



Regional Connections: A Growth Strategy for Central Ohio

Resource Document:
***Understanding the Fiscal Impacts of
Land Use in Ohio***

Prepared for ACP – Visioning & Planning, Ltd. and the
Mid-Ohio Regional Planning Commission (MORPC)

Prepared by Randall Gross, Development Economics
2311 Connecticut Ave., NW, Ste 206
Washington, DC 20008
Tel 202-332-7430 Fax 202-332-7433 email Rangross@aol.com

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EXECUTIVE SUMMARY

This report was developed to serve as a resource to participants in the *Regional Connections* process. The report provides an overview of the fiscal implications of development policy and land use decisions in central Ohio. The report also shows how fiscal impact analysis can be a powerful tool for examining costs & benefits of various land uses, for prioritizing projects and infrastructure investment, and for assessing development alternatives. Sample recent fiscal studies from central Ohio were reviewed as an input to this document and key findings are highlighted below. Examples from other parts of Ohio are also discussed in order to provide additional perspective. The analysis and conclusions discussed in the executive summary are supported by a more detailed information in the following sections of the report.

Not All Growth Helps a Community

The concept that growth is always good for a community does not seem to correlate with the findings from various fiscal analyses conducted throughout central Ohio; the results of this conclusion are summarized in the Appendix Table.

In some communities, it is apparent that certain types of residential development can generate a fiscal drain on the annual budgets of local governments. This is especially true where costs to schools are considered. Township governments, which are highly dependent on property taxes, are more susceptible to changes in residential property values that can affect fiscal return. Typically, a healthy mix of housing works in the best interests of the community, such as where the inclusion of higher-density housing ameliorates overall traffic and school impacts. Market and fiscal analysis can both provide input on the appropriate balance.

Office and industrial uses, on the other hand, often generate a significant positive net gain for municipal governments. Ohio is in a somewhat unique position among states because local municipal governments in Ohio can impose an income tax. Most analyses find that income taxes generated by high-wage office employment drastically outweighs any costs for providing local government services. (On average, the example fiscal analyses used in preparing this report show that office generates \$1.34 per square foot in net fiscal benefits, and industrial generates \$0.62 per square foot.) In cities like Delaware, it is industrial, rather than office use, that creates higher fiscal benefits under current

circumstances.

It is also apparent that in many central Ohio communities, retail development generates a net fiscal loss to local governments. (The examples also show that retail generates a net loss of \$0.44 per square foot on average.) Often, a high cost is attributed to retail due to the high volumes of traffic this use generates. These costs often out-weigh the income tax revenues generated by relatively low retail wages.

The various analyses, conducted by at least four different consultants, reached a consistent conclusion about retail having a negative fiscal impact on municipal governments. The analyses were not based on "large or big box development," but rather on all retail within those communities, including CBD, shopping center, strip retail, neighborhood convenience, big box, and all other retail, which varied in location and type. Furthermore, retail was not necessarily shown to be negative in all cases, such as for county governments, based on the AFT analyses.

Yet retail also enhances quality of life and helps attract other uses. There is a case to be made for retail uses that generate fewer auto trips and thus, lower fiscal costs. This is most likely where retail is integrated with housing in mixed-use development. In Upper Arlington, it was shown that well-planned mixed-use re-development can cross-subsidize retail costs through a balanced mix of office, retail, and residential uses.

Don't Be Fooled by High Tax Revenues

Certain uses may generate high tax revenues to local governments. But, the fiscal analyses clearly show that the cost of providing services to those uses may outweigh any benefits from tax revenues. One example is retail, where tax revenues may exceed those generated by residential and some other uses but not enough to outweigh the high-costs of providing services to retail uses.

Development Impacts Depend on Fiscal Structure

Clearly, the underlying fiscal structure of the community determines the types of fiscal impacts caused by development. (As shown in the Appendix, residential use generally has a negative impact on county governments (a cost of \$1.10 for every \$1.00 of revenues earned), based on the COCS studies; while single-family development has a positive fiscal impact on municipal governments of about \$260 per unit, as illustrated through the fiscal impact analyses.) Each city, township, county, and school district or various other Ohio districts are all structured differently and serve different historic functions to their constituents. Furthermore, these jurisdictions often overlap geographically or provide

overlapping services.

Typically, fiscal impact analyses provide an indication of development impacts on a single, local jurisdiction. This type of analysis helps the local jurisdiction assign the costs and benefits of development to departments within their budget. However, sometimes residents want to understand the impacts of development on all of the jurisdictions to whom they pay taxes and from whom they receive services. For example, residents pay taxes to and receive services from their local jurisdiction (city or township), but also from their school district, county government, and other jurisdictions. Oftentimes, what is beneficial fiscally to local government is not beneficial to schools, and vice versa. Fiscal analyses can account for these multiple levels, but beyond the inclusion of schools, they can become much more complex and less targeted to the decisions that can be made by the individual local jurisdiction.

Legislation under consideration in the State of Ohio would allow revenue sharing between local jurisdictions and would alter annexation laws. There are already many examples of inter-jurisdictional cooperation and reciprocity in service delivery in Ohio. For example, communities have arranged fire & police mutual service, JEDs (Joint Economic Development agreements), and CEDAs (Cooperative Economic Development Agreements). Communities contribute to regional airport and utility authorities. Thus, the concept of revenue sharing in Ohio has some existing basis in the way that local governments already operate.

Greenfield versus Redevelopment

Low-density, dispersed development patterns are an issue under debate nationwide, as residents see ever-increasing traffic and commuting times, rapid declines in productive farmlands, and what appears to be unplanned or inappropriate growth on the outskirts of cities that competes with older, inner-city areas or results in “leap-frogging” development that ignores opportunities for infill. Several states have passed laws requiring cities or counties to define “growth boundaries” and other regulatory tools to prevent leapfrogging and sprawl to greenfield (undeveloped) areas.

The housing impacts were not just based on two factors -- property taxes and school costs. They were based on ALL costs and ALL revenues. In many Ohio communities at present, estate taxes generated by residential development are having a positive impact on overall operating revenues. The best example is in Upper Arlington, where estate taxes are generating such significant return that revenues are being diverted to pay for maintenance capital costs. Again, these results refer mainly to municipal governments. For townships, where the tax structure is more simplified, housing does in fact have a negative impact more often. Clearly, AFT made a very strong point that residential development had a

negative impact. We discuss the mix of results for municipalities, townships, and County governments later in this report.

For their part, local governments have enacted impact fees and other regulatory tools to ensure that private development costs account for the true fiscal cost associated with extension of infrastructure and services to new, greenfield areas. There are fiscal analyses designed specifically to test the potential for such fees to recover the costs of infrastructure.

Some of the fiscal analyses described in this report specifically compared the fiscal costs of providing services for farmland versus residential and commercial/industrial uses. These analyses found that farmland has the lowest cost given the amount of revenues generated, while residential use generated a relatively high cost-to-benefit. The implication is that dispersed, low-density residential development is costly to central Ohio governments if it is replacing prime farmland. Some of these analyses have been conducted by constituency-based conservation groups with a specific agenda. Thus, it is important to understand the motivation and objectivity of the source for such information.

Understanding the Market Is Important

Prototypical fiscal impact analyses are helpful for basic planning purposes. But in examining the impacts of specific development projects and master plans, in determining appropriate development controls, or as an input to mid-range planning, it is critical to understand the underlying economics and market potentials in support of development. By understanding their market, communities can better attune their fiscal policies to promote sustainable economic growth.

Fiscal Impact Analysis is a Powerful Planning Tool

Fiscal impact analysis is a powerful tool for examining costs & benefits of various land uses, for prioritizing projects and infrastructure investment, and for assessing development alternatives. However, fiscal impacts are only one of several important factors for determining appropriate land use: community vision, needs, public assets, market and economic realities, environmental impacts, traffic, and infrastructure impacts all important. It is sometimes preferable to encourage certain types of development that do not have a fiscal net benefit, if fiscal costs are outweighed by benefits to the community in these other areas. Community priorities, identified through a visioning process informed by fiscal and other analyses, help direct overall development policy.

Final Thoughts: Land Use Drain or Gain?

In closing, the following final comments are provided to summarize the key

findings of this resource document.

- Some residential development can produce a fiscal drain, especially to schools. But, some housing can produce a gain.
- Farmland and industrial uses often produce a net fiscal gain, because they require fewer services.
- Retail often generates a net fiscal drain because of traffic impacts, but these might be ameliorated through mixed-use development & transit.
- Office generates high gains to Ohio municipalities because of the local income tax but can drain the coffers of townships.
- Higher densities and infill generate higher fiscal gains, but values and income levels matter.

MORPC Editor's Note Regarding the Following Detailed Analyses

As one reads this report, one can detect that the answers are not as simple as they may seem. Mr. Gross has clearly differentiated the variation in impacts between municipal, township and county governments. The conclusions were not drawn solely on analysis conducted by the author, but also by other fiscal consultants who generate many of the same conclusions. This composite of reports on specific jurisdictions may not fit one here in central Ohio. This information is intended to be used as a guideline. Each individual jurisdiction should strive to document its own costs and benefits given its unique tax structure, its tax base and its own service system.

1. Purpose

The purpose of this Resource Report is to provide an understanding of the fiscal implications of development policy and land use decisions in central Ohio. This document illustrates the opportunities and importance of integrating fiscal considerations into local planning and policymaking.

Communities often measure the fiscal costs and benefits of growth through the use of several analytical tools, including Fiscal Impact Analyses and Cost-of-Services studies. Only a few communities in central Ohio have conducted these analyses as an input to their comprehensive planning or other development policy processes. This Resource Document summarizes the findings from several of these studies and their overall implications for land use policy and growth in the regional context.

2. Use of Fiscal Impact Tools

Fiscal impact analyses and similar studies provide information that helps:

- Inform land use, zoning, and economic development decisions as part of the planning process.
- Measure the costs and benefits of specific projects or sub-area development plans, and inform redevelopment decisions.
- Prioritize land development and infrastructure improvements
- Provide an understanding of fiscal capacity constraints that may impact on a community's ability to realize its vision.
- Relate physical development issues to the underlying fiscal structure.
- Help understand and/or refine inter-jurisdictional relationships
- Help identify key fiscal and economic structural issues that might be addressed through development or fiscal policies (such as impact fees, tax increment financing, pay-as-you-go, and other tools).
- More appropriately and accurately direct the economic development objectives of the community
- Determine the cost (or benefit) of "sprawl."

What is a Fiscal Impact Analysis?

Fiscal impact analysis tests the annual costs and benefits of development on local government budgets. Some communities require developers to submit a fiscal impact analysis to show the costs and benefits of a specific proposed development project. Other times, communities have examined the fiscal impacts of master plans, downtown revitalization, infrastructure improvements, or

other initiatives. For planning purposes, some communities are interested in the “net” cost-benefit of “prototypical” land uses that can be derived through analysis providing a “snapshot” of these fiscal impacts at a particular point in time.

Fiscal Impact Analyses attribute budgetary costs (provision of infrastructure, delivery of services, administration, etc) and benefits (taxes, fees, etc) to each land use. Examples of typical land-use costs and benefits generated to Ohio communities are described below.

- Benefit: Real and personal property taxes, fees, income taxes, estate taxes, user charges
- Cost: Infrastructure, schools, parks, police, social programs, sanitation, emergency medical services, fire, administrative services, etc.

Basic Methodology. For the purposes of comprehensive planning, the following provides a basic fiscal impact methodology.

- Analyze trends in City’s budget, capital improvements, revenue sources, property assessments, debt, bonding capacity, and other fiscal indicators.
- Assess fiscal strengths and weaknesses vis-?-vis the economic base, drawing from economic base analysis.
- Determine annual City operating revenues & costs for each land use, on a square-foot or housing unit basis (which can be translated into a per-acre basis using floor-area ratios). This analysis can either attribute to land uses the specific department operating costs and revenues; or the “marginal” costs and revenues determined on a per-capita, per-household, or per-employee basis.
- Compare revenues & costs for each land use to determine a prototypical “Net Fiscal Impact” of each land use. A variation on this analysis can also compare costs and revenues for land uses on a dollar-for-dollar basis.

Assumptions & Caveats. There are certain basic assumptions underpinning fiscal impact models, including:

- The fiscal model reflects existing market conditions, pricing, & program
- The fiscal model reflects the level of data available.
- Prototypical fiscal analysis does not forecast land use demand or pricing.
- Fiscal analysis can include infrastructure capital costs.
- Off-site capital cost impacts from development
- Annual maintenance & capital replacement on-site & off-site

3. Case Studies

There have been several fiscal impact or similar analyses conducted in central Ohio in recent years. These analyses, along with a sample of similar studies from other parts of the state, were reviewed and key findings are summarized below. Fiscal analyses of municipalities are followed by county and township governments. Most of these also integrate schools into their analysis.

Municipalities

Municipal governments in Ohio provide urban services, but they are in the relatively unique position of having the legal authority to impose a local income tax. Some cities are dependent on this source of income, which often generates 40% or more of all local operating revenues. As such, uses that generate income taxes tend to have a higher revenue benefit to cities than they might otherwise. At the same time, city governments often provide certain costly functions not always provided by other jurisdictions, including police and fire protection, municipal infrastructure, and other urban services. Sample municipal fiscal impact analyses are described below, including Upper Arlington, Dublin, Delaware, and Newark in central Ohio; plus those for the cities of Stow (suburb of Akron) and Sidney (Miami Valley, in western Ohio).

City of Upper Arlington

*Fiscal Impact Analysis & Fiscal Conditions Assessment
Randall Gross / Development Economics
2000*

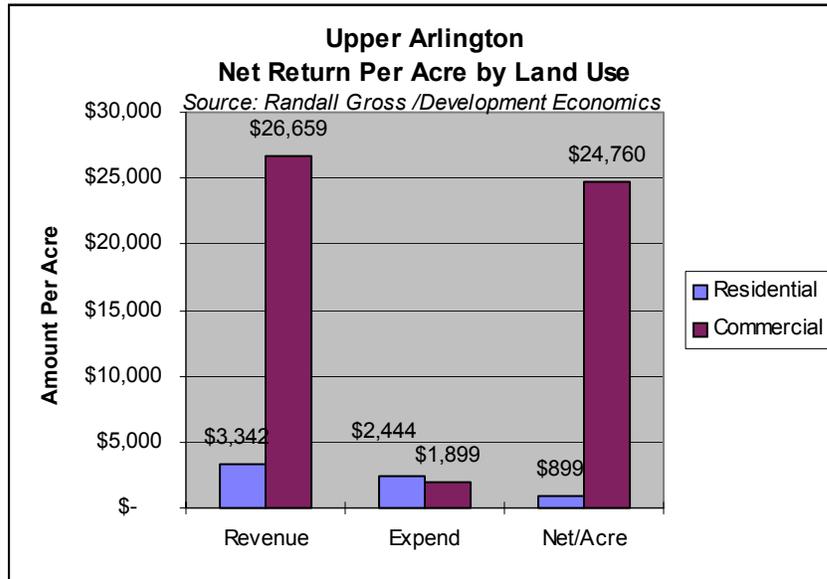
ACP-Visioning & Planning, Ltd. (ACP) led a comprehensive planning process for the City of Upper Arlington in 1999-2000. Arlington is an older, inner-ring suburb that is heavily oriented towards residential uses and is largely built out. This City has a relatively large investment in aging infrastructure having high maintenance costs. With little room for development that would generate new revenues, the City has been playing “catch up” in operating and maintaining this aging infrastructure.

As part of the ACP team, Randall Gross / Development Economics (RGDE) conducted an existing conditions analysis that assessed fiscal and economic trends, and determined key fiscal issues relevant to the planning process. RGDE also conducted a fiscal impact analysis to determine the net benefits of various types of development on the City, and to assess the specific impacts of sub-area re-development plans.

RGDE found in its existing conditions analysis that the City needed \$8.0

Million in additional funds each year to close to gap in infrastructure funding and meet existing needs. Despite it's relatively wealthy resident base, the City was dependent on unreliable and unpredictable revenue sources such as the Estate Tax as well as on retail uses that generated low income tax benefits due to low wage structures. Finally, RGDE found that the City's budget structure was weighted heavily towards labor costs associated with collective bargaining agreements for public safety employees.

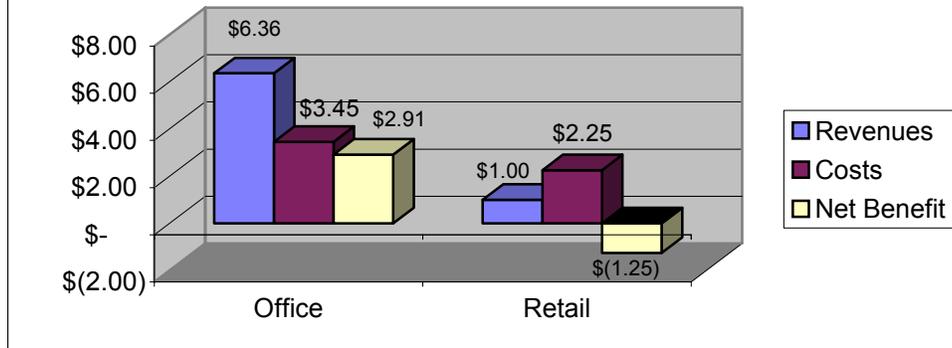
Baseline Net Fiscal Return. The fiscal returns from Upper Arlington's primary land uses were tested based on the City's 1998 actual budget. Basic analysis of residential versus commercial uses found that, while residential and commercial uses generated about the same costs per acre to the City for the provision of services, commercial uses generated substantially more revenues per acre to the City: \$24,760 per acre for commercial, versus less than \$900 per acre for residential. Thus, even with Upper Arlington's relatively high-priced housing, commercial uses generate far more income to the City.



This income differential clearly relates to the power of income taxes generated by those commercial uses. The importance of income taxes is noted further when commercial uses are disaggregated into office and retail, since office employees have higher average wages than retail employees. As illustrated below, office space generates substantially higher revenues and lower fiscal costs than does retail use.

U. Arlington Net Return by Commercial Land Use (per SF)

Source: Randall Gross / Development Economics



Sample Upper Arlington fiscal revenues and costs for commercial and residential uses are noted below, based on the RGDE analysis.

	Retail (psf)	Office (psf)	Housing (per unit)
<u>Sample Revenues</u>			
Income Tax	\$0.70	\$5.90	\$40 / Unit
Property Tax (City):	\$0.26	\$0.25	\$400 / Unit
<u>Sample Expenditures</u>			
Police	\$0.42	\$0.39	\$200 / Unit
Parks & Recreation	\$0.04	\$0.07	\$130 / Unit

Sub-Area Analysis. RGDE also completed a sub-area analysis of the fiscal impacts of redevelopment plans proposed in the ACP study. These included analyses of the fiscal impacts of redevelopment of Kingsdale Shopping Center under different financing scenarios. A summary of findings from this analysis is provided below.

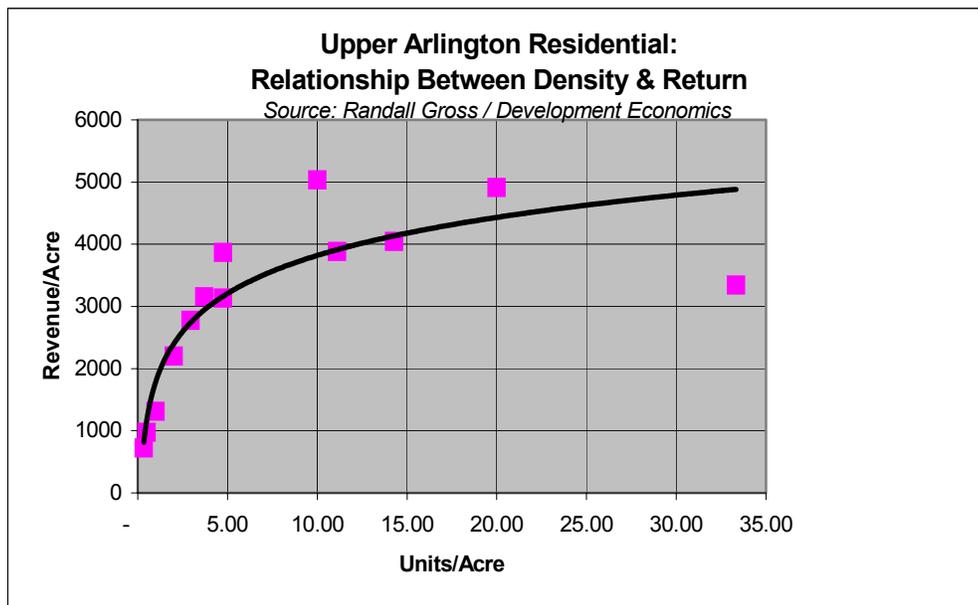
(1) Sub-Area Redevelopment: Kingsdale SC – Alternative A-Core

	<u>Existing</u>	<u>Demonstration</u>	<u>Net Fiscal Impact</u>
Retail	-\$ 453,000	-\$ 280,000	+\$ 173,000
Office	\$ 44,000	\$ 975,000	+\$ 931,000
Residential	\$ 0	\$ 2,000	+\$ 2,000
TOTAL	-\$ 409,000	\$ 697,000	+\$1,106,000

(2) Sub-Area Redevelopment: Kingsdale – Triangle – Alternative B

	<u>Existing</u>	<u>Demonstration</u>	<u>Net Fiscal Impact</u>
Retail	-\$ 535,000	-\$ 319,000	+\$ 216,000
Office	\$ 137,000	\$ 1,937,000	+\$ 1,800,000
Residential	\$ 0	\$ 4,000	+\$ 4,000
TOTAL	-\$ 398,000	\$ 1,622,000	+\$ 2,020,000

Other UA Analyses. A number of other fiscal analyses were conducted to inform the planning process in Upper Arlington. For example, RGDE performed a regression analysis that illustrated the relationship between the density of housing and the fiscal return to the City from that housing. In general, this analysis found that, at least in Upper Arlington, there is a significant fiscal gain from a marginal increase in housing densities from one to five units per acre. Once densities exceed five units per acre, the increase in fiscal benefits becomes less substantial. However, the analysis clearly shows the fiscal benefits of housing density to Upper Arlington. This relationship is illustrated below.

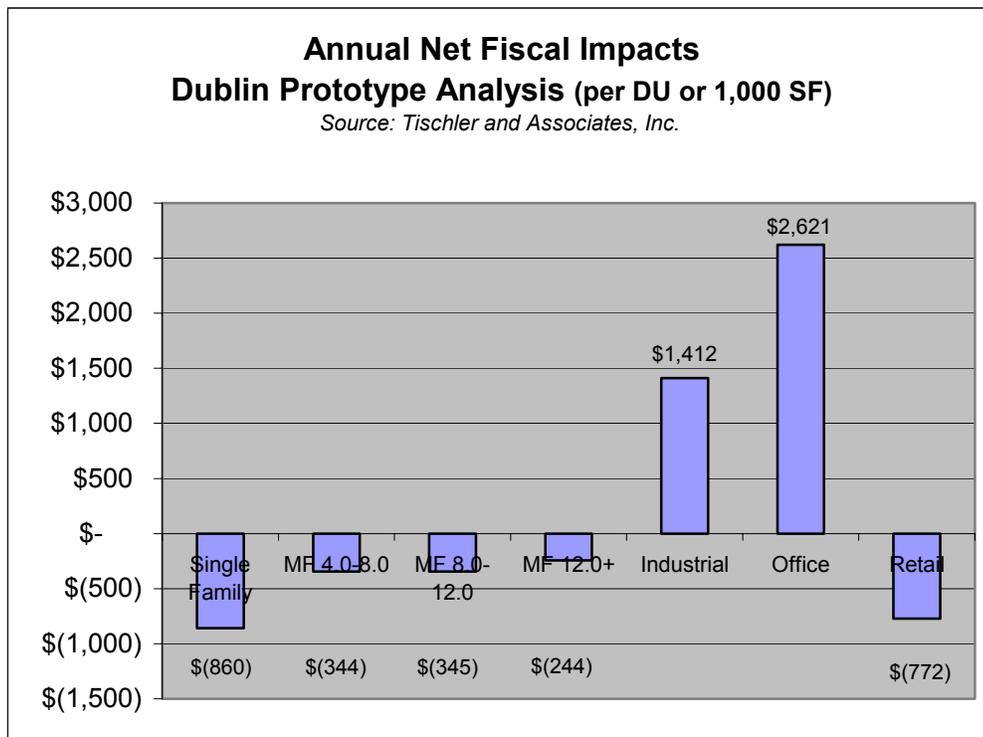


City of Dublin

*Prototype Fiscal Analysis
Tischler and Associates, Inc.
& Fiscal Impact Analysis
April & September 1997*

Tischler & Associates, Inc. (TA) conducted a fiscal impact analysis for land use “prototypes” to assist the City of Dublin understand the costs and benefits of various land uses on the City budget. TA evaluated the impacts of four residential land use categories and three non-residential categories. The residential prototypes included single family, plus three multi-family categories having various densities (4.0 to 8.0 units per acre, 8.0 to 12.0 units per acre, and 12.0 or more units per acre).

TA found that, as with Upper Arlington, only office and industrial uses generate annual net benefits to the local government. Retail use and all of the residential prototypes generate a net loss to local government. Again, like Upper Arlington and Newark, office space generates the greatest net revenues due to the community’s dependence on local income tax revenues. The City of Dublin must provide \$1,155 in services for every 1,000 square feet of office space, but receives \$3,777 in revenues from that office space. Thus, each 1,000 square feet of office generates a net benefit of \$2,621 per year to the City of Dublin, on average. TA’s findings are summarized on the following chart.



Single-family residential generates the highest cost and lowest net revenues (-\$860) of all the residential uses in Dublin. This would appear to be a strong argument in favor of multi-family uses or higher-density housing, over single-family or lower-density housing, at least for Dublin. However, if density were the only factor, then there would be a clear trend with higher densities

generating higher net revenues. But this is not the case:

Single Family	-\$860 Net revenue
MF 4-8 Units/acre	-\$343
MF 8-12 Units/acre	-\$345
MF 12+ Units/acre	-\$244

Clearly, there must be some other factors influencing the fiscal impact of housing in Dublin besides densities alone. The negative impact of “mid-density” multi-family housing (8-12 units/acre) is higher than that for “low-density” multi-family housing (4-8 units/acre), but lower than that for “high-density” multi-family housing (12+ units/acre). This fiscal data would seem to imply that Dublin should encourage very high-density housing, at 12 units or more per acre, over lower-density multi-family housing. But, it’s not clear why that would be.

As in the other studies, retail does not generate sufficient income or property taxes to overcome the substantial traffic-related costs that result from the higher number of road trips generated by retail. Industrial uses generate low overall costs but high income tax benefits, and therefore high net fiscal benefits to the City of Dublin.

TA also conducted a multi-year fiscal impact analysis of several alternative areas under consideration for annexation to the City of Dublin. This analysis found that employment growth projected for the existing City of Dublin was sufficient to “cross-subsidize” services required for residential development that was projected in each of the newly annexed areas. However, TA also found that up-front capital costs associated with the development of new road and other infrastructure investment required in the annexed areas would result in “significant annual deficits” to the City during the initial ten-year period following annexation.

The analysis also illustrated the relative fiscal advantages of annexation of certain areas over others. However, these analyses were based on household and employment projections, rather than on actual market forecasts for development within the annexation areas.

City of Delaware
Prototype Fiscal Analysis
Tischler and Associates, Inc.
& Fiscal Impact Analysis
August 2002

Tischler and Associates, Inc. (TA) conducted similar fiscal analyses for the City of Delaware, as part of its comprehensive planning process. This analysis

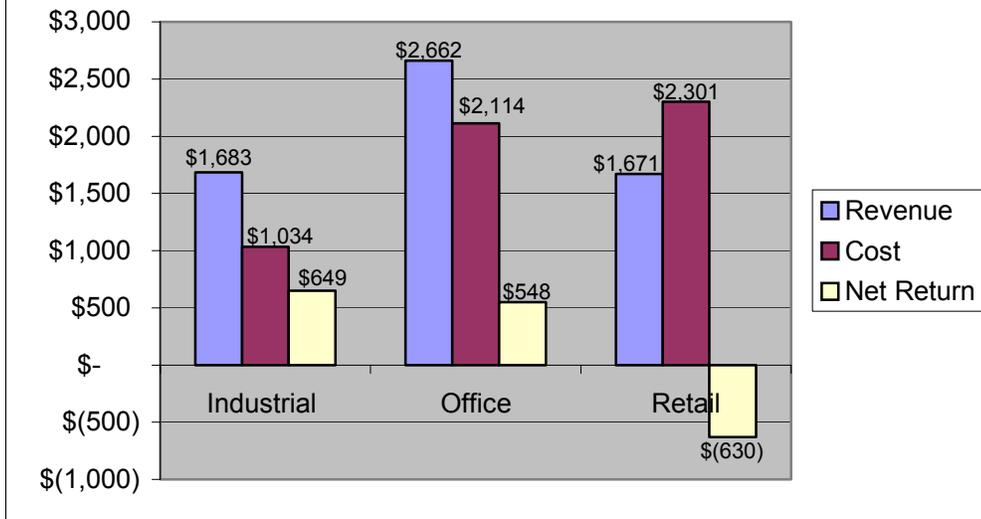
provided more detailed assessment of various residential land use categories. Also included was an analysis of the impacts of those residents who live in the city of Delaware, versus those who commute out of the city for work.

Net Fiscal Impact Results for Residential Use: (per DU)			
Work in City Versus Commuters			
City of Delaware			
Residential Zone/density	Commute	Work in City	
2 DU / Acre	\$ 489	\$ (295)	
2.9 DU / Acre	\$ 118	\$ (379)	
3.3 DU / Acre	\$ (51)	\$ (421)	
Semi-Detached	\$ (104)	\$ (384)	
Quadraplex	\$ (33)	\$ (285)	
Apartment	\$ (78)	\$ (288)	
Source:	Tischler & Associates, Inc.		

This analysis found that commuters living in low-density housing generated a positive net fiscal impact on the City of Delaware, whereas any Delaware resident that also works in the city generates a negative benefit. This phenomenon is explained primarily due to the wages of jobs in Delaware versus Columbus, where higher-income residents in single-family homes are commuting for work. As in many of the other fiscal studies for central Ohio cities, income is a key factor in determining fiscal impacts of development because of the predominance of the income tax as a source of municipal revenues.

**City of Delaware - Commercial & Industrial Net
Fiscal Impacts (per 1,000 square feet)**

Source: Tischler & Associates, Inc.



Delaware bucks the trend for impacts of non-residential uses in Ohio. According to the Tischler study, industrial uses generate a slightly higher net fiscal return to Delaware than office uses. Whereas office usually wins out in other Ohio cities, Delaware's higher industrial returns may indicate relatively strong industrial wages and/or low-end service/office uses that do not generate the extremely high income tax returns seen elsewhere in Ohio. Market analyses conducted by RGDE for the City of Delaware confirm that industrial is the city's most competitive wage-driven use.

City of Newark

Fiscal Impact Analysis

Randall Gross /Development Economics

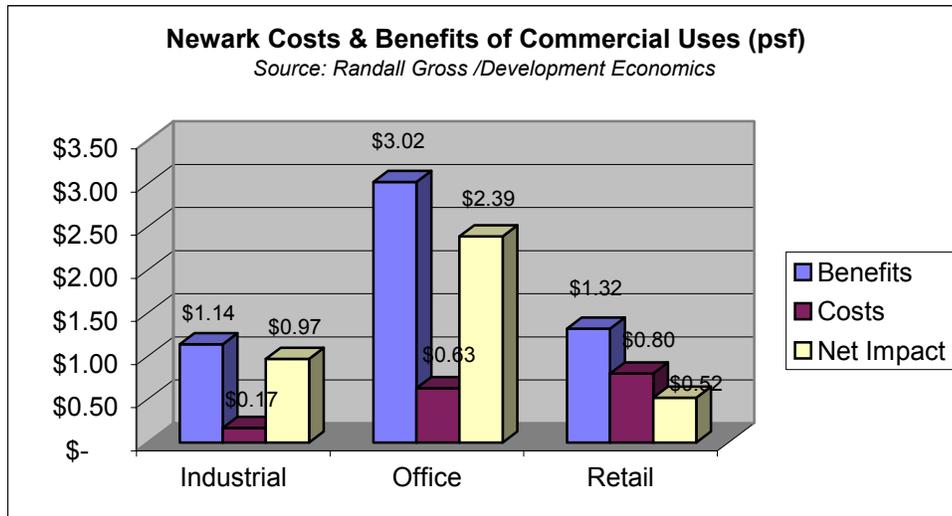
February 2001

Newark is an exurban community with an aging industrial base. A relatively weak local economy has resulted in increased out-migration for jobs in Columbus. The City also has to compete with commercial development in the surrounding county. As a result, income tax revenues, on which the City is so dependent, had stagnated.

While the City had incentive programs such as tax abatements, these mechanisms were focused on housing, storage, and fast food chains that did not generate substantial fiscal or economic development returns to the City. Finally, Newark, like some other central Ohio cities used a somewhat ad-hoc capital

programming system based on the draw down of its “unappropriated balance.” The City’s long-term bond capacity was constrained.

As part of the comprehensive planning process led by ACP, Randall Gross / Development Economics (RGDE) completed a fiscal impact analysis of land uses in the City. The analysis tested the costs and benefits of each major land use on the City’s budget. Findings for commercial and industrial uses are summarized below on a per-square-foot basis.



The RGDE analysis found that most uses have a marginally positive net impact on the City of Newark, but that multi-family residential has a negative fiscal impact. Among commercial uses, office generated a positive net impact of over \$3.00 per square foot, substantially higher than the return for industrial uses at about \$1.00. Retail uses, while generating fairly high benefits, also has high costs, yielding a relatively low net return to the City of Newark. It was particularly telling that, while Newark’s economy is more dependent on industrial uses, office generates a much higher fiscal benefit per acre to the City. In response to underlying structural issues, RGDE recommended an economic development and fiscal strategy to address these issues.

- City of Sidney**
Fiscal Impact Analysis
Randall Gross / Development Economics
2001

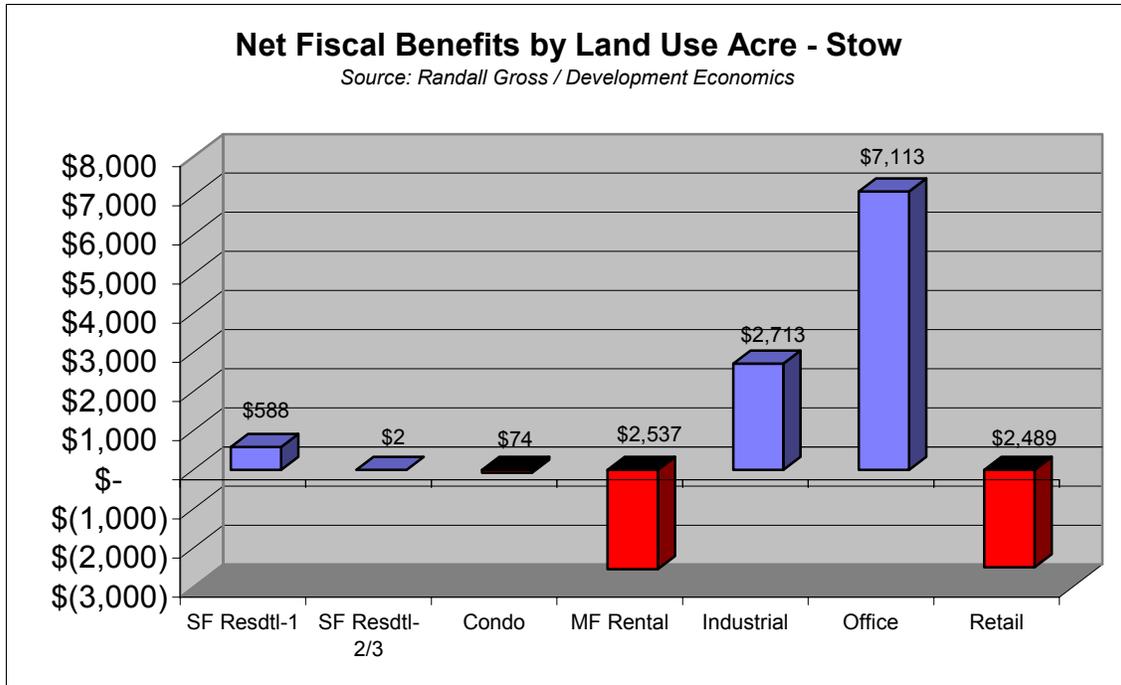
Fiscal impact analyses were conducted by Randall Gross / Development Economics (RGDE) in Sidney, Ohio (Shelby County) as part of a comprehensive plan update by ACP. Findings from the fiscal analysis found that office uses generated the highest net fiscal benefit to the City (\$5,644 per acre), while retail

and multi-family rentals generated a negative fiscal impact.

NET FISCAL BENEFITS BY LAND USE, SIDNEY, OHIO, 2000			
Use	Factor	Measure	Per Acre
SF Residential-Average	\$ 815	DU	\$ 2,179
MF Rentals	\$ (1,070)	DU	\$ (12,609)
Industrial	\$ 0.44	SF	\$ 2,482
Office	\$ 0.98	SF	\$ 5,644
Retail	\$ (0.49)	SF	\$ (590)
Source: Randall Gross / Development Economics.			

- City of Stow**
Fiscal Impact Analysis
Randall Gross / Development Economics
2000

Similar findings were presented by Randall Gross / Development Economics (RGDE) in Stow, a rapidly-growing, middle-income suburb of Akron. Here, residential uses were disaggregated into single-family, duplexes, condominiums, and multi-family rentals. In general, the higher-density units generated a less positive return than single-family. The following chart compares the fiscal impacts of various land uses on a per-acre basis.



As typical of the other Ohio communities assessed through these fiscal analyses, office and industrial use produced the highest net return to the City, while retail generated a significant loss. In Stow, RGDE produced retail and office market analyses to inform the fiscal analysis for prototypical land uses and for sub-area planning. A decision on whether or not to permit big-box retail at a particular location, and its impact on existing business districts, was one example of how the market issues were woven into the fiscal analyses.

Counties

County governments provide a different set of services from cities, typically including sheriff, courts, roads, and services that historically originated to provide basic civil order for a rural population. Outside of Franklin County, many of the counties in central Ohio still retain a rural character and significant agricultural land. As such, it is not surprising that a constituency-based organization interested in protecting farmland conducted several of the area’s fiscal studies for counties. One of these, Knox County, is located just outside of the seven-county MORPC region but is clearly impacted by exurban growth emanating from the Columbus area. The analysis of Knox County is followed by discussion of a similar fiscal analysis in Clark County.

Knox County

*Cost Of Community Services (COCS) Study
 American Farmland Trust
 October 2003*

American Farmland Trust (AFT) is a non-profit organization founded in 1980 with the primary mission of protecting farmland and agricultural resources. AFT conducts Cost of Community Services (COCS) studies to help illustrate the relative fiscal benefits (or low-cost) of preserving farmland and protecting it from encroaching development.

COCS studies are similar to other types of “descriptive” fiscal analyses that illustrate the net fiscal benefits of various land uses. AFT includes an assessment of the fiscal benefits of agricultural land, whereas some fiscal analyses do not. At the same time, AFT does not disaggregate residential development by density or non-residential uses by type (i.e., retail, office, industrial) in their analyses. Nor do they delineate impacts on unit basis (per development unit, per acre, or per square-foot).

Agriculture is the primary land use in Knox County, and is an important contributor to that county’s rural economy. AFT found that agriculture generates \$59 Million per year in direct sales and that prime farmland accounts for 57% of the county’s total acreage (or 251,722 acres). The county’s farm production is split evenly between crop yields (corn & soybean) and livestock. The fact that exurban residential development is encroaching on the county’s rich farmland resources, prompted the AFT study. Between 1990 and 2000, AFT finds that new residential development in Knox County increased by 17% or 3,285 units, double the growth rate of 1980 to 1990.

The AFT fiscal analysis found that, as in other central Ohio jurisdictions, residential uses generate a negative impact on local government. However, the next cost of residential development was found to be minimal, at just \$1.05 in fiscal costs for every \$1.00 in fiscal benefits to Knox County.

AFT did not disaggregate commercial and industrial uses in their COCS study. This business use also includes utilities and vacant parcels of 10 acres or less. Overall, AFT found that these commercial/industrial uses generate the highest gross benefits (revenues) to the County, and an overall cost of only 38 cents on the dollar.

Agricultural use generates the smallest gross revenues, but also (logically), little cost to the County for providing services. As a result, agriculture had the highest net benefit of the three use categories, costing the County only 29 cents for every dollar generated in revenues.

Knox County Revenues and Expenditures by Land Use (2003)

Knox County	Actual	Residential	Commercial/ Industrial	Farm and Open Land
a) Total Revenues	\$ 96,834,422	\$79,426,164	\$11,255,520	\$6,152,737
b) Total Expenditures	\$ 89,721,239	\$83,679,759	\$ 4,253,495	\$1,787,985
Net Surplus (or shortfall)	\$ 7,113,183	\$ (4,253,595)	\$ 7,002,025	\$4,364,752
Final Land Use Ratio		\$1 : \$1.05	\$1 : \$0.38	\$1 : \$0.29

Source: American Farmland Trust.

AFT finds that agricultural use has the lowest net cost of the three categories, generating 6.2% of total revenues but only 1.8% of County expenditures. The problem with this finding is that, if taken by itself, agricultural land does not generate enough revenues to cross-subsidize *existing* residential uses, let alone new development. That cross-subsidization must occur through commercial and industrial development. Thus, the county is dependent on commercial and industrial development that is likely to take rich farmland, but perhaps at a slower rate than residential development. It would have been helpful if AFT had provided some indication of that rate of industrial/commercial development.

Because AFT does not disaggregate business uses, the group’s observation that “decisions that retain and enhance commercial, industrial, and agricultural land uses... can help improve the long-term fiscal stability of the County” may be over-reaching. Still, AFT has shown that agriculture generates a relatively high net benefit to the County government.

AFT observes that “most new development is occurring in rural unincorporated areas without regard for agricultural soils...rather than in towns and villages.” Unfortunately, AFT’s analysis does not differentiate between the net cost or benefit of “rural” versus “urban” residential, and does not help to answer the sprawl debate. Finally, it must be noted that, written by an organization established to protect and preserve farmland, the findings from this study should be held to higher scrutiny.

Clark County
Cost Of Community Services (COCS) Study
American Farmland Trust
October 2003

American Farmland Trust also performed a COCS study in Clark County,

on behalf of the Tecumseh Land Trust. Unlike Knox County, Clark experienced demographic decline between 1990 and 2000, losing 1.9 percent of its population base. Small farms (earning less than \$100,000 per year) constituted 80% of all farms in the county.

Again, AFT found that residential uses generate more costs than revenues to the County budget, with a ratio of \$1.11 in costs for every dollar generated by residential in fiscal revenues.

Combined County & School Services	FY2001 Actual	Residential	Comm/Ind	Farmland
a) Total Revenues	\$209,915,289	\$173,680,601	\$31,169,891	\$5,064,796
b) Total Expenditures	\$206,758,452	\$193,418,767	\$11,827,312	\$1,512,373
Net Contribution (a-b)	\$ 3,156,837	\$ (19,738,166)	\$19,342,579	\$3,552,423
Land Use Ratio*		\$1 : \$1.11	\$1 : \$0.38	\$1 : \$0.30
*Cost for each \$1 of revenue generated.				
Source: American Farmland Trust.				

Farmland was again shown to generate substantially lower costs per dollar of revenue it produces to the County Government. Interestingly, this AFT study found that the fiscal returns from Commercial/Industrial and Farmland were virtually the same, with a difference of just eight cents on the dollar.

Given the county’s stagnant population during the 1990’s, key questions may relate less to controlling residential growth than to strengthening the agricultural base and diversifying the local economy.

Townships

Township governments historically evolved to provide certain services above and beyond those provided by a county, and for specific sub-divisions within the county. As such, townships provide a variety of services beyond civil order to include safety and fire protection, recreation, and other services. Clearly, there is potential for service redundancies and land-use conflicts between two levels of government – townships and municipalities, that both provide certain urban services. At least one fiscal analysis was conducted for two townships that perform their functions in the absence of adjacent urban municipalities – Hocking and Liberty townships, in Fairfield County. As in the county studies, the focus was on protecting farmland.

But in the Dayton area, a fiscal analysis examined the inter-relationships between a municipality (Centerville) and an adjoining township (Washington Township) experiencing conflict due to over-lapping jurisdiction, function, and land-use policy. That analysis was part of a comprehensive planning effort

oriented towards better integration of the land-use and development framework between the two jurisdictions.

Hocking and Liberty Townships

(Fairfield County)

Cost of Community Services (COCS) Study

Allen Prindle, Otterbein College

March 2000

Allen Prindle, a professor at Otterbein College, prepared a Cost of Community Services (COCS) study in Fairfield County that is modeled in many respects on the AFT analyses. The study, prepared for the Fairfield County Regional Planning Commission, focused on defining the fiscal cost-benefit ratio for land uses in two townships, Hocking and Liberty.

As in the AFT studies, Prindle limits the analysis to three broad uses – residential, commercial/industrial, and agriculture. Not surprisingly, Prindle finds that “while farmland usually pays a lower tax amount than residential land use, it also demands less community services and less service expenditures.”

Both Hocking and Liberty townships are oriented to residential and agricultural uses. About 75% of the taxable base in both townships is residential, while agriculture accounts for about 22%. Commercial and industrial uses account for only 1-2% of the assessable base in these townships. The results of the analysis for Hocking Township are summarized below:

Total Township Revenues and expenditures and Cost of Community Services Ratio, Hocking Township, Fairfield County, 1999.			
	<u>Residential</u>	<u>Comm/Ind</u>	<u>Farmland</u>
Total Expenditures	\$3,208,184	\$11,886	\$49,101
Total Revenues	\$2,915,742	\$44,397	\$297,354
COCS Ratios (Exp/Rev)	1.10	0.27	0.17

Source: Otterbein College

Prindle found, as in Knox County, that residential generates a slightly higher cost per dollar of revenues (\$1.10 in costs for every \$1.00 in revenues), and that commercial/industrial and farmland generate very low cost ratios of \$0.27 and \$0.17, respectively. Findings in Liberty Township suggested an even greater disparity in the fiscal impacts of residential and agricultural uses.

Total Township Revenues and expenditures and Cost of Community Services Ratio, Liberty Township, Fairfield County, 1999.

	<u>Residential</u>	<u>Comm/Ind</u>	<u>Farmland</u>
Total Expenditures	\$8,198,978	\$26,917	\$36,000
Total Revenues	\$7,932,188	\$53,240	\$748,193
COCS Ratios (Exp/Rev)	1.15	0.51	0.05
Source: Otterbein College			

These township findings are particularly interesting given their similarities to those provided by AFT at the County level (Knox).

- Centerville-Washington Township**
Market Potentials & Fiscal Impact Analyses
Randall Gross / Development Economics
2002-3

ACP led a joint comprehensive Community Planning process for the City of Centerville and Washington Township, located in the Dayton area. This process was unusual because of the effort to bring two neighboring but somewhat divergent jurisdictions together in order to plan in a more cooperative fashion on land use and development policy.

Randall Gross / Development Economics (RGDE) conducted market and fiscal analysis as inputs to this process, made more complex by the differing fiscal structures of a city government (Centerville) and township government (Washington Township). Furthermore, residents chose to understand the fiscal situation not only from the perspective of City and Township, but also as residents of a multi-jurisdictional area. For example, residents of Centerville pay certain taxes to the City, but also pay taxes and receive fire and emergency medical services from the Township. Thus, fiscal impacts were determined for each individual jurisdiction (city, township, schools, recreation district, library district, and other multi-layered jurisdictions) and for various combinations of these entities together, in order to show the impacts of development on a resident living in the City or the Township but paying taxes to several jurisdictions. While more complex, this study confirmed certain trends for each land use, as follows:

Land Use	Centerville	Washing- ton Twp	Fire	Rec- reation	Library	Park District	Schools
Single Family Residentl	\$ 401	\$ 435	\$ 179	\$ (3)	\$ (260)	\$ (49)	\$ (1,619)
Multi-Family Residential	\$ (118)	\$ 525	\$ 491	\$ 103	\$ (502)	\$ (54)	\$ (1,776)
Industrial	\$ 3,337	\$ 1,524	\$ 1,019	\$ 37	\$ 247	\$ 61	\$ 8,174
Office	\$ 10,399	\$ (943)	\$ (5)	\$ -	\$ 346	\$ 247	\$ 22,703
Retail	\$ (883)	\$ (1,259)	\$(2,548)	\$ -	\$ 196	\$ 41	\$ 12,002
Note:	Individual per-acre impacts from the separate models cannot be added together due to differences in densities.						
Source:	Randall Gross / Development Economics.						

Retail again generated a negative fiscal impact for City and Township government, as well as for the area fire department. However, retail is a net revenue generator for schools and related uses, since retail does not generate any costs to operation of the schools. By contrast, single-family residential uses generate a positive fiscal return to the City, Township, and Fire Department, but result in substantial fiscal costs to schools and related uses. Schools in this area are subsidized by fiscal revenues from industrial and commercial uses, including retail. As usual, office use generates a substantial net fiscal benefit to the City of Centerville, but interestingly, a net loss for the township. Fiscal costs from commercial uses result largely from the level of traffic they generate.

Appendix

Summary Table

FISCAL IMPACTS OF LAND USES, CENTRAL OHIO

<u>Net Fiscal Impacts</u>	SF Residential per DU	MF Residential per DU	Retail per S.F.	Office per S.F.	Industrial per S.F.
<u>Municipalities</u>					
Upper Arlington	\$ 243	N/A	\$ (1.25)	\$ 2.91	N/A
Dublin	\$ (860)	\$ (244)	\$ (0.77)	\$ 2.02	\$ 1.41
Delaware	\$ 194	\$ (288)	\$ (0.63)	\$ 0.55	\$ 0.65
Newark	\$ 295	\$ (496)	\$ 0.52	\$ 2.39	\$ 0.97
Sidney	\$ 148	\$ (1,070)	\$ (0.49)	\$ 0.98	\$ 0.44
Stow	\$ 321	\$ (501)	\$ (0.38)	\$ 1.08	\$ 0.64
Centerville	\$ 235	\$ (118)	\$ (0.16)	\$ 1.71	\$ 0.70
<u>Township</u>					
Washington	\$ 379	\$ 102	\$ (0.22)	\$ (0.15)	\$ 0.32
Average (less outliers)	\$ 259	\$ (258)	\$ (0.44)	\$ 1.34	\$ 0.62

<u>Cost of Community Svcs</u>	Residential Return/\$1.00	Comm/Indust Return/\$1.00	Agricultural Return/\$1.00
<u>Counties</u>			
Knox	\$ (0.05)	\$ 0.62	\$ 0.71
Clark	\$ (0.11)	\$ 0.62	\$ 0.70
<u>Townships</u>			
Hocking (Fairfield)	\$ (0.10)	\$ 0.73	\$ 0.83
Liberty (Fairfield)	\$ (0.15)	\$ 0.49	\$ 0.95
Average	\$ (0.10)	\$ 0.62	\$ 0.80

Notes: Net Fiscal Impacts have been standardized from the various analyses based on zoning and other factors.
 Cost of Community Services expressed as net return per \$1.00 revenue.
 N/A means Not Applicable.

Sources: Randall Gross / Development Economics; Tischler & Associates, Inc.;
 American Farmland Trust; and Otterbein College (Prindle).