

Fiscal Impacts Associated for Various Redevelopment Scenarios

Upper Dublin Township

Comprehensive Plan

Is your land-use strategy “4ward Tested”®



Table of Contents

Overview and Key Findings	3
Small Scale Mixed-Use Project Scenario	7
Small Scale Multi-Family Project Scenario	17
Large Scale Mixed-Use Project Scenario	26
Large Scale Multi-Family Project Scenario	36
Fiscal Impact Methodology	45

Is your land-use strategy “4ward Tested”®



Fiscal Impact Scenario

Overview and Key Findings

What is Fiscal Impact Analysis and Why Perform the Analysis?

A fiscal impact analysis examines the linkage between local government revenue generated by new development and its resultant municipal service costs (e.g., police, fire, schools, sanitation, etc.). The outcome of such an analysis is to produce a project-related estimate of community service costs to projected revenues, a “cost-revenue ratio,” which will be positive (a revenue surplus), negative (a revenue shortfall), or neutral (break-even).

Land-use planning (specifically, creation of a comprehensive plan) involves decisions which have real world consequences (e.g., the number of new households which will form; the type and scale of commercial buildings; the number of new public personnel needed to facilitate public services; increase in public facility usage; etc.). Projecting the fiscal impacts of land-use decisions, in advance of implementing the land-use plan, is a prudent action to help avoid long-term undesirable impacts to a community’s financial position and quality of life.



What is 4ward Planning's Charge?

Michael Baker International requested 4ward Planning to perform fiscal impact analyses associated with hypothetical development scenarios for select areas within Upper Dublin Township.

The hypothetical land-use scenarios modeled for fiscal impacts are deemed market receptive based on the earlier performed market analysis conducted by 4ward Planning in support of the comprehensive planning effort.

While fiscal impact analyses, when well performed, can identify service and capital cost impacts associated with future land development projects, it is not an exact science. There are many variables and assumptions which underpin fiscal impact modeling and slight changes to any these will, likely, produce varying results.

Furthermore, while 4ward Planning has modeled fiscal impacts associated with market supportable development and redevelopment scenarios for select locations within Upper Dublin Township, it should not be assumed that such development would occur simultaneously. Indeed, the likelihood is that if these build-out scenarios were to occur they would happen over a period of five- to ten-years; and, even then some of the supported land-uses will not come to fruition due to a lack of market demand at some distant future point.



Key Findings

All four of the redevelopment scenarios examined resulted in positive net impacts to Upper Dublin Township and the Upper Dublin School District. Further, and with the exception of one scenario (large multi-family scenario), no additional municipal or school personnel are likely to be required. However, if two or more of the redevelopment scenarios were to be undertaken within a two to three-year span, it is likely that additional municipal and school district personnel would be required, in addition to certain capital improvements (e.g., expansion of one or more school buildings).

The redevelopment scenarios modeled assume demolition of most or all buildings on an underutilized site (e.g., not realizing it's highest and best use potential); infill development on sites where existing commercial establishments are operating would significantly disrupt business activity and make such redevelopment untenable.

Further, and related, the redevelopment scenarios modeled for fiscal impacts do not consider the lost tax revenues and service costs associated with the business operations replaced. However, given the redevelopment density modeled in this analysis, it is more likely than not that the positive fiscal impact from the modeled scenarios would exceed the positive impacts from existing development.



Fiscal Impact Scenario

Small Scale Mixed-Use Project

Small Scale Mixed-Use Scenario

Overview

This scenario assumes redevelopment on land area ranging from three- to four-acres, featuring multi-family residential unit development scaled at two to three stories with ground floor commercial space and possibly a one or two pad site commercial spaces. This scenario is a suitable redevelopment project for an underutilized land parcel.

Residential density would be a minimum of 25 units per acre and as high at 36 units per acre.

Parking requirements for residential and commercial uses are to be consistent with existing parking requirements for such land-uses.



Small Scale Mixed-Use Scenario

Residential Land-Uses

To perform fiscal impact modeling on the residential portion of the build-out program, 4ward Planning made assumptions concerning the bedroom counts by housing category, based on its deep experience performing residential market studies and known trends concerning household formation and household sizes in the study area.

Bedroom counts are the basis for estimating population metrics and are used with estimated population multipliers (based on the latest five-year American Community Survey (ACS) data for Pennsylvania) to project the number of adults and public school-age children associated with the residential build-out.

Residential multiplier data and the associated methodology is exhibited in the methodology section of this report.



Small Scale Mixed-Use Scenario

Residential Land-Uses

<u>Market</u>	<u>Units</u>	<u>Pct.</u>	<u>S.F.</u>	<u>Monthly Rent Rate</u>	<u>Rent Rate per S.F.</u>
Studios	20	28%	575	\$1,600	\$2.78
1BR	20	28%	825	\$1,950	\$2.36
2BR	60	44%	1,190	\$2,500	\$2.10
3BR	<u>0</u>		<u>1,240</u>	<u>\$2,850</u>	<u>\$2.30</u>
Total	100		99,400		
Weighted Avg.			994	\$2,210	\$2.29

The above table exhibits the residential land-use type and number of units. The 100 units comprised of studio, one- and two-bedroom units will have a weighted average leasable square footage of 994 and a weighted average monthly rent of \$2,210.

Monthly rent rates are estimated based on the observed rental rates for the newest multi-family rental projects located in the Upper Dublin market area (an approximate 10-mile radius of the township).

The net leasable building area represents total building area, exclusive of common areas is 99,400 s.f., representing 83 percent of the gross building square footage (119,749).



Small Scale Mixed-Use Scenario

Commercial Land-Uses

<u>Retail Type</u>	<u>S.F.</u>	<u>Annual Lease Rate/S.F.</u>	<u>Total Annual Lease Payment</u>
General Retail Space	8,000	\$25	\$200,000
Dining/Cafe Spaces	5,000	\$30	\$150,000
Personal Service Space	<u>2,000</u>	<u>\$25</u>	<u>\$50,000</u>
Total	15,000		\$400,000

Estimated lease rates are based on currently observed commercial retail and restaurant lease rates in the market area containing Upper Dublin Township and assumes newly built space will command premium lease rates.

Small Scale Mixed-Use Scenario

New Residents and Workers



147 Residents



20 Public School Children



40 Full- and Part-Time Employees

Small Scale Mixed-Use Scenario

Projected First Year Stabilized Revenues

\$136,906	■	Twp. Property Tax Revenues	} Total First Year Stabilized Revenue
\$ 5,956	■	Twp. Local Svc. Tax Revenues	
\$ 41,992	■	Twp. Earned Inc. Tax Revenues	
			\$184,854
\$839,394	■	UDSD Property Tax Revenues	} Total First Year Stabilized Revenue
\$ 0	■	UDSD Local Svc. Tax Revenues	
\$ 41,992	■	UDSD Earned Inc. Tax Revenues	
			\$881,386



Small Scale Redevelopment Scenario

Projected Increase in Township and School Personnel



0 Police Officers



0 DPW Employees



0 UDSD Employees

Note: The above personnel and associated labor cost estimates are based on broad assumptions by 4ward Planning and are subject to further evaluation by township and school district officials.



Small Scale Mixed-Use Scenario

Projected First Year Stabilized Service Costs

\$ 31,605 ■ **Twp. First Year Service Cost**

\$ 64,317 ■ **UDSD First Year Service Cost**

The above service costs are associated with the full build-out in the first stabilized year (in other words, when the buildings reach their long-term occupancy rates of 95- and 90-percent for residential and commercial, respectively). The township's and school district's annual service costs accounts for new personnel, if any, identified on the previous page and are estimates. No capital costs (e.g., purchase of new vehicles or equipment, or construction of new buildings is accounted for in the above cost values).

Note: See budget adjustment methodology section on page XX.



Small Scale Mixed-Use Scenario

Projected Net Fiscal Impact for First Stabilized Year

\$ 184,854	Twp. First Year Projected Revenue
<u>\$ 31,605</u>	Twp. First Year Projected Service Cost
\$ 153,249	Positive Net Fiscal Impact
\$881,386	UDSD First Year Projected Revenue
<u>\$ 64,317</u>	UDSD First Year Projected Service Cost
\$817,069	Positive Net Fiscal Impact



Fiscal Impact Scenario

Small Scale Multi-Family Project

Small Scale Multi-Family Scenario

Overview

This scenario assumes redevelopment on land area ranging from six to eight-acres, featuring multi-family residential unit development scaled at three to four stories. This scenario is a suitable redevelopment project for an underutilized land parcel.

Residential density would be a minimum of 25 units per acre and as high as 36 units per acre.

Parking requirements for residential and commercial uses are to be consistent with existing parking requirements for such land-uses.



Small Scale Multi-Family Scenario

Residential Land-Uses

To perform fiscal impact modeling on the residential portion of the build-out program, 4ward Planning made assumptions concerning the bedroom counts by housing category, based on its deep experience performing residential market studies and known trends concerning household formation and household sizes in the study area.

Bedroom counts are the basis for estimating population metrics and are used with estimated population multipliers (based on the latest five-year American Community Survey (ACS) data for Pennsylvania) to project the number of adults and public school-age children associated with the residential build-out.

Residential multiplier data and the associated methodology is exhibited in the methodology section of this report.



Small Scale Multi-Family Scenario

Residential Land-Uses

<u>Market</u>	<u>Units</u>	<u>Pct.</u>	<u>S.F.</u>	<u>Monthly Rent Rate</u>	<u>Rent Rate per S.F.</u>
Studios	40	20%	575	\$1,600	\$2.78
1BR	40	20%	825	\$1,950	\$2.36
2BR	100	50%	1,190	\$2,500	\$2.10
3BR	<u>20</u>	<u>10%</u>	<u>1,240</u>	<u>\$2,850</u>	<u>\$2.30</u>
Total	200		199,800		
Weighted Avg.			999	\$2,245	\$2.31

The above table exhibits the residential land-use type and number of units. The 200 units comprised of studio, one-, two-, and three-bedroom units will have a weighted average leasable square footage of 999 and a weighted average monthly rent of \$2,245.

Monthly rent rates are estimated based on the observed rental rates for the newest multi-family rental projects located in the Upper Dublin market area (an approximate 10-mile radius of the township).

The net leasable building area represents total building area, exclusive of common areas is 199,800 s.f., representing 83 percent of the gross building square footage (240,723).



Small Scale Multi-Family Scenario

New Residents



308 Residents



49 Public School Children

Small Scale Multi-Family Scenario

Projected First Year Stabilized Revenues

\$ 267,436	■	Twp. Property Tax Revenues	} Total First Year Stabilized Revenue
\$ 12,123	■	Twp. LST Revenues	
\$ 85,312	■	Twp. EIT Revenues	
			\$ 364,871
\$1,639,698	■	UDSD Property Tax Revenues	} Total First Year Stabilized Revenue
\$ 0	■	UDSD LST Revenues	
\$ 85,312	■	UDSD EIT Revenues	
			\$1,725,010



Small Scale Redevelopment Scenario

Projected Increase in Township and School Personnel



0 Police Officers



0 DPW Employees



0 UDSD Employees

Note: The above personnel and associated labor cost estimates are based on broad assumptions by 4ward Planning and are subject to further evaluation by township and school district officials.



Small Scale Multi-Family Scenario

Projected First Year Stabilized Service Costs

\$ 58,520 ■ **Twp. First Year Service Cost**

\$157,576 ■ **UDSD First Year Service Cost**

The above service costs are associated with the full build-out in the first stabilized year (in other words, when the building reaches its long-term occupancy rate of 95- percent). The township's and school district's annual service costs accounts for new personnel, if any, identified on the previous page and are estimates. No capital costs (e.g., purchase of new vehicles or equipment, or construction of new buildings) is accounted for in the above cost values.



Small Scale Multi-Family Scenario

Projected Net Fiscal Impact for First Stabilized Year

\$ 364,871	Twp. First Year Projected Revenue
<u>\$ 58,520</u>	Twp. First Year Projected Service Cost
\$ 306,351	Positive Net Fiscal Impact
\$1,725,010	UDSD First Year Projected Revenue
<u>\$ 157,576</u>	UDSD First Year Projected Service Cost
\$1,567,434	Positive Net Fiscal Impact



Fiscal Impact Scenario

Large Scale Mixed-Use Project

Large Scale Mixed-Use Scenario

Overview

This scenario assumes redevelopment on land area ranging from eight- to twelve-acres, featuring multi-family residential unit development scaled at three to four stories with ground floor commercial space and one or two pad site commercial spaces. This scenario is a suitable redevelopment project for an underutilized land parcel.

Residential density would be a minimum of 25 units per acre and as high at 36 units per acre.

Parking requirements for residential and commercial uses are to be consistent with existing parking requirements for such land-uses.



Large Scale Mixed-Use Scenario

Residential Land-Uses

To perform fiscal impact modeling on the residential portion of the build-out program, 4ward Planning made assumptions concerning the bedroom counts by housing category, based on its deep experience performing residential market studies and known trends concerning household formation and household sizes in the study area.

Bedroom counts are the basis for estimating population metrics and are used with estimated population multipliers (based on the latest five-year American Community Survey (ACS) data for Pennsylvania) to project the number of adults and public school-age children associated with the residential build-out.

Residential multiplier data and the associated methodology is exhibited in the methodology section of this report.

Large Scale Mixed-Use Scenario

Residential Land-Uses

<u>Market</u>	<u>Units</u>	<u>Pct.</u>	<u>S.F.</u>	<u>Monthly Rent Rate</u>	<u>Rent Rate per S.F.</u>
Studios	60	20%	575	\$1,600	\$2.78
1BR	100	33%	825	\$1,950	\$2.36
2BR	140	47%	1,190	\$2,500	\$2.10
3BR	<u>0</u>		<u>1,240</u>	<u>\$2,850</u>	<u>\$2.30</u>
Total	300		283,600		
Weighted Avg.			945	\$2,137	\$2.32

The above table exhibits the residential land-use type and number of units. The 300 units comprised of studio, one- and two-bedroom units will have a weighted average leasable square footage of 945 and a weighted average monthly rent of \$2,137.

Monthly rent rates are estimated based on the observed rental rates for the newest multi-family rental projects located in the Upper Dublin market area (an approximate 10-mile radius of the township).

The net leasable building area represents total building area, exclusive of common areas is 283,600 s.f., representing 83 percent of the gross building square footage (341,687).



Large Scale Mixed-Use Scenario

Commercial Land-Uses

<u>Retail Type</u>	<u>S.F.</u>	<u>Annual Lease Rate/S.F.</u>	<u>Total Annual Lease Payment</u>
Anchor Grocer	50,000	\$20	\$100,000
General Retail Space	16,000	\$25	\$400,000
Dining/Cafe Spaces	10,000	\$30	\$300,000
Personal Service Space	<u>6,000</u>	<u>\$25</u>	<u>\$150,000</u>
Total	82,000		\$950,000

Estimated lease rates are based on currently observed commercial retail and restaurant lease rates in the market area containing Upper Dublin Township and assumes newly built space will command premium lease rates.

Large Scale Mixed-Use Scenario

New Residents and Workers



413 Residents



48 Public School Children



184 Full- and Part-Time Employees

Large Scale Mixed-Use Scenario

Projected First Year Stabilized Revenues

\$ 406,227	■	Twp. Property Tax Revenues	} Total First Year Stabilized Revenue \$ 545,103
\$ 17,065	■	Twp. LST Revenues	
\$ 121,811	■	Twp. EIT Revenues	
\$2,490,654	■	UDSD Property Tax Revenues	} Total First Year Stabilized Revenue \$2,612,464
\$ 0	■	UDSD LST Revenues	
\$ 121,811	■	UDSD EIT Revenues	



Large Scale Redevelopment Scenario

Projected Increase in Township and School Personnel



0 Police Officers



0 DPW Employees



0 UDSD Employees

Note: The above personnel and associated labor cost estimates are based on broad assumptions by 4ward Planning and are subject to further evaluation by township and school district officials.



Large Scale Mixed-Use Scenario

Projected First Year Stabilized Service Costs

\$ 95,373 ■ **Twp. First Year Service Cost**

\$154,360 ■ **UDSD First Year Service Cost**

The above service costs are associated with the full build-out in the first stabilized year (in other words, when the buildings reach their long-term occupancy rates of 95- and 90-percent for residential and commercial, respectively). The township's and school district's annual service costs accounts for new personnel, if any, identified on the previous page and are estimates. No capital costs (e.g., purchase of new vehicles or equipment, or construction of new buildings is accounted for in the above cost values).

Large Scale Mixed-Use Scenario

Projected Net Fiscal Impact for First Stabilized Year

\$ 545,103

Twp. First Year Projected Revenue

\$ 95,373

Twp. First Year Projected Service Cost

\$ 449,730

Positive Net Fiscal Impact

\$2,612,464

UDSD First Year Projected Revenue

\$ 154,360

UDSD First Year Projected Service Cost

\$2,458,104

Positive Net Fiscal Impact



Fiscal Impact Scenario

Large Scale Multi-Family Project

Large Scale Multi-Family Scenario

Overview

This scenario assumes redevelopment on land area ranging from eight to twelve-acres, featuring multi-family residential unit development scaled at three to four stories. This scenario is a suitable redevelopment project for an underutilized land parcel.

Residential density would be a minimum of 25 units per acre and as high as 36 units per acre.

Parking requirements for residential and commercial uses are to be consistent with existing parking requirements for such land-uses.



Large Scale Mixed-Use Scenario

Residential Land-Uses

To perform fiscal impact modeling on the residential portion of the build-out program, 4ward Planning made assumptions concerning the bedroom counts by housing category, based on its deep experience performing residential market studies and known trends concerning household formation and household sizes in the study area.

Bedroom counts are the basis for estimating population metrics and are used with estimated population multipliers (based on the latest five-year American Community Survey (ACS) data for Pennsylvania) to project the number of adults and public school-age children associated with the residential build-out.

Residential multiplier data and the associated methodology is exhibited in the methodology section of this report.



Large Scale Mixed-Use Scenario

Residential Land-Uses

<u>Market</u>	<u>Units</u>	<u>Pct.</u>	<u>S.F.</u>	<u>Monthly Rent Rate</u>	<u>Rent Rate per S.F.</u>
Studios	80	20%	575	\$1,600	\$2.78
1BR	80	20%	825	\$1,950	\$2.36
2BR	200	50%	1,190	\$2,500	\$2.10
3BR	<u>40</u>	<u>10%</u>	<u>1,240</u>	<u>\$2,850</u>	<u>\$2.30</u>
Total	400		399,600		
Weighted Avg.			999	\$2,245	\$2.31

The above table exhibits the residential land-use type and number of units. The 200 units comprised of studio, one-, two-, and three-bedroom units will have a weighted average leasable square footage of 999 and a weighted average monthly rent of \$2,245.

Monthly rent rates are estimated based on the observed rental rates for the newest multi-family rental projects located in the Upper Dublin market area (an approximate 10-mile radius of the township).

The net leasable building area represents total building area, exclusive of common areas is 399,600 s.f., representing 83 percent of the gross building square footage (481,446).



Large Scale Multi-Family Scenario

New Residents



616 Residents



98 Public School Children

Large Scale Multi-Family Scenario

Projected First Year Stabilized Revenues

\$ 534,866	■	Twp. Property Tax Revenues	} Total First Year Stabilized Revenue \$ 751,645
\$ 24,244	■	Twp. LST Revenues	
\$ 170,622	■	Twp. EIT Revenues	
\$3,279,365	■	UDSD Property Tax Revenues	} Total First Year Stabilized Revenue \$3,449,987
\$ 0	■	UDSD LST Revenues	
\$ 170,622	■	UDSD EIT Revenues	



Large Scale Multi-Family Scenario

Projected Increase in Township and School Personnel



0 Police Officers



0 DPW Employees



6 UDSD Employees

Note: The above personnel and associated labor cost estimates are based on broad assumptions by 4ward Planning and are subject to further evaluation by township and school district officials.



Large Scale Multi-Family Scenario

Projected First Year Stabilized Service Costs

\$117,040 ■ **Twp. First Year Service Cost**

\$795,153 ■ **UDSD First Year Service Cost**

The above service costs are associated with the full build-out in the first stabilized year (in other words, when the building reaches its long-term occupancy rate of 95- percent. The township's and school district's annual service costs accounts for new personnel, if any, identified on the previous page and are estimates. No capital costs (e.g., purchase of new vehicles or equipment, or construction of new buildings is accounted for in the above cost values).



Large Scale Multi-Family Scenario

Projected Net Fiscal Impact for First Stabilized Year

\$ 751,645

Twp. First Year Projected Revenue

\$ 117,040

Twp. First Year Projected Service Cost

\$ 634,605

Positive Net Fiscal Impact

\$3,449,987

UDSD First Year Projected Revenue

\$ 795,153

UDSD First Year Projected Service Cost

\$2,654,834

Positive Net Fiscal Impact



Fiscal Impact Methodology



Population Multipliers – Methodology

Service costs for municipalities and school districts are, largely, a function of the number of residents and public school-age children living in the subject jurisdictions. In turn, the number of residents and school-age children are a function of the type and amount of housing that gets developed, with bedroom counts per unit the principal determining factor.

4ward Planning recently created an algorithm which analyzed 2014 to 2018 American Community Survey (ACS) data – an annual survey of U.S. households which is conducted by the U.S. Census. The analysis was focused on households and their living arrangements (e.g., housing tenure (own vs. rent), housing type (single-family detached vs. single-family attached (townhouse), multi-family rental vs. multi-family condo; and bedroom counts (e.g., studios, one-bedrooms, two-bedrooms, three-bedrooms, etc.); recently constructed housing and recently moved-into housing.



Population Multipliers – Methodology (continued)

While the obvious choice for identifying the number of persons and public school-age children who live in newly constructed housing is to examine the household population statistics for newly constructed housing provided by the ACS, unfortunately, the margin of error for this particular category was unacceptably high due to an insufficient sample size (we examined data at the state level). Consequently, as a proxy, we used housing data where the occupants had only recently moved into the unit (had been living within the unit for four years or less). The survey data was far more robust than persons living in newly constructed housing units and, thus, the margin or error was considered within acceptable limits.

Using the four-year period of 2014 to 2018, the latest data set available at the time of our analysis), we performed a series of complex regression analyses on the ACS data to derive not only the average number of persons living in a given housing type and having a certain number of bedrooms, but, also, the number of public school-age children, as well (we were able to identify children enrolled in public school as opposed to private or parochial school).

Once this data was analyzed and reviewed for soundness (e.g., ensuring that the sample size was large enough to make an inference about the average number of persons per unit, given various characteristics), we created a table of residential multipliers for Pennsylvania, which is inclusive of public school-age children.



Population Multipliers – Methodology (continued)

While the residential multipliers may not always reflect the precise number of persons who will move into a given housing unit, residential multipliers have, in general, been reasonably predictive of the total number of occupants and public school-age children over a large inventory of housing types.

Consequently, we utilize this technique to estimate the likely number of total persons and public school-age children produced by the development of varying housing types.

Multiplier data appears on the following page.



Population Multiplier Tables

Total Residents

BR Count	Single-family Detached	Single-family Attached	Multi-family Condo	Multi-family Rental
Studio	NA	NA	1.00	1.00
1-BR	NA	NA	1.09	1.09
2-BR	NA	1.72	2.19	2.19
3-BR	2.97	2.67	3.09	3.09
4-BR	3.62	3.64	NA	NA

Example: For every 100 three-bedroom townhouse units, 267 total persons are anticipated

Public School-Age Children

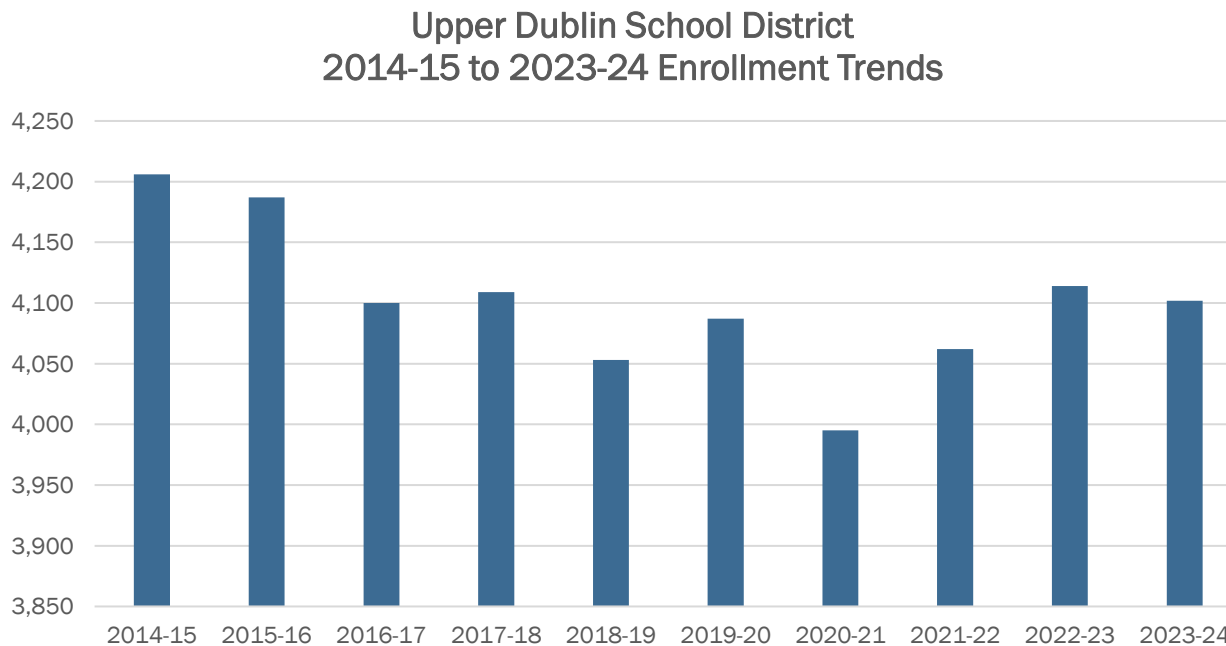
BR Count	Single-family Detached	Single-family Attached	Multi-family Condo	Multi-family Rental
Studio	NA	NA	0.00	0.00
1-BR	NA	NA	0.00	0.00
2-BR	NA	0.02	0.17	0.18
3-BR	0.45	0.49	0.74	0.80
4-BR	0.75	0.94	NA	NA

Example: For every 100 three-bedroom townhouse units, 49 public school-children are anticipated.



UDSD Enrollment Trends

The below table exhibits the enrollment trends for Upper Dublin School District over a ten-year period (2014-15 to 2023-24 school years). The enrollment trend suggests there is capacity in the school district to handle additional school children. However, capacity at each grade level likely varies and, thus, the ability of the school district to accommodate additional enrollment will be based on the age and grade level for entering students. This analysis is beyond the scope of this study.



Source: Pennsylvania Department of Education, 2024



Budget Adjustment Methodology

The most widely used technique for performing fiscal impact analyses (the per capita approach) has, with few exceptions, included all line-item expenditures within municipal and school district annual budgets. Ostensibly, this approach makes sense, as, if the objective is to derive a per capita budget expenditure cost, the sum total of all expenditure line items should be included when dividing by the current jurisdiction's population or households. However, this approach grossly overestimates the likely per capita/per household cost due to the inclusion of salaries, wages and fringe benefit costs of municipal and school district personnel, as well as the inclusion of capital outlays, fund transfers and debt service payments by municipal government and school districts.

The underlying theory of the per capita approach is that a pro rata share of goods and services are exhausted (worn out) by each resident's (or household's) consumption of said goods, services, and natural resources over some period (whether a month, a year or five years).

For, example, a municipality has a certain number of housing units, each of which will receive notices over the course of the year from the municipality (e.g., tax notices, water and/or sewer bill notices, health department notices, etc.). These notices are mailed and, thus, consume paper, ink and postage, in addition to the labor involved in processing said notices. Separating out labor cost, for the moment, there is a known total cost for producing these notices and, via a simple calculation, the cost per household (recognizing that regardless of the number of household members, there is, with few exceptions, only one notice sent per household).



Budget Adjustment Methodology (continued)

Consequently, should additional households form within that municipality, the increase in total costs associated with sending public notices should, ostensibly, be known in advance, as the additional cost is simply a function of the per household cost multiplied by the number of new households.

Similarly, a school district will purchase a certain number of textbooks based on the student enrollment within its district. If there is an influx of new residents and the number of students is projected to increase over the current student enrollment figure, than more textbooks will be purchased and a known additional cost can be derived (note: where the school district has a sufficient number of textbooks prior to new students arriving, either due to an unexpected decrease in enrollment in prior years or its having purchased more text books than necessary, no incremental textbook cost should be attributed to each new student, as the textbook costs are already amortized over the existing student body in place, prior to the arrival of the new students). Additionally, the same logic would apply to other supplies, such as paper, pens and pencils, notebooks, chalk, staples, markers, etc.) that a school district would purchase.

While a case is easily made for the consumption of municipal and school district supplies and materials associated with residents, households and students, the consumption or wearing out of personnel (whether municipal or school district associated) cannot be calculated in a similar manner.



Budget Adjustment – Methodology (continued)

Specifically, the addition of residents and households to a municipality doesn't diminish the physical capacities of the town clerk, public works director or health department director, or their staffs; as while they may have to spend a marginal amount of additional time in providing service to additional residents, each of these workers will continue to work an eight hour shift and earn the same wage or salary, regardless of whether the municipality experienced an increase in 100 households or a decrease 100 households (this is an economies of scale effect). The same can be said of school district personnel – an increase or decrease in enrollment, generally, will have little practical impact on the capacity and cost of a district employee.

However, while municipal and school district personnel are not “consumed” in the same way as office supplies, there comes a point at which additional residents (in the case of a municipal employee) or additional students (in the case of a school district employee) necessitates greater capacity than can be provided by existing personnel (most municipal and school district employees are full-time salaried personnel and, thus, for all intents and purposes, their service delivery per day, week, month and year remains relatively fixed, regardless of the change in population (municipal) or student enrollment (school district)).



Budget Adjustment – Methodology (continued)

It is in these situations that additional personnel are, generally, hired and an attendant increase in personnel cost incurred by the municipality and/or school district.

Conducting interviews with the municipal business administrator and school district superintendent (the Case Study approach) for purposes of understanding existing service delivery capacities and how these capacities might be over-burdened with an increase of residents and public school students is a superior approach to identifying the prospective municipal and school district personnel impact (staffing and associated costs) than using the per capita method which automatically assumes each new resident and student will require additional personnel and associated costs.

For example, while 100 new households may form within a municipality (and an assumed 250 new residents in total), it is highly unlikely that new professional and administrative staff (e.g., clerk, tax collector, health department personnel, engineering staff, business administrator, etc.) would need to be increased, given the economies of scale for delivering service (principally, made possible by computer technology and modern administrative methods). Sending an additional 100 public notices or processing an additional 100 tax payments is relatively simple in the age of computers.

Budget Adjustment – Methodology (continued)

Similarly, two or three new students who are assigned to a classroom which has four or five available desks, extra textbooks and a teacher already present are not likely to cause the school district to increase personnel or associated costs; that is, sufficient capacity to accommodate these students is evident.

Finally, the exclusion of capital outlays, fund transfers, and debt service payments from budget expenditures, in advance of performing a fiscal impact analysis is only logical, as these expenditures, while real, are not influenced by the increase or decrease in the number of residents, households or enrolled students in a give jurisdiction – the amount of debt payments will not fluctuate if four hundred new residents arrive or four hundred residents leave. Consequently, to include these budget expenditures in the analysis is to overestimate service costs associated with new residents, households and students.

Consequently, this analysis excludes personnel cost (salaries, wages and benefits), capital outlays, fund transfers and debt service from the budget expenditures used in deriving the fiscal impacts to both the city and school district. It is assumed that if additional personnel are required, surplus revenues (assuming there will be a surplus) would offset said personnel costs.

Budget Adjustment – Methodology (continued)

The Per Capita Multiplier Method

Based on the Per Capita Multiplier Method for estimating fiscal impact analysis, “the residential share of all residential and nonresidential service costs is estimated by dividing the residential property value and number of residential parcels by all nonresidential property values and the number of nonresidential parcels, respectively. The calculation produces the residential percent of the residential/nonresidential parcels and the residential percent of the residential/nonresidential property value. The results are averaged, and the combined value is then applied to the total local municipal costs to derive the estimated residential-associated share.”¹

Utilizing real property data obtained from Property Shark, an online purveyor of real property data, 4ward Planning utilized the below metrics to identify the residential share of Upper Dublin’s annual service costs:

2024 Residential Parcels²:	7,614	2024 Residential Assessed Value²:	\$1,628,958,758
2024 Commercial & Industrial Parcels:	2,162	2024 Commercial & Industrial Assessed Value:	\$ 680,604,211
2024 All Other Parcels	<u>743</u>	2024 All Other Real Property Value:	<u>\$ 304,064,850</u>
Total:	10,519	Total:	\$2,613,627,819
Residential Percentage:	72.4%	Residential Percentage:	62.3%

¹Development Impact Assessment Handbook, Urban Land Institute, 1994



Budget Adjustment - Methodology

The average of the residential land parcel share and residential assessed value share is 72.4 percent and 62.3 percent, respectively. Consequently, only 67.4 percent of the identified per capita municipal service cost is attributable to residential service costs, as will be demonstrated in this analysis.



Budget Adjustments – Twp. and UDSD

2024 Total Approved Expenditures	\$60,528,868 ¹
<i>Less Salaries/Wages</i>	15,069,102
<i>Less Fringe Benefits</i>	5,066,899
<i>Less Capital</i>	29,541,971
<i>Less Debt Service</i>	3,195,221
Total Adjusted Budget:	\$7,655,675

Estimated 2024 Population 27,205²

Estimated Service Cost per Person	\$281.41
<i>67.4% represents new residential cost</i>	\$189.67
<i>32.6% represents new worker cost</i>	\$91.74

2023-24 Total Approved Expenditures	\$118,005,660 ³
<i>Less Salaries/Wages</i>	52,432,202
<i>Less Fringe Benefits</i>	31,218,228
<i>Less Transfers & Reserves</i>	3,700,000
<i>Less Debt Service</i>	14,363,135
Total Adjusted Budget:	\$16,292,095

2024 Student Enrollment 4,102⁴

Estimated Service Cost per New Student \$3,971.74

Based on the above metrics, each new resident associated with new development has an annual municipal service cost of \$189.67, while each new worker hired results in an annual municipal service cost of \$91.74. Each newly enrolled public-school student has a school district service cost of \$3,971.74. However, students having special needs (e.g., requiring an in-class aide, additional materials or capital improvements) would represent a greater annual cost to the district and would result in annual cost significantly greater.

¹ Upper Dublin Township 2024 Adopted Budget
² Estimated based on U.S. Census Bureau 2023 estimate
³ Upper Dublin School District 2023-24 Adopted Budget
⁴ Pennsylvania Department of Education, 2024



Methodology – Real Estate Analysis

An appraiser (or property tax assessor) will typically assess newly constructed commercial real estate (apartments and retail), for real property tax purposes, using the income approach to valuation, as further described below:

- **Income Approach to Valuation** – The tax assessor identifies a capitalized value for the stabilized development (typically, after the building is 95 percent occupied) by using the developer’s projected rent and expenses or the known rent and expenses from a similar development nearby, estimating annual net operating income (NOI) and dividing this value by market-based capitalization rate (Cap rate).
- **Capitalized Value** – Capitalized value represents the market value of the subject building. That is, to derive an assessed value for property tax purposes, the subject property’s market value is determined by dividing the property’s estimated net operating income (see NOI definition) by a capitalization rate (see definition), plus the addition of an equalized tax rate (this functions to arrive at a correct valuation. While a capitalized value may not be the exact amount a property would fetch on the open market, it is considered a reasonably close value approximation of an arms length market transaction).
- **Cap Rate** – The capitalization (cap) rate represents an average ratio of a property’s net annual operating income (NOI) to the average sales price of comparable properties (in this case, luxury multi-family rental) within the market area. It is an approximation of what the property’s annual financial return rate should be for an investor, given the project’s risk profile and local market conditions for similar properties.



Methodology – Real Estate Analysis

- **Stabilization** – The year when the property’s vacancy rate has stabilized (reached the long-term vacancy rate).
- **Net Operating Income (NOI)** – Includes all associated property maintenance expenses, insurance, management fees, marketing expenses, and utilities. Real property taxes are excluded for purposes of estimating taxable value upon which the township’s real property tax rate will be applied. For purposes of this study, NOI for multi-family rental properties represents 80-percent of a property’s effective annual gross rent revenue (maximum rent revenue possible minus revenue lost due to vacancy and payment default). For commercial centers (containing general retail, restaurants, personal services, small offices, etc.) NOI represents 85-percent of a property’s effective annual gross rent, assuming these tenants pay a pro-rata share of all utilities, maintenance for common areas, and insurance.

Below, cap rate and NOI assumptions are identified for the land-uses modeled in this study:

Cap Rate – Multi-family: 6.0%

Cap Rate – Commercial Centers: 7.0%

NOI – Multi-family: 80%

NOI – Commercial Centers: 85%



Methodology – Tax Revenues

Upper Dublin Township collects tax revenues for municipal and school district services via three principal tax mechanisms:

Real Property Tax: Traditional property based tax levy which applies the annual tax rate against the assessed value of real property (e.g., a house, apartment building, shopping center, industrial building, etc.)

Earned Income Tax (EIT): The Earned Income Tax in Upper Dublin Township is one percent (1.0%) of the Earned Income/Net Profits for all Township residents. Also included are any non-residents engaged in business, working or headquartered out of an office within the township. For purposes of this study and to reduce the complexity of estimating the tax, the EIT is only calculated for new township residents. The EIT revenues received are split equally between the township and school district. (0.5 percent to the township and 0.5 percent to the school district).

For purposes of this analysis, all new households and workers are subject to the EIT. Household EIT is estimated by dividing gross annual housing revenue for rental units by 30 percent (assuming households are paying no more than 30 percent of their income towards shelter) and multiplying this quotient by the EIT. For owner occupied units, estimated income is estimated by assuming a five-percent interest rate mortgage, with a 10-percent downpayment and 30-year fixed term. The resultant annual mortgage payment is divided by .30 to arrive at an estimated household income.

Local Service Tax: The LST is assessed on each employed individual in the township at \$52 annually, with \$47 provided to the school district and \$5 to the township.



Methodology – Tax Revenues

Common Level Ratio (CLR): As defined by Pennsylvania statute, “Common Level Ratio shall mean the ratio of assessed value to current market value used generally in the county as last determined by the State Tax Equalization Board (STEB).” The CLR for the 2024-25 fiscal year is 3.04. For practical purposes, this means that a property with a market value of \$600,000 would have an assessed value for tax purposes of \$197,368.

The method more commonly used to determine the taxable value is to take the inverse of the CLR factor – in this case, 1 divided by 3.04 equaling 0.3289 or 33-percent if rounded.

The 33-percent assessment ratio is applied to the market values developed for this analysis to arrive at the estimated tax levy. Below is an example of how taxable value is derived for a multi-family rental development using the real estate valuation factors identified:

Stabilized Net Operating Income:	\$ 4,000,000 (after expenses)
Divided by Fully Loaded Cap Rate (10.45%) ^a :	\$38,277,512 (estimated market value)
Market Value Multiplied by Assessment Ratio (33%):	\$12,631,579 (assessed value)
Assessed Value Multiplied by Tax Rate (4.45%) ^b :	\$ 562,105 (tax levy; effective rate is 1.47%)

^a Fully loaded cap rate adds the property’s cap rate to the sum of the municipal and school district tax rates

^b Only the municipal and school tax rates are used, as all other tax rates are not of concern for this analysis.



General & Limiting Conditions

4ward Planning Inc. has endeavored to ensure that the reported data and information contained in this report are complete, accurate, and relevant. All estimates, assumptions, and extrapolations are based on methodological techniques employed by 4ward Planning Inc. and believed to be reliable. 4ward Planning Inc. assumes no responsibility for inaccuracies in reporting by the client, its agents, representatives, or any other third-party data source used in the preparation of this report.

Further, 4ward Planning Inc. makes no warranty or representation concerning the manifestation of the estimated or projected values or results contained in this study. This study may not be used for purposes other than that for which it is prepared or for which prior written consent has first been obtained from 4ward Planning Inc. This study is qualified in its entirety by, and should be considered in light of, the above limitations, conditions, and considerations.





For more information, please contact:

Todd Poole

267.480.7133

tpoole@landuseimpacts.com