

Cooperative Forecasting Group

UPDATE – CHANGING DEMOGRAPHICS AND SCENARIO PLANNING

October 26, 2016



Howard County Scenario Test

- Howard County is Interested in Location of 2025 School Age Population and Adult Population (65+) – Working (PT/FT) and Senior

PopGen Synthesized Output

- Three classification of Synthesized Household and/or Person Variables
 - Controlled Variables – Margins at County and TAZ Level ~ Good Match
 - Correlated Variables – Variables that are Correlated with input Margins ~ Match Strength of Correlation
 - Noise Variables – ACS Responses that are NOT Margins or Correlated with Margins

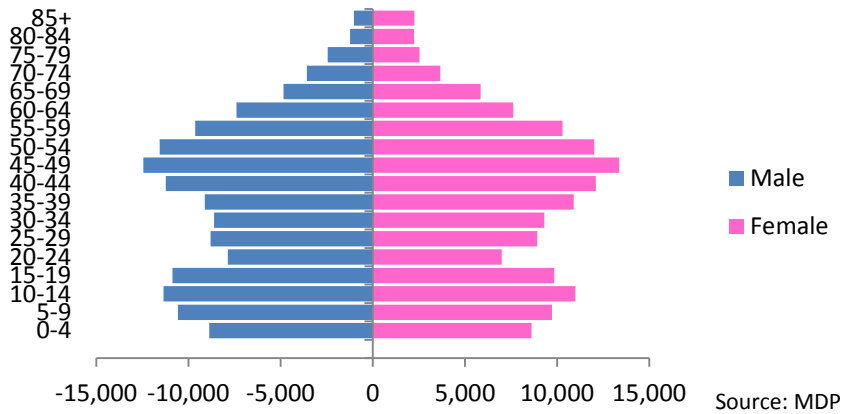
PopGen Margins

- Margins (Controlled Variables)
 - County Level
 - **Population by Age** (18) and Sex (2) - MDP
 - **Households** by Workers (4) and Income (5) – Cooperative Forecast/MDP/Demographic Models
 - TAZ
 - **Households** by Persons (5) - Cooperative Forecast/Demographic Models
 - **Households** by Income Group (5) - Cooperative Forecast/Demographic Models
 - **Persons** (2) – Workers/Non-Workers - Cooperative Forecast/MDP

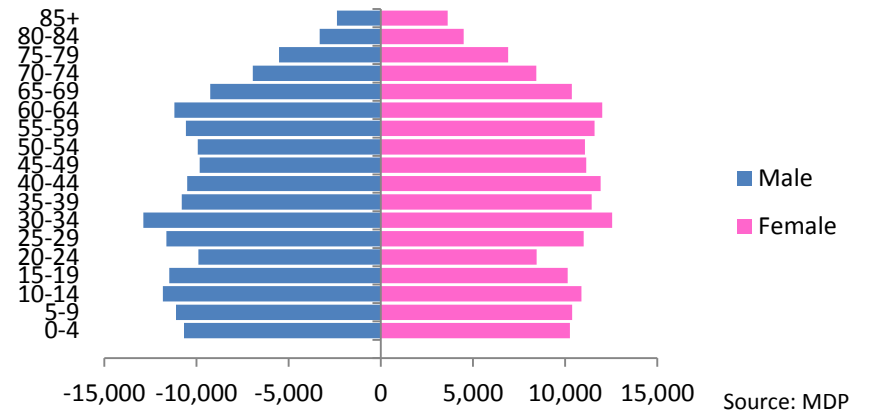
Validation

2012 MDP			2012 PopGen		
Age	Male	Female	Age	Male	Female
0-4	8,875	8,616	0-4	8,926	8,794
5-9	10,572	9,724	5-9	10,907	9,929
10-14	11,348	10,989	10-14	11,622	11,415
15-19	10,872	9,841	15-19	11,409	9,721
20-24	7,861	7,003	20-24	8,014	7,362
25-29	8,801	8,916	25-29	9,081	8,906
30-34	8,615	9,309	30-34	8,916	9,396
35-39	9,111	10,903	35-39	9,260	10,985
40-44	11,226	12,097	40-44	11,525	12,357
45-49	12,442	13,361	45-49	12,656	13,691
50-54	11,564	12,009	50-54	11,751	11,856
55-59	9,630	10,302	55-59	9,745	10,081
60-64	7,403	7,622	60-64	7,386	7,794
65-69	4,849	5,856	65-69	4,927	5,695
70-74	3,567	3,661	70-74	3,572	3,767
75-79	2,442	2,534	75-79	2,284	2,529
80-84	1,240	2,235	80-84	1,235	2,298
85+	1,027	2,253	85+	1,079	2,291
	141,445	147,231		144,295	148,867

2012 Howard County Population

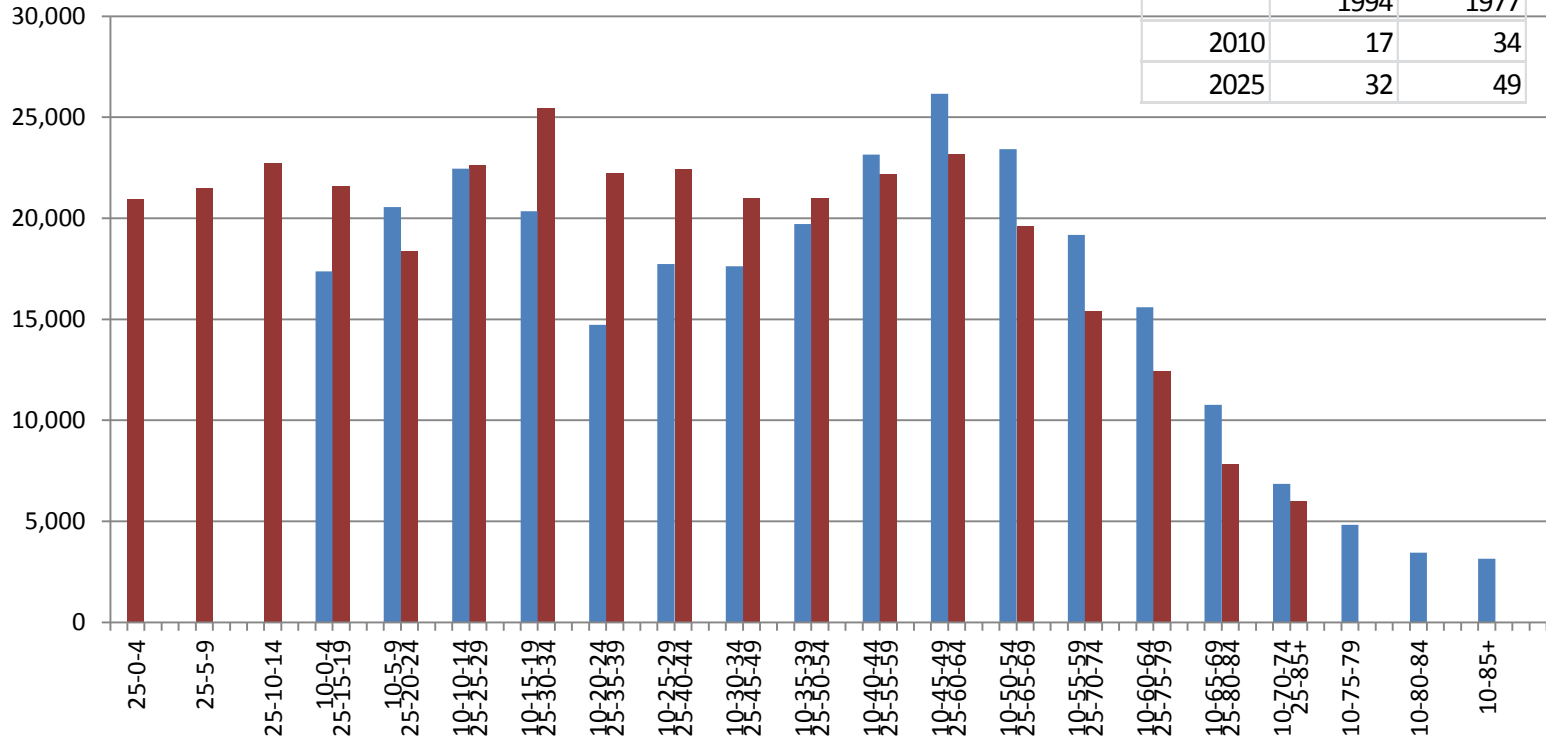


2025 Howard County Population



Howard County Population

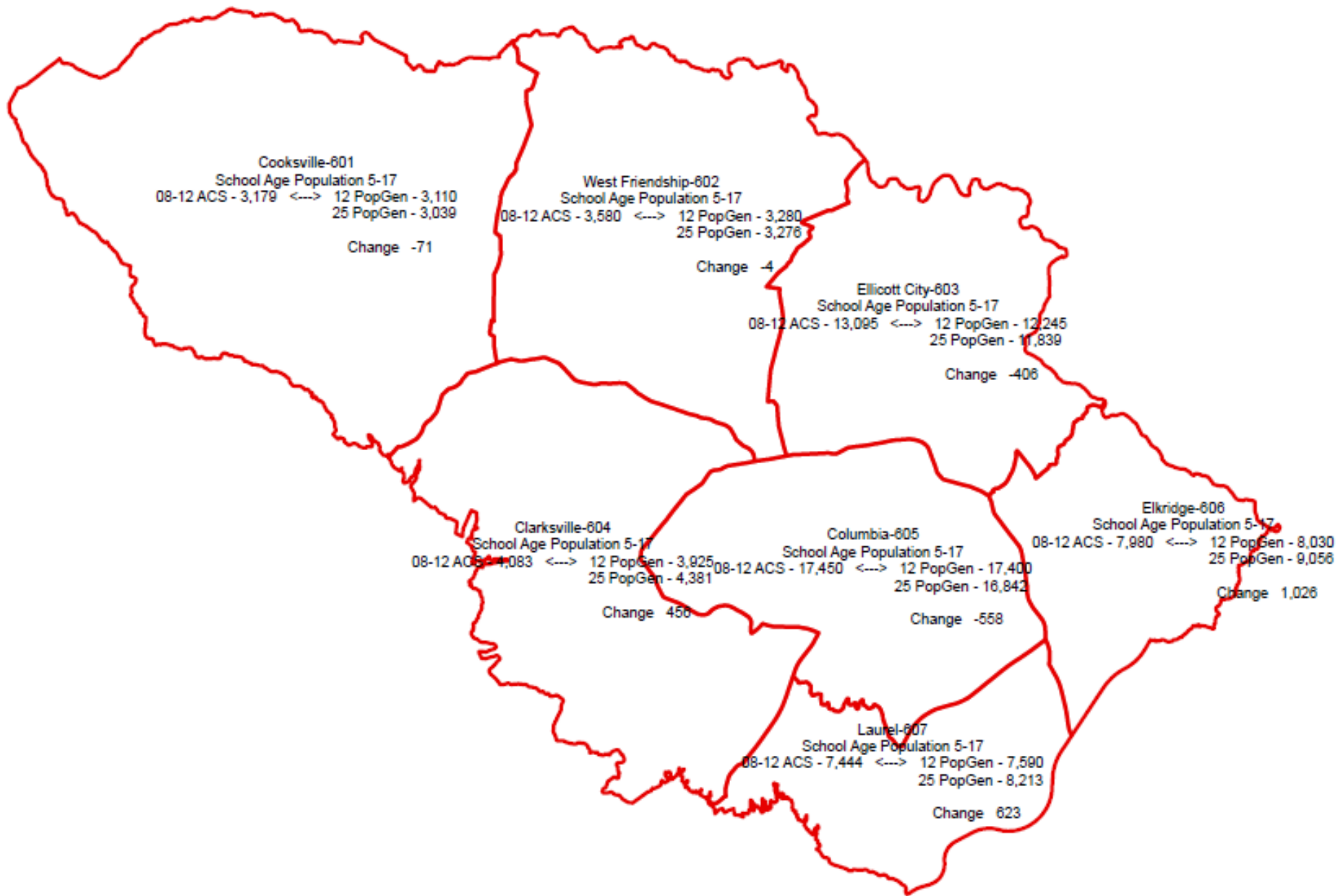
Millenniums 1977 to 1994		
	1994	1977
2010	17	34
2025	32	49

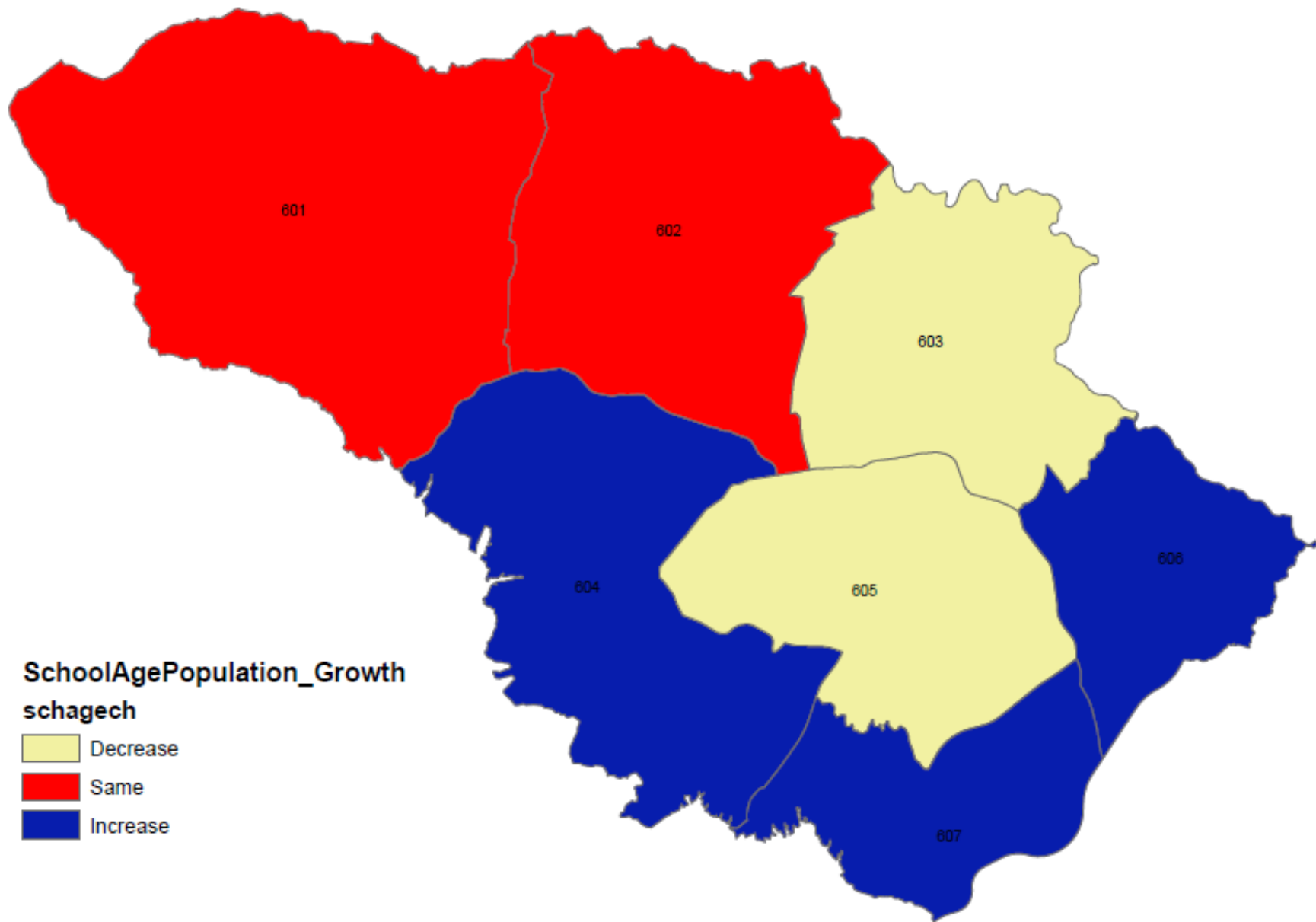


MDP				
Total Population - Howard County				
	2012	2025	Change	Growth
0-4	17,491	20,939	3,448	19.7%
5-19	63,346	65,827	2,481	3.9%
20-64	178,175	198,479	20,304	11.4%
65+	29,664	61,256	31,592	106.5%
	288,676	346,501		
15+	228,552	281,352	52,800	23.1%
Workers	158,515	188,432	29,917	18.9%
	69.4%	67.0%		

Scenario Test

- Small Area Forecast - School Age Population and Seniors
 - MDP Population by Age at **County Level**
 - Cooperative Forecast/Demographic Models
Worker/Non-Worker Population and Households by Size at **TAZ Level**
 - Hypothesis – Does TAZ School Age Population Follow Location of Large Households with Non-Workers?
Does TAZ Senior Population Follow Location of Small Households that have Workers/Non-Workers?

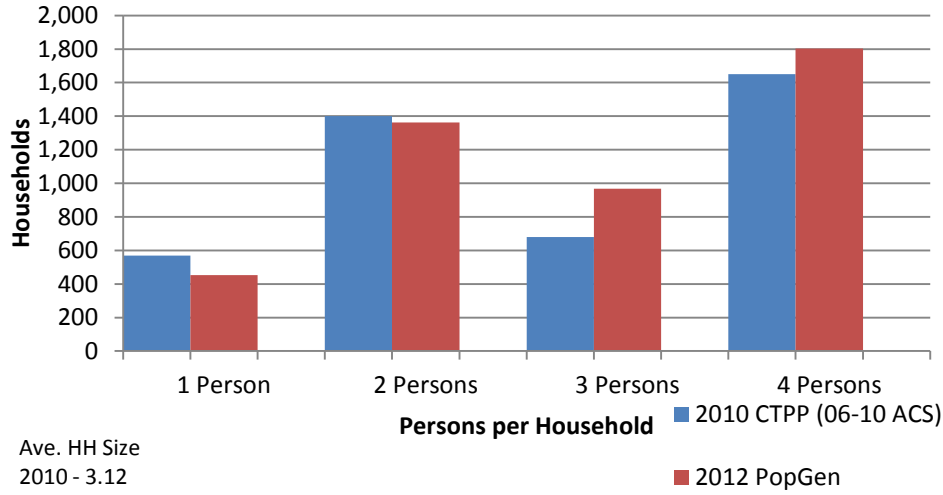




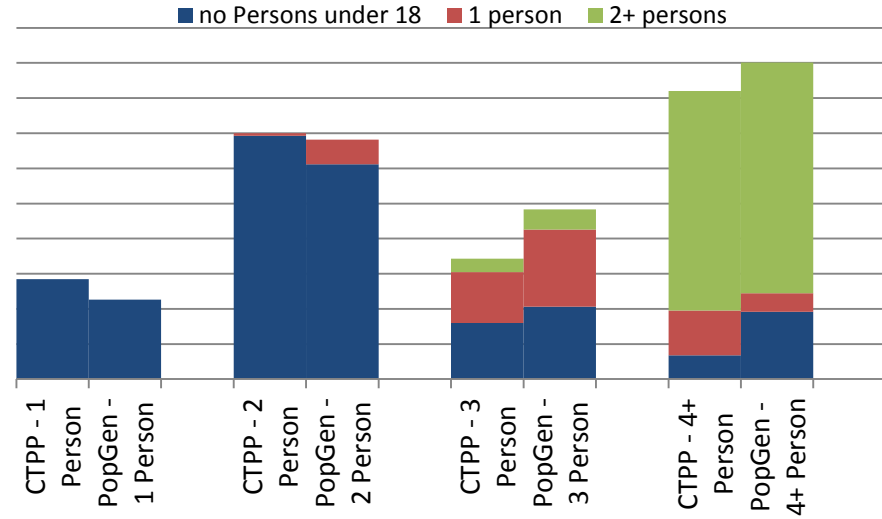
**SchoolAgePopulation_Growth
schagech**

- Decrease
- Same
- Increase

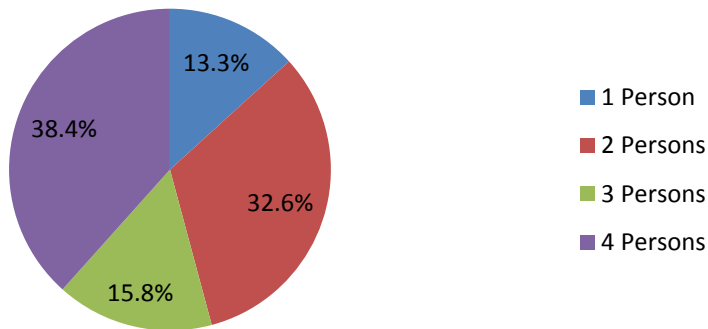
RPD 601 - Households by Size



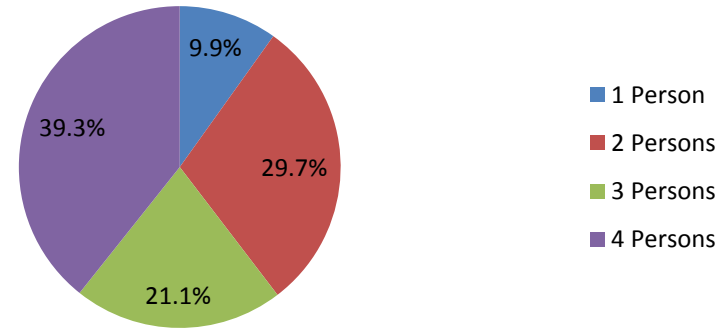
RPD 601 - Households by Number of Children



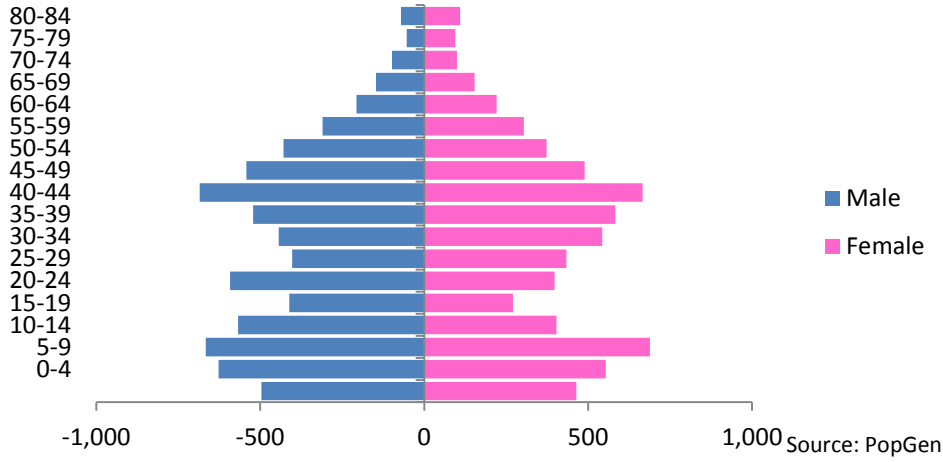
2010 CTPP - RPD 601 Households By Size



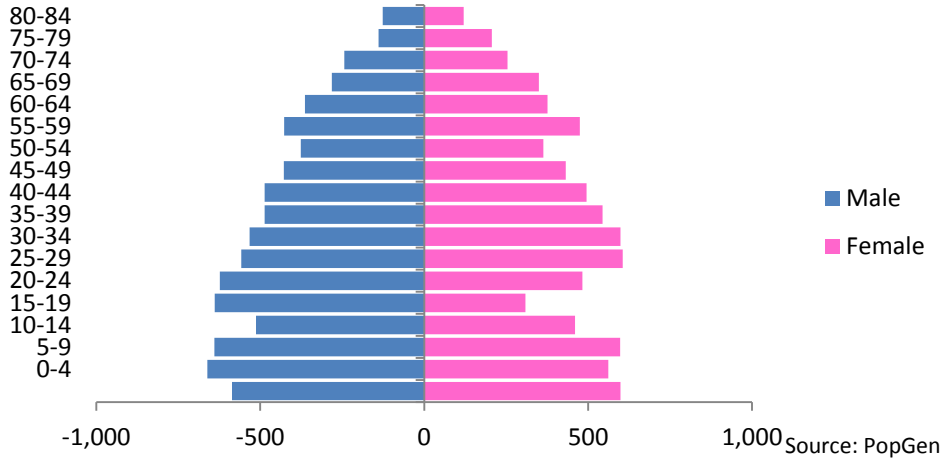
2012 PopGen - RPD 601 Households By Size



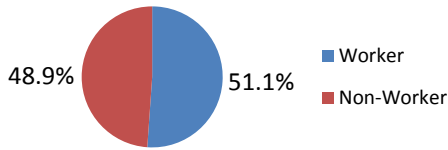
2012 RPD 601 Household Population



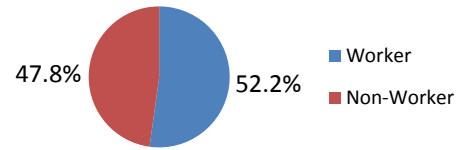
2025 RPD 601 Household Population



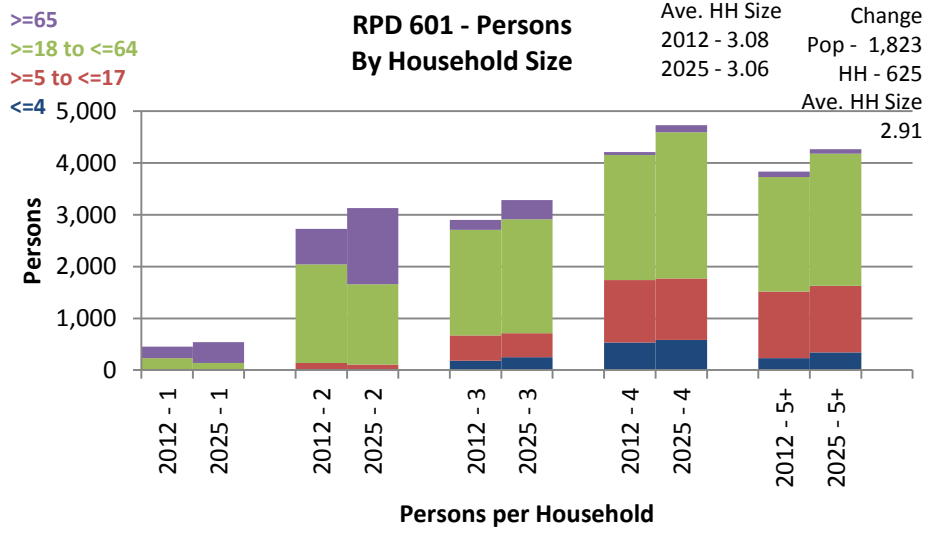
2012 - RPD 601 Population



2025 - RPD 601 Population



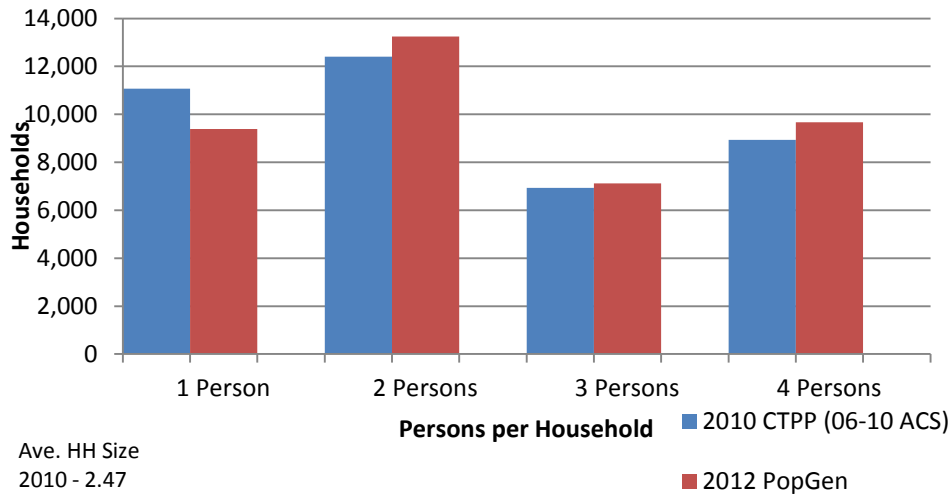
RPD 601 - Persons By Household Size



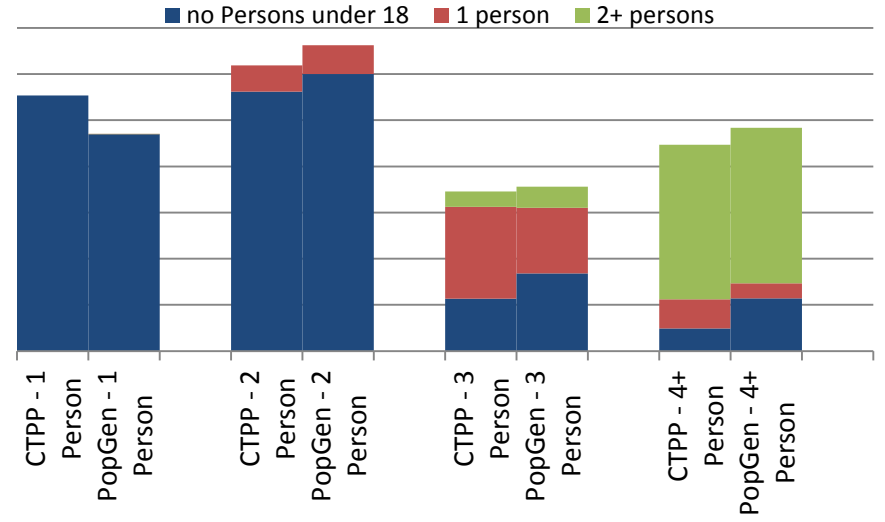
RPD 601 - Persons By Household Size



RPD 605 - Households by Size

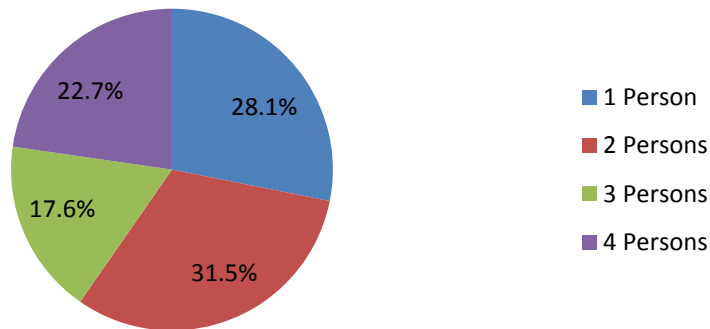


RPD 605 - Households by Number of Children

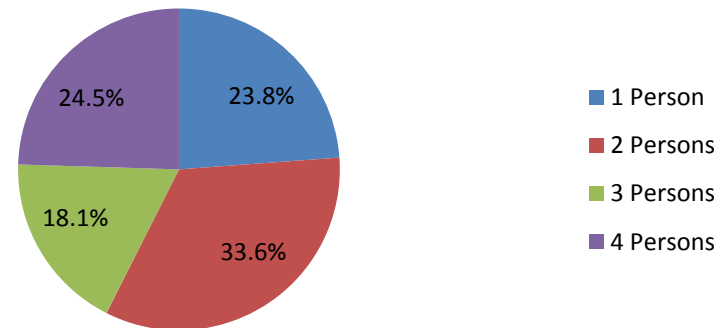


Ave. HH Size
2010 - 2.47
2012 - 2.53

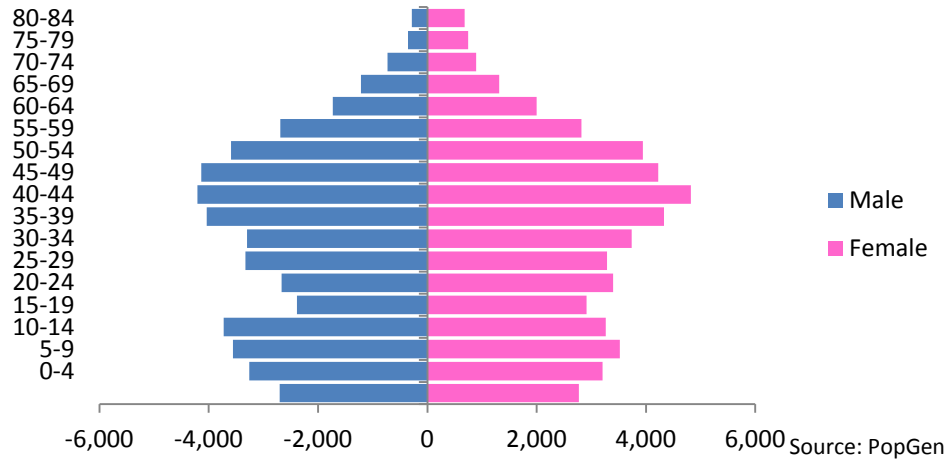
2010 CTPP - RPD 605 Households By Size



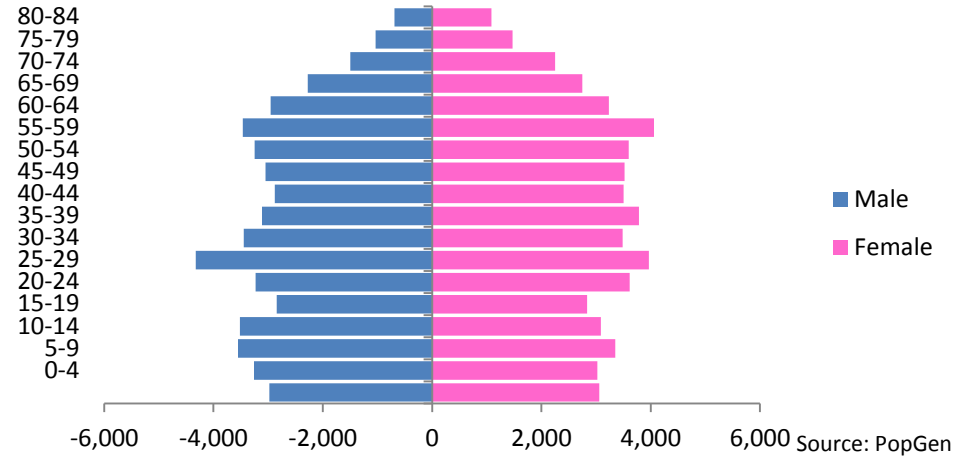
2012 PopGen - RPD 605 Households By Size



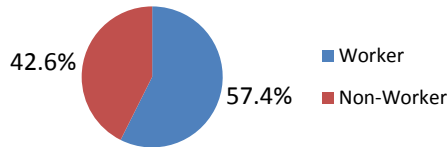
2012 RPD 605 Household Population



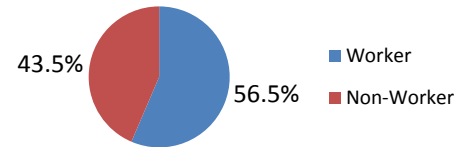
2025 RPD 605 Household Population



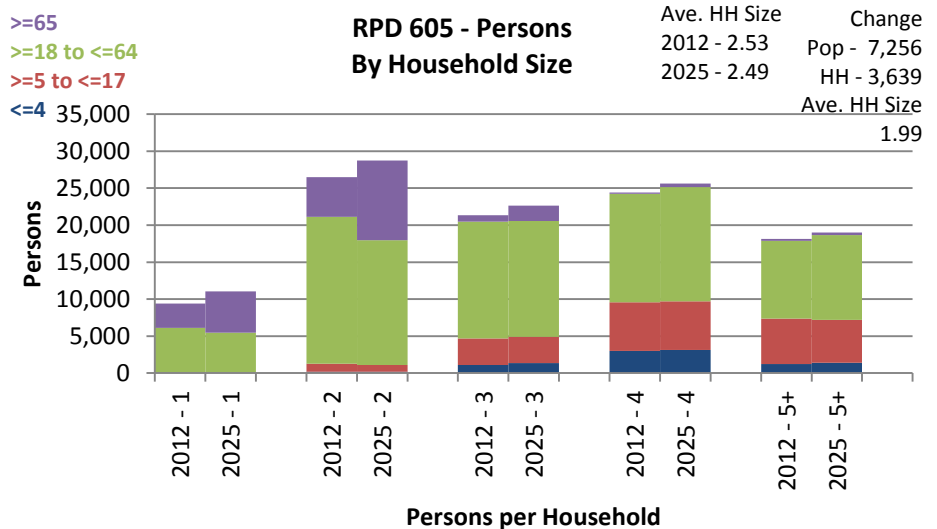
2012 - RPD 605 Population



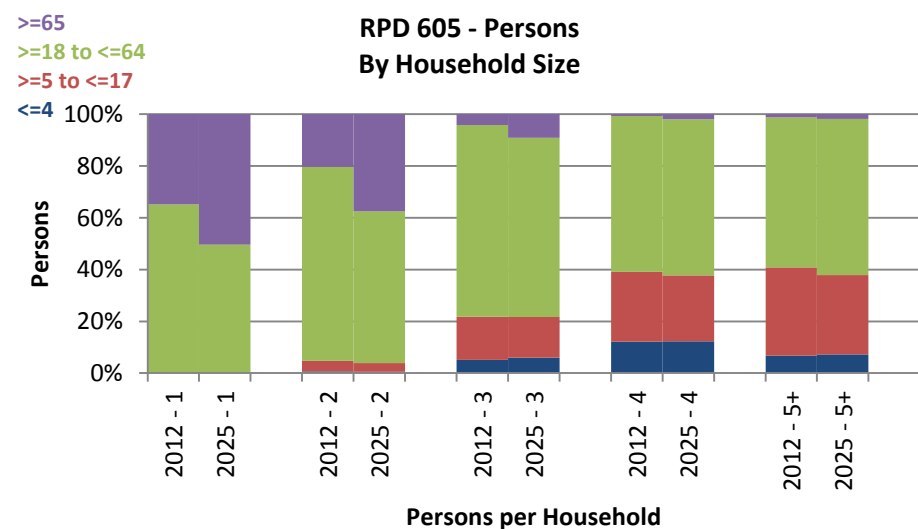
2025 - RPD 605 Population



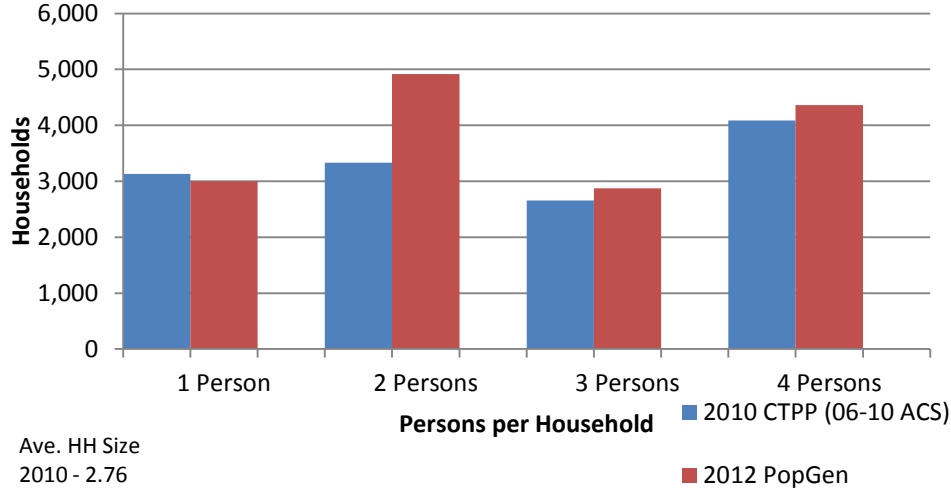
RPD 605 - Persons By Household Size



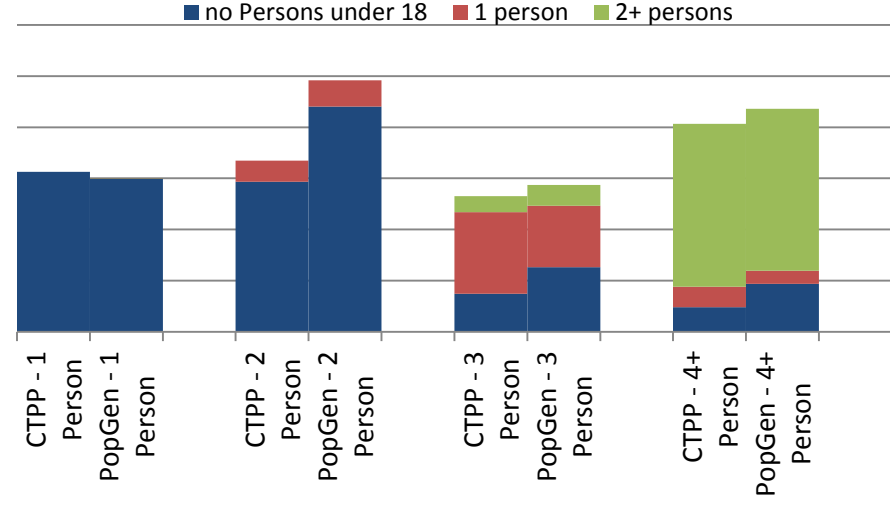
RPD 605 - Persons By Household Size



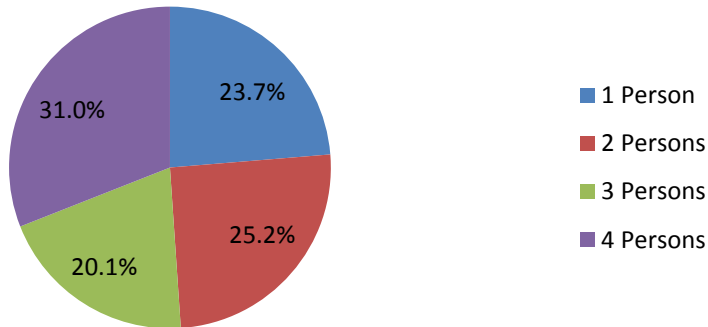
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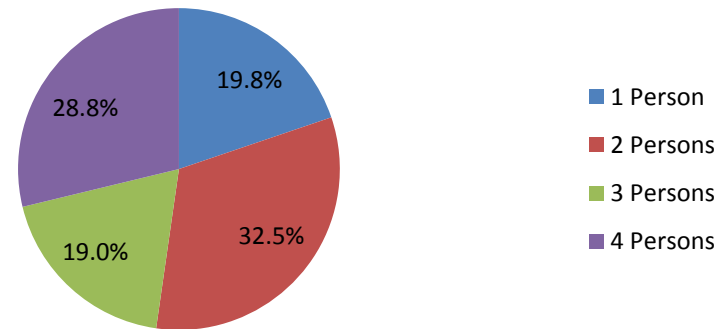
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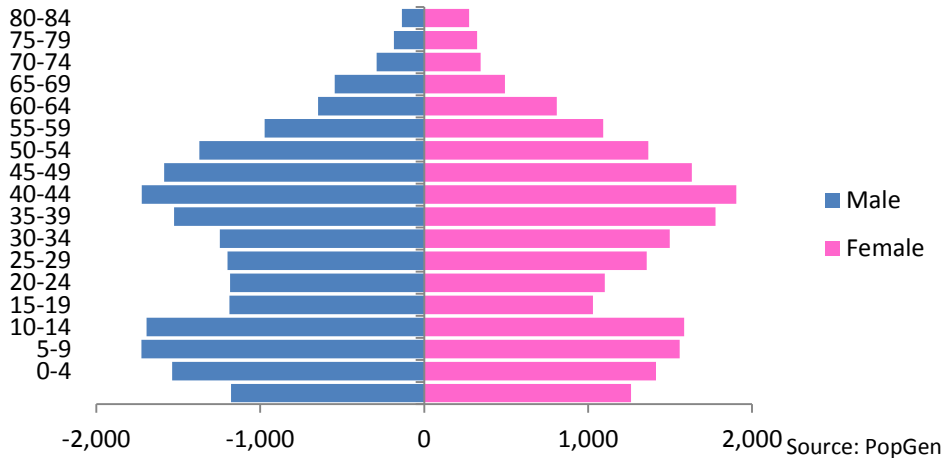
2010 CTPP - RPD 606 Households By Size



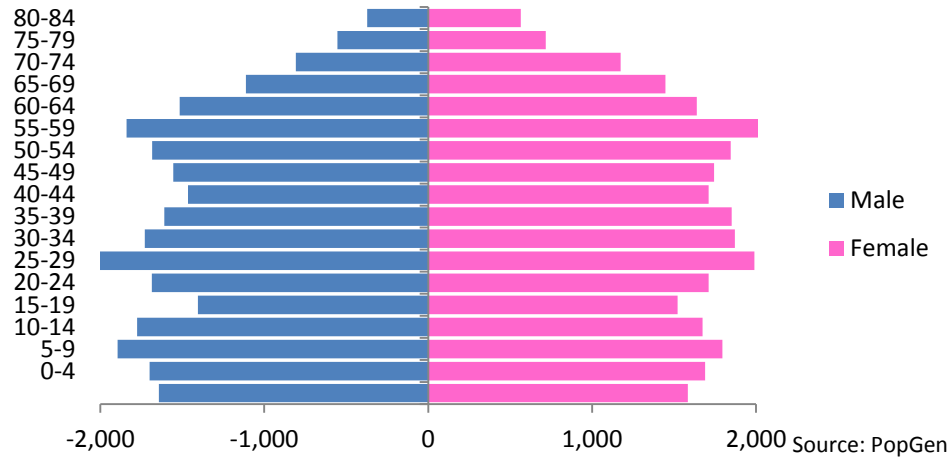
2012 PopGen - RPD 606 Households By Size



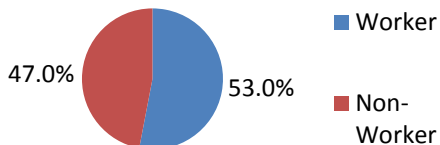
2012 RPD 606 Household Population



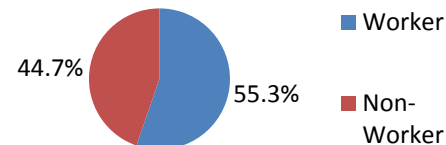
2025 RPD 606 Household Population



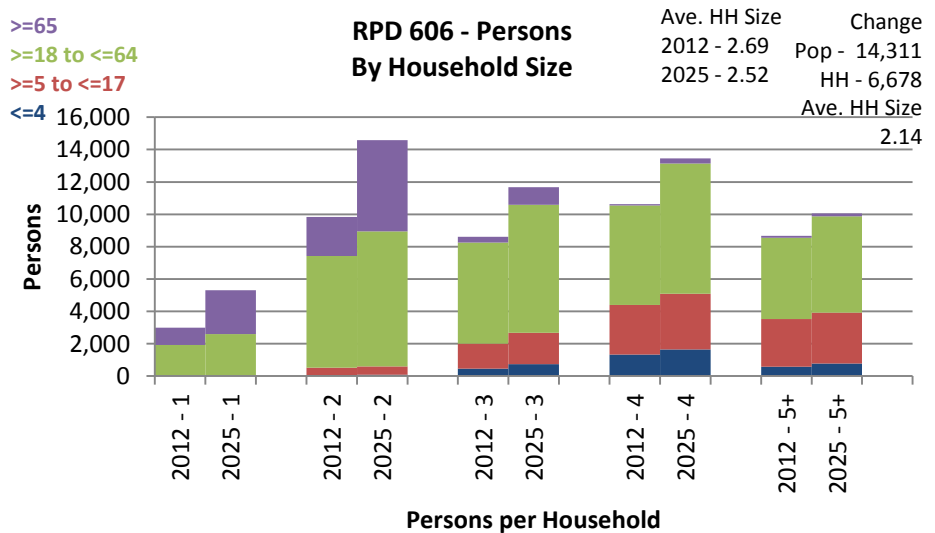
2012 - RPD 606 Population



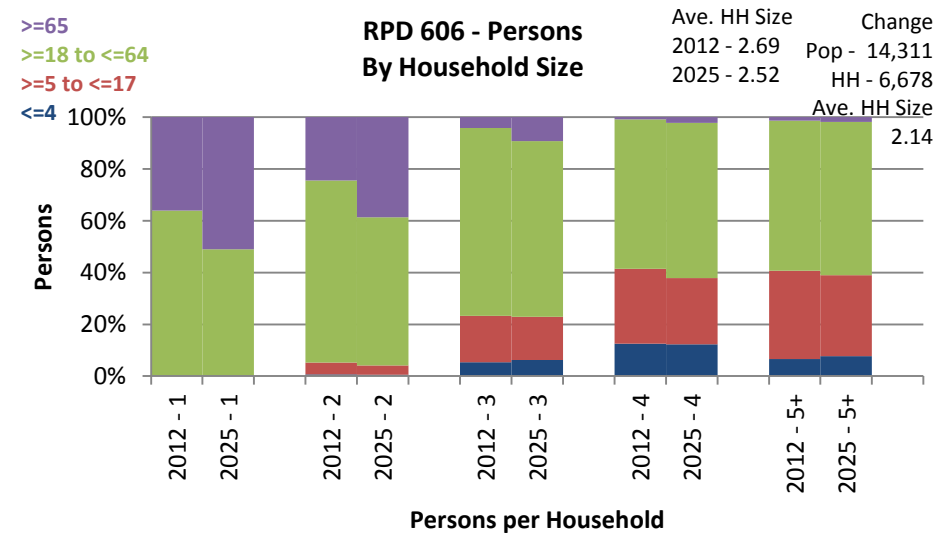
2025 - RPD 606 Population

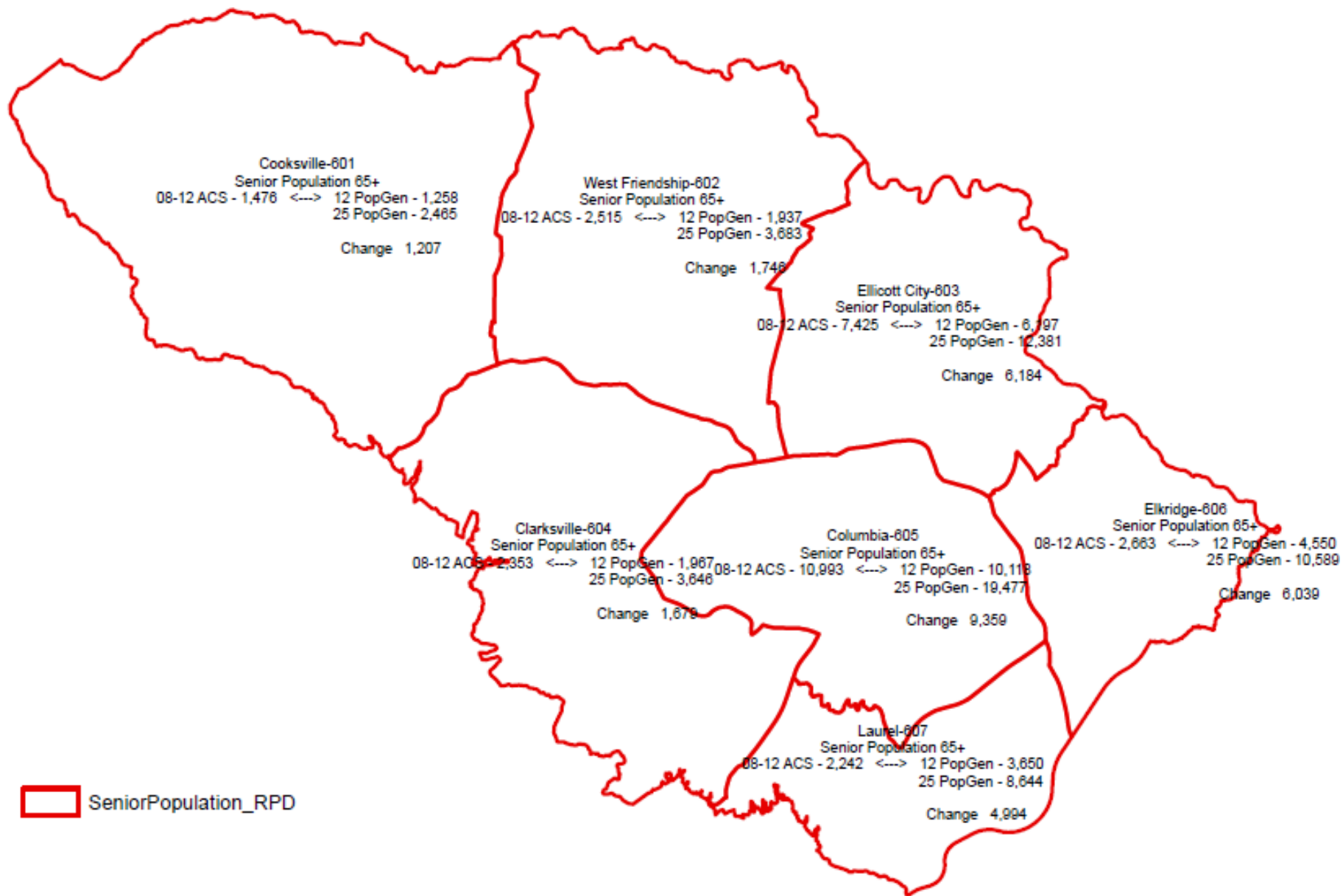


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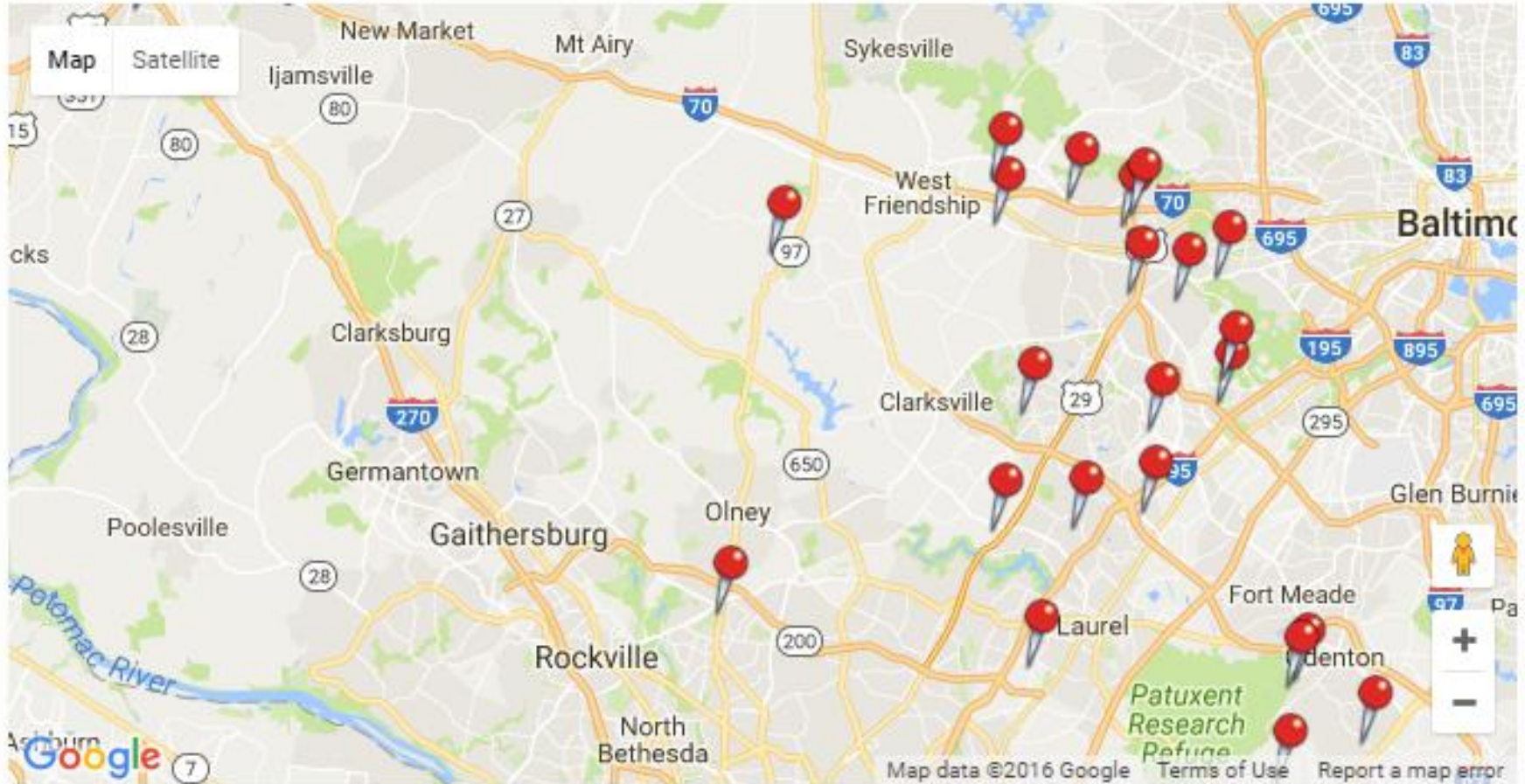
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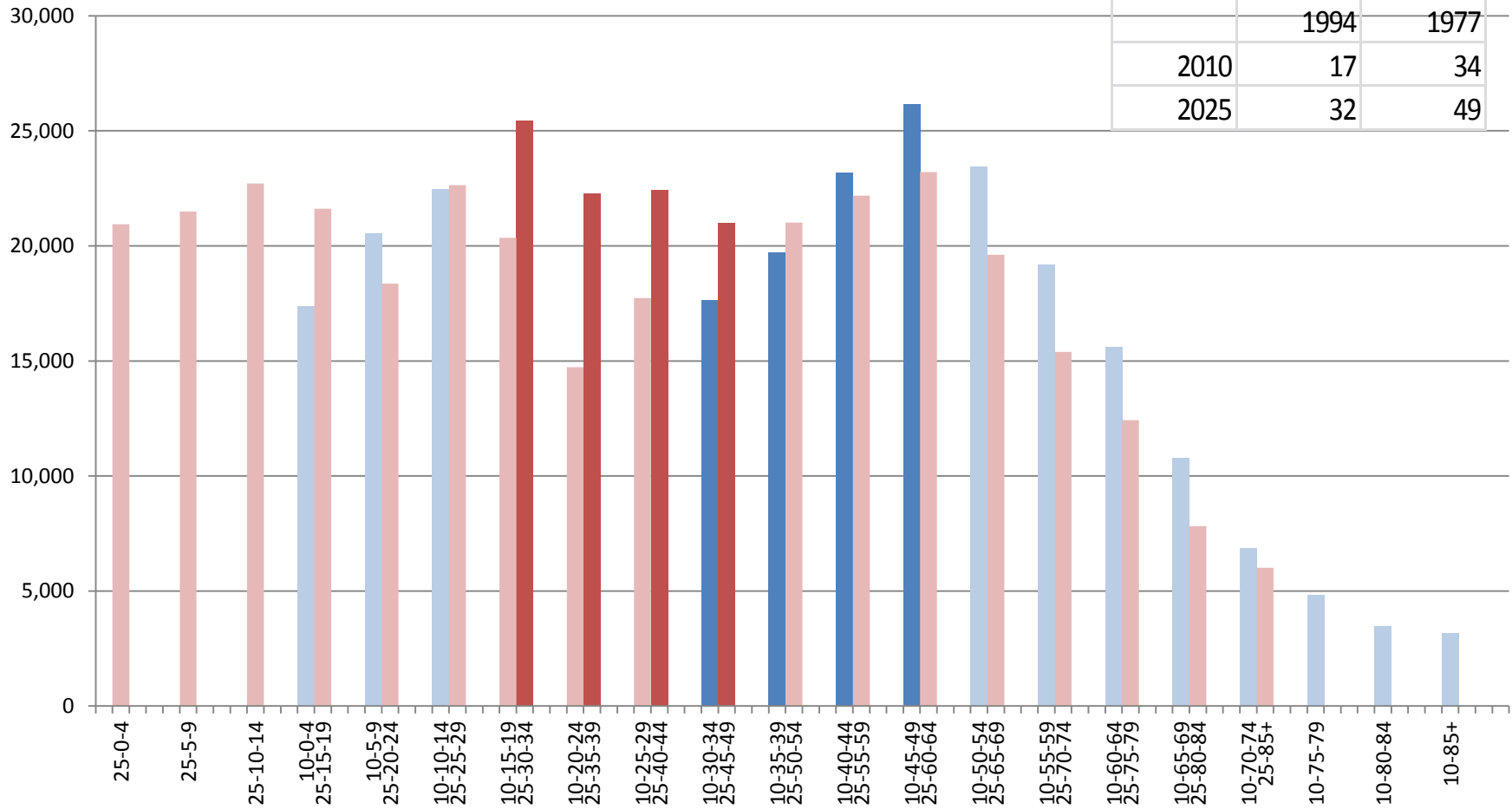


Baltimore - D.C. Metro MD 55+ Active Adult Retirement Communities

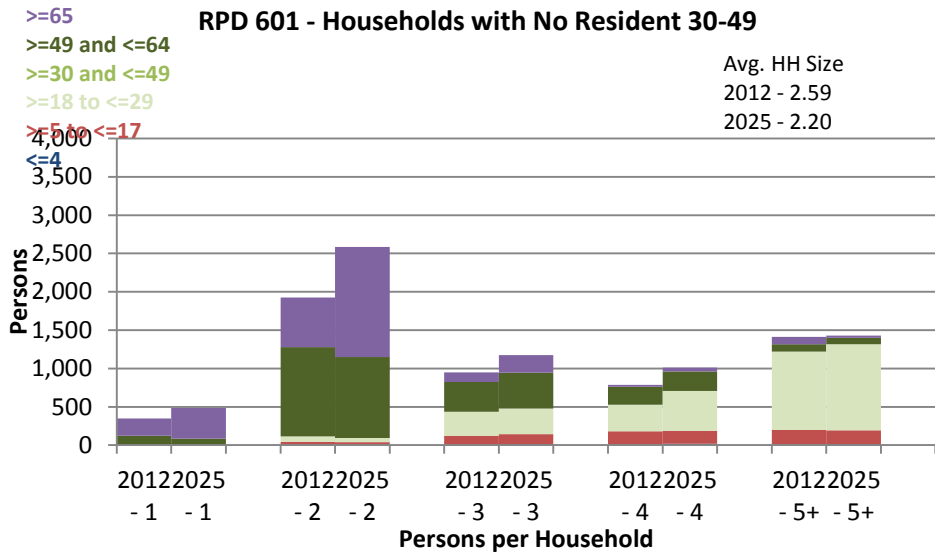
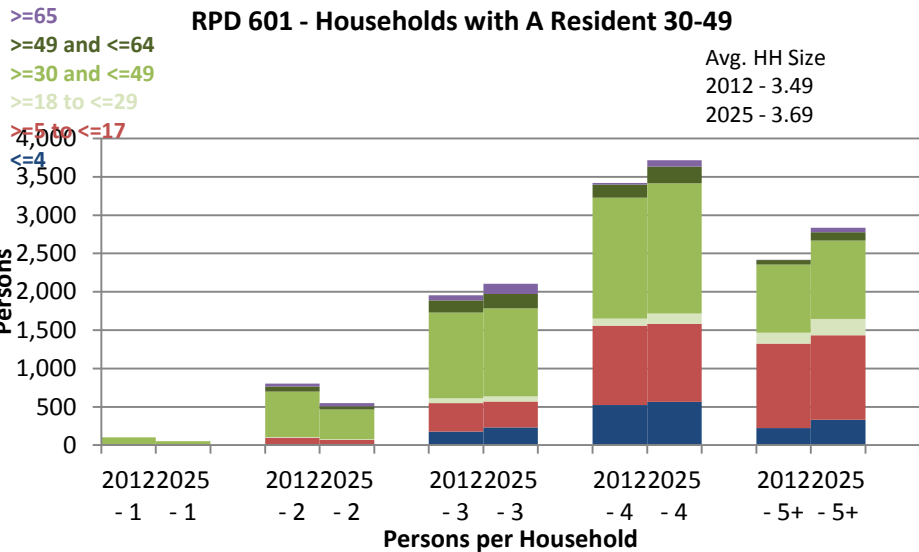
Home > Maryland > Central Maryland > Baltimore - D.C. Metro Area



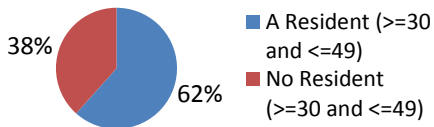
Howard County Population



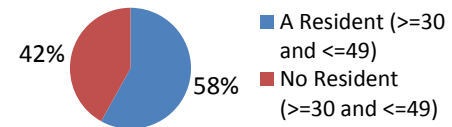
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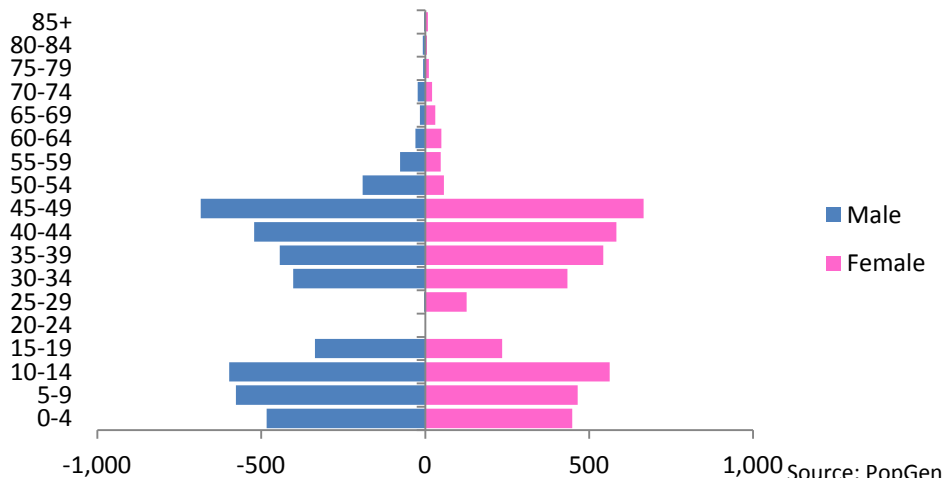
RPD 601 - 2012



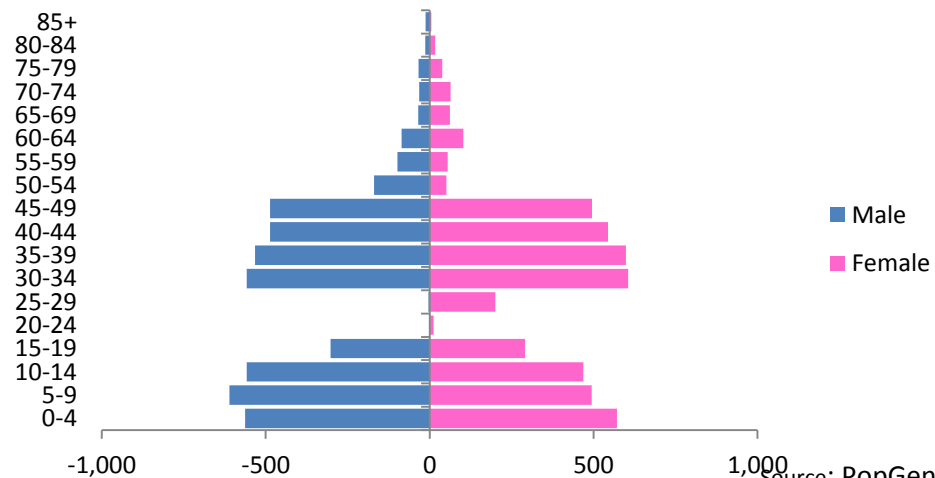
RPD 601 - 2025

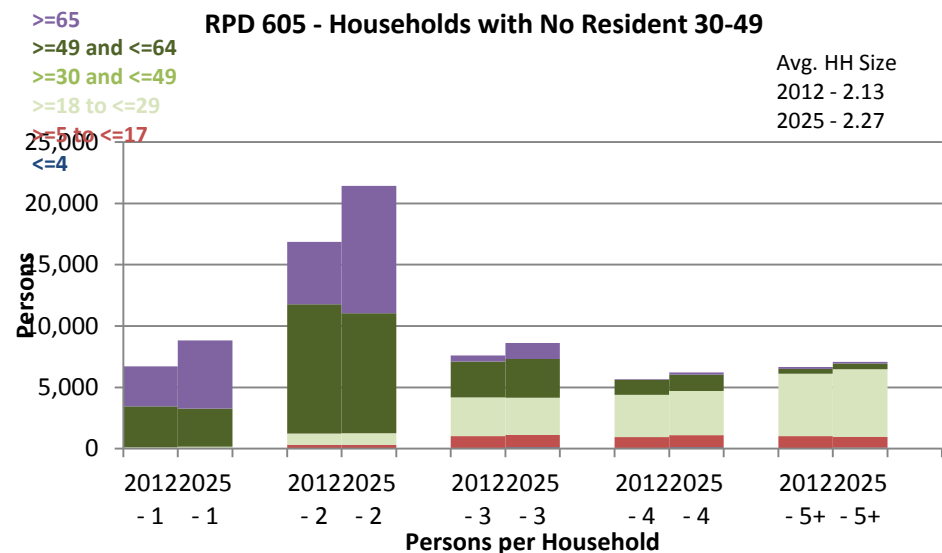
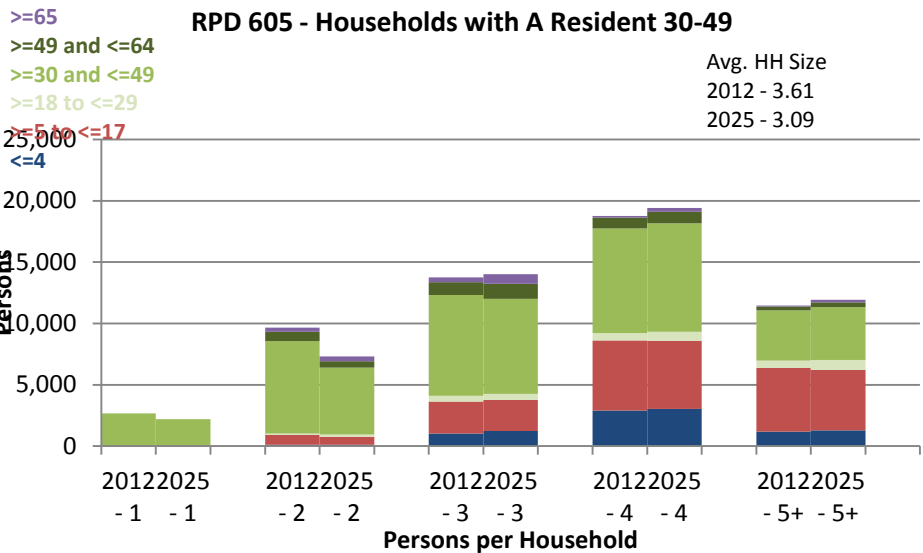


2012 RPD 601 Household with A Resident 30-49

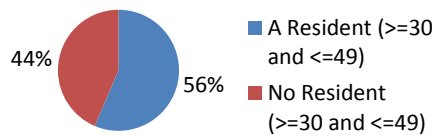


2025 RPD 601 Household with A Resident 30-49

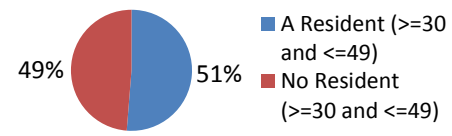




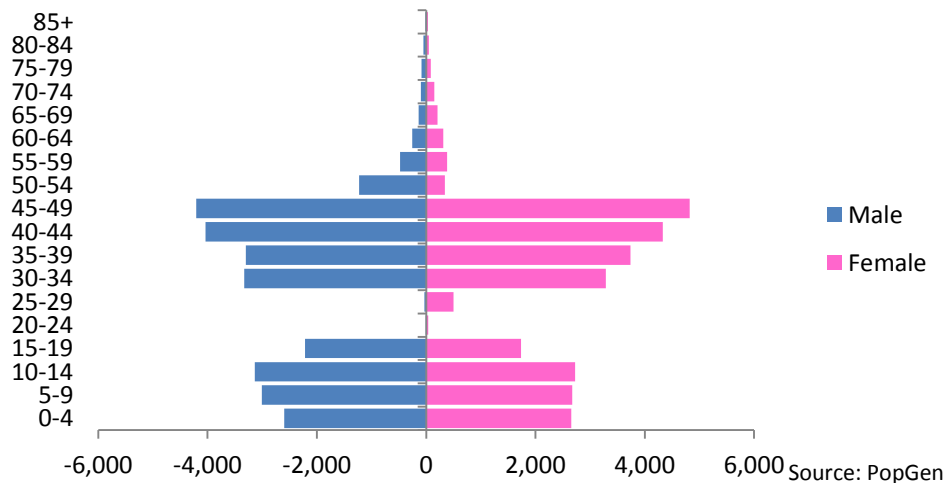
RPD 605 - 2012



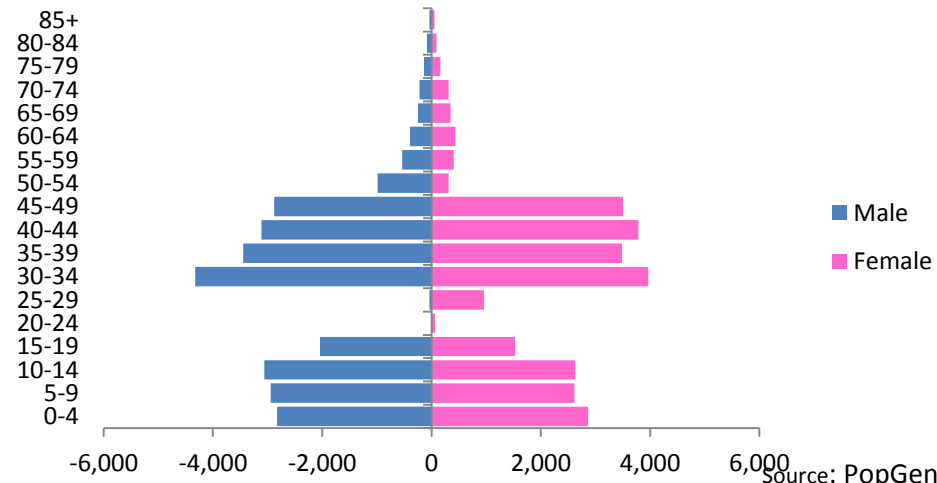
RPD 605 - 2025

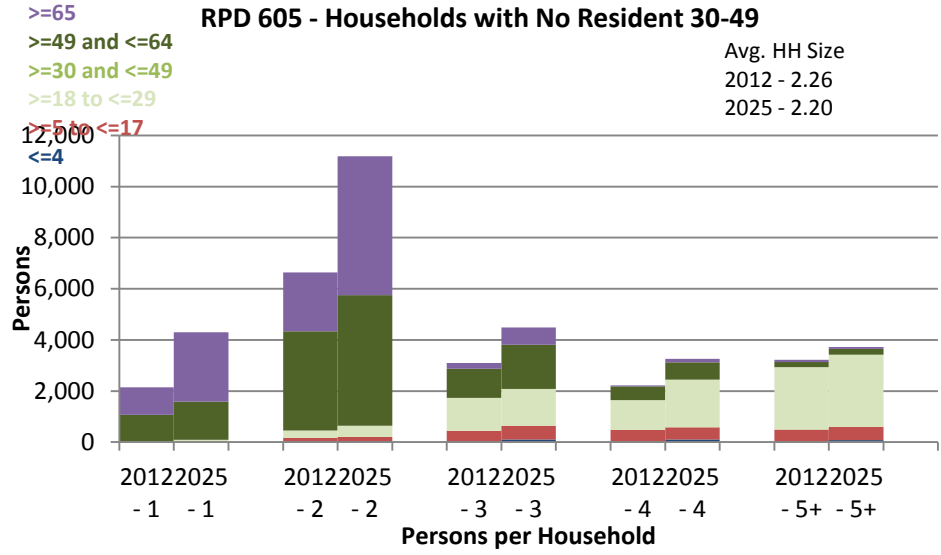
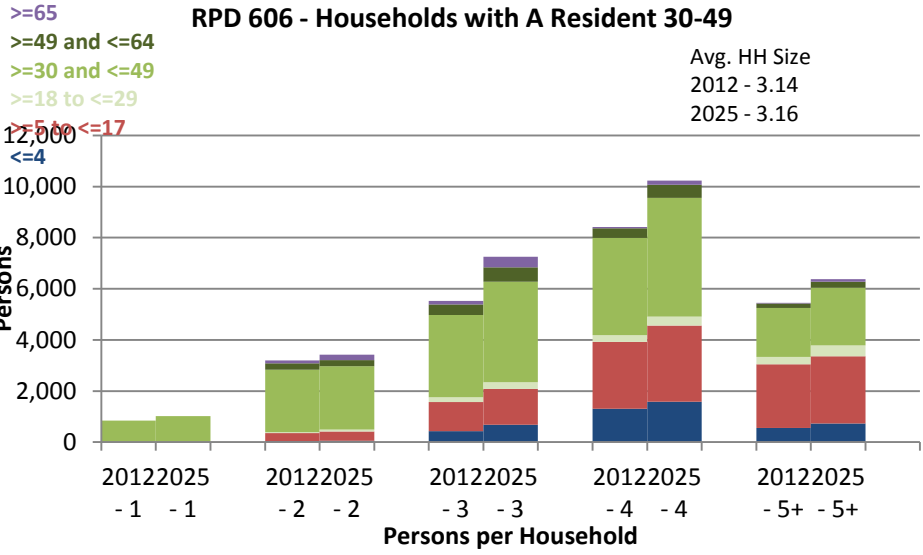


2012 RPD 605 Household with A Resident 30-49

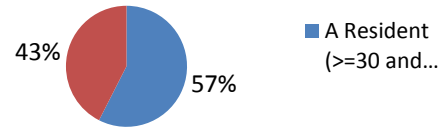


2025 RPD 605 Household with A Resident 30-49

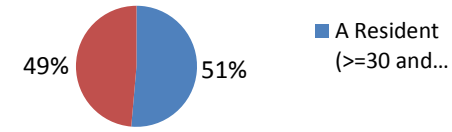




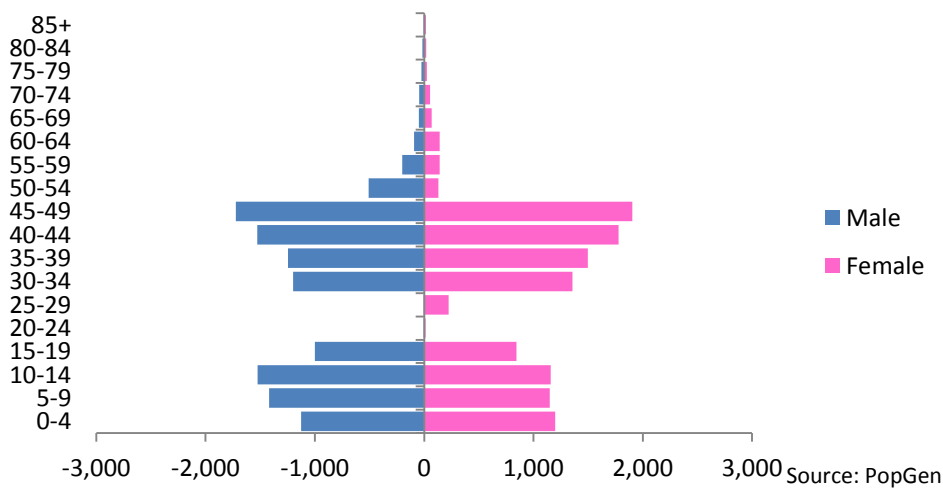
RPD 606 - 2012



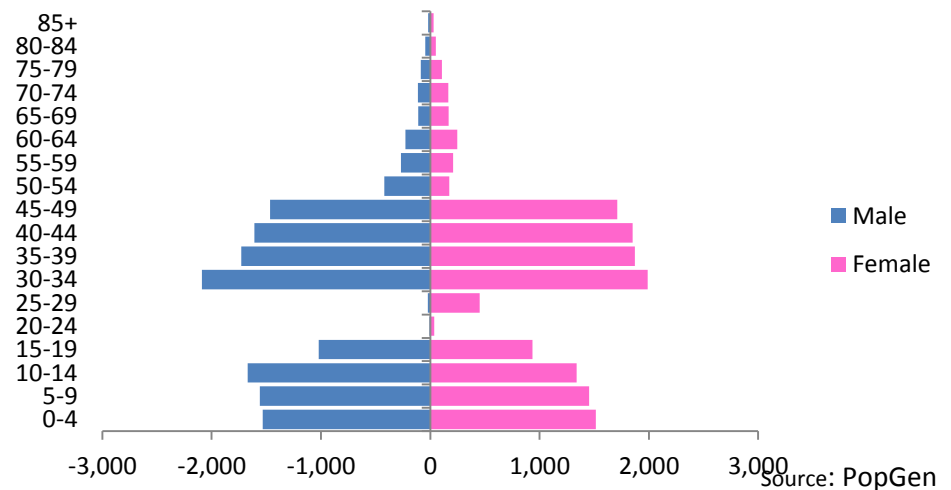
RPD 606 - 2025



2012 RPD 606 Household with A Resident 30-49

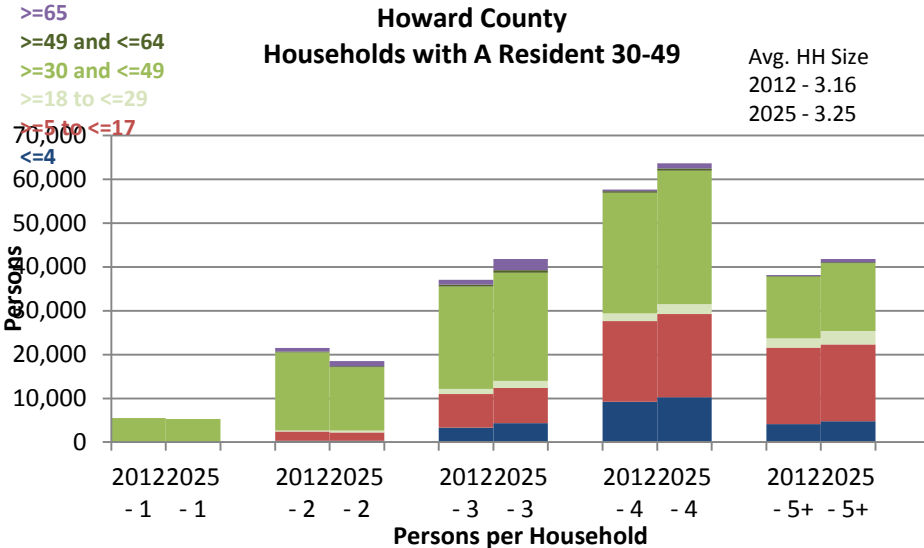


2025 RPD 606 Household with A Resident 30-49



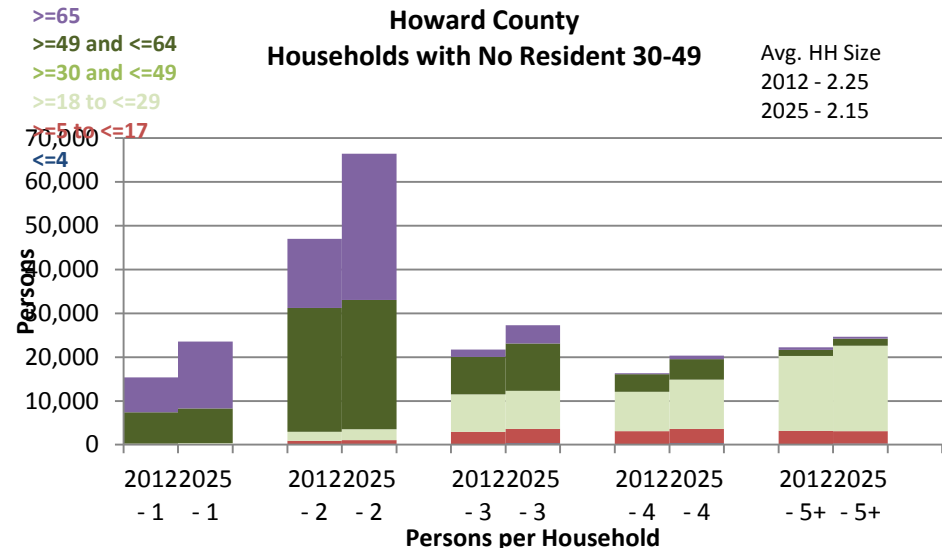
Howard County Households with A Resident 30-49

Avg. HH Size
2012 - 3.16
2025 - 3.25

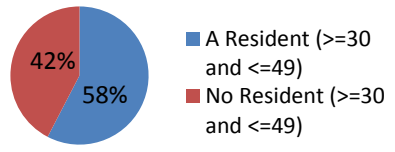


Howard County Households with No Resident 30-49

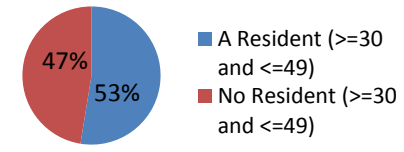
Avg. HH Size
2012 - 2.25
2025 - 2.15



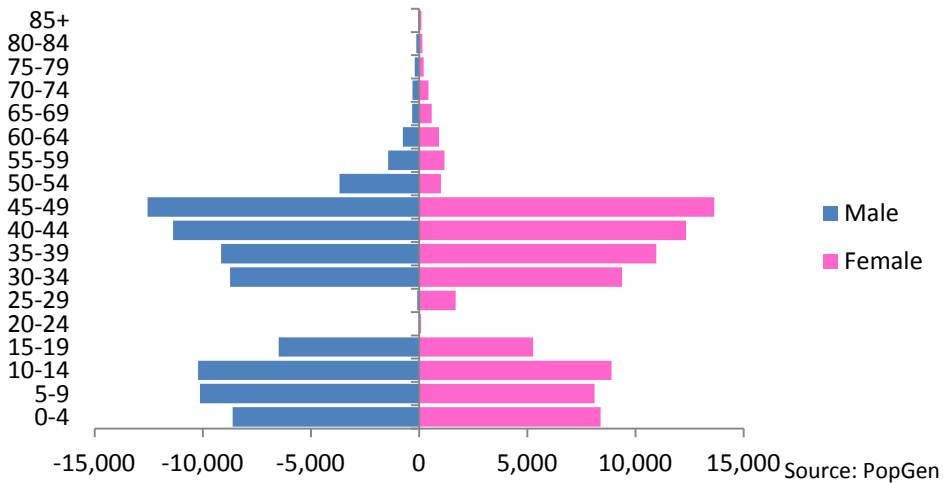
Howard County - 2012



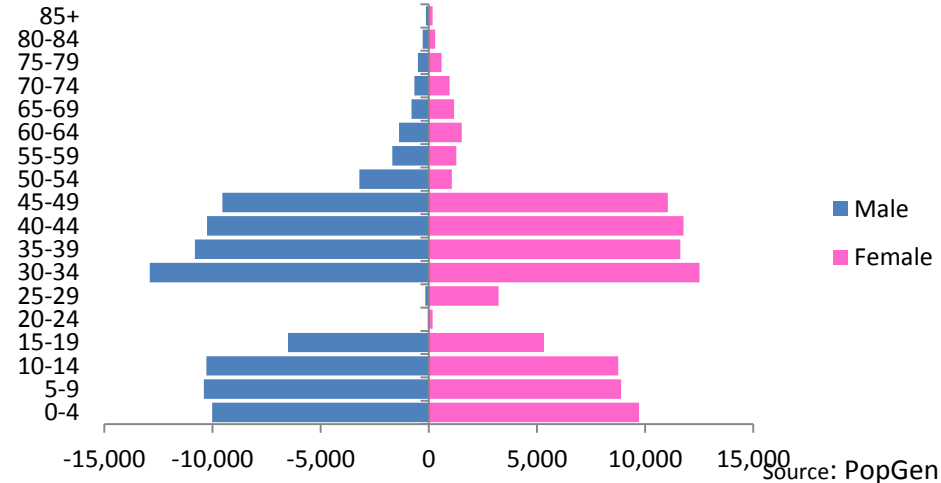
Howard County - 2025



2012 Howard County Household with A Resident 30-49



2025 Howard County Household with A Resident 30-49



Source: PopGen

Source: PopGen