

#### **Round 9 Forecasts**

Aggregate to Disaggregate Household/Person Rosters

June 20, 2018





#### **Round9 Forecasts – Small Area**

#### Cooperative Forecast Variables

- Total Population
- Group Quarter Population
- Households
- Employment

#### PCensus

- Household Civilian Labor Force Ratio
- Median Household Income

#### pOPTICS

- Sex (2) by Age Group (18)
- Jurisdiction Household Civilian Labor Force

#### S BMC

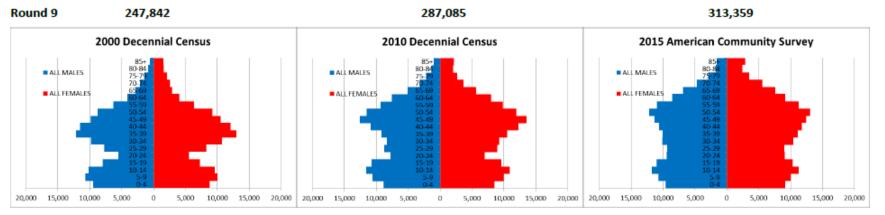


#### pOPTICS Age/Sex

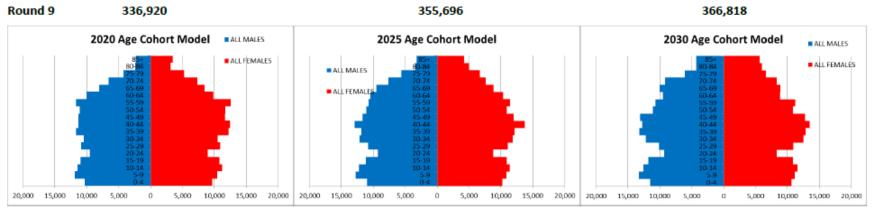
#### **Howard County**

#### pOPTICS – (March, 2018)

pOPTICS - (March, 2018)



**Howard County** 



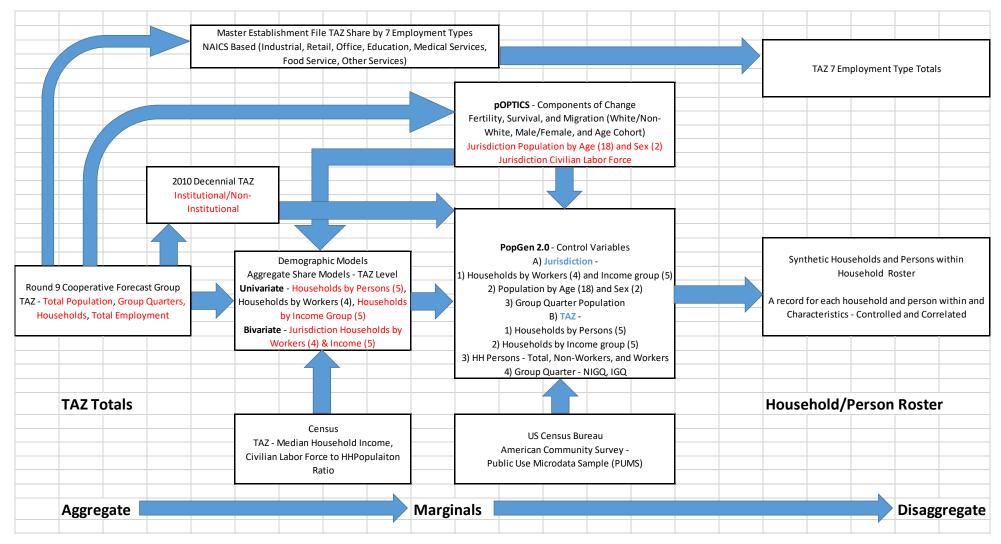
Thursday, April 12, 2018





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### **Demographic Flow**







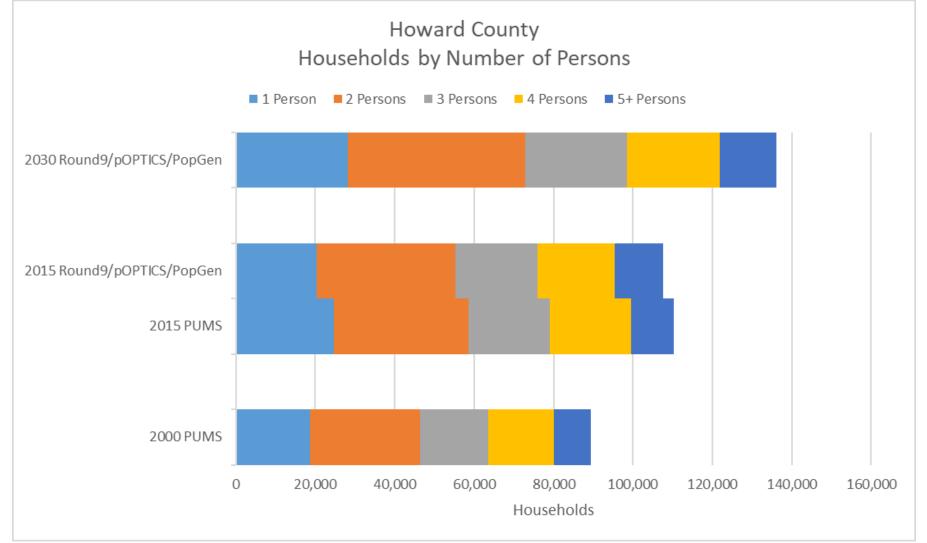
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#### **TAZ 1232**

	<b>TAZ Totals</b>	als															Househo	d/Pers	son Ros	ster		
	Aggragata							Aorain	<b>_</b> ]											Disagar		
	Aggregate							/largin	aı		i							1		Disaggre	egate	
Round 9 - TAZ		Hausahalda	GroupQuarter	HH Civilian LF	Madlingara	TAZ LEVEL									TAZ 12		size	مطبيلهم	children	workers	Full Time	Part-Time
1232		Households 443		9 718		Demographic Mod	ala								996939		1	-		workers	0 0	
1232	2 1424	443		9 /18	\$113,191	Average HH Size	eis	3.2							99093:	person ID	Person Type	age	gender			<u>,</u>
						Median Income Ra	tio	1.5								2387749	Senior	87	Female		-	
								1.5							hhi				children	workers	Full-Time	Part-Tim
						HH/Size	1	2	3	4	5+	Total			99688			-	1 2		1 (	_
						Households	41	128	95	105	74					person ID	Person Type	age	gender			
																2387565	Part-Time	50	Female			
						Persons	41	256	285	420	414	1416				2387566	Child2	10	Male			1
																2387567	Child2	6	Male			
															hhle	I Income Group	size	adults	children	workers	Full-Time	Part-Tim
						HH/Income GRP	1	2	3	4	5	Total			99674	,	3	2	2 0		0 0	د ا
						Households	9	17	34	122	261	443				person ID	person Type	age	gender			
																2387181	Senior	66	Female			
																2387182	Senior	70	Male			
							Non-worker	s H	H Civilian	LF					hhle				children	workers	Full-Time	Part-Time
						Persons	697		718						996	740	4	5 3	2 3		1 1	1
																person ID	person Type	age	gender			
																2387163	Full-time	39	Male			
						Jurisdiction LEVEL										2387164	Non-Working	40	Female			
						pOPTICS										2387166	Child2	7	Female			
																2387167	Child2	7	Female			
							0-4 5-			7				Total		2387165	Child2	9	Female		- 11	
						Male	9,600	10,746	11,777		2,868	1,759 2,426			hhi 99703			adults	children	workers	4 7	Part-Time
						Female	9,100	10,061	11,217		3,485	2,420	2,906	159,919	99703:		person Type	age	gender	1	4 4	-
													total	313,355		person ID 2388032	Full-time	40	Female	]		
						Households							totai	313,333		2388033	Full-time	37	Male			
						Wrks/Inc. Group	1	2	3	4	5					2388034	Part-Time	20	Female			
						0 Worker	3,278	2,626	2,327	4,007	1,855					2388035	Part-Time	20	Female			
						1 Worker	1,194	2,510	5,077	16,038	12,114					2388035	Child2	8	Female			
						2 Workers	46	450	2,134	12,786	33,681					2388037	Child2	8	Female			
						3+ Workers		90	388	1,938	9,205							-				
							3			2,000	5,255											
												total	111,744									



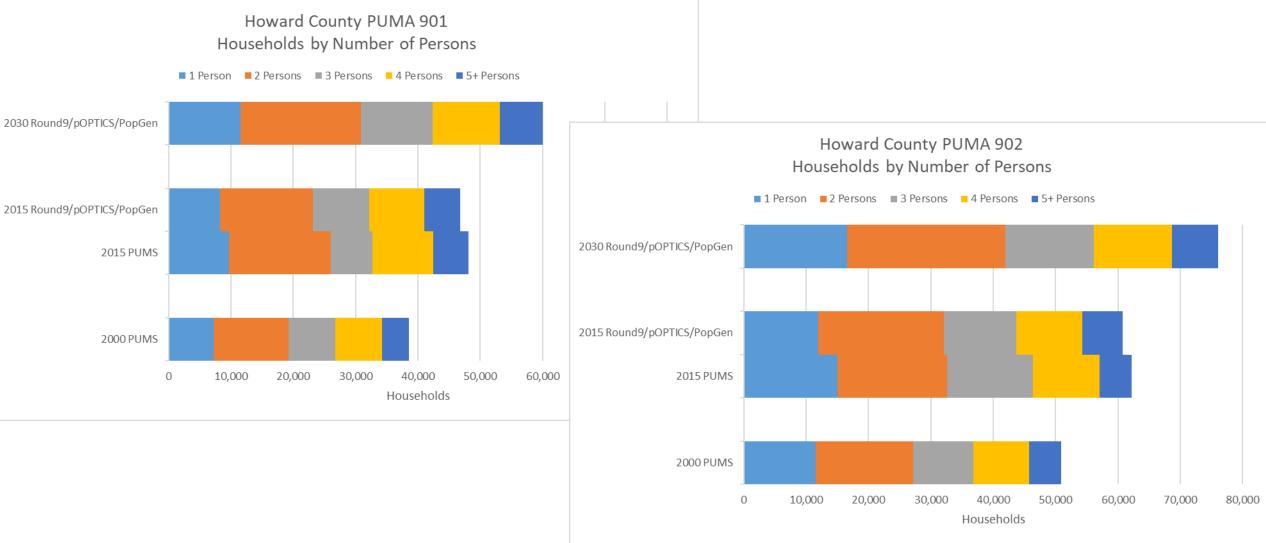
# **Households By Persons**





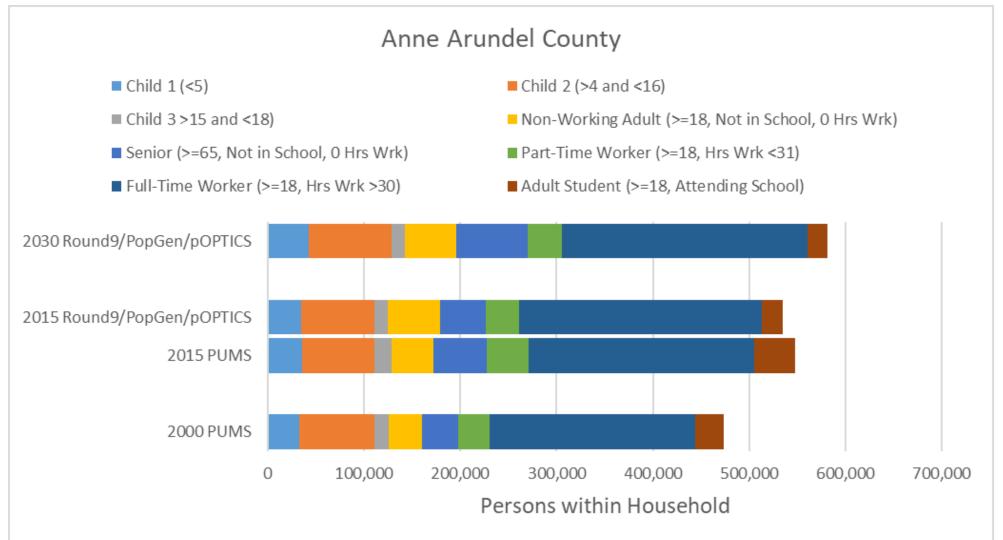
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### **Households By Persons**



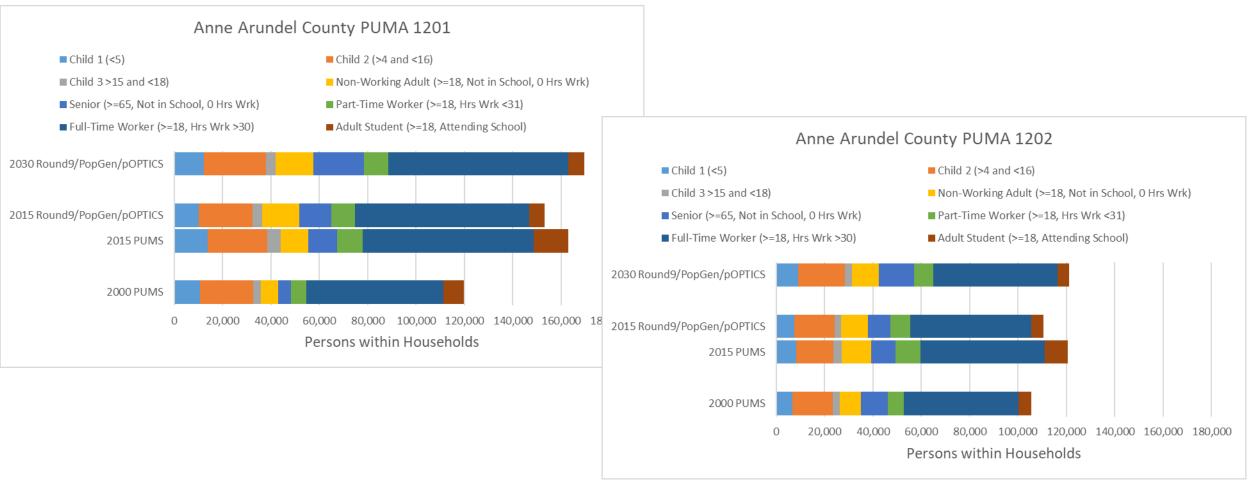


# Person Type (8)





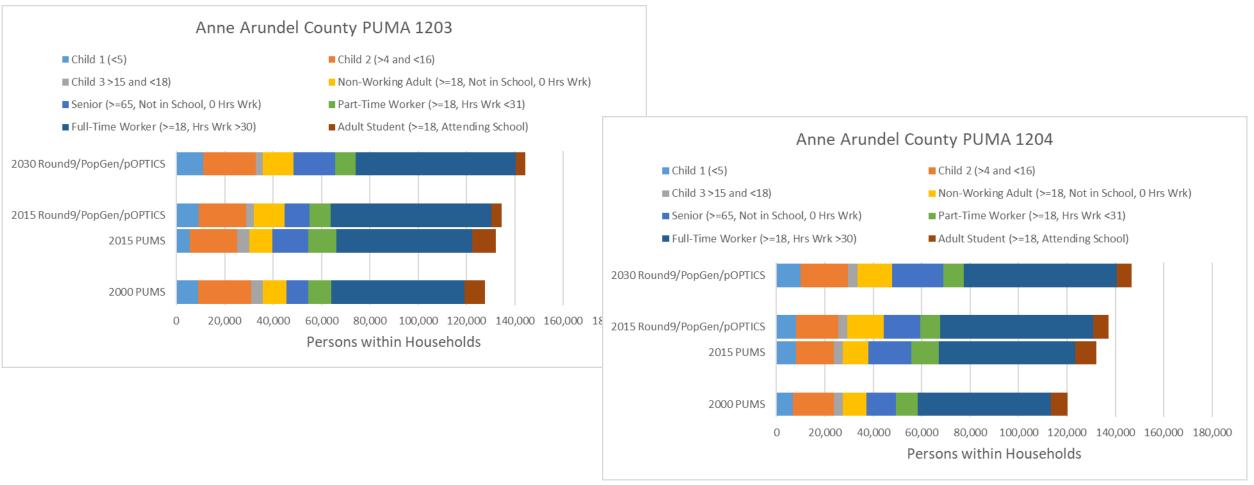
# **Person Type - PUMA**







# **Person Type - PUMA**

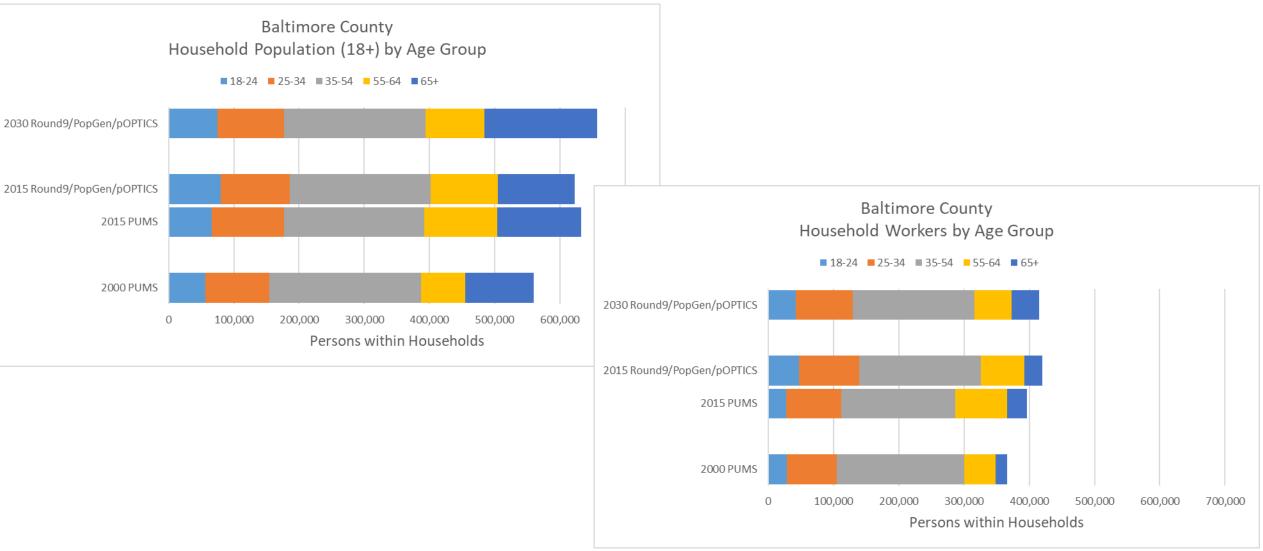






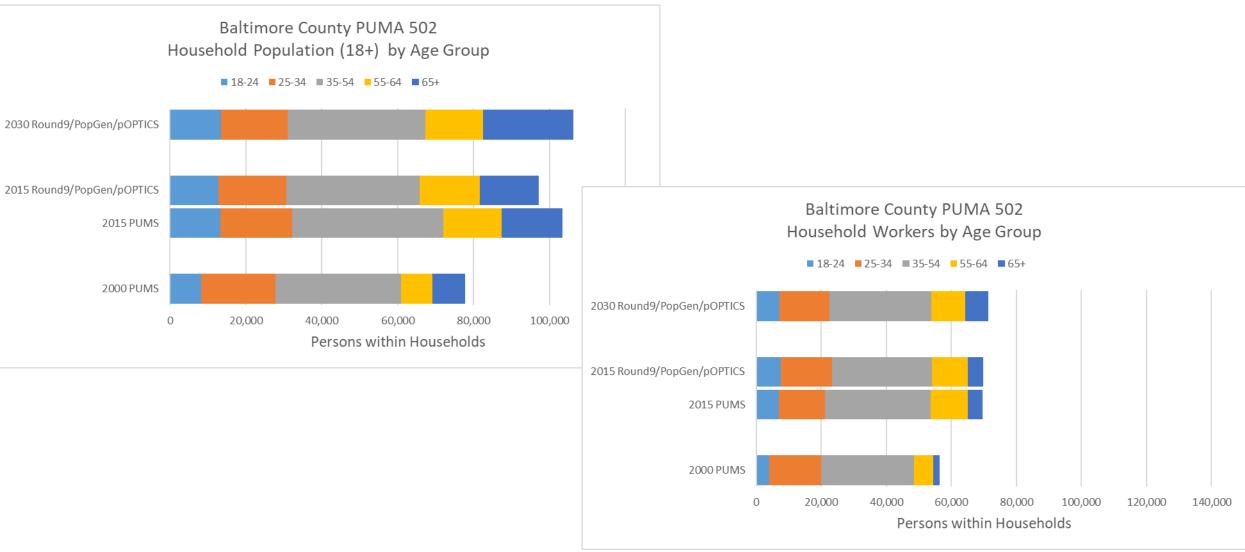
# Worker Age Group

**BMC** 





# Worker Age Group





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#### **BMC**

#### **Worker Age Group - PUMA** Baltimore County PUMA 505 Household Population (18+) by Age Group ■ 18-24 ■ 25-34 ■ 35-54 ■ 55-64 ■ 65+ 2030 Round9/PopGen/pOPTICS 2015 Round9/PopGen/pOPTICS Baltimore County PUMA 505 2015 PUMS Household Workers by Age Group ■ 18-24 ■ 25-34 ■ 35-54 ■ 55-64 ■ 65+ 2000 PUMS 2030 Round9/PopGen/pOPTICS 10,000 20,000 30,000 40,000 50,000 60,000 70,000 80,000 90,0 0 Persons within Households 2015 Round9/PopGen/pOPTICS 2015 PUMS 2000 PUMS 10,000 20,000 30,000 40,000 50,000 60,000 70,000 80,000 90,000 100,000 0 Persons within Households





# **Scenario Planning**

#### The Great Recession

- Decline in Employment
- Decline in Investment Returns
- Decline in Retirement Contributions

#### Boomers and Xers

- Stay in their Current Homes (Outward Migration at Historical Lows)
- Work Past Normal Retirement Age
- 2030 Round9/pOPTICS/PopGen/ Assumptions –
- Harford County
  - Household Population (266,699)
  - Households (104,801)





# **Scenario Planning**

Base Scenario					
Persons Moving t	owards Retire	ement age			
				LF Participation Rate	e LF
10,000	60%	Migrated	6,000		
	40%	Aged in Place	4,000	25%	1,000
Age in Place - Gre	at Recession				
Persons Moving t	owards Retire	ement age			
				LF Participation Rate	e LF
10,000	30%	Migrated	3,000		
	70%	Aged in Place	7,000	45%	3,150





# **pOPTICS – Migration Change**

	20	000	20	05	2010		2015		20	20	2025		20	30	20	35	35 204		20	45
Net Migration																				
Non Hispanic White	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
0-4									0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
5-9									0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
10-14									0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
15-19									0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
20-24									0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
25-29									0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
30-34			Enter	a Posi	tive Nu	mber			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
35-39			to l	ncrease	e Migrat	tion			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
40-44			Rat	te and a	a Negat	ive			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
45-49			Nu	mber to	o Decre	ase			-10%	-10%	-10%	-10%	0%	0%	0%	0%	0%	0%	0%	0%
50-54				Migrati	on Rate	e			-10%	-10%	-10%	-10%	0%	0%	0%	0%	0%	0%	0%	0%
55-59									-10%	-10%	-10%	-10%	0%	0%	0%	0%	0%	0%	0%	0%
60-64									-10%	-10%	-10%	-10%	0%	0%	0%	0%	0%	0%	0%	0%
65-69									-10%	-10%	-10%	-10%	0%	0%	0%	0%	0%	0%	0%	0%
70-74									-10%	-10%	-10%	-10%	0%	0%	0%	0%	0%	0%	0%	0%
75-79									0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
80-84									0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
85+									0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%





#### **pOPTICS – Labor Force Participation**

								Lab	or For	rce										
	2000		2005		2010		2015		2020		2025		2030		2035		2040		2045	
Labor Force																				
Non Hispanic White	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
16 to 19									0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
20 to 24									0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
25 to 54									0%	0%	∩%	0%	0%	0%	0%	0%	0%	0%	0%	0%
55 to 64									15%	15%	10%	10%	0%	0%	0%	0%	0%	0%	0%	0%
65 to 69									15%	15%	10%	10%	0%	0%	0%	0%	0%	0%	0%	0%
70 and Over									15%	15%	10%	10%	0%	0%	0%	0%	0%	0%	0%	0%



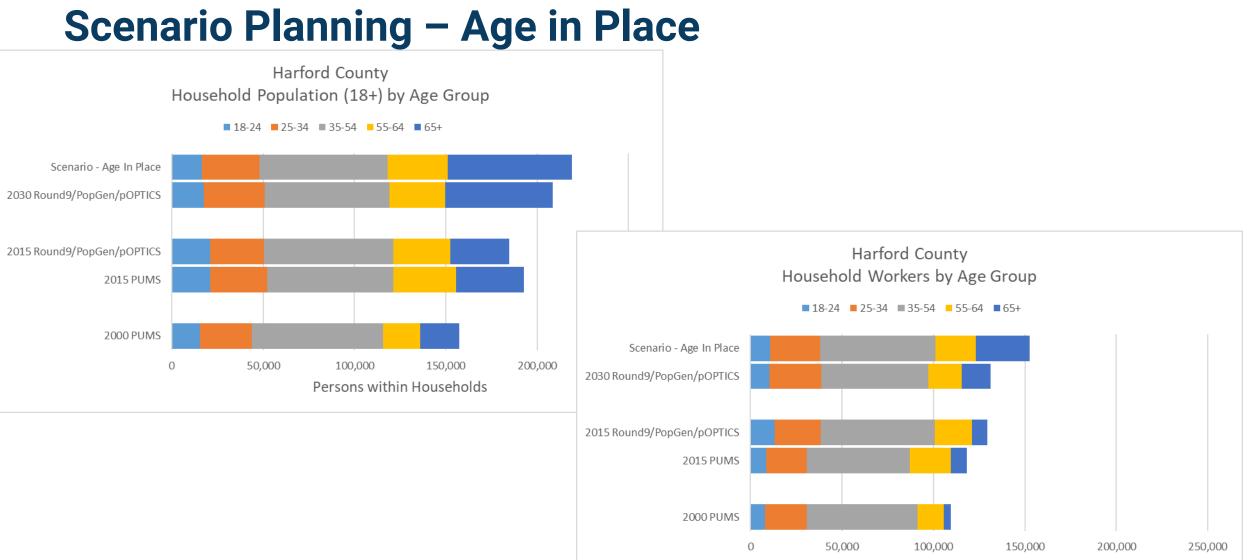


#### **TAZ 1232**

	<b>TAZ</b> Totals															Househo	ld/Per	son Ros	ter		
																				-	
	Aggregate						Margin	al										>	Disaggre	gate	
Round 9 -	2015													TAZ 12	2						
TAZ	TotPopulation	Households	GroupQuarter	HH Civilian LF Med Income	TAZ LEVEL									hhid	Income Group	size	adults	children	workers	Full-Time	Part-Tim
1232	2 1424	44	3	9 718 \$113,191	Demographic Mod	els								996939		1	1	1 0		0 0	
					Average HH Size		3.2								person ID	Person Type	age	gender			
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														hhid	Income Group		adults	children	workers	Full-Time	Part-Tin
					HH/Size	1	2	3	4	5+	Total			996882		2	3	1 2		L C	
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														hhid	Income Group		adults	children	workers	Full-Time	Part-Tin
					HH/Income GRP	1	2	3	4		Total			996747		-	-	20	(	0 0	
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					Female	9,100	10,061	11,217		3,485	2,426	2,906	159,919	997035		-	6	4 2		1 2	2
															person ID	person Type	age	gender			
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										t	otal	111,744									







Persons within Households



#### S BMC

# Scenario Planning – Age in Place









### **Discussion**

Thoughts?

#### Scenarios

- Identify county efforts/activities that benefit from Round9/pOPTICS/PopGen disaggregate data?
- What demographic scenarios are you interested in?
- Next Steps





#### **For More Information**

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(in @BALTIMORE METROPOLITAN COUNCIL



