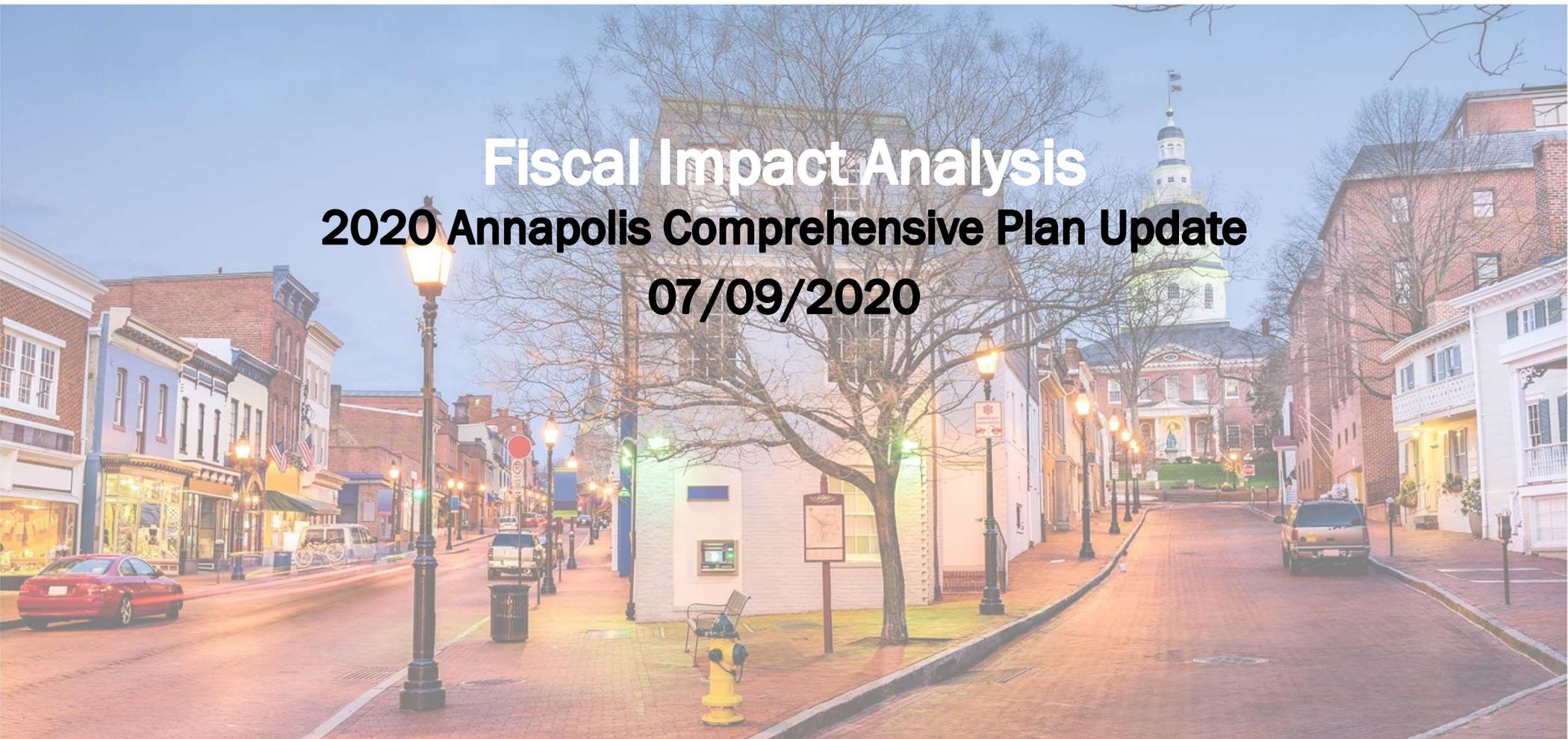


bae urban economics



Fiscal Impact Analysis
2020 Annapolis Comprehensive Plan Update
07/09/2020

Agenda

1. Overview of Fiscal Impact Analysis
2. Fiscal Impact Analysis of the 2020 Annapolis Comprehensive Plan Update
3. Discussion of Major Assumptions
4. Sensitivity Analysis
5. Supportable Nonresidential Development
6. Key Takeaways
7. Q&A



Why We Are Here

- Asked to conduct a market analysis and fiscal impact study for the 2020 Annapolis Comprehensive Plan Update
- A fiscal Impact analysis tests the sustainability of growth projected in the plan in terms of services provided by the city government
- Typically, a fiscal impact analysis would be conducted later in the planning process and would help determine the final development program and associated land uses/zoning
- This study helps to provide parameters for that aspect of the planning process that is still underway

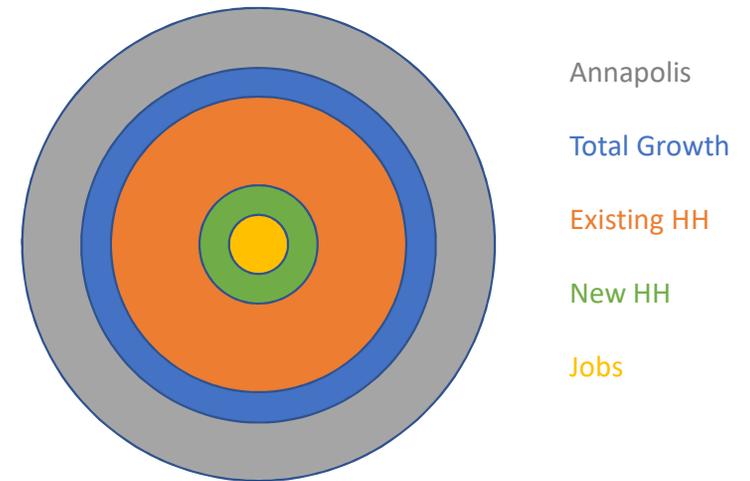
Annapolis is going to grow

Annapolis	2020	2030	2040	20-Year Change	20-Year % Change
Households	16,426	16,868	16,989	563	3.4%
Population	40,262	40,918	44,609	4,347	10.8%
Persons per Household	2.45	2.43	2.63	0.17	7.1%
Jobs	31,001	31,041	31,083	82	0.3%
Service Population (a)	55,763	56,438	60,151	4,388	7.9%

Notes:

(a) Service population is defined as the residential population plus 1/2 jobs

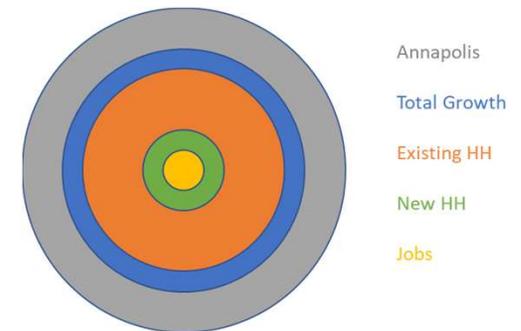
Sources: Esri Business Analyst; Baltimore Metropolitan Council, Round 9 Projections; City of Annapolis; BAE, 2020.



- There will be two kinds of **residential** growth:
 - Growth from *new* households (31%-34% of all growth)
 - Growth from *existing* households (66%-69% of all growth)
- There will be some new workers too, but not many
- The service population is an estimate of the number of people served by the city government

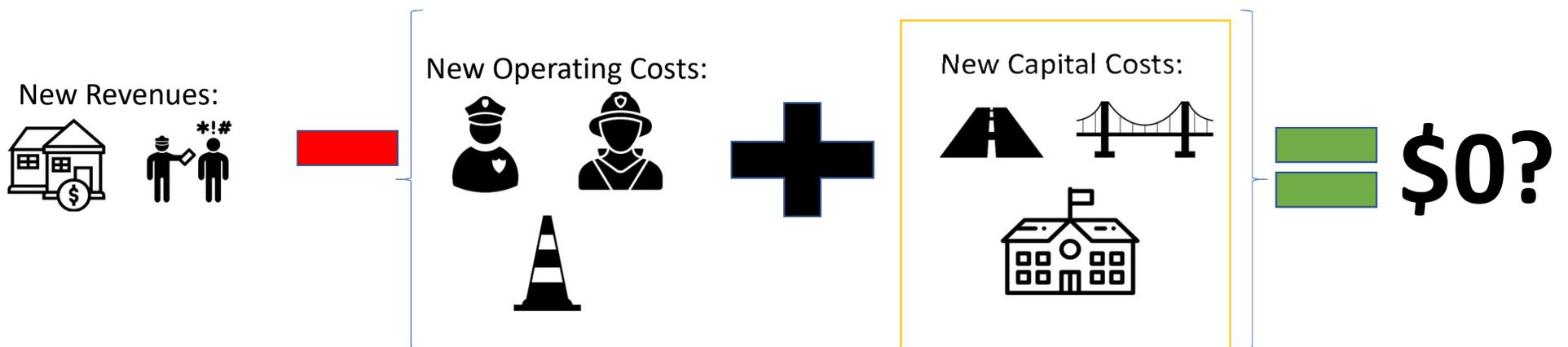
Will growth impact the city's operations?

- Yes.
- The city provides a variety services and infrastructure to residents and workers (i.e. the service population), as reflected in the appropriations to different departments in the city budget
- Residents and workers consume services, and pay for those services through taxes and fees
- Therefore, new growth will consume additional services, and pay additional taxes and fees
- **Big Question: What is the balance of new costs and revenues from new growth?**
 - i.e. “What is the fiscal impact of new growth?”
- A Fiscal Impact Analysis will provide the answer



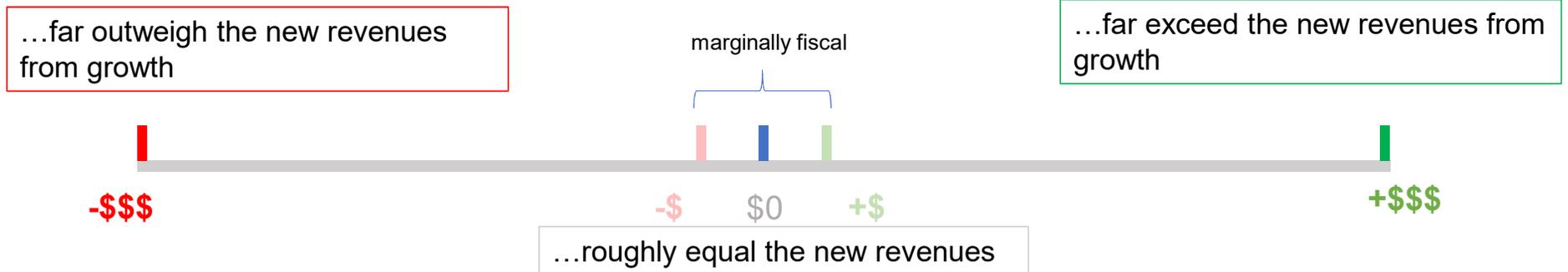
So what is a fiscal impact analysis?

- A fiscal impact analysis is a **test** to see whether or not the **growth-related demand for services and infrastructure**, *as reflected in the city's budget expenditures*, will be **balanced by the additional revenues** generated by growth



What will the findings tell us?

The costs to scale operations and/or provide new infrastructure to accommodate growth projected in the Comprehensive Plan...



- There are **many potential interpretations** for the range of fiscal results
- The fiscal results **do not** provide a projection of future budget levels

How is a fiscal impact calculated?

Step 1: Analyze Variable Costs

- Identify services/staff that need to increase to meet demands of new growth, **based on the level of service provided today**
- Determine costs of staff/services using the city budget
- Calculate per unit/per capita costs

- Parks Budget = \$40,000
- Variable Parks Costs = \$20,000
- 100 Residents in 2020
- Level of Service = $\$20,000 / 100 = \mathbf{\$200 \text{ per Resident}}$

Step 2: Project Costs

- Determine the appropriate projections for each variable cost
- Projection rates include:
 - HH growth rate
 - Service pop. Growth rate
 - Res. Pop growth rate
 - Job growth rate

- 50 New Residents
- \$200 per Resident
- Growth costs = $50 \times \$200 = \mathbf{\$10,000}$

Step 3: Analyze Revenues

- Project property tax revenue from **new development**
- Use property tax assumptions to **derive new income tax revenue**
- Project other revenues based on per capita values and appropriate growth rates

- 10 New Units
- Assessed Value: \$500,000 each (\$5,000,000 total)
- Apply Prop. Tax Rate (0.738 per \$100):
= $\mathbf{\$36,900}$

Step 4: Calculate Fiscal Impact

- Subtract costs from revenues

- Revenues = \$36,900
- Costs = (\$10,000)
- **Fiscal Impact = \$26,900**

The Annapolis Fiscal Impact Model

Step 1: Analyze Variable Costs

- Identify services/staff that need to increase to meet demands of new growth, **based on the level of service provided today**
- Determine costs of staff/services using the city budget
- Calculate per unit/per capita costs

Expenditures	Projection	LOS	Base FY20	20-Year Change	20-Year Cost
Police					
Salaries & Benefits	SEE BELOW		\$ 17,162,000		
Contractual Services	HH	\$ 114.36	\$ 1,878,530		\$ 64,387
Supplies/Other	HH	\$ 35.33	\$ 580,300		\$ 19,890
Capital Outlay	HH	\$ -	\$ -		\$ -
Total			\$ 19,620,830		\$ 84,277

		Salary + Benefits: 35%		Projection	LOS	Base FY20	20-Year Change	20-Year Cost (c)
Staffing								
Police								
	Salary							
A067	\$ 60,283	\$ 81,382	HH	0.00037	6	0.205650386	\$ 16,736	
A087	\$ 43,540	\$ 58,779	HH	0.00012	2	0.068550129	\$ 4,029	
A097	\$ 71,077	\$ 95,954	HH	0.00012	2	0.068550129	\$ 6,578	
A098	\$ 44,424	\$ 59,972	HH	0.00055	9	0.308475579	\$ 18,500	
A107	\$ 58,850	\$ 79,448	HH	0.00024	4	0.137100257	\$ 10,892	
A118	\$ 82,141	\$ 110,890	HH	0.00018	3	0.102825193	\$ 11,402	
A127	\$ 79,542	\$ 107,382	HH	0.00012	2	0.068550129	\$ 7,361	
P108	\$ 55,380	\$ 74,763	HH	0.00286	47	1.610928025	\$ 120,437	
P118	\$ 56,507	\$ 76,284	HH	0.00310	51	1.748028282	\$ 133,347	
P128	\$ 78,868	\$ 106,472	HH	0.00079	13	0.445575837	\$ 47,441	
P138	\$ 89,326	\$ 120,590	HH	0.00079	13	0.445575837	\$ 53,732	
P158	\$ 96,056	\$ 129,676	HH	0.00037	6	0.205650386	\$ 26,668	
P178	\$ 144,124	\$ 194,567	FIXED		3	0	\$ -	
P188	\$ 147,050	\$ 198,518	FIXED		1	0	\$ -	
	\$ 161,288	\$ 217,739	FIXED		1	0	\$ -	
Total					163	5.42	\$ 457,124	

The Annapolis Fiscal Impact Model

• Step 1 (contd.): Analyze Variable Costs

<u>Department</u>	<u>Variable Expenditures</u>	<u>Variable Staff Costs</u>	<u>FY20 Adopted Budget</u>	<u>% Variable</u>
General Government (a)	\$ 1,363,650	\$ 5,359,113	\$ 30,581,430	22.0%
Police	\$ 2,458,830	\$ 13,336,939	\$ 19,620,830	80.5%
Fire	\$ 1,380,370	\$ 11,894,367	\$ 19,286,270	68.8%
Emergency Management (b)	\$ -	\$ -	\$ 417,520	0.0%
Public Works	\$ 2,386,250	\$ 3,337,587	\$ 7,885,250	72.6%
Parks	\$ 1,597,850	\$ 1,155,655	\$ 5,176,700	53.2%
Total	\$ 9,186,950	\$ 35,083,661	\$ 82,968,000	53.4%

Notes:

(a) General government includes: City Council and the Office of the Mayor, Human Resources, Management Information Technology, Finance, Planning & Zoning, and the Office of Environmental Policy

(b) Emergency management expenditures were determined to be fixed as they all growth-related needs over the next 20 years will come from non-local allocations.

The Annapolis Fiscal Impact Model

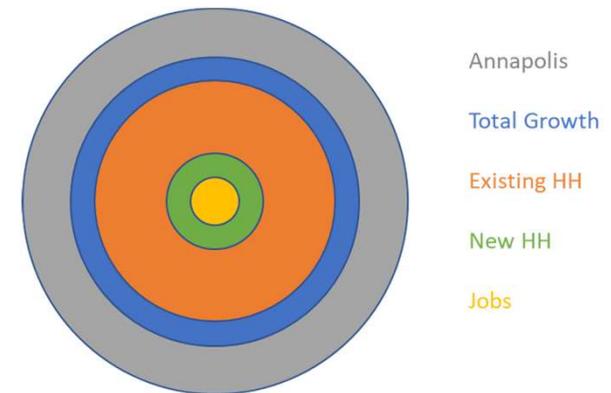
Annapolis	20-Year % Change
Households	3.4%
Population	10.8%
Persons per Household	7.1%
Jobs	0.3%
Service Population (a)	7.9%

• Step 2: Project Variable Costs

Department	2020 Adopted Budget	Operating Expenditure Impact, by 2040	Staff Costs Impact, by 2040	Total Impact, by 2040	% Total Impact, by 2040	% Increase since 2020	Projected By
General Government (a)	\$ 30,581,000	\$ 107,000	\$ 396,000	\$ 503,000	20.1%	1.6%	Service Population
Police	\$ 19,621,000	\$ 84,000	\$ 457,000	\$ 541,000	21.6%	2.8%	Households
Fire	\$ 19,286,000	\$ 81,000	\$ 408,000	\$ 489,000	19.5%	2.5%	Households
Public Works	\$ 7,885,000	\$ 188,000	\$ 444,000	\$ 632,000	25.3%	8.0%	Service Population
Recreation and Parks	\$ 5,217,000	\$ 212,000	\$ 125,000	\$ 337,000	13.5%	6.5%	Residents
Total	\$ 82,590,000	\$ 672,000	\$ 1,830,000	\$ 2,502,000	100.0%	3.0%	

Notes:

(a) General Government includes: City Council and the Office of the Mayor, Human Resources, Management Information Technology, Finance, Planning & Zoning, and the Office of Environmental Policy



The Annapolis Fiscal Impact Model

• Step 3a: Analyze Revenues – Property Taxes

<u>Development Type</u>	<u>Units/SF</u>	<u>Price/Rent</u>	<u>NOI</u>	<u>Cap Rate</u>	<u>Market Value</u>	<u>% Total</u>
<i>Residential</i>						
Single Family Detached	69	\$ 700,000			\$ 48,519,856	13.6%
Tow nhome	322	\$ 650,000			\$ 209,079,422	58.7%
Condo	100	\$ 600,000			\$ 60,000,000	16.8%
Multifamily	109	\$ 1,600	\$ 9,579	4.75%	\$ 21,981,284	6.2%
Subtotal	600				\$ 339,580,562	95.3%
<i>Non-Residential</i>						
Retail	20,000	\$ 28.00	\$ 26.60	6.25%	\$ 8,512,000	2.4%
Office	20,000	\$ 27.00	\$ 25.65	6.25%	\$ 8,208,000	2.3%
Subtotal	40,000				\$ 16,720,000	4.7%
Total					\$ 356,300,562	

- Assessed Value: \$356,300,000

➤ Apply Prop. Tax Rate (0.738 per \$100):
= \$2,629,000

The Annapolis Fiscal Impact Model

• Step 3b: Analyze Revenues – Income Taxes

Income Assumptions	
Total New Residential Units*	600
Market-Rate Residential	
For Rent	
New For-Rent Units	109
Average Monthly Rent (a)	\$ 1,600
Vacancy Rate	5%
Annual Household Income (b)	\$ 76,800
New Income Tax Revenue (c)	\$ 38,000
For Sale	
New Single Family Homes	
Sale Price (d)	\$ 700,000
Loan Amount (e)	\$ 560,000
Mortgage Rate (f)	4.50%
Loan Term (months)	360
Monthly Payment	\$ 2,837
Annual Income (f)	\$ 121,604
New Income Tax Revenue (g)	\$ 40,000

New Townhomes	322
Sale Price (d)	\$ 650,000
Loan Amount (e)	\$ 520,000
Mortgage Rate (f)	4.50%
Loan Term (months)	360
Monthly Payment	\$ 2,635
Annual Income (f)	\$ 112,918
New Income Tax Revenue	\$ 174,000
New Condos	100
Sale Price (d)	\$ 600,000
Loan Amount (e)	\$ 480,000
Mortgage Rate (f)	4.50%
Loan Term (months)	360
Monthly Payment	\$ 2,432
Annual Income (f)	\$ 104,232
New Income Tax Revenue	\$ 50,000
	City of Annapolis
Income Tax Revenue from For-Rent Units	\$ 38,000
Income Tax Revenue from For-Sale Units	\$ 264,000
New Income Tax Revenue	\$ 302,000

Notes:

(a) Based on the Q3 2019 Asking rents from the 'Demographic and Economic Profile and Real Estate Market Analysis'

(b) Assumption of Rent-to-Income ratio:

25.00%

(c) The Anne Arundel County income tax rate in FY20:

2.81%

Annapolis' percentage of Anne Arundel County Income Tax:

17.00%

(d) Based on median sale price from the 'Demographic and Economic Profile and Real Estate Market Analysis'

(e) Loan amount assumes 20% down payment

(f) Assumes Fixed-rate mortgage

(f) Assumption of monthly mortgage payment as percentage of gross monthly income:

28%

(g) Gross monthly income multiplied by 12 for annual income)

The Annapolis Fiscal Impact Model

• Step 3c: Analyze Revenues – Other Revenues

Source of Revenue	2020 Adopted Budget (a)	Revenue Impact, by 2040	% Total Impact, by 2040	Average Annual Increase Between 2020 and 2040
Real Property Tax (b)	\$ 51,884,000	\$ 2,629,000	80.2%	0.4%
Personal Property Tax (c)	\$ 2,950,000	\$ 8,000	0.2%	0.0%
Income Tax (d)	\$ 6,343,000	\$ 302,000	9.2%	0.4%
License & Permits (e)	\$ 3,256,300	\$ 112,000	3.4%	0.3%
Fines & Forfeitures (f)	\$ 435,000	\$ 34,000	1.0%	0.7%
Charges for Service (g)	\$ 5,626,500	\$ 193,000	5.9%	0.3%
Total	\$ 70,494,800	\$ 3,278,000	100%	0.4%

Notes:

(a) Revenues shown are only for those revenue sources held variable, so total of FY20 adopted budget levels do not match FY20 General Fund revenues

(b) Property taxes are calculated based on the projections of new residential development for the Comprehensive Plan. The assumed projected 'development program' in place currently is a placeholder

(c) Projected based on base year personal property tax revenue per job

(d) revenue tax is based on the household revenues of new residential development. As a result, this is a low estimate as new residential development does not account the entirety of the projected population growth by 2040.

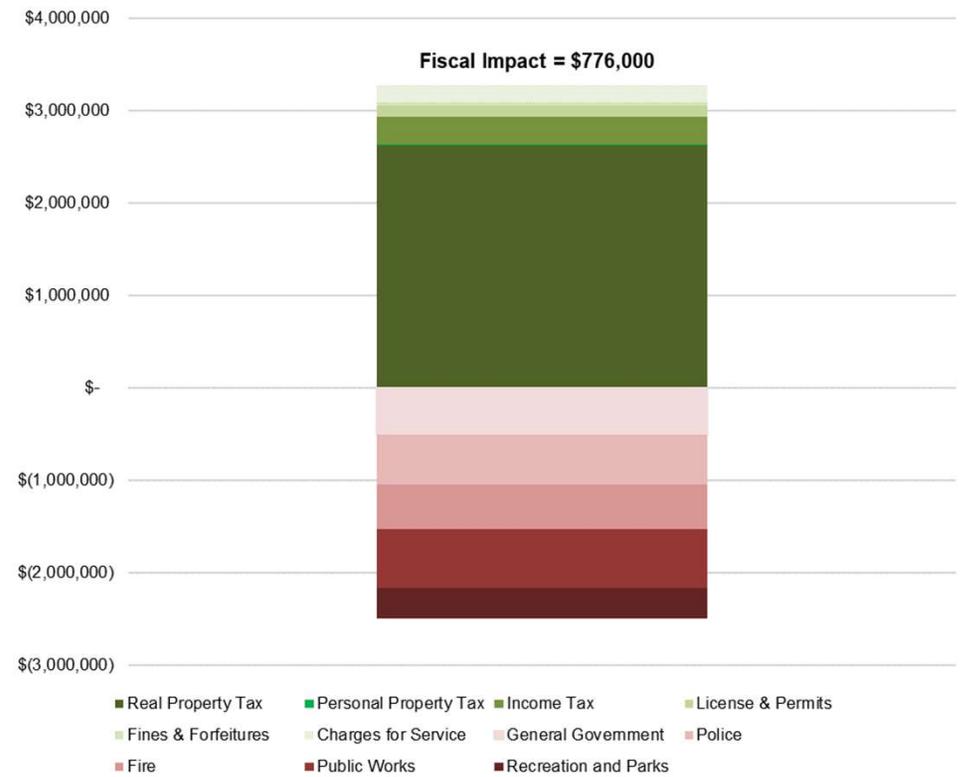
(e) Projected based on base year licenses and permits revenue per resident

(f) Projected based on base year fines and forfeitures revenue 'service person'

(g) Projected based on base year charges for service revenue per resident

The Annapolis Fiscal Impact Model

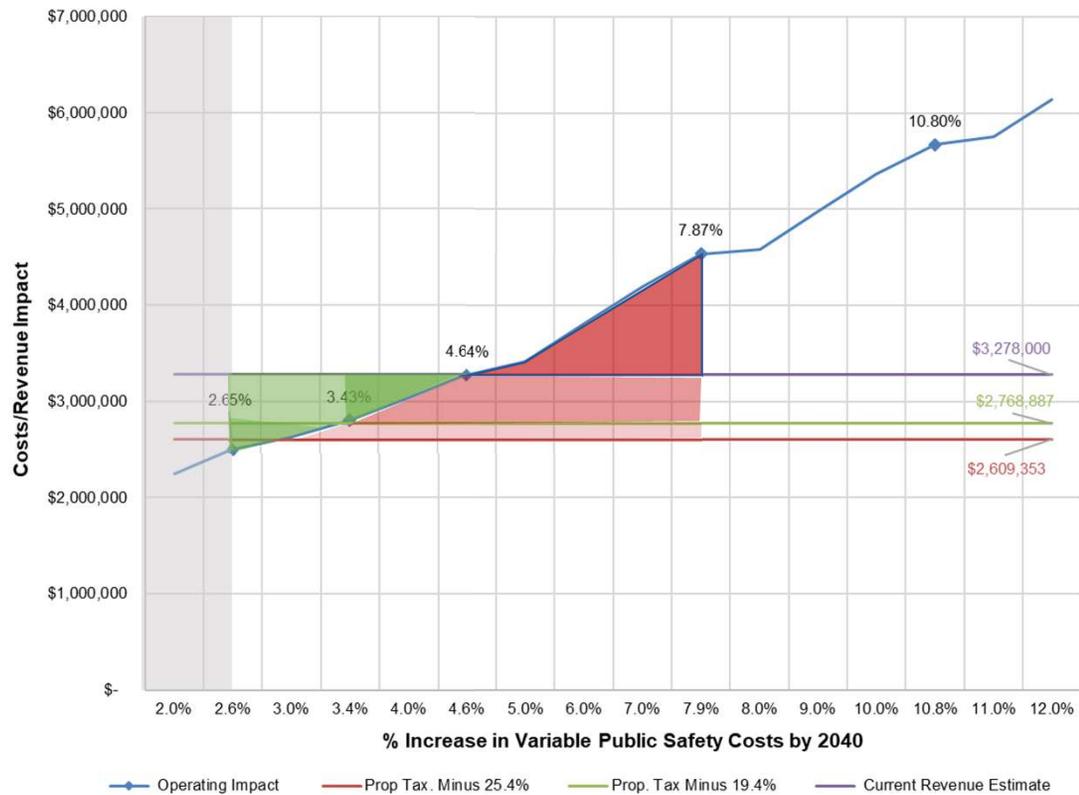
- **Step 4: Calculate Fiscal Impact**



Major Assumptions

Assumption	Effect
No Capital Costs	(-)
No new income tax from growth from existing households	(+)
No increase in property values for existing development	(+)
Public Safety costs grow at a slower rate than HH growth	(-)
High property values for new residential development	(-)
Impact of COVID	(-)
Low estimate of new non-residential development	(+)
The comprehensive plan will promote economic development, operating efficiencies, and increased property values in Annapolis	(+)

What if...?



Annapolis Property Values During the Great Recession:

- 2006-2009 = -19.4%
- 2006-2012 = -25.4%

Supportable Non-Residential Development

- Retail: 9,300 SF – 67,800 SF
 - Current Estimate: 20,000 SF
- Office: 9,100 SF – 144,078 SF
 - Current Estimate: 20,000 SF



Key Takeaways

- The Annapolis Comprehensive Plan update is fiscally neutral.
- Even in the worst case scenario tested, revenues unaccounted for in the model suggest a fiscally neutral result.
- This is the desired result – growth in Annapolis is sustainable in terms of services and infrastructure provided today.
- Improving services, infrastructure, promoting economic development and making Annapolis a desirable place to live are the main goals of the plan – a good plan will improve the fiscal situation.