

**A COST OF COMMUNITY SERVICES STUDY OF  
SCIO TOWNSHIP**

by

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July 1996

Published by:

Washtenaw Land Trust

The Washtenaw Land Trust is a private, nonprofit organization that works to preserve farmland, natural areas and open space in and around Washtenaw County, Michigan, and to educate its members, local officials and the public on land use issues. These goals are accomplished through acquisition of land in fee simple; donations of interests in land through Conservation Easements; management of preserves and easements; and publications, presentations and community outreach activities. Basic annual membership in WLT is \$35. For more information, contact:

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The research for and production of this study was made possible through a grant from the Michigan Environmental Council with funds provided by the C.S. Mott Foundation.

Additional copies of this study are available for \$10.00 postpaid U.S.

# TABLE OF CONTENTS

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<b>ACKNOWLEDGEMENTS</b>	<b>i</b>
<b>EXECUTIVE SUMMARY</b>	<b>ii</b>
<b>INTRODUCTION</b>	<b>1</b>
<b>METHODOLOGY</b>	<b>3</b>
<b>REVENUES</b>	<b>7</b>
<b>EXPENDITURES</b>	<b>23</b>
<b>COST OF COMMUNITY SERVICES DISCUSSION</b>	<b>34</b>
<b>REFERENCES</b>	

# ACKNOWLEDGMENTS

The Cost of Community Services study would not have been possible without the support and guidance of a number of interested and dedicated people. The authors would like to sincerely thank the following groups and individuals for their assistance in making this report a reality:

**Barry Lonik**, Executive Director of the Washtenaw-Potawatomi Land Trust. Barry was the initial catalyst behind the project and was instrumental in helping the project secure funds as well as providing guidance and encouragement. We hope Barry finds our results useful for his work in land preservation in Washtenaw County.

**Michigan Environmental Council**, for their substantial support of our efforts.

**Donna Erickson**, Professor of Landscape Architecture at the School of Natural Resources and the Environment. Donna served as our Faculty Advisor. She was extremely helpful in her advice and encouragement, enabling us to move this project along.

**Julia Freedgood**, American Farmland Trust, for her extensive knowledge with Cost of Community Services studies and her insights on farmland preservation and agricultural issues.

**David Skjaerlund**, Michigan Department of Agriculture, for his insights on Michigan agriculture and overall advice for our project.

**Steve Solowczuk**, President of the Washtenaw County Farm Bureau, for taking the initiative to build bridges between the agricultural and the environmental communities as well his comprehensive knowledge of the agricultural community in Washtenaw County.

**Tom Bloomer**, Livestock Producer and Chairman, Washtenaw County Agricultural Lands Committee, for his insights on the state of agriculture in the County and his participation in our study.

**Scio Township Officials**, for having patience with our numerous requests and questions.

**The Citizens Task Force for Farmland and Open Space Preservation**, for allowing us to sit in on their formative meetings. We wish them luck in pursuing efforts to preserve Washtenaw County agricultural land and open spaces.

Lastly, we would like to thank our friends and loved ones for their encouragement and patience with our many long hours of work.

## EXECUTIVE SUMMARY

This report evaluated the 1994/95 fiscal budget year of Scio Township, in Washtenaw County. The purpose of the study is to determine whether the revenues generated by residential, commercial, and agricultural land uses in the Township outweigh the costs of providing services to each land use. In doing so, the study explores the dilemma planners and local officials must address concerning the economic development of the township's land base: Does development pay for itself? Has developed land contributed enough to local government to cover costs that accompany development? The Cost of Community Services Study is similar to several related reports completed by the American Farmland Trust. However, this COCS Study is the first to be completed in the State of Michigan.

Because Michigan is a "home-rule" state, local policy makers will play a pivotal role in determining the fate of agriculture in Washtenaw County. Local officials through zoning, assessments, and local taxation policies determine how land is utilized. Decisions to widen, extend or pave roads also influence the way in which land is used. Choices to provide public drinking water and sewer services to a community are not made independently of the current or projected land use patterns in an area. Decisions affecting schools, and consequently the lands surrounding them, are also made at the local level.

Since budgeting is a crucial component of government, it is important for local officials to consider how their decisions will affect the revenues and expenditures for the government. Proponents of development argue that developed land helps local government. Their argument is simple and appeals to common intuition. Developed land generally is appraised at a higher value than farmland or open space land. This higher value leads to higher assessed values which in turn causes tax revenue to increase. Thus, development, from a local perspective, could appear to have a positive impact on the budget for a local government. However, there are many costs associated with development that must be borne by the local government. To estimate whether the increased revenue outweighs the costs associated with providing services to that developed land, we conducted a COCS study. This methodology was developed, in part, by the American Farmland Trust.

Our COCS study evaluated the budget of Scio Township, a community in Washtenaw County, on a land use basis. The study estimated the revenues generated by each land use and compared them with their respective costs. Ratios of revenue to expenses were developed for the following land uses: agriculture, commercial/industrial, and residential. To conduct the study, we reviewed the Scio Township budget for the 1994/95 fiscal year. We interviewed government officials in the Township, the County, and the State of Michigan.

We identified the major sources of revenue and expenditures for Scio Township.

### Summary of Revenue Sources

<u>Categories</u>	<u>Source</u>
Property Taxes	Scio Township properties of all land use types
State Shared Revenue	Shared on the basis of population
Local Revenue	Fees received for services performed
DDA	Scio Township properties of all land use types
Public Improvement Fund	Leases and donations from commercial/industrial sources

### Expenditure Categories

<u>Categories</u>	<u>Services</u>
<b>General Government</b>	Township Operations Assessor Elections Recycling
<b>Public Safety</b>	Sheriff Fire
<b>Infrastructure</b>	Roads Water and Sewer
<b>Downtown Development Authority</b>	Commercial Development

The Downtown Development Authority (DDA) played an important part of the analysis. This entity was created to improve services to the primary commercial and industrial district in the Township. It receives its revenue from property taxes on all land

uses. Before including the costs associated with schools, it is apparent that agricultural land and residential land are contributing extensively to the DDA, yet the benefits from this program go exclusively to commercial/industrial land.

Education has been an important component of previous COCS studies. Consequently, our analysis included a discussion of the impact of Proposal A, a referendum which was passed in 1994. Proposal A drastically changed the way in which schools are funded in the State of Michigan. After the impact of schools is considered, residential property generates substantially less revenue than it receives in services from Scio Township.

**Scio Township COCS Results for Fiscal Year 1994/95**

<b>Land Use</b>	<b>Revenue</b>	<b>Expenditure</b>	<b>Expenditure/ Revenue Ratio</b>
Agricultural	\$203,532	\$126,520	<b>0.62</b>
Commercial / Industrial	4,995,636	1,297,031	<b>0.26</b>
Residential	9,067,355	12,690,333	<b>1.40</b>
<b>Total</b>	<b>\$14,266,522</b>	<b>\$14,113,883</b>	

Ultimately, we concluded that residential land did not contribute enough revenue to pay for the services that it received for the 1994/95 fiscal year. Both agricultural land and commercial/industrial land contributed more in revenue than they received in services for that same time period. High educational costs were the primary difference that caused residential property to be so expensive relative to the other two land uses.

While agricultural land may not contribute a great deal of tax revenue to Scio Township, the costs that it imposes are minimal. In light of development pressures on existing farmland and because Michigan is the only state to not have some form of use value assessment, we evaluated the impact such a tax policy would have on the expenditure/revenue ratios developed for Scio Township. We determined that use value assessment would reduce revenue by \$76,631. Of this sum, \$3,080 would be lost to the Township and \$73,551 lost to the schools. To compensate for this lost revenue, an 0.2 mill tax could be placed on all properties.

**Estimated Scio Township COCS Results  
with Use Value Assessment for Fiscal Year 1994/95**

<b>Land Use</b>	<b>Revenue</b>	<b>Expenditure</b>	<b>Expenditure/ Revenue Ratio</b>
Agricultural	\$128,050	\$126,520	<b>0.99</b>
Commercial / Industrial	5,024,142	1,297,031	<b>0.26</b>
Residential	9,114,330	12,690,333	<b>1.39</b>
<b>Total</b>	<b>\$14,266,522</b>	<b>\$14,113,883</b>	

The results indicate that use value assessment would provide for a more equitable tax policy on farm properties in Washtenaw County. Agricultural land would then be receiving services that approximate the amount of revenue that is contributed by that land. Policies such as use value assessment provide planners with an opportunity to consider the financial implications of land use as well as stemming the urban sprawl that threatens farmland in Washtenaw County.

# Cost of Community Services Study

## Introduction

Determining which is greater, the added tax benefits or the added burden of providing services, is the primary question motivating a Cost of Community Services Study (COCS). A COCS attempts to evaluate a local budget by showing expenditures and revenues as a function of land use. In essence, the study is merely an accounting method designed to estimate the cost of development. In doing so, the study attempts to illuminate a dilemma that local policy makers face when making decisions affecting land use patterns in their area. Does development pay for itself? Has developing land in the past contributed enough to local government to cover the costs that accompanied that development?

The evolving land use patterns in Southeast Michigan pose questions and challenges for residents as well as for local government officials. Communities have felt the impacts of these changes on multiple levels. People often debate whether or not development is good for an area. Ultimately, people would like to know if the benefits of development are outweighed by its costs. This issue is particularly important for government officials who have control over policies affecting land use. While similar studies have been conducted before, this study is the first to be conducted in the State of Michigan.

Traditionally, policy decisions that affect land use in the State of Michigan have been made at the local level. Michigan is a “home-rule” state, and local officials through zoning, assessments, and local taxation policies play a vital role in determining how land is utilized. Decisions to widen, extend, or pave roads also influence the way in which land is used. Choices to provide public drinking water and sewer services to a community are not made independently of the current or projected land uses in an area. Decisions affecting schools, and consequently the lands surrounding them, are also made locally. Policies on whether to allow the subdividing of land greatly influence whether that land will be developed or whether it will be utilized for another purpose. These policies are often made by townships, not by other more centralized levels of government.

Effective policy makers, at all levels of government, must evaluate the impacts that their policies will have on their constituents and the government’s budget. Because there is a shortage of resources for many local governments, officials must be acutely aware of the financial implications of their decisions. Unfortunately, the information that policy makers have at their disposal is often incomplete. All too frequently, the information does not exist or has not been compiled in a manner that is useful. This is particularly true at the local level where resources are often at a minimum.

Local policy makers should evaluate the financial implications of decisions that affect land use in their communities. Proponents of development argue that developed land helps local government. Their argument is simple and appeals to common intuition. Developed land generally is appraised at a higher value than farmland or open space land. This higher appraised value causes tax revenue to increase. However, there are many costs associated with development that must be borne by the local government. Infrastructure, health services, and safety services are only part of the full spectrum of government services that are necessary for developed areas. Yet, providing these services is costly.

Policy makers in Southeast Michigan have already begun to plan for the next century. They are making decisions that will affect the local economy in the region as well as the types of communities and economies that will exist. Land use patterns in the future will largely be influenced by decisions being made today. Therefore, this study is designed to provide policy makers with insight that will enable them to make well-informed decisions on issues affecting land use in Southeast Michigan. Washtenaw County is experiencing growth as the Detroit metropolitan area expands. This growth provides some benefits to the area. However, it is imperative for planners to be aware of the costs that accompany this growth.

It is our sincere hope that the study will be used by citizen groups and local officials who have an interest in learning more about the fiscal impacts of growth. Recognizing the lower costs associated with farmland is an important first step in planning for a future in which development can coincide with farmland preservation. Failure to recognize this benefit of farmland could lead to its ultimate demise in the area.

## **Scio Township**

Scio Township abuts the City of Ann Arbor to its immediate west. The township, like much of Washtenaw County, has its roots as a farming community. In 1985, 8,000 acres (36.4%) of Scio Township's 22,000 acres were used for farming (Washtenaw County Planning Commission, 1994). However, Ann Arbor's growth and urban sprawl have changed the landscape of the county, and Scio Township has changed considerably in recent years as a result of these phenomena. The township's population increased more than 47% between 1980 and 1990 (Census of Population and Housing, 1990). Corresponding to this change, the number of housing units rose by more than 62% during the 1980s (Census of Population and Housing, 1990). Scio Township has had to respond to this growth by providing a wide range of services. The completion of a sewer and public water system, the creation of a fire department, the construction of a water tower, the widening of Jackson road (a main road connecting Scio Township with the City of Ann Arbor), and the building of new schools exemplify the large changes that the township government has been forced to implement as a result of growth in the area.

# **Methodology**

## **Scope of the Study**

We chose to limit the study to three land uses: agricultural, residential, and commercial/industrial. Properties with tax exempt status were excluded from the study. These properties provide no revenue for the township, and it is not certain what services, if any, these tax exempt lands require. Thus, we elected to remove them from the study. We have also limited the scope of this study to services provided at the township level. This includes the services provided by township government and schools. Although the county levies a property tax, county services have not been included because the allocation of benefits to a specific township could not be done with any accuracy. Likewise, services provided by the state have not been included in this analysis.

## **Evaluation of Revenues and Expenses by Land Use**

In order to determine the impact of different land uses on the expenditures and revenues of the township budget, it was necessary to evaluate every source of revenue as well as each expenditure. For every revenue line item, we determined the extent to which each category of land use contributed to that source of revenue. We then summed up the dollars contributed by each land use within Scio Township. Similarly, line items for expenses were analyzed. The results from these line item evaluations were then compiled in dollar amounts for each land use category.

### ***Final Ratios***

A ratio showing the revenue generated per services required was computed for each land use. This was computed by dividing expenditures by revenues. If the ratio has a value greater than one, it suggests that the land use generated less revenue than it required in services from the local government. Conversely, a ratio with a value less than one suggests that a land use did not generate enough revenue to pay for the services it required. Another perspective of these ratios is illuminating: land uses with ratios less than one are in essence subsidizing those land uses with ratios that are greater than one.

### ***Organization of Township Funds***

The task of developing these ratios was accomplished in stages. Initially, we organized the budget by dividing our information into the broad categories of expenditures and revenues. For each of these categories, we obtained all of the data which identified dollar amounts of revenues and expenditures directly from the township budget for the 1994/95 fiscal year. The township budget is organized into the following

different funds: General, Public Improvement, Debt Service, Budget Stabilization, Downtown Development Authority (DDA) Construction, DDA Debt Service, Capital Projects, Sewer and Water. These funds act as a means of ensuring that funds are spent for appropriate purposes. Transferring the money among funds is not permissible by law. Therefore, the funds serve as a means of checking the power of local officials. In the process, it ensures that money earmarked for a specific purpose is spent accordingly. The utility of these funds as planning tools and as a means of tracking the flow of resources within the township budget is obvious. However, the funds do not help in evaluating the impact of land uses on the township budget as a whole. In some respects, they are merely artificial and arbitrary distinctions of line items in the township budget. They served as an impediment to determining the overall impact of land use on the township budget. Consequently, we did not utilize the structure of the funds as a means of organizing this COCS study. Instead, we evaluated all sources of revenue and all expenses that were incurred as a result of township government operations.

### *Analytical Techniques*

After obtaining the dollar value of line items in the budget, it was necessary to determine the extent to which expenses and revenues were influenced by land use within the township. The information necessary to make these determinations was obtained from a great variety of sources. A substantial number of these determinations were based on personal interviews with officials at the township, county, and state. Other COCS studies served as a basis for some of the methodology driving our decisions. In other instances, we developed our own methodology for determining how a particular line item was evaluated. Because a variety of techniques were applied throughout the analysis, a discussion of methodology has been included for each line item in the analysis.

In an effort to fairly and systematically handle these situations, we developed a number of estimation techniques. These techniques enabled us to allocate revenues or expenses in cases where we could identify the factor that most influenced a particular line item. For each of these techniques, we developed a ratio for the three land use categories that we analyzed. These techniques include: revenue neutral ratios, population ratios, development ratios, and property ratios. These ratios indicate the estimated proportion that each land use contributes to budget items.

#### *Revenue Neutral Ratios*

For some line items in the budget expenditures, it was not possible for us to estimate the extent to which these particular expenses were attributable to one land use versus another. However, it was apparent that they did, in some way, relate to land use. If we had reason to believe the expense item could change if land use changed, we determined that it would be inappropriate to eliminate it from the analysis. We assumed that these expenditures were in the same proportion as revenues generated by the various land uses. This suggests that each land use is generating enough revenue to cover its

expenses in regard to that line item. The COCS study method attempts to identify instances in which particular land uses do not generate enough revenue to pay for costs associated with that same land use. By adding an equal amount to both the numerator and denominator of the ratios, this approach brings the ratios closer to the value one.

*Population Ratios*

Some expenditure items pertain directly to the population in Scio Township. For this situation we assumed that all residents lived on residential or agricultural lands. Thus, the portion of the township population that resides on agricultural land were be counted as agricultural residents. Of the 11,077 people who live in Scio Township, 84 (0.8%) live on farms (Census of Population and Housing, 1990).

*Development Ratios*

We computed ratios for line items that depend directly upon the number of developed properties in Scio Township. There are 97 properties currently under development. For these developmental real properties, we assumed that the properties would be developed in the same ratio as the current developed land. Of the current developed real properties, 87.1% (5,047 ÷ 5,794) are residential. Conversely, 12.9% are commercial/industrial. Therefore, we estimated that 84 properties, of the 97 under development, were being developed as residential property. We estimated that the remaining 13 properties were being developed as commercial/industrial property.

*Property Ratios*

For some line items, we determined that the number of properties in the township was the driving force behind that particular expense or revenue. Therefore, we computed the number of properties in each of the main land use categories and expressed them as a percentage of the total number of properties in the township. They are summarized in Table 1.

**Table 1  
Summary of Expense Allocation Techniques**

Technique	Land Use			Total
	Agriculture	Commercial /Industrial	Residential	
Revenue Neutral Ratios	1.4%	24.3%	74.3%	100.0%
Population Ratios	0.8%	0.0%	99.2%	100.0%
Development Ratios	0.0%	12.9%	87.1%	100.0%
Property Ratios	2.9%	12.5%	84.6%	100.0%

## Special Cases

Scio Township charges users for some services that it provides. One goal of the COCS study is to identify areas in which money paid for services, such as fees or taxes, does not accurately represent the cost for the services received. The implication of such a fee structure is that the costs not covered by the money paid for a service must be borne by another entity. If the fee charged by the township accurately reflects the cost for the service provided, then there is no justifiable reason to include that line item in this analysis. Users are merely paying for services that they receive. In cases such as these, both the revenue and the expense have been eliminated from the analysis. Water and sewer services exemplify this type of fee structure.

For some expenditure and revenue line items, it was clear that the expense was fixed and that it had no relation whatsoever to land use within the township. In cases such as this, the item was completely eliminated from the analysis.

## **Revenues**

Scio Township receives revenues from a variety of sources including property taxes, state shared revenue, locally raised revenue, and other sources. As previously stated, the fund structure used by the township in their budget has not been employed in this analysis. We have taken all sources of revenue and have determined to what extent they are attributable to the three land use categories.

## **Property Tax Revenues**

Scio Township collects property taxes once a year for its operating budget. With the exception of properties qualifying for an Industrial Facility Tax (IFT) exemption, the township taxes all properties at a uniform rate of 1.02 mills (i.e., \$1.02 per \$1,000 of taxable value) per year. Some properties in the township have qualified for an IFT tax exemption that is only available to businesses. They are granted this exemption as an inducement to locate or re-locate within the township. This exemption reduces the tax millage rate by 50% for each property that has IFT status. A property may have IFT status for up to 12 years. This revenue is only generated from commercial/industrial property. Notably, farmers, who are local business people in their own right, do not qualify for this tax break. The assessed, taxable value of properties is based on 50% of the fair market value for that property. Michigan does not have use-value assessments. Consequently, the assessment given to farmland is higher than in other states. This tax structure places pressure on farmers to earn as much money from farming as they could from subdividing their land and selling it to developers.

The primary sources of information for evaluating the sources of revenue from property taxes were the assessor and other township employees. The assessor provided us with a data file which contained information on the taxable value and property classification for each of the 6,314 properties in Scio Township. The township also provided us with a schedule of millage rates for properties in the township. We applied the appropriate rates to the 6,314 properties in the township to determine the extent to which each property contributed to the revenue base.

We estimated that Scio Township received 1.7% of its property tax revenue from agricultural property, 30.1% from commercial/industrial property, and 68.2% from residential property. To determine the actual contributions by each land use, it was necessary to apply the estimated percentages to the actual budget for the 1994/95 fiscal year. The budget includes many subcategories of revenue from property taxes: returned captured taxes, current real property taxes, current personal property tax, excess of roll, and interest and penalties on taxes.

Current real property taxes are property taxes on real property net of taxes captured by the Downtown Development Authority (DDA) and net of returned captured taxes. As discussed later in this section, the DDA has authority to collect or “capture” tax revenues attributed to property value increases since 1987. Of these captured tax revenues, 50% must be returned to the township and are identified as returned captured taxes.

Current personal property taxes for Scio Township amounted to \$54,566 in the 1994/95 fiscal year. Personal property refers to property that is not part of the land or the buildings found on the commercial/industrial property. Office equipment is one such example. Residences are not taxed on personal property. Farm equipment is not included in personal property either. Consequently, tax dollars from this section are attributed entirely to commercial/industrial property.

Excess of roll taxes are raised from rounding the tax millage rates that are applied to the properties. All property tax payers receive tax notices that have millage rates which have been rounded up. Therefore, each property contributes slightly more than the millage rate used by the township. In total, \$54,566 was raised from excess of roll taxes. Excess of roll taxes equally affect all properties that are taxed in the township. Therefore, it is appropriate to apply the same ratios that were derived earlier in this section.

Interest and penalties on taxes are from previous fiscal years. We have made the assumption that the \$17,989 for this line item is typical and that the penalties are paid in the same proportion that tax dollars are paid by the different land use categories. They have been apportioned using the same ratios that were previously developed.

The results of the revenue contributed by each land use for property taxes are summarized in Table 2.

**Table 2  
Property Tax Revenue Allocation**

Property Tax Revenue Source	Land Use			Total
	Agriculture	Commercial /Industrial	Residential	
Returned Captured Taxes	\$468	\$8,283	\$18,767	\$27,518
Current Real Property Taxes	6,560	116,156	263,184	385,900
Personal Property Taxes	0	55,023	0	55,023
Excess of Roll Taxes	928	16,424	37,214	54,566
Interest and Penalties	306	5,415	12,268	17,989
<b>Total Revenue</b>	<b>\$8,262</b> <b>1.5%</b>	<b>\$201,301</b> <b>37.2%</b>	<b>\$331,433</b> <b>61.3%</b>	<b>\$540,996</b>

## State Shared Revenue

State shared revenue is revenue which is distributed by the State of Michigan directly to municipalities. It is comprised of state-collected taxes including state sales tax, state personal income tax, the single business tax, and the state intangibles tax. The funds from each of these sources are distributed separately. For the 1994/95 fiscal year, Scio Township received \$530,386 of state shared revenue. A breakdown of the revenue sources is shown in Table 3.

**Table 3**  
**State Shared Revenue Received by Scio Township**  
**Fiscal Year 1994/95**

Source of State Shared Revenue	Revenue Received
Sales Tax	\$489,672
Income Tax	14,983
Single Business Tax	25,731
<b>Total</b>	<b>\$530,386</b>

In determining how land use influenced the amount of funding received by the township, only the mechanisms for distributing the funds were analyzed; funding sources for the revenues were not studied in any detail. The Revenue Sharing Program was not altered as a result of the Proposal A, which reformed mechanisms for school funding (Michigan - State Revenue Sharing, 1995). While a slightly different allocation technique is used for each category of state shared revenue, population has the largest and most direct impact on the allocation of this revenue. Consequently, all of this revenue was allocated using the Population Ratios. Table 4 shows the resulting allocation of funds.

**Table 4**  
**Allocation of State Shared Revenue**

Description	Land Use			Total
	Agriculture	Commercial /Industrial	Residential	
Sales Tax	\$3,917	-	\$485,755	\$489,672
Income Tax	120	-	14,863	14,983
Single Business Tax	206	-	25,525	25,731
Intangibles Tax	-	-	-	-
<b>Total Revenue</b>	<b>\$4,243</b> <b>(0.8%)</b>	<b>-</b>	<b>\$526,143</b> <b>(99.2%)</b>	<b>\$530,386</b>

## Locally Raised Revenues

Locally raised revenues are fee-based revenues collected by Scio Township for services provided by the township to local residents and businesses. For the 1994/95 fiscal year, revenues generated by fees for these services totaled \$248,402, as shown in Table 5.

**Table 5**  
**Locally Raised Revenues**

<b>Source of Locally Raised Revenue</b>	<b>Revenue Received</b>
Planning and Zoning Fees	\$99,374
Other township Services	103,023
Solid Waste Tipping Fees	17,580
District Court Fines	28,425
<b>Total Revenue</b>	<b>\$248,402</b>

Each of these revenue items was analyzed to determine which land uses were responsible for its generation. Some fees were not assessed according to a single land use type and relate more closely to the total number of properties in the township. Allocation of the planning and zoning fees was done by examining the Scio Service Fee Schedule for the fiscal year 1994/95. This schedule lists the fee amount levied for each type of service. For those planning and zoning services which are utilized by every type of land use, we made the assumption that they are demanded in the same ratio as the ratio of properties of each land use type to the total number of properties in the township. Other fees such as district court fines and solid waste tipping fees were also accounted for using the Property Ratio. District court fines are primarily related to traffic violations. Traffic violations occur equally from each type of land use. Likewise, solid waste tipping fees are also attributed to each category of land use.

We assumed that some fees were driven primarily by residential population. The summer tax collection fee for the Ann Arbor School District was also attributed entirely to population. This approach was chosen because similar expense items that relate to schools were attributed to population. Those fees which were generated by residential developments or private roads servicing residential developments were attributed entirely to residential land use. For Zoning and Compliance Fees, Land Division Fees, Development Plan Review Fees and Site Plan Review fees, we determined that both residential and commercial/industrial land were responsible for generating those fees. Without another basis for determining the extent to which one of these land uses contributed relative to the other, we assumed that they were generated in the same proportion as the current number of properties. Therefore, we applied the Development Ratios. Table 6 summarizes the allocation of revenue across land use types for the 1994/95 fiscal year.

**Table 6  
Local Revenues**

Fee Type	Land Use			Total
	Agriculture	Commercial /Industrial	Residential	
<b>Planning &amp; Zoning Fees:</b>				
Zoning Compliance--Land Division	\$0	\$645	\$4,355	\$5,000
Zoning Compliance Fees	0	2,342	15,810	18,152
Special Meetings--Planning Commission	0	0	0	0
Development Plan Review	0	2,952	19,929	22,881
Ordinance Amendment	319	1,375	9,306	11,000
Site Plan Review	0	3,616	24,415	28,031
Conditional Use	122	525	3,553	4,200
Subdivision	0	0	1,870	1,870
Board Of Appeals	64	276	1,870	2,210
IFT Exemption	0	400	0	400
<b>Other Fees:</b>				
Private Road	0	0	1,965	1,965
Cablevision	395	0	48,949	49,344
Gravel Pit	0	20,000	0	20,000
Fire Dept. Service	106	458	3,101	3,665
Newsletter Advertising	0	2,420	0	2,420
Summer Tax Collection	133	0	16,532	16,665
Data Processing	43	185	1,254	1,482
Office Sales	213	918	6,216	7,347
Mobile Home Park	0	0	5,115	5,115
Miscellaneous Revenue	6	25	169	200
township Board Meetings	13	56	381	450
District Court Fines	824	3,553	24,048	28,425
Solid Waste Tipping	510	2,197	14,873	17,580
<b>Total Revenue</b>	<b>\$2,748</b> <b>1.1%</b>	<b>\$41,943</b> <b>16.9%</b>	<b>\$203,711</b> <b>82.0%</b>	<b>\$248,402</b>

Residential land use contributes most significantly to this revenue base, which reflects the fact that the high proportion of residential properties demands a commensurate amount of planning, zoning, and other services from the township.

## **Downtown Development Authority Revenues**

The primary purpose of the Downtown Development Authority (DDA) is to foster commercial and industrial development within the development district. This district includes the commercial and industrial properties along Jackson Road. Because of the DDA charter, the money from the DDA fund must be spent on capital improvement projects within the development district. “The DDA ACT was created to prevent and correct further property value deterioration of business districts.” (DDA Charter, 1987). “The Scio Charter Township Development Authority has been established . . . for the express purpose of upgrading, improving, and re-establishing the development patterns in a specific business development district.” (DDA Charter, 1987). Therefore, all money that is spent from this fund was attributed to commercial/industrial property.

It is worth noting that the DDA only finances the construction of large capital projects. Following their completion, all ongoing costs of maintaining these projects will be shouldered by the Scio Township General Fund. The projects will continue to provide benefits to commercial/industrial land, yet the maintenance will be shared by all land use categories. While it is beyond the scope of this analysis to compute these future costs, it is certain that agricultural and residential land will contribute revenue to this business district for years to come.

### ***Scio Township’s Downtown Development Authority***

#### **Background**

Pursuant to the 1975 Michigan Downtown Development Act, Scio Township established the DDA in 1988. The Act empowered townships to provide assistance to commercial and industrial areas within their jurisdictions. Scio Township’s primary purpose for establishing the DDA was to upgrade and improve its business development district. The district is a well-defined region along a five mile stretch of the Jackson Road corridor. Jackson Road, which parallels Interstate 94, is the primary route connecting Scio Township with the City of Ann Arbor.

The plan to upgrade the Jackson Road business district entailed a large number of projects including: the construction of a water tower, the construction of a water system, the construction of a sewer system along the Jackson Road corridor, and the widening of specific roads in the district. These roads all service the businesses in the district. To complete these projects, the township had to acquire a number of properties. The DDA’s plan also entailed changing zoning ordinances. Agricultural land was re-zoned into commercial and industrial land.

Because of the extensive nature of these projects, the costs to the township government have been considerable. These capital expenses will be felt throughout the

30-year life of the DDA. Since maintenance is not included in the DDA charter, some costs will extend even beyond the life of the DDA. In 1987, the estimated cost of completing the road projects alone was \$13.75 million; the total estimated cost of completing all of the projects for the DDA was \$32.2 million.

As a way for townships to fund DDAs, the State of Michigan developed the Tax Increment Financing Plan, a method of allocating revenue to townships. With Tax Increment Financing Plans, townships are allowed to “capture” taxes that would otherwise be used for other purposes. Starting with a base year, townships determine the total taxable value of property within their borders. For Scio Township, the base year was 1987. In subsequent years, any additional tax revenue that is generated as a result of property value increases can then be captured by the township for use by the DDA. As property values have increased, so has the portion of taxes that is used for the DDA. These captured funds are referred to as Tax Increment Revenue (TIR). Fifty percent of this TIR is retained by the DDA, and 50% is returned to the entity that had original right to that tax revenue. If an entity has outstanding debt, this debt is first subtracted from the TIR before determining what the DDA will get to keep. This is done to ensure that no entity is put in a position of potentially defaulting on their financial obligations.

Scio Township’s DDA receives money from seven different taxing entities including: State Education Tax (SET), Washtenaw County, Scio Township, Washtenaw Intermediate School District (WISD), Washtenaw Community College (WCC), Ann Arbor Public Schools (AAPS), and Dexter Community Schools (DCS). Because the DDA retains captured taxes, these entities receive less tax revenue than they would without the DDA. With the passage of Proposal A, school TIR contributions are reimbursed by the State of Michigan. In this analysis, we have accounted for the revenue that is generated from the township properties. In the analysis of the schools, we have accounted for the reimbursement from the state. Table 7 shows the DDA revenue obtained from various entities.

**Table 7  
DDA Revenue**

<b>Source</b>	<b>TIR</b>	<b>DDA</b>	<b>Returned</b>
SET	\$325,732	\$162,866	\$162,866
Washtenaw County	308,845	148,429	160,416
Scio Township	54,161	27,080	27,081
WISD	184,021	85,175	98,846
WCC	165,226	71,087	94,139
AAPS	880,158	395,992	484,166
DCS	273,740	102,490	171,247
<b>Totals</b>	<b>\$2,191,883</b>	<b>\$993,122</b>	<b>\$1,198,761</b>

The money retained by the DDA is used exclusively for DDA projects. Under the DDA, these funds support commercial/industrial land, while they would have been used

for a much different set of constituents had the money not been captured. Advocates of the program are quick to point out that the DDA does not take any money from existing programs. However, it is clear that these other programs would have more money at their disposal if the DDA had not captured a portion of their revenue

## DDA Analysis

To date, the DDA has completed a large number of projects that were part of its charter. Specifically, the township has built a water tower and the sewer and water systems along Jackson Road. The roadway improvements have begun. Bonds issued in 1994/95 will help ensure that the widening of roads in the township will continue. While the DDA has the authority to build these projects, it does not have the responsibility of maintaining them. Maintenance costs will be borne by the township in future years.

Throughout the life of the DDA, Scio Township has issued bonds to finance construction projects. During the 1994/95 fiscal year, the year of our study, a bond was issued to pay for the current road projects along Jackson Road. While this bond issuance appears in the 1994/95 budget, both the expenses and benefits of the projects are received more evenly over the life of the DDA. Therefore, for the purposes of the COCS, we believed that it was inappropriate to use the bond issue as a single source of revenue in a single time period. If this technique had been used it would have seriously biased the study against commercial/industrial property for the year of our study. Consequently, we chose to annualize the revenues and expenses for the DDA. We also assumed that the revenues raised by the DDA in fiscal year 1994/95 were also spent in the same fiscal year. This technique better reflects actual taxes paid and actual benefits received by the commercial district along Jackson Road. It is also a way of including the benefits and expenditures of all projects that have been completed as a part of the DDA program.

The DDA receives its revenue from “captured property taxes” in Scio Township. That is, it gets to keep or “capture” 50% of the revenue attributable to property value increases since 1987. Seven categories of taxes from Scio Township properties are captured by the DDA. They are: State Education Tax (SET), Washtenaw County, Scio Township, Washtenaw Intermediate School District (WISD), Washtenaw Community College (WCC), Ann Arbor Public Schools (AAPS), and Dexter Community Schools (DCS). The revenue that the DDA received in fiscal year 1994/95 is summarized below in Table 8.

**Table 8  
DDA Revenue Sources**

<b>Source of DDA Revenue</b>	<b>Revenue Received</b>
SET	\$162,866
Washtenaw County	148,429
Scio Township	27,080
WISD	85,175
WCC	71,087
AAPS	395,992
DCS	102,490
<b>Total Revenue</b>	<b>\$993,122</b>

The \$993,120 that the DDA received in the 1994/95 fiscal year came from property tax revenues from all properties within the district. All land use categories are represented within the district. We attributed DDA revenues to land use categories in the same ratio that was developed for property taxes earlier in this chapter. In the Discussion Section, we have included sensitivity analysis which measures the effect of this assumption on the final ratios. Perhaps, the property tax ratios within the district are different from the remainder of the county. Table 9 provides a summary of the revenue that each land use generated for the DDA. For a more complete discussion of the DDA refer to the Discussion Section.

**Table 9  
Allocation of DDA Revenue**

<b>DDA Revenue</b>	<b>Land Use</b>			<b>Total</b>
	<b>Agriculture</b>	<b>Commercial /Industrial</b>	<b>Residential</b>	
<b>DDA Revenue</b>	<b>\$16,883</b> <b>1.7%</b>	<b>\$298,930</b> <b>30.1%</b>	<b>\$677,309</b> <b>68.2%</b>	<b>\$993,122</b>

## **Water and Sewer Services**

The large capital costs of constructing the sewer and water infrastructure have been borne by the DDA. The DDA's costs have been annualized, so the sewer and water construction costs have already been accounted for in this COCS study. However, there are also costs associated with providing citizens with water and sewer above and beyond the initial fixed costs. Because users of these two systems pay fees for the right to use the system, we must also analyze the effect of the revenues. As stated previously, we have decided to eliminate the revenues and expenditures for water and sewer services. They have not been used to calculate ratios in this COCS study; instead, a qualitative analysis

of these services is presented below. There are two primary reasons for not including these funds in the COCS study:

- Charges for water service are based on user fees. Charges for sewer service, while not based on user fees, may be roughly characterized as user based; and
- A significant percentage of the residences, and all or nearly all of the farms in the township, do not receive water or sewer services from the township.

Both the sewer and water services were established to primarily serve the Jackson Road properties and adjacent areas. This excludes a substantial portion of the township comprised primarily of residential and agricultural lands. These properties rely on wells or other sources for their water supply and utilize septic systems for sewage treatment. Because these services are not administered by the township, the costs borne by individual property owners are not reflected in our data and are not included in our analysis. In light of evidence which suggests that the charges for these services are user based, we felt that eliminating the revenues and expenditures from the quantitative analysis would be most appropriate.

The water conveyance system is owned by the township and does not have any bonded indebtedness. Construction of the sewer system, however, was financed by a bond. The terms of the bond required that the township make a \$1 million payment to retire the principal each year in addition to paying several hundred thousand dollars in interest (Craigmile, 1996). This agreement was made based on an expectation of substantial growth within the township. The township anticipated much of this revenue to be generated by connection fees and usage charges from new development. However, this revenue has been substantially lower than expected, as a result of slower growth than initially projected. Currently, the sewer system is carrying flows at approximately 30% to 40% of capacity. In other words, limited development has resulted in over 60% of the sewer capacity being unused at this point. As a result, at the beginning of each fiscal year, the sewer fund must borrow money from the water fund to make the bond payments. Over the course of the year, this money is paid back to the water fund, and the cycle repeats itself. There exists the possibility that, at some time in the future, the sewer fund may not generate enough cash to pay the debt owed on the bond, but currently, that is not the case.

Unlike the water service which is a true user-fee service, the sewer service only approximates a user-fee system. As a result, some businesses are overcharged and some undercharged. The same is true for residential service. All residential clients are charged for a minimum of 23,500 gallons per quarter, even though on average they use only 21,000 gallons of water. As with businesses, some residential customers are routinely overcharged. However, these inequities appear to be isolated, and since many residential and agricultural properties within the township receive water and sewer services from other sources (primarily wells and septic systems), we eliminated these services from our quantitative analysis of the township's revenues and expenditures.

In many communities, infrastructure, especially water and sewer infrastructure, significantly influence how land is developed. Business and medium to high density residential development is often restricted where infrastructure is not in place. This is true for Scio Township. Sewer and water service for the township are available to most properties located on or adjacent to Jackson Road within the township. Not all of these properties are currently served by these systems, but they have the opportunity to connect in the future. Properties in other areas of the township do not have that opportunity, so their development options are limited. Therefore, the boundaries of the sewer district serve as boundaries of future commercial and high density residential development.

Finally, the sewer service highlights some of the tensions between slow-growth and development camps. Many within the township advocate limiting growth, but the sewer system was designed to encourage growth, and the financing was established based on growth projections which have not been realized. Lack of growth may lead to financial difficulties for the township in the future. Additional growth would alleviate some of the financial pressure on the township to reduce the bonded indebtedness of the sewer fund.

## **Public Improvement Fund Revenues**

In the Public Improvement Fund, there was a revenue line item of \$200,000. This money came from a 25-year lease that Ameritech signed with Scio Township for use of its water tower for a communications antenna. This income was attributed to commercial/industrial property. This revenue is a one-time fee and is not a typical source of township revenue for a given year. It would have grossly overstated the typical revenue contribution from commercial/industrial land were it not annualized. Consequently, we chose to amortize the \$200,000 using a 6.0% interest rate. This rate was chosen because it was closest to the interest rate currently earned on municipal bonds (New York Times, 1996). Amortizing the \$200,000 in principle over 25 years yielded an annual contribution from commercial/industrial land of \$15,645.<sup>1</sup>

Scio Township also received a charitable donation of \$10,000 from a grocery store chain. This donation is small, and it is possible that such a donation could be made again in the future. Therefore, this amount was not annualized and was attributed to commercial/industrial land. The total revenue to the Public Improvement Fund is summarized in Table 10.

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<sup>1</sup>  $\$15,645 = [\$200,000 \times 0.06] / [1 - (1/1.06)^{25}]$

**Table 10**  
**Public Improvement Fund Revenue Allocation**

Revenue Source	Land Use			Total
	Agriculture	Commercial /Industrial	Residential	
Water Tower Lease	-	\$15,645	-	\$15,645
Private Donation	-	10,000	-	\$10,000
<b>Total Revenue</b>	<b>\$0</b>	<b>\$25,645</b> <b>100%</b>	<b>\$0</b>	<b>\$25,645</b>

## Schools

In addition to collecting property taxes for its operating budget, the township collects money for local schools and state funding of education. Education taxes have important implications for land use within the county. The structure for funding education has changed significantly as a result of Proposal A. Consequently, we have analyzed the impacts of Proposal A separately. A comparative analysis of pre- and post-Proposal A conditions can be found in the Discussion Section.

Scio Township is served by two school districts which levy different tax rates for local schools. Approximately 56% of the township properties lie within the Ann Arbor Public School District, 43% are located within the Dexter Community School District, and the remaining 1% of properties which are primarily Industrial Facility Tax Exempt properties are not associated with either district. The two school districts levy different tax rates for local schools, and the timing of the tax collections is different. All property taxes are collected by Scio Township. Property taxes are levied within the township for the following entities<sup>2</sup>:

### Township

Scio Township

### Schools

State Education

Local School District (either Ann Arbor Public School District or Dexter Community School District)

Washtenaw Intermediate Schools

Washtenaw Community College

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<sup>2</sup> A property tax is also levied by Washtenaw County. However, analyzing the revenues and services associated with Washtenaw County was outside the scope of this study and has not been included in this discussion.

Tax rates for the township, Washtenaw Intermediate Schools and Washtenaw Community College are uniform for all land uses except for IFT properties which contribute at 50% of these rates. The passage of Proposal A did not change the tax rates levied by these three entities. Table 10 shows the various tax rates levied within the township.

The State Education Tax is a 6 mill tax on all properties within the state. All of this revenue is sent to the School Aid Fund from which it is distributed to school districts throughout the state.

It is only in the Local Schools category that non-uniform tax rates are applied; homestead and non-homestead properties are taxed at different rates under Proposal A. As required by Proposal A, with voter approval school districts must levy an 18 mill tax against all non-homestead property.

**Table 11  
Pre- and Post-Proposal A Levy Rates**

TAXING UNIT	PRE-PROPOSAL A SCHOOL LEVY RATES				POST-PROPOSAL A SCHOOL LEVY RATES					
	ANN-ARBOR (WINTER AND SUMMER)		DEXTER		ANN-ARBOR (WINTER AND SUMMER)			DEXTER		
	UNIFORM LEVY	IFT LEVY	UNIFORM LEVY	IFT LEVY	HOMESTEAD LEVY	NON-HOMESTEAD LEVY	IFT LEVY	HOMESTEAD LEVY	NON-HOMESTEAD LEVY	IFT LEVY
<b>Washtenaw Community College</b>										
Operating--Voted	2.68	1.33	2.68	1.33	2.66	2.66	1.33	2.66	2.66	1.33
Debt Retirement--Voted	<u>0.44</u>	<u>0.22</u>	<u>0.44</u>	<u>0.22</u>	<u>0.43</u>	<u>0.43</u>	<u>0.22</u>	<u>0.43</u>	<u>0.43</u>	<u>0.22</u>
<b>Subtotal Community College</b>	<b>3.12</b>	<b>1.55</b>	<b>3.12</b>	<b>1.55</b>	<b>3.09</b>	<b>3.09</b>	<b>1.55</b>	<b>3.09</b>	<b>3.09</b>	<b>1.55</b>
<b>Washtenaw Intermediate Schools</b>										
Operating--Allocated	0.12	0.06	0.12	0.06	0.11	0.11	0.06	0.11	0.11	0.06
Operating--Voted	3.08	1.54	3.08	1.54	3.08	3.08	1.54	3.08	3.08	1.54
Debt Retirement--Voted	<u>0.28</u>	<u>0.13</u>	<u>0.28</u>	<u>0.13</u>	<u>0.26</u>	<u>0.26</u>	<u>0.13</u>	<u>0.26</u>	<u>0.26</u>	<u>0.13</u>
<b>Subtotal Intermediate Schools</b>	<b>3.43</b>	<b>1.73</b>	<b>3.48</b>	<b>1.73</b>	<b>3.45</b>	<b>3.45</b>	<b>1.73</b>	<b>3.45</b>	<b>3.45</b>	<b>1.73</b>
<b>State Education Tax</b>	-	-	-	-	<b>6.00</b>	<b>6.00</b>	<b>0.00</b>	<b>6.00</b>	<b>6.00</b>	<b>0.00</b>
<b>Local School District:</b>										
Operating--General	9.76	15.31	9.59	15.31	0.00	18.00	15.31	0.00	18.00	17.05
Operating--Supplemental	18.99	0.00	24.55	0.00	7.58	0.00	0.00	0.00	0.00	0.00
Bldg. & Site--Supplemental	2.12	0.00	0.00	0.00	3.78	0.00	0.00	0.00	0.00	0.00
Debt Retirement	1.88	1.06	5.76	1.06	2.12	2.12	1.06	5.75	5.75	2.88
Library	<u>1.31</u>	<u>0.65</u>	<u>0.00</u>	<u>0.65</u>	<u>1.29</u>	<u>1.29</u>	<u>0.65</u>	<u>0.50</u>	<u>0.50</u>	<u>0.25</u>
<b>Subtotal Local School District</b>	<b>34.06</b>	<b>17.02</b>	<b>39.90</b>	<b>17.02</b>	<b>14.77</b>	<b>21.41</b>	<b>17.02</b>	<b>6.25</b>	<b>24.25</b>	<b>20.18</b>
<b>TOTAL SCHOOLS</b>	<b>40.61</b>	<b>20.30</b>	<b>46.50</b>	<b>20.30</b>	<b>27.31</b>	<b>33.95</b>	<b>20.30</b>	<b>18.79</b>	<b>36.79</b>	<b>23.46</b>

As shown in Table 11, the tax burden on different land uses varies between the two school districts. This difference is especially pronounced for homestead property. The levy for homestead property with the Ann Arbor School District is more than double that for property in the Dexter School District. However, Dexter School District taxes non-homestead and IFT property somewhat higher than Ann Arbor School District.

The revenue to expenditure ratios for this analysis were developed by combining township expenses and revenues with school funding. This comparison was developed by applying the tax rates to the 1994 property values. Because we applied tax rates to property values, the calculated tax revenues may not match the actual revenues. However, in discussions with Ann Arbor District officials, we determined that our calculated revenues were within 3% of the actual revenues.

In analyzing school funding, we looked only at property tax revenues that were collected for the school districts. Sales tax and other tax revenues were not considered because those revenues were determined to be independent of land use for the purposes of this study. School revenues were the property tax revenues collected for the schools. The figure representing school expenditures was the sum of the tax revenues collected for the schools. While this does not include all of the sources of school funding, we believe this approach provides the information necessary to evaluate development from a local perspective.

To compute the revenues associated with schools, we added the township revenues with the school revenues; other revenue sources were not considered. In calculating the local revenues to schools, we included local property taxes levied by the school districts as well as the School Education Tax levied by the state. We calculated these revenues by applying the 1994 tax rates to the 1994 property values. We subtracted out the revenues captured by the DDA which otherwise would have gone to fund schools. This captured revenue is reimbursed by the state, but since we are considering the state an outside source (i.e., independent of land use), we have not included this revenue in our calculations. The captured tax revenues were subtracted in the same ratio that tax revenues were contributed. Table 12 presents the allocation of school revenues.

**Table 12**  
**Allocation of School Revenue**

School Revenue	Land Use			Total
	Agriculture	Commercial /Industrial	Residential	
School Revenue	\$171,396 1.4%	\$4,427,817 37.1%	\$7,328,759 61.5%	\$11,927,971

## Other Revenue Issues

During the 1994/95 fiscal year, Scio Township received rent income of \$4,100 from the Washtenaw County Sheriff's Department for using part of the building at the fire station. We believe that this revenue source was truly independent of land use patterns within the township. Therefore, it was eliminated from the analysis. Income of \$7,500 to cover electricity expenses was also eliminated from the analysis. We removed interest earnings from the following funds: general, public improvement and the DDA. We also assumed that refunds and rebates were independent of land use in Scio Township.

Both revenues and expenditures from the Debt Service Fund were eliminated from the analysis. A substantial portion of the debt stems from special assessments. While revenues and expenses were not equal for the 1994/95 fiscal year, we expect that they will balance over time. Special assessments are merely user-based fees to pay for special projects. One should note that once the projects are completed, all land uses, including agriculture, will pay for the maintenance of these projects, many of which benefit residential property exclusively.

## Summary of Revenues

The total revenues for Scio Township are summarized in Table 13.

**Table 13**  
**Summary of Revenue Sources**

Revenue Source	Land Use			Total
	Agriculture	Commercial /Industrial	Residential	
Property Taxes	\$8,262	\$201,301	\$331,433	\$540,996
State Shared Revenue	4,243	-	526,143	530,386
Local Revenue	2,748	41,943	203,711	248,402
DDA	16,883	298,930	677,309	993,122
Public Improvement Fund	-	25,645	-	25,645
Schools	171,396	4,427,817	7,328,759	11,927,971
<b>Total Revenue</b>	<b>\$203,532</b>	<b>\$4,995,636</b>	<b>\$9,067,355</b>	<b>\$14,266,522</b>

# Expenditures

Our analysis of expenditures is organized according to type of expenditure. We developed five general categories of services and analyzed the corresponding expenditures based on those categories. Table 14 provides a list of the general categories and specific services analyzed in this chapter.

**Table 14**  
**Expenditure Categories**

<b>Categories</b>	<b>Services</b>
<b>General Government</b>	Township Operations Assessor Elections Recycling
<b>Public Safety</b>	Sheriff Fire
<b>Infrastructure</b>	Roads Water and Sewer
<b>Downtown Development Authority</b>	Commercial Development
<b>Schools</b>	Education

## General Government Expenditures

General Government Expenditures are those items which were deemed necessary for the operation of the township as a governmental unit. Four services were included in this category: township operation, assessor, elections and recycling. Each of these services is discussed in the following sections.

### *Township Operation*

As its name implies, township operation includes those activities related to the running of township government. The township requires full-time staff and its own facilities in order to meet the needs of the community. township operation expenses can be sorted into four general categories as shown in Table 15.

**Table 15**  
**Township Operation Expenditures**

<b>Township Operation</b>	<b>Expenditure</b>
Compensation and Benefits	\$309,174
Office supplies and Equipment	28,970
Buildings and Grounds	22,963
Miscellaneous Expenses	181,522
<b>Total Expenditure</b>	<b>\$542,629</b>

### Compensation and Benefits

There are four types of employees within the township: officers, trustees, permanent employees and temporary employees. The officers and trustees oversee the management of the township; while they are not involved in the day-to-day decisions of the staff, they are involved in making broad policy decisions for the township. There are 14 permanent employees. One temporary employee worked 1,600 hours and was assigned to assist the Office Coordinator.

Compensation and benefits for all of the employee types were allocated using the Revenue Neutral Ratios. Officers' and trustees' duties are not specific to land use. The temporary employee was assigned to help the Office Coordinator/Deputy Clerk, whose duties are varied and cannot easily be assigned to specific land uses. While we had hoped to allocate permanent employee compensation and benefits by land use, we were unable to obtain complete information regarding the activities of the township's permanent employees. A few employees were able to identify the relationship of land use to their specific tasks, but the work descriptions for many employees were so general and varied that we were unable to segregate their time by land use. We used the Revenue Neutral Ratios in assigning these expenses to land uses in order to avoid bias in our determinations.

### Supplies

This category includes office supplies as well as data processing and postage. Nearly 60 % of this expenditure is consumed by data processing; the remaining 40 % is split between supplies and postage. This entire category has been allocated based on the Revenue Neutral Ratios. More detailed analysis of the supplies used for office purposes was not available.

## Buildings and Grounds

The township spent \$22,963 on the operation and maintenance of the township office buildings and grounds during the fiscal year. We determined that they were fixed with respect to our analysis. The costs of maintaining and operating that building do not change with respect to how land is used within the township. Therefore, these costs were eliminated from our quantitative analysis.

## Miscellaneous Expenses

Miscellaneous expenses are expenses incurred by the township to cover a variety of needs. The expenses shown in Table 16 are included in the category.

**Table 16**  
**Miscellaneous Expenses**

<b>Description</b>	<b>Expenditure</b>
Audit Fees	\$10,080
Charge Back Taxes	5,100
Consultant Fees	26,051
Consultant Fees--Plan Review	21,997
Legal Fees	43,394
Legal Fees--Traffic	9,956
Expense Account	2,056
Advertising	5,394
Printing	1,839
Newsletter	12,016
Insurance	14,384
Workers' Compensation Insurance	5,874
Equipment Maintenance	10,471
Library	0
Miscellaneous	725
Publications	817
Membership and Dues	8,759
Education and Conferences	2,609
<b>Total Expenditures</b>	<b>\$181,522</b>

Of the miscellaneous expenses, nearly all were allocated to land uses according to the Revenue Neutral Ratios. The Revenue Neutral Ratios were applied to those items relating to staff needs, such as workers' compensation insurance and membership and dues, because, there was enough uncertainty about how these jobs should be allocated to warrant applying the Revenue Neutral Ratios to the staff compensation. The other items

receiving these ratios were very general in nature or were not in any way associated with specific land uses, such as equipment maintenance.

Consistent with the rest of this study, audit fees were eliminated from the analysis because they are independent of land use. Consultant fees and general legal fees are primarily related to planning and engineering activities required for developments rather than modifications to individual lots. These fees have been allocated using the Development Ratios. Legal fees--traffic were allocated using the Property Ratios. The rationale for this was that both residents and people involved in commercial endeavors are ticketed for traffic violations. We assumed that these were distributed proportionally over the number of properties in each land use. The advertising, printing and newsletter expenses were assumed to have been related to the publication of the newsletter which is distributed to all property owners, businesses and residents. Newsletter expenditures were allocated based on the number of properties in each land use category since this followed the basis of newsletter distribution. Printing costs were also allocated based on the number of properties based on the assumption that most materials printed by the township would be distributed to property owners throughout the township. The \$5,394 spent on advertising was allocated entirely to commercial/industrial land uses based on a review of past newsletters which indicated that businesses were the only entities advertising in the newsletter.

Table 17 provides a summary of expenditures for Scio Township operations.

**Table 17**  
**Township Operation Expenditure Allocation**

Description	Land Use			Total
	Agriculture	Commercial /Industrial	Residential	
Compensation and Benefits	\$4,249	\$75,070	\$229,855	\$309,174
Supplies	\$398	\$7,034	\$21,538	28,970
Miscellaneous Expenses	\$628	\$11,095	\$33,972	\$61,895
Consultant and Legal Fees	0	\$11,797	\$79,645	\$91,442
Legal Fees--Traffic	\$289	\$1,245	\$8,423	\$9,956
Advertising	-	\$5,394	-	\$5,394
Printing	\$53	\$230	\$1,556	\$1,839
Newsletter	\$348	\$1,502	\$10,166	\$12,016
<b>Total Expenditure</b>	<b>\$6,052</b> <b>1.2%</b>	<b>\$114,902</b> <b>22.5%</b>	<b>\$388,632</b> <b>76.3%</b>	<b>\$509,586</b>

### *Assessor Expenditures*

Assessing constitutes \$151,692 of the township budget. Table 18 provides a summary of expenses associated with assessing.

**Table 18  
Assessor Expenditures**

<b>Description</b>	<b>Expenditure</b>
Compensation and benefits	\$144,594
Supplies	235
Other services and charges	6,863
<b>Total Expenditure</b>	<b>\$151,692</b>

We conducted a series of interviews and phone discussions with Mr. Jim Merte, the township assessor, to determine how these expenses should be allocated. In addition to personal contact with the assessor, we conducted a written survey of all office employees to acquire more information about the specific job duties of the Scio Township employees. Aggregating the results, we allocated the costs associated with property assessment in Scio Township according to the schedule shown in Table 19.

**Table 19  
Assessor Expenditure Allocation**

<b>Description</b>	<b>Land Use</b>			<b>Total</b>
	<b>Agriculture</b>	<b>Commercial /Industrial</b>	<b>Residential</b>	
<b>Assessing Expenditure</b>	<b>\$1,431 0.9%</b>	<b>\$54,035 35.6%</b>	<b>\$96,225 63.4%</b>	<b>\$151,691</b>

***Elections***

This item covers the costs of administering elections in the township. The expenditures under this item include monies for election inspectors, supplies and legal notices. The number of registered voters within a community primarily drives the costs of administering elections. The township must provide an adequate number of polling stations to serve the population. Expenditures for this service were allocated using the Population Ratios. Table 20 gives the expenditure allocation.

**Table 20  
Election Expenditure Allocation**

<b>Description</b>	<b>Land Use</b>			<b>Total</b>
	<b>Agriculture</b>	<b>Commercial /Industrial</b>	<b>Residential</b>	
<b>Election Expenditure</b>	<b>\$91 0.8%</b>	<b>-</b>	<b>\$11,269 99.2%</b>	<b>\$11,360</b>

## ***Recycling***

The township contracts out recycling to Mr. Rubbish, a recycling enterprise. This expense came to \$22,310 for the 1994/95 fiscal year. To facilitate recycling, a set of recycling bins is located in the parking lot at the township office buildings. This service is available to Scio Township businesses and residents, as well as the community-at-large. We were unable to determine who benefits from the service and have eliminated recycling from our analysis.

## **Public Safety Expenditures**

### ***Sheriff Services***

Scio Township receives public safety protection from the Washtenaw County Sheriff's Department (WCSD). For the 1994/95 fiscal year, Scio Township contracted for the services of approximately 2.45 deputies from WCSD. For the township's fiscal year 1994/95, the contract rate was \$64,303 per deputy (includes overhead costs of 39% of salaries), and the total expenditure on sheriff services was \$171,662. This included \$157,302 for the services of the contract deputies and \$14,360 for mileage incurred by WCSD vehicles on patrol.

Allocation of the sheriff expenses were based on the 1994/95 Incident Report for Scio Township and conversations with WCSD. We assumed that deputy time is the best available cost driver of this expense category and used the information provided by WCSD staff to determine how much time was spent on each incident type for the entire year. Incidents that required the filing of a report were assigned from one-half hour to two and one-half hours, depending on the type of incident. Those incidents that did not require the filing of a report were assigned a nominal time requirement of 15 minutes of deputy time each.

For each incident category, a distribution was then made which assigned a percentage of the total number of incidents to the land use which created the need for sheriff services. For example, 100% of four livestock incidents recorded during the year were allocated to agricultural land use. For those incident types which could be attributed to either agricultural, commercial/industrial, or residential land uses, an estimate of the true allocation was developed by using information from interviews with WCSD staff and by cross-referencing the addresses of the incident source call with their assigned land use codes from the Scio Township property tax rolls. Table 21 summarizes the incidents in Scio Township for fiscal year 1994/95.

**Table 21  
Incident Report Summary**

<b>Summary of Incident Report Analysis</b>	
Total # of Incidents	3,971
Total # of Incidents w/Reports Filed	1,360
Total Time Spent on Incident Coverage (hours)	2,400
<b>Residential as % of Total Time</b>	<b>67%</b>
<b>Commercial /Industrial as % of Total Time</b>	<b>30%</b>
<b>Agricultural as % of Total Time</b>	<b>3%</b>

Table 22 summarizes the allocation of the expenditures on sheriff services for the fiscal year 1994/95.

**Table 22  
Sheriff Expenditure Allocation**

<b>Description</b>	<b>Land Use</b>			<b>Total</b>
	<b>Agriculture</b>	<b>Commercial /Industrial</b>	<b>Residential</b>	
Sheriff Contract	\$4,719	\$47,191	\$105,392	\$157,302
Mileage	431	4,308	9,621	14,360
<b>Sheriff Expenditure</b>	<b>\$5,150</b>	<b>\$51,499</b>	<b>\$115,013</b>	<b>\$171,662</b>

As many incidents requiring sheriff activity were caused directly by residents, residential land use dominates this expense category and will probably continue to do so in the future. WCSD officials stated that ideal public safety coverage of Scio Township, (i.e., community policing) is not possible given its current population of 11,000, and would require five to six full-time deputies. The contract under which the WCSD provides services to Scio Township was originally negotiated in 1986 and has not been renegotiated as of this writing. The Washtenaw County Commissioners have expressed concern over the equity of the existing contract with Scio Township given the marked population growth of the township over the last ten years and resultant increase in the number of incidents caused by township residents.

***Fire Services***

The Fire Department was created in 1987, in large part because of the residential and commercial growth that had occurred in the area. Prior to this, Scio received fire protection from the Dexter Village Fire Department. The township employs two full-time fire fighters, as well as a number of paid volunteers.

The Fire Department responds to a variety of calls, such as medical emergencies, automobile accidents, natural gas leaks, as well as false alarms. In allocating the budget by line item, we looked at a detailed budget for the 1994/95 fiscal year. With help from personnel in the fire department, we determined which costs were variable and which were fixed. Approximately 51% of the costs were variable; 49% were fixed. Because development played a substantial role in the creation of the Fire Department, we applied the Development Ratios to the fixed costs. However, since fixed costs do not include depreciation of expensive equipment or the acquisition of future equipment, it is a conservative estimate of the costs associated with commercial/industrial and residential development. The actual costs associated with residential and commercial/industrial land uses is likely to be higher.

To allocate the expenses for variable costs, we reviewed the actual calls that were made. During the 1994/95 fiscal year, 577 calls were placed to the Fire Department. To evaluate these calls, we analyzed a random sample of 100 calls that were made during the 1994/95 fiscal year. Records of the calls indicated the type of problem that occurred, the amount of time that was needed for each call, and the equipment that was used for each call. When appropriate, they also gave information directly pertaining to the land use for the properties associated with the call.

In reviewing the records, we assumed that calls to a property were related to the land use associated with that property. While it was clear that some calls required more time and resources than others, we were not able to recognize any cost pattern among calls to different land uses. It was not apparent that calls to agricultural land were less expensive than calls to incidents occurring on other land uses. Our analysis assumed that the costs of calls to each land use, on average, did not vary greatly from one land use to another. In doing so, we assumed that the proportion of calls to each land use was indicative of the percentage of variable costs that were attributable to the respective land use.

Approximately 21% of the calls appeared to be entirely independent of land use in the county, or they were otherwise unclassifiable. Consequently, we removed these calls from our analysis. We assumed that the costs associated with these calls must be absorbed by all land uses. The adjusted percentage of calls is shown in Table 23.

**Table 23**  
**Adjusted Fire Department Calls**

<b>Property Type</b>	<b>Incidents</b>	<b>Percent of Total</b>
Agriculture	8	10.1%
Commercial	31	39.3%
Residential	40	50.6%
<b>Total</b>	<b>79</b>	<b>100.0%</b>

Based on the allocation techniques we developed for fixed and variable costs, fire department expenditures were allocated as shown in Table 24:

**Table 24**  
**Fire Department Expenditure Allocation**

Description	Land Use			Total
	Agriculture	Commercial /Industrial	Residential	
Fixed Costs	-	\$15,538	\$104,913	\$120,451
Variable Costs	\$12,861	50,042	64,431	127,334
<b>Fire Department Expenditure</b>	<b>\$12,861</b> <b>5.2%</b>	<b>\$65,580</b> <b>26.5%</b>	<b>\$169,344</b> <b>68.3%</b>	<b>\$247,785</b>

## Infrastructure

### *Roads*

A major annual requirement for Scio Township is the construction and maintenance of local and primary roads within the township. Funding for these projects comes from a variety of sources. The township receives funding for local road improvements from the Washtenaw County Roads Commission (WCRC) through a matching program. The annual allocation of funds for local road improvements for each township in Washtenaw County is equal to 65% of the individual township's percent of the county's total local road mileage, plus 35% of the individual township's percentage of the county's 1990 population.

During the 1994/95 fiscal year, local road projects included dust control and application of limestone and maintenance on various gravel rural/residential roads<sup>3</sup>. The expenditures on these projects totaled \$100,706. After receiving a matching funds credit against this total of \$35,945 from the county, Scio's total roads expenditure for the 1994/95 fiscal year was \$64,761. Based on a comparison of recent county road expenditures, the local road projects completed during the county's 1994 fiscal year reasonably reflects the expenditures on projects completed during Scio's 1994/95 fiscal year.

Scio Township's 1994/95 local road improvement expenditures were allocated by examining certain characteristics of each individual project and determining appropriate ratios to apply. This included determining the exact nature and location of each project as

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<sup>3</sup> Scio Township has 34.65 miles of certified local gravel roads. These roads primarily provide access to residential and agricultural land uses. They require frequent application of a control material, such as calcium chloride or salt brine, to control dust.

well as the dominant land use types and population segments in the immediate vicinity of the road project. We assumed that these land use types would be the primary or possibly exclusive beneficiaries of an improvement to an adjacent road.

Primary projects include new roadway and bridge construction and improvements to major roads or bridges within the township. In 1994/95, Scio Township spent \$251,698 on the Baker Road Special Assessment District (SAD) road widening project. The total cost of this project is over \$1 million. Because this project is ongoing and is funded by a combination of federal, state, and local funds raised through a bond issue, the expenditure was eliminated from this analysis. Roadway improvement projects were allocated as summarized in Table 25:

**Table 25  
Road Project Expenditure Allocation**

Road Expenditure	Land Use			Total
	Agriculture	Commercial /Industrial	Residential	
Road Expenditure	\$5,511 5.5%	\$17,893 17.8%	\$77,302 76.7%	\$100,706

## Downtown Development Authority Expenditures

As previously discussed, the DDA spends money within the Downtown Development District to benefit commercial/industrial land. Because of the explicit charter of the DDA, we have allocated all costs from the DDA to commercial/industrial land. However, some residential properties benefit from DDA expenditures. If it had been possible to delineate the extent to which these benefits accrue to residential land, we would have allocated them accordingly. This allocation technique has served to underestimate the costs associated with residential land. In other areas where residential land may benefit more from sewer and water services, the costs associated with residential land would be higher than we have estimated in this study.

## Schools

For our analysis of school expenditures, we considered only those funds which were contributed directly by township residents. We allocated the expenditures using the Population Ratio because we considered children to be the beneficiaries of school funding. In using the Population Ratio, some of these expenditures were allocated to agricultural land use. Because the average age of farmers within the county is above 50 years, in all likelihood this technique overestimated the expenses associated with

providing school services to agricultural residents. Table 26 presents the allocation of school expenses.

**Table 26  
School Expenditure Allocation**

School Expenditure	Land Use			Total
	Agriculture	Commercial /Industrial	Residential	
School Expenditure	\$95,424 0.8%	-	\$11,832,547 99.2%	\$11,927,971

## Summary of Expenditures

Table 27 provides a summary of all expenditure allocations.

**Table 27  
Summary of Expenditures**

Expense Category	Allocation of Expenditure by Land Use			Total
	Agriculture	Commercial /Industrial	Residential	
<b>General Government</b>				
Township Operations	\$6,052	\$114,902	\$388,632	\$509,586
Assessor	1,431	54,035	96,225	151,691
Elections	91	-	11,269	11,360
Recycling	-	-	-	-
<b>Subtotal General Government</b>	<b>\$7,574</b>	<b>\$168,937</b>	<b>\$496,127</b>	<b>\$672,637</b>
<b>Public Safety</b>				
Sheriff	\$5,150	\$51,499	\$115,013	\$171,662
Fire	12,861	65,580	169,344	247,785
<b>Subtotal Public Safety</b>	<b>\$18,011</b>	<b>\$117,079</b>	<b>\$284,357</b>	<b>\$419,447</b>
<b>Infrastructure</b>				
Roads	\$5,511	\$17,893	\$77,302	\$100,706
Water and Sewer	-	-	-	-
<b>Subtotal Infrastructure</b>	<b>\$5,511</b>	<b>\$17,893</b>	<b>\$77,302</b>	<b>\$100,706</b>
<b>DDA</b>	-	<b>993,122</b>	-	<b>993,122</b>
<b>Schools</b>	<b>95,424</b>	-	<b>11,832,547</b>	<b>11,927,971</b>
<b>Total Expenditures</b>	<b>\$126,520</b>	<b>\$1,297,031</b>	<b>\$12,690,333</b>	<b>\$14,113,883</b>

## Cost of Community Services Discussion

This Cost of Community Services Study is intended to provide readers with an understanding of the services and property tax revenues that are associated with various land uses in Michigan. As such, this analysis includes the services provided by township government and schools. Although the county levies a property tax, county services have not been included because the allocation of benefits to a specific township could not be done with any accuracy.

In addition to the presentation of the study results, three minor analyses were performed and are also presented: a comparative analysis of school funding changes; a sensitivity analysis; and an examination of use-value assessment. These three additional analyses are included to provide insight into issues of special interest to Michigan readers, namely, the impacts of recent changes to school funding and the possibilities afforded with use-value assessment. However, these discussions are tangential to the main findings of this study which are presented in this section of the report.

## Cost of Community Services Study Results

The 1994/95 cost of community services in Scio Township are presented in Table 28. The expenditure to revenue ratio was calculated by dividing expenditures by revenues for each land use. This ratio can be expressed as the amount of money spent in services per \$1 of revenue contributed. A ratio of 1.00 would indicate that the land use contributes the same amount of revenue as it uses in services. Ratios less than 1.00 mean that a land use contributes more in revenue than it uses in services; conversely, a ratio greater than 1.00 indicates that a land use requires more in services than it contributes in revenue.

**Table 28**  
**Cost of Community Services Study Results**

<b>Land Use</b>	<b>Revenue</b>	<b>Expenditure</b>	<b>Expenditure/ Revenue Ratio</b>
Agricultural	\$203,532	\$126,520	<b>0.62</b>
Commercial / Industrial	4,995,636	1,297,031	<b>0.26</b>
Residential	9,067,355	12,690,333	<b>1.40</b>
<b>Total</b>	<b>\$14,266,522</b>	<b>\$14,113,883</b>	

These results indicate that schools are far and away the most expensive service provided by a community. The ratios depict residential land use as the most expensive

land use, costing Scio Township property owners considerably more for services than it provides in tax revenues. Likewise, commercial and agricultural land uses are shown to cost the community less in services than they provide in tax revenues. Put another way, residential development does not pay for itself, while other land uses do.

## **Comparative Analysis of Proposal A**

Recent legislative and voter-approved changes to school funding in Michigan have shifted much of the tax burden for school funding from local property taxes to a state sales tax. Proposal A, passed by Michigan voters in 1994, significantly changed the sources of local school funding. Our analysis of school funding is intended to examine how these changes in school funding have affected the Cost of Community Services in Scio Township.

The structure of Michigan public school funding changed drastically between July 1993 and the Fall of 1994. In July 1993, the Michigan Legislature passed Public Act 145 of 1993 (PA 145) which eliminated local property tax as a source of operating revenue for public schools. Nine months later, on March 15, 1994, Michigan voters passed Proposal A which mandated a 2% increase in the general sales tax and reinstated a portion of the property tax for the purpose of school funding.

Proposal A was designed to provide schools with revenue that was lost under PA 145; it was also designed to distribute funding more equitably among Michigan school districts and to ensure a minimum level of funding for all school districts. One way of accomplishing this was for the state to levy a property tax, collect the revenues and distribute them state-wide. This provided the state with a means of securing a minimum level of funding and established a mechanism for creating more equity in school financing.

The passage of Proposal A resulted in several critical changes to the structure of school funding and property taxation within the State of Michigan. Following an overview of these changes, property tax levies within Scio Township will be reviewed, and a comparison of conditions prior to Proposal A and subsequent to Proposal A will be made. The goal of this discussion is to show how Proposal A has affected the cost of community services for the three land uses we reviewed in Scio Township.

### ***Funding Changes Under PA 145 and Proposal A***

For the purposes of this study, PA 145 and Proposal A resulted in three dramatic changes to school funding in the State of Michigan. First, the state expanded its sources of school funding and increased its contribution to public school funding. Second, local property taxes for the purpose of school funding decreased for all property owners.

Finally, the local property tax burden shifted from a uniform rate on all property to a higher rate for non-homestead property.

## State Contributions

With the passage of Proposal A, the state now levies a property tax; the State Education Tax is a 6 mill levy assessed on all property, both homestead and non-homestead. (Note: the State Education Tax was not levied against IFT properties within Scio Township.) The revenue generated from the State Education Tax does not stay in the township, rather it goes to the State School Aid Fund for state-wide distribution.

Supplementing these property tax revenues, the state contributes additional funds from various taxes. Michigan's sales tax increased from 4% to 6% as a result of Proposal A. All of the revenues from the 2% sales tax increase are dedicated to the School Aid Fund. This is in addition to 60% of the revenue from the initial 4% sales tax which was contributed prior to the reforms (Kearney, 1994). The property tax and sales tax revenues account for approximately 70% of the School Aid Fund; other tax revenues such as a portion of the state personal income tax, the tobacco tax and the interstate phone tax make up the remaining 30%. For the Dexter Community School District, the state's contribution increased from \$0.3 million prior to Proposal A to \$12.2 million subsequent to Proposal A. The data for Ann Arbor Public School District is similar, with state contributions increasing from \$2 million to \$48 million during that time period.

## Local Contributions

In sharp contrast to the state's assistance to local schools, contributions from local property taxes were slashed under PA 145 and Proposal A. These measures lowered property taxes for all properties. As a result, local funding for Dexter Community School District shrunk by 80%, from \$13.1 million to \$2.6 million between the 1993/94 and 1994/95 school years. Ann Arbor School District saw a decrease in local funding of 52% from \$101 million to \$48 million during the same time period. Despite these large shifts in funding, both districts saw their combined revenues from state and local contributions increase with the passage of Proposal A.

Proposal A also resulted in changes to DDA funding. Prior to Proposal A, DDAs were funded by tax increment financing. With the passage of Proposal A, DDAs are no longer allowed to capture tax revenues which would have gone to fund schools. If a DDA has passed a bond measure dependent on those school revenues, the state will contribute those funds to the schools. Scio Township's DDA is in this position; the DDA passed a bond measure figuring that captured taxes from school levies would be available. With the passage of Proposal A, schools have a right to these funds, so the state is making up the captured tax contributions to the schools.

## Non-uniform Tax Rates

Prior to the passage of Proposal A, property taxes were levied at uniform rates for all properties within the township. There was no distinction between homestead or non-homestead properties, and all property types (residential, commercial/industrial, and agricultural) were taxed at the same rate. Michigan differed from many states in that all land uses contributed to the local tax base in proportion to their property values.

With the passage of Proposal A, property is now classified as either homestead or non-homestead. Homestead property is that which is used as the owner's primary residence. Most homestead property falls in the residential and agricultural land use categories. All rental properties and second homes are considered non-homestead properties, as is nearly all commercial and industrial properties (some commercial and industrial property is classified as homestead when it is also used as a primary business). As mandated by Proposal A, farmland is classified as homestead property.

Proposal A mandated that local school districts levy an 18 mill tax, with voter approval, on all non-homestead property within the district. The revenue from this tax goes directly to the local school district. (This is in contrast to revenues from the State Education Tax which go to the State School Aid Fund.) In addition to the revenue from the 18 mill non-homestead levy, school districts are allowed to levy homestead property up to a maximum of 18 mills in order to maintain pre-Proposal A funding levels plus a nominal increase (Kearney, 1994). This supplementary levy must be approved by the voters, can only be applied to homestead properties, and cannot exceed the lesser of 18 mills or pre-Proposal A levels.

To calculate the revenues associated with school funding prior to Proposal A, we used the 1993 school tax rates applied to the 1994 Scio property values. We calculated the total revenues by adding the township revenues with the school revenues; other revenue sources were not considered. We subtracted tax revenue captured by the DDA which otherwise would have gone to fund schools. The captured tax revenues were subtracted in the same ratio that tax revenues were contributed.

For our analysis of school expenditures, we considered only those funds which were contributed directly by township residents. We allocated the expenditures using the Population Ratio because we considered children to be the beneficiaries of school funding. In using the Population Ratio, some of these expenditures were allocated to agricultural land use. Table 29 provides a tabulation of results for the pre-Proposal A condition.

**Table 29  
Tabulation of Results  
Pre-Proposal A Conditions**

<b>Land Use</b>	<b>Revenue</b>	<b>Expenditure</b>	<b>Expenditure/ Revenue Ratio</b>
Agricultural	\$348,802	\$174,119	<b>0.50</b>
Commercial / Industrial	5,862,528	1,297,031	<b>0.22</b>
Residential	14,005,102	18,592,644	<b>1.33</b>
<b>Total</b>	<b>\$20,216,432</b>	<b>\$20,063,793</b>	

***Results of Proposal A Comparison***

Table 30 presents the results of the Proposal A comparison.

**Table 30  
Proposal A Comparison**

<b>Land Use</b>	<b>Expenditure/Revenue Ratio</b>	
	<b>Pre-Proposal A Conditions</b>	<b>Current Conditions</b>
Agricultural	<b>0.50</b>	<b>0.62</b>
Commercial / Industrial	<b>0.22</b>	<b>0.26</b>
Residential	<b>1.33</b>	<b>1.40</b>
<b>Total</b>		

The two sets of results are similar in that they depict residential land use as the most expensive land use, costing Scio Township considerably more for services than it provides in tax revenues. Several comments can be made in comparing the two school funding scenarios. First, all of the ratios are higher for the current condition than for the pre-Proposal A condition. One reason for this is that the property tax rates for all land uses were reduced under Proposal A. This is especially evident for commercial/industrial property which had a decrease in revenue and no change in expenditures, so the ratio of expenditures to revenues increased.

The ratios for agricultural and residential land uses saw more significant increases than that for commercial/industrial land use. This can be attributed to the change from a uniform tax rate to non-uniform tax rates. Agricultural and residential lands are primarily homestead property. Since homestead property is taxed at a lower rate under Proposal A, these land uses are contributing proportionally less than commercial/industrial which is almost entirely non-homestead property. This is borne out by the larger increases in residential and agricultural ratios than in the commercial/industrial ratio.

## Sensitivity Analysis for DDA Property Ratios

As discussed previously, the DDA receives its revenue from taxes generated by the properties within the Downtown Development District itself. While the intent of the DDA is to foster the development of commercial/industrial property, we determined (through interviews with township officials) that all three categories of property types are found within the district. Therefore, all three property types contribute to this fund. As explicitly stated in the DDA Charter, expenditures are made on projects which benefit commercial/industrial property exclusively. Determining the exact ratio of properties within the district would have required a property-by-property analysis of the township. This task was not possible given the information that was available to us. Without more information available, we assumed that the three property categories within the district generated revenue in the same proportion as elsewhere in the township. However, it is quite possible that property within the district has a higher percentage of commercial/industrial property than elsewhere in the township. Conversely, agricultural land and residential land may constitute a smaller percentage of the land within the district.

The expenditures for the DDA account for approximately \$1.0 million. Because this line item constitutes a substantial portion of the total budget for the township, assumptions which affect the revenue sources are particularly important. Different assumptions may lead to different final ratios, which, in turn, could affect any overall conclusions that are drawn from interpretations of these ratios.

Agricultural property had a favorable expense to revenue ratio of 0.62. Therefore, we chose to examine three scenarios in which the estimates of revenue contributed by agricultural land are lower. Specifically, we chose scenarios in which agricultural land does not contribute *any* money to the Downtown Development District. This represents the most that our assumptions could bias the study. We must note that agricultural land *is* found within the district. Moreover, the projects that are conducted within the district do not benefit those properties. Our original assumption remains our best estimate of the ratio of properties. This analysis is designed to capture the extent to which our assumptions may have influenced the final ratios. The three alternative scenarios examine different ratios of property within the district.

The ratio of property within the Downtown Development District affects two line items in the analysis. The returned captured taxes and the DDA contribution are the only two line items that change. All other revenue sources does not change in each of the scenarios. The total revenue does not change nor do any of the expenditure line items. The results of this analysis can be found in Table 31. The ratio for agricultural land becomes 0.68 in each of the scenarios examined. The ratios for commercial/industrial land range between 0.23 and 0.25, while the ratios for residential range between 1.43 and 1.52 under the three alternative scenarios.

**Table 31**  
**Sensitivity Analysis on DDA Assumptions**

**Baseline**

	Percent of Property Tax Contribution	Returned Captured Taxes	DDA	All Other Revenue	Total Revenue	Expenditures	Ratio
Agriculture	1.7%	\$ 468	\$ 16,883	\$ 186,181	\$ 203,532	\$ 126,520	<b>0.62</b>
Commercial/Industrial	30.1%	\$ 8,283	\$ 298,930	\$ 4,688,423	\$ 4,995,636	1,297,031	<b>0.26</b>
Residential	68.2%	\$ 18,767	\$ 677,309	\$ 8,371,278	\$ 9,067,355	12,690,333	<b>1.40</b>
<b>Total</b>	<b>100.0%</b>	<b>\$ 27,518</b>	<b>\$ 993,122</b>	<b>\$ 13,245,882</b>	<b>\$ 14,266,522</b>	<b>\$ 14,113,883</b>	

**Alternative 1**

	Percent of Property Tax Contribution	Returned Captured Taxes	DDA	All Other Revenue	Total Revenue	Expenditures	Ratio
Agriculture	0.0%	\$ -	\$ -	\$ 186,181	\$ 186,181	\$ 126,520	<b>0.68</b>
Commercial/Industrial	100.0%	\$ 27,518	\$ 993,122	\$ 4,688,423	\$ 5,709,063	1,297,031	<b>0.23</b>
Residential	0.0%	\$ -	\$ -	\$ 8,371,278	\$ 8,371,278	12,690,333	<b>1.52</b>
<b>Total</b>	<b>100.0%</b>	<b>\$ 27,518</b>	<b>\$ 993,122</b>	<b>\$ 13,245,882</b>	<b>\$ 14,266,522</b>	<b>\$ 14,113,883</b>	

**Alternative 2**

	Percent of Property Tax Contribution	Returned Captured Taxes	DDA	All Other Revenue	Total Revenue	Expenditures	Ratio
Agriculture	0.0%	\$ -	\$ -	\$ 186,181	\$ 186,181	\$ 126,520	<b>0.68</b>
Commercial/Industrial	75.0%	\$ 20,639	\$ 744,842	\$ 4,688,423	\$ 5,453,903	1,297,031	<b>0.24</b>
Residential	25.0%	\$ 6,880	\$ 248,281	\$ 8,371,278	\$ 8,626,438	12,690,333	<b>1.47</b>
<b>Total</b>	<b>100.0%</b>	<b>\$ 27,518</b>	<b>\$ 993,122</b>	<b>\$ 13,245,882</b>	<b>\$ 14,266,522</b>	<b>\$ 14,113,883</b>	

**Alternative 3**

	Percent of Property Tax Contribution	Returned Captured Taxes	DDA	All Other Revenue	Total Revenue	Expenditures	Ratio
Agriculture	0.0%	\$ -	\$ -	\$ 186,181	\$ 186,181	\$ 126,520	<b>0.68</b>
Commercial/Industrial	50.0%	\$ 13,759	\$ 496,561	\$ 4,688,423	\$ 5,198,743	1,297,031	<b>0.25</b>
Residential	50.0%	\$ 13,759	\$ 496,561	\$ 8,371,278	\$ 8,881,598	12,690,333	<b>1.43</b>
<b>Total</b>	<b>100.0%</b>	<b>\$ 27,518</b>	<b>\$ 993,122</b>	<b>\$ 13,245,882</b>	<b>\$ 14,266,522</b>	<b>\$ 14,113,883</b>	

## Use-Value Assessment

Use-value assessment, or assessing the taxable value of land according to its existing use rather than its best use or market value, is one measure employed by other states to bring more equity to the taxation of farmland. Currently, Michigan does not allow taxes to be assessed according to the use of the land; it may be the only state which does not have some form of use-value assessment (Skjaerlund, 1996). Implicit in this method is the assumption that the assessed taxable values of developed commercial, industrial and residential land, accurately reflect the value of that development. Therefore, the only taxable property values which would change significantly under this mechanism would be the taxable value of farmland.

Currently in Scio Township, the taxable value of farmland is assessed in the same way other land uses are assessed: the taxable value is 50% of the estimated market value of the land. In areas that are primarily agricultural, the market value of agricultural land probably reflects the value of the land as farmland. However, in areas facing development pressures, like Scio Township and much of Washtenaw County, the market value of the land is influenced by the potential value of that land were it to be developed. Located on the western fringe of the City of Ann Arbor, agricultural land in Scio Township is ripe for development, and the taxable values of the land reflect this reality.

As we discussed in the previous section, agricultural land in the township currently receives only \$0.62 in services for every \$1.00 it contributes in revenue. This indicates that agricultural land is subsidizing other land uses, primarily residential development. Use-value assessment may provide one means of bringing the agricultural ratio closer to one. Taxing the land according to its value as farmland would reduce the subsidy farmers currently pay, while allowing them to continue to pay for the services they receive.

### *Methodology for Evaluating Use-Value Assessment<sup>4</sup>*

In determining the impacts of use-value assessments, we first estimated how the taxable value of farmland in Scio Township would change using the method of assessment. Washtenaw County farmland and building are currently valued at approximately \$1,890 per acre; this compares to the state average of \$1,131 per acre (Census of Agriculture, 1992). The higher value of Washtenaw County's farmland reflects the development pressures this land is facing rather than a higher value of the land because of its agriculture. Farmland values in Southeast Michigan are the highest in the state; Washtenaw County ranks fifth state-wide (Skjaerlund and Norberg, 1994).

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<sup>4</sup> The suggestion to examine the impacts of use-value assessment as well as this methodology were made by David Skjaerlund of the Michigan Department of Agriculture.

For our study, we assumed that the state average farmland and building value of \$1,131 per acre closely approximated the value of the farmland in Washtenaw County, and could be used to represent a use-value assessment of the property. This results in a 40.16% reduction from Washtenaw County’s actual value of \$1,890 per acre. We applied this reduction to the property values and determined that \$3,080 would be lost to the township and \$73,551 lost to the schools, for a total of \$76,631 lost, if use-value assessment was implemented.<sup>5</sup>

Recognizing that a township and school districts would be concerned about losing revenue, we also looked at what size millage increase would be required to recover these revenues. Based on the \$452.7 million taxable value of property in the township, we determined that an increase of 0.2 mills on all property (including agriculture), would restore these revenues to the township. Table 32 provides a comparison of the expenditure to revenue ratios with and without use-value assessment.

**Table 32  
Comparison of Results for Use-Value Assessment**

	<b>Agriculture</b>	<b>Commercial/ Industrial</b>	<b>Residential</b>
Ratios without use-value	0.62	0.26	1.40
Ratios with use-value*	0.99	0.26	1.39

\* These values were calculated based on recovering the \$76,631 in lost revenue by means of a 0.2 mill tax increase over all properties, including agriculture.

### ***Results of Use-Value Assessment***

Based on the assumption that the average value of farmland and buildings for the state approximates the use-value of agricultural land in Washtenaw County, our analysis shows that considerable savings could be realized by farmers under this approach. Farmers in Washtenaw County would see a 40% reduction in property taxes. This is a considerable savings for farmers.

In reducing farmers’ taxes, this policy would also reduce the subsidy agricultural land pays to residential land. The expenditure to revenue ratio for agricultural land would rise from 0.62 to 0.99, indicating that agriculture would continue to pay for the services it requires but that their subsidy of residential land would be substantially reduced.

While use-value would significantly decrease the tax burden on farmers, the cost to the community to restore the lost revenue would be almost negligible. A 0.2 mill tax on all properties within the township would be sufficient to recover these funds.

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<sup>5</sup> \$76,631 represents 0.5% of the revenue used in our study.

Many people consider use-value assessment to be a tax break to farmers. However, based on data from the U.S. Agricultural Census, we believe that use-value assessment provides a more accurate means of valuing agricultural property. Consequently, it results in more equitable taxation for farmers. Property is valued (for tax purposes) based on its agricultural worth rather than its potential for development. For those concerned about the economic viability of agriculture in Michigan, use-value assessment could be a powerful tool to ease the tax burden on farmers with little cost to communities.

## **Cost of Community Services Study Conclusion**

This study evaluated all sources of revenue and compared them with all expenses on a land use basis for three land use categories in Scio Township. Ultimately, we concluded that residential land did not contribute enough revenue to pay for the services that it received for the 1994/95 fiscal year. Both commercial/industrial land and agricultural land contributed more in revenue than they received in services for that same time period. High educational costs were the primary reason that residential property was so expensive relative to the other two land uses. Education, even after Michigan's Proposal A, is heavily subsidized by commercial/industrial property. Agricultural land also contributes a disproportionate amount to fund education.

While agricultural land may not contribute a great deal of tax revenue to Scio Township, the costs that it imposes are minimal as well. Without use-value assessment, agricultural land is assessed at higher values than it would be in other states. Consequently, the tax contribution from farmland in Michigan is greater than that for farmland in other states. If use-value could be put in place, we estimate that the revenue contributed by agricultural land to the township budget would more closely parallel the costs associated with agricultural land. To compensate for the lost revenue from farmland, only a small tax increase on all township properties would be necessary.

We sincerely hope that this study, the first of its kind in the State of Michigan, can be used to guide and inform people who are actively involved in planning processes at all levels of government. Because many important land use decisions are made at the local level in the State of Michigan, we hope that this study will assist citizens and officials in Scio Township and other townships as they begin to plan for the coming years. Policy makers should utilize all sources of information in developing sound public policy. To this end, we hope that our study will help to educate and inform citizens by presenting a different perspective on the relationship between land uses and the impact that they have on the budgets of local governments.