



**TischlerBise**  
FISCAL | ECONOMIC | PLANNING

# Fiscal Impact Model

City of Falls Church

Presentation to

Economic Development Authority

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**TischlerBise.com**

# TischlerBise Experience



Amherst County	Goochland County	Powhatan County
Augusta County	Henrico County	Prince George County
Charles County	Isle of Wight County	Prince William County
Chesapeake	James City County	Spotsylvania County
Fairfax	Leesburg	Stafford County
Falls Church	Norfolk	Suffolk
Frederick County	Poquoson	Sussex County

- Fiscal, economic, and planning consultants
- National Practice
- Fiscal Impact Evaluations (800+)
- Impact Fees (900+)
- Infrastructure Needs & Revenue Strategies
- Public and Private Sector Experience



# Falls Church Fiscal Model Overview

Purposes of Fiscal Impact Model are to:

- Evaluate the fiscal impact of development proposals on case-by-case basis
- Compare a range of impacts and variations for one project
- Project potential direct revenues to the City from the project itself (no spin-offs)
- Project potential operating impacts on services from the project based on current levels of service



# Fiscal Impact Analysis

- Fiscal impact analysis: Cash flow to the public sector
- Are the revenues generated by new growth enough to cover the resulting service and facility demands?
- Based on current levels of service
- Revenue minus expenditures = net **surplus** or net **deficit**
- Fiscal impact analysis helps to recognize that there are contributors and recipients in a community
- Aim is to assist the City to meet planning and fiscal goals with deeper understanding of connection between land use decisions and revenue/cost impacts
  - » Often leads to discussions and policy on “who should pay for what”



# Economic Impact Analysis

- Economic impact analysis addresses overall economy of the community
- Residential development generates economic impacts:
  - » Construction phases and consumer spending (could be local or not)
- Nonresidential development generates economic impacts:
  - » Direct and indirect job creation and real disposable income
- Economic impacts do not follow jurisdictional lines
- Large portion of economic output likely flows out of jurisdiction, region, and possibly state
- Resident spending for mortgages, car payments, & insurance typically not sources of local government revenues



# Municipal Budgeting

- Municipal budgeting is primarily “revenue driven”
- Revenue forecasts are used to establish spending targets
- Budget is based on available resources
- Contrast with fiscal impact analysis, which projects revenues and expenditures separately:
  - » Costs needed to maintain current City levels of service
  - » Direct revenues generated from the development being tested



# Model Approach and Influencing Factors

- Use City current levels of service as reflected in current budget
- Supplemented with departmental interviews and data analysis
- Use characteristics of new development as drivers
  - » Property values
  - » Sales per square foot
  - » Household size
  - » Student generation rates
  - » Employees per square foot
  - » Vehicle trips



# Design of Model

- Developed in Excel and Visual Basic
- Replicates City budget organization and revenue structure
- Transparent: All data, assumptions, and formulas are shown
- Can model up to three scenarios at a time
- Can model multi-year impacts
- Allows for flexibility
  - » Additional modules can be integrated at a later date



# Development Project Model: Inputs

Falls Church Fiscal Model\_2015\_v1.xls [Compatibility Mode] - Microsoft Excel

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General

Clipboard Copy Paste Format Painter

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22 **Input for Project One**

23

24 **Name of Project One:** Scenario 1

25

26 **SCENARIO 1 RESIDENTIAL DEVELOPMENT COMPONENT**

Type of units	Total number of units	Number of units absorbed each year	Assessed value per unit	Avg Sq. Ft. per Unit	Student generation rate	Persons per unit	Trip generation rate	Trip adj. factor	Inspectable SF	Utility Tax per Unit	Average Building Permit per Unit	Average Rent per Unit	Occupancy Rate	BPOL TAX Rate
Single Family Detached	0	0	\$654,549	0	0.62	2.86	9.52	50%	0	\$158	\$0			na
Townhouse - Owner Occupied	0	0	\$587,451	0	0.36	2.17	5.81	50%	0	\$143	\$0			na
Townhouse - Renter Occupied	0	0	\$587,451	0	0.36	1.73	5.81	50%	0	\$143	\$0			\$0.0038
Mid-Rise Apartments studios' + 1's	0	0	\$100,000	0	0.07	1.64	4.20	50%	0	\$83	\$0			\$0.0038
Garden Apartments	0	0	\$87,000	0	0.30	2.67	6.59	50%	0	\$60	\$0			\$0.0038
Condominiums	0	0	\$406,533	0	0.10	1.35	5.81	50%	0	\$120	\$0			na
High Rise Condominiums	0	0	\$406,533	0	0.10	1.80	4.20	50%	0	\$120	\$0			na
Age-Restricted Housing	0	0	\$406,533	0	0.00	1.46	3.44	50%	0	\$19	\$0			\$0.0038
ADU Townhouse	0	0	\$194,342	0	0.00	1.73	5.81	50%	0	\$143	\$0			na
ADU Condo	0	0	\$140,675	0	0.00	1.35	5.81	50%	0	\$120	\$0			na
Mid-Rise Apartments 2 bdrms.	0	0	\$255,000	0	0.22	1.64	4.20	50%	0	\$83	\$0			\$0.0038
Custom Residential Housing Type 1	0	0	\$0	0	0.00			50%	0		\$0			\$0.0038
Custom Residential Housing Type 2	0	0	\$0	0	0.00			50%	0		\$0			\$0.0038
Custom Residential Housing Type 3	0	0	\$0	0	0.00			50%	0		\$0			\$0.0038

# Revenue Modules

Revenue Category	Revenue Name	Base Year Budget Amount	Project Using Which Demand Base?	Demand Unit Multiplier	Projection Methodology	Annual Change (+/-)	LOS Std \$ per Demand Unit
<b>Taxes</b>	Real Estate Property Taxes	\$44,728,000	CUM AV	10,000.00	CONSTANT	0%	\$1.315
	Personal Property Taxes	\$4,302,700	PERSONAL PROPERTY TAXES	1.00	CONSTANT	0%	\$1.00
	Non-Assessed Property Taxes	\$300,000	FIXED	1.00	CONSTANT	0%	\$0.00
	Local Sales and Use Taxes	\$3,848,600	RETAIL SALES	1.00	CONSTANT	0%	1%
	Utility Tax	\$2,035,000	UTILITY TAXES	1.00	CONSTANT	0%	\$1.00
	Cigarette Tax	\$410,000	POP AND JOBS	1.00	CONSTANT	0%	\$16.33
	Meals Tax	\$2,700,000	TOTAL OF MEAL BILLS	1.00	CONSTANT	0%	4%
	Other Sales and Use Taxes	\$283,000	POP AND JOBS	1.00	CONSTANT	0%	\$11.27
	Hotel Tax	\$0	TOTAL OF HOTEL BILLS	1.00	CONSTANT	0%	5%
	Gross Receipts Business Tax	\$3,316,000	BPOL TAXES	1.00	CONSTANT	0%	\$1.00
	Other Taxes	\$996,000	POP AND JOBS	1.00	CONSTANT	0%	\$39.68
<b>Licenses, Fees, &amp; Permits</b>	Building and Inspection Fees	\$545,000	BUILDING AND INSPECTION FEES	1.00	CONSTANT	0%	\$1.00
	Other Licenses, Fees, & Permits	\$231,000	POP AND JOBS	1.00	CONSTANT	0%	\$9.20
<b>Grants &amp; Contributions</b>	Grant Revenue--Federal	\$289,986	FIXED	1.00	CONSTANT	0%	\$0.00
	Other State Categorical Aid	\$677,727	FIXED	1.00	CONSTANT	0%	\$0.00
	State Non-Categorical	\$2,920,877	FIXED	1.00	CONSTANT	0%	\$0.00
	State Categorical	\$1,543,000	FIXED	1.00	CONSTANT	0%	\$0.00
	Developer Contributions	\$0	FIXED	1.00	CONSTANT	0%	\$0.00
	Other Contributions	\$13,000	FIXED	1.00	CONSTANT	0%	\$0.00
<b>Charges for Services</b>	Charges for Services - GenGov't	\$94,500	POP AND JOBS	1.00	CONSTANT	0%	\$3.76
	Charges for Services - Judicial	\$82,292	POP AND JOBS	1.00	CONSTANT	0%	\$3.28
	Charges for Services - Public Safety	\$954,893	POP AND JOBS	1.00	CONSTANT	0%	\$38.04
	Charges for Services - Sanitation	\$68,000	POPULATION	1.00	CONSTANT	0%	\$4.89
	Charges for Services - HHS	\$5,100	POPULATION	1.00	CONSTANT	0%	\$0.37
	Charges for Services - Culture and Recreation	\$1,659,200	POPULATION	1.00	CONSTANT	0%	\$119.37
	Admin & Motor Pool Fees -Water Fund	\$287,800	FIXED	1.00	CONSTANT	0%	\$0.00
	Admin & Motor Pool Fees - Sewer Fund	\$37,100	FIXED	1.00	CONSTANT	0%	\$0.00
	Other Charges	\$1,279,100	FIXED	1.00	CONSTANT	0%	\$0.00
<b>Fines &amp; Forfeitures</b>	Court Fines & Forfeitures	\$400,000	POP AND JOBS	1.00	CONSTANT	0%	\$15.93
	Red Light Violations	\$204,000	VEHICLE TRIPS	1.00	CONSTANT	0%	\$3.19
	Parking Fines	\$37,000	VEHICLE TRIPS	1.00	CONSTANT	0%	\$0.58
	Library Fines	\$45,000	POPULATION	1.00	CONSTANT	0%	\$3.24
	Other	\$5,000	FIXED	1.00	CONSTANT	0%	\$0.00
<b>Use of Property &amp; Money</b>	Investment Revenues	\$0	FIXED	1.00	CONSTANT	0%	\$0.00

# Operating Cost Modules

## BASE YEAR BUDGET AND FACTOR PROJECTION METHODOLOGY INPUTS

### POLICE DEPARTMENT -- OPERATIONS

Expenditure Name	FY 2014 Budget Amount	Project Using Which Demand Base?	Demand Unit Multiplier	Projection Methodology	Annual Change (+/-)	LOS Std \$ per Demand Unit
Salaries & Wages	\$1,629,140	SEE BELOW	1.00	CONSTANT	0%	\$0.00
Benefits	\$1,023,105	SEE BELOW	1.00	CONSTANT	0%	\$0.00
Professional & Contractual	\$16,700	TOTAL POLICE CALLS	1.00	CONSTANT	0%	\$0.70
Materials, Supplies, & Other	\$208,645	TOTAL POLICE CALLS	1.00	CONSTANT	0%	\$8.75
Capital Outlay	\$159,000	FIXED	1.00	CONSTANT	0%	\$0.00
Direct Entry Cost Type 1	\$0	DIRECT ENTRY	1.00	CONSTANT	0%	\$0
Direct Entry Cost Type 2	\$0	DIRECT ENTRY	1.00	CONSTANT	0%	\$0
Direct Entry Cost Type 3	\$0	DIRECT ENTRY	1.00	CONSTANT	0%	\$0
<b>TOTAL</b>	<b>\$3,036,590</b>					

### POLICE DEPARTMENT -- OPERATIONS STAFFING INPUT

Category	FY 2014 FTE Positions	Project Using Which Demand Base?	Current Demand Units Served Per Position	% Estimate of Available Capacity	Remaining Capacity/ Initial Hire Threshold	Estimated Service Capacity Per Position
Deputy Chief	1.0	FIXED	0	0%	0	0
Sergeants	4.0	TOTAL POLICE CALLS	5,960	20%	1,192	5,006
Corporals	4.0	TOTAL POLICE CALLS	5,960	20%	1,192	5,006
Uniform Patrol Officers	13.0	TOTAL POLICE CALLS	1,834	10%	183	1,716
Parking Enforcement Officer	0.8	VEHICLE TRIPS	85,384	50%	42,692	60,989
	22.75					

### SALARIES

Category	Avg Salary / Staff Member	Benefits Multiplier	Inflation Adj (+/- Base)	LOS Std Total Cost	SALARY RANGES	
					Low	High
Deputy Chief	\$111,207	45%	0%	\$161,250	\$83,930	\$138,485
Sergeants	\$79,164	45%	0%	\$114,788	\$58,382	\$99,947
Corporals	\$75,395	45%	0%	\$109,322	\$55,602	\$95,187
Uniform Patrol Officers	\$46,632	45%	0%	\$67,616	recruit salary	
Parking Enforcement Officer	\$38,978	45%	0%	\$56,517	\$29,417	\$48,538

# Outputs

	A	B	C	D	E	F	G	H	I	J
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
21										
22	<b>Gross Annual Revenues</b>									
23	Real Estate Property Taxes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
24	Personal Property Taxes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
25	Non-Assessed Property Taxes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
26	Local Sales and Use Taxes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
27	Utility Tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
28	Cigarette Tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
29	Meals Tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
30	Other Sales and Use Taxes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
31	Hotel Tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
32	Gross Receipts Business Tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
33	Other Taxes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
34	Licenses, Fees, & Permits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
35	Grants & Contributions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
36	Charges for Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
37	Fines & Forfeitures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
38	Use of Property & Money	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39	Miscellaneous	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
40	Interfund Transfers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
41	Other Financing Sources	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
42	Schools Intergovernmental (State, Federal, Other)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
43	Schools Community Services Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
44	Schools Food Service Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
45										
46	<b>Gross Revenues</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
47										
48	<b>Gross Annual Operating Expenditures</b>									
49	Legislative	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
50	Constitutional Officers [1]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
51	Executive [2]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
52	Administrative Services [3]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
53	Community Services: Health and Human Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
54	Community Services: Parks, Rec, Library	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
55	Development Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
56	Environmental Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
57	Environmental Services Refuse Collection Vehicles	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
58	Public Safety: Police	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
59	Public Safety: Fire	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60	Public Safety: Adult Corrections	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
61	Clerk of the Court	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62	Education (Non-FCPS) [4]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



# How the Model Has Been Used

- Evaluate operating impact from new development proposals (including non-fixed assets) based on current levels of service
- Multiple scenarios frequently tested that vary:
  - » Type and mix of land uses
  - » Student generation rates
  - » Property and retail sales values
- Assumes impact of project “buildout” (100 percent occupancy):
  - » Determine annual ongoing revenue generation potential—after one-time revenues collected
  - » Determine annual ongoing operational impacts



## How the Model Has NOT Been Used

- Capital impacts for capacity needs have historically been absorbed by existing fixed assets
  - » There have been minimal other non-school, locally-funded capacity projects in the CIP
  
- Capacity needs to serve growth addressed by proffer policy
  - » Cash proffers and in-kind contributions for capacity needs are negotiated and collected based on project impact



# How the Model Has NOT Been Used

- Model has not been used to model “contributing impacts”
  - » However, this would be captured in property values
- Model has not been designed to predict long-term trends with factors and variables modified after a certain point in time
  - » However, this phenomena is tested with variables and factors
    - ▶ E.g., When the City analyzes a range of probable outcomes, student generation rates by unit reflect ALL units (built in any year) to capture and illustrate a range of potential impacts
- Model has not been used to track impacts cumulatively



# How the Model is Evolving

- Explore expanding capital portion of the model to include:
  - » Capacity capital projects identified in City's CIP
  - » Capacity projects funded with local dollars
- Maintain consistency with existing proffer policies
- Explore using market absorption to identify short-, medium- and long-term operational and capital impacts
- Explore adding an economic impact component to model that would be reported out separately

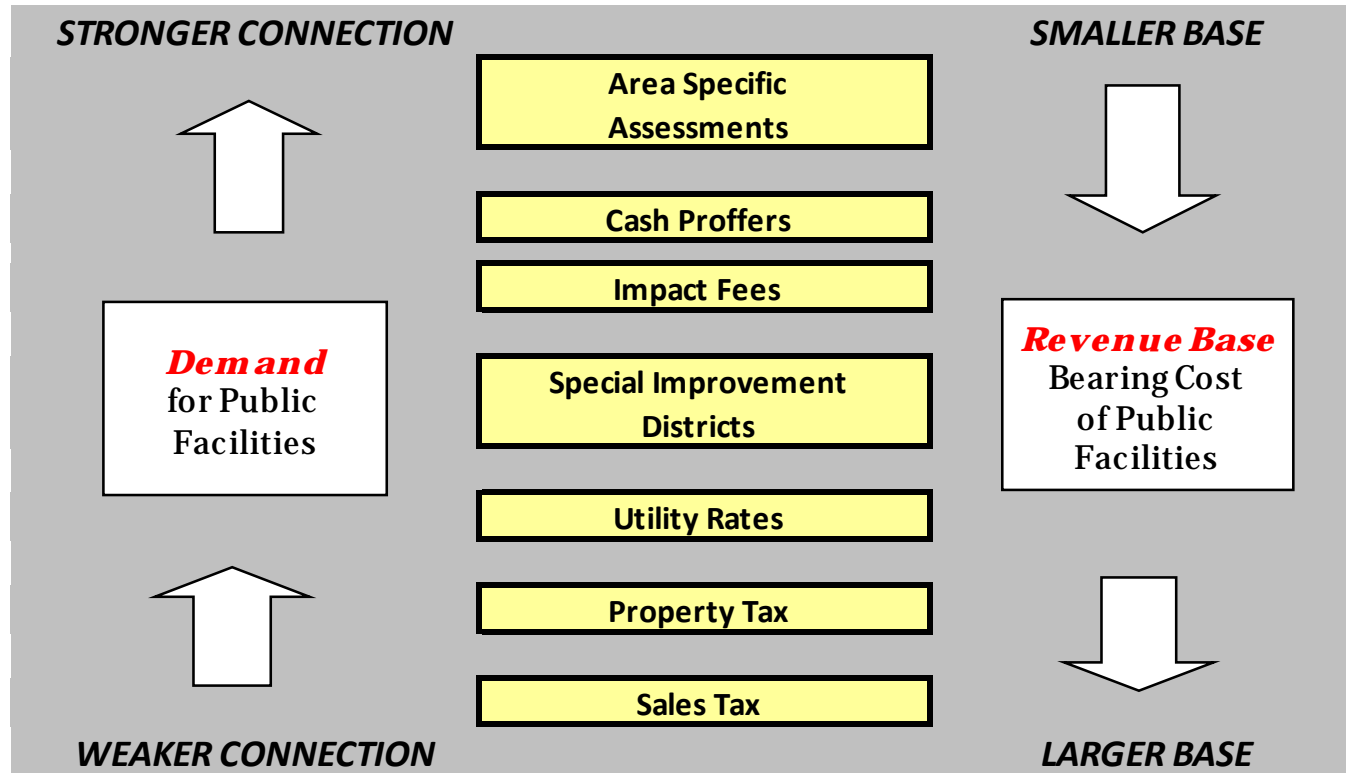




# Wrap Up

- Model has been deployed consistently over time
- The questions to be answered drive model design; as questions change, model design should change and evolve
- There are other non-fiscal factors to be considered when making land use decisions
- Q & A / Discussion

# Appendix: Who Pays?



Source: TischlerBise: P. Tischler, D. Guthrie, and N. Mishkovsky, "Introduction to Infrastructure Financing," ICMA IQ Service Report