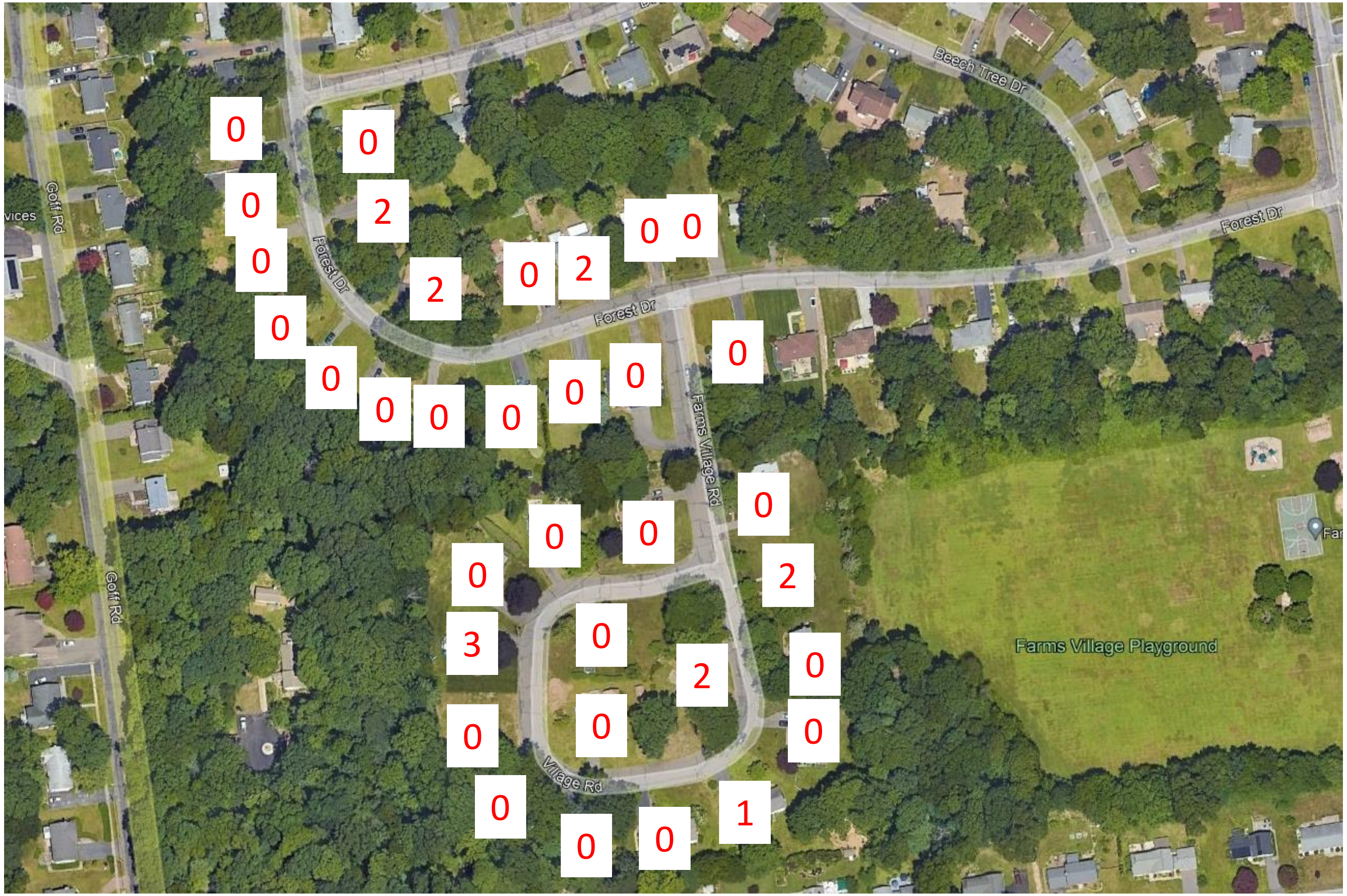
- 73 School Enrollments
- **2.14** enrollments per housing unit

Demographics, Housing, and School District Enrollments

2020 – School District Enrollment Per Household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My Childhood Neighborhood

- 34 Housing Units (Households)

=

- 14 School Enrollments
- 0.41 enrollments per housing unit
- Since these homes were constructed in the 1950s and 1960s, 8 of these homes have never produced a school district enrollment.
- Since 1970, 1 new elementary school opened, 4 elementary schools closed, and 1 middle school closed.

Demographics, Housing, and School District Enrollments

Questions

What caused this change in the number of children/enrollments per household?

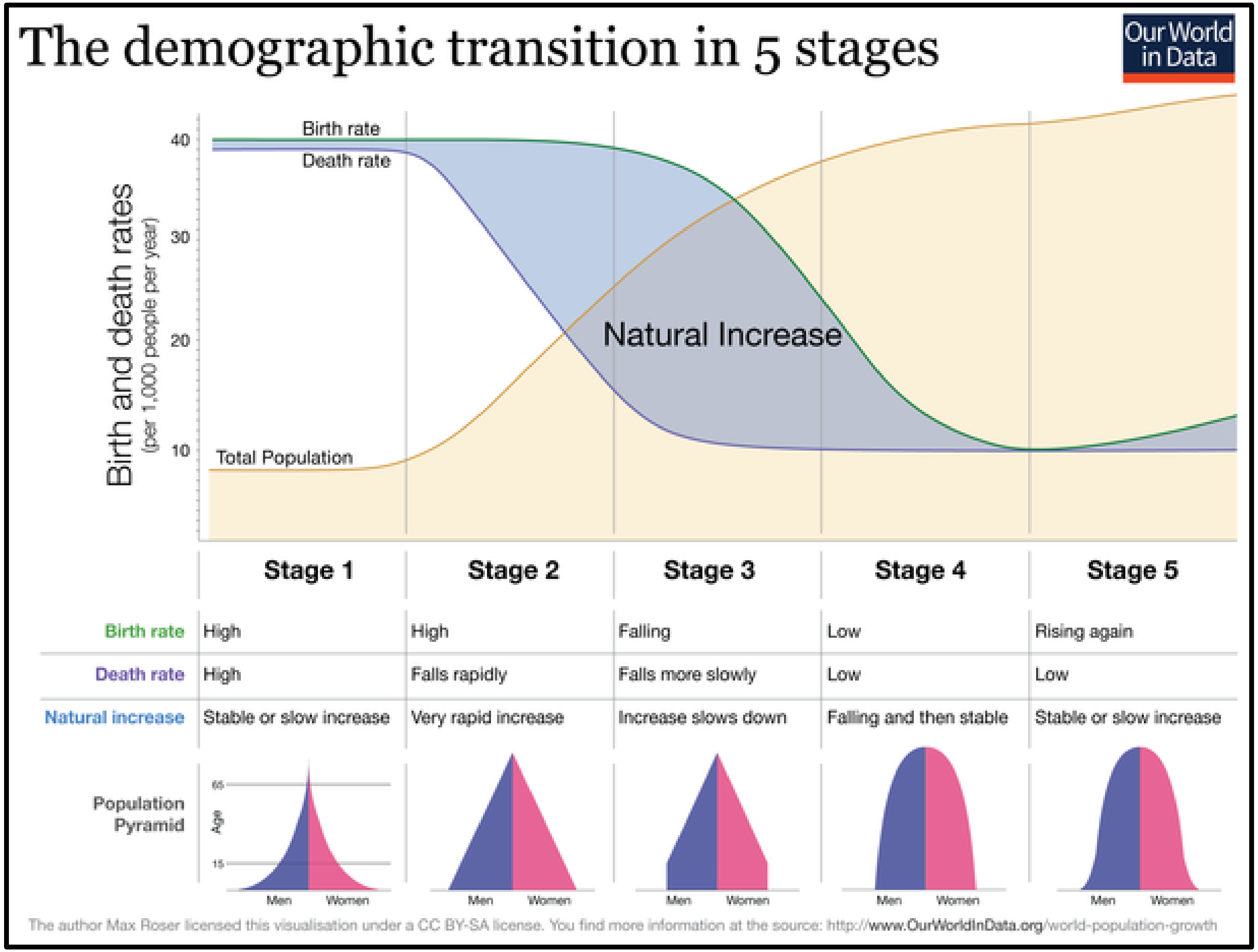
Answer

Demographics!

Demographic Trends:

A National Perspective

Demographics, Housing, and School District Enrollments



The demographic transition in 5 stages

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Birth rate	High	High	Falling	Low	Rising again
Death rate	High	Falls rapidly	Falls more slowly	Low	Low
Natural increase	Stable or slow increase	Very rapid increase	Increase slows down	Falling and then stable	Stable or slow increase

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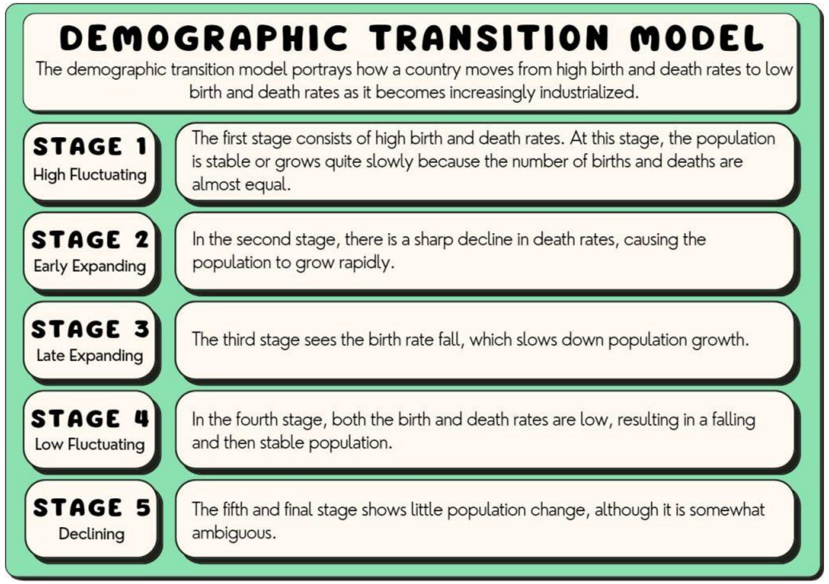


DEMOGRAPHIC TRANSITION MODEL

The demographic transition model portrays how a country moves from high birth and death rates to low birth and death rates as it becomes increasingly industrialized.

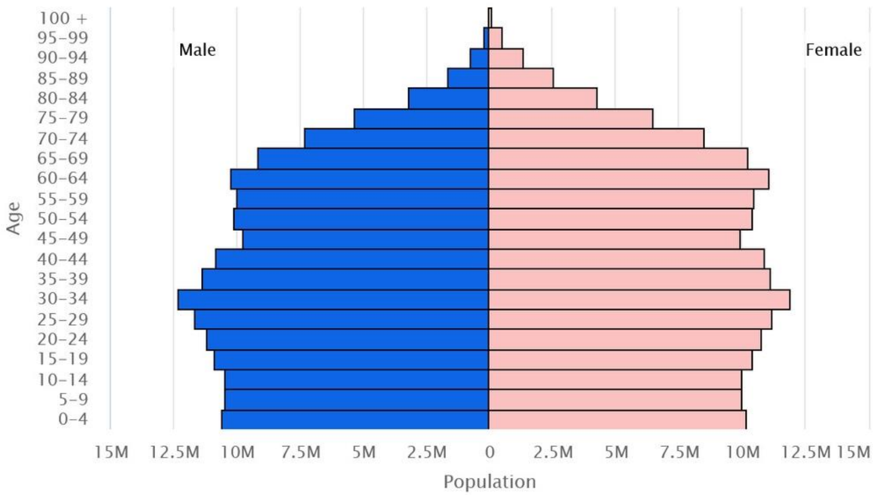
STAGE 1 High Fluctuating	The first stage consists of high birth and death rates. At this stage, the population is stable or grows quite slowly because the number of births and deaths are almost equal.
STAGE 2 Early Expanding	In the second stage, there is a sharp decline in death rates, causing the population to grow rapidly.
STAGE 3 Late Expanding	The third stage sees the birth rate fall, which slows down population growth.
STAGE 4 Low Fluctuating	In the fourth stage, both the birth and death rates are low, resulting in a falling and then stable population.
STAGE 5 Declining	The fifth and final stage shows little population change, although it is somewhat ambiguous.

Population Growth

- **Rate of Natural Increase (RNI):** when births (fertility) exceed deaths (mortality).
- **Crude Birth Rate (CBR):** $\frac{\text{live births / year}}{\text{1,000 people}}$
- **Crude Death Rate (CDR):** $\frac{\text{deaths / year}}{\text{1,000 people}}$
- **Total Fertility Rate (TFR):** the average number of children a woman will have throughout her childbearing years—more accurate than CBR.
- Excluding immigration.

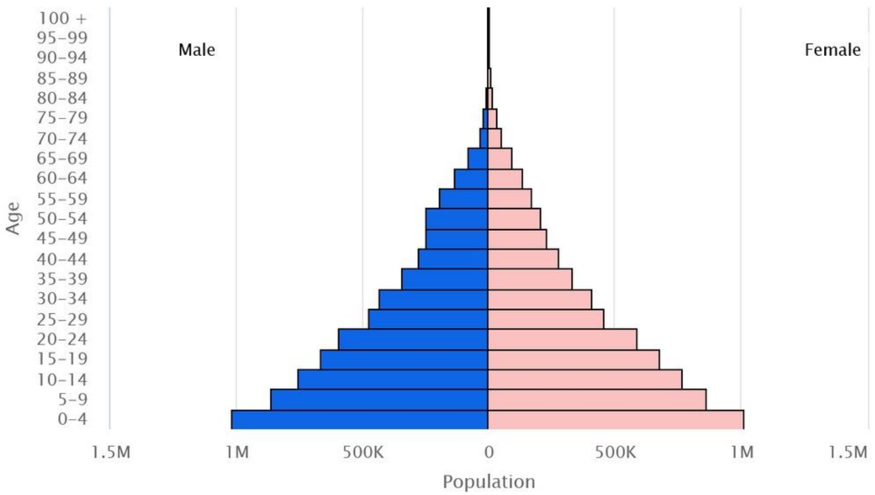
Demographics, Housing, and School District Enrollments

United States



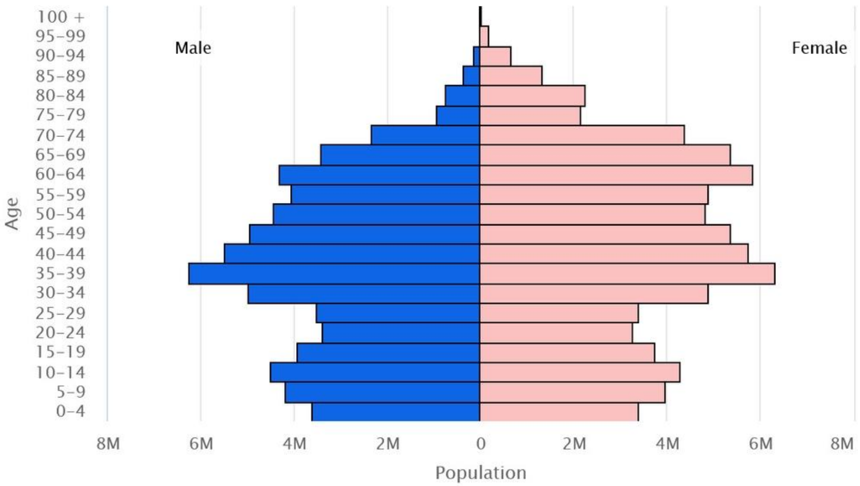
U.S. Census Bureau, International Database

Somalia



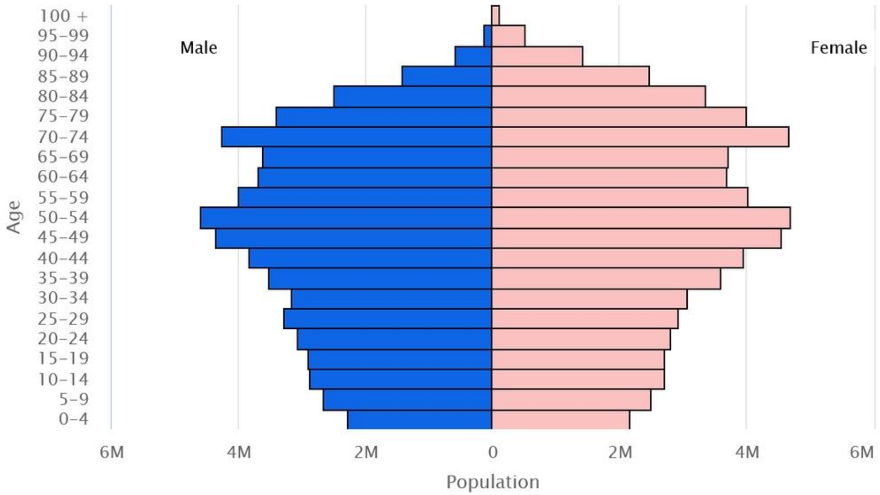
U.S. Census Bureau, International Database

Russia



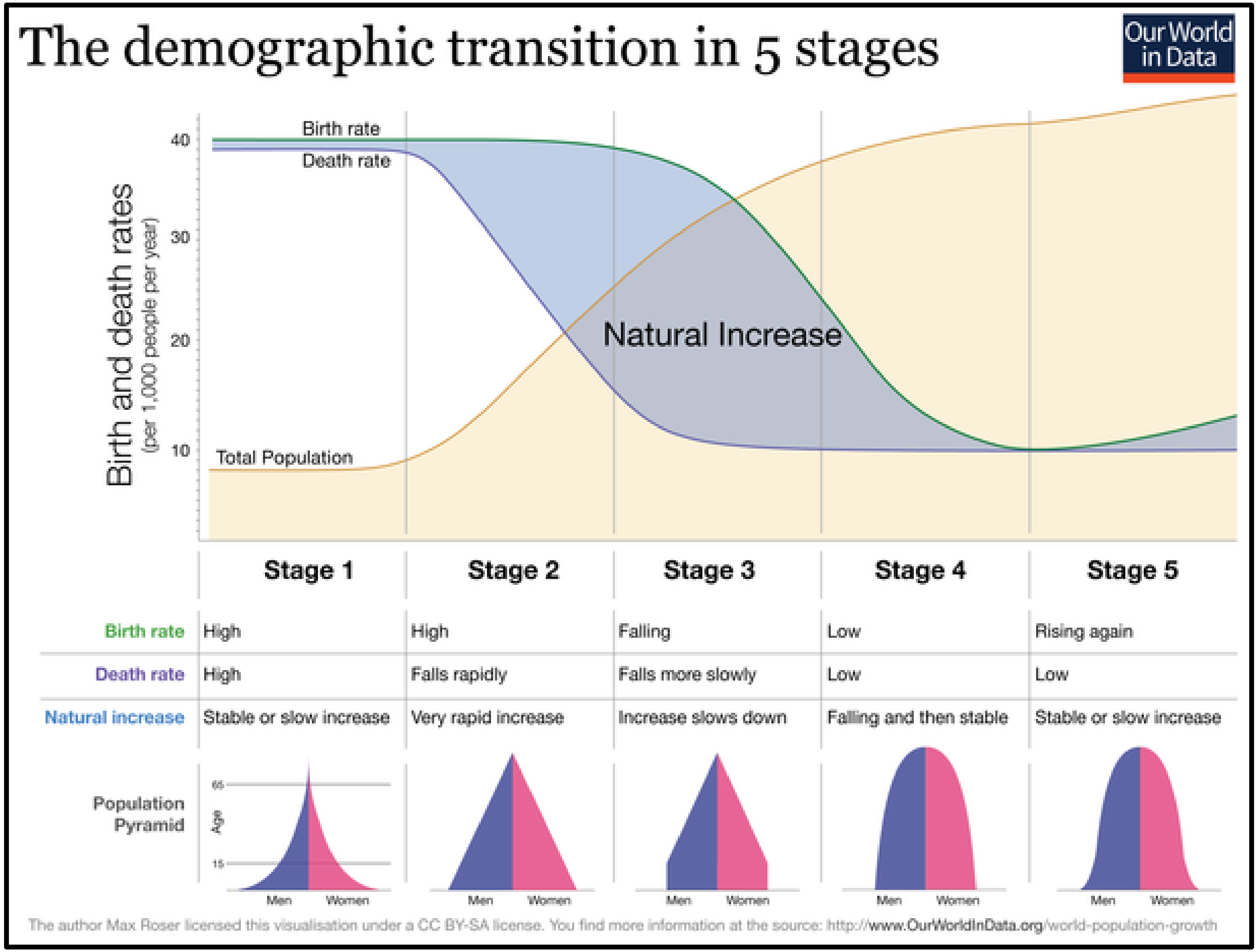
U.S. Census Bureau, International Database

Japan



U.S. Census Bureau, International Database

Demographics, Housing, and School District Enrollments



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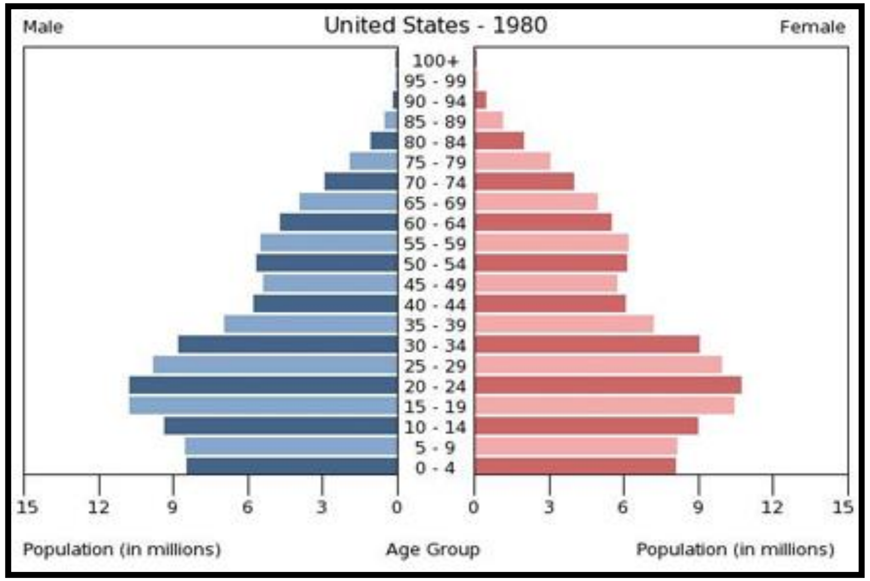
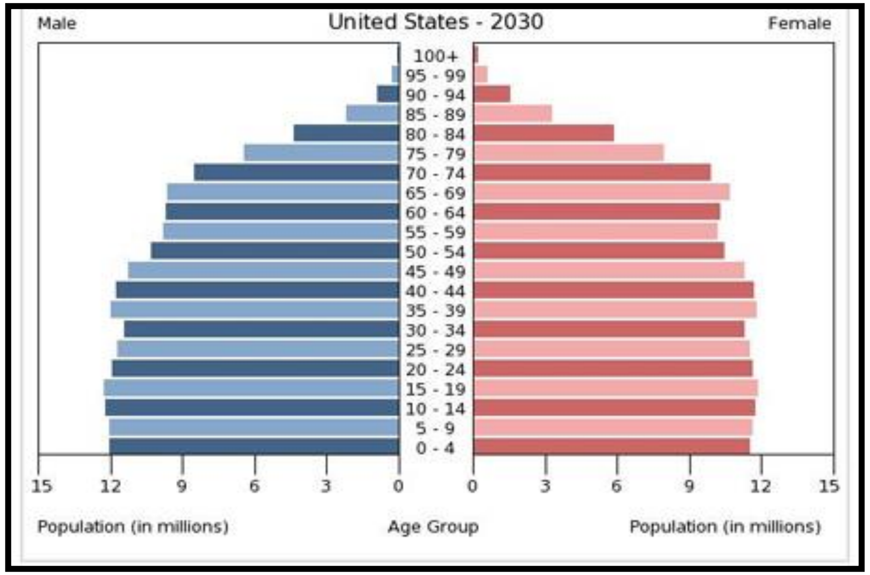
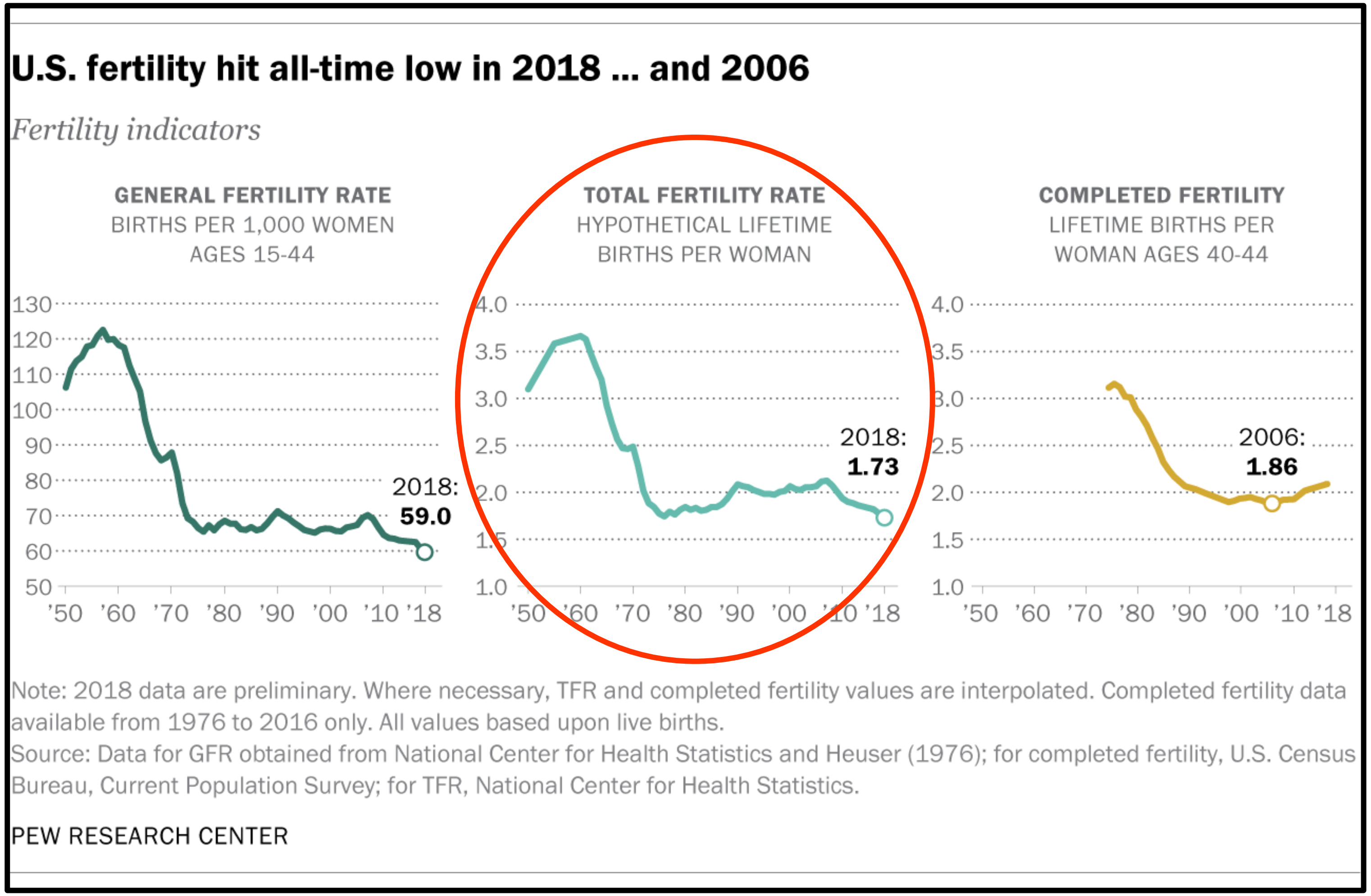




Demographics, Housing, and School District Enrollments



U.S. fertility hit all-time low in 2018 ... and 2006

Fertility indicators

Note: 2018 data are preliminary. Where necessary, TFR and completed fertility values are interpolated. Completed fertility data available from 1976 to 2016 only. All values based upon live births.

Source: Data for GFR obtained from National Center for Health Statistics and Heuser (1976); for completed fertility, U.S. Census Bureau, Current Population Survey; for TFR, National Center for Health Statistics.

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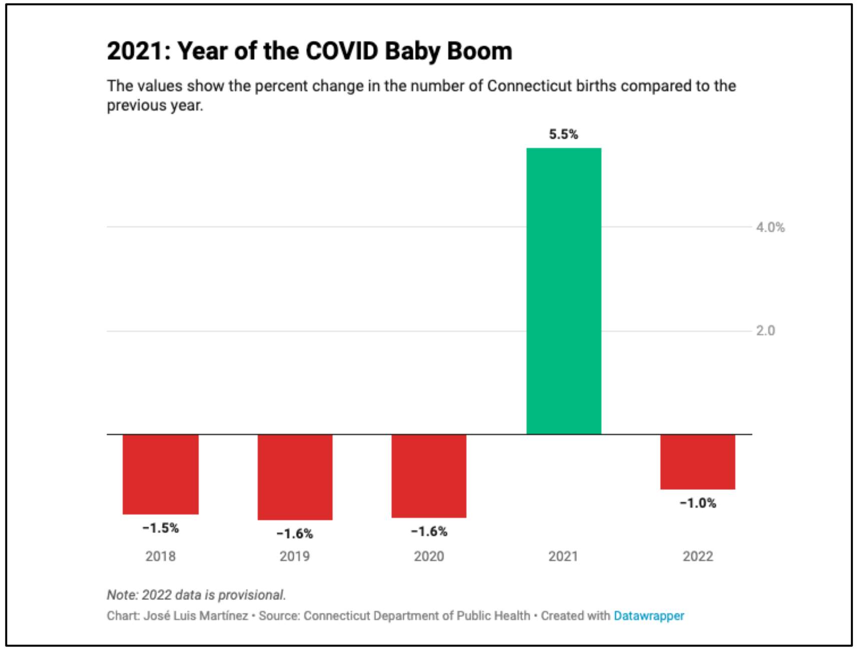


2021: Year of the COVID Baby Boom

The values show the percent change in the number of Connecticut births compared to the previous year.

Note: 2022 data is provisional.

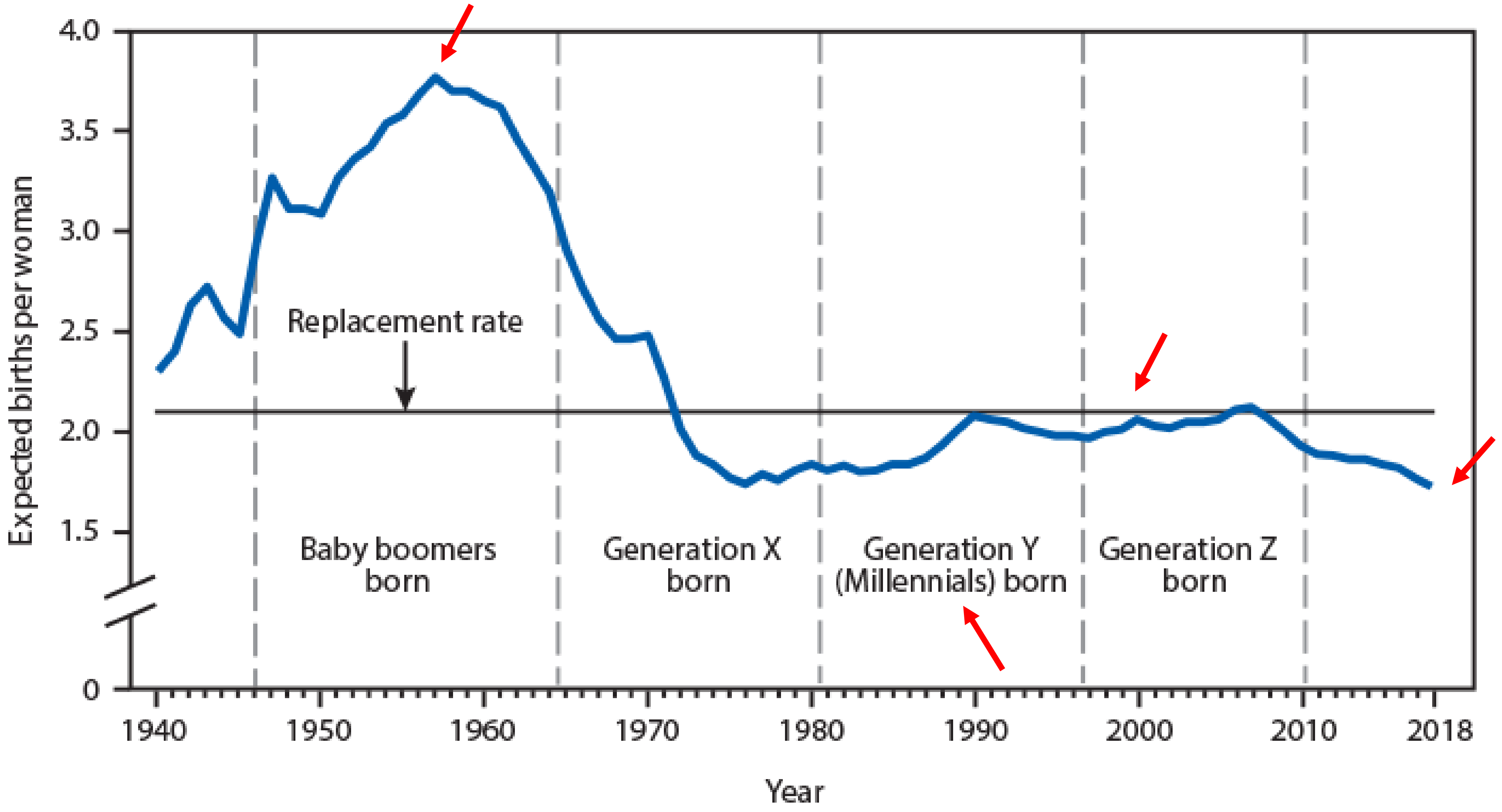
Chart: José Luis Martínez • Source: Connecticut Department of Public Health • Created with Datawrapper

	Fertility Rate	Deaths	Births	Replacement Rate
Above Replacement	2.4	100	120	2.5 Births = Growth
Replacement	2.3	100	115	Stable
Replacement	2.2	100	110	Stable
Replacement – USA	2.1	100	105	Stable
Below Replacement	2.0	100	100	Decline
United States	1.73	100	82	-18 Births = Decline

U.S. Fertility Rate 2008 - 2020

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
US	2.08	2.00	1.93	1.89	1.88	1.86	1.86	1.84	1.82	1.77	1.73	1.71	**1.64**

Demographics, Housing, and School District Enrollments



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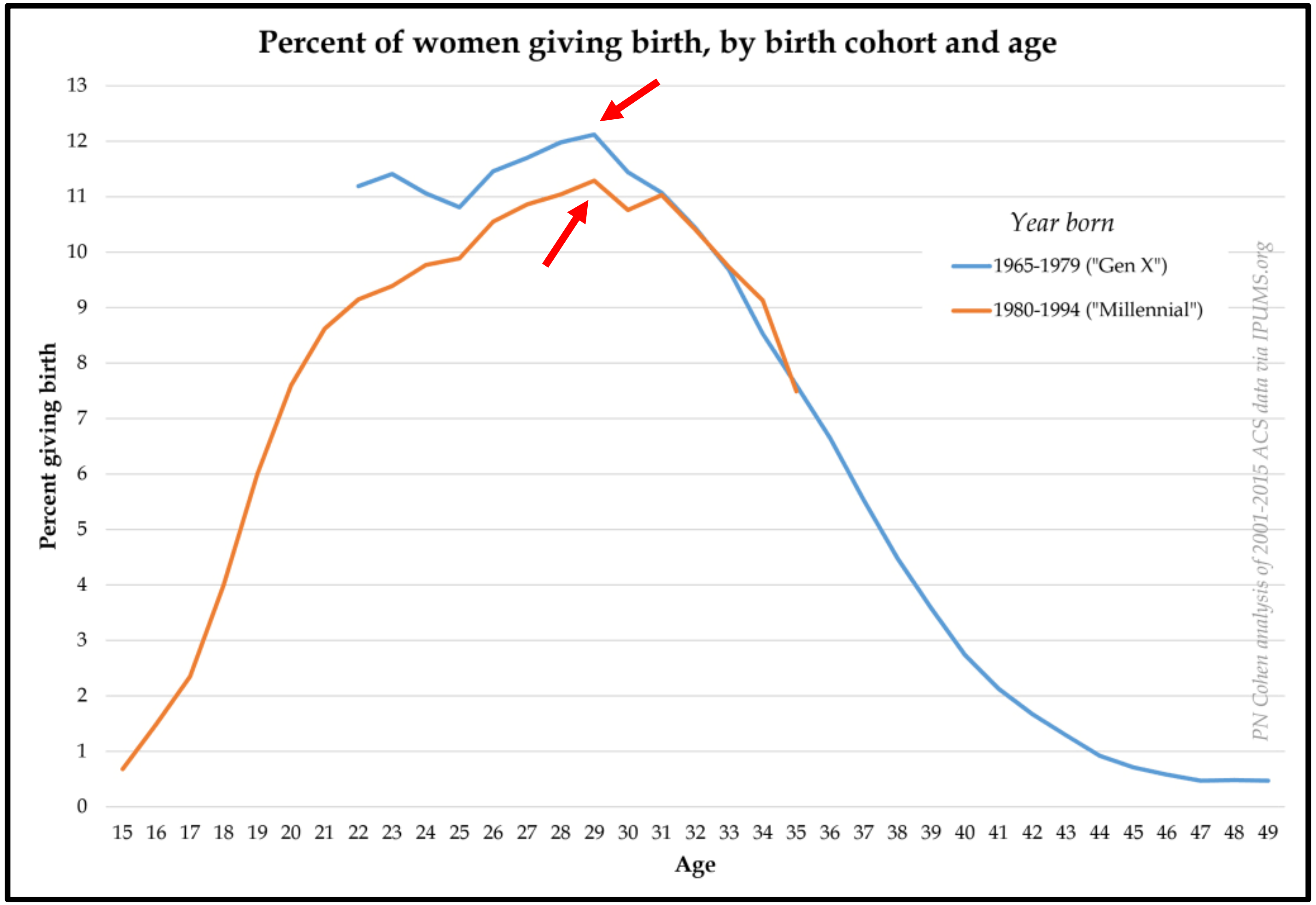
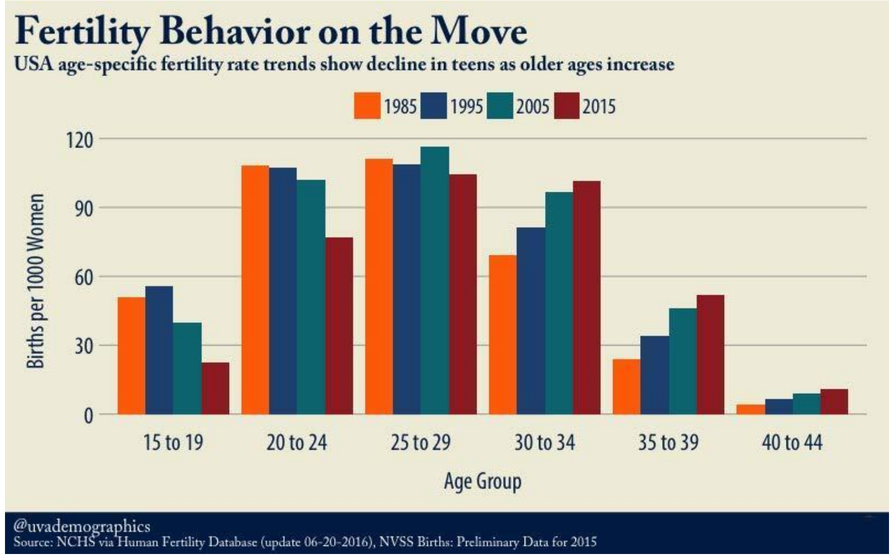
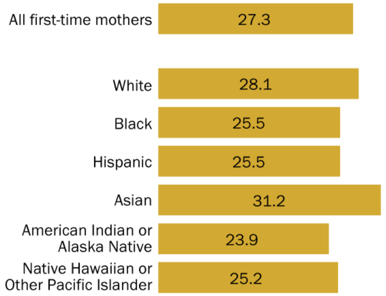




Age of U.S. first-time moms varies by race and ethnicity

Average age of mother at first birth, 2021



Note: Hispanic adults are of any race. All other categories include those who are not Hispanic and identify as only one race. Race and ethnicity categories come from the Centers for Disease Control and Prevention (CDC).
Source: CDC, National Center for Health Statistics.

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Demographics, Housing, and School District Enrollments

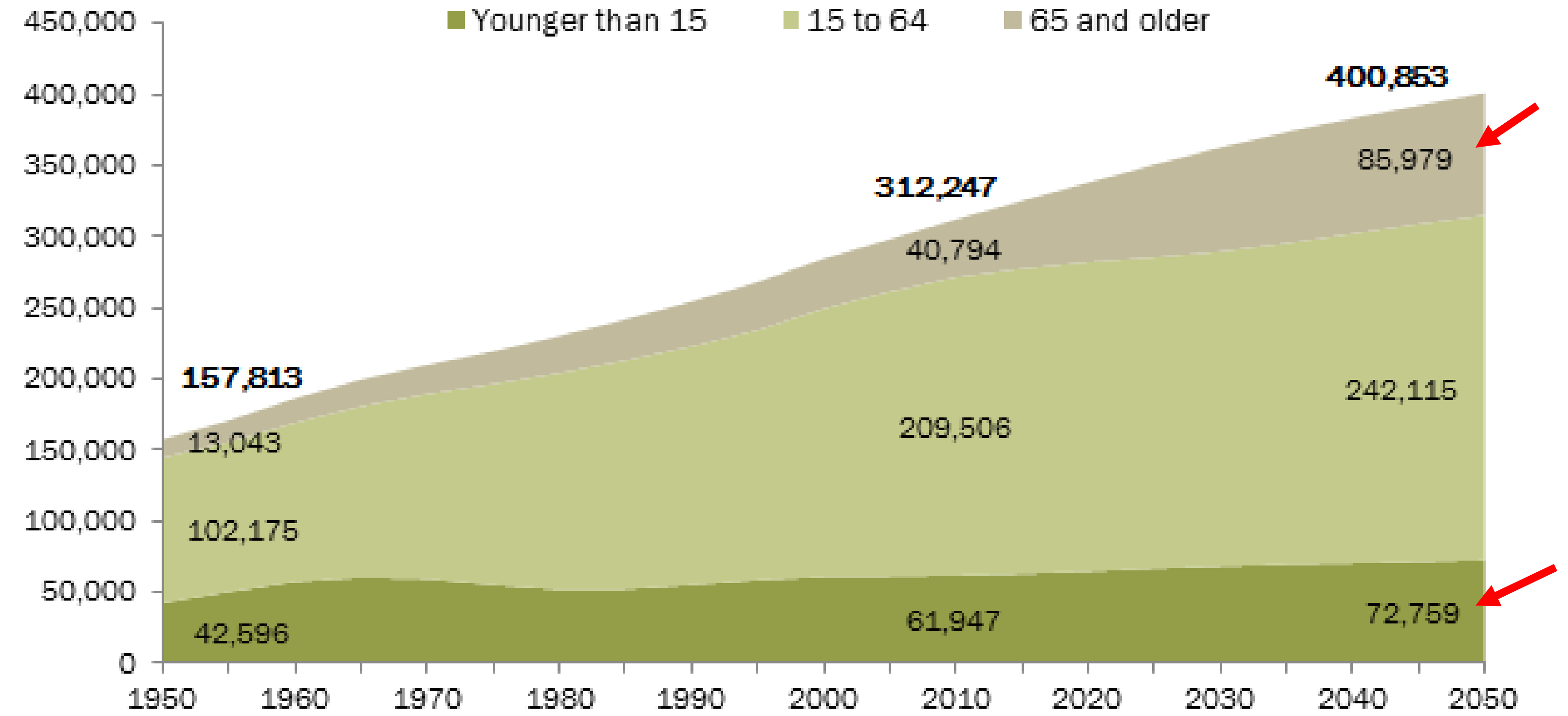
The United States will continue to age in the coming decades, as will Connecticut, which is already older and aging faster. From 2010 to 2050:

- **Over 65 population more than doubles**
- 15 – 64 population increases by 16%
- < 15 populations increases by 17%

The increase in total population is driven by immigration, not natural increase.

Estimates of the U.S. Population, by Age, 1950 to 2050

Thousands



Source: United Nations, Department of Economic and Social Affairs, *World Population Prospects: 2012 Revision*, June 2013, http://esa.un.org/unpd/wpp/index.htm

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Demographics, Housing, and School District Enrollments

Changes in demographic structure are impacting communities and housing markets.

Demographics change how we:

- Live,
- Work,
- Socialize,
- Recreate,
- Consume, and
- the Homes we buy and rent

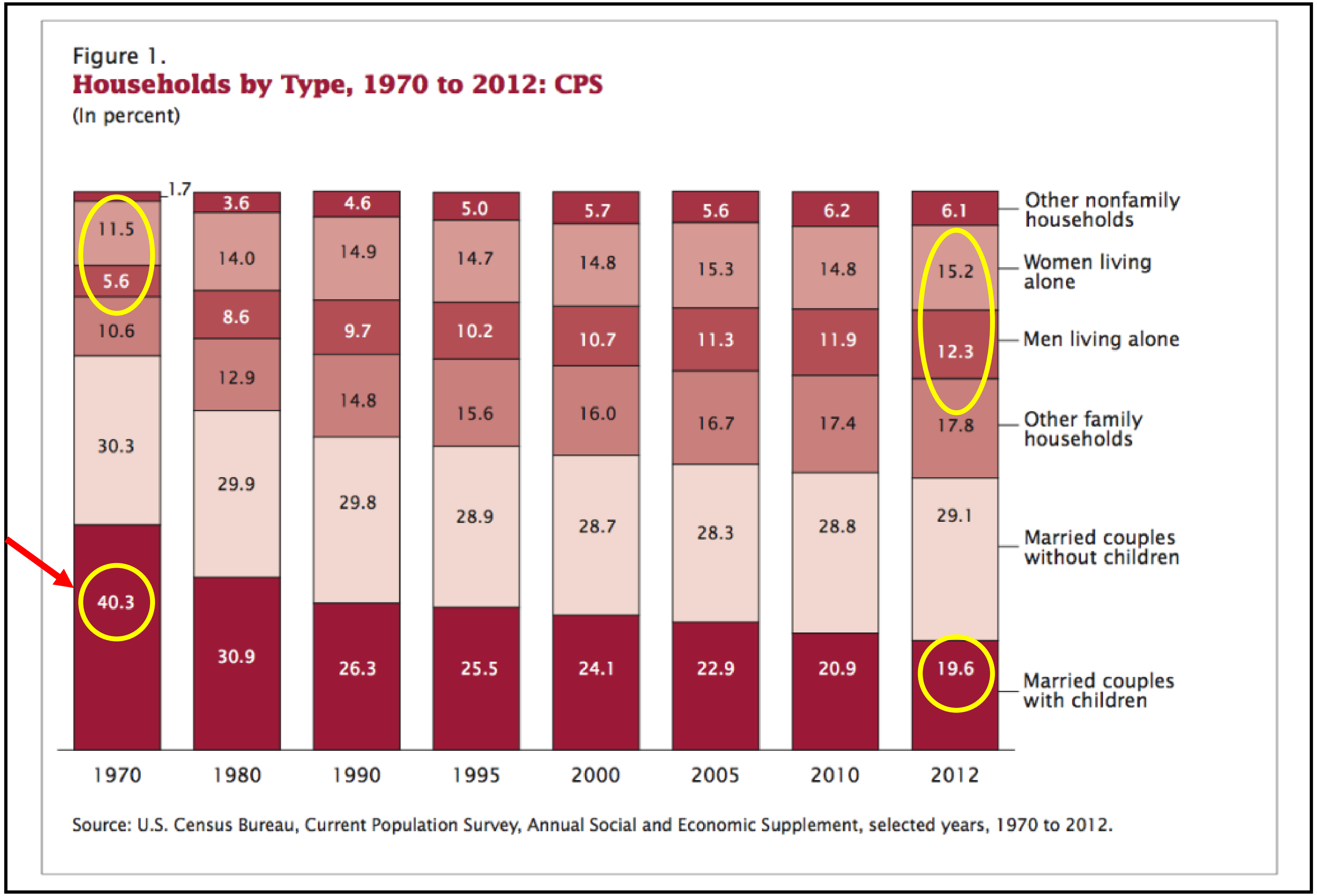


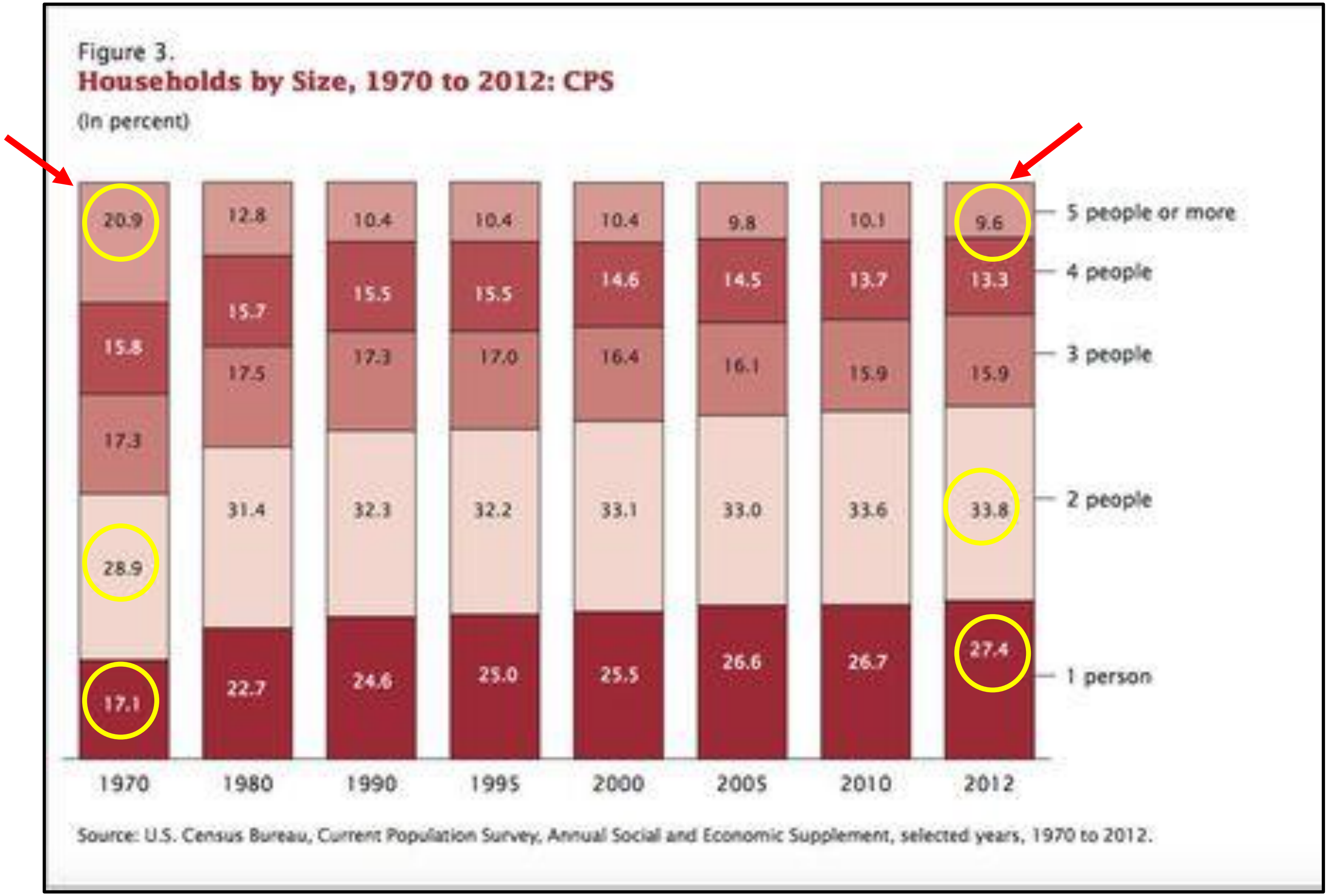
Figure 1.

Households by Type, 1970 to 2012: CPS

(In percent)

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, selected years, 1970 to 2012.

Demographics, Housing, and School District Enrollments



Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, selected years, 1970 to 2012.

Demographic Change

- **Parents with children under age 18** living at home **declined by about 3 million over the past decade**, down from 66.1 million in 2010 to 63.1M in 2020.
- There are **36.2 million one-person households (28%)**. In 1960, one-person households was **only 13%** of all households.
- In 2020, **33% of adults** ages 15 and over **had never been married**, up from **23%** in 1950.
- The estimated **median age to marry for the first time is 30.5 for men and 28.1 for women**, up from ages **23.7 and 20.5**, respectively, in 1947.
- In 2022 more than half (**58%**) of adults ages 18 to 24 lived in their parental home, up from 55% in 2019.

Granby: Demographics, Housing, and School District Enrollments

Questions

What caused this change in the number of children/enrollments per household?

Answer

Demographics:

As an advanced economy, we marry less, we marry later, and we have fewer children. Fewer children means fewer school district enrollments.

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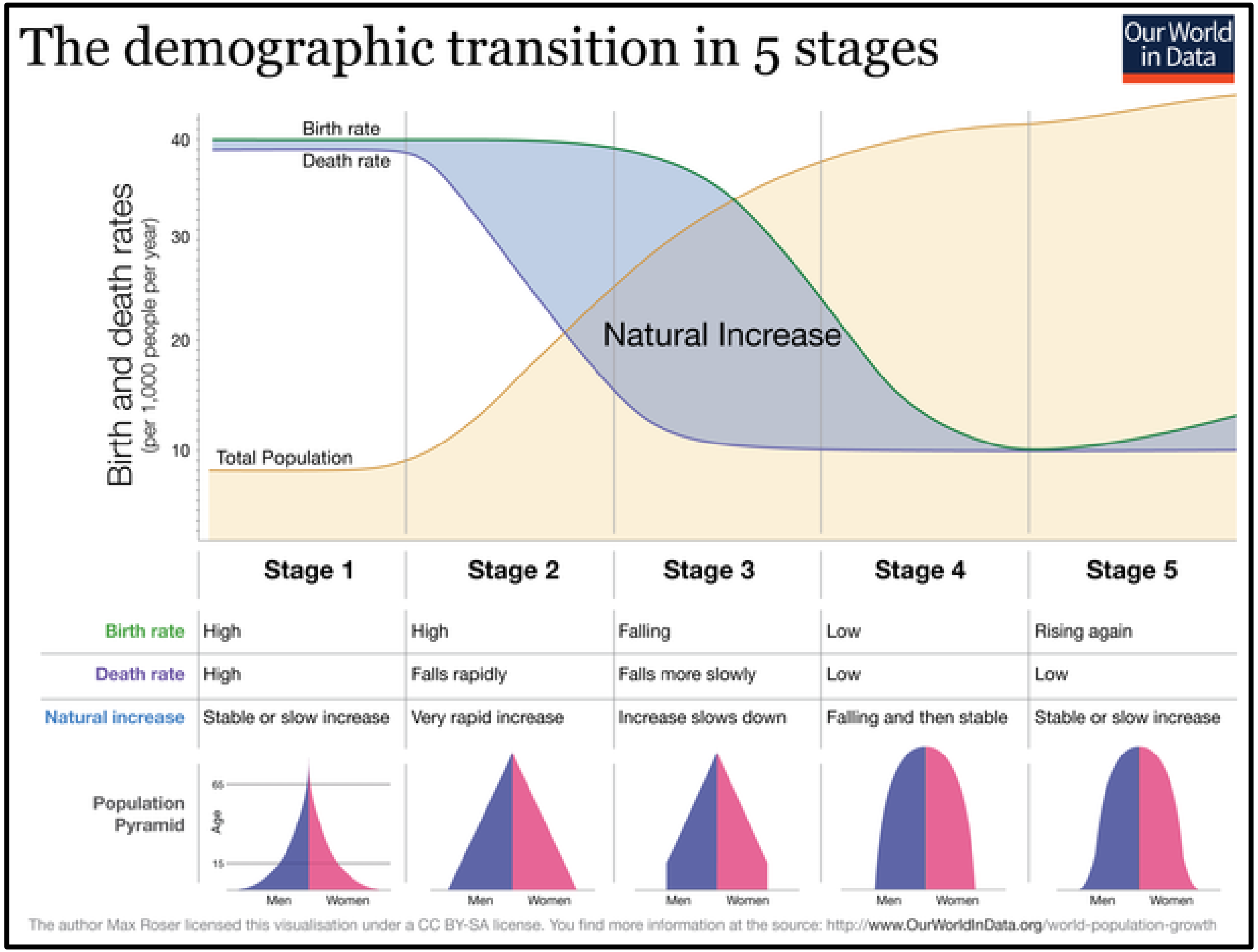
Demographic Trends:
A Connecticut Perspective

Demographics, Housing, and School District Enrollments



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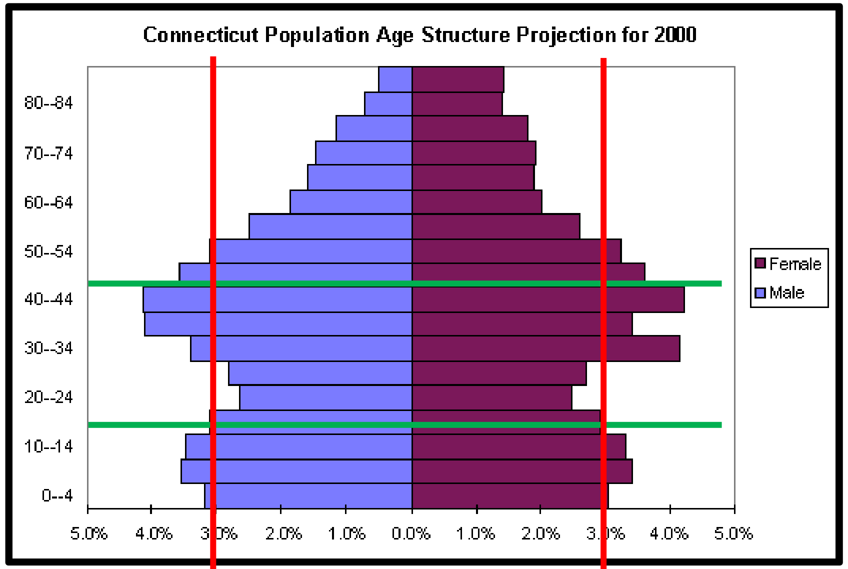
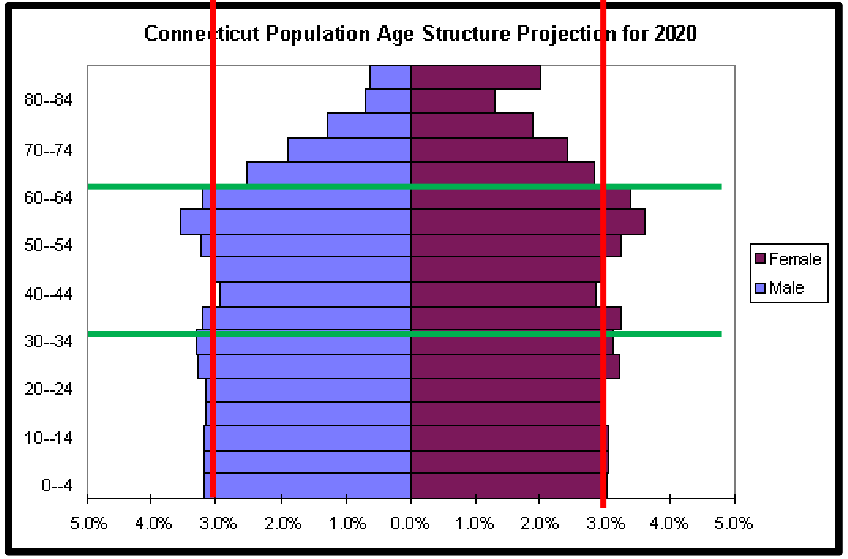


Connecticut Population Age Structure Projection for 2000



Connecticut Population Age Structure Projection for 2020

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Demographics, Housing, and School District Enrollments

TOTAL POPULATION	Population 2010	Population 2020	Population Change 2010 - 2020	% Change 2010-2020
Connecticut	**3,574,097**	**3,605,944**	**31,847**	**1%**
Fairfield County	916,829	957,419	40,590	**4%**
Hartford County	894,014	899,498	5,484	**1%**
Litchfield County	189,927	185,186	-4,741	**-2%**
Middlesex County	165,676	164,245	-1,431	**-1%**
New Haven County	862,477	864,835	2,358	**0%**
New London County	274,055	268,555	-5,500	**-2%**
Tolland County	152,691	149,788	-2,903	**-2%**
Windham County	118,428	116,418	-2,010	**-2%**

ADULT POPULATION	Population 2010	Population 2020	Population Change 2010 - 2020	% Change 2010-2020
Connecticut	**2,757,082**	**2,869,227**	**112,145**	**4%**
Fairfield County	689,810	743,170	53,360	**8%**
Hartford County	689,971	713,425	23,454	**3%**
Litchfield County	148,975	151,879	2,904	**2%**
Middlesex County	130,578	135,983	5,405	**4%**
New Haven County	669,503	690,994	21,491	**3%**
New London County	214,456	216,922	2,466	**1%**
Tolland County	121,807	123,584	1,777	**1%**
Windham County	91,982	93,270	1,288	**1%**

<18 POPULATION	Population 2010	Population 2020	Population Change 2010 - 2020	% Change 2010-2020
Connecticut	**817,015**	**736,717**	**-80,296**	**-10%**
Fairfield County	227,019	214,249	-12,770	**-6%**
Hartford County	204,043	186,073	-17,970	**-9%**
Litchfield County	40,952	33,307	-7,645	**-19%**
Middlesex County	35,098	28,262	-6,836	**-19%**
New Haven County	192,974	173,841	-19,133	**-10%**
New London County	59,599	51,633	-7,966	**-13%**
Tolland County	30,884	26,204	-4,680	**-15%**
Windham County	26,446	23,148	-3,298	**-12%**

U.S. and Connecticut Fertility Rate 2008 - 2020

Year	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
CT	1.88	1.80	1.72	1.71	1.66	1.63	1.63	1.63	1.63	1.59	1.57	1.54	1.51
US	2.08	2.00	1.93	1.89	1.88	1.86	1.86	1.84	1.82	1.77	1.73	1.71	1.64

Fertility Rate Outcomes

	Fertility Rate	**Deaths**	**Births**	**Replacement Rate**
Above Replacement	2.4	100	120	2.5 Births = Growth
Replacement	2.3	100	115	Stable
Replacement	2.2	100	110	Stable
Replacement – USA	2.1	100	105	Stable
Below Replacement	2.0	100	100	Decline
United States	1.73	100	82	-18 Births = Decline
Connecticut	**1.57**	**100**	**73**	**-27 Births = Decline**

Demographics, Housing, and School District Enrollments

NON-HISPANIC WHITE POPULATION	Population 2010	Population 2020	Population Change 2010 - 2020	% Change 2010-2020
Connecticut	2,757,082	2,869,227	-267,030	-10%
Fairfield County	606,716	552,125	-54,591	-9%
Hartford County	591,283	523,105	-68,178	-12%
Litchfield County	173,403	155,601	-17,802	-10%
Middlesex County	143,144	131,954	-11,190	-8%
New Haven County	582,384	509,688	-72,696	-12%
New London County	214,605	194,894	-19,711	-9%
Tolland County	133,589	120,021	-13,568	-10%
Windham County	101,138	91,844	-9,294	-9%

NON-HISPANIC ADULT POPULATION	Population 2010	Population 2020	Population Change 2010 - 2020	% Change 2010-2020
Connecticut	2,046,548	1,913,793	-132,755	-6%
Fairfield County	470,553	450,466	-20,087	-4%
Hartford County	481,437	441,908	-39,529	-8%
Litchfield County	138,339	131,221	-7,118	-5%
Middlesex County	115,151	112,302	-2,849	-2%
New Haven County	478,657	435,921	-42,736	-9%
New London County	173,964	164,712	-9,252	-5%
Tolland County	107,576	100,961	-6,615	-6%
Windham County	80,871	76,302	-4,569	-6%

NON-HISPANIC <18 POPULATION	Population 2010	Population 2020	Population Change 2010 - 2020	% Change 2010-2020
Connecticut	499,714	365,439	-132,275	-27%
Fairfield County	136,163	101,659	-34,504	-25%
Hartford County	109,846	81,197	-28,649	-26%
Litchfield County	35,064	24,308	-10,684	-30%
Middlesex County	27,993	19,652	-8,341	-30%
New Haven County	103,727	73,767	-29,960	-29%
New London County	40,641	30,182	-10,459	-26%
Tolland County	26,013	19,060	-6,953	-27%
Windham County	20,267	15,542	-4,725	-23%

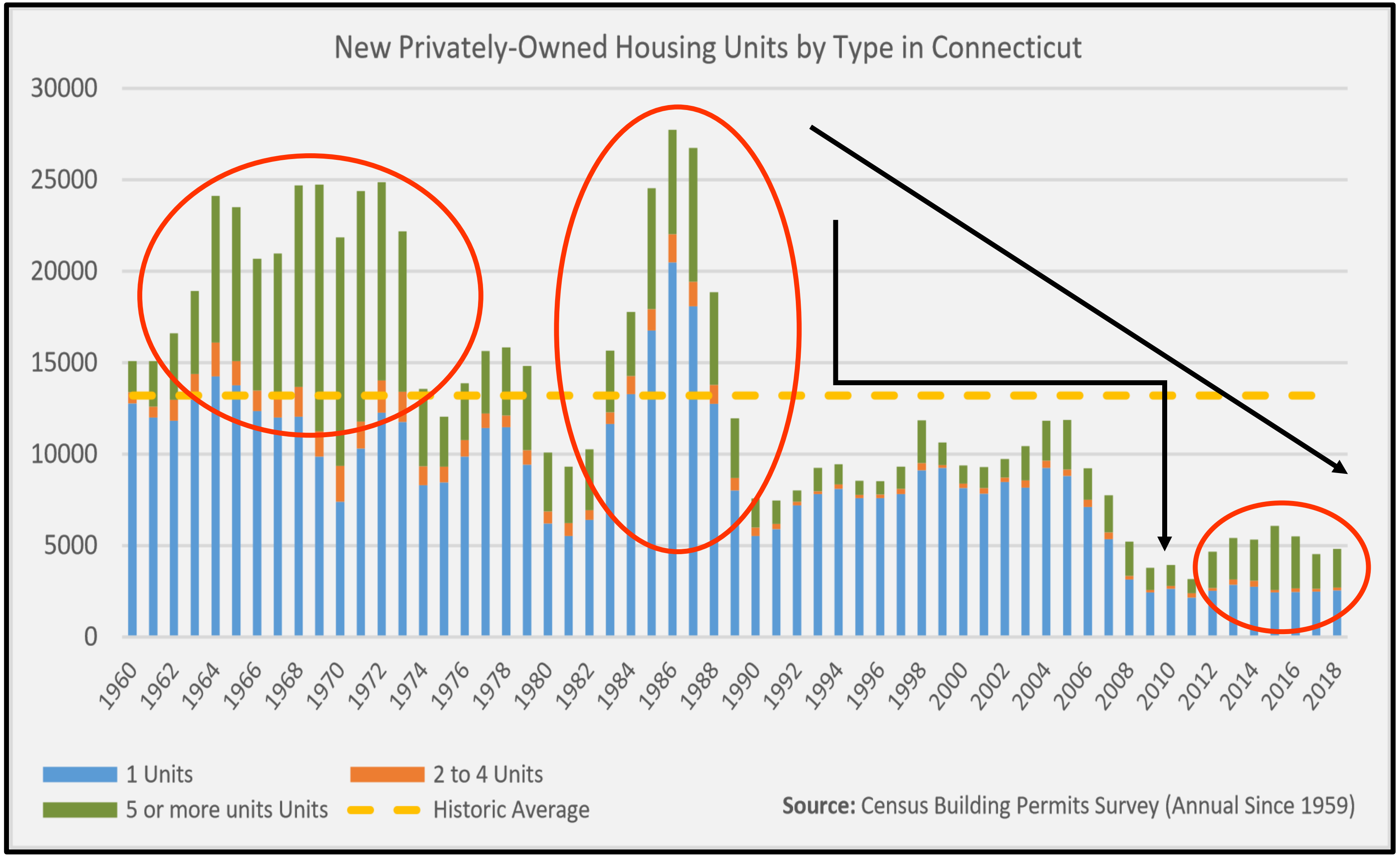
Connecticut Population/Births by Race

Race	Population	% of Births
White	63.9%	**53.3%** ↓
Black	10.7%	12.2% ↑
Hispanic	18.2%	26.3% ↑
Asian	5.1%	5.6% ↑
Native	0.2%	0.1%

Occupancy Characteristics, Connecticut 2022

	Percent Occupied	Percent Owner-Occupied	Percent Renter-Occupied
Occupied housing units			
1-person household	**29.9%**	**22.2%**	**45.2%**
2-person household	**33.6%**	**37.0%**	**26.9%**
3-person household	16.0%	17.1%	14.0%
4-or-more-person household	20.4%	**23.7%**	13.9%

Demographics, Housing, and School District Enrollments



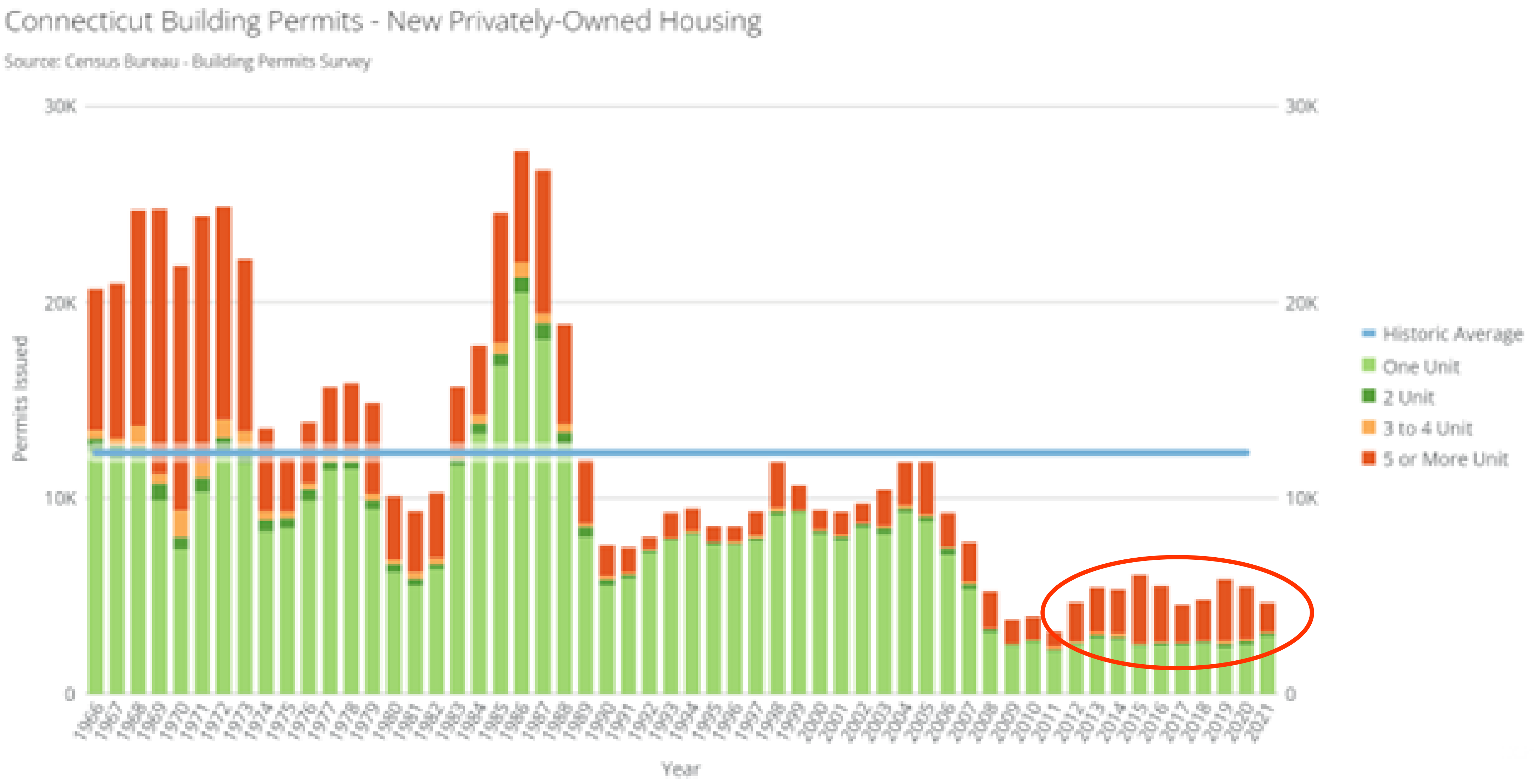
Source: Census Building Permits Survey (Annual Since 1959)

Demand Drivers – Jobs & Population

- 1985 to 1990 (5 years) nonfarm employment increased by **103,400.**
- 1990 to 2020 (30 years) nonfarm employment increased by only **44,800.**
- 1990 to 2020 (30 years) population grew by 318,828 persons—mostly from foreign immigration.
- Connecticut Population Growth

1950	2,007,280	**17.4%**
1960	2,535,234	**26.3%**
1970	3,031,709	**19.6%**
1980	3,107,576	2.5%
1990	3,287,576	5.8%
2000	3,405,565	3.6%
2010	3,574,097	4.9%
2020	3,605,944	0.9%

Demographics, Housing, and School District Enrollments



Connecticut Building Permits - New Privately-Owned Housing

Source: Census Bureau - Building Permits Survey

Demographic Trends:

Granby Case Study

Demographics, Housing, and School District Enrollments

TOTAL POPULATION	Population 2010	Population 2020	Population Change 2010 - 2020	% Change 2010-2020
Connecticut	**3,574,097**	**3,605,944**	**31,847**	**1%**
Granby	**11,282**	**10,903**	**-379**	**-3%**
South Windsor	25,709	26,918	1,209	5%
Fairfield County	916,829	957,419	40,590	4%
Hartford County	**894,014**	**899,498**	**5,484**	**1%**
Litchfield County	189,927	185,186	-4,741	-2%
Middlesex County	165,676	164,245	-1,431	-1%
New Haven County	862,477	864,835	2,358	0%
New London County	274,055	268,555	-5,500	-2%
Tolland County	152,691	149,788	-2,903	-2%
Windham County	118,428	116,418	-2,010	-2%

ADULT POPULATION	Population 2010	Population 2020	Population Change 2010 - 2020	% Change 2010-2020
Connecticut	**2,757,082**	**2,869,227**	**112,145**	**4%**
Granby	**8,386**	**8,552**	**166**	**2%**
South Windsor	19,515	20,717	1,202	6%
Fairfield County	689,810	743,170	53,360	8%
Hartford County	**689,971**	**713,425**	**23,454**	**3%**
Litchfield County	148,975	151,879	2,904	2%
Middlesex County	130,578	135,983	5,405	4%
New Haven County	669,503	690,994	21,491	3%
New London County	214,456	216,922	2,466	1%
Tolland County	121,807	123,584	1,777	1%
Windham County	91,982	93,270	1,288	1%

<18 POPULATION	Population 2010	Population 2020	Population Change 2010 - 2020	% Change 2010-2020
Connecticut	**817,015**	**736,717**	**-80,296**	**-10%**
Granby	**2,896**	**2,351**	**-545**	**-19%**
South Windsor	6,194	6,201	7	0%
Fairfield County	227,019	214,249	-12,770	-6%
Hartford County	**204,043**	**186,073**	**-17,970**	**-9%**
Litchfield County	40,952	33,307	-7,645	-19%
Middlesex County	35,098	28,262	-6,836	-19%
New Haven County	192,974	173,841	-19,133	-10%
New London County	59,599	51,633	-7,966	-13%
Tolland County	30,884	26,204	-4,680	-15%
Windham County	26,446	23,148	-3,298	-12%

NON-HISPANIC WHITE POPULATION	Population 2010	Population 2020	Population Change 2010 - 2020	% Change 2010-2020
Connecticut	2,757,082	2,869,227	-267,030	-10%
Granby	**10,723**	**9,719**	**-1,004**	**-9%**
Fairfield County	606,716	552,125	-54,591	-9%
Hartford County	591,283	523,105	-68,178	-12%
Litchfield County	173,403	155,601	-17,802	-10%
Middlesex County	143,144	131,954	-11,190	-8%
New Haven County	582,384	509,688	-72,696	-12%
New London County	214,605	194,894	-19,711	-9%
Tolland County	133,589	120,021	-13,568	-10%
Windham County	101,138	91,844	-9,294	-9%

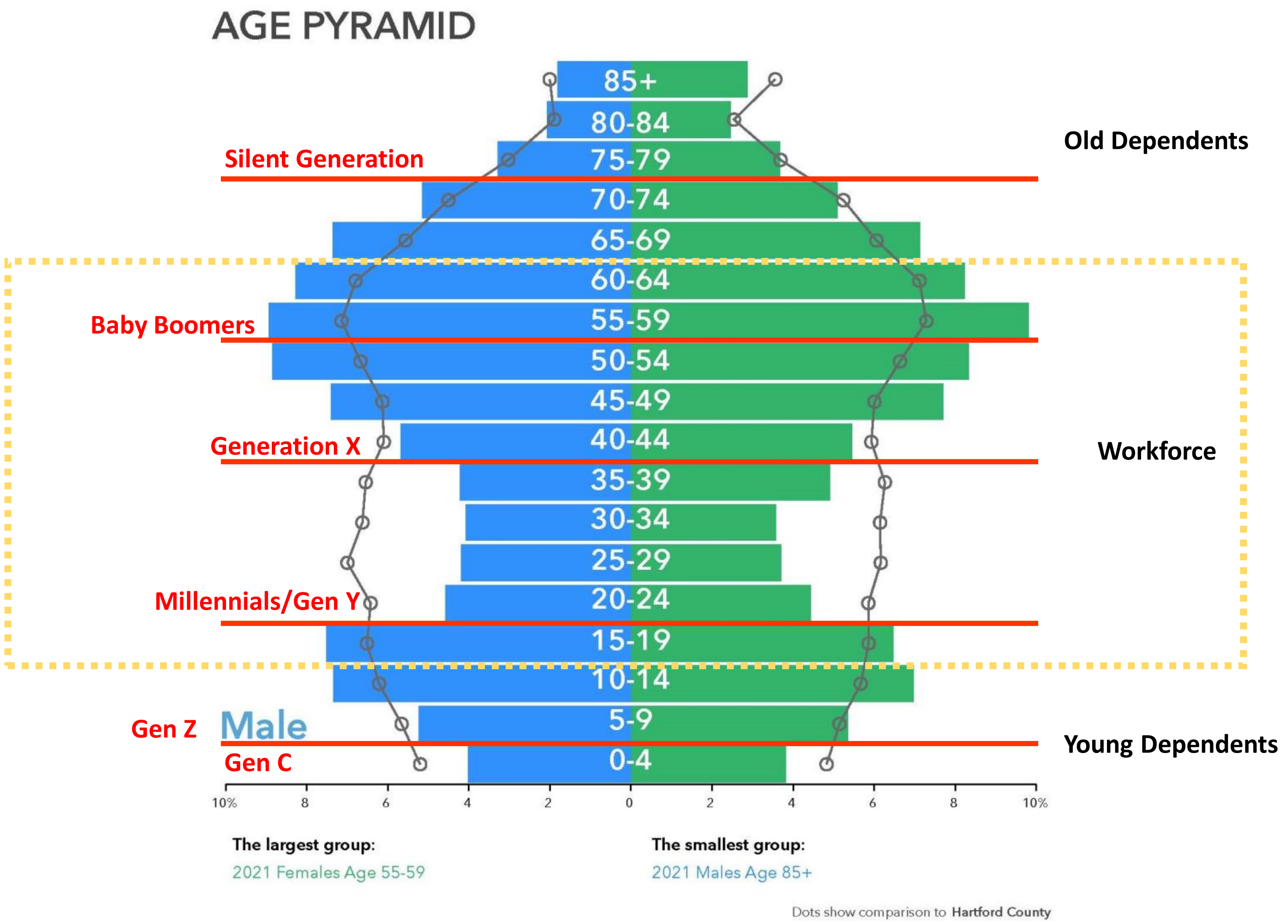
NON-HISPANIC ADULT POPULATION	Population 2010	Population 2020	Population Change 2010 - 2020	% Change 2010-2020
Connecticut	2,046,548	1,913,793	-132,755	-6%
Granby	**8,050**	**7,826**	**-224**	**-3%**
Fairfield County	470,553	450,466	-20,087	-4%
Hartford County	481,437	441,908	-39,529	-8%
Litchfield County	138,339	131,221	-7,118	-5%
Middlesex County	115,151	112,302	-2,849	-2%
New Haven County	478,657	435,921	-42,736	-9%
New London County	173,964	164,712	-9,252	-5%
Tolland County	107,576	100,961	-6,615	-6%
Windham County	80,871	76,302	-4,569	-6%

NON-HISPANIC <18 POPULATION	Population 2010	Population 2020	Population Change 2010 - 2020	% Change 2010-2020
Connecticut	499,714	365,439	-132,275	-27%
Granby	**2,673**	**1,893**	**-780**	**-29%**
Fairfield County	136,163	101,659	-34,504	-25%
Hartford County	109,846	81,197	-28,649	-26%
Litchfield County	35,064	24,308	-10,684	-30%
Middlesex County	27,993	19,652	-8,341	-30%
New Haven County	103,727	73,767	-29,960	-29%
New London County	40,641	30,182	-10,459	-26%
Tolland County	26,013	19,060	-6,953	-27%
Windham County	20,267	15,542	-4,725	-23%

Demographics, Housing, and School District Enrollments

Granby: Population Pyramid

- Granby's population age structure:
    - Top heavy and will **continue to age** for the next 10 years, or more.
    - **Lacking Millennials**—the population of primary child rearing years.
        - There are so few person 20 to 44, the population who will produce the next generation of school enrollments.
    - Age 55 down to 30 is an inverted pyramid—indicating possible population implosion.
    - The same is true 19 and under—also inverted.



The largest group:
2021 Females Age 55-59

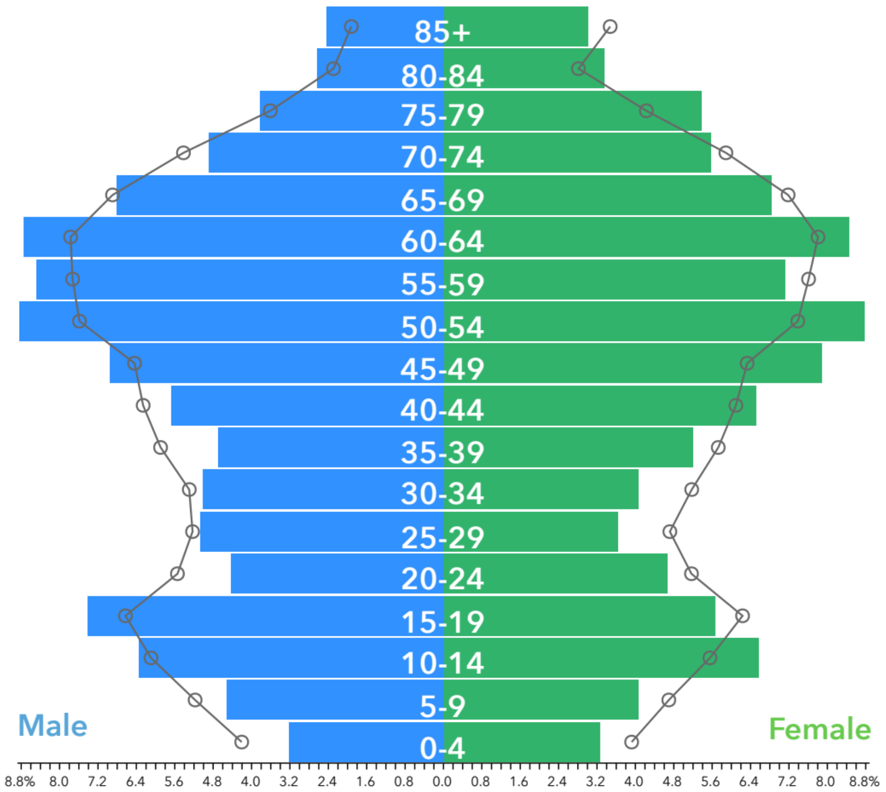
The smallest group:
2021 Males Age 85+

Dots show comparison to **Hartford County**

Demographics, Housing, and School District Enrollments

Middlefield, Connecticut

AGE PYRAMID - 2023

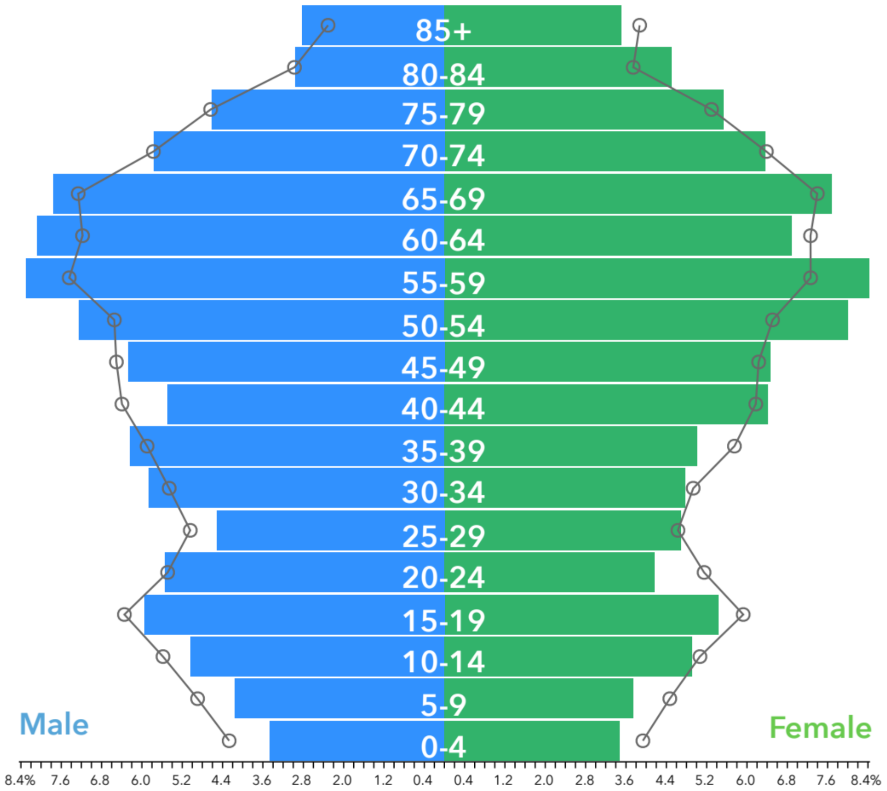


The largest group:
2023 Males Age 50-54

The smallest group:
2023 Males Age 85+

Dots show comparison to **09007 (Middlesex County)**

AGE PYRAMID - 2028



The largest group:
2028 Males Age 55-59

The smallest group:
2028 Males Age 85+

Dots show comparison to **09007 (Middlesex County)**

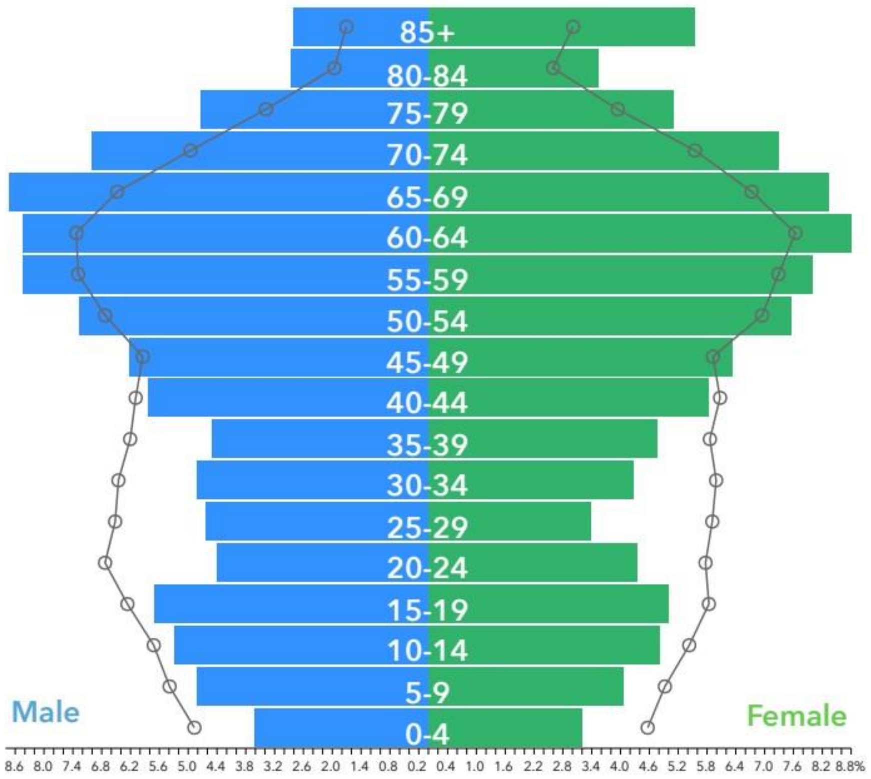
Demographics, Housing, and School District Enrollments

Stonington, Connecticut

Stonington town, CT
Stonington town, CT (0901173770)
Geography: County Subdivision

Prepared by Esri

AGE PYRAMID - 2023



The largest group:
2023 Females Age 60-64

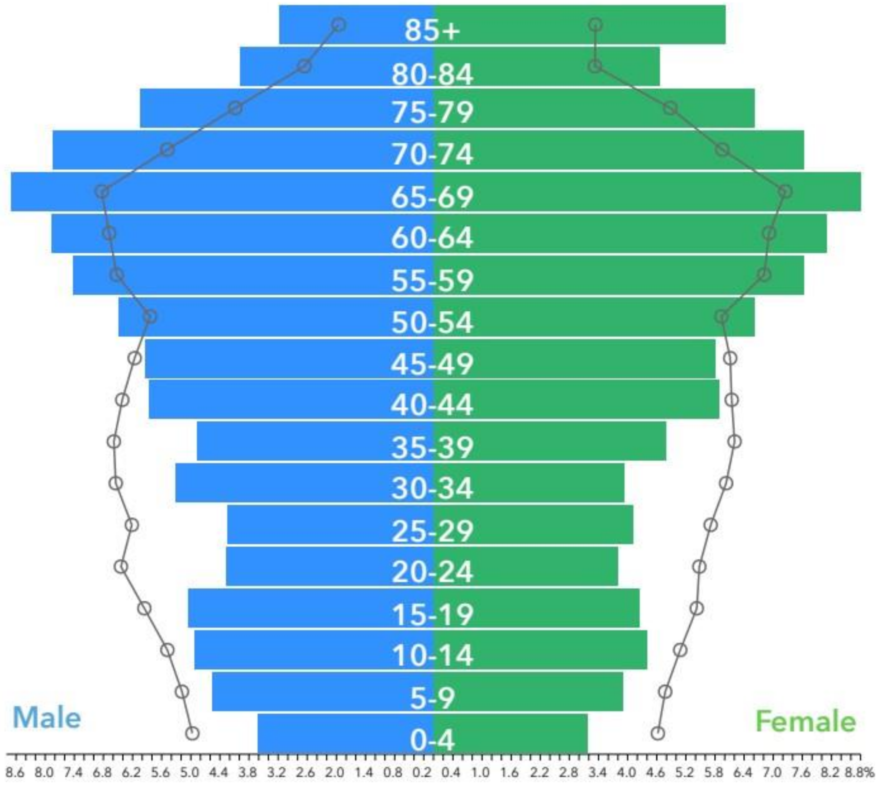
The smallest group:
2023 Males Age 85+

Dots show comparison to **09011 (New London County)**

Stonington town, CT
Stonington town, CT (0901173770)
Geography: County Subdivision

Prepared by Esri

AGE PYRAMID - 2028



The largest group:
2028 Females Age 65-69

The smallest group:
2028 Males Age 85+

Dots show comparison to **09011 (New London County)**

Demographics, Housing, and School District Enrollments

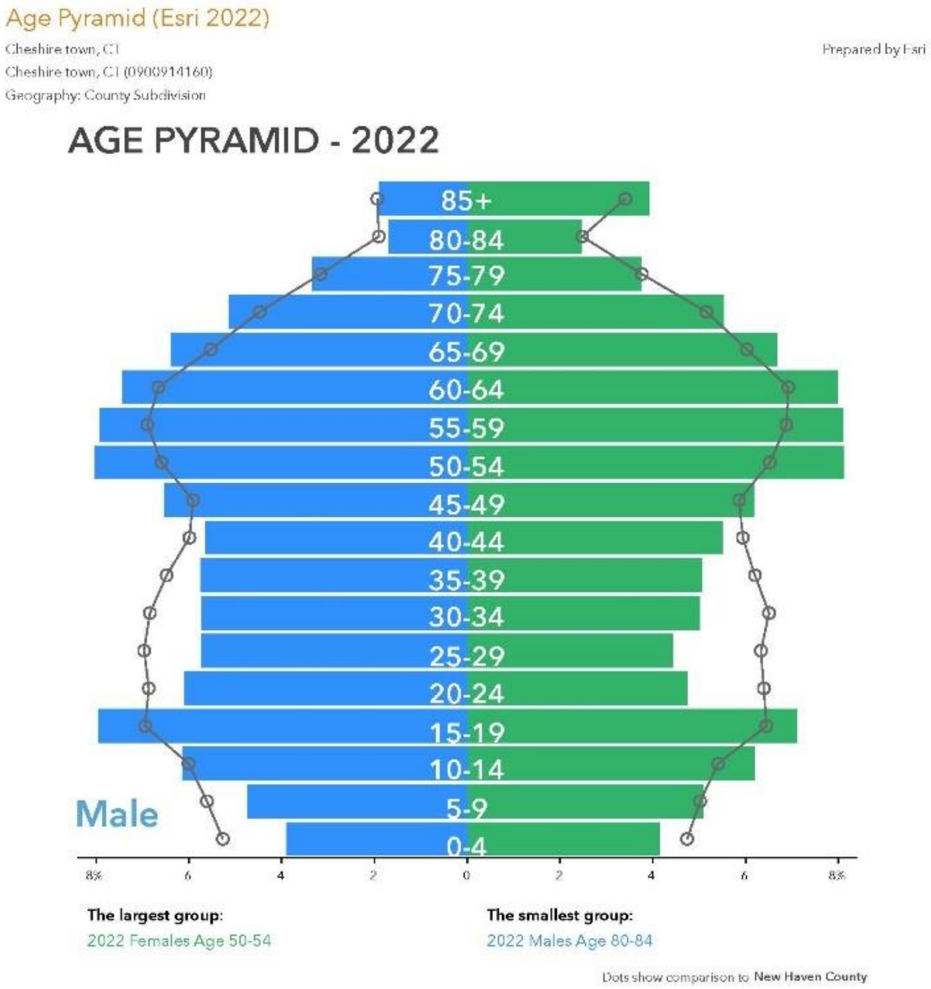
POPULATION UNDER 18	Population 2010	Population 2020	Pop. Change 2010 - 2020	% Change 2010-2020
Connecticut	817,015	736,717	-80298	-10%
Hartford County	204,043	186,073	-17970	-9%
Middlesex County	35,098	28,262	-6836	-19%
New London County	59,599	51,633	-7966	-13%
Chester	787	557	-230	**-29%**
Clinton	2,891	2,262	-629	**-22%**
Cromwell	2,914	2,743	-171	-6%
Deep River	975	735	-240	**-25%**
Durham	1,944	1,448	-496	**-26%**
East Haddam	2,047	1,597	-450	**-22%**
East Hampton	2,980	2,537	-443	**-15%**
Essex	1,390	949	-441	**-32%**
Haddam	1,967	1,697	-270	**-14%**
Killingworth	1,561	1,106	-455	**-29%**
Lyme	437	339	-98	**-22%**
Middlefield	1,006	731	-275	**-27%**
Middletown	9,082	7,645	-1437	**-16%**
Old Lyme	1,610	1,345	-265	**-16%**
Old Saybrook	2,033	1,480	-553	**-27%**
Portland	2,179	1,835	-344	**-16%**
Westbrook	1,342	940	-402	**-30%**
LCTRVR	**37,145**	**29,946**	**-7,199**	**-19.4%**

River COG

SCHOOL DISTRICT ENROLLMENTS	Enrollment 2008	Enrollment 2021	Enrollment Change	Enrollment 2021 % of 2008
Connecticut	574,848	513,079	-61,769	-10.8%
Chester	341	201	-140	41%
Clinton	2,113	1,570	-543	-25.7%
Cromwell	2,000	1,989	-11	-0%
Deep River	389	218	-171	-46%
Durham (R-13)	2,156	1,440	-716	-33.2%
East Haddam	1,433	935	-498	-34.8%
East Hampton	2,087	1,824	-263	-12.6%
Essex	551	313	-238	-43.2%
Haddam (R-17)	2,562	1,849	-713	-27.8%
Killingworth (R-17)	2,562	1,849	-713	-27.8%
Lyme (R-18)	1,538	1,283	-255	-14.6%
Middlefield (R-13)	2,156	1,440	-716	-33.2%
Middletown	5,088	4,409	-679	-13.4%
Old Lyme (R-18)	1,538	1,283	-255	-14.6%
Old Saybrook	1,621	1,074	-547	-33.7%
Portland	1,433	1,279	-154	-10.7%
Westbrook	985	650	-335	-34%
LCTRVR	**24,297**	**19,034**	**-5,263**	**-21.4%**

Demographics, Housing, and School District Enrollments

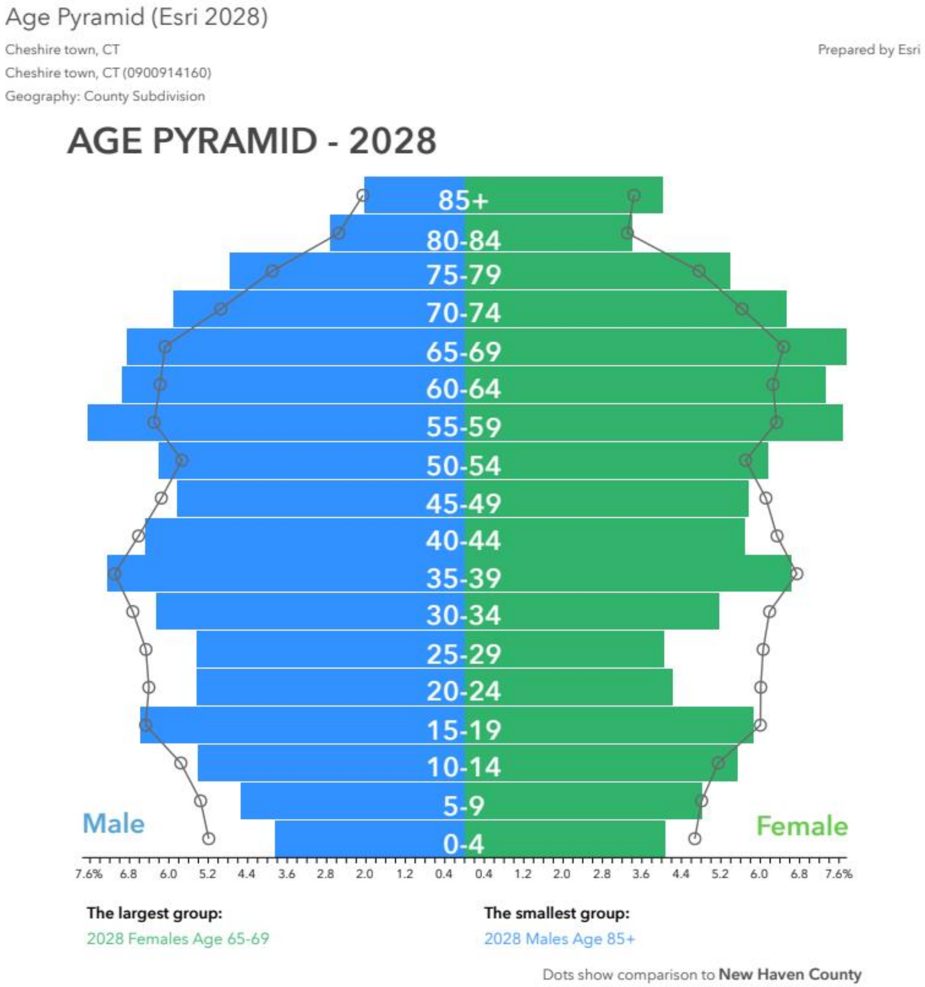
Cheshire, Connecticut



The largest group:
2022 Females Age 50-54

The smallest group:
2022 Males Age 80-84

Dots show comparison to New Haven County



The largest group:
2028 Females Age 65-69

The smallest group:
2028 Males Age 85+

Dots show comparison to New Haven County

Demographics, Housing, and School District Enrollments

Granby's Housing Characteristics:

- **Occupancy (Tenure):** housing stock overwhelmingly owner-occupied—not surprising since the stock is predominately single-family detached.
- **Bedrooms:** housing stock is predominately **3 or more-bedrooms** (**84%**)—not surprising since the stock is predominately single-family.
    - Housing with more bedrooms generate more school enrollments.
    - Single-family detached, owner-occupied housing with three or more-bedrooms generates the most school district enrollments.
    - ***Granby's (and Connecticut's) existing housing stock is mostly designed for families with school age children—for past generations.***

Household Size by Housing Tenure

	Town of Granby	**Hartford County**	**State of Connecticut**
Occupied housing units	4,147	350,408	1,370,746
Owner-occupied	**3,744 (90.3%)**	224,640 (**64.1%**)	905,681 (**66%**)
Renter-occupied	403 (9.7%)	125,768 (**35.9%**)	465,065 (**33.9%**)
Average household size of occupied housing units			
Average household size of owner-occupied unit	2.79	2.61	2.65
Average household size of renter-occupied unit	**2.02**	2.23	2.28

Bedrooms

	Town of Granby	**Hartford County**	**State of Connecticut**
Total housing units	4,398	379,602	1,516,629
No bedroom	30	9,234	34,812
1 bedroom	222	49,001	190,973
2 bedrooms	452	105,608	410,732
3 bedrooms	**2,019**	141,219	551,144
4 bedrooms	1,327	61,054	260,013
5 or more bedrooms	348	13,486	68,955

Demographics, Housing, and School District Enrollments

Housing Production: Past Demand & Absorption

1997-2017 = 33 units/year

1997-2007 = **53 units/year**

2008-2017 = 12 units/year

2018-2021 = **52 units/year**

Market Demand/Absorption:

1997-2007: **64.3%** (582 units) of net gain—stronger market

2008-2017: **12.7%** (115 units) of net gain—weaker market

2018-2021: **23.0%** (208 units) of net gain—soft market

Multi-Family

1997-2007 = **0%** market share

2008-2017 = **45.2%** market share

2018-2021 = **62.5%** market share

Granby Building Permits 1997-2017

Year	Total Units	1-Unit	2-Unit	3-4-Unit	5+ Unit	Demo	Net Gain
2021	41	9	32	0	0	2	39
2020	40	14	0	0	26	2	38
2019	70	18	0	0	52	6	64
2018	68	16	0	0	52	1	67
2017	28	12	0	0	16	2	26
2016	49	13	0	0	36	1	48
2015	7	7	0	0	0	0	7
2014	11	11	0	0	0	2	9
2013	10	10	0	0	0	1	9
2012	4	4	0	0	0	1	3
2011	4	4	0	0	0	1	3
2010	6	6	0	0	0	0	6
2009	4	4	0	0	0	2	2
2008	3	3	0	0	0	1	2
2007	17	11	2	4	0	2	15
2006	46	46	0	0	0	0	46
2005	64	64	0	0	0	0	64
2004	43	43	0	0	0	0	43
2003	60	60	0	0	0	0	60
2002	73	73	0	0	0	0	73
2001	60	60	0	0	0	5	55
2000	60	60	0	0	0	7	53
1999	73	73	0	0	0	0	73
1998	46	46	0	0	0	6	40
1997	62	62	0	0	0	2	60
Total	**730**	**672**	**2**	**4**	**52**	**33**	**697**
Percent	100%	83.2%	0%	1.3%	16.1%	8.9%	92.5%

Source: Connecticut DECD Housing Permit Data (2021). Town of Granby, Years 2018 – 2021.

Granby: Demographics, Housing, and School District Enrollments

Granby's Housing Production – Enrollments – Education Expenditures:

- Housing production 2007 to 2017: **130 net gain units**.
    - Using the existing housing stock enrollment rate of 0.42 enrollments per unit, we can assume 130 new housing units may have produced 55 new enrollments. However,
- School District enrollments from 2007 to 2017 declined from **2,339 to 1,729**, a loss of **610** students or over **25%** of total enrollments.
    - The fact that enrollments declined while new housing was *added should question the assumption that new housing development is the primary driver of school district enrollments.*
- From 2007 to 2017, Granby's School District (BoE) **budget increased** from $26,596,912 to $30,075,085, an increase of $3,478,173.
    - This means the School District budget increased **$7,276** for every enrollment lost (**-478**).
    - This should further question the assumption that school district enrollments are the primary driver of education costs.

GRANBY HOUSING PERMITS NET GAIN 2007-2017	
2018-2021	**208**
2021	39
2020	38
2019	64
2018	67
2007-2017	**130**
2017	26
2016	48
2015	7
2014	9
2013	9
2012	3
2011	3
2010	6
2009	2
2008	2
2007	15

GRANBY SCHOOL DISTRICT ENROLLMENTS		
2008-2021		-610
2025-26	1,837	---
2024-25	1,841	---
2023-24	1,845	---
2022-23	1,790	---
2021-22	1,779	---
2020-21	**1,729 (73.9%)**	-70
2019-20	1,799	-78
2018-19	1,877	3
2017-18	1,874	-6
2016-17	1,880	-81
2015-16	1,961	-9
2014-15	1,970	-95
2013-14	2,065	-47
2012-13	2,112	-59
2011-12	2,171	-82
2010-11	2,253	-41
2009-10	2,294	13
2008-09	2,281	-58
2007-08	**2,339 (100%)**	---

GRANBY SCHOOL DISTRICT BUDGET		
2008-2021		-610
2021-22	**$33,183,506**	---
2020-21	**$32,043,750**	-70
2019-20	$31,806,625	-78
2018-19	$31,713,128	3
2017-18	$30,075,085	-6
2016-17	$29,584,962	-81
2015-16	$29,895,477	-9
2014-15	$29,766,600	-95
2013-14	$28,927,288	-47
2012-13	$28,746,300	-59
2011-12	$28,596,663	-82
2010-11	$28,400,894	-41
2009-10	$28,306,050	13
2008-09	$27.359,617	-58
2007-08	**$26,596,912**	---

Demographics, Housing, and School District Enrollments

Housing Production – Enrollments – Education Expenditures:

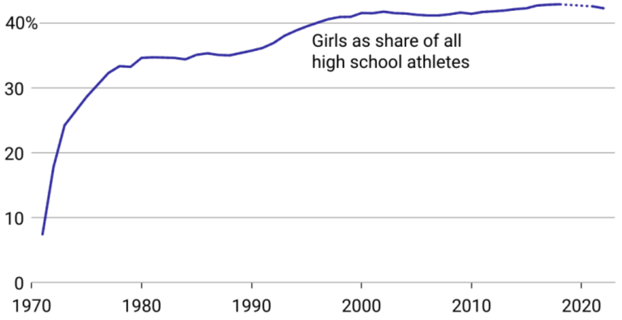
- From 2007 to 2017 School District enrollments declined by more than 25%.
- *New housing is not a primary driver of enrollments*, nor are *enrollments a primary driver of education expenditures*.
    - **Note:** Adjusting for inflations, the 2007 budget ($26,596,912) equals $31,442,906 in 2017 dollars or $1,367,821 more than the 2017 budget of $30,075,085.
        - BoE spending increases below the rate of inflation.
- Using the 2007 enrollments (2,339) and the 2017 budget ($30,075,085), the per pupil expenditures in 2017 would be ***$12,858 instead of $16,048***.
    - PPE increase as enrollments decrease—the fixed and sunken costs of the education expenditures are capitalized across fewer students. (Yes, this calculation is not perfect.)
- **Conclusion:** It is time to put the myth that new housing drives education costs (and taxes) behind us and end the practice of fiscal zoning. If Granby is to prosper, it needs younger persons, young families, and school age children.

GRANBY: COMPARISON 2007-2017

Year	Housing	Enrollments	BOE Budget	PPE
2007-17	130	-478	$3,478,173	**$4,677**
2017	26	-6	**$30,075,085**	**$16,048**
2016	48	-81	$29,584,962	$15,736
2015	7	-9	$29,895,477	$15,245
2014	9	-95	$29,766,600	$15,109
2013	9	-47	$28,927,288	$14,088
2012	3	-59	$28,746,300	$13,611
2011	3	-82	$28,596,663	$13,172
2010	6	-41	$28,400,894	$12,605
2009	2	13	$28,306,050	$12,339
2008	2	-58	$27,359,617	$11,994
2007	15	---	**$26,596,912**	**$11,371**

Demographics, Housing, and School District Enrollments

Some other thinking about other costs.

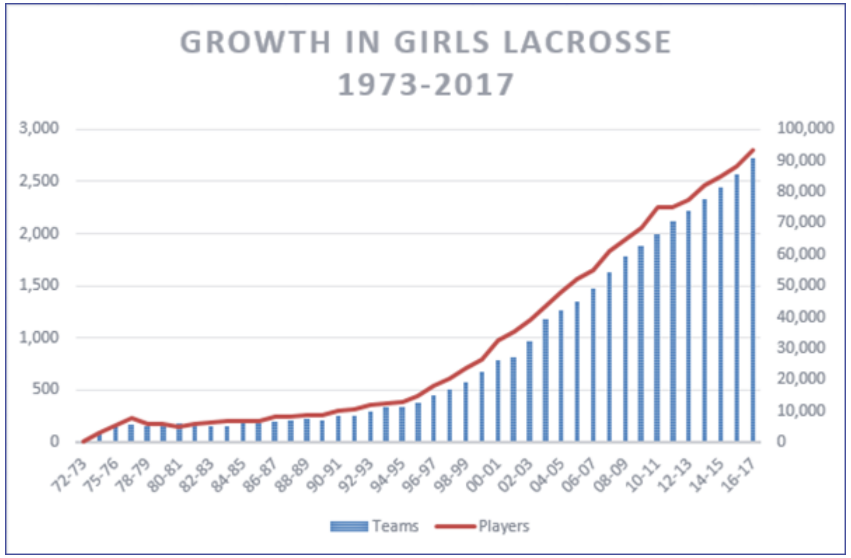


Girls sports participation falls behind boys

After exponential growth in the 1970s, high school girls sports participation has grown at a slower pace, reaching 42.3% in 2022.

Note: The years listed represent the start of academic years. Data is unavailable for the 2019-20 and 2020-21 school years due to the COVID-19 pandemic. The data source is only divided by girls and boys and does not provide information on sports participation among transgender students.

Data source: National Federation of State High School Associations



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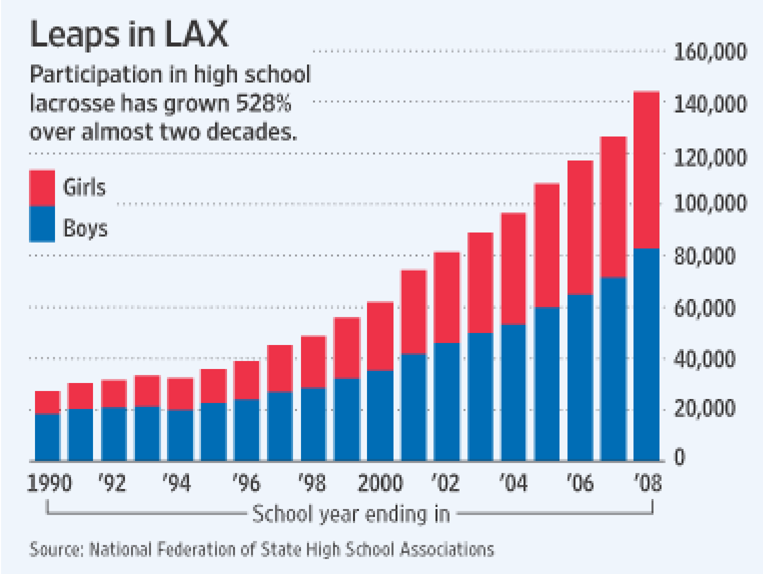


Leaps in LAX

Participation in high school lacrosse has grown 528% over almost two decades.

Source: National Federation of State High School Associations

NVCOG

GOMAN+YORK
PLANNING AND DESIGN

Housing and Education:

Multi-Family, Enrollments, and Municipal Fiscal Impacts

Demographics, Housing, and School District Enrollments

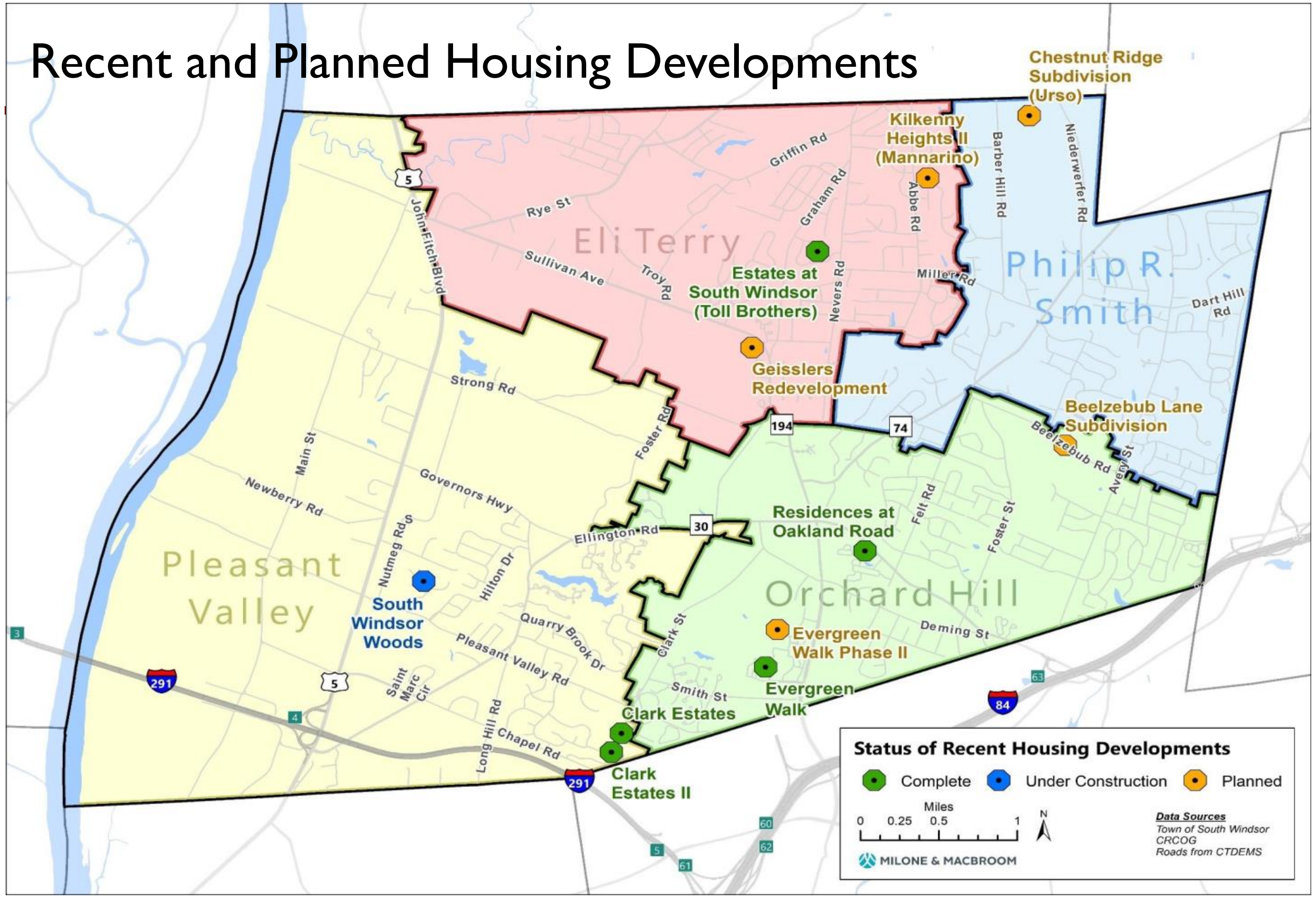
Case Study: Ellington’s Existing Multi-Family Housing and School District Enrollments (2019)

Apartment/Condos	01	02	03	04	05	06	07	08	09	0K	10	11	12	P3	PK	PSAC Total	Unit Total	1 B-R	2 B-R	3 B-R	4 B-R
Abbott Place (Abbottville)				1												1	54	0	30	23	1
Autumn Chase	15	15	6	11	6	7	10	5	5	22	6	3	3	3	3	120	332	97	235		
Chaserall Meadows	2		1		1				1		1	1			1	8	60	0	43	17	0
Cider Mill Heights (1 Maple St)	2	3	1		2		1				2	1	2			14	38	4	34		
Cornfield		3	3		3	2	1	1	1	4	2	2		1		23	215	173	42		
Deer Valley (South)	2	4	7	4	1	1	3	1	2	7	2	1			2	37	256	127	129		
Deer Valley North	1	1	2		3	2	1	1		1		2				14	200	100	100		
Ellington Ridge				2	2	1	2	2		1		3				13	158	132	26		
Johnny Appleseed	3	1	2		2	1	2						1			12	120	96	24		
Meadowbrook			1		1								1			3	129	129			
Pinney Hill Apartments												1				1	69	69			
Ellington Meadows (Steeple View)				4	1	1	1	1				1	1			10	49	0	10	39	
Stonebridge Apartments	1					1	1		1			1				5	79	79			
Watercrest Townhouses					1	2			1				1			5	8	8			
Windermere Village	6	3	3	1	2	2	1		1	9						28	95	1	27	63	4
Total	32	30	26	23	25	20	23	11	12	44	13	16	9	4	6	**295**	**1,862**	1015	700	142	5

Findings: 1,862 MF Units = **80.6%** of Total (2,309) MF Units. 295 Enrollments / 1,862 Units = **0.158** Enrollments/Unit

Demographics, Housing, and School District Enrollments

Case Study: South Windsor Recent Housing Development and Enrollments


Recent and Planned Housing Developments
Chestnut Ridge Subdivision (Urso)
Kilkenny Heights II (Mannarino)
Griffin Rd
Graham Rd
Abbe Rd
Barber Hill Rd
Niederwerfer Rd
Rye St
Eli Terry
Sullivan Ave
Troy Rd
Estates at South Windsor (Toll Brothers)
Nevers Rd
Miller Rd
Philip R. Smith
Dart Hill Rd
Geisslers Redevelopment
John Fitch Blvd
Strong Rd
Foster Rd
Beelzebub Lane Subdivision
Beelzebub Rd
Avery St
Main St
Newberry Rd
Governors Hwy
Ellington Rd
Residences at Oakland Road
Felt Rd
Foster St
Pleasant Valley
Nutmeg Rd S
South Windsor Woods
Hilton Dr
Quarry Brook Dr
Pleasant Valley Rd
Orchard Hill
Clark St
Evergreen Walk Phase II
Deming St
Saint Marc Cir
Long Hill Rd
Chapel Rd
Smith St
Clark Estates
Evergreen Walk
Clark Estates II
5
194
74
30
291
84
Status of Recent Housing Developments
● Complete
● Under Construction
● Planned
Miles
0 0.25 0.5 1
N
MILONE & MACBROOM
Data Sources
Town of South Windsor
CRCOG
Roads from CTDEMS

Source: South Windsor Public Schools Enrollment Projections, (2020)

South Windsor Census 2010 to 2020

- Total Population = 5%
- Total Adult Pop. = 6%
- Total <18 Pop. = 0%

Enrollment from Recently Completed and Under Construction Housing Developments: As of October 2020

New Development Name	Status	Type	Occupied Units	K-12 Enrollments/Unit
Clark Estates	Complete	**Single-family**	18	**1.06**
Clark Estates II	Complete	**Single-family**	22	**0.86**
Evergreen Walk	Complete	**Apartments**	200	**0.18**
Residences at Oakland Road	Complete	**Apartments**	78	**0.17**
Estates at South Windsor	Complete	**Single-family**	44	**1.02**
South Windsor Woods	Under Construction	Condominiums	105	0.62
All New Developments	-		467	**0.42**

1- and 2-Bedroom multi-family apartments produce very few school district enrollments—less than 0.2 enrollments per unit. Why?

- Low and declining fertility rates
- High percent of one-person households
- Low percent of family-households with three or more persons

Demographics, Housing, and School District Enrollments

Case Study: Recent Hartford Multi-Family Developments with Granby's Mill Rate:

- Actual appraised and assessed value based on 2021 local government assessment records.
- Motor vehicles approximated based on parking requirements.
- Education expenditures based per pupil cost per new enrollment and New-to-District for 50% of total new enrollments.
- General government services estimated after commercial and industrial property taxes and education expenditures.

Sample Multi-Family Apartments and Tax Value

Name	Town	Units	Appraised	Assessed	Granby Mill Rate	Taxes
275 Ridge Road	Wethersfield	62	$10,681,934	$7,477,360	39.61	$296,178
Heirloom Flats	Bloomfield	215	$35,564,400	$24,895,080	39.61	$986,094
Tempo at Evergreen	South Windsor	192	$24,861,000	$17,402,900	39.61	$689,328
Mansions at Canyon Ridge	East Windsor	115	$31,118,500	$21,782,950	39.61	$862,822
Total =		**584**	**$102,225,834**	**$71,558,290**	39.61	**$2,834,422**

Sample Municipal Fiscal Impact Summary

Revenues: Real Property Taxes & User Fees

Real Property Taxes (584 Multi-Family Residential Units) = $2,834,422

Personal Property Taxes (1,022 Motor Vehicles at $350/vehicle) $357,700

Estimated Projection – Total Revenues = **$3,192,122**

Expenditures:

Education Enrollment Expenditures (117 Enrollments @ $9,718/Year) = -$1,137,006

General Government Services – Residential (21% of taxes paid) = -$595,228

Estimated Projection – Total Expenditures **-$1,732,234**

Fiscal Impact Summary

Estimated Positive Fiscal Impact/Year = **$1,459,888**

Demographics, Housing, and School District Enrollments

Case Study: Granby Kearns Primary School Property

- 33.8 acres total, approximately 13.8 acres developable.
- Zoned R-30, Multi-Family allowed by Special Permit.
- 8 units per acre allowed, assume 100 units.
- Unit Mix – Assume
    - Studio = 10% or 10 units
    - One-Bedroom = 35% or 35 units
    - Two-Bedroom = 45% or 45 units
    - Three-bedroom = 10% or 10 units

100 Housing Units – School Enrollment Projections

Housing Units	Units	Multiplier (1)	PSAC (2)	N-T-D (3)	NTD –E
Studio (10%)	10	0.04	0.4	50%	1
One-Bedroom (35%)	35	0.04	1.4	50%	2
Two-Bedroom (45%)	45	0.25	11.25	50%	6
Three-Bedroom (10%)	10	0.59	5.9	50%	3
Totals	**100**	**[0.23]**	**22.55 (23)**	50%	**12**

Notes:

1) Multipliers: Derived from the Rutgers University, Center for Urban Policy Research "*Residential Demographic Multipliers – Connecticut*."
2) PSAC stands for Public School Age Children. It is another way of saying enrollments.
3) N-T-D stands for New-To-District: represents the percent of student enrollments who are projected to be new to the Granby School District—most enrollments from new residential development students already enrolled in the District. This is derived from the South Windsor BoE Public Schools Enrollment Projections reports (2018, 2019, and 2020) that shown New-to-District enrollments fluctuate between 13% to 30% of enrollments. Therefore, our utilization of 50% new-to-district enrollments is conservative.

100 Housing Units – School Enrollment Projections

BOE Expenditures	Per Pupil	Total PSE	Total Cost	N-T-D	N-T-D Cost
Total Expenditures	$18,533	23	$426,259	12	$222,396
Local-Share Expenditures	$15,753	23	$362,319	12	$189,036
Allocated Expenditures	$9,451	23	$217,373	12	$113,412

Calculation Notes:

- **Total Expenditures** is the BOE budget divided by the total enrollment. BOE Operating budget 2020-21 = $32,043,750 / October 1, 2020 enrollment of 1,729 = $18,533 per pupil.
- **Local-Share Expenditure** is the per pupil expenditures less non-local tax revenues (federal, state, and other revenue sources). Granby's 2020-21 budget is $47,622,341. However, 15% or $7,143,351 comes from intergovernmental sources, not property tax revenue. Therefore, to calculate the fiscal cost of education related to property taxes, the Local-Share Expenditures for education cost per pupil are reduced to 85% of the Total Expenditures ($18,533) or $15,753.
- **Allocated Expenditures** is based on a general analysis of the BOE budget that isolates approximately 35% of the budget that is unlikely to be impacted by changes in enrollment. For example, district office expenditures, school administrative offices, utilities, building operations and maintenance, prorated staffing, etc. Therefore, the Local-Share Expenditure is reduced by 40% to provide for the Allocated Expenditure.
- **N-T-D (New-To-District)** represents the portion or percent of student enrollments who are anticipated to be new to the Granby School District. As discussed above, we estimate 50% new-to-district enrollments. However, due to rounding, the 12 new-to-district enrollments equal 52%.

Summary of Findings

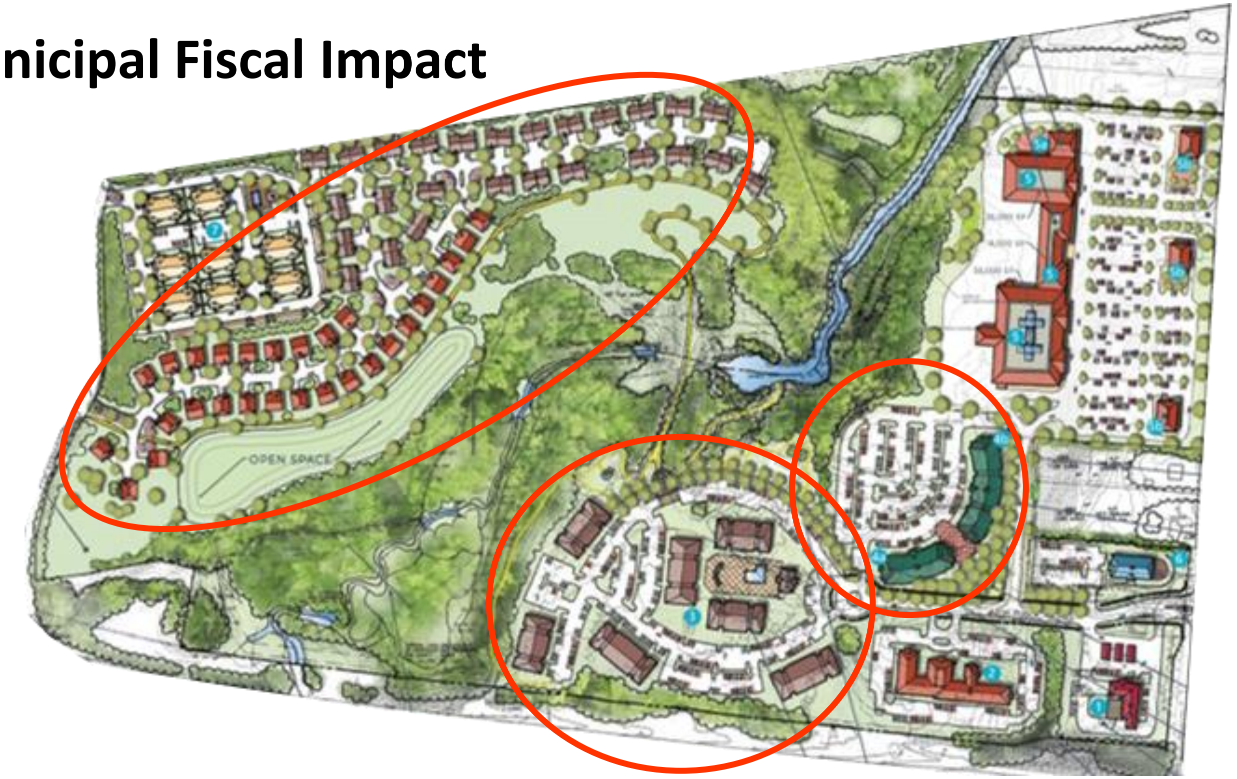
Revenues: Real Property Taxes & User Fees		
Real Property Taxes (100 Multi-Family Units @ $3,639/unit taxes)	=	$363,900
Personal Property Taxes (150 Motor Vehicles at $332/vehicle/year)		$49,800
Estimated Projection – Total Revenues	=	**$413,700**
Expenditures: School Enrollment Projections & Cost		
Enrollment Expenditures (12 Allocated NTD Enrollments @ $9,451/Year)	=	-$113,412
Expenditures: Municipal Government		
General Government Services – Residential (21% of taxes paid)	=	-$86,877
Estimated Projection – Total Expenditures		**-$200,289**
Fiscal Impact Summary		
Total Revenue (Property Taxes)	=	$413,700
Total Expenditures – (Education & General Government)	=	-$200,289
Estimated Positive Fiscal Impact/Year	=	**$213,411**

Cheshire Case Study: Stonebridge Crossing - Municipal Fiscal Impact

Residential Subdivision – Revenues & Expenditures	**Total**
Revenues	
Residential Real Property Taxes (140 Units @ $8,166/unit)	$1,143,353
Total Revenue	**$1,143,353**
Expenditures	
Education Expenditures (Allocated N-T-D)	($654,858)
General Government Services – Residential (22.5% of taxes)	($257,254)
Total Expenditures	**($912,112)**
(Positive) Municipal Fiscal Impact	**$231,241**

Multi-Family Apartments – Revenues & Expenditures	**Total**
Revenues	
Residential Real Property Taxes (300 Units @ $3,600/unit)	$1,080,000
Total Revenue	**$1,080,000**
Expenditures	
Education Expenditures (Allocated N-T-D)	($302,994)
General Government Services – Residential (22.5% of taxes)	($243,000)
Total Expenditures	**($545,994)**
(Positive) Municipal Fiscal Impact	**$534,006**

Active Adult Housing		
Real Property Tax Revenue (90 Units.)	=	$346,892
General Government Services (Expenditures = 30% of taxes)	=	($104,067)
(Positive) Municipal Fiscal Impact	=	**$242,825**



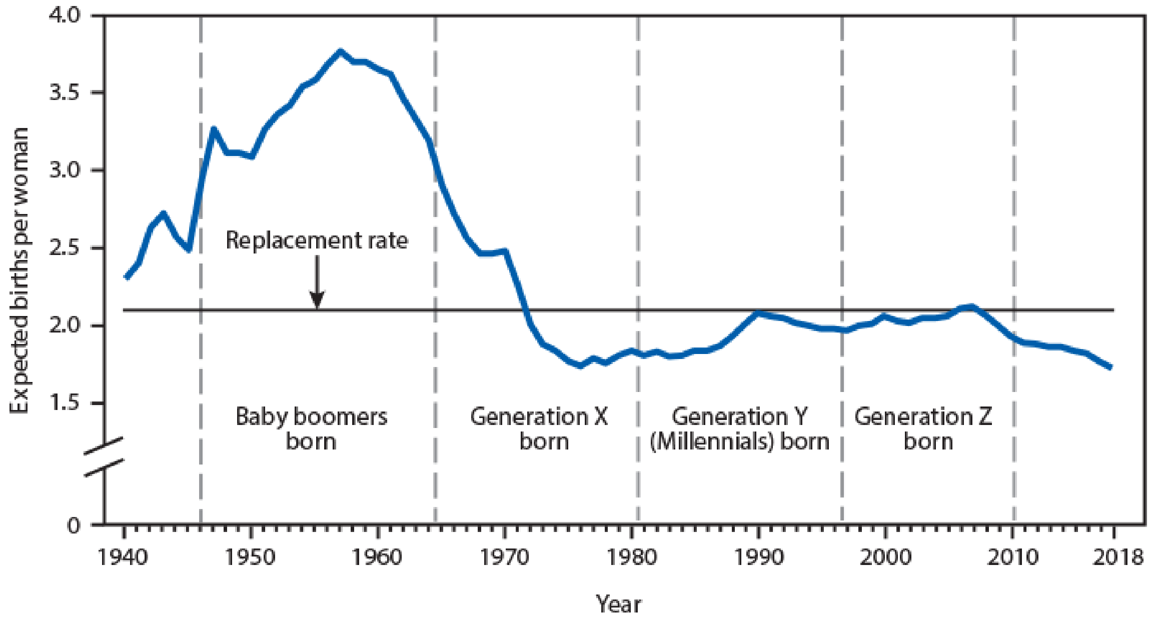
Total Development – Fiscal Impact:

- Appraised Value = $167,830,500
- Assessed Value = $117,481,350
- Real Property Taxes = $3,902,730
- Personal Property Taxes = $251,972
- **Net Fiscal Positive = $1,714,224**
- One-Time Development Fees = $905,884

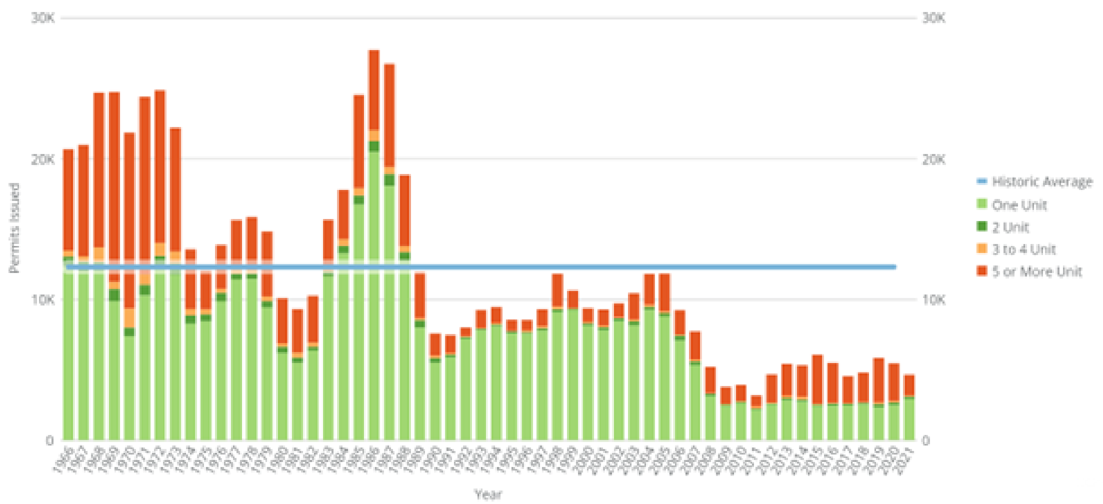
Demographics, Housing, and School District Enrollments

Some Conclusions:

- When a population ages (CT), fertility rates and births (children) decline.
- When children decline, school enrollments decline.
- Most school districts in Connecticut have declining or stagnant enrollments—few districts will return to prior enrollment peaks.
- For the few school districts with increasing enrollments, most of the new enrollments are driven by turnover in the existing single-family housing stock with three or more bedrooms—not new housing, especially not multi-family apartments.
- Education costs are rising regardless of declining (or stagnant) enrollments—per pupil expenditure are increasing due to rising costs but also the costs being spread across fewer enrollments.
- Connecticut needs more housing—especially a housing product better suited for single- and two-person households.
- We (Connecticut towns/cities) need to stop the practice of fiscal zoning and embrace our changing demographics and changing housing market.



Source: Census Bureau - Building Permits Survey



Professional Experience: Dr. Donald Poland, AICP

Dr. Poland is a geographer, planner, and community strategist whose work focuses on assisting communities to compete for wealth and investment through strategic market, land use, and planning interventions that build community confidence, foster pride in place, create governance capacity, and grow market demand. With twenty-four years experience the public, private, non-profit, and academic sectors, Dr. Poland offers a unique perspective and approach to addressing the social, economic, and governance challenges of creating and maintaining resilient, vibrant, and prosperous communities.

Education

- Doctor of Philosophy (PhD), Geography. *Cities and Urbanization*. UCL (University College London). 2016
- Master of Science (MS), Geography/planning. CCSU 2000
- Bachelor of Arts (BA), Psychology & Geography. CCSU 1995

Selected Achievements

- Consultancy work spans 19 states and 125+ communities.
- Extensive work on post-Katrina planning, land use, and redevelopment strategies in St. Bernard Parish, Louisiana.
- Accepted as an expert witness in *land use planning, neighborhood redevelopment, and community development* in the US District Court, Eastern District of Louisiana.
- Prepped an economic investment strategy for the City of Oswego, NY that was instrumental the City receiving a $10 million Downtown Revitalization Grant.

Dr. Poland is an urban geographer, planner, and community strategist whose work focuses on assisting communities to compete for wealth and investment (socio-economic prosperity) through strategic interventions that build community confidence, foster pride in place, create predictability in market, and grow demand.

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